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PATIENTS IN PERIL: CRITICAL SHORTAGES IN GERIATRIC CARE

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WEDNESDAY, FEBRUARY 27, 2002

U.S. SENATE,
SPECIAL COMMITTEE ON AGING,
Washington, DC.

The committee met, pursuant to notice, at 9:04 a.m., in room 628, Dirksen Senate Office Building, Hon. John Breaux (chairman of the committee) presiding.

Present: Senators Breaux, Reid, Lincoln, Craig, and Hutchinson.

OPENING STATEMENT OF SENATOR JOHN BREAUX

The CHAIRMAN. The committee will please come to order. Good morning, everyone. Thank you for being with us. I appreciate our colleague, Senator Harry Reid, taking time to be with us this morning as a member of our committee and thank him for his attendance.

I want to thank everyone for being with us. I want to particularly welcome Mr. Steve Bizdok, who traveled all the way from Las Vegas, NV in order to share a really incredible story with us today.

This morning's hearing is entitled "Patients in Peril: Critical Shortages in Geriatric Care." This marks the seventh in a series of long-term care hearings that our committee has held during this Congress. The shortage of health care professionals with specific training in geriatric care takes us to the core of what I mean when I say that we must ensure that all Americans have the opportunity to not only live longer but also to live better lives.

We will hear today from a patient whose life was literally in jeopardy because well-meaning health care professionals lacked the real training to diagnose his illness. He is not alone. The senior population is living increasingly longer and more and more people will experience the effects of chronic conditions. In the United States we train our future doctors at 125 prestigious medical schools around the country. While each of these schools has a pediatrics department, only three in the entire country have geriatric departments and only 14 require even a course in geriatrics.

As the population of people 85 years of age and older continues to grow at the fastest rate in the nation, we are experiencing an unprecedented shortage of nurses and less than 1 percent of those who remain are certified in geriatrics.

As we move across the health care spectrum the outlook is increasingly bleak. Social workers, dentists, nutritionists, nurse assistants, therapists and psychologists will all play an increasingly important role as the baby boom generation continues to age, yet

none of these disciplines is adequately prepared in the workforce to handle the illnesses and the conditions specific to geriatric patients. Pharmacists, who often play an intermediary role between the doctor and the patient, are just as unprepared. A recent report stated that each year nearly 1 million seniors are prescribed medicines which people their age should never take. Other studies indicate that 35 percent of all Americans over the age of 65 experience adverse drug reactions, at a cost of $20 billion a year for treatment. Clearly we must do better than that and we can do better than that.

I applaud the Veterans Administration for their efforts to train geriatricians through their fellowship program and I also recognize the work done by private foundations, such as the Hartford Foundation, the Brookdale Foundation, and the Reynolds Foundation, who have done much with little Federal funding. Thirty-five geriatric education centers across the Nation should also be recognized for training hundreds of thousands of interdisciplinary health care professionals to better serve older Americans.

In addition, I am happy to note that I have worked with Dr. Greg Folse, a geriatric dentist from Louisiana, to improve the oral health care provisions of the nursing home survey and oversight efforts over at CMS.

While all of these efforts are commendable, they are simply not enough. I believe it is important to note that this issue should not be taking us by surprise. For many years now organizations such as the American Geriatric Society, the International Longevity Center, and the Alliance for Aging Research have come to Capitol Hill to urge Congress to address this looming issue. During the spring of 1998 the Special Committee on Aging held a forum to highlight and discuss the shortage of geriatricians. During that same time I was also serving as chairman of the National Bipartisan Commission on the Future of Medicare and learned that by the year 2030 more than half of the nation's medical expenditures would be accounted for by older Americans. It is obvious that this shortage of geriatric-trained health care workers is not only a threat to an increasing number of elderly Americans but also to the economic health of our nation.

I certainly look forward to learning more about this issue from our distinguished panels and would like to recognize our distinguished leader, Senator Harry Reid, if he would have any comments.

[The prepared statement of Senator John Breaux follows along with prepared statements of Senator Jean Carnahan and Senator Debbie Stabenow:]

PREPARED STATEMENT OF SENATOR BREAUX

Good morning and thank you all for being here today. I especially want to welcome Mr. Steve Bizdok who traveled from Las Vegas in order to share his incredible story with us today. I also want to welcome the Committee's Ranking Member Larry Craig and my other colleagues, a number of whom I know have a specific legislative interest in today's topic.

This morning's hearing, "Patients in Peril: Critical Shortages in Geriatric Care" marks the seventh in a series of long-term care hearings that the Committee has held during the 107th Congress. The shortage of health care professionals with specific training in geriatric care takes us to the core of what I mean when I say that we must ensure that Americans not only live longer, but live better. We will hear

today from a patient whose life was literally in jeopardy because well-meaning health care professionals lacked the training to diagnose his illness. He is not alone. While the senior population is living increasingly longer, more and more people will experience the effects of chronic conditions.

In the United States we train our future doctors at 125 prestigious medical schools. While each of these schools has a pediatrics department, only three have geriatric departments and only 14 require a course in geriatrics. As the population of people 85 years and older continues to grow at the fastest rate in the nation, we are experiencing an unprecedented shortage of nurses; and, less than one percent of those who remain are certified in geriatrics. As we move across the health care spectrum the outlook is increasingly bleak. Social workers, dentists, nutritionists, nurse assistants, therapists, and psychologists will all play an increasingly important role as the baby boom generation continues to age, yet none of these disciplines is adequately preparing its workforce to handle the illnesses and conditions specific to geriatric patients. Pharmacists, who often play an intermediary role between the doctors and patients, are just as unprepared. A recent report stated that each year nearly one million seniors are prescribed medicines which people their age should never take. Other studies indicate that 35 percent of Americans over the age of 65 experience adverse drug reactions at a cost of $20 billion annually for treatment. Clearly we must do better.

I applaud the Veterans Administration for their efforts to train geriatricians through their fellowship program and I also recognize the work done by private foundations such as the Hartford Foundation, the Brookdale Foundation, and the Reynolds Foundation who have done much with little federal funding. The 35 Geriatric Education Centers across the nation should also be recognized for training hundreds of thousands of inter-disciplinary health care professionals to better serve older Americans. In addition, I am happy to note that I've worked with Dr. Greg Folse, a geriatric dentist from Louisiana, to improve the oral care provision of CMS's nursing home survey and oversight efforts. While all of these efforts are commendable, they are simply not enough.

I believe it is important to note that this issue should not be taking us by surprise. For many years now organizations such as the American Geriatrics Society, the International Longevity Center, and the Alliance for Aging Research have come to Capitol Hill to urge Congress to address this looming issue. During the spring of 1998, the Special Committee on Aging held a forum to highlight and discuss the shortage of geriatricians. During that same time I was also serving as the Chairman of the National Bipartisan Commission on the Future of Medicare, and learned that by the year 2030 more than half of the nation's medical expenditures would be accounted for by older Americans. It is obvious that this shortage of geriatric-trained health care workers is not only a threat to an increasing number of elderly Americans, but also to the economic health of our nation.

I look forward to learning more about this issue from my fellow Senators and from our distinguished panels. I also look forward to hearing recommendations about what can be done to ensure that America's seniors continue to live not only longer lives, but better lives as well.

PREPARED STATEMENT OF SENATOR JEAN CARNAHAN

Thank you, Mr. Chairman, for holding this hearing. I believe that the testimony of the witnesses will provide valuable insight to the importance of specialized training in geriatric care for health professionals.

In Missouri and across the country, the "baby boomers" are aging. In the next several years, the number of American citizens over the age of 65 will increase dramatically. By the year 2030, 70 million Americans will be 65 and older. As the population ages, they will have different healthcare needs. These needs will not be met unless we address the current shortage in geriatric healthcare providers.

Patients want to receive the best possible healthcare from those most qualified to treat them. When women seek prenatal care, they turn to providers specifically trained in the care of pregnant women. When parents seek care for their children, they turn to providers specially trained in pediatric residency programs. When adults seek healthcare for specific cardiac, pulmonary, gastrointestinal, or psychiatric issues, they make appointments with cardiologists, pulmonologists, gastroenterologists, or psychiatrists. Patients realize the importance of the provider's specialized training in finding the best possible solution to their problem. For seniors, the desire is the same. They want to be cared for by those most qualified to provide their healthcare.

Today, there are fewer than 9,000 geriatricians in the United States. Unfortunately, most of these doctors will retire as the baby boomer generation attains Medicare eligibility. Of the approximately 98,000 medical residency and fellowship positions supported by Medicare in 1998, only 324 were in geriatric medicine and geriatric psychiatry. At the same time, the number of physicians needed to provide medical care for older persons is expected to triple in the next 30 years. Further complicating the issue is the limited number of academic geriatricians. A large portion of their time is spent with patients, leaving little time to mentor or train the next generation of geriatricians. In addition, they have little time to conduct vital research regarding the care of the elderly.

There must be incentives in place to encourage young physicians and other healthcare providers to pursue a career in geriatrics. That is why I am supporting a bill, the Geriatric Care Act. The Geriatric Care Act would remove some of the disincentives that have cause the geriatrician shortage. First, the bill would authorize Medicare coverage of geriatric assessment and care coordination for seniors with complex health and social needs. Second, the bill would provide hospitals additional slots in their geriatric residency training programs. The current cap on the number of residents per hospital has caused many hospitals to reduce or eliminate their geriatric training programs.

Thank you, again, Mr. Chairman, for holding this hearing. I look forward to working with my Senate colleagues to address this situation.

PREPARED STATEMENT OF SENATOR DEBBIE STABENOW

Mr. Chairman, thank you for convening today's hearing on this critical issue. As we all know, our aging population will dramatically change the way health care is administered in our country. The statistics are staggering: today in America, well over 35 million people are over the age of 65—and that number is growing at a fast pace.

Although America has the best caregivers in the world, not nearly enough are specially trained nor certified to provide geriatric care. Currently, we are experiencing shortages in geriatric care at every level. Only 1.3 percent of physicians in America are geriatricians. Less than one percent of nurses are certified in geriatrics. Less than one-half of one percent of pharmacists have geriatric pharmacology certifications.

Even more challenging is the lack of resources to train geriatricians. Only a handful of our medical and nursing schools offer sufficient training in geriatrics. More must be done to help schools train students and to attract young healthcare professionals to the field of geriatrics to meet the rapidly growing demand. Two bills have been introduced in the Senate—The Advancement of Geriatric Education Act and the Geriatric Care Act—both offer solutions to this healthcare crisis. I am currently reviewing these bills and am eager to work with the committee and my colleagues in the Senate to begin to address the enormous need for geriatric care in our country.

There are some success stories that merit more attention because they have demonstrated very positive results for seniors. The Program of All-inclusive Care for the Elderly (PACE) program is a wonderful way to help elderly patients retain their independence while receiving the specific kind of care that they need. These Medicare and Medicaid funded programs provide a "one-stop shopping" area for seniors, where senior participants have access to a full range of support and health care.

In Michigan, we are very lucky to have one PACE program, the Center for Senior Independence. Of the many constituents I work with, one woman's story shines as an example of how helpful PACE can be. This woman is 67 and a resident of Detroit. She is a two-time stroke victim, has use of only one arm, is diabetic, and has a large ulcer on one leg and has had to have her other leg amputated. For many years, she lived with her daughter who took care of all her needs. However, she was determined to be independent and sought services to help. She now is a patient at the PACE program happily living at home. Every morning a driver picks her up and takes her to the Center. There she can get all her prescriptions, see her doctor, or they will take her to offsite medical appointments. The Center also provide her with dietary assistance even does her laundry! She and her family have been extremely pleased with the Center. We need to make this wonderful program available for more of our aging population.

Aging advocates are also working in Michigan to help reduce the shortage of geriatric care in rural areas. For example, Northern Michigan University is working to establish a gerontology minor program. Additionally, the University has been working to attain sufficient funding to establish the Northern Michigan University Cen-

ter for Gerontological Studies. This Center will fill the gap and provide exactly the kind of specialized training that is currently lacking and will continue the important research that must be conducted on the process of aging. I am very interested in helping this program succeed and in helping to bolster the programs in the other medical and nursing schools in my state.

Finally, I want to highlight the importance of geriatric pharmacists. Because the average senior citizen takes 18 prescription medications per year, it is vital that pharmacists who specialize in the unique needs of seniors are available. According to some studies 35 percent of Americans over age 65 experience adverse drug reactions. Often, seniors have different health risks that younger people may not have. It is very important that we have enough specially trained geriatric pharmacists to monitor and to take these risks into account when filling prescriptions. As I work with my colleagues to develop meaningful Medicare prescription drug benefit, we must also be mindful of this shortage of pharmacists and the role it plays in providing truly adequate care for our seniors.

In conclusion, I am looking forward to hearing from our witnesses and also look forward to working with the committee on this critical issue.

STATEMENT OF SENATOR HARRY REID

Senator REID. Thank you very much, Chairman Breaux, and thank you very much for your leadership in this most important committee. I have enjoyed my service on this committee. I served on the Aging Committee in the House and I must say your stewardship is certainly in keeping with the pattern that was set by Senator Pepper, who was so good when I first joined the committee in the House.

I would like to welcome Mr. Steven Bizdok to the Senate from Nevada. Mr. Bizdok has been a resident of Las Vegas for more than 40 years. His story is compelling. His story illustrates the value of geriatric care and why we must take measures to increase the number of doctors, nurses, pharmacists and mental health professionals who are trained in geriatrics.

Too often problems in older persons are misdiagnosed, overlooked or dismissed as normal conditions of aging because doctors and other health care professionals simply are not trained to recognize how diseases and impairments might appear differently in the elderly. As a result, patients like Mr. Bizdok suffer needlessly and Medicare costs rise because of the avoidable hospitalizations and nursing home admissions.

It is no secret that our nation is growing older. Every day this year approximately 6,000 people will celebrate their 65th birthday. The number of old Americans will more than double from 35 million to 70 million by the year 2030. The vast majority of our health care providers, however, are not yet prepared to meet the challenges associated with caring for the elderly. Increasing the number of certified geriatricians and improving access to geriatric care simply will not be easy. Geriatrics is the lowest paid medical specialty because the extra time required for effective treatment of the elderly is barely reimbursed by Medicare and other insurers.

To encourage more doctors to become certified in geriatrics I am reintroducing the Geriatricians Loan Forgiveness Act. This is legislation that would forgive $20,000 of education debt incurred by medical students for each year of advanced training required to obtain a certificate of added qualifications in geriatric medicine or psychiatry. I would say, Chairman Breaux, in that you are one of the senior members of the Finance Committee, I think this would be something to really take a look at.

Another barrier to increasing access to geriatric care is a provision in the Balanced Budget Act of 1997 that established a hospital-specific cap on the number of residents based on the level in 1996. Because a lower number of geriatric residents existed prior to December 31, 1996, these programs are underrepresented in the cap baseline. The implementation of this cap is resulting in the reduction of and, in some cases, the elimination of geriatric training programs, despite the fact that they are needed now more than ever.

I am pleased to join Senator Lincoln in reintroducing the Geriatric Care Act, legislation that would allow hospitals to exceed this cap and expand their geriatric fellowship programs. Another important provision of this legislation would give our frail elderly access to geriatric care coordination by making this benefit reimbursable under the Medicare program.

Geriatric care helps seniors live independent, productive lives. By postponing physical dependency, our nation could save as much as $5 billion each month in health care and custodial costs. Simply put, increasing the number of health care workers trained in geriatrics is good medicine and good economics.

I look forward, Mr. Chairman, to working with you on this most important issue dealing with geriatric care and I would ask that you excuse me about 25 after because the Senate opens at 9:30 and I have to be there.

The CHAIRMAN. Other duties call. Thank you very much for your comments and your suggestion on the legislation, which I think is really very positive.

Next I recognize Senator Hutchinson from Arkansas, who has some geriatric facilities there that are doing good work.

STATEMENT OF SENATOR TIM HUTCHINSON

Senator HUTCHINSON. Thank you, Senator Breaux. I want to thank you particularly for holding this hearing today. I am especially pleased that we have an Arkansas on our second witness panel, Claudia Beverly, who is the associate of the Donald Reynolds Center on Aging in Little Rock.

Senator REID. Would the senator yield just for a second?

Senator HUTCHINSON. Yes.

Senator REID. Donald Reynolds was a Nevadan.

Senator HUTCHINSON. Indeed he was.

Senator REID. He came from Arkansas, though.

Senator HUTCHINSON. He almost bought Arkansas. But the Donald Reynolds Foundation——

Senator REID. He would have but he spent most of it on buying Nevada.

Senator HUTCHINSON. I know that the Donald Reynolds Foundation has probably meant as much to Nevada and Arkansas both in their charitable giving and the many projects that they have supported and this is very appropriate, the commitment they have made to this geriatric center in Little Rock and we are very pleased to have it. Claudia is well known in Arkansas, as well as across the Nation for her expertise in geriatric nursing.

Mr. Chairman, last June Senator Mikulski and I held a hearing on the need for greater focus on geriatrics in the Subcommittee on

Aging and I subsequently introduced legislation, along with my colleague and ranking member of the Special Committee on Aging, Larry Craig. Our bill is called the Age Act and it does four very important things.

First, the bill provides an exception to the 1997 residency cap to allow hospitals to have up to five additional geriatric residents. Second, the Age Act authorizes the Centers for Medicare and Medicaid Services to provide graduate medical education support for the second year of a geriatric fellowship, which is critical to developing a cadre of academic geriatricians. Senator Craig and I sent a letter to CMS Administrator Tom Skully just this week asking CMS to do this administratively. Third, the Age Act asks the Secretary of Health and Human Services to report to Congress on ways to better educate and disseminate information on geriatrics to Medicare providers. Then fourth and finally, the Age Act increases the authorization amounts for geriatric programs under Title VII of the Public Health Service Act, such as the Geriatric Academic Career Award Program and Geriatric Education Centers, which focus on generating geriatric scholars and providing geriatric training to all health care professionals.

Now Mr. Chairman, you and our majority whip Senator Reid have both emphasized and I think explained very clearly how the explosion among the aging is occurring demographically in our society. Just to put it in perspective, one in five Americans will be over the age of 65 in the year 2030 and that is dramatic. At the same time, only 9,000 of our nation's 650,000 doctors have received any specialized training in the area of geriatrics. I think those two sets of statistics make a very compelling case for what we face. Of 125 medical schools only three, including I am glad to say the University of Arkansas for Medical Sciences, have formal departments of geriatrics. In only 14 medical schools is geriatrics a required course of study. Everywhere else it is optional. By contrast, every medical school in the Nation has a pediatrics department and every medical school in England has a geriatrics department.

Just as children have unique medical needs, so do older Americans. Aging individuals often exhibit different symptoms than younger people with the same illness. Similarly, elder people often exhibit different responses to medications than younger people. Many seniors also take multiple drugs ordered by multiple physicians, which can lead to adverse drug reactions.

As was evidenced in the hearing the Aging Subcommittee held last June, our nation is in dire need of more geriatricians and health care professionals with geriatrics training. About 20,000 geriatricians are currently needed for the current aging population and we only have 9,000. So we have a great challenge ahead of us.

Mr. Chairman, the kind of legislation that Senator Reid speaks of, that you have led the way in, Senator Mikulski and myself, I know that is the way we can find consensus on these various proposals to meet what all of us see as the great geriatrics need of the future and I would ask that my full statement be included in the record. I am anxious to hear our panel and I thank the chair.

The CHAIRMAN. Thank you very much, Senator Hutchinson and Senator Reid, for your comments.

You have heard from us. Now it is time to hear from the real people that we have come to hear from, and that is Mr. Steve Bizdok and Mr. Dan Perry. Mr. Bizdok, as I indicated earlier, is from Las Vegas. You have an incredible story. You look like the picture of health but that was not the story before. Dan Perry, of course, is the Executive Director of the Alliance for Aging Research. We have worked together with his organization for a number of years. This is a good piece of material that you all have put out; very interesting and very timely.

We will hear from Mr. Bizdok. We would love to hear from you.

STATEMENT OF STEPHEN BIZDOK, LAS VEGAS, NV

Mr. BIZDOK. Thank you. Good morning, Chairman Breaux, Ranking Member Craig, Senator Reid, members of the committee and distinguished guests. It is an honor to be here this morning and I hope that my testimony will be helpful.

My name is Stephen Bizdok and I have been a resident of Las Vegas, NV for over 40 years. When I was younger I was not really concerned about what kind of doctor I saw but as I grew older and became ill, I realized that I had to have someone who could understand what my mind and body were going through. That was when I discovered the importance of geriatric medicine.

My health started deteriorating in the summer of 1999 when I started to have seizures. They started out small and I would have about one per week. Then they started to snowball until I was having a seizure every day. Then they started multiplying so that I had cluster seizures. I started to panic because I did not trust myself to drive and I was all alone in my home when I was having these seizures. Each one would last up to 15 or 20 minutes and I could not even drive to the doctor.

During my well periods I asked my friends to drive me. By that point I would go to a quick care center to get medical attention and was constantly shifted from doctor to doctor to doctor. My primary care physician did not have a clue what was happening to me. They assumed it was a brain problem.

In October 1999 I had a very large seizure while I was at home alone and I laid on the living room floor for 4 days. A friend of mine who had not heard from me for 4 days sent some friends who had a key to my place to come check on me. They found me on the floor in a fetal position and called an ambulance. I spent 2½ months in intensive care hooked up to life support. The doctors at the hospital got a court order to take me off of life support. All of my organs had started to shut down and the doctors put me on a death watch for 4 days. On hearing of my impending death, they gave away my car, my clothes and all of my personal belongings. My friends and family came to the hospital to say goodbye.

I finally woke up on my own in the hospital room around February 25, 2000, 4½ months after my friends found me on my living room floor. I had slept through the entire millennium. Doctors still did not know what happened to me.

When I went into the coma I weighed 220 pounds. When I woke up from the coma I weighed 123 pounds and I did not have the use of my legs. The doctors in the hospital started me on physical therapy so I could walk again. I was discharged from the hospital on

April 6, 2000 when I was strong enough to use a walker. I went from the hospital to a care home. From that point on, the people who owned the care home suggested that I enroll in supplemental insurance and I enrolled in a Medicare Social HMO in Las Vegas. That is when I was introduced to geriatric medicine.

I was assigned to a geriatrician and I will never forget my first visit because it lasted over one hour. He gave me a very thorough physical and asked many questions. I started seeing him on a regular basis and had a standing appointment once every 3 months.

One year later I had two seizures. My geriatrician diagnosed my condition as a heart murmur or irregular heartbeat. My geriatrician put me in the hospital immediately when I told him I was having a pain in my back that traveled under my right arm and to the right side of my chest. That is when he called in the heart specialist. Within 2 days I had a pacemaker put in. I was finally receiving the treatment for my condition. It took a geriatrician to diagnose the problem.

My health problems started to turn around after I received geriatric care. Since receiving the pacemaker, my health has improved tenfold. It is unbelievable. First, I am not having seizures any more and I am able to live on my own. I can take care of all of my own medication and can live an active life again. I used to take 14 pills every morning and now I am down to just six.

There is nothing my geriatrician, Dr. Muyat, can do about my getting older but he can help me from becoming old.

Thank you for your time today. Please feel free to ask me any questions.

The CHAIRMAN. Mr. Bizdok, thank you very much. That is probably the most incredible story that I have heard since I have served on this Committee. It is an unbelievable story and I think it makes the point very well and we thank you so much for being with us.

We are going to let Mr. Perry give his statement; then we will have some questions. Dan.

STATEMENT OF DANIEL PERRY, EXECUTIVE DIRECTOR, ALLIANCE FOR AGING RESEARCH, WASHINGTON, DC

Mr. PERRY. Thank you very much, Mr. Chairman, Senator Hutchinson. Let me say before I begin what a pleasure it has been to work with this committee and its professional staff, both majority and minority. It has been very gratifying and I thank you for that.

With these hearings, Mr. Chairman, you are helping many of the health organizations that are represented here today to bring forth an important reality, and that is that our health care system continues to give short shrift to professional education in geriatric health care and that practice is on a collision course with the aging of the baby boom.

What you have just heard from Mr. Bizdok is a story that is familiar to many older Americans and to their families. So this morning the Alliance for Aging Research releases a new report titled "Medical Never-Never Land: Ten Reasons Why America is not Ready for the Coming Age Boom." Despite the well known graying of America's patient population, most of our health care providers,

as you have heard, still have little or no specific education in geriatrics or aging-related health that is optimal for older people.

With your leadership and with bipartisan support, our nation is now moving to ensure that Medicare will be fiscally sound in the decades ahead yet we have given far less attention to the quality of the health care that we are buying. We have done far too little to ensure that health care providers have the formal training they need to provide the highest quality of care for their older patients.

It is no secret that older people utilize a disproportionately larger share of health care services. While people over the age of 65 represent now just 13 percent of the population, this group consumes one-third of all the health care spending and occupies one-half of all physician time.

In less than 10 years the baby boom generation begins its transformation into the biggest Medicare generation in history. Think of it this way. Today some 6,000 Americans celebrate their 65th birthday. In 2011 it will be 10,000 a day cruising past the age of 65 and swelling the Medicare rolls. The number and proportion of people over the age of 85, which are those most likely to require health care services, will nearly quadruple by mid-century. Meanwhile, as you have all said, the formal training of America's health care professionals is seriously out of step with this great demographic challenge.

As Senator Hutchinson has pointed out, out of 650,000 physicians in the U.S., only 9,000, which is about 1.5 percent, have certification in geriatric medicine and the number is now shrinking. We expect to lose as many as a third of those in the next 2 years because of retirements.

In the nursing profession less than 1 percent of the total have geriatric certification. Out of 200,000 pharmacists in the U.S., less than one-half of 1 percent have certification in geriatric pharmacology. As with the other professions, this lack of formal geriatrics training among pharmacists has real consequences. A study in the *Journal of the American Medical Association* just in December found that 20 percent of older Americans are routinely prescribed drugs that experts in geriatric pharmacology say should almost never be used by older people because of serious health risks.

Mr. Chairman, in this report we have borrowed from the imagination of Walt Disney and from the words of Dr. Robert N. Butler, the founding director of the National Institute on Aging. It was more than 20 years ago that Dr. Butler characterized age denial in American health care by calling it "Peter Pan medicine."

As adults grow older there are complications and changes that require specialized training to provide the best possible care and to produce the most desirable health outcomes. Unfortunately, very few professionals in this country have been exposed to the techniques and knowledge of geriatric health care as part of their professional training. This dangerous disconnect creates a medical Never-Never Land in which patients keep getting older and the health care providers are less and less likely to have the specific training in the needs of older patients.

With this report, you have our list of 10 reasons why America remains mired in medical Never-Never Land. Suffice it to say that at present, the health care system is too quick to write off the com-

plaints of older patients. We undervalue the importance of keeping older people healthy and independent. We do far too little to attract young people into geriatric health care and we do not have sufficient numbers of specialized faculty to incorporate the style and instincts of geriatric health practice into the training of all our health providers.

The American public understands that the lack of geriatric training for health providers can have devastating consequences. According to a survey that we commissioned just this month, 74 percent of all Americans feel it is very important that their health care providers have specific aging-related training to effectively treat the elderly. Surely this is a matter that deserves the same bipartisan attention that mobilized Congress to protect the solvency of programs such as Medicare.

In closing, Mr. Chairman, I want to point out that obviously we are not just talking about statistics and programs and budgets; we are talking about people, real people as you have heard this morning. For every Mr. Bizdok there are tens of thousands, millions of families that have similar stories to tell.

We are not here this morning to cast blame on anyone but to state the obvious, that it is a critical problem that too many health care professionals come to their older patients with no formal education in geriatric health care. As you have said, America can and should do better. Thank you.

[The prepared statement of Mr. Perry follows:]

Statement of Daniel Perry

Executive Director, Alliance for Aging Research

Before the Senate Special Committee on Aging

February 27, 2002

This morning, the Alliance for Aging Research releases a new report: ***Medical Never-Never Land: 10 Reasons Why America Is Not Ready for the Coming Age Boom***. The Alliance is a not-for-profit organization that advocates for biomedical research on diseases of the elderly and for geriatric training. This report is the third on the shortage of geriatric training we have published over the past 15 years.

This report highlights a critical gap in the education of U.S. health professionals. Despite the well-known "graying" of the patient population in the U.S., most of our healthcare providers still have little or no specific education in geriatrics or aging-related care that is optimal for older people. My testimony this morning will focus on that geriatrics training gap—and 10 reasons why our nation is not moving fast enough to fix the problem.

With your leadership, Mr. Chairman, and with bipartisan support, our nation is moving to ensure that Social Security and Medicare will be fiscally sound in the decades ahead. All of us can be reasonably assured that these programs will be there to support the aging of the Baby Boom generation. Yet we have given far less attention to the quality of the healthcare we are buying; we have done far too little to ensure that health care providers have the formal training they need to provide quality care for their older patients.

It is no secret that older people utilize a disproportionately larger share of health care services. While people over age 65 represent 13% of the U.S. population, this group consumes one-third of the healthcare spending and occupies one-half of all physician time.

It is also no secret that the size of the over 65 population is growing. The 35 million Americans over 65 today will double in size, approaching one quarter of the population with the aging of the Baby Boom. The number of individuals who turn 65 each day will increase to about to almost 10,000 a day in just 10 years. The number and proportion of Americans over 85 will nearly quadruple by mid-century.

What is much less well known, and under-appreciated, is that our healthcare delivery system is woefully unprepared to meet this challenge. Out of more than 650,000 physicians in the U.S. today, only 9,000 – or about 1½ % – have certification in geriatric medicine and the number is actually shrinking.

In the nursing profession, *less* than 1% of the total have geriatric certifications. And out of 200,000 pharmacists in the U.S., less that one-half of one percent has certification in geriatric pharmacology.

As with other health professions, this lack of formal geriatrics training has consequences. This past December, a study published in *The Journal of the American Medical Association* found that 20% of older Americans are routinely prescribed drugs that should almost never be used by older people because of serious health risks. Just as troubling, the findings in this latest study are virtually unchanged from what was shown a decade before.

Mr. Chairman, in this report we have borrowed from the imagination of Walt Disney, and the words of Dr. Robert N. Butler, the Founding Director of the National Institute on Aging, who 20 years ago characterized age-denial in American health care as 'Peter Pan' medicine. Training doctors and nurses to treat one disease at a time in otherwise healthy and resilient patients is relatively easy, Dr. Butler explained. But as adults grow older, there are complications and changes that require specialized training to provide the best possible care and produce the most desirable health outcomes.

Unfortunately, very few health professionals in this country have been exposed to the techniques and knowledge of geriatric health care as part of their professional training. This dangerous "disconnect" creates a Medical Never Never Land in which the patients keep getting older and the healthcare providers are less and less likely to have training specific to the needs of older patients.

How and why then did we allow this gap to form and to grow? And is there enough time to fix it with good public policies? In our report, we have identified 10 reasons why the gap has been allowed to form and have begun the process of suggesting possible solutions to close the gap.

1) **The first reason is Age Denial** – On both an individual as well as a national level, we have not lived up to the fact that we are aging. This denial is at the root of not addressing the gap in geriatric training.
2) **Second, Older Patients are Marginalized** - Older people are incorrectly seen as nearing the end of life and having smaller chances

of recovery than younger patients. Pure and simple, this is a case of ageism.

3) **Third, There is a Lack of Public Awareness of the Geriatrics Gap** The general public is virtually unaware that most of their health care providers have never had any formal training in geriatrics.

4) **Fourth, there is a Scarcity of Academic Leaders** – There are too few geriatric academics in American schools of medicine, nursing, pharmacy and other health professions to integrate geriatrics into professional health education.

5) **Fifth is the Lack of an Academic Infrastructure in Geriatrics-** While healthcare providers will spend much of their time caring for older patients, there is too often no required courses or clinical rotations in geriatrics. Here we have seen some recent improvement—but on a very limited basis.

6) **Sixth, Geriatric Medicine Is Not Valued** - Geriatric medicine lacks the prestige and financial rewards accorded other fields of medicine. Of the 98,000 residency slots funded by Medicare, less than 500 are for relatively new fields like Geriatrics—this from the federal program that finances healthcare for the elderly.

7) **Seventh is Inadequate Reimbursement** – Medicare and other health care insurers provide higher reimbursement for procedures, tests, and technology-driven medical care that are not at the core of geriatric care. This skew reduces the incentives for providers to seek certification in geriatric practice.

8) **Eighth, is a Lack of Coordination Within Medicine-** The tremendous resources focusing on illnesses such as cancer, arthritis or heart disease, that primarily effect older people, often operate in separate silos, missing valuable opportunities to better understand, prevent, treat and cure these illnesses.

9) **Ninth, Clinical Trials Often Do Not Include the Aged** - Pharmaceuticals are fast becoming the treatment of choice for many conditions of aging, but older people are under represented in the clinical trials of many of these drugs, which prevents the creation of safe standards regarding their usage in older populations.

10) **And finally number 10, there is Little Research on the Aging Process Itself-** Well less than one percent of the budget of the

National Institutes of Health (NIH) is devoted to studying the basic biology of aging.

Due to the above reasons, there has been too little national resolve over the years to address the shortage of geriatric providers. Without such resolve, and without leadership from the federal government, there is precious little chance this issue will be solved in the time that remains to us.

The lack of geriatric training for healthcare providers can have devastating consequences for older people. The public understands this. According to a survey we commissioned just this month through the Opinion Research Corporation, 74% of all Americans feel it is ***very*** important that their healthcare providers have specific aging-related training to effectively treat the elderly.

We are grateful to you, Mr. Chairman, and to the committee, for turning your attention to this matter. We thank you for the leadership you bring to the needs of older Americans and their families. Surely this is a matter that deserves the same bipartisan attention that Congress has been mobilized to protect the solvency of programs such as Medicare and Social Security.

In closing, Mr. Chairman, I want to point out that we are not just talking about statistics, programs and budgets—we are talking about peoples' lives. Real people. Today you will hear from people who can tell you real stories about their care—care that was well meaning but unprepared, care that had real and horrible consequences, care that should have been better, and care that must be made better.

The CHAIRMAN. Thank you, Mr. Bizdok and Mr. Perry, for your testimony.

I think this is an area where the American medical profession is missing the boat. I mean the fastest growing segment of our population are seniors. We are going to have 77 million baby boomers starting to become senior citizens in the very near future. If you have the fastest growing segment of our population that are living longer than ever before and we only have three medical schools in this entire country that are formally teaching geriatrics, the American medical profession is missing the boat.

I do not know why. Maybe they think that is not an area they should be in in, that people ultimately will pass on. We all know that but people are going to be around a lot longer than they used to be and we will have a lot more of them.

We are going to explore this a lot further but if I was running a medical school, the first thing I would do would be to ensure that we have an adequate geriatric department that formally teaches people how to deal with particular problems. It is not sufficient just to tell people well, what is the matter with him? Well, he is old. We know that but it is probably a problem associated that is causing the particular medical deficiency that the person is suffering from, like Mr. Bizdok.

Your story is just truly incredible and we are sorry that you had to experience what you had to experience but hopefully your story can be used to tell the medical profession that they have to do a much better job in this particular area.

I really do not know what to ask you. I am sort of at a loss for words. Your story is so powerful in and of itself, it does not have to be elaborated on. I guess the bottom line, Senator Hutchinson, is that had he had a geriatrically trained doctor, they would have caught this particular problem that you were having, which is similar to what a lot of other seniors may experience.

Mr. BIZDOK. Correct.

The CHAIRMAN. You almost left us.

Mr. BIZDOK. Yes, real close. I really kind of feel blessed that I did find my Dr. Muyat and he has just been great. He watches me carefully, watches my diet, the whole ball of wax. He says to me, "Aren't we putting on a little weight?" I say, "Thank you for noticing."

The CHAIRMAN. Well, that is the problem. There just are not enough medical professionals, as Dan said, in all of these areas, in pharmaceuticals and dentistry and all of the other health care arenas. I mean treating a 20-year-old is quite different from treating a 70-year-old or an 80-year-old or now people in their 90's and above. I mean there are different things to look for and if you have not had that particular type of training, you are likely to miss it.

Dan, what do we do? You pass a law in Congress saying thou shalt have more geriatric professionals? Because we had this problem before. We had an overabundance of specialists and a shortage of general practitioners and I think that is getting back into proper balance now because of things Congress actually did to encourage more general practitioners because we were having an overload of specialists and not enough family practitioners and general practitioners to solve the needs of the society.

What do we do? What is your suggestion as to how we correct the imbalance and the lack of professional geriatricians?

Mr. PERRY. Thank you for the question, Mr. Chairman. In our report we lay out some very specific recommendations. Before I get to that, let me respond to your remarks earlier asking what is wrong with American medical and health education, why are not the health professions taking more of a lead?

Indeed, many of the health professions have been creating certification programs within their own fields in this area—family practice, internal medicine, psychiatry, psychology, nurses. They are offering certification but there are structural problems related to reimbursement that keeps people out of the field. There are structural problems in the way Medicare, as was mentioned, puts caps on the number of faculty slots so that we do not have enough professors of geriatrics in the medical schools, in the nursing schools, in the schools of pharmacy to teach the students.

So we have a complex problem that is going to require a real partnership between the Federal Government, the medical schools, the health professions. We provide funding for training of health professions in the Bureau of Health Professions at HRSA but it is far too inadequate. Geriatrics is lumped together with many other good purposes so it does not have the visibility and perhaps we should think of a new bureau of geriatric resources. Given that it is the most obvious factor of our aging population and our health care problem, we need to have more focus on this issue and your help in the Federal Government can play a major role in that.

The CHAIRMAN. Well, that is a helpful suggestion. My final question to you, Dan, is how do we stack up and compare with other countries in this area? Do other countries have the same shortfall in geriatric professionals as we do or are some countries doing better? Are there any comparisons out there we can learn from?

Mr. PERRY. Virtually every nation in the world is experiencing this explosion of older people, people surviving longer, and that is what we would all hope for, but many other industrialized nations are more systematically incorporating training in geriatrics and gerontology into their health professions far better than we are. I think it was pointed out earlier that in the United Kingdom—I think it was Senator Hutchinson—virtually every school in that country has a full department of geriatrics and we have three. In Japan it is about half. In Canada and elsewhere it is more directly integrated into health care training across all of the health professions. I want to emphasize the importance of that and you will hear more this morning from nursing and pharmacy.

The CHAIRMAN. Well, thank you very much.

Mr. Bizdok, we have poster children for everything and I would like to make you the poster citizen for better geriatric training. Your story is just right to the point.

Mr. Hutchinson, any questions?

Senator HUTCHINSON. On that point, Mr. Bizdok, welcome back.

Mr. BIZDOK. Yes, yes.

Senator HUTCHINSON. It was a very inspiring story and I will tell you what went through my mind is how many did not wake up or how many did not get eventually a geriatrics doctor who we may have lost not ever knowing and who may have—I mean your obvi-

ous robust love for life, this is something we need to have the kind of geriatrics physicians, diagnosis of what is causing—you said you were taking 12 pills a day.

Mr. BIZDOK. Actually from the beginning, 16.

Senator HUTCHINSON. Sixteen.

Mr. BIZDOK. It took all morning.

Senator HUTCHINSON. Without the right kind of geriatrician, the combination of those and how they affect an older patient and how that varies from one person to another, to me, that underscores again the need of this whole focus that we are trying to have in the hearing today.

By the way, before all of this happened had you ever heard of geriatrician?

Mr. BIZDOK. No, not at all.

Senator HUTCHINSON. So that is one of the questions in my mind—how do the American people and the aging population in this country even know about the specialty of geriatrics and how much that can contribute to their lives? That is going to be a challenge that we face, as well.

Mr. Perry, I appreciated your testimony very much and you talked about, on the question of why we are in this situation, why we have three medical schools. I understand there are approximately 500 geriatric fellows in the whole country; among all the medical students, 500 choosing to specialize in geriatrics.

You mentioned visibility and focus. Are there any other reasons why medical schools in your opinion are not making geriatrics a required course? Are there incentives that we are failing—obviously I have introduced legislation to address this but do you have any thoughts on beyond visibility and focus on the issue, why we are seeing so few choose geriatrics?

Mr. PERRY. I think because geriatrics is essentially primary care, it is not high-tech. What happened with Mr. Bizdok is that his appropriately trained physician recognized the problem that was not being addressed earlier, managed to get him to specialists in cardiology and address the right problem. But it is too often covered by the complexity of older people with many chronic health problems co-existing at the same time, and are therefore taking many different medications at the same time. Too often the person that is providing for them does not have that instinct, that sixth sense that comes with geriatric training to look into issues of memory loss or incontinence or frequent falls. Those are sort of the hallmarks of the things you look for in geriatric care and without that training, we tend to miss those and many of them end up quite tragically.

I think that the approach to this is really three different ways. We need to provide incentives, as Senator Reid is proposing to do, for students to go into the field. We need to create educational leaders, faculty that are trained to set up the programs, to create the curriculum, to do the teaching, and that is where the Bureau of Health Professions and HRSA can help and in your legislation, Mr. Hutchinson. You are aiming at the training.

The third is those that are in the field, those that are practicing this important primary care, they need to have incentives in terms of reimbursement from Medicare to be able to stay in this field.

Otherwise we are going to continue to create barriers. Who wants to go into a practice of medicine where they are not even going to be able to pay off their medical loans at the end of the day?

Senator HUTCHINSON. Good observations. You mentioned in your comments there that among the problems are falls and that has been something that I have been very interested in and we have introduced something legislation regarding elderly falls. In your excellent report you talk about the hospitalizations for hip fractures in people aged 65 and older rising from 230,000 in 1988 to 340,000 in 1996 and that almost all geriatric hip fractures are fall-related, which is stunning and the impact that has on the quality of life and even the survivability after one year. You also talk about the rise in elderly illnesses.

How has all of this affected health care delivery in hospitals and other providers in the day-to-day delivery?

Mr. PERRY. Health care delivery in the United States and in other industrialized countries is becoming geriatric health care but the irony is that the techniques to deliver the best care most cost-effectively, which comes with adequate training, is not part of our program.

Let me emphasize we are not saying——

Senator HUTCHINSON. So it is geriatric needs without geriatric specialization.

Mr. PERRY. Exactly. But I want to emphasize an important point. We are not saying that every person over the age of 65 needs to be seen by a geriatric specialist. We do not have the resources and we do not have the time to create that kind of a large practice specialty.

We do need to have more geriatric specialists to teach, to create the educational programs so that no health professional in the United States will graduate—this would be our hope—without some exposure in the course of their training, be they a nurse, a pharmacist, an occupational therapist or a physical therapist—no one should graduate without some exposure to the techniques of geriatric.

Senator HUTCHINSON. So in other words, we not only need more specialists; we need mandatory training for all health care professionals to be able to diagnose and refer where needed.

Mr. PERRY. Exactly, and we need to have the faculty that is in place to be able to do the training, and we need to then be able to reimburse and make the field more attractive overall. As you said, Senator, we need to raise the visibility of this. Older Americans need to know that their providers may not have the training that they need and bring the power of that message to bear.

Senator HUTCHINSON. Thank you. Thank you for your testimony.

The CHAIRMAN. Our poster citizen here will be able to raise the awareness of the problem.

Your dialog with Senator Hutchinson was absolutely correct. You do not have to have a geriatric specialist to see every person over a certain age but when a general practitioner is unable to make a diagnosis of an elderly patient's problem, they ought to know that there is a geriatric specialist that could be brought in to look at it, to look for particular things that are unique to an aging person's

health problems and they need to know where to go. That is why the schools have to make that information available.

Mr. Bizdok, can I ask you what type of work did you do before?

Mr. BIZDOK. I was an entertainer. That is how I ended up in Vegas.

The CHAIRMAN. You made a very important contribution to us and thank you very, very much.

Mr. BIZDOK. All those lovely ladies that I had to escort—somebody had to do it.

The CHAIRMAN. That is the rest of the story. Thank you very much, Mr. Bizdok. We appreciate it. We will stay in touch with you.

This panel is excused and we would like to welcome up our second panel, which consists of Dr. Charlie Cefalu, who is a board member of the American Geriatric Society and Professor and Director for geriatric program development down in Louisiana at Louisiana State University. We are very pleased to have him.

Senator Hutchinson, would you like to introduce the next two? I think they are both from Arkansas.

Senator HUTCHINSON. I would be more than delighted to. We are so pleased today to have Dr. Charles Cefalu, board member of the American Geriatrics Society, professor and director for geriatric program development at LSU, as you have said.

Claudia Beverly. Dr. Beverly is a registered nurse and associate professor in the College of Nursing at the University of Arkansas for Medical Sciences. Dr. Beverly also serves as Associate Director for the Reynolds Center on Aging and director for the Arkansas Aging Initiative and she brings great experience and expertise, so we are very fortunate to have her with us today.

I thought I only had one Arkansan.

The CHAIRMAN. Michael Martin is the Executive Director of the Commission for Certification in Geriatric Pharmacy in Alexandria, right here in the DC. area, and we are delighted to have all three of our panelists.

Dr. Cefalu, we are pleased to have you up here. Thank you so much for being with us.

I would like to acknowledge also that we are joined by our ranking member, Senator Larry Craig. Senator Craig, do you have any thoughts for the good of the committee at this point?

STATEMENT OF SENATOR LARRY CRAIG

Senator CRAIG. Thank you very much, Mr. Chairman. I am pleased that you are obviously pursuing the building of information in this extremely important area.

I think when we look at the reality of you and me and our dear friend from Arkansas, there is a time and place out there in the not too distant future when we are going to have to look at the kind of care that our parents are looking at today. We are of that baby-boomer crowd and it is a crowd that is knocking at the door of critical care and geriatric care and the shortages and the realities of caring for that crowd are inevitable. Building the record today, preparing for it today is the right course and I thank you for pursuing this.

The CHAIRMAN. Thank you, Senator Craig.

Dr. Cefalu.

STATEMENT OF DR. CHARLES CEFALU, BOARD MEMBER OF THE AMERICAN GERIATRIC SOCIETY, PROFESSOR AND DIRECTOR FOR GERIATRIC PROGRAM DEVELOPMENT, LOUISIANA STATE UNIVERSITY, NEW ORLEANS, LA

Dr. CEFALU. Thank you. Mr. Chairman and members of the committee, I would like to thank you for convening this hearing and allowing me to testify today on the shortage of geriatricians in the United States. I also want to thank the many members of this committee for their leadership on this important issue.

I am Dr. Charles A. Cefalu, Professor and Director of geriatric program development at the Louisiana State University Health Sciences Center in New Orleans, LA. After a short tenure in rural private practice in Southeast Louisiana, I received my formal geriatric medicine training in North Carolina at Wake Forest. At that time geriatrics training as unavailable in Louisiana and it still is today.

I am here today on behalf of the American Geriatric Society, an organization of over 6,000 geriatrics and other health care professionals, and the Louisiana Geriatric Society, a new organization of 100 plus geriatric health care professionals.

Geriatricians are primary care-oriented physicians who are initially trained in family medicine or internal medicine and complete at least one additional year of fellowship training in geriatrics. Following their training, a geriatrician must pass a certifying examination.

Geriatric medicine emphasizes care management and prevention, helping frail, elderly patients to maintain functional independence and to improve their overall quality of life. With an interdisciplinary approach to medicine, geriatricians commonly work with a coordinated team of nonphysician providers. For these patients, geriatricians are able to manage their care in the least resource-intensive settings, such as in a patient's home, obviating the need for more costly hospitalizations and nursing home placements.

A sufficiently large core of geriatricians will be needed to provide care for the roughly 10 percent of the elderly who are the oldest and most frail. Geriatricians also will need to train other health care professionals who treat large numbers of elderly patients. However, the shortage of geriatricians does indeed exist. Of the approximately 98,000 medical residency and fellowship positions supported by Medicare in 1998, only 324 were in geriatric medicine. If we are going to cope effectively with the aging of our population, we must resolve the national shortage of both academic and clinical geriatricians.

Louisiana has one of the most critical shortages of geriatricians in the nation. In the year 2000 only about 44 physicians in Louisiana held certification in geriatric medicine. Furthermore, neither the LSU School of Medicine in New Orleans or Shreveport has an established, accredited geriatric medicine fellowship program. Physicians interested in seeking formal training must leave the State for their training and very often never return because of the tremendous numbers of opportunities elsewhere.

A major obstacle to the development of a Louisiana training program is the Medicare GME cap imposed on hospitals for purposes of training slots. I might remind you both at LSU and Tulane chief residents both entered the Johns Hopkins program this year because they were not able to enter a program in Louisiana.

The other most significant reason for the lack of physician interest in a geriatrics career in Louisiana and nationally is Medicare reimbursement. Physicians are almost entirely dependent on Medicare revenues, given their patient caseload. However, Medicare does not adequately cover geriatric-oriented services or reimburse for time-intensive complex geriatric care. Indeed, a recent MedPAC report identified low Medicare reimbursement levels as a major reason for inadequate recruitment into geriatrics.

First, the physician payment system does not provide coverage for the cornerstone of geriatric care—assessment and the coordination and management of care—except in limited circumstances and does not support an interdisciplinary team.

Second, the Medicare reimbursement system bases payment levels on the time and effort required to see an average patient and assumes that a physician's patient caseload will average out with patients who require longer to be seen and patients who require shorter times. However, the caseload of a geriatrician, seeing frail, elderly patients, will never average out.

Further exacerbating inadequate payments is the 2002 Medicare fee decrease of 5.4 percent on all Medicare providers. Increasingly, geriatricians are leaving private practice because of the inability to run a self-sustaining practice.

If enacted, the following recommendations would help resolve the geriatrician shortage and associated problems. First, Congress should revise the current Medicare payment system to cover geriatric assessment and care management services provided by an interdisciplinary team. Senate Bill 775, the Geriatric Care Act introduced by Senator Lincoln and Reid, would authorize Medicare to cover these services.

Second, Congress should revise the Medicare fee schedule to better compensate for high-cost, complex Medicare patients. Senate Bill 1589 introduced by Senator Rockefeller includes such a payment schedule update.

Third, Congress should provide for an exception to the overall GME cap for geriatricians mentioned previously. Senate Bill 775, as well as the Advancement in Geriatrician Education Act, Senate Bill 1362 introduced by Senator Hutchinson and Senator Craig, ranking minority member, would provide for a limited exception from the cap.

Finally, Congress should provide adequate funding for geriatric health care professions programs, particularly the Geriatric Academic Development Awards, which help to develop geriatric academicians. Senate Bill 1362 would expand the number of such awards.

Finally, we would like to work with the committee and the Congress to legislate these important changes. Failure to act in this area is likely to result in diminishing quality care for frail, older persons and potentially the decline of the geriatrics profession. I thank you for the opportunity to be here today.

[The prepared statement of Dr. Cefalu follows:]

CHARLES A. CEFALU, M.D.
PROFESSOR AND DIRECTOR FOR
GERIATRIC PROGRAM DEVELOPMENT

LOUISIANA STATE UNIVERSITY

ON BEHALF OF THE

AMERICAN GERIATRICS SOCIETY/
LOUISIANA GERIATRICS SOCIETY

PATIENTS IN PERIL: CRITICAL SHORTAGES IN
GERIATRIC CARE

BEFORE THE SPECIAL COMMITTEE ON AGING

UNITED STATES SENATE

FEBRUARY 27, 2002

Chairman and Members of the Committee:

Thank you for convening this hearing and for allowing me to testify today on the shortage of geriatricians in the United States. I also want to thank several Committee members – Senators Hutchinson, Lincoln, and Reid -- for their leadership in this important issue.

I am Dr. Charles A. Cefalu, Professor and Director of Geriatric Program Development at the Louisiana State University Health Sciences Center (LSUHSC) in New Orleans, Louisiana.

I am a Board member of the Americans Geriatrics Society (AGS) and an active member of the AGS. I appreciate the opportunity to participate today on behalf of the AGS, an organization of over 6,000 geriatrics and other health care professionals dedicated to the care of older adults as well as the Louisiana Geriatrics Society, a relatively young organization of over 100 geriatric health care professionals.

After a short tenure in rural private practice in Southeast Louisiana, I received my formal Geriatric Medicine training in North Carolina. At that time, geriatrics training was unavailable in Louisiana and it still is today. Since then, I have worked at the LSUHSC to develop a model Geriatric Service and Training Program for medical students, residents, and geriatric medicine fellows to practice in the state. Currently, the program is slated to receive state funding through LSU in New Orleans and the Medical Center of Louisiana. However, as explained later in my testimony, numerous obstacles to the development and success of this program exist. Solutions to these problems are outlined at the end of this testimony.

I applaud the Senate Special Committee on Aging for convening this hearing to highlight the national shortage of geriatrics-trained health professionals. As reports from the Department of Health and Human Services and Institute of Medicine (IOM) have concluded, and my colleagues and I will note today, the need for adequately trained health care providers to identify and manage older persons' health care needs is urgent.

My testimony today will:

- Explain the history of geriatric medicine;
- Describe the changing needs of our nation's elderly population;
- Describe how our country's health care workforce is ill equipped to care for the aging of the baby boomers;
- Detail the key reasons for the shortage of geriatricans; and
- Suggest recommendations to increase the numbers of geriatrics trained health care professionals in order to improve the quality of health care services provided to our Medicare beneficiaries.

History of Geriatrics

Geriatrics is a relatively new field. Geriatricians are physicians who are experts in caring for older persons and in gerontology, the study of the aging process itself. Medical science has learned a lot about aging and age related disease and how to prevent and manage such disease and associated chronic disability. Unfortunately, research and knowledge in geriatric medicine is not being transferred fully to the health care workforce, both because of the shortage of geriatricians, and the newness of the field.

Geriatric medicine promotes wellness and preventive care, with emphasis on care management and coordination that helps patients maintain functional independence in performing daily activities and improves their overall quality of life. With an interdisciplinary approach to medicine, geriatricians commonly work with a coordinated team of nurses, geriatric psychiatrists, physician assistants, pharmacists, social workers, physical and speech therapists and others. The geriatric team cares for the most complex and frail of the elderly population.

Geriatricians are primary care-oriented physicians who are initially trained in family practice or internal medicine and who are required to complete at least one additional year of fellowship training in geriatrics. Following their training, a geriatrician must pass an exam to be certified and then pass a recertifying exam every 10 years.

The Needs of our Aging Population

Our country is aging rapidly. In 1900, there were 3.1 million Americans age 65 and older, and, today, there are roughly 39 million people. By the end of the next decade, we will see an even more dramatic increase in the growth of the older population, a result of the post World War II "baby boom". By 2030, it is projected that one out of every five Americans will be over age 65. People age 85 and older are the fastest growing segment of the entire population, with expected growth from 4 million people today to 19 million by 2050. It is this group – the old, old – who are the heaviest consumers of health care. The implications of this "demographic imperative" are dramatic. We simply are not prepared for the burdens this will place on our health care and financing systems.

In addition to longer life spans among our citizens as a result of public health measures and advances in medicine, the nature of illness is changing. Americans are not dying typically from acute diseases as they did in previous generations. Now chronic diseases such as diabetes and heart disease are the major cause of illness, disability, and death in this country, accounting currently for 75 percent of all deaths and 80 percent of all health resources use. People are now living longer with disabling chronic conditions. On average, by age 75, older adults have between 2 to 3 chronic medical conditions and some have 10 or 12 conditions.

In addition to the special needs associated with chronic illness, older persons in general have unique characteristics that differentiate them from younger populations. But the

vast majority of physicians and health care practitioners with older patients have not been trained in geriatrics and the special needs of the elderly because this training has until recently been a low priority for medical schools. As a result, some practitioners may treat an 85-year old patient the same way they would a patient of 50 years – yet there are remarkable differences just as there are between children and middle aged adults.

Thus, special training is needed to evaluate and treat most effectively frail, older persons. Too often, illnesses in older people are misdiagnosed, overlooked or dismissed as the normal process of aging, simply because health care professionals are not trained to recognize how diseases and drugs affect older patients differently than younger patients. Indeed, Mr. Chairman, you convened an Aging Committee hearing last year on the marketing of fraudulent aging products to older Americans. Geriatricians are uniquely positioned to help guard against this intolerable practice. All of these situations potentially could translate into suffering by patients, concern from their caregivers and unnecessary costs to Medicare related to inappropriate hospitalizations, multiple visits to specialists who may order conflicting regimens of treatment and needless nursing home admissions.

Training in geriatric medicine can help save or improve the lives of people who still have much to give by providing health care professionals with the skills and knowledge necessary to recognize special health characteristics of older patients and distinguish disease states from the normal physiological changes associated with aging. Geriatricians focus on maintaining and improving functional status, providing early intervention and continuity of care, identifying and managing co-morbidities, fostering optimal outcomes, and maximizing patient comfort and dignity. Because of this, geriatricians are also better able to assist in developing cost-effective strategies to enhance the quality of life for older people and for their caregivers. Geriatricians possess the skills needed to help health care institutions and other providers of services to best meet the growing needs of this segment of our population.

Although nearly all practitioners will be called on to deliver care to the majority of the elderly, many experts agree that a sufficiently large core of geriatricians will be needed to provide care for the roughly 10 percent of the elderly who are the oldest, most frail, and most likely to have functional limitations. Geriatricians also will need to advise and train the physicians and other health care practitioners who have had little or no geriatric training but who treat large numbers of elderly patients. Such programs have been recently initiated; the need for additional programs is considerable.

The following problems must be solved if we are going to cope effectively with the aging of our population.

1. **Shortage of geriatricians – physicians who specialize in caring for older adults.** Of the approximately 98,000 medical residency and fellowship positions supported by Medicare in 1998, only 324 were in geriatric medicine and geriatric psychiatry. An increased number of trained geriatricians are critically needed to function as:

- **Academic Geriatricians.** Increases in geriatricians in medical schools are essential to train geriatricians and other primary care and specialist physicians to diagnose and treat problems common in older persons. They are also needed to lead clinical research activities in developing new and better treatments and prevention for the diseases that affect this population. Unfortunately, the situation for geriatricians in academic settings is getting worse. Geriatricians are busy clinically, in part because caring for the elderly is labor intensive and time consuming. This translates into less time dedicated to their teaching and research.

- **Clinicians.** Geriatricians are needed as consultants to other generalist physicians and to serve as direct primary care providers to the most frail, chronically ill, and functionally impaired Medicare beneficiaries. Trained geriatricians can be effective primary care providers for frail older persons with functional and chronic health care problems. For these patients, geriatricians are often able to manage their care in the least resource intensive settings such as in a patient's house, obviating the need for more costly hospitalizations and nursing home placements.

  Here at home, Louisiana has one of the most critical shortages of geriatricians in the nation. Figures for 2000 indicate that only about 44 physicians in Louisiana held certification in Geriatric Medicine. Furthermore, neither the LSU School of Medicine in New Orleans or Shreveport has an established accredited geriatric medicine fellowship program. Physicians interested in seeking formal training must leave the state for their training and very often never return because of the tremendous numbers of opportunities elsewhere. As discussed later in this testimony, one of the major obstacles to development of a Louisiana training program is the Medicare GME cap imposed on hospitals for purposes of training slots.

  Ensuring that more geriatricians are trained is especially critical in view of the rapidly aging population. In Louisiana, the U.S. Census Bureau projects that from 1993 to 2020 the number of people age 65 years or older will increase by 50% to 75%.

2. **Lack of training in schools for all professionals:** All health care professionals – physicians and non-physician providers – need adequate training in geriatrics. As our population ages, almost all health care professionals, except those caring for children and pregnant women, will be caring for growing numbers of older people.

   However, medical and other professional schools have just recently begun to teach geriatrics. Thus, current levels of training are inadequate to prepare the country to care for the exploding numbers of older persons. This lack of

training has been documented by many studies, including those sponsored by the Institute of Medicine and the Department of Health and Human Services. For example, a 1998-1999 study found that more than 40 percent of medical students felt that their medical school's geriatric medicine curriculum time was inadequate.

Major Reason for Shortage of Geriatricians: Poor Medicare Reimbursement

A key reason for the lack of physician interest in a geriatrics career is financial.

Geriatricians are almost entirely dependent on Medicare revenues, given their patient caseload. The Institute of Medicine and a recent MedPAC report identified low Medicare reimbursement levels as a major reason for inadequate recruitment into geriatrics. In short, because of the complexity of care needed and the time required to deliver quality care, Medicare currently provides a disincentive for physicians to care for Medicare beneficiaries who are frail and chronically ill.

- First, the physician payment system does not provide coverage for the cornerstone of geriatric care -- assessments and the coordination and management of care -- except in limited circumstances, and does not support an interdisciplinary team of health care professionals. Care management includes services such as telephone consultations with family members, medication management, and patient self management services. Geriatricians spend considerably more time performing care management services than other providers.

- Second, the Medicare physician reimbursement system bases payment levels on the time and effort required to see an "average" patient, and assumes that a physician's caseload will average out with patients who require longer to be seen and patients who require shorter times to be seen over a given time period. However, the caseload of a geriatrician will not "average" out. Geriatricians specialize in the care of frail, chronically ill older patients; the average age of the patient caseload is often over age 80.

  These patients not only have a greater number of chronic medical conditions than younger patients but also have impairments of hearing, vision, and function that increase both the time and effort required for their care. A "typical" frail, elderly patient cannot fill out forms for the office staff, requires assistance to get to the exam room, needs help with disrobing, requires assistance to climb up on the exam table, cannot hear the physician ask questions, and sometimes cannot understand the physician's instructions. These patients are more time consuming and require more costly care. As a result, a geriatrician typically has fewer patients in his/her practice, provides fewer visits than other primary care physicians and, thus, has lower revenue.

This is particularly problematic for health care facilities in Louisiana such as the Medical Center of Louisiana that is affiliated with Tulane and the LSU School of Medicine, which primarily serves a huge indigent elderly patient population.

Further exacerbating inadequate payments is the 2002 Medicare fee decrease of 5.4% imposed on all Medicare providers. This accounts for the largest physician fee decrease since the Medicare fee schedule was implemented a decade ago.

Clearly, long-term Medicare reimbursement problems have resulted in increasing difficulty in managing and maintaining a geriatric practice. The AGS has collected several stories about geriatricians who left or are leaving private practice because of the inability to run a self-sustaining practice. I will submit our collection for the record but a few of the stories are worth describing here.

One case study is from a physician in Alabama. He's chosen to discontinue care of any nursing home patients (a problem growing increasingly familiar in the United States) and to limit the number of Medicare patients he accepts because of ongoing inadequate Medicare reimbursement and new payment policies.

Another case study is from a fellowship trained geriatrician in Oregon; he is quoted directly below. "My experience with private practice was that it was not financially viable. It was very popular with patients. I had a 2 month waiting list for new patient appointments. However, I was specializing in medicine at a substantial discount. When the (local) Health System purchased my practice, within a year they were advising me that I needed to either double the number of patients I saw, or take a cut in pay. They hired a consultant to come in and talk with all the doctors about their pay issues. When I explained to the consultant what a geriatrician was and the impact of that on my practice volume, the advice of the consultant to me was to abandon geriatric medicine and represent myself as a general internist."

Another important cause for insufficient recruitment into geriatrics is the system disincentive in Medicare graduate medical education (GME) payments included in the Balanced Budget Act. The limit for hospitals on the number of hospital trainees eligible to receive Medicare GME funds means that newer training fields, such as geriatrics, are unable to get GME support, even for physicians who want to get grained in geriatrics. When given a choice, hospital administrators are more likely to opt to fund training positions for a trainee that generates more revenue than a geriatrician.

Finally, as a new specialty struggling to survive in an era of tight budgets and federally mandated training limits, geriatrics cannot grow in the same manner as other longstanding, well-developed, and more highly compensated specialties.

Recommendations to Increase the Number of Geriatrics Trained Health Professionals

Through Medicare, Medicaid and the Department of Veterans Affairs (VA) medical system, the Federal Government is financing the vast majority of health care services to older Americans. Clearly, the need to train all health care professionals – students and current practicing professionals – about the special needs of older adults and the need to encourage increased numbers of geriatricians, should be a major priority of the Federal Government.

Thus, we urge Congress to consider the following options:

1. **Provide for an exception to the overall GME cap for geriatricians.** The 1997 Balanced Budget Act instituted a per-hospital overall cap on the number of GME slots that will be supported by the Medicare program. The Geriatric Care Act, S. 775, introduced this year by Senators Lincoln (D-AR) and Reid (D-NV), would provide for a limited exception of 3 geriatrics trainees per hospital under the cap. The Advancement in Geriatric Education Act, S. 1362, introduced by Senator Hutchinson (R-AR) and Senator Craig (R-ID), Ranking Minority Member, would provide for a limited exception of 5 geriatrics trainees per hospital under the cap

2. **Provide for two years of GME funding for fellowship programs**, and allow for the maximum of GME funding under the geriatrics GME exception. In short, continue to allow programs training geriatric fellows to receive full funding for an additional period of two years of fellowship training as allowed under current statute. Only in this way can the number of teachers and researchers in geriatrics be increased significantly. S. 1362 would reinstate this practice.

3. **Institute loan repayments for fellows in geriatric medicine.** S. 1630, introduced last Congress by Senators Reid and former Chairman of the Aging Committee Senator Grassley (R-IA), would forgive $20,000 of educational debt incurred by some medical students who go on to become geriatrics fellows. Physicians who have an interest in pursuing geriatric fellowships are often discouraged because of their large education debt and the relatively low compensation after training. Senator Reid plans to reintroduce this measure shortly.

4. **Provide adequate funding for Title VII geriatrics programs.** Title VII provides for three types of geriatric health profession's programs: geriatric academic development awards, geriatric education centers, and primary care training programs that emphasize geriatric curriculum. The fiscal year (FY) 2003 budget did not fund these programs. However, Congress dramatically increased the funding level for this program in FY 2002 from $12 million to 20 million.

   Congress should fund these programs again this year at $30 million as recommended by the Health Professions and Nursing Education Coalition (HPNEC) and continue to increase appropriation levels. In prior years, Senator Reed (D-RI) has led the effort in the Senate to maintain financing for this important program.

5. **Maintain and expand the geriatrics academic development award authorization.** This program creates junior faculty awards and has received tremendous commendations from current recipients. The community based linkages section of Title VII of the Public Health Service Act authorizes this program. S. 1362 would expand the current number of GACA awards and make technical changes to the existing program. It would also increase the authorization level for all three geriatric health profession's programs: GACA awards, the geriatric education center program, and geriatric primary care fellowship programs.

6. **Revise the current Medicare payment system to promote care management services for chronically ill beneficiaries.** The geriatrician shortage will continue until the Medicare fee schedule is updated. The fee-for-service system must be revised to allow the physician of frail, chronically ill patients to provide geriatric assessment and coordination and management services, often by using an interdisciplinary team. Revamping the fee schedule may help attract physicians and other appropriate non-physician professionals to a career in geriatrics. S. 775 would provide for Medicare reimbursement for these services.

7. **Revise the Medicare fee schedule to adequately compensate for high cost, complex Medicare patients.** The Medicare payment system should compensate physician and appropriate non-physician providers who spend extra time with frail, older, functionally impaired patients whose care is often time consuming and complex. S. 1589, the Medicare Chronic Care Improvement Act, introduced by Senator Rockefeller (D-WV), includes a provision to develop such a payment update.

8. **Institute incentives for medical schools, as well as professional schools, to incorporate geriatrics into training programs.** All health care professional schools, at all levels, must immediately incorporate and highlight geriatrics into their curricula.

9. **Immediately halt the Medicare physician fee schedule 5.4% payment decrease.** Senators Breaux (D-LA) and Jeffords (I-VT) have introduced S. 1707, the Medicare Physician Payment Fairness Act, which would accomplish this goal.

We would like to work with this Committee and the Congress to legislate these important changes. Changes such as these should be considered as the Congress debates how to modernize the Medicare system. Failure to act in this area is likely to result in diminishing quality care for frail, older persons and, potentially, the decline of the geriatrics profession.

Personal Stories of Geriatricians Trying to Make a Living Doing Specialized Geriatric Practice – Tales of Failed Hopes

Following are a series of stories I have gathered from geriatricians around the United Sates that reveal the struggles they faced (or are still facing) trying to run a practice that is dedicated to geriatrics. As you read these stories I think you will see that their stories are not about how difficult it was to be "successful," but rather how hard it was to even survive financially. I think we need to address the crisis in Medicare that exists when those physicians that are the most experienced and highly trained to provide care to Medicare patients – geriatricians – cannot make a practice successful because of Medicare reimbursement policies.
Kenneth Brummel-Smith, M.D., President-Elect, American Geriatrics Society

Fellowship-trained geriatrician in Portland who worked for a nonprofit health system. Quit private practice to work for Kaiser LTC:

My experience with private practice was that it was not financially viable. It was very popular with patients. I had a 2 month waiting list for new patient appointments. However, I was specializing in medicine at a substantial discount. When the Health System purchased my practice, within a year they were advising me that I needed to either double the number of patients I saw, or take a cut in pay. They hired a consultant to come in and talk with all the docs about their pay issues. When I explained to the consultant what a geriatrician was and the impact of that on my practice volume, the advice of the consultant to me was to abandon geriatric medicine and represent myself as a general internist.
(PF)

Fellowship-trained geriatrician in Portland who works in full-time clinical practice in a University health system:

I will talk with our division manager about what specific data is available regarding practice expenses, subsidization, etc. Anecdotally, I sense most primary care physicians, not just geriatric physicians, are struggling to meet expenses in and out of Medicare and managed care environments. Geriatrics, of course, prevents additional challenges such as increased telephone and face to face time with patients and families that is not easily reimbursable, nursing home care that is usually not economically feasible without an associated medical directorship and panel of patients. and with HCFA's witchhunt on physicians for documentation, many physicians are probably undercoding to avoid the potential for audits.

(KF)

Board-certified geriatrician in Texas:

I will be leaving Geriatric ambulatory practice 1/01. Leaving 800 newly gained office pts to fend for themselves. Our hospital network opened a Senior Health Center

which had been in the planning for ~18 months prior to opening. I had recruited a Fellowship Trained geriatrician , the first in our area. Now, 15 months later the hospital is disbanding the program, they have offered me the option to take over the clinic on a private practice basis. The program now runs very lean, 1 receptionist, 1 RN, 1 physician, and a social worker 8 hrs per week. We are open 40 hours a week and see pts 28 hours a week. We see about 50 pts per week. The other 12 hours per week are devoted to all the support work. The staff puts in 10-20 hrs of overtime a week and the physician works ~60 hours a week at all tasks, not just the Senior Health Center.

The fellowship trained Geriatrician left, too hard. I couldn't recruit anyone else , the market pay is $125-175K/yr. A good Geriatrician is worth that, but certainly can't generate that in addition to the benefits and overhead until at least 3-5 yrs of practice. The hospital calculates it's losses on the clinic at $300-$500,000/yr. I calculated the feasibility of taking the clinic on in private practice. If I ran the clinic as efficiently as possible, and was able to see 64 pts a week I might be able to generate a gross revenue of $120-$140/hr. That contrasts with the expenses of rent, phones, computers, billing, staff, payroll insurance, liability, that exceed $250/hr. In addition, for every 4 hours of direct pt time, there is at least 30 minutes of paperwork that must be done. (Of course, that does not generate any revenue) I've looked at this over and over again and it always comes out about the same. Every business advisor gives me the same advice, Do Not try to run a private practice in Geriatrics.

So, we will be closing the clinic 1/01. We closed another Geriatrics clinic 1/00. The patients will be very upset , there are really very few alternatives.
(PR)

Geriatrician in Denver who runs a large Senior Clinic as part of an integrated health system.

To begin with, I really don't know or know of a single example of someone who has made a living entirely from running a free-standing office practice seeing only geriatrics. Rumor has it that such do exist, but I don't know of any examples and would love to learn of any.

Many people make a living doing all or mostly nursing home practice. Some of these have some office geriatrics practice too. One geriatrician in Denver and his partner have had a large nursing home practice for many years. They more or less supplemented it with a geriatrics office practice. They are sort of average well-meaning people who I believe have attracted plenty of business. Recently they closed their office practice, I think because they couldn't make it work financially in spite of lots of patients.

The Geri-Med story in Denver is interesting. The Columbia system pulled its support from the Geri-Med network of senior clinics. They had maybe 8 or nine clinics. Their doctors were good. Their group split apart some. Most of those who left initially are I think doing nursing home work. None went into any kind of free-standing ambulatory practice. Those who remained tried to do a 100% full risk capitated senior contract. They discharged all of their Medicare patients who would not convert over, if I understand correctly. Apparently the risk contract was a bloodbath. Geri-Med has now exited the Denver market completely. Some of the GeriMed physicians are going to try a free-standing 100% FFS Medicare contract now. The point is that these guys are smart

and good doctors (though I'm not sure about their business acumen) who are struggling to make a living somehow in geriatrics outside of the NH.

I've never run a freestanding office so I am sort of useless there. In the senior health center, we could survive on Medicare FFS with the facility fee if we were very busy. Now with APC's this is unclear. We did great for a few years with global risk, but now we get less than half of what we were paid for the same work then. Our performance in terms of utilization has not deteriorated. The difference is completely due to redistribution of the dollar with much more going to the hospital and the specialists, less to the PCP's, and with premiums rising and benefits decreasing for the patient. Essentially the shift of dollars to PCP's and patients from hospitals and specialists has been reversed. So this is looking very grim.

I am brushing off the old sermons about mission and indirect benefits to the system again. This may work, but it was a lot nicer when we had a breakeven or a small profit. The world of red ink is where everyone in geriatrics seems to find themselves a lot of the time. So basically the financial viability of the model is tenuous. We have a 50/50 split of business between two lousy payment systems.

I have trouble imagining how you could do this free-standing. I guess you could get yourself a DEXA machine and also enroll (i.e. sell) lots of patients in "drug studies". But not what you or I would call geriatrics.
(AL)

FP Geriatrician who quit private practice to tun a senior clinic sponsored by a large medical group in Oregon.

My "personal story" is that for the 10 years that I had a full time practice I consciously tried to manage my practice at 50% Family Practice, 50% Geriatrics (not that you can necessarily distinguish the two). From a financial/compensation perspective, I know that my salary, based on production, was well below that of my family practice and internist colleagues (even though I was seeing 20-25 pts/day). I cannot imagine trying to make a living if I were seeing only geriatric pts. Maybe when you're down here for a site visit we can share some data we have on reimbursement based on a free standing clinic compared to a clinic associated with a hospital and able to collect through the APG methodology. It's significant. Another component to this is the emotional stress of seeing complex, frail pts in the traditional care model without the interdisciplinary team support that you find in the PACE or our Senior Health Center model. Burnout or physician fatigue is, in my opinion, just as big a problem as the compensation issue.
(RS)

From a board certified internist with extensive geriatric experience who worked in a dedicated geriatric practice affiliated with a large health system. The health system recently closed the practice because it was losing money.

Here are some recollections of private practice model geriatrics:

-Forms. These include NH admission forms (4-10 pages and requiring detailed data), NH orders once a month and prn, VA forms which ask for essay responses to questions about

function, O2 forms for HCFA (requires date pO2 was done as well as precise location, neither of which is usually located on the clinic chart), DME forms which require answering 8 -12 questions such as "Does the patient require a reclining headrest? How many hours out of 24 does the patient spend in a wheelchair?" along with "acceptable" ICD-9 codes, letters for competency and guardianship hearings, DMV forms both to get handicapped stickers and to request retesting or license removal, formulary exception requests to OMAP (how long does the pt need Prilosec, what tests have been done and when, what were the results, have they failed other therapy) that have to be renewed q3months, cancer registry information (usually yearly), death certificates, VNA home health care plans, forms for exercise or social programs detailing acceptable levels of activity, diet, etc., work excuses for family or caregivers due to a patient's illness, requests for compassionate pharmaceutical supplies for Medicare patients who can't afford meds, and, memorably, a letter to the German government detailing the care requirements of a demented German citizen who was seeking reimbursement as reparation for political persecution in the 1930's. I am not making this up.

The one good thing: no workman's comp. forms.

Filling out forms is not reimbursible. I often spent a couple of hours on weekends mindlessly signing my name or filling in these forms. They require too much medical detail to be delegated to office staff and Medicare does not accept a rubber stamped signature.

-Other paperwork. For the practice to even have a chance of breaking even, the majority of patient visits have to be billed as (9921)4's and documentation for the Medicare patients has to meet precise documentation requirements. Dictating superfluous family history or elaborate reviews of systems costs more in MD and transcriptionist time.

-Social supports. Each frail, extremely old, or demented patient comes with some combination of family members (some of whom don't communicate with each other), friends, neighbors, guardians, social service organizations, institutions, and caregivers. Diagnosis is 85% history and physical. Not infrequently, demented patients were dumped unattended in the office lobby so part of the office visit is spent phoning the NH to (1)complain and (2)gather history. Patients sometimes come in with non-caregiving family members, so the foster caregiver has to be called for info. Conversely, the patient may come in with a caregiver who doesn't have the sophistication or legal standing to make medical decisions, so the family member must be called. Caregivers often have their own agendas, which may or may not concern or benefit the patient, and these must be addressed to some degree by the clinician, thus taking more time. Anxious out-of-town family members sometimes want to be called after an office visit with information; we drew the line at doing this, but would nevertheless have to spend time dealing with the expectation. A key aspect of geriatric care is family conferences and these take a lot of time and are not reimbursed well, if at all. Also, with the social needs of our clients, we employed a full-time social worker, thus contributing to a higher overhead. Her services were imperative but usually not reimbursible.

Another important issue is that good geriatric care includes seeing patients in their environments, e.g. home visits. Medicare does not have any differential payment for home or NH vs. office visits. Medicare requires q60 day visits to NH patients. To alleviate the losses, one can line up a series of people in the same NH but it's harder to do that with home visits.

-Medical decision making. The usual ethical dilemmas of geriatric care along with the presence of surrogate decision makers causes this to be much less straight-forward, therefore more time-consuming. The lack of Medicare reimbursement for meds also meant cost was another factor in choosing meds. I can think of no more complex activity than picking an antihypertensive drug for a frail, polypharmacied, fixed income elder with comorbidities.
In the HMO population, you choose a med, then get a letter from the HMO telling you it's not on their formulary. Old people are often rigid about their meds, especially if they've taken the same one for years. They do not understand HMO's and formularies and, especially, referrals. I often wound up having to explain the modern medical system to my patients and endure their complaints.

-Education. Like pediatrics, some of our work is simply educating patients and families about the verities of old age. Time consuming, not reimbursed by Medicare unless you're very clever about coding, and highly appreciated by families. So we did it.

-Info processing. Old people, regardless of health or function, move and learn more slowly. An office visit for a URI may take 20-30 minutes because the patient took 5 minutes to walk 10 feet to the exam room, had to break in the middle of the exam to go to the bathroom, then requires repeated instructions at the end. Their slower processing is often compounded by a generational belief in "not bothering the doctor", a Depression era tendency to downplay illness, hearing impairment and isolation from usual information outlets such as the internet. They are not the aggressive self-advocates that the Boomers are. I usually wrote down key information such as med changes with dosage and likely side effects, both to ensure that patients had a written record to refer to and to see if they could demonstrate back to me an understanding of what I had said. This is time consuming and it's difficult to actually know if it pays off in decreased bad outcomes.

-Telephones. Our 1.5 FTE triage nurses (RN's) fielded >100 calls per day. This is a good way to burn out nurses by the way. Phone calls from old people are trickier. They're more likely to have serious disease, even with innocuous presentations. They're more likely to not tolerate medicinal solutions. They're more likely to be borderline functional and require placement for minor perturbations of their health. The nurses had to be quite skilled. Also, for reasons mentioned above, there were calls from other people, usually family members or caregivers. Most calls are not one call, but a series of calls to gather data, call in scripts, call surrogates, etc. These calls are not reimbursable by Medicare.

Well, this was long-winded. I feel passionate about this experience though. We had a lot of patients, families, and social service agencies expressing effusive gratitude for what

we did. This leads me to wonder what their experience was with other practices. I suspect they were shoehorned into 10 or 15 minute slots, invariably took longer (which was resented by everyone) and were padded in the schedule with UTI's and sore throat visits. The complexity of their problems could not be easily dealt with in a primary care environment and they got shuttled around, incurring more visits, hospitalizations, side effects, and costs. Our practice was never profitable and was subsidized by the Health System. We could never convince the administration that we probably saved money overall. I really believe that frail old people do not get good care in the standard primary care practice. And I think that people who believe that seeing 80-year-olds is no different than seeing 45-year-olds contribute to the problem. I hope my experience helps.
(HH)

From a fellowship-trained internist/geriatrician who worked in a health system supported geriatric-specific practice. The health system had to subsidize the practice though they were the largest and busiest group in Portland. Last year the system withdrew support and the practice closed. The physician now works for Kaiser in the long term care program.

I was "spared" the trauma of trying to make a Geriatric practice financially viable because by the time I started at the health system (my first job after fellowship) the hospital had already lost the 2 Geriatricians I was to join due to financial hardships. The other geriatrician and I started together in the summer of 1989 at Geriatric Associates in 100% salaried positions.

While I'm not as clear now on the details of the finances of our practice as I once was I do know that we never were able to generate enough income to cover our expenses. This was true despite the fact that we cared for a large number of patients and were very busy in all of our care settings, office, hospital, nursing homes and assisted living facilities.

We had ongoing problems with coding/billing issues. One that was a major issue in the early years was our inability to bill for nursing home visits due to our status as hospital employees. I do know that this was a problem for my colleagues around the country also. I don't remember if it was ever resolved. Aside from this, reimbursement for all types of care was too low.

In summary, the care needs of our patients and the time we and our support staff spent giving care in no way matched the reimbursement we received and there were barriers to our receiving even the fees allowed.

On a personal note, I feel fortunate that I was supported in my practice at the health system because I think we provided a type of Geriatric care available no other place in the city. Unfortunately one of the reasons I left was that I didn't think we could continue to provide the quality of care we had and make the changes we needed to make to be self-sustaining in the setting of managed care.

From a fellowship-trained, board certified internist geriatrician who practiced for a large HMO. Because the HMO had only a dedicated nursing home practice, and no regular outpatient clinics dedicated to9 geriatrics, when she was hired she was assigned to work as a straight primary care internist. However, over time, she was assigned many elderly patients because of her interest and training. She recently quit to work in a PACE site. Here's her thoughts

Difficulties for physicians in providing geriatric care in an HMO/Internal Medicine Clinic:

1. Lack on Continuity:
   Due to large size group and significant cross-coverage - patients are often treated by a different providers if they develop acute illness, require hospitalization, or require nursing home placement. The lack of continuity affects the following:

   - Difficulties in addressing end of life issues/wishes when providers are inconsistent, due to a lack of a trusting relationship patient/family and the provider,
   - More apt to do defensive medicine
   - Poor follow up
   - Poor communication
   - Lack of job satisfaction - not following or partaking in patient's care when they get ill.

2. Difficult to have frequent follow-up. With a full schedule, often only able to see patient every 3-4 months.
   This results in:
   - Missing declining status
   - Difficult to build relationship
   - Effects job satisfaction

3. An internal medicine clinic is on a tight schedule, not allowing for much flexibility in the schedule which can be a significant problem in treating the frail elderly because:

   - More difficulties with communication – Hard of hearing, dementia
   - Multiple medical problems
   - Slowness in examining frail elderly
   - Time needed for discussions with caregivers/family

Board certified FP-Geriatrician working in a large multispecialty group in a Senior Health clinic.

My "personal story" is that for the 10 years that I had a full time practice I consciously tried to manage my practice at 50% Family Practice, 50% Geriatrics (not that

you can necessarily distinguish the two). From a financial/compensation perspective, I know that my salary, based on production, was well below that of my family practice and internist colleagues (even though I was seeing 20-25 pts/day). I cannot imagine trying to make a living if I were seeing only geriatric pts. Maybe when you're down here for a site visit we can share some data we have on reimbursement based on a free standing clinic compared to a clinic associated with a hospital and able to collect through the APG methodology. It's significant. Another component to this is the emotional stress of seeing complex, frail pts in the traditional care model without the interdisciplinary team support that you find in the PACE or our Senior Health Center model. Burnout or physician fatigue is, in my opinion, just as big a problem as the compensation issue.

The CHAIRMAN. Thank you, Dr. Cefalu. We appreciate your testimony.

Ms. Beverly.

STATEMENT OF CLAUDIA BEVERLY, PH.D., R.N., ASSOCIATE DIRECTOR OF THE DONALD W. REYNOLDS CENTER ON AGING, LITTLE ROCK, AR

Ms. BEVERLY. Good morning, Mr. Chairman, members of the committee, Senator Hutchinson, Senator Lincoln from Arkansas, and ranking member Senator Craig. Thank you so much for this opportunity to talk about geriatric-trained health care professionals. I feel like I am in a state that is probably one of the leaders in the country in terms of what we are doing in geriatric education and geriatric practice and I want to share a little bit of that with you today.

I am Associate Director of the Reynolds Center on Aging. At the same time, on the national level I am on the National Advisory Council for Nursing Education and Practice to HRSA, to the Division on Nursing. So I have a very good first-hand view of what is going on nationally, as well as at the state.

In addition, I am a vice chair for programs in one of the three departments of geriatrics in the country and was a part of developing that department of geriatrics and the mandatory course that the junior med students have so that all of our physicians, when they graduate, now have had a 4-week course in geriatrics. At the same time, I was part of the College of Nursing when 12 years ago we developed a stand-alone course in geriatrics, in clinical, to go with that.

So I think in those two disciplines in particular and also pharmacy, I have had a good relationship with the PharmD program where most of the students in that program do have a geriatric rotation. So we feel like we are doing and beginning to do quite a bit.

I also want to take this time to thank the senators, particularly Senator Hutchinson as being one of the major authors of the Nurse Reinvestment Act because I think the Nurse Reinvestment Act, at least on the Senate side, is a very good beginning. It is a strong act. I just hope that very soon the conference committee is appointed because without that, we are just sitting and waiting. However, there are parts of that Reinvestment Act that I think are extremely important to nursing and in particular to geriatric nursing so that we can better educate our certified nursing assistants in long-term care, as well as associate degree and baccalaureate nurses and also geriatric nurse-practitioners.

One of the things about nursing care of older adults is that we are in a variety of settings. There is a continuum of settings in which older adults receive care. It includes nursing homes, home, the hospital, ambulatory care.

The nursing home, I want to just spend a little bit of time on that because I think nursing homes are an embarrassment to this society. I think that until we really address how do we want to care for our older adults and what is exciting to me is our baby boom generation are taking care of their older adults and they are not liking what they see. So I hope that we will begin to really look at what kind of staff do we need in nursing homes? We know the

staff mix is not right. We know when we have adequate staff—we have studies to show that—that outcomes of our older adults in nursing homes changes.

One of the most poignant things to me is that a certified nursing assistant has to have only 75 hours of training and that two-thirds of the States require no more than this. However, in the State of Arkansas we require 1,000 hours to be a dog groomer, so I think there is a very big disparity on how we train people to take care of our older adults.

I also want to speak on behalf of nurse-practitioners. We have a collaborative practice out of our Department of Geriatrics and Center on Aging where we have a physician who is a medical director and a nurse-practitioner who are in 10 different nursing homes. We have seen a positive outcome in patients where we have this collaborative practice arrangement and yet the nurse-practitioner in particular is affected by reimbursement and the rules and regulations and I think we could address some of those, such as when a patient enters a nursing home in particular, a Medicare patient most of them have been in the hospital. They go to a transitional care unit. The nurse-practitioner by rule is not allowed to do the history and physical on admission, even though a physician had just seen that patient within 24 hours of discharge from the hospital. I think we need to address that. We need to address expanding the role of the nurse-practitioner.

I think in terms of hospitals, one of the things that we see with the shortage of nurses is units are closing, beds are closing. We have a difficult time getting our patients into the hospital because of the lack of beds. It goes to the lack of nurses in general.

Let me add that while I think the University of Arkansas for Medical Science College of Nursing is doing a good job with educating our nurses at the baccalaureate, at the masters, as well as at the doctoral level, for the most part in this country less than 23 percent of our baccalaureate programs offer a stand-alone course in geriatrics and it is even much less than that when you look at medicine.

Just a little bit about geriatric gerontology education. One of the things that is sorely missing and I was glad to hear Mr. Perry talk about is the focus or content on cognitive impairment. When we look at our aging society, about 12 percent 65 and older are cognitively impaired. That increases to 50 percent about age 80 to 85. So we have a huge need to how are we going to take care of our older adults? How are we going to train people? That is a major disconnect in what we are doing.

I want to briefly highlight and I was glad to hear the foundations that were mentioned earlier that have made a commitment to aging, the Donald W. Reynolds Foundation being one and yes, we are very happy that we have that relationship with them. Another is the John A. Hartford Foundation and for a long time they have trained physicians, provided monies to do that, and most recently have started social work but, more recently than that, nursing. I am happy to say that Arkansas is one of five centers of excellence in geriatric nursing funded by the Hartford Center and we are the only one in the South, so we are trying to help all the states in the South to increase geriatric education.

Last about interdisciplinary education, I have seen and been a part for almost 25 years where we do not focus in our curricula on interdisciplinary training. We expect when people graduate to know how to work with each other. While there has been money put into that and the VA does the very best with that, we do not have adequate resources to keep that training going.

One of the other foundations that I want to add to this is the Schmieding Foundation in Northwest Arkansas. When you talk about geriatricians, we have seven in Northwest Arkansas. We have 22 in Central Arkansas. We have one in South Arkansas. So we're doing something right about getting geriatricians. The Schmieding Foundation, through Lawrence Schmieding, was very, very supportive and has donated over $15 million over a 20-year period to create our first of seven satellite centers on aging in the State of Arkansas, all of which will have a primary care clinic, all of which will have a heavy education focus. Thank you.

[The prepared statement of Ms. Beverly follows:]

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Before the United States Senate Special Committee on Aging
The shortage of geriatric-trained health care professionals
February 27, 2002

Mr. Chairman, members of the Senate Special Committee on Aging, thank you so much for the opportunity to speak to you today about the shortage of geriatric-trained health care professionals this country is currently experiencing. I believe I am uniquely qualified to discuss this issue not only because of my affiliation with the Donald W. Reynolds Center on Aging but also as a member of the National Advisory Council for Nursing Education and Practice in the Division on Nursing, Bureau of Health Professions in the Department of Human Services, Vice Chair for programs in the Department of Geriatrics, College of Medicine, at the University of Arkansas for Medical Sciences and as a leader in developing interdisciplinary care delivery models for older adults for the past twenty-five years.

I will focus my remarks today on the shortage of geriatric-trained health care professionals from both a personal and professional perspective as it relates to the effects of the shortage on patient care, and to make recommendations for improving the situation. My remarks will specifically focus on the shortage of geriatric-trained nurses and other geriatric trained providers and the need for increased interdisciplinary teams.

First, I want to applaud the Senate for passing the *Nurse Reinvestment Act* (S. 1864), introduced by Senators Barbara Mikulski D-MD, Tim Hutchinson R-AR, John Kerry, D-Mass and James Jeffords, R-VT, by unanimous consent without amendments and the House of Representatives for passing *Nurse Reinvestment Act* (H.R. 3487), introduced by Representatives Bilirakis, R-FL, Capps D-CA, Delly R-NY, by voice vote. This legislation is an excellent beginning for addressing the critical nursing shortage facing this country today and in the near future. I am particularly excited about selected sections in the Senate version that will provide funding for individuals pursuing nursing education and the provision that they may work off their loan/scholarship in geriatric practice settings including nursing homes, hospice, and home health care agencies. Another section will provide grants for nurse training in long-term care for the elderly in which funds may be used to train faculty, provide continuing education, develop 'stand alone' courses and to provide for the cost of training.

BACKGROUND

Older adults and their families receive care across a continuum of settings. These settings include home, nursing home, hospitals, sub-acute care, clinics and assisted living environments. Nursing care is the backbone of care provided in each of these environments, and each requires nurses prepared at various levels, including licensed practice nurses, registered nurses prepared at associate degree, diploma, and baccalaureate levels, advanced practice nurses at the masters and doctoral level, and doctorally prepared nurse researchers.

This country is challenged to prepare geriatric practitioners in all disciplines and particularly in nursing at all levels as we face the burgeoning number of older adults over the next twenty years. This

shortage has the most critical impact in long-term care settings, the hospital, and in other settings that include the home and in-patient hospice. The shortage is twofold: the number of individuals entering the health care disciplines is diminishing on an annual basis and is most pronounced in nursing; the shortage also relates to availability of individuals with appropriate training and expertise to meet the health care needs of society

Many studies exist today that demonstrate residents in nursing home and hospitalized patients have better health care outcomes in institutions with higher staffing levels and higher rates of registered nurses in the staffing mix. (Network, Inc., 2000; U.S. Agency for Health Care Policy and Research, 1998) I focus the rest of my comments on the impact the shortage has on patients in nursing homes, hospitals and the home. The last section consists of the need for interdisciplinary practice and education and I will conclude with general comments about the shortage in nursing.

Nursing Home

Nursing home care accounts for 12% of health-care expenditures in the United States and yet has improved relatively little over the past decade despite many quality improvement initiatives. Efforts to improve the quality of care and resident outcomes in nursing homes are constantly of concern to state and federal regulators, nursing home providers, nursing home advocacy groups, families, and health policy researchers. The response of state and federal regulators has been to develop numerous and elaborate regulations to protect the public and assure minimal standards of quality. This effort has resulted in making the nursing home industry the second most regulated in the country. Despite these efforts, quality problems flourish and patient outcomes remain poor in nursing homes throughout the country.

I could cite many instances of poor patient outcomes in a nursing home but have chosen to describe one such care problem that was directly related to lack of registered nurses and other licensed nurses who had received geriatric education. Mr. Smith was ninety-one years old and entered a home in July without any signs of decubitus ulcers. In the following January, he died as a result of a systemic infection from twenty-six decubitus ulcers. A close scrutiny of his medical record revealed that staffing was not according to the regulations, there were numerous missed doses of antibiotics and parenteral feeding, nurses rarely changed dressings as ordered, and he was severely dehydrated. While these outcomes may seem uncommon, negative outcomes seem to be the norm in many of these settings.

Patient care outcomes in this instance and as well as others have been influenced by many factors and include the following:

- Care is primarily provided by Certified Nursing Assistants (CNAs) who are only required by Federal regulations to have no more that seventy-five hours of training and are paid a minimum wage. Two-thirds of the states is this country do not require more than those required nationally.
- The staff mix often includes one registered nurse who focuses primarily on the overwhelming number of forms required by the numerous regulations. These Registered Nurses have little time to assess patients and oversee care of patients in the facility even though they are responsible for all nursing care twenty-four hours a day, seven days a week. Most of these registered nurses have no geriatric education in their background, are associate degree or diploma prepared and do not have leadership and management skills.
- Current reimbursement does not allow the advanced practice nurses to be employed by the institution if reimbursement for care is sought. Current research had demonstrated that increased presence of the geriatric nurse practitioner has a very positive impact on patient outcomes. (Rantz, 2001, Shaughnessy, 1995) Additionally, Medicare regulation limits the scope of practice of the advanced practice nurse such as stating that only a physician may perform the initial history and physical exam.

– The licensed practical nurses who are responsible for supervising the work of the CNA, have no management training, no specific geriatric content, and most often spend their time providing medications and treatment often leaving CNAs unsupervised.
– Difficulty in the recruitment and retention of CNAs continues to be a major factor in having adequately prepared individuals at the bedside. Staff turnover currently ranges from 49 to 143% with some reports as high as 500%. (National Citizens' Coalition for Nursing Home Reform, 2001, Cohen-Mansfield, 1997) Recruitment and retention are expected to become more difficult as competition to hire entry-level workers among companies has increased. Many CNAs leave to take other jobs that are less physically demanding and emotionally draining. (Reinhard & Stone, 2001
– Adding to the woes of retention of CNAs is the lack of attention to workloads. A time and motion study conducted for HCFA (2000) concluded that a minimum of two hours of CNA time is needed per day per resident just to provide adequate care. Nearly 92% of U. S. nursing homes fall below this standard and nearly half would have to increase staffing by 50% or more.
– The amount and way we pay for long-term care are probably inadequate to support a work force sufficient in numbers, skills, and stability to effectively care for increasingly frail elders. (IOM, 2001)
– Recruitment and retention of nurses at all licensure levels to nursing homes is difficult to pay and working environment when compared with other practice settings.

We would not be witness to the egregious health outcomes aforementioned if we had nursing staff trained in geriatrics, care assessment and management skills, a staff mix that reflected increased numbers of registered nurses and the presence of a collaborative practice team consisting of at least a geriatrician and a geriatric nurse practitioner. Therefore, I urge the Committee to consider the following recommendations:

- We need to assure that a portion of funds from the *Nurse Reinvestment Act*, once signed into law, (1) are dedicated to CNAs and other levels of nurses in geriatrics through career ladder grants that provide scholarships for nurses desiring a career in geriatric nursing; and (2) contain a loan repayment program that includes sites in which geriatric nurses practice.
- Expand Medicare regulations that will, at a minimum, expand the scope of advanced practice nurses to allow provision of history and physicals during the first twenty-four hours by the advanced practice nurse and change the requirement that the MD and advanced practice nurse alternate visits
- We applaud the Nurse Reinvestment Act with respect to Long Term Care. The legislation provides for 90% Medicaid match for nurse aide training and competency evaluation programs and Medicare reimbursement for skilled nursing facilities that provide nurse training as part of a hospital training program. However, I urge the committee to use findings from studies that have clearly demonstrated positive patient outcomes when the nursing staff mix is changed. (Rantz, et. Al., 1996, Reinhard & Stone, 1999, Shaughnessy, P. et al, 1995.)
- The Baby Boom generation is not going to tolerate the current conditions found in long-term care. They are already experiencing the crisis in this setting through their parents. I urge the Committee to examine ways in which emerging successful models of care delivery in long term care such as the Wellspring Model (Reinhard & Stone, 2001), Aging in Place (Marek & Rantz ,2000). and Evercare (Bell, 2001) can be replicated in other parts of the country through waivers or through demonstrations. A description of each model is included in your materials. I believe that the cost effectiveness and positive patient outcomes already realized in these models will reduce litigation and thus the horrendous cost associated with mal-practice insurance.

- Provide funds to the Division on Nursing in the Bureau of Health Professions, U. S. Department of Health and Human Services to increase knowledge and skills in geriatrics leadership, management, and regulatory issues experienced in nursing homes in the baccalaureate program in Colleges of Nursing.

Hospitals

Much has been written about the critical need for nurses in the hospital setting. I want to highlight just a few concerns that relate to care of older adults. Few nurses in the country receive geriatrics/gerontology in their curriculum. If this content is included in their program of study it is most often only at the baccalaureate level and higher. This dearth of content and skills in caring for the older adult is critical because approximately 40% and higher of hospital patients are 65 and older at any given time. A second concern relates to a lack of understanding of how to care for the older adult and often leads to a poor retention rate of nurses caring for the older adult in hospitals. Many nurses lack understanding about older adults and the complexity of care required, the length of time to recuperate, the need to assist the individual to maintain a high level of function during the acute illness, and the longer time it takes the older adult to accomplish tasks.

The shortage of nurses has reached crisis proportions in hospitals. As a result, hospitals are being forced to close units. This results in more frequent closure of the emergency room due to lack of beds for admission. This affects the older adult who must be admitted from the nursing home or home. Lack of immediate care often results in a more complex hospitalization once this occurs.

I urge the Committee to consider these following recommendations:

- Participate in the work being led by the American Nurses Association and the American Hospital Association that is designed to increase licensed nurses in the hospital setting to ensure nurses trained in geriatrics.
- Promote the development of Acute Care of the Elderly units in each academic health science hospital that is designed to embrace interdisciplinary practice and a high focus on intense rehabilitation during the acute phase of the illness.
- Encourage demonstration models that will address quality indicators and best practices in care of the hospitalized older adult.

Home Care

The majority of older adults, by choice, receive care in the home. Often this care is provided by informal caregivers that include family, a significant other or friends. Home care is probably one of the most neglected setting of care in that minimal education standards for home workers do not exist. Most often home workers have received most of their experience through other practice settings such as nursing homes or hospitals. Few programs exist that specifically train in-home workers. As this country struggles with shortage of health care providers, we must embrace models of care delivery in the home such as the Age in Place Model being implemented under the direction of Karen Marek in Missouri, community nursing organizations, and collaborative practice models that provide primary care in the home.

Geriatric/Gerontology Education

We continue to experience a paucity of programs in all health care disciplines that include geriatric/gerontology knowledge and skills in their curriculum. Geriatrics has not been a priority in medical schools and only recently have we begun realizing a more widespread inclusion of gerontology in Colleges of Nursing across the country. Our health care system has primarily focused on high technology, acute care with little interest in or emphasis on chronic disease or the problems of

the elderly. The most glaring omission has been the study of cognitive impairment in the elderly. The incidence of cognitive impairment in those 65+ is about 12%. This increases to 40% by age 80-85.

I do believe that nursing has led all disciplines to this point in developing programs of study in gerontology and clinical care models. Until recently, this work has occurred in isolation across the country. I am delighted to report that the John A. Hartford Foundation, Inc. has been a leader in providing funding to support geriatric/gerontology in medicine, social work and most recently nursing. The Foundation has committed over $34 million over the next five years to prepare a cadre of academic geriatric nurse practitioners. I have included a document in which each program is described and the amount of funding allocated. Of particular note is the development of five Centers of Geriatric Nursing Excellence located geographically across the country and seven Nursing School Geriatric Investment programs. These programs are expected to increase the number of nurses prepared in geriatrics.

One of the most significant threats to increasing the number of nurses in this country is the availability of faculty. The American Association of Colleges of Nursing (AACN) warns that faculty shortages are leading to declining nursing school enrollments. The AACN's 2000-2001 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing Survey reported that nursing schools turned away almost 6,000 qualified students due to an inadequate supply of faculty and budget restraints. Many factors account for the faculty shortage: aging of the existing faculty workforce, time and money required for advanced degrees, and the salary disparity between practice and teaching often being $20,000 to $25,000 less for faculty.
(www.nursezone.com/stories/SpotlightOnNurses.asp?articleID=8373)

Interdisciplinary Education And Practice

The Donald W. Reynolds Foundation awarded UAMS a $28.5 million grant to establish the Donald W. Reynolds Department of Geriatrics and to build a Center on Aging to house its programs. Construction began on the 96,000 square foot facility in July 1998 and was completed September, 2000. The mission of the Center on Aging is to promote functional independence in the elderly and to prepare for the aging of the baby boom generation through the delivery of world class interdisciplinary clinical care, cutting edge research on aging, innovative education programs for health care professionals and the general public and influencing public policy on aging issues.

The centerpiece of the Reynolds Center on Aging is the Reynolds Senior Health Center which now sees over 18,000 clinic visits annually. The priority of the clinic is to deliver care to a relatively healthy older adult in order to promote successful aging through diet, exercise, stress management and screening. The evaluation and management of older persons is offered through a team of health care providers including geriatricians, geriatric nurse practitioners, nurses, pharmacists, social workers, dieticians and rehabilitation specialists. A major focus is the care of patients with memory loss. The clinic is funded by Medicare as a hospital-based out-patient clinic and receives a facility fee as well as a professional fee.

Using this team approach, we also provide care in the hospital, long-term care settings, in-patient hospice setting, and in the home. Most recently, because of the high success of our Reynolds Center on Aging, the State of Arkansas has begun contributing $2 million in tobacco settlement funds to rural aging programs. By the middle of 2003, we will have developed seven satellite Centers on Aging in seven geographic locations in the state. We will partner with the local community, hospital, and the Area Health Education Center to develop a primary care clinic and an education program that targets older adults, their families, the community, health care providers and students of the health care disciplines.

The Lawrence H. Schmieding Foundation has committed over $15 million over the next twenty years to increase access to quality geriatric interdisciplinary health care and to educate health care providers, students of health care disciplines, older adults and their families, and the community at large about aging and the problems associated with the aging process. The education focus in this center is to to increase geriatric expertise of registered nurses, other health professionals especially physicians and home care workers. This program was a direct result of the lack of trained home workers available to Mr. Schmieding to care for his brother who had Alzheimers Disease and was cared for in the home.

We believe that interdisciplinary models of care delivery provide for comprehensive care planning and assist individuals to access quality health care and better identify the resources that will assist them to remain in the least restrictive environment. Geriatrics is a discipline that best embraces interdisciplinary practice, however, principles of interdisciplinary practice are taught usually only as an elective. Because of the shortage of geriatricians, geriatric nurse practitioners and other health care providers prepared in geriatrics and interdisciplinary team practice, I urge the committee to consider the following recommendations:

- Interdisciplinary education is not mandatory in curricula of students enrolled in the health care disciplines. The Veterans Administration has historically provided leadership through the Interdisciplinary Geriatric Training, but not all students in the health care disciplines realize this experience. Understanding principles of interdisciplinary practice is essential in the field of geriatrics/gerontology. Make interdisciplinary education a requirement in the curriculum of health care providers and require both theory and practice learning opportunities for all participating disciplines.
- Develop models of care delivery that engage the community, older adults, government and academic partnerships.
- The Federal Government must continue its commitment to geriatric education through greater opportunities for training.

I want to close by presenting comments about nursing in general and the impact on trained geriatric nurses. The average age of a nurse today is approximately 45 and we are witnessing a decreased number of men and women choosing nursing as a career. The American Nurses Association predicts the shortage will reach crisis proportions by 2007. Many factors account for this shortage but most notably, modest pay (according to the National Sample Survey of Registered Nurses, the actual average pay is a little over $6,000 over a twenty year career), low status in the medical hierarchy, difficult working conditions and the responsibility of overseeing increasing numbers of unprepared unlicensed health care workers in hospitals and nursing homes.

I urge consideration of the following recommendations:

- The Senate and House of Representatives need to immediately appoint a Conference Committee to work out the differences in the *Nurse Reinvestment Act (NRA)*, which both Houses have passed and are S. 1864 and H.R. 3487.
- Individuals wishing to enter the nursing profession often do not because of financial reasons. Further, individuals who do achieve basic training often do not have the financial means to continue their professional development. The *Nurse Reinvestment Act* provides beginning funding to address this problem. I urge funding that will specifically target those nurses who choose to study geriatrics.
- Fund the Division on Aging, Bureau of Health Professions so that colleges of nursing will include identified geriatric curriculum in all levels of education.

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I.

Executive Summary: Evaluating the Wellspring Programs as a Model for Promoting Quality Care in Nursing Homes

Evaluating the Wellspring Programs as a Model for Promoting Quality of Care in Nursing Homes

Susan Reinhard and Robyn Stone
Institute for the Future of Aging Services
American Association of Homes and Services for the Aging

The purpose of this project was to evaluation the Wellspring model of nursing home quality improvement. Based on a 15-month study, a team of researchers led by research and policy experts at the Institute for the Future of Aging Services conducted qualitative and quantitative analyses to better understand the underpinnings and impacts of the Wellspring model.

Wellspring Innovative Solutions, Inc ("Wellspring"), an Alliance of 11 freestanding nursing homes in eastern Wisconsin, was founded in 1994 and became fully operational in 1998. Wellspring seeks to change the clinical quality of care and the organizational culture in its member facilities. The model includes a shared program of staff trainings, clinical consultation and education from a geriatric nurse practitioner, comparative data on resident outcomes, and a structure of multidisciplinary care resource teams who are empowered to develop and implement interventions that they believe will improve the quality of care for residents. This study documents the conceptual underpinnings of the Wellspring model, how it is being implemented, selected facility employee and resident outcomes and cost implications.

Summary of Findings

The Wellspring model has many innovations that have broad and significant implications for nursing home care. Most notably, it represents a significant advancement in that it provides clinical training across levels of staff and then brings the lessons of this training directly to the everyday provision of care on the unit. By design it couples cross-level education on clinical practices with cultural change to create a more collaborative workforce in which the contributions of all staff, including and most notably those of the nursing assistants and other support staff, are continuously and meaningfully recognized. The integration of these clinical and cultural efforts allows staff to develop new skills, provides them with more input and respect, which in turn leads to better problem-solving and more effective decisions. It also provides a structure that supports career advancement and higher levels of job satisfaction and commitment, measured through lower turnover and greater retention, and it leads to improved facility outcomes.

Qualitative Findings

The qualitative findings are rich with the complexities of how a model that involves 11 freestanding nursing homes and thousands of staff operates. Selected findings include:

- The **dual focus on changes in clinical practice and changes in the nursing home culture distinguishes the Wellspring model** of quality improvement from other nursing home programs.

- **Frontline staff**-like certified nursing assistants and other support staff **have meaningful opportunities to learn** new skills and put them into practice.

- There are clear strategies to increase the authority and job satisfaction of front-line staff.

- **One of the most important determinants of success in sustaining Wellspring is the commitment of staff nurses** to working with and mentoring nursing assistants, helping them learn how to apply their new knowledge and continue to learn.

- The geriatric nurse practitioner holds a central role in the clinical trainings (known as "module" trainings) and a potential leadership role in culture change. The **extent to which this role was accomplished was mixed.**

- **In some Wellspring facilities, the organizational structure is not in alignment with the Wellspring philosophy and structure.**

- **Data collection is a fundamental element** of the Wellspring model. Yet it was an element that was not well implemented, and in this regard it was a source of frustration for staff at all levels.

- The Alliance superstructure brings together into a single network, several nursing homes that are in competitive market relationships with one another-enhancing collaborative problem-solving efforts. It has been very successful in its supportive role and it maintaining a strong commitment from facilities to "stay the course" with the intervention. By choice and design, it has not taken a strong, centralized management role, preferring to operate more as a "confederacy." Yet **a stronger Alliance management role may have helped to strengthen the accountability** of facilities that is needed to ensure ongoing compliance with the tenets of the model.

Quantitative Findings

The Wellspring model is associated with **improved facilities outcomes** as well as **improved staff outcomes**:

- One policy-relevant measure of quality with national significance is survey deficiencies. On 3 different measures of survey deficiencies. On 3 different measures of survey deficiencies, Wellspring facilities improved their performance over time, and performed better than comparison groups of nursing homes in Wisconsin.

- Wellspring facilities improved performance in relation to **staff turnover**, a measure of the quality of work life. Wellspring faculties improved over time (reduced staff turnover), and did not demonstrate an increase in turnover compared to other Wisconsin nursing homes during a period when we would expect to see staff turnover worsening.

- There were mixed findings with respect to the impact of Wellspring on resident status outcomes, defined primarily by quality indicators and individual items from the MD's. Compared to other Wisconsin nursing homes, Wellspring facilities have **more residents on bladder training programs**, and **detect skin problem in earlier phases** when care can be instituted to prevent more serious pressure ulcers. On other resident status variables, Wellspring faculties were either generally comparable to their counterparts or where they had more positive outcomes than the comparison facilities, these differences appear to have existed even prior to the implementation of the model. There is some evidence that Wellspring staff have been trained to be more vigilant in assessing problems and taking a proactive approach to resident care.

- One of the important methodological findings of the study is that there **currently are not adequate measures on which to base conclusions about the impact of a quality improvement initiative on the quality of life of the residents as it reflected in the quality of the interaction between those residents and staff members in a facility**. This is a serious shortcoming in this evaluation, since an important hypothesized outcome of the cultural change is that will improve these relationships. We found considerable anecdotal evidence of this-through observation and interviews—but we were not able to address this issue more systematically.

- In terms of costs, the Wellspring model has been implemented with **no additional increases in net resources**. Throughout the period of implementation, the Wellspring facilities had lower costs than the comparison group, and they had a higher proportion of those costs devoted to resident care.

Implications

Several implications emerge from these findings at three levels-within facilities, the alliance and diffusion within the nursing home industry.

Within Facilities

Wellspring has an explicit approach to quality improvement that focuses on both clinical care and organizational culture change, with a high degree of interaction between these two core concepts. An intervention of this magnitude and complexity requires careful alignment of the Wellspring model philosophy and structure with the organizational in the facility including the administrative, operational, management structures. This requirement is critical perhaps the most critical single finding of all. This alignment is very unlikely to occur on its own, because the dominant forces of the administrative structure will have a natural tendency to occur at cross purposes with the innovative elements of the model. Therefore, explicit attention must be given constantly to facilitate this alignment and hold the facilities and Alliance accountable for focusing on this issue.

In addition to the extend to which its organizational structure is Wellspring compatible, each facility faces its own set of implementation issues. Chief among these are an over-reliance on the module training to implement Wellspring, and operational zing the concept of staff empowerment. Reliance on the train- the trainer method in the care resource teams develop ways to transfer knowledge to their colleagues can be a fragile system for facility-wide implementation. Without additional support from the administration and the in-service personnel, the care resource teams face a daunting challenge in effecting system-wide clinical practice changes. It is difficult to change the culture to a bottom-up change process. ***Empowering frontline staff to participate in decision-making is challenging and very easily disrupted.*** It requires an understanding of how such empowerment is supported and undermined, particularly in day-to day practice. Culture change needs to be driven by top administrators as well as committed staff at all levels of the organization.

Facility leaderships' initial and continuing commitment is crucial. They should be more explicit about expectations for how information learned at the modules will be transferred from the care resource teams to the units across the facility and who will be accountable for that transfer of knowledge. There is also a need for more explicit expectations (and accountability) for the cultural aspects of Wellspring, such as fostering better relationships among the nursing assistants, nurses and other staff.

Facilities should prepare for Wellspring adoption by conducting an organizational assessment for readiness for change. An assessment of the current organizational structure and its potential Wellspring compatibility-or lack thereof- should be part of this assessment. Other dimensions include the interest of the Chief Executive Officer and the Director of Nursing, the union's acceptance of the plan for change (if relevant), and staff interest (across departments). An Alliance assessment would also be helpful to prepare for the shared leadership, resources and accountability mechanisms needed to make the Alliance successful.

Alliance level (across facilities)

One of the distinguishing characteristics of Wellspring is its Alliance structure. Several years into its operation, the Alliance needs to turn its attention more fully again to the purpose for its formation-improving quality within and across facilities.

An important corollary to this return to its root objectives is the fact that the ***Alliance needs to take on a stronger, centralized management role*** in order to ensure ongoing compliance with the tenets and elements of the model. The strong supportive role of the Alliance needs to be expanded such that the Alliance can act with more clout to solve problems that arise in implementing and sustaining the model and maintain adherence to the Wellspring model, whose complexity and ambitious goals require close adherence.

The collection and use of data is an important element of the Wellspring model but the Alliance must give it greater attention and a more focused approach. It cannot be left up to the vicissitudes of the individual facilities. There must be a clear plan for data collection and use that is carried out with clear accountability for doing so. Sharing of the data results needs to be improved and better planned. If data are collected and used, but not reliably and with clear design, and the fruits of this venture are not visible and clean, enthusiasm for the function wanes.

The Alliance has expended much effort in developing and resourcing the clinical training component of the Wellspring model. These modules do provide a basis structure for the Wellspring model and its implementation. However, ***the modules should be modified to include a strong management module*** and incorporation of implementation and management issues in each of the existing clinical modules.

It is also time to devote more effort to explicating and guiding culture change in each of the member facilities. Development of management assessment tools and a facility implementation scale that measures progress in both clinical and culture changes would be very helpful in this stage of the Wellspring model evolution

Diffusion Beyond the Wisconsin Alliance

The study findings support the enormous interest in diffusing the Wellspring model beyond the Wisconsin Alliance. This model does offer nursing homes a way to change clinical care and organizational culture. ***It could be strengthened to make widespread adoption more successful.*** Some of the key areas include:

- The formation of an Alliance, leadership roles within that Alliance, and accountability structures and processes at this level need to be better understood.

- The current and potential role of the geriatric nurse practitioner should be better explicated since Wellspring cannot be initiated until this key person is hired. The nursing education community needs to be engaged to prepare this key leader.

- The data issues need to be resolved before widespread implementation.

- The management/culture issues identified above need to be addressed.

Summary

The Wellspring program has withstood the most intensive, detailed scrutiny of any quality improvement model that this research team has ever been involved in-and they have come through it with very strong marks-warts, flaws, and inconsistencies for sure-but in general very strong marks. This evaluation study found that Wellspring does mesh clinical and culture change together in an intentional model of quality improvement in nursing homes. It is an ambitious model that calls for the formation of an Alliance of facility leaders who will challenge each other to continually improve care for residents and the work life of staff. Its impact can be seen in improved quality and reduced staff turnover. Although it is difficult to measure significant improvements in the full range of resident outcomes, data suggest that staff in Wellspring facilities are more vigilant in detecting early signs of problems in residents that can be assertively managed-such as Phase I pressure ulcers and the need for bladder training. Further work will improve this model, especially in aligning facilities' organizational structures with the Wellspring philosophy and structure. Clearer expectations and accountability mechanisms for transferring the knowledge and skills gain in module training to all staff in the facilities are needed to further support staff empowerment. The Alliance needs to take a stronger leadership and management role, beginning with a serious look at data collection and analysis, organizational assessments, accountability structures, and strategies to systematically support culture change. With these refinements, the adoption of the Wellspring model throughout the industry could significantly advance in the field of long-term care.

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Spotlight on nurses

Nursing Education 2002: The Nursing Faculty Shortage

By Jennifer Larson, NurseZone *feature writer*

The faculty shortage in the United States' nursing schools is no illusion, nursing school administrators say. It is a reflection of the nursing shortage as a whole, but it may mean even greater ramifications for the overall shortage.

Like many countries, the U.S. needs more nurses. But there aren't enough nursing faculty members to teach in nursing schools, so some schools have to turn students away. As a result, fewer people become nurses, and an even smaller number become nursing instructors. It becomes a cyclical phenomenon.

But many nursing schools and nursing educators are ready to do something to break the cycle and bring more nurses into the faculty track.

The American Association of Colleges of Nursing warns that faculty shortages are leading to declining nursing school enrollments. In fact, AACN's 2000-2001 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing Survey reported that nursing schools turned away 5,823 qualified students due to an inadequate supply of faculty, clinical sites, classroom space, clinical preceptors and budget constraints.

And nearly 40 percent of the nursing schools that responded to a recent AACN survey claimed that faculty shortages were one reason for not accepting all qualified applicants into their generic baccalaureate programs.

"As we look at the projections about the [overall] shortage, then we are going to see shortages with nursing faculty," said Linda Norman, RN, DSN, senior associate dean for academics at Vanderbilt University School of Nursing in Nashville, Tennessee. "Even now, there are shortages in certain areas."

Many nursing schools have reduced the emphasis on education as a viable specialty for nurses. Some schools would have to add curriculum or extra courses to their graduate programs, which might require more time in school and more money for tuition.

For example, schools in Nevada and Georgia have been turning away students because they simply do not have enough faculty available to teach them.

The Southern Regional Education Board's Council on Collegiate Education for Nursing recently surveyed its 16 states and the District of Columbia to gauge the situation in the Southeastern part of the U.S.

"In those states, we only prepared 237 new graduates last year in the 2000-2001 year, who were prepared to be nurse educators," said Barbara Williams, BSN, MSN, Ph.D., the council's faculty shortage committee chairwoman. "That was 28 doctoral graduates and 209 master's graduates. Yet

we had 432 unfilled [faculty] positions. We definitely have a shortage."

The Culprits

Why is there such a shortage of nursing faculty? Experts point to a number of reasons: the aging of the existing faculty workforce, the aging of the nursing workforce in general, the lower salaries for faculty members, and the time and money required for graduate degrees.

The entire nursing workforce is aging, with the average nurse in her 40s, and consequently, the nursing faculty workforce is also aging.

"The Baby Boomers are retiring," said Linda Cronenwett, RN, Ph.D., FAAN, dean of the University of North Carolina-Chapel Hill's School of Nursing. "We're going to have this issue for another 10 years."

The median age of nurse faculty during the 2000-2001 term was 51 years. Faculty with doctoral degrees, which are usually required for tenure-track positions at universities, hovered between 50 and 56 years, depending on their position.

The fact that many nurse faculty members begin this phase of their life at a relatively advanced age, compared with faculty members in other academic arenas, exacerbates the problem.

One complicating factor with the nurse shortage is the typical salary differential between advanced practice clinical positions and nursing faculty positions.

Nurses who earn their doctoral degrees are often in their late 40s, said Barbara Heller, RN, Ed.D., FAAN, dean of the University of Maryland School of Nursing. That means many students are waiting 20 years after completing their first certification to go back to school for a graduate degree, and they may only teach for a few years before retiring.

"We have to get them into doctoral programs earlier," Heller said.

Another complicating factor is the typical salary differential between advanced practice clinical positions and nursing faculty positions.

AACN reports that the average nurse practitioner's salary in 2000 was $80,000, but the master's-prepared nurse faculty member only earned about $48,000.

"Schools of nursing have to compete with the practice environment for the faculty, because at that point, it becomes a bit more lucrative to be in the practice environment than in education," Norman said.

Nurses who accept faculty positions do often have to settle for smaller salaries, Cronenwett and Williams agreed. Many have to take a pay cut if they leave a nursing practice, and that can be a tough sell.

"Nursing education salaries are going to have to increase," Williams said, adding that nursing faculty salaries are low even for academia.

A recent survey in Arkansas showed that nursing faculty members had the second-lowest salaries among college professors. Only home economics professors made less, said Williams, chairwoman of the Department of Nursing at the University of Central Arkansas.

Community colleges may have additional challenges in recruiting and retaining faculty because they may offer lower salaries than nursing schools affiliated with large universities.

"We are certainly not exempt from the nursing shortage when we go out looking for faculty," said Sandy Kirschenmann, workforce and economic development director for the Los Rios Community College District in Sacramento, California.

The Los Rios Community College District has been lucky to have a number of faculty members with many years of experience, Kirschenmann said. However, it has not expanded its program beyond 120 student slots for a number of years, but officials want to enlarge the program since California desperately needs more nurses. Procuring enough master's-prepared instructors for an expansion may be tough.

"We do have a little bit of fear about that," said Kirschenmann, adding that California's recent nurse-to-patient ratio mandate obliges the state's colleges to produce even more nurses, despite the fact that there may not be enough faculty to teach them.

Cronenwett said she has heard anecdotal evidence that North Carolina's community challenges are challenged in finding enough faculty, although her own institution, UNC-Chapel Hill, like many large research institutions, is "lucky" to not have any current faculty recruiting problems.

It is difficult, however, to convince many nurses to go back to school to get a master's or doctoral degree when they are already working and making a good living wage.

This is especially true if advanced education programs require a nurse to drop her clinical practice and enter school full time. Many are working to support their families and feel that extra schooling is a luxury.

Once master's-prepared nurses being to work full-time, it's very hard to bring them back to school for a doctoral program, according to AACN.

"Getting a Ph.D. in nursing is expensive," Vanderbilt University's Norman said. "We really need to have [financial] ways to encourage people to go into education."

Plus, many nursing schools have reduced the emphasis on education as a viable specialty for nurses. Some schools would have to add curriculum or extra courses to their graduate programs, which might require more time in school and more money for tuition, said Norman.

"Many schools have omitted or severely decreased that educational option because we're preparing people for advanced practice at the master's level," she said. "You would have to add on course work to have them get an educational focus."

The future for nursing schools in general, however, is not completely bleak, Cronenwett said.

"Every year, we're producing more doctorally-prepared nurses," she said. "It's been gradual...slow, steady, but gradual increases in the supply side."

And despite the struggle to convince many nurses to leave advanced practice clinical positions, the increase in the numbers of advanced practice nurses in the last few decades is good for the nursing profession as a whole.

"We have tried for a long time to have the advanced practice of nursing be something you could use and be employed to do," Cronenwett said. "It doesn't mean that person can't become a faculty member."

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Spotlight on nurses

Nursing Education 2002: The Nursing Faculty Shortage, continued

Creative Solutions

Nursing school officials say that creativity, perseverance, and funding all can help.

"I think we have to do more than we have [in the past] to interest graduate students in teaching at some point in their career," Cronenwett said.

Creating or retooling post-master's certification programs with an educational focus is one potential solution to help nursing students focus on this career option while they're still in school.

According to Williams, these programs could be especially useful in helping nurse clinicians gain and polish teaching skills to feel comfortable working with students.

Well-educated clinicians can be excellent faculty members, particularly for clinical coursework supervision, she added. Schools could hire nurses with master's degrees but no background in teaching and enroll them in a certification course during their first year as faculty members. In this way, these nurses could teach, use their clinical skills, and gain the necessary educational skills without giving up a salary.

Those clinical faculty members may be more content to incorporate their clinical skills into their teaching, rather than giving up one for the other. They can function as excellent role models for students, too, added Heller.

"They're exquisitely prepared to be part of the corps of faculty that also have teaching responsibilities," she said. "They like the blend of the clinical and the teaching. And that's something to keep in mind: what is satisfying?"

Vanderbilt University School of Nursing has had a post-master's program for about 10 years to help students gain educational expertise, but the school is revamping the program to make it more useful for a technology-driven health care environment.

The program, which will have an educational informatics focus, will be up and running by the start of the fall 2002 semester, Norman said. The program will be able to accommodate 25-30 students and will be available for students on a part-time or full-time basis.

The Persuasion Factor of Additional Funds

By Jennifer Larson, NurseZone *feature writer*

It's vital to earmark more funding for nurses to get the necessary graduate degrees, nursing school administrators say.

The Nurse Reinvestment Act, federal legislation that is still pending, may be one key. The version of the bill before the U.S. Senate would establish a "fast-track" faculty loan program. Nursing students who agree to teach at a nursing school for every year they receive financial assistance could get their loans forgiven.

The House version is more "stripped down," said Barbara Williams, BSN, MSN, Ph.D., the faculty shortage committee chairwoman for the Southern Regional Education Board's Council on Collegiate Education for Nursing.

But, she added, the Senate version has the potential of seriously addressing the nursing shortage with its provisions.

The faculty loan repayment component is very important because it will provide an avenue for getting students into graduate programs and out into the field.

"We need them in and out," Williams

The University of North Carolina-Chapel Hill School of Nursing will launch a Web-based post-master's educational certification program this fall. The program is designed to give students a chance to explore teaching while developing skills in instructional technology and teaching strategies.

Accelerating the educational pathway from RN or BSN to MSN or doctoral degree could help get more students on the road to a future faculty position, too.

"They really need to be able to move into an academic position when they're younger," said Norman.

Nurses often enter the work world directly after getting their BSN or becoming an RN. The ones who do choose to get an MSN often delay graduate school for a number of years.

"Nursing has been one of those...positions where we think people need some time out between degrees," Norman said.

"We tend to think we have to work several years before we can come back to work on our master's," Williams added. "Other disciplines don't do that."

The clinical experience is indeed very important, Norman and Williams said, but it means that a nurse might not finish a doctoral degree until 20 years (or more) later. That's much later than is typical for other academic fields. Streamlining the process could put more students on track to become faculty members at younger ages, leaving them more years to teach and conduct research.

Schools need to "start encouraging our students from the get-go" to consider the academic life and then restructure the system to speed up the process a bit, Heller said.

The University of Maryland is also trying to market its RN-to-MSN track for the same reason. The students can be working nurses while going to school for their master's degree at the same time, she added.

A BSN-to-Ph.D. pathway could be another way of channeling more students into future faculty positions, Norman said.

said. "By providing some loan scholarship money to them, that will assist them to come back to school, get their education, and exit at a faster pace."

The funding could mean a lot to students who might not choose to re-enter school because of financial worries, added Linda Norman, RN, DSN, senior associate dean for academics at Vanderbilt University School of Nursing in Nashville, Tennessee.

"I think that's what it's going to take," she said. "This means that they can get their loans paid off by going into education. I think you'll see a lot more of that."

In Arkansas, additional funding did help funnel more students into graduate nursing education, Williams said.

There was a program expanded during the last state legislature session to provide funding to doctoral students and for part-time students. Arkansas, which only has one nursing doctoral program, had never filled all its doctoral candidacy positions before. After the expansion, all nine spots were filled in the program, which is only about four years old.

Federal funding through legislation like the Nurse Reinvestment Act "is not going to provide lots and lots of money, but it does provide something," Williams said.

More nursing schools might consider incorporating tuition remission into their programs, too, said Barbara Heller, RN, Ed.D., FAAN, dean of the University of Maryland School of Nursing.

A number of universities already do this, but community colleges might benefit, too, she added.

Promote Nursing Overall

Above all, nursing schools need to change the way they market both nursing and the academia track to students, Heller said.

"It is time to think of what we can do...to make nursing more desirable," she said.

Nursing schools should "promote the track more than we have...so they'll realize that it is something to aspire to and that it's a legitimate specialty," Williams added. "Make the field more visible and attractive. There will always be some who say they want to teach. So we need to be identifying them earlier and working with them."

Cronenwett would like nursing faculty jobs to be viewed more positively by students.

"I hope that they have a positive view of the life that's possible as an academic in nursing," she said.

The demand for dedicated, qualified nursing faculty is not going to disappear. But nursing schools can show that nurse educator positions are attractive, said Heller, who was once a staff nurse who discovered she liked the teaching life.

"I could manage my family responsibilities better from a faculty role than I could when I had to rigidly adhere to the schedules of hospitals. You have more of an opportunity for flexibility with time."

Nurse educator positions don't have the often-strict shift work and mandatory overtime shifts required by many hospitals, either, she added.

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III.

Randomized Clinical Trial of a Quality Improvement Intervention in Nursing Home by Rantz et al.

Randomized clinical trial of a quality improvement intervention in nursing homes

The Gerontologist; Washington; Aug 2001; Marilyn J Rantz;Lori Popejoy;Gregory F Petroski;Richard W Madsen;et al;

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Abstract:
The purpose of the study was to determine if simply providing nursing facilities with comparative quality performance information and education about aquality improvement would improve clinical practices and subsequently improve resident outcomes, or if a stronger intervention, expert clinical consultation with nursing facility staff, is needed. Simply providing comparative performance feedback is not enough to improve resident outcomes.

Full Text:

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[Headnote]

Purpose: The purpose of the study was to determine if simply providing nursing facilities with comparative quality performance information and education about quality improvement would improve clinical practices and subsequently improve resident outcomes, or if a stronger intervention, expert clinical consultation with nursing facility staff, is needed. Design and Methods: Nursing facilities (n = 113) were randomly assigned to one of three groups: workshop and feedback reports only, workshop and feedback reports with clinical consultation, and control. Minimum Data Set (MDS) Quality Indicator (QI)

[Headnote]

feedback reports were prepared and sent quarterly to each facility in intervention groups for a year. Clinical consultation by a gerontological clinical nurse specialist (GCNS) was offered to those in the second group. Results: With the exception of MDS QI 27 (little or no activity), no significant differences in resident assessment measures were detected between the groups of facilities. However, outcomes of residents in nursing homes that actually took advantage of the clinical consultation of the GCNS demonstrated trends in improvements in OIs measuring falls, behavioral symptoms, little or no activity, and pressure ulcers (overall and for low-risk residents). Implications: Simply providing comparative performance feedback is not enough to improve resident outcomes. It appears that only those nursing homes that sought the additional intensive support of the GCNS were able to effect enough change in clinical practice to improve resident outcomes significantly.

[Headnote]

Key Words: MDS data, Nursing homes, Outcomes

Considerable effort has been devoted to improving quality of care for nursing home residents. Elaborate state and federal systems have been developed to protect the public and assure at least minimal standards of quality (Zimmerman et al., 1995). Since 1990, federal mandates have directed nursing homes nationwide to conduct quality improvement activities. While quality improvement activities are commonly believed to affect resident outcomes, limited research has supported this premise (Harrington & Carrillo, 1999; Sainfort, Ramsay, & Monato, 1995). Nonetheless, feedback reports comparing outcomes of one organization to another have become commonplace in quality improvement. To date, they have received limited evaluation (Anderson et al., 1998). To test the benefit of feedback in a quality improvement model, we designed and conducted a randomized controlled trial to determine if (a) simply providing nursing facilities with comparative quality performance information and education about quality improvement would improve clinical practices and subsequently improve resident outcomes, or (b) a stronger intervention, such as expert clinical consultation with nursing facility staff, is needed to improve outcomes.

Mandate for Quality Improvement in Nursing Homes

The public, consumer organizations, regulators, and the nursing home industry continue to debate the quality of nursing home care in the United States. Historically, in response to concerns about poor care, federal and state governments have instituted a wide variety of regulations, including licensure, certification, inspection of care, minimum qualifications of nursing home personnel, and ombudsmen programs organized under the Older Americans Act (R. A. Kane, 1988; R. L. Kane, 1995). Despite those efforts initiated in the 1970s and 1980s, recent media attention and presidential initiatives to address nursing home problems suggest that quality problems persist (Pear, 2000).

In 1983, the Institute of Medicine (IOM) began a 2-year study of nursing home quality. The report, Improving the Quality of Care in Nursing Homes (Committee on Nursing Home Regulation, Institute of Medicine, 1986), resulted in Congress mandating, in the Omnibus Reconciliation Act of 1987 (OBRA 87), several provisions intended to improve nursing home care. These provisions included developing The Minimum Data Set for Resident Assessment and Care Screening (MDS), mandating routine use of the MDS for all nursing home residents, and requiring that a quality assurance and assessment process be used in all nursing homes to improve the quality of care (McElroy & Herbelin, 1989). This standardized resident assessment process was envisioned to improve resident care through the formulation of a resident-specific care plan; to provide nursing home management with resident-level data for monitoring case mix, staffing, and quality of care performance; and to provide regulators with data for case mix, sampling for survey processes, monitoring resident outcomes, and utilization review for Medicare or Medicaid eligibility.

The IOM concluded that "regulation is necessary but not sufficient for high-quality care" (Committee on Nursing Home Regulation, Institute of Medicine, 1986, p. 24). The committee further resolved that nursing home staff members need to be well trained, well supervised, and highly motivated to deliver quality services to residents. The committee pointed out that "process measures (of quality) should not be ignored" (p. 55) and that resident outcomes are adversely affected when care delivery processes are overlooked or executed inadequately by staff.

Ten years later, another IOM committee reinforced the importance of staffing in nursing homes and concluded that the "quality of care provided by some nursing facilities still leaves much to be desired" (Committee on the Adequacy of Nurse Staffing in Hospitals and Nursing Homes, Institute of Medicine, 1996, p. 140). The committee called for continued research that "could improve both the processes and the outcomes of care" (p. 140).

Information Feedback to Improve Quality

Information feedback is being used to improve the quality of care in health care settings. There is some evidence that providers will change their styles of practice when presented with data comparing their practice style to their colleagues' (Buck & White, 1974; Gehlbach et al., 1984; Keller, Chapin, & Soule, 1990). Most of the studies, however, have involved changing physician practice patterns or quality improvement strategies in hospitals (Balas et al., 1996; Berwick & Coltin, 1986; Horowitz et al., 1996; Myers & Gleicher, 1991; Parrino, 1989). Other studies show that such feedback can change behavior, improving the quality of care delivered (Frame, Kavolich, & Llewellyn, 1984; Hamley et al., 1981). Two comprehensive reviews of feedback of auditing results of practice patterns conclude that performance of health care providers can be generally affected to a small or moderate degree; however, complementary interventions to enhance the effectiveness of audit and feedback have yet to be

adequately tested (Thomson O'Brien et al., 2000a, 2000b). Although comprehensive applications in nursing homes have not been conducted, initial success of comparative drug utilization information feedback to nursing homes supports the premise that information feedback using comparative reports may also help change practice behavior in nursing homes (Zimmerman, Collins, Lipowski, & Sainfort, 1994).

Systematic evaluations of individual long-term care organizations suggest that feedback of quality measurement information to staff resulted in better care processes and outcomes (Dennik-Champion, Mareno, & Carlson, 1994; Miller & Rantz, 1989, 1991, 1995; Roberts, LeSage, & Radtke-Elior, 1987). One randomized trial provided feedback on quality measurement information to staff in 60 Canadian nursing homes, resulting in performance changes and improvement in quality indicator conditions of hazardous mobility and constipation (Mohide et al., 1988).

Clinical Consultation to Improve Quality in Nursing Homes

Several studies have demonstrated the effectiveness of on-site clinical consultation by a nurse expert to help nursing home staff implement changes to improve care. The use of advanced practice nurses to work with nursing home staff to implement researchbased protocols resulted in improvement or less decline in incontinence, pressure ulcers, and aggressive behavior (Ryden et al., 2000). Educational programming and resident-centered consultation were found to reduce the use of physical restraints in nursing homes without subsequent increases in staffing or resident injury (Ejaz, Folmar, Kaufmann, Rose, & Goldman, 1994; Evans et al., 1997; Neufeld et al., 1995, 1999; Strumpf, Evans, Wagner, & Patterson, 1992; Werner, Koroknay, Braun, & Cohen-Mansfield, 1994). Similarly, consultation was shown to reduce falls in nursing homes (Ray et al., 1997). However, some of these studies and others have demonstrated that follow-through by the nursing home staff to the recommendations made during consultation and sustained use of the recommended interventions over time may be difficult to achieve (Ouslander et al., 1995; Schnelle, Newman, White, et al., 1993; Schnelle, Ouslander, Osterweil, & Blumenthal, 1993).

Quality Indicators and the MDS

Another approach to quality improvement in nursing facilities has been to develop key indicators that assess care delivered. Such indicators have centered on the concept of sentinel health events such as accidents, transfers to hospitals, medication usage, infections, pressure ulcers, catheters, contractures, tube feedings, restraint usage, or lack of participation in activity programs (Phillips, 1991; Shaw & Whelan, 1989; Zinn, Aaronson, & Rosko, 1993). Accordingly, the Health Care Financing Administration (HCFA) has a basic strategy to develop a system of quality indicators (QIs) across the full range of services paid for by the Medicare and Medicaid programs (Gagel, 1995; Jencks, 1995).

Mandated by OBRA 87, MDS data are routinely obtained for all nursing home residents nationwide upon admission to all nursing facilities participating in Medicaid and/or Medicare, at times of significant change in condition of the resident, quarterly, and annually. Several authors have recommended using MDS data to facilitate quality improvement in nursing facilities (Schnelle, 1997; Schnelle, Ouslander, Osterweil, et al., 1993; Spuck, 1992). Data from the MDS are resident-level assessment information that can be aggregated for comparison across units within a nursing home or across nursing homes. As part of the HCFA Multistate Nursing Home Case-Mix and Quality Demonstration Project (NHCMQ), Zimmerman and colleagues at the University of WisconsinMadison have developed a series of MDS-based QIs through a systematic process involving extensive interdisciplinary clinical input, empirical testing, and field testing (Ryther, Zimmerman, & Kelly-Powell, 1994, 1995; Zimmerman et al., 1995).

The most current version includes 30 MDS QIs, measuring such areas as accidents, incontinence, physical function, skin care, cognitive functioning, and behavior (Karon & Zimmerman, 1996). Nationally, 24 of the 30 were implemented by HCFA nationwide in 1999 for use in the nursing home survey and certification process. Initial field tests and MDS QI validation studies indicate that they provide valuable information about specific residents, specific nursing homes, and nursing facilities in aggregate (Gagel, 1995; Karon & Zimmerman, 1996, 1997; Rantz et al., 1996; Ryther et al., 1994, 1995; Zimmerman et al., 1995).

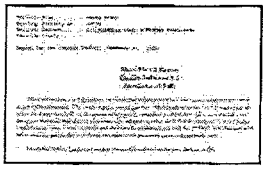
Missouri, the state in which this study was conducted, has been collecting MDS data from nursing facilities since the early 1990s. Working cooperatively with the state's major research university, the state survey and certification agency began analyzing MDS QIs with the intent of providing useful facility-- level reports, based on MDS data, that would assist facilities to improve quality of care (Rantz et al., 1996; Rantz, Popejoy, Mehr, et al., 1997). Plans for comparative MDS QI feedback reports for nursing home providers began several years before the national plans for MDS QI reports that became available to facilities in March 1999.

Methods

Design

Using a three-group randomized experimental design, this study tested whether a quality improvement intervention of comparative quality performance information feedback influenced quality of care delivered and resident outcomes, as measured by MDS QIs. The effect of providing expert clinical consultation to assist facility staff as they interpreted their comparative quality performance information and implemented quality improvement activities also was tested.

Feedback Report



Quality performance information was derived from MDS resident assessment data. MDS QIs were calculated using the methods developed in the NHCMQ (CHSRA, 1995). A key assumption is that MDS QIs can be used effectively by facility staff to improve resident care, if the MDS QI report is easy to interpret and appropriate clinical consultation and support are provided (Rantz, Petroski, Madsen, Scott, et al., 1997; Rantz et al., 1999, 2000). The research team designed and field tested such a report format for the state and this study-the Show-Me MDS Quality Indicator Report (Show-Me QI report).[ii] Special features of the Show-Me QI report include five quarterly longitudinal comparisons of MDS QIs in both table and graphic illustration for each nursing home (see Figure 1). To prepare the report, it was necessary to conduct expert panels to set thresholds to be used in the illustrations to help quality improvement teams target areas of care delivery for further investigation (Rantz, Petroski, Madsen, Scott, et al., 1997; Rantz et al., 2000). Trend lines over time are easy to see and interpret. Comparisons to expert set thresholds are more likely to point to potential clinical problems that can be masked by simple comparisons to statewide averages. A statewide average may be the result of a poor clinical

practice that is accepted as the norm in the majority of nursing homes in the state. Some facilities may falsely interpret that they have good quality because they are "average," when the average practice is really indicative of poor clinical care (Rantz, Petroski, Madsen, Scott, et al., 1997, Rantz, Petroski, Madsen, Mehr, et al., 2000).

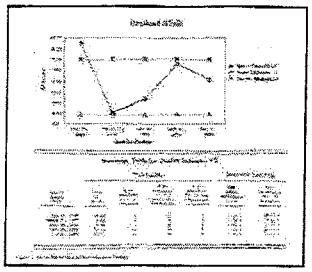


Figure 1.

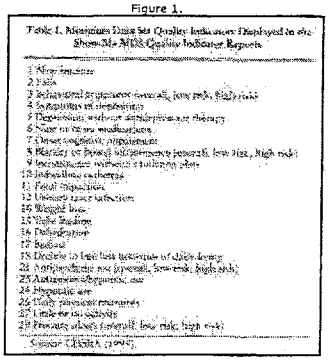


Table 1.

The Show-Me QI reports for this study contained the MDS QIs as defined in Version 6.1 of Quality Indicators for MDS 2.0 Two Page Quarterly from the Center for Health Systems Research and Analysis at the University of Wisconsin-Madison (CHSRA, 1995). Table 1 is a list of the MDS QIs displayed in the Show-Me QI reports that were used in the intervention in this study.

Sample

In Fall 1997, after the Show-Me QI report had been designed and field tested for the intervention, facilities that were transmitting MDS data electronically were recruited to participate in the clinical trial from among all nursing facilities in the state (n = 481). More than 160 volunteered, but not all were transmitting sufficient MDS data to prepare an accurate report for interpretation by a quality improvement team. It was determined that 129 facilities had adequate data to participate; of these, 16 facilities were in remote locations in the state beyond the 4-hour driving limitation for the study.

Therefore, 113 facilities were randomly assigned to one of three groups for the study: 38 facilities were assigned to Group 1 (workshop and feedback reports only), 38 to Group 2 (workshop and feedback reports with clinical consultation), and 37 to Group 3 (control group with no intervention until after the study).

Table 2.

In the two intervention groups there were 17 facilities (9 in Group 1 and 8 in Group 2) that did not attend their training workshop, so they were not able to receive their feedback reports and were excluded from all analyses. Recall that facilities at the time this study was conducted did not have access to MDS QI information without participating in the study. An additional 9 facilities were missing either baseline or follow-up data, so they could not be used in the analysis. After exclusion of these 26 facilities because of failure to attend the intervention workshop or missing data, the analysis is based on 87 facilities: 27 in Group 1, 28 in Group 2, and 32 in Group 3. The resulting groups were of sufficient size for adequate power in planned analyses for treatment effect. Although the sampling unit in this study is the nursing home, it is worth noting that the MDS QI scores of the 87 nursing homes are based on data from 6,381 residents at baseline and 7,385 residents at the oneyear postintervention follow-up.

The 87 nursing homes in the analysis are similar to the nursing homes in the remainder of the state except that the proportion of larger nursing homes in the study is higher than the proportion of larger homes in the remainder of the state. It is possible that larger nursing homes began transmitting data sooner than smaller ones in the state and, therefore, were able to volunteer to participate in the study. Table 2 describes the characteristics of study homes by group assignment. Due to random assignment, nursing homes of varying size and ownership participating in the study were distributed relatively evenly among the three groups. Those excluded from analysis reflected the proportions of participating homes' size and ownership.

Facilities selected for Groups 1 and 2 were invited to send a core group of employees (for example, the administrator, director of nursing, quality assurance coordinator, a staff nurse, and a nursing assistant) to one of the workshops conveniently scheduled in their area. Typically, facility staff who attended were the administrator and director of nursing; in many cases, a staff nurse responsible for MDS completion and/or quality assurance accompanied them. Facilities entered the study in two phases in 1997 and 1998 due to data transmission delays as facilities learned to enter and transmit MDS data to the state survey and certification agency. Data were analyzed for each facility at baseline and one year post-baseline corresponding to the phase of the study in which they entered.

Interventions

An educational program, conducted in regional workshops, was designed for staff from facilities assigned to Groups 1 and 2. The purpose was to teach staff about quality improvement and how to use their Show-Me QI report that they would receive quarterly throughout the study. Content of the workshops included information about MDS QIs, how to initiate quality improvement teams, how to interpret their Show-Me QI report, how to compare themselves to other facilities in the state, and how to implement quality improvement projects targeted at improving resident outcomes measured by the MDS QIs. The staff was encouraged to initiate quality improvement efforts specific to their facility. During the workshops, staff members were given a QI manual prepared by the research team that

outlined specific concurrent monitoring plans for each MDS QI to be used in evaluating resident care, as well as a comprehensive reference list of current clinical practice standards for each (Rantz & Popejoy, 1998). During the workshop they received a copy of their facility's first quarterly comparative feedback ShowMe QI report. The report included a resident roster that listed residents who met one or more of the definitions of the MDS QIs and could potentially have the clinical problems) defined by the indicator. Subsequent quarterly reports were mailed to the administrator and director of nursing in each facility in Groups 1 and 2 who participated in the assigned workshops.

In addition to the educational program and quarterly comparative MDS QI feedback reports, staff from nursing homes assigned to Group 2 were offered access to telephone and/or on-site clinical consultation from a gerontological clinical nurse specialist (GCNS). Use of the GCNS was at the facility's discretion. The overall purpose of the consultation was to assist facilities to interpret their quarterly Show-Me QI report and enable them to make decisions about which clinical issues required further review. Discussions centered on issues related to MDS coding, resident assessment accuracy, and assistance in using the Resident Assessment Instrument (RAI) manual and other RAI reference materials. After coding and assessment issues had been addressed, the GCNS helped facilities identify the clinical problems that were resulting from potentially problematic care practices. In later consultations, assessment of resident problems using RAI resident assessment protocols (RAPs), use of clinical practice guidelines, documentation of care, and care planning were key issues that were discussed.

At the educational workshop, the GCNS offered the nursing homes in Group 2 consultation on site and/or by telephone. After the workshop, the GCNS called each of the 28 nursing homes in Group 2 to ask how they were doing with report interpretations and quality improvement efforts and offered to come for a site visit. Staff from 15 of the nursing homes had one or more on-site visits, as well as telephone calls. Staff from 11 of the nursing homes used telephone consultation only, including conference calls with multiple staff members. Only two homes were not interested in further telephone calls or a site visit. After each telephone call or site visit, homes were encouraged to call the GCNS with further questions. Due to the lengthy travel distances required, phone consultations between visits were encouraged. However, homes that were interested in making practice changes generally desired more site visits. Staff from 10 of the homes in Group 2 were quite receptive to GCNS offers and used on-site consultations to work with groups of their staff several times during the study. These groups typically included the director of nursing, quality assurance coordinator, nurse responsible for MDS completion, other licensed staff, and a few nursing assistants. Staff from the other Group 2 homes (n = 18) seemed interested, but had only one or no on-site consultation and only limited telephone consultation.

Group 3 facilities, the control group, received no information until the end of the study. At that time, they received the same educational program as Groups 1 and 2, the QI study manual, and began receiving their quarterly Show-Me QI report. Additionally, those who were assigned to Groups 1 and 2 who were "no shows" for the intervention workshops were invited to attend these sessions and receive materials and quarterly reports at the end of the study.

Analysis

Outcome measures for this study were selected from the MDS QIs that were included in the feedback report to participating facilities. Thirteen MDS QIs were selected as outcome measures because they are particularly sensitive to clinical intervention by nursing home staff and have sufficient variation in scores to detect changes, as described in a previous study (Rantz et al., 1996). At the facility level, the MDS QIs are calculated as the proportion of residents positive for a particular condition on a particular

occasion.

Summary statistics were examined for the outcome measures that included means, standard deviations, and medians (SOth percentile). Some of the MDS QI scores have highly skewed (asymmetric) distributions. In such cases the sample median is a more appropriate measure of central tendency than is the sample mean. In cases where the mean and median are strikingly different, the median is generally preferred.

The primary analysis employed logistic regression methods to perform the equivalent of a two-factor analysis of covariance for each MDS QI. The independent variables were Group (three levels) and Time (two levels, baseline and one year) and the interaction of Group and Time; the dependent variables were the MDS QI scores. Because MDS QI scores may be affected by resident case mix, an adjustment for case mix was included as a covariate in each analysis. The case mix variable is the facility average case mix index derived from Version 5.12 of the 44-group RUG-Ill algorithm using the hierarchical classification method and HCFA case mix index set BO (Fries et al., 1994; Health Care Financing Administration, 1998).

Each regression model included a term for the interaction of Group and Time. In the presence of significant ($p <= .05$) interaction, further analysis is required because the main effects of Group and Time are not directly interpretable. Statistically significant interaction suggests that the intervention and control groups behaved differently over time, which is what one would expect to see with an effective intervention. Significant interactions were followed by prepost comparisons to determine which groups changed from their baseline values. Because repeated observations (pre- and postintervention) on the same facility are not independent, the method of generalized estimating equations was used to calculate standard errors.

The primary analysis assumed an intention-totreat principle in that the analysis is based on the facilities as they were randomized to the three groups. The analysis does not incorporate any measure of the facilities' efforts to utilize the intervention resources beyond attending the training sessions. Particularly, some Group 2 homes made extensive use of the clinical consultant, but others did not draw on this resource. A secondary analysis was performed to examine a subset of Group 2 nursing homes that were intensively involved in the intervention. Using the same methods as in the primary analysis, this intensive intervention group was compared with the control group to detect changes in outcomes from baseline to one year (Group X Time effects). The intent of this secondary analysis was to examine if a more intense intervention might produce any impact on quality. Given the small sample size and the exploratory nature of this analysis, effects were considered to be "suggestive" when $p <= .10$. Significant ($p <= .10$) interactions were followed by pre-post comparisons to determine which of the groups changed from their baseline values. Line graphs of the group medians were constructed to better appreciate fluctuations over time and possible Group x Time interactions to better understand group quality performance differences. Field notes of all consultations, both on site and telephone, by the GCNS were content analyzed. The numbers of telephone and on-site consultations for each facility were tabulated; the clinical content discussed was categorized as well as the facility staff who participated in the consultation.

Results

Primary Analysis

Summary statistics for each outcome are presented by the factors Group and Time in Table 3. With

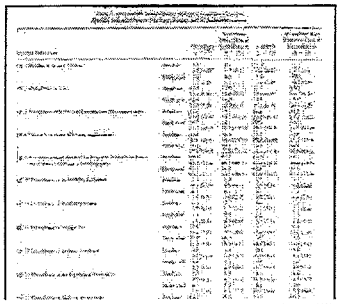
respect to these factors, there were only two statistically significant findings from the primary regression analyses. The main effect for Time was significant ($p < .0001$) in the analysis of MDS QI 6 (9 or more medications). Neither the Group effect nor the Group X Time interactions were significant for MDS QI 6, indicating that while there were changes from baseline, the changes were consistent across the three groups. Scores for MDS QI 6 increased (worsened) nearly uniformly from baseline for all three groups over the course of the study. The other statistically significant finding was in the Group x Time interaction ($p = .03$) for MDS QI 27 (presence of little or no activity). Pairwise comparisons revealed significant declines from baseline for both intervention groups but not for the control group.

Although the results were not significant at the .05 level, summary statistics suggest an intervention effect on MDS QI 9 (prevalence of occasional or frequent bladder or bowel incontinence without a toileting plan). As can be seen in Table 3, there were clinically meaningful changes from baseline in both intervention groups, whereas MDS QI 9 scores were essentially unchanged in the control group. The lack of statistical significance may be due to the high degree of variability in the scores for MDS QI 9 relative to the sample size of this study. Note that in some cases the standard deviations are nearly as large as the mean or median scores.

Secondary Analysis

To further explore the potential for this type of intervention, a secondary analysis was performed in which a subset of the Group 2 nursing homes that were intensely involved with the intervention ($n = 10$; 35% of Group 2 nursing homes) were compared to Group 3 (control). These nursing homes utilized on-site and telephone clinical consultation from the GCNS more extensively, that is, more than twice on site and more than twice with telephone consultation. Demographics of ownership and bed size of this subset of Group 2 were reflective of Group 2 and the other study groups; six were 61-120 and four were 120+ bed-size; two were governmental, two were nonprofit, and six were for-profit nursing homes.

Table 3 displays the summary statistics of the workshop and intensive consultation group ($n = 10$). Regression results for the secondary analysis are presented in Table 4. Using the $p <= .10$ criterion, the Group X Time interaction was significant in the analysis of the following MDS QIs: MDS QI 2 (falls), MDS QI 3 (behavioral symptoms), MDS QI 27 (little or no activity), MDS QI 29 (pressure ulcers), and MDS QI 29 low risk (pressure ulcers in low-risk residents). For each of these five outcomes, pairwise comparisons revealed that MDS QI scores declined (improved) from pre- to postintervention in the intensive consultation group and remained unchanged in the control group.



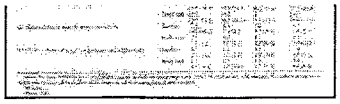


Table 3.

Other statistically significant (p <= .10) results include a significant main effect for Time in the analysis of MDS QI 6 (9 or more medications) with nearly uniform increases from baseline in both groups. A similar result was seen in the primary analysis.

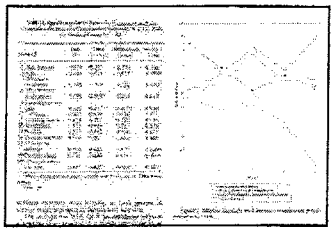


Table 4.
Figure 2.

The analysis for MDS QI 9 (incontinence without a toileting plan) resulted in a highly significant (p = .007) Group effect and a marginally significant (p = .08) Time effect. On this outcome the control and intensive intervention groups were not comparable on their baseline measurements. The baseline median MDS QI score for the control group was 63.3 versus 39.7 for the intensive intervention group. Due to the small sample size the interaction term is not significant (p = .13); however, summary statistics suggest that the intervention group improved from baseline (39.7 vs 23.0) and that the control group's scores were essentially constant (63.3 vs 62.5).

Finally, on MDS QI 26 (physical restraints), there was a significant (p = .06) Group effect. On this MDS QI the control and intervention groups were slightly different from each other at baseline and postintervention, but neither group showed significant changes from their baseline values.

To understand these differences in MDS QIs with suggestive Group x Time interaction results, the median scores for each quarter in the study were used to construct line graphs for Group 1 (workshop only and feedback reports; n = 27), Group 2 intensive consultation (workshop, feedback reports, and intensive on-site GCNS consultation; n = 10), Group 2 limited consultation (workshop, feedback reports, and limited on-site GCNS consultation; n = 18), and control homes (n = 32).

Line graphs in Figures 2 and 3 visually reveal trends in improvement in the intensive consultation subgroup of Group 2 that sought the consultation of the GCNS for MDS QI 2 (falls) and MDS QI 29 (pressure ulcers).

Field Note Analysis

Field notes kept by the GCNS of all contacts with the nursing homes assigned to Group 2 were analyzed to understand the content of the consultations. Those nursing homes that sought the

consultation support most often used quality assurance teams that were already in place in their facilities to review their Show-Me QI report. All MDS QIs and the MDS definitions were discussed in depth. After they understood the MDS QIs and definitions, they selected indicators for further examination in their facility. Most facilities used a combination of their knowledge of problem areas in their nursing home and high MDS QI scores (indicating a potential problem) to make a decision about which care delivery process to begin examining. Often facilities would have to correct MDS assessment and coding problems and then reevaluate an indicator to determine if it was an actual problem or an MDS coding problem.

In subsequent site or telephone consultation visits, MDS QI scores were discussed and resident care was explored in depth. When appropriate, specific interventions to try with residents were discussed. Facilities were encouraged to address clinical practice systematically, using the quality monitoring plans provided in the study manual.

Analysis of field notes revealed that staff from most of the 10 nursing homes decided to focus on resident falls and pressure ulcers as their first projects. The GCNS provided the latest clinical information about these topics. All homes were encouraged to use RAIs such as the Risk Assessment for Falls Scale II (RAFS II) (Maas, 1991) and the Braden Scale for pressure ulcer risk assessment (Baharestani, 1999; Bergstrom, Braden, Boynton, & Brunch, 1995; Panel on the Prediction and Prevention of Pressure Ulcers in Adults, 1992). Facilities were told how to order and were encouraged to use clinical practice guidelines prepared by the American Medical Directors Association on the topic of falls and urinary incontinence (Falls and Fall Risk Panel, 1998; Urinary Incontinence Panel, 1996) and the Agency for Health Care Policy and Research guidelines for pressure ulcers and incontinence (Panel on the Prediction and Prevention of Pressure Ulcers in Adults, 1992; Urinary Incontinence Guidelines Panel, 1992). Facilities were also encouraged to put in place documentation systems for those problems that would allow the clinical staff to identify readily patterns in falls and changes in clinical conditions increasing residents' risk for the development of pressure ulcers.

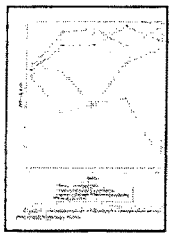


Figure 3.

Analysis of field notes for the 18 nursing homes in Group 2 who decided not to use the consultation of the GCNS revealed a variety of reasons stated for the refusal of a site visit, but short staffing, staff turnover, or other pressing issues were frequently cited. Generally, staff would say they had received their Show-Me QI report, that they were taking care of things themselves, and that they really had no questions or need for the site visit.

Discussion

Using a three-group randomized design, with the exception of MDS QI 27 (little or no activity), we

found no significant differences between the groups assigned to two quality improvement interventions, one with quality improvement information and MDS QI comparative performance reports, one with the same information and reports with additional consultation support of a GCNS, or the control group. However, upon closer examination, outcomes of residents in nursing homes that actually took advantage of the clinical consultation of the GCNS demonstrated trends in improvements in QIs measuring falls, behavioral symptoms, little or no activity, and pressure ulcers (overall and for low-risk residents). It appears that only those nursing homes that sought the additional intensive support of the GCNS were able to effect enough change in clinical practice to improve resident outcomes significantly. By separating those nursing homes that were assigned to the additional consultation group but did not use the consultation extensively, we were able to detect some improvement changes in outcome measures.

When the study was designed, participation was viewed as voluntary. However, inquiries about the consultation seemed to indicate that facilities assigned to Groups 1 and 3 were disappointed that they did not have access to consultation support of the GCNS. Therefore, it was surprising to us that more than half of the nursing homes assigned to Group 2 did not take full advantage of the free consultation offered during telephone follow-up. Reluctance to participate may have been a function of competing priorities for nursing home staff who are busy with moment-to-moment issues of care delivery. Stopping to evaluate clinical practices and design improvements may seem overwhelming or simply not a priority for some. Perhaps the number of homes accepting support would have been higher had the intervention been designed in such a way as to obtain agreement from participants that, if assigned to the clinical consultation group, they would agree to at least quarterly site visits by the GCNS. Our approach of telephone contact and offers for onsite support seemed to be strong enough to involve about a third of the nursing homes in Group 2 intensively. Something stronger is needed to encourage the remaining two thirds.

The significant improvement in MDS QI 27 (little or no activity) for both intervention Groups 1 and 2 is likely due to heightened awareness about accurately coding the MDS items used in this indicator. The importance of accurate coding of the MDS items was reinforced in the workshops and teaching materials for the intervention groups. Alternatively, it is possible that more activities were planned and carried out for residents, and that coding changes reflect the increase in activity.

Travel distance is an issue for on-site consultation. For consultation to be effective, travel distances must be reasonable so that the consulting staff can make appointments, travel to the nursing homes, and have adequate time for discussion with staff and on-site observation assistance with clinical problems. If at all possible, consulting staff located within regions of a state would be beneficial to a study such as this. Some appointments were frustrating because situations would occur that prevented the scheduled site visit at the last moment, after the consultant had traveled 2 or more hours to meet with staff. Finding consultation staff close to the area would reduce travel time and provide more options for scheduling site visits.

The changes in fall and pressure ulcers scores for the nursing homes that used intensive consultation is most likely related to several things. There are clear standards of practice on both of these issues. Both problems are sensitive to interventions at the resident level. For example, often simple discussions with the GCNS about different approaches enabled facilities to make changes in interventions on plans of care that reduced fall rates. The GCNS encouraged all nursing homes to use RAIs for falls and for pressure ulcer development. Facilities were encouraged to use clinical practice guidelines about fall and pressure ulcer prevention and treatment. Staff could grasp the clinical changes needed for better management of these clinical problems.

The increase in scores for all groups for MDS QI 6 (9 or more medications) has some possible clinical explanations. This MDS QI was discussed in facilities where it was high (indicating a problem). The increase over time may indicate an increase in resident acuity. It may also be a reflection of changes in practice guidelines that have occurred in the last 2 years that now recommend multidrug regimens for some conditions. For example, managing severe congestive heart failure often routinely now includes several medications (Bottorff, 2001; Feldman, 2001). Apparently, some broad practice changes or increases in acuity are affecting nursing homes across the state and were detected across all groups in the study.

The overall message of this study is clear: To effect improvement in resident outcomes, simply providing comparative performance feedback is not enough. There may be some exceptional nursing homes that can independently put a team together to examine and interpret comparative performance feedback reports such as the one used in this study or the one now available for every nursing home in the country from the federal MDS data system. There may be some exceptional places with teams that can plan quality improvement data collection, interpret results, and plan actions to improve their clinical practices. However, the results suggest that active clinical consultation support in the context of a ready environment is needed to help staff in most nursing homes conduct quality improvement activities that will effect improvement in resident outcomes. This is consistent with the findings of two recent comprehensive research reviews that found that performance can be affected to a small or moderate degree with feedback, whereas other interventions to increase the effectiveness of feedback have yet to be adequately tested (Thomson O'Brien et al., 2000a; 20006). Similarly, Solberg, Brekke, Fazio, and colleagues (2000) concluded that multiple strategies are needed to successfully change health care provider practice patterns and influence them to incorporate clinical guidelines. Although these and other studies are not nursing home-based, it appears that enhancing feedback interventions with additional strategies may improve effectiveness and actually facilitate a positive change in clinical practice by health care providers.

It also appears that while we can generate a myriad of quality indicator information for teams to examine, they can only focus on one or two areas for improvement at a time. For those who are experienced in quality improvement, this will come as no surprise. There is a limit to the time and energy of staff that can be harnessed to implement and sustain change. Selecting a limited number of topics for further examination, collecting data about current care practices, interpreting the data collected, planning actions, educating staff about necessary changes, and following up to see that the changes in practice actually happened as planned, takes time. The problems of staff turnover and too few staff to participate in a quality improvement team also interfere with the number of areas that can be addressed, changed, and sustained as an accepted clinical practice.

Nursing homes participated in the study for a full year (four quarters of feedback reports) with the quarter before the study as baseline. We anticipated that staff from participating facilities would need the first quarter to select topics and begin their data collection to examine problem areas further. Action plans could be implemented in the next quarter. Because residents are assessed every quarter using the MDS instrument, we anticipated that changes in their outcomes could be detected in the reassessment processes during the third and fourth quarters. This timeline appears to have worked for those nursing homes that did embrace the quality improvement process. For the others in the study, perhaps a longer period of time is needed for staff to implement changes in practice and to detect changes in resident outcomes in quarterly assessments.

This view is supported by the fact that correcting inaccurate MDS assessments takes time. When staff

in nursing homes first came together to examine their Show-Me QI report, much time was devoted to explaining the definitions of the MDS QIs and clarifying MDS coding. Because most nursing homes hire a nurse RAI coordinator to be responsible for timely and accurate completion of the MDS, turnover in this position is devastating to the accuracy of MDS coding. Many teams in the nursing homes participating in the study were confronted with staff turnover in this key position that compounded their efforts to correct coding errors so that they could more accurately evaluate MDS QI scores. Because residents are reassessed with a version of the MDS every quarter, it takes one quarter to see the changes of the reassessment in the next MDS QI report. It was not unusual for some teams to work for two or three quarters to correct coding errors, especially if there was staff turnover or the interdisciplinary care planning team was not functioning well. Some teams seemed to never get as far as we had hoped they would into the quality improvement process that focused on clinical care delivery changes. They seemed to be mired in the MDS assessment process and coding issues.

Most of the participating nursing facilities did not have well-developed quality improvement programs with systems to support implementing changes needed in care delivery. While staff seem to be able to alter care for short periods of time for some residents, there seems to be little systematic change that would broadly improve quality of care throughout the facility. It is difficult to convince staff to use continuous quality improvement principles. Most nursing homes do not use specific teams to address problems, nor do they report accomplishments. Many facilities continue to only use the quality assurance measures found in the OBRA regulations. In others, there is a crisis management approach, and problems are not addressed until they are so severe that they cannot be ignored. These findings may be related to the small numbers of professional staff who work in nursing homes. There may simply not be enough professional staff to have the critical mass needed to commit time and energy to quality improvement methods. Alternatively, it may be a function of leadership not embracing quality improvement as a way to improve care and services to residents. Nursing homes that did have continuous quality improvement systems in place were often part of larger health care systems that have ongoing support from a quality improvement expert. We noticed that large and complex facilities also are more likely to have well-organized quality improvement processes. Those homes are structured in such a way that there are multiple nurses responsible for the RAI process, as well as a quality manager on staff to support care delivery improvements.

While it would seem that simply educating staff about quality improvement and how to implement quality improvement programs should improve resident outcomes, it is probably much more complex. Findings from a recent quality improvement study in primary care clinics found no effect from quality improvement training, consultation, and networking to help the teams of staff develop and implement prevention services (Solberg, Kottke, Brekke, et al., 2000). Similarly, Goldberg and colleagues (1998) found in a randomized clinical trial that quality improvement teams were generally ineffective in improving guideline compliance and primary care clinical outcomes of hypertension and depression. Quality improvement strategies that actually affect resident outcomes in a positive way apparently involve more than education about quality improvement methods. It is likely that the context of care--with its myriad factors such as leadership, performance expectations, organizational culture, staff mix, and others-will impact the success (or failure) of quality improvement efforts. Clinical consultation with a GCNS does appear to be effective and capable of improving resident outcomes. Our results of improved resident outcomes in the nursing homes that sought additional support from the GCNS are strikingly similar to Ryden and colleagues (2000). In that study, weekly consultation of 10 hours of a GCNS did significantly improve outcomes of pressure ulcer development, incontinence, and aggressive behavior. Although more evaluation of effectiveness is clearly needed, it appears that ongoing GCNS consultation may be an important strategy to influence and improve clinical care and subsequently improve resident outcomes in nursing homes.

Limitations of this study are that we conducted it in a single state, so regional variations were not addressed. When we implemented the intervention we did not provide feedback reports to the nursing homes that failed to attend the required workshops. Therefore, those facilities were excluded from the analysis, so we could not use them in a complete intention to treat analysis that some may favor in a field study such as this. The subgroup analysis needs careful interpretation because the subgroup that used intensive consultation was a self-selected group. However, the results suggest that more intensive interventions may be effective to impact resident outcomes. Using feedback to support quality improvement is a complex intervention that may require substantially more effort. Further research is needed to explore the amount of consultation support as well as the organizational context of care that is necessary for a quality improvement feedback intervention to positively affect resident outcomes. Another potential limitation of this study is that our outcome measures rely on the accuracy of MDS data. Although reliabilities of MDS data are reported as good, particularly for those areas used as outcomes in this study (fasten, Lawton, Parmelee, & Kleban, 1998; Hawes et al., 1995; Morris et al., 1997; Phillips, Chu, Morris, & Hawes, 1993), one must always be concerned about data accuracy when using data collected for clinical research purposes.

Change in any organization is difficult. Nursing homes are no exception. Researchers working with nursing home staff to improve resident continence have repeatedly found that it is extremely difficult to maintain toileting programs, even those that are well designed and found to be effective (Ouslander et al., 1995; Schnelle, Newman, White et al., 1993; Schnelle, Ouslander, Osterweil et al., 1993; Specht, Bergquist, & Frantz, 1995). Follow-through on recommendations for fall reduction has met with the same difficulty (Ray et al., 1997). Follow-through to implement and sustain change is necessary for quality improvement. In nursing homes where there is clear administrative support and expectation that care innovations be planned and effectively implemented, changes in practice occur (Levine, Marchello, & Totolos, 1995; Rantz & Miller, 1989; Specht et al., 1995; Specht & Lyons, in press). If we are to implement true quality improvement programs in nursing homes throughout the country, there must be commitment from leadership within each facility that quality improvement is important and encouragement for staff to participate in quality improvement activities.

For states designing statewide strategies to encourage quality improvement in nursing homes using MDS QIs, the message is clear. Nursing facilities need more than feedback reports to improve resident outcomes. Clinical expertise is essential. Quality improvement and team development expertise is essential as is administrative support and commitment to excellence in clinical practice. Somehow, these ingredients must come together for clinical practice changes to be implemented and sustained that will improve resident outcomes. Clinical consultation provided by an advanced practice gerontological nurse appears to be an effective strategy that can be used, given administrative encouragement to use the consultation.

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IV.

Trade-Offs in Evaluating the Effectiveness of Nursing Home Care Shaughnessy

10

Trade-offs in Evaluating the Effectiveness of Nursing Home Care

Peter W. Shaughnessy and Andrew M. Kramer

INTRODUCTION

In this chapter, our ongoing evaluation of the Robert Wood Johnson Foundation's Teaching Nursing Home Program is used to review issues and tradeoffs entailed in evaluation research in the long-term care field. The intent is to discuss several issues by illustrating them in the context of the teaching nursing home evaluation study, thereafter selecting and elaborating on certain key points as relevant considerations in long-term care evaluation research in general. The final section involves considerations introduced by virtue of affiliations of operational health care programs with academic institutions.

EVOLUTION OF THE EVALUATION STUDY OF THE TEACHING NURSING HOME PROGRAM

Background

Despite widespread agreement that serious quality of care and quality of life problems exist in nursing homes in the United States, consensus has

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not emerged on the specific remedies for these problems. Several approaches to improve the quality of care and quality of life for nursing home residents are currently under consideration or exist in experimental stages in various locations throughout the country. The Teaching Nursing Home Program (TNHP) of the Robert Wood Johnson Foundation (RWJF) is one such approach. The University of Colorado evaluation study of the TNHP, cofunded by RWJF and the Health Care Financing Administration (HCFA), began in November, 1983. The TNHP demonstration was completed in mid-1987, with the evaluation study scheduled for completion about one year later.

From the outset, the TNHP demonstration was targeted at determining whether the approach could improve the quality of care provided to nursing home patients, and, to some extent, whether the approach is cost-effective. In view of the possibility that only certain practices or program attributes might be effective or cost-effective, the evaluation was structured to determine whether there were selected or essential features of the program which would merit further consideration. At this writing, the design and data collection stages of the evaluation study are nearly complete, although the final analyses have not yet commenced.

In considering the effectiveness of a program aimed at enhancing the quality of care provided to nursing home residents, a key decision rests with the selection of measures of effectiveness. Initially, the major intent of the evaluation study was to assess the program's clinical outcomes. This is, the extent to which the affiliation between schools of nursing and nursing homes directly benefitted patients was most pertinent to the evaluation.

Even with the relative dearth of well-established and thoroughly researched patient outcome measures in the long-term care field, the conceptual appeal of using outcomes as indicators of the effectiveness of nursing home care cannot be denied. At the same time, if the TNHP were found to enhance patient outcomes, then the means by which it did so, i.e., the service regimens and treatment patterns, would be important to ascertain. Given the state of development of outcome measurement in the long-term care field, exclusive reliance on patient outcomes must be considered unduly narrow for comprehensive evaluation. This reliance would be problematic, especially if enhanced outcomes were a long-term effect of the program, i.e., occurred only several years after the program was in place. Such a phenomenon could not be detected by monitoring outcomes during the first several years of the program's existence, but might potentially be detectable in a shorter-run analysis of changes and improvements in the provision of services to nursing home patients. Consequently, striking a balance between process and outcome measures of quality in evaluating the TNHP was judged appropriate and necessary.

In assessing effectiveness of a program such as the TNHP, offsetting costs as well as confounding factors were considered. Thus, issues related to the cost of potentially improved effectiveness and, to the extent possible, the replicability of such effectiveness in other (similar) settings must be addressed. With respect to replicability, the evaluation study was designed to control as well as possible for factors or covariates which might uniquely influence measures of effectiveness at the TNHP sites relative to comparison sites. One of the most important sets of confounding factors is subsumed under the general category of case mix. Since the study involves patients from Teaching Nursing Homes (TNHs) and comparison sites, it was desirable that the TNH and comparison patients be as similar as possible. The selection process for the comparison sites, to be discussed shortly, was structured with this objective in mind. Nonetheless, analytic methods were also designed to further compensate for case mix differences in view of the likelihood that the sampling and selection procedures would not be totally adequate for selecting similar TNH and comparison patients. Further, case mix changes over time would first be analyzed as a possible program effect. Thereafter, case mix indicators will be assessed as potential confounding factors to adjust for in examining effectiveness.

From the outset, the five primary questions of concern on the evaluation study have been:

1. Did case mix characteristics of the patient population served by nursing homes participating in a TNHP change after the affiliation was established?
2. Is the program capable of enhancing outcomes, especially discharge to independent living and avoidance of hospitalization, for patients in TNHs relative to patients in nursing homes with no funded teaching affiliation?
3. Does the program result in improved delivery of services and care to specific types of patients in TNHs relative to similar patients in nursing homes with no teaching affiliation?
4. Do the potential benefits of the TNHP approach outweigh any increased cost that may be attributable to the program?
5. What can we learn from the program that might:
   a. Improve nursing home care nationally?
   b. Be transported directly to other nursing homes?
   c. Be of value in health systems planning and regulation?
   d. Assist in restructuring reimbursement for nursing home care?
   e. Shape and strengthen mutually beneficial affiliations between nursing homes and schools of nursing?

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In view of the relatively small number of facilities and even smaller number of geographic areas included in the demonstration, the evaluation was regarded as a feasibility study of the teaching nursing home approach. As such, it was primarily directed at assessing whether the approach was of potential value in improving the quality of care to patients in certain types of nursing homes. The patient population from which the TNHP residents were selected (e.g., largely patients in nonprofit facilities, slightly above average in Medicare coverage, etc.) clearly does not encompass all nursing home patients in the United States, nor is it intended to do so.

As originally designed, the evaluation study was targeted at assessing effectiveness almost exclusively in terms of changes in patient status. As such, the primary effectiveness measures were to be patient-level outcome measures such as change in the presence and grade of decubitus ulcers, changes in functional abilities (e.g., dressing, bathing, incontinence), and changes in the presence and the severity of various types of infections (e.g., respiratory infections and urinary tract infections). In the research design stages of the evaluation, however, it was decided that outcome indicators based on individualized patient status measures were less appropriate from a policy perspective than broader utilization outcome measures such as discharge to independent living and avoidance of hospitalization. Concern surfaced that change in patient status attributable to the TNHP might be sufficiently marginal, nondetectable owing to measurement error, or sufficiently difficult to translate into cost, so as to render the evaluation of questionable utility in an overall policy context. Consequently, the evaluation was refocused on major utilization outcomes that translate more directly into cost (such as decreased hospitalization rates) or into clearly understood desirable outcomes (such as discharge to independent living). The study was therefore redesigned and continued to evolve under the general principle that policy relevant effects, treatments, and costs should receive primary attention.

As the study evolved, it became clear that measures of effectiveness based exclusively on utilization outcomes would also be inadequate, although a return to the highly specific indicators of patient status would not be appropriate. Two other types of effectiveness indicators are therefore being employed. First, an effort will be made to assess whether TNHs have significantly better treatment regimens or service programs (that are attributable to the TNHP) relative to comparison nursing homes. Second, for selected patient groupings changes in patient status will be monitored on a monthly basis for three months. In addition, changes in status between admission and discharge, and between admission and six months after admission, will be examined as

outcome measures. In all, although not explicitly stated as a guiding principle at the outset, the study approach was refined by weighing the relative ability of competing methods in alternative substantive areas to shed practical light on quality questions. The five originally stated objectives persisted throughout the period of refining the study approach.

Comparative and Temporal Dimensions

The absence of adequate baseline data during the pre-TNHP period eliminated the possibility of a rigorous before/after or pre/post study. Further, a controlled study based on randomized trials was not possible. Therefore, the study approach involves two fundamental comparisons. First, TNHs are being contrasted with comparison nursing homes (CNHs). Second, despite the constraints preventing a rigorous pre/post study, certain attributes of the performance of TNHs during the demonstration period are being compared to similar attributes before the demonstration period in 1981 and 1982. Since it is necessary to collect data retrospectively for this second comparison, its utility is regarded as supplemental relative to the TNH/CNH comparison which will be based on prospectively gathered data. Certain comparisons of performance during the early and late stages of the TNHP will also be conducted in this context. Pre/post comparisons will be conducted for both TNHs and CNHs for selected utilization outcomes and case mix indicators. Trend data on CNHs will be useful in adjusting the pre/post TNHP differences for extant trends which were occurring over time independently of the TNHP, such as case mix changes owing to Medicare's Prospective Payment System for hospitals.

The most important comparisons will be between patient groups pooled across facilities. For example, patients from the eight TNHs selected for the primary data collection will be pooled for purposes of comparing outcomes, services, costs, and case mix with a group of CNH patients obtained by pooling patient-level data across the eight CNHS in which primary data are being collected. Analogously, patient-level data from the eight TNHs (or CNHs) will be pooled across facilities to compare basic casemix and certain utilization outcomes on a pre/post basis in TNHs (or CNHs).

Eight TNHs were selected from the total of 12 (one of the 11 schools of nursing was affiliated with two nursing homes) owing largely to budgetary constraints. The TNHs selected were those with the highest admission rates and/or shortest lengths of stay. This decision was made in view of the increased policy importance associated with shorter stay patients owing to earlier discharge from hospitals under PPS and to maximize the potential number of patients in the prospective admission

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sample to be discussed shortly. Initial consideration was given to selecting twice as many CNHs as TNHs, but the logistical burden of increasing the number of sites would have lowered the patient-level sample sizes. The CNHs were chosen to be as similar as possible to the TNHs in terms of their *group profile* on ownership, freestanding versus hospital-based affiliation, percentage of Medicare patients, percentage of Medicaid patients, length of stay, occupancy rate, urban/rural location, and state.

The TNHs and CNHs were not matched on a one-to-one basis owing to the difficulty of selecting a similar facility for each TNH in its own state. Nevertheless, state was used as a group profile variable because Medicaid reimbursement systems, regulatory practices (both of which vary at the state level), and other state-level factors can exert considerable influence on nursing home behavior. Since a one-to-one match was not possible for these variables, a profile match was the most reasonable way to proceed. The intent was to attempt to insure that the group of CNH patients was cared for in as similar an environment as possible to the group of TNH patients. The group profile variables were selected from a larger list of profile variables on the basis of: (1) their hypothesized influence on quality of care and/or costs; and (2) the extent to which data were available on each variable for potential CNHs. Several of the variables are in fact case mix surrogates (e.g., percent Medicare, percent Medicaid, length of stay, and freestanding versus hospital based), some are related to cost (ownership, freestanding versus hospital based, occupancy, and urban/rural location), and others were hypothesized to be related to significant behavioral incentives or patient care mores (urban/rural location and state).

In general, the facility-level matching procedure yielded a group of CNHs that were highly similar to the TNHs as a group (on the matching variables). The fact that the patient rather than the facility constitutes the primary unit of analysis in the study, however, required that the profiles of facility characteristics be examined at the patient level. Consequently, patient-level profiles for the facility characteristics were examined by disaggregating the facility-level variables to the patient level for the prospective samples employed to collect longitudinal patient-level data during the primary data collection period. Since the patent-level sample sizes were not the same for each facility, this yielded different mean values for the profile variables relative to those based on considering each facility equally (i.e., with equal weights).

The magnitude of these mean differences at the patient level (i.e., mean differences in facility characteristics considering the patient as the unit of analysis) was then taken into consideration in developing an algorithmic approach to determining sample sizes within each facility in

order to minimize the overall facility profile differences between TNHs and CNHs at the patient-level. Although the facility-level profile match and the algorithmic approach to specifying sample sizes at the facility level resulted in a substantial increase in similarities between TNH and CNH patients in terms of facility-level characteristics (over a random or less thorough selection of CNHs and sample sizes), significant and in some cases moderately substantial differences in facility-level characteristics still persisted in the patient-level samples, requiring covariate adjustment methods during data analysis.

Measures Involved

Comparisons involving case mix before and after the TNHP will be conducted using such indicators as Activities of Daily Living (ADLs such as feeding and bathing), indicators of cognitive/behavioral status (such as confusion/disorientation and wandering behavior), nursing/medical problems (including pressure sores, urinary tract infections, etc.), and demographic/social supports (such as age, marital status, and visitors). In addition to their use in comparing case mix before and after the TNHP, such variables will be employed as covariates in examining potential TNH/CNH differences in outcomes, costs, and service or process quality measures.

Service data will be used in two ways. First, descriptive information on services provided to specific types of patients (belonging to certain strata) will be used to compare TNH and CNH patients on the manner in which services are provided, including both the frequency of services provided as well as the providers of services. In this regard, information has been obtained on the frequency and provider of services such as timed voiding for incontinent patients, catheter irrigation for patients with indwelling catheters, and repositioning for bedfast patients. Second, for selected categories of services, process quality scores ranging between 0 and 100 will be calculated. The process quality scores will be calculated in a manner analogous to that described elsewhere.[11] Such scores are calculated to reflect increasing quality of service provision, up to 100% if services are provided to perfect accord with standards for care specified by clinical experts. Selected process quality scores will be calculated for individual services and groups of services provided to specific types of patients.

Outcome measures are divided into the categories of utilization outcomes and patient status outcomes. The more important utilization outcome indicators consist of discharge to the community (independent living) and inpatient hospitalizations. The costs associated with utiliza-

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tion outcomes are computed on the basis of average costs of the facility. For example, assuming a patient was discharged to independent living after four months, the total institutional cost would be calculated by adding the nursing home and hospital costs for the patient over the four-month period.

Patient status outcomes consist of actual changes in patient status indicators such as changes in ADLs, mobility, decubitus ulcer formation/resolution, and other selected chronic conditions. Outcome, cost, and process quality analyses will be conducted using different groups or strata of patients. The groups will be defined using three types of patient-level stratifying factors: (1) discharge status; (2) time period; and (3) casemix or patient status indicators. For example, all TNH and CNH patients who are ambulatory, independent in feeding, and have no severe mental/behavioral disorders (case mix stratifiers) will be compared in terms of length of stay until discharge to independent living. This patient group will include both patients who were discharged and those who were not discharged (no discharge status stratifier), and will pertain to the time from admission until either discharge or the end of the data collection period for the study (the time period stratifier).

As a second illustration, TNH and CNH patients will be compared using hospitalization rates during the six-month period following admission (the time period stratifier), not restricting the analyses to any particular types of patients in terms of patient status (i.e., no case mix stratifiers), and by restricting the analyses only to those patients who remain institutionalized over the entire six-month period (discharge status stratifier). In fact, in view of the data collected, the time period stratifier could be 6 months, 12 months, 18 month, or 24 months. In this illustration, the discharge status stratifier could also be removed, thereby adding patients who are discharged. Since hospitalization data were collected through community followup only for patients discharged within six months of admission, these analyses would be restricted to the first six-month period.

KEY ISSUES OFTEN INVOLVED IN TRADE-OFFS IN LONG-TERM CARE EVALUATION RESEARCH

Attributing Patient Outcomes to Treatment/Services

Not only is it difficult to predict the course of many long-term care problems and diseases, but it is also difficult to discern whether changes in patient or disease status are due to care provided rather than a host of other patient-specific or environmental factors. Regression or lack of

progress in a patient recovering from surgery, for example, may be due to inadequate nursing home care or it may be due to factors such as: (1) a medical or postsurgical complication which has nothing to do with care received at the nursing home; (2) a functional limitation that impedes patient recovery; (3) an emotional or cognitive disorder; or (4) inadequate hospital or physician care. Taking into consideration the fact that most long-term care patients often have a number of problems affecting mobility, sensation, cognition, functioning, continence, affect, and motivation, it is clear that a range of factors and circumstances other than patient care can mitigate the progress or rate of progress associated with change in patient status. The challenge of measuring and attributing outcomes to actual care provided can be likened to the problem of detecting an electronic signal passing through a field of electromagnetic noise. A number of factors can influence how the signal is received, if at all, and the challenge in determining the proper attributes of the receiver is largely a function of obtaining information about the nature of both the signal and the background noise. This analogy pertains to the measurement of outcome quality or patient outcomes in that the outcome itself can be thought of as the signal, and the noise is the large number of other factors which can mitigate the signal or outcome. The measurement challenge is to develop practical methods of gauging changes in patient status over time, taking into consideration and collecting information on other background factors which can influence the actual measurement of such changes in patient status. These factors must then be compensated for analytically by virtue of covariate adjustment, randomization, and/or case selection.

The Need to Focus

Given the nature of the TNHP, a large number of options existed for structuring an evaluating study. Agreement on program objectives and study objectives was a necessary condition to designing the evaluation. In this case, the program objectives were quite clear and translated readily into evaluation goals. The relative priorities among competing evaluation goals, however, only became clear after considerable discussion and an assessment of the feasibility of collecting information of various types. One of the critical topics to consider at the outset was the breadth versus depth of the evaluation scope. The evaluation study could have been approached with the intent of examining a wide range of patient outcomes, costs, acute care utilizations, and staffing characteristics. The temptation to undertake a truly global evaluation of the TNHP was resisted since it would have resulted in sacrificing analytic

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depth for breadth. Thus, selected conditions, patient status indicators, utilization outcomes, and services were chosen in accord with the specific objectives of the TNHP. In this regard, various TNHs focused on incontinent patients, resolution of decubitus ulcers, use of psychoactive medications, etc. In view of the fact that the evaluation was designed to be a feasibility study, specific consideration of patients potentially impacted by such programs was emphasized in certain areas.

Case Mix and Outcome Quality

The case mix of a patient population refers to the overall health status of that population and in turn translates into the health care needs of the patients in the population. Thus, health status indicators for individual patients aggregated over all patients in the population of interest are used to measure case mix. In a rigorous sense, the term case mix refers to a group of patients and the term patient health status refers to an individual patient. Theoretically, the case mix of a group of patients refers to their service needs, independently of whether the services are actually being provided. Therefore, the presence, absence, or severity of problems such as malnutrition, confusion, incontinence, or impaired mobility determine the patient's needs. These then translate into more service-specific case mix indicators such as the number of patients in need of assistance with walking, assistance with toileting, etc. It is important to note, however, that these measures are different conceptually from the number of patients actually receiving walking assistance, toileting assistance, indwelling catheters, and the like, since the first measures patient needs and the second measures services received. In fact, the degree of concurrence between needs and services received is an indicator of the extent to which patient health care needs are satisfied and therefore yields process measures of quality.

Analogously, change in patient status or patient health care needs over time is an indicator of patient outcomes over that time period. Clearly, patient outcomes can have many dimensions, depending on the health status indicators of interest. Thus, for a given group of patients, case mix pertains to the health status or health service needs of the group at a given point in time. If attention is restricted to the same population group or cohort, change in health status or health service need indicators over time then refers to patient outcomes. As a result, precisely the same patient characteristics and measures can be used to reflect case mix at a point in time and patient outcomes over time. Further, since case mix indicators point to service needs, process measures of quality also are necessarily related to case mix indicators.

As the case mix of an institution changes, so too will its indicators of outcome quality. Since the TNHs may have been characterized by an increasing case mix intensity over time (according to the hypothesis that affiliation with schools of nursing might encourage the treatment of more complex cases), the individual indicators of patient outcomes for the evaluation study were partly selected with this in mind.

Measurement Issues and Time Periods

The above discussion highlights the fact that many commonalities exist in case mix and outcome measurement principles. In measuring case mix, patient status must be measured at a point in time, and in measuring outcomes, patient status must be measured again at a second point in time (and possibly a third, fourth, etc.) to assess change in patient status. Consequently, the added feature outcome measures bring about is the issue of empirically measuring change in patient status over time.

A variety of measurement scales exist to assess patient status. In assessing change in patient status over time in order to measure patient outcomes, the same variety of measurement approaches are available and even increased by virtue of the need to measure change. Depending on one's objectives, change can be measured in a variety of ways, including the actual magnitude of the change, the percentage of the change (if a continuous measure is used), the pattern of the change (i.e., improvement versus worsening), transitions in patient status from time point to time point, percent time in an improved or worsened state, etc. Even patterns such as improvement or worsening can be measured as dichotomies or using methods from the fields of time series analysis and stochastic processes.

An important issue in measuring outcomes relates to the number of time points involved. This topic is also tied to the length of the interval between data collection points. Ideally, a particular problem would be monitored continuously on a daily or an hourly basis, depending on the nature of the problem. However, this is usually not possible from a practical perspective. In addition to determining how many different time points should be entailed in assessing change in patient status over time, the validity and reliability of the patient status measured at a single point in time must be considered. For example, even in a measure so straightforward as blood pressure, there is inherent variability which must be taken into consideration. It is possible to measure blood pressure on ten consecutive days for an individual who is in the normal range and find that on one or two of those days his/her blood pressure is in a high range.

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At the basis of the number of time points issue is the expected progression of the disease or patient status indicator of interest. Some diseases (e.g., rheumatoid arthritis) are relatively slow in progression, while others (e.g., infections) can follow a much more rapid course. This emphasizes the importance of the duration of each time interval as well as the total time interval of interest in assessing patient outcomes for a specific type of problem. Finally, at least in some instances, the functional form of disease progression (e.g., linear, exponential, growth model, etc.) also bears on the issue of outcome measurement. If the expected progression of a problem from one time point to another is linear (i.e., occurs at a constant rate of change), then the length and number of time intervals chosen is not as important as when the expected progression of the disease is exponential or logistic in nature.

The multidimensional nature of outcome measurement is also significant and as used here, refers to the many dimensions of health status. Thus far, this discussion has dealt with measuring single health status indicators (ADL, ADL index, severity of a problem such as decubitus ulcers, etc.), in a solitary or univariate sense. However, a patient is in fact a composite or constellation of health status indicators and, theoretically speaking, all signs ideally should be taken into consideration and measured simultaneously. Therefore, when conceptualizing a patient's health status at a given point in time, it is appropriate to think of that patient as a set or "vector" of observations or values of health status indicators, some measured as dichotomies, others measured on an ordinal scale, and others measured on a continuous scale. Considering change in patient status over time, one would then examine the difference in the various health status indicators between two time points for the elements of this vector. It would be ideal if we were able to somehow distill this entire vector of outcome indicators into a single measure capturing the total patient change over the time period of interest. In fact, this is not possible and we have to settle for approximations to it.

The foregoing discussion leads to the suggestion that it is unwise to use a single outcome scheme or paradigm in assessing the impact of long-term care programs on change in patient health status over time. Since few outcome measures in the long-term care field have been universally accepted or, more generally, are universally applicable, a logical way to proceed is to first select health status indicators that reflect patient problems the program under consideration is expected to deal with effectively. Then one can attempt to measure the extent or severity of such problems in accord with already accepted or reasonable measurement approaches, regardless of whether the approaches are dichotomous, ordinal, or continuous. In this regard, a multidimensional approach to outcome measurement using a number of different measures to assess outcomes or changes in status over time, is preferable to an unidimensional approach.

Cost in Resource Consumption

Although the evaluation of the TNHP focuses more strongly on effectiveness than cost, a more balanced treatment is presented here since other long-term care evaluation studies have placed equal or greater emphasis on cost. When possible, both the direct and indirect costs of care warrant consideration. The direct costs or care refer to costs incurred in treating the patient, such as costs associated with medications, staff time, and physical therapy. Indirect costs refer to costs incurred (or not incurred, i.e., a savings), usually outside the care environment of interest. For example, acute emergency care, inpatient hospital care, early discharge from a nursing home, substitution of outpatient for inpatient care, family time spent or not spent caring for the patient, and increases or decreases in SSI payments due to institutionalization (or its absence), all translate into costs, often termed indirect costs. The most important indirect costs in the TNHP evaluation were judged to be those related to inpatient hospitalization and early discharge. In fact, it was in these areas that the TNHP was hypothesized to be cost effective.

Direct patient care costs can be measured at the patient level or at the facility level. The standard approach to measuring facility level costs is to divide total facility costs for a given period of time by the number of patient days, thereby obtaining a unit cost based on the per day cost of providing care. This can be done for different cost centers, such as nursing salaries, administration, and property costs. Cost figures of this type can usually be obtained from audited Medicare and/or Medicaid cost reports at the facility level.

Patient-level direct costs, however, are more difficult to measure and typically require information on services consumed by patients, including the type of service, the provider, and the frequency with which the service was provided. If such data are available either through time and motion studies or are approximated using some form of patient log on a retrospective basis, estimated resources consumed by individual patients can be computed in dollars. An advantage of using patient-specific costs rests with the increase in degress of freedom for analytic purposes. In the TNHP evaluation, for example, with only 11 TNHs in the demonstration, only a small number of distinct observations for facility-level costs were possible. If patient-specific indirect costs or resource consumption indicators were used, however, the number of patients involved in the evaluation would then determine the number of

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observed cost values. This also addresses the problem of cost reporting differences among nursing homes that might result in noncomparable costs owing to differences in Medicaid policy from state to state.

Randomization versus Comparison Groups

The ideal method for assessing the impact of the TNHP outcomes would have entailed randomization. For example, at each location, patients would be assigned to a TNHP or a comparison facility not affiliated with the given nursing school. In this case, under the theoretical assumption of random assignment, the likelihood is small that the two patient cohorts would differ in terms of case mix characteristics (this is also a function of sample size, of course). Theoretically, the randomized design should also be blind in the sense that the providers at all participating facilities, including the TNHs, would not be aware of whether patients were assigned under this randomization process to their facility, or whether they were simply admitted using standard admission procedures.

Realistically, in many long-term care evaluations, a randomized design is not possible because: (1) the demonstration is already under way; or, more importantly, (2) the ethical and logistical barriers that would be encountered in implementing such a design are insurmountable. Nonetheless, an evaluation approach should be structured to approximate the merits of an experimental randomized design as closely as possible. In this regard, the most critical components of the design become those of controlling for patient (and nursing home) characteristics in assessing the impact of the TNHP in patient outcomes (costs). This clearly speaks to the need to assess outcomes for patients who received care under the TNHP relative to comparable patients who received care in the comparison facilities.

The question such a comparison would theoretically address is "what type of care would the TNHP patients have received if the TNHP were not in existence?" Hence, comparison facilities and comparison patients should be selected so as to insure, as well as possible, that treatment and comparison patients are similar in terms of health status and their care environment, exclusive of the presence of the nursing school affiliation. In fact, this sort of comparison design might also be thought of as approximating a before/after design.

Controlling for Nursing Home Characteristics

It would have been possible to obtain highly similar patients in the TNH and CNH cohorts if facility-level characteristics were disregarded.

However, if the facilities or care environments in which the two cohorts received care were radically different, one would not be comparing outcomes for patients who were in facilities similar to the TNHs prior to their affiliations with the schools of nursing. Hence, the goal of approximating the before-after design would not be attained. It was therefore necessary to select comparison facilities on the basis of key nursing home characteristics such as those enumerated previously. These characteristics were selected to be similar to those of the TNHs prior to the TNHP.

The issue of whether comparison facilities should be in the same geographic location is not always as straightforward. On the one hand, the opportunity to find CNHs similar to the TNHs is enhanced if comparison facilities can be selected with little or no geographic constraints. On the other hand, the geographic location of each TNH tends to serve as an inherent control for certain attenuating circumstances such as the stringency of Medicaid policy within a given state, state of local regulations that might influence nursing home care, etc. Thus, in the case of the TNHP evaluation, it appeared that the selection of comparison facilities should be restricted to the same states.

Another key issue in the selection of comparison facilities is the number of such facilities. Procedurally, it is easier to select facilities on a one-for-one basis, as was done in the TNHP evaluation. However, two factors can mitigate against this. First, patient-level analyses can at times require unusually stringent processes for selecting comparison patients, and therefore necessitate a large pool of patients from which to select different patient cohorts. Second, even after a relatively thorough process of attempting to select comparison facilities using a one-to-one matching procedure employing a number of facility characteristics, study and comparison groups can still differ in terms of average values for certain characteristics that might be important. In this regard, the notion of a "nuclear comparison group" would warrant investigation. The basic idea in constructing a nuclear comparison group is to select more than one comparison facility for each study facility, where the comparison facilities are deliberately selected so as to "encompass" the study facility in all relevant characteristics. For example, if only bed size and percentage of Medicare patients were used to select two CNHs per TNH, the CNHs would be selected in such a way that one comparison facility had more beds and the other fewer beds than the TNH of interest. Further, one would have a higher percentage of Medicare patients and the other a lower percentage of such patients than the TNH of interest. In this respect, each TNH can be regarded as the nucleus of a cell in which it is surrounded by CNHs (in terms of the attributes of interest). This analogy pertains best when a larger number of compari-

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son facilities are used per study facility, although the basic rationale pertains with as few as two comparison sites.

COMMENTS ON COMPLEXITIES ADDED BY VIRTUE OF ACADEMIC AFFILIATIONS

The various topics or dimensions of evaluation research discussed above often require compromise in view of budgetary and time constraints, as well as program and evaluation objectives. In fact, a number of additional items and topics frequently are entailed, including selection of the case or unit of analysis, the extent to which an evaluation study should be informative and provide feedback to the program, and even a variety of logistical considerations that can result in tradeoffs such as reliability of measurement versus cooperative respondents. Any such study also has a variety of unique tradeoffs that must be taken into consideration.

In this regard, although unanimity existed on the fact that the study should focus on patient care and patient outcomes, emphasis on this objective to the relative exclusion of others entailed considerable deliberation. In particular, the TNHP had a number of other purposes related to affiliating nursing homes with schools of nursing. These dealt with:

1. Clinical leadership and expertise, role of nurse practitioners in nursing home care;
2. Inservice training;
3. Research activities;
4. Faculty appointments;
5. Continuing education opportunities;
6. Inpatient care linkages;
7. Clinical training for nursing students; and
8. Increased availability and retention of nursing personnel.

Although the study does not totally ignore these program objectives, the vast majority of time and effort is channeled toward attainment of primary objectives: assessment of the impact of the TNHP on patient care, patient care outcomes, and patient care costs. Data and information in several of these areas is being collected for descriptive purposes, however. Further, the TNHs and others associated with administering the TNHP have monitored such areas and reported pertinent information (including various chapters in this book). Regardless of the results of the empirical evaluation, it is important not to overlook information in these areas. The determination to target the empirical evaluation of the TNHP on patient outcomes of significant policy importance as reason-

able in view of the potential for the TNHP to bring about changes in certain care practices, patient outcomes, and utilization outcomes such as hospitalization and early discharge. Such a focus is in keeping with the basic principle that an evaluation study should focus on the *raison d'etre* of health care, namely patient outcomes. In this regard, progam effectiveness ideally should be measured in terms of what happens to patients. Using this criterion, the three most intuitively appealing categories of effectiveness consist of patient status outcomes, utilization outcomes, and, to some extent, direct patient care (services), as discussed earlier.

Nevertheless, the academic affiliation that forms the basis for "treatment" under study gives rise to other surrogates or potential surrogates for effectiveness. Consider, for example, the issue of additional long-term care research or increased educational involvement on the part of a school of nursing in the long-term care field stimulated by virtue of a formal affiliation with a nursing home. While this does not guarantee immediate results in terms of changes in patient status, utilization outcomes, or even services provided, it has the potential to enhance all three over the course of time. As faculty become more involved in and cognizant of patient care needs and issues, new research projects and educational programs bear the potential to improve patient care. Unfortunately, however, the results of such efforts often only occur over the long run. These particular surrogates for patient care effectiveness, i.e., faculty-acquired research and curricula changes, are in a broad sense of bonafide value as long-term indicators. Changes in an augmentation to research and educational programs can exert considerable influences on the general patient care environment.

The main point is that while evaluation studies in the long-term care field must focus on certain objectives, the process of making tradeoffs and decisions regarding study characteristics and goals should not preclude a broad-based set of conclusions and final inferences. In the context of the TNHP, for example, this means first a review and summary of criteria used to select the focal points of research. Thereafter, final empirical results should be accompanied by the appropriate qualifiers in terms of areas excluded and factors omitted in view of selecting more relevant approaches. Where possible, reporting information obtained by or through others on matters related to other program goals and objectives should accompany conclusive data.

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11

An Agenda for the Year 2000

Linda H. Aiken

Health care in the United States is undergoing a period of unprecedented change due to social and demographic trends, changing patterns of disease, advances in science and medical technology, increasing physician supply and shortage of nurses, and economic pressures limiting the growth of health care expenditures. These factors will reshape the context in which health services will be delivered in the future with implications for the practice of professional nursing and the constellation of services available to the elderly.

DEMOGRAPHIC PROJECTIONS

Predicting the future is an imprecise science, particularly in the realm of medical care. One aspect of the future that seems certain is that more Americans will be living to older ages. Two factors substantially affect the future size and age distribution of the elderly population: the size of varying age cohorts and changing patterns of mortality. For example, based upon the number of infants born in the 1920s and 1930s, we can expect a modest growth in the total numbers of elderly until 2010. After that, however, the number of elderly will increase much faster as the post World War II "baby boomers" reach retirement age.

One out of every eight Americans is now 65 or older but by 2020, one in five Americans is expected to be 65 years of age or older. The fastest growing group will be those 85 years of age and older. Since all of those who will reach 65 by 2020 have already been born, we can be reasonably certain that the actual numbers of elderly will be *at least* as high as

Aging in Place: A New Model for Long-Term Care

Karen Dorman Marek and Marilyn J. Rantz

It is expected that at least 40 percent of the population over 75 will need extensive health care services late in their lives. The public has a negative view of nursing home placement that has, to some extent, been confirmed by research finding that the health of a frail older person deteriorates each time he or she is moved. The Aging in Place model of care for the elderly offers care coordination (case management) and health care services to older adults so they will not have to move from one level of care delivery to another as their health care needs increase. University Nurses Senior Care (UNSC) is the service entity of this project and provides as its core service care coordination with a variety of service options. These options include care packages or services at an hourly rate to meet individual client needs. The Aging in Place project will be evaluated by comparing project clients to residents of similar acuity in nursing homes and to similar clients receiving standard community support services. Data from this project will be important to consumers, researchers, providers, insurers, and policy makers. Key words: *community based care, elderly, long-term care*

DISSATISFACTION with the care of older adults is widespread in the United States among consumers, providers, family caregivers, and care providers. This dissatisfaction, along with the rising costs of long-term care, stimulated the University of Missouri Sinclair School of Nursing to plan for the development and implementation of a new model of care—a cost-effective alternative to nursing home care—that is responsive to elders' health care needs and consumer preferences. This public–private partnership venture is an innovative Aging in Place model for the elderly offering care coordination (case management) and health care services to older adults residing in specially designed senior apartments, other senior private or public congregate housing, or in their own homes in the community. With this new model, people will not have to move from one level of care delivery to another as their health care needs increase. Frail older adults will have the opportunity to"age in place." Aging in

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Place is a much healthier approach as compared with our current long-term care delivery trajectory that forces a frail older person to move from one setting to another as needs change and results in mental and physical deterioration.[1–3] In this model, all services a person may eventually require are available as needed so there is no need to move to a different place.

Background and Importance

In 1990, the U.S. Bureau of the Census ranked Missouri 12th in the United States, with 14 percent of the state's population aged 65 and over. By the year 2020, this age group is expected to account for 25 percent of Missouri's population. Even now, Missouri ranks 8th in the United States in the proportion of its population over age 85.[4] It is expected that at least 40 percent of the "old-old" population will need extensive health care services late in their lives. At the same time, consumer preferences for long-term care are changing. Above all the elderly desire to maintain independence and quality of life. The trajectory of services currently available often forces consumers toward unsatisfactory and costly institutional care such as nursing homes. Studies indicate that older adults have a negative view of nursing home services and strive to avoid such placements.[5–8] As a result, they can be isolated in their homes, unwilling to reach out for assistance until it is too late and their health has deteriorated. The public's negative view of nursing home placement is to some extent confirmed by research that the health of a frail older person deteriorates every time he or she is moved.[1–3] Research also emphasizes the fragmented disarray of older adult care and services. Changing demographics, the high cost of nursing home services, and the continuing shortcomings of current models create a compelling need for new approaches to long-term care for frail elders.[9,10]

The Aging in Place model allows older adults to age in the least restrictive environment of their choice. Key to Aging in Place is the separation of *type* of care with *place* of care. In this model, clients direct the timing and intensity of health and personal care services delivered to them in their home. The concept of home includes any residential setting in which formal medical services are not provided as part of the housing component. Home may mean a detached individual home, an apartment in a family member's home or a large complex, or a unit in a congregate housing arrangement with supportive services.[11] Clients are treated as tenants of their home rather than residents of an institution. However, the Aging in Place model is most successful when provided to individuals living in congregate or geographically close locations.[8]

For Aging in Place to be successful older adults must live in an environment supportive of independence, and care must be coordinated throughout the health care system. Care coordination provides a system to identify barriers, as well as to procure and coordinate services required by the frail older adult. Clients who receive care coordination receive a comprehensive assessment of their functional and cognitive capacities, strengths, abilities, limitations, existing resources, and supports. A plan is developed in partnership with the client based on the results of the assessment. Clients are monitored and services

are altered as the clients' health care needs change.

Project Goal

The goal of the Aging in Place project at the University of Missouri–Columbia Sinclair School of Nursing is to allow frail older adults to remain in one setting as their health care needs intensify. University Nurses Senior Care (UNSC), a unique home health agency designed and licensed specifically for this project, provides care coordination and links frail older adults to ongoing health care services. Care is provided to older adults in senior private and public housing as well as individual homes. Congregate private and public housing are the first areas of implementation. In many of the area's retirement communities a large proportion of the residents are over 85 years of age and very frail. Without care coordination services most of these individuals would be forced to move out of the senior housing community into assisted living or nursing home environments. Problems such as incontinence, poor personal hygiene and nutrition, and medication mismanagement contribute to the older adult's loss of function and resulting move to another setting. The majority of these problems can be controlled or prevented with early intervention and monitoring. Each move to a different setting has major consequences for the health of the older adult by contributing to depression, confusion, and a loss of independence. Early detection, treatment, and monitoring can allow an individual to remain in the home of his or her choice and prevent many of the negative outcomes associated with relocation.

Project Description

The focus of the Aging in Place project is the development, implementation, and evaluation of UNSC services for frail older adults living in senior congregate housing, public housing, and individual homes. UNSC is the first component to be implemented of a "housing with services" model being planned by the Sinclair School of Nursing. The larger project is a university- and community-based project, called Tiger Place, which will be located in Boone County in Columbia, Missouri, on approximately 6 acres. It is a public–private partnership venture designed to help older adults "age in place" in the least restrictive environment of their choice. Tiger Place will have Tiger Estates, a specially designed 100-unit apartment complex that will facilitate independence, freedom, privacy, and dignity. Tiger Estates is planned for completion by January 2001. However, UNSC began providing care coordination services to frail elderly in the Boone County area in March 1999. When Tiger Estates is completed, UNSC will provide care coordination and services to individuals living in Tiger Estates, in addition to other Boone County residents. Tiger Place also will have an academic center that will unite all the components of the project: research, practice, and education. Tiger Place is designed to be a national model of gerontological education, research, care delivery, and environmental design for the 21st century.

University Nurses Senior Care

Negotiating the health care system to obtain needed health care services can be a

Negotiating the health care system to obtain needed health care services can be a frustrating and stressful experience for older adults and their families.

frustrating and stressful experience for older adults and their families. UNSC offers a model of care coordination and home care services to assist clients in obtaining the care they need while controlling costs by stopping unnecessary as well as duplicative services. Key to the UNSC is the tailoring of health care services to the client's health care needs. These services can range from health promotion activities such as exercise, diet, and nutrition programs to intensive personal care and skilled nursing services. A guiding principle of UNSC is to allow clients to age in the least restrictive environment of their choice.

Care coordination consists of several components. On admission, clients receive a comprehensive assessment of their functional and cognitive capacity, strengths, abilities, limitations, existing resources, and supports. A plan is developed in partnership with the client based on the results of the assessment. In this plan, services are bundled in packages designed specifically to meet the needs of the client. Clients are monitored and services are altered as clients' health care needs change. Reassessment is conducted as needed or at least every 3 to 6 months depending on the client's needs. The care coordinator is a master's-prepared nurse specially trained in case management. The care coordinator's role is to ensure that clients receive quality services that continually meet the client's needs. Included in the care coordinator's role are assessing and reassessing the client's needs, developing and implementing a plan of care, and monitoring the quality and efficiency of services delivered.

In addition to care coordination, UNSC offers in-home services provided by professional and nonprofessional staff to meet clients care needs. Services provided by UNSC include the following: (1) assistance with daily living activities, such as bath and tub assistance, dressing assistance, weekly cleaning and laundry, and outside errands such as shopping; (2) assistance with medications, such as medication setup, administration, or help with eye drops or inhalers; (3) social services, such as assistance with financial issues, bill payment, form completion, family issues, and counseling; (4) recreational activities, such as weekly exercise programs and bimonthly outings; (5) skilled nursing services, such as education and monitoring of medications, nutrition, disease, safety, and self-care; delivery of wound care and catheter care; and communication with family, physician, and other health providers; and (6) rehabilitation therapies, such as physical, occupational, and speech.

Another key component of UNSC services is the design and operation of wellness centers that are located in senior congregate living sites. The first wellness site began operation on March 1, 1999, at a senior housing site. The focus of the wellness centers is to prevent or detect early health problems that can compromise the frail older adult's health status as well as provide socialization and recreational activities for participants. Nurses are available by appointment and during scheduled walk-in hours. The wellness centers provide health services such as screenings and educational

programs, as well as individualized services such as incontinence management and nutritional counseling. Locating the wellness centers in senior housing communities facilitates the older adults' access to care. Often, older adults are more willing to seek assistance from the wellness center than they are to go outside the senior housing complex for health care.

Reimbursement

The challenge in providing community-based, long-term care services is finding a viable funding source for services. UNSC has employed several different options for payment of services. Private pay and Medicaid are the two most common sources of payment for long-term care services. UNSC offers a variety of payment plans for private pay clients. Care can be purchased in 15-minute increments or in monthly packages. For example, a common problem for the frail elderly is medication management. In the medication management package a registered nurse will fill a client's medication planner on a weekly basis, monitor a client's responses to medications, order medications from the pharmacy, and a home health aide will remind the client to take his or her medicines at prescribed times. Other packages developed are for personal care, bathing, and health care management.

Medicaid is the other common funding source of long-term care. UNSC is working with the Missouri Department of Social Services Division on Aging to provide home- and community-based services to individuals eligible for the Missouri Care Options (MCO) program. The focus of MCO is to inform individuals of available long-term care options; promote quality home- and community-based long-term care; moderate the growth of state-funded nursing facility placements; and enhance the integrity, independence, and safety of Missouri's older adults. Persons are considered eligible for MCO if the individual is considering state-funded long-term care, has low-level maintenance health care needs but is "medically eligible" for nursing facility care, could reasonably have care needs met outside a nursing facility, and receives Medicaid-funded long-term care in a home- or community-based setting. Individuals are screened and assigned a level of care (LOC) score that is used to authorize services in the state plan of care (service plan). Services include basic personal care, advanced personal care, registered nurse visits, homemaker care, and respite care. A specified number of monthly units are authorized, and the provider is reimbursed based retrospectively on the authorized units provided.

UNSC will provide services to MCO clients on a fee-for-service basis for 1 year to establish a database to develop a monthly capitated rate for MCO services using the Aging in Place model. Services that will be considered for inclusion in the capitated rate are adult day health, skilled nursing (including care coordination by registered nurses), restorative rehabilitation services (physical therapy, occupational therapy, and speech therapy), personal care/chore, transportation, social services by social worker, and medical supplies. The intent of this package is to provide the home and community services needed to allow frail elders eligible for MCO funding to age in place. These services are in addition to services provided through the Medicare Home Health Benefit.

If clients have conditions that meet the requirements of the Medicare Home Health Benefit, those services will be provided and billed to Medicare.

Services identified in the Aging in Place package are similar to a large portion of the services of the PACE (Program of All-Inclusive Care for the Elderly) model. In PACE, a fixed, monthly, per capita payment is issued to provide complete care to nursing-home-certified populations. The capitated rate is based on an average monthly Medicare premium, and a Medicaid portion based on the cost of the state's nursing home costs.[12,13] The Aging in Place package includes all the services offered in PACE with the exception of acute hospital care; specialized services such as optometry, audiology, dentistry, podiatry, and psychiatry; primary medical care and medical specialty services; laboratory and pharmacy services; durable medical equipment; and ambulance services. UNSC will be involved in coordinating some of these services when needed by clients, however, these services will not be managed or under contract with UNSC; therefore, no financial risk for these services will be undertaken by UNSC. However, it is expected that use of these services will decrease as a result of the care coordination and other services provided through the Aging in Place model.

Another Health Care Financing Administration (HCFA) demonstration project that tested a capitated rate for home care services is the Community Nursing Organization (CNO). The CNO tested two fundamental elements: nurse case management and capitated payment for the provision of community nursing and ambulatory services. Services included in the capitated payment were: parttime or intermittent nursing services; physical, occupational, and speech therapies; social and related services; parttime or intermittent services of a home health aide; medical supplies; durable medical equipment (DME); and ambulance services. Suggested optional services included in the legislation were homemaker services, personal care services, adult day health care, habilitation services, and respite care. However, the payment rate was based on age, gender, functional status, and previous Medicare home health care use. This payment rate did not take into account the services identified as optional. As a result, few of these services were offered, and the frail elderly were not the targeted population. The population recruited for the project was mostly the well elderly; less than 10 percent of the clients were frail enough to require long-term care home services.[14] The CNO did provide health promotion activities similar to some of the services that will be offered in the Aging in Place wellness centers. The Aging in Place model will serve a more frail population and will be able to identify the effectiveness of primary, secondary, and tertiary prevention on the frail elderly. The population served in the Aging in Place model is more similar to the population served by PACE. It is expected that many of the optional services identified in the CNO legislation will be offered in the Aging in Place model.

Evaluation

The purpose of the Aging in Place model is to prevent nursing home admission for those individuals who could have their long-term care needs met in a community setting.

The purpose of the Aging in Place model is to prevent nursing home admission for those individuals who could have their long-term care needs met in a community setting.

Therefore, the individuals in the Aging in Place project will be compared to clients of similar case-mix (acuity) in nursing homes as well as to clients in the community receiving MCO services but not enrolled in the Aging in Place project. To demonstrate the effectiveness of the Aging in Place model both the quality of care and the cost of care must be examined. If the cost of care is decreased but the level of quality in care delivered is less, then the Aging in Place model is not a viable alternative for long-term care delivery. Also, if the level of quality increases and the cost of care is significantly higher in the Aging in Place model, then the model may not be an affordable option for long-term care for policy makers to consider. We believe the cost of overall health care will be less and the quality of care will be at a higher level in Aging in Place clients.

Quality measures

In the Omnibus Reconciliation Act of 1987 (OBRA 87) Congress mandated the development of the Minimum Data Set (MDS) for resident assessment and care planning, routine use of the MDS for all nursing home residents, and use of a quality assurance and assessment process in all nursing homes to improve the quality of care.[15] Much research has been devoted to developing and testing quality indicators (QIs) derived from MDS data by the Center for Health Systems Research and Analysis (CHSRA).[16–19]

The University of Missouri (UM) MDS research team has conducted extensive research on the MDS QIs and Missouri nursing homes.[20–23] We use the same methods developed by CHSRA staff in the calculation of QIs from MDS data.[24] It is possible to measure quality of care based on MDS information for a specific resident, a specific nursing home, and nursing homes in aggregate with QIs that are outcome and process measures of quality of care.[16,17,20,25–27] Using the standard MDS instrument, it is possible to analyze 24 of the 30 QIs (see Table 1). The UM MDS research team has extensive experience analyzing QIs, and we will compare QIs of the clients in the Aging in Place project with those of residents with similar characteristics and acuity living in nursing homes. We expect better quality outcomes for the Aging in Place clients.

Resource utilization groups

Since this is a pilot demonstration project, the comparison group is not randomly selected. In order to identify a comparison group, resource utilization groups (RUGs) will be used to identify patients of similar characteristics to the Aging in Place clients so that comparison of similar groups can occur. RUGs for nursing home residents are similar to diagnosis-related groups (DRGs) in hospital patients. RUGs are based on assessment items of the MDS and time studies conducted by HCFA in a sampling of skilled nursing facilities.[28] Relative resource utilization is reflected in a case-mix index (CMI) value assigned to each RUG classification cell. An index value of 1.0 represents

Table 1. Quality indicators derived from MDS data

	Quality indicators
1	Prevalence of any injury
2	Prevalence of falls
3	Prevalence of behavioral symptoms affecting others
4	Prevalence of diagnosis or symptoms of depression
5	Prevalence of depression with no treatment
6	Use of nine or more medications
7	Incidence of cognitive impairment
8	Prevalence of bladder or bowel incontinence
9	Prevalence of occasional or frequent bladder or bowel incontinence without a toileting plan
10	Prevalence of indwelling catheters
11	Prevalence of fecal impaction
12	Prevalence of urinary tract infections
13	Prevalence of antibiotic/anti-infective use*
14	Prevalence of weight loss
15	Prevalence of tube feeding
16	Prevalence of dehydration
17	Prevalence of bedfast residents
18	Incidence of decline in late loss ADLs
19	Incidence of decline in ROM
20	Lack of training/skill practice or ROM for mobility-dependent residents*
21	Prevalence of anti-psychotic use, in the absence of psychotic and related conditions
22	Prevalence of anti-psychotic daily dose in excess of surveyor guidelines*
23	Prevalence of anti-anxiety/hypnotic use
24	Prevalence of hypnotic use more than two times in last week
25	Prevalence of use of any long-acting benzodiazepine*
26	Prevalence of daily physical restraints
27	Prevalence of little or no activity
28	Lack of corrective action for sensory or communication problems*
29	Prevalence of stage 1–4 pressure ulcers
30	Insulin-dependent diabetes with no foot care*

*Cannot be calculated due to the standard version of MDS in use.
MDS, Minimum Data Set; ADLs, activities of daily living; ROM, range of motion.
Source: Data from the Center for Health Systems Research and Analysis, University of Wisconsin–Madison (2000). Quality Indicator Definition Matrix–MDS 2.0 without Section T and U. Madison, WI: Author [online Available: www.chsra.wisc.edu/CHSRA/QIs/QIs.htm.

average daily use. A value of 1.2 indicates resource use 20 percent greater than average. CMI values can range from as low as 0.4 to as high as 3.7. Table 2 contains the major RUG-II groups. For evaluation purposes, clients in the Aging in Place project will be matched with clients in nursing homes on admission by RUG score.

Cost of care

To adequately examine the cost of the Aging in Place project, the total health care costs

Table 2. Resource utilization groups (RUGs)

Category
Special rehabilitation
Ultra high
Very high
High
Medium
Low
Extensive services
Special care
Clinically complex
Impaired cognition
Behavior
Reduced physical function

expended for health care will be examined. It is predicted that the costs related to hospitalization, emergency department visits, and physician visits will decrease in the Aging in Place group as compared with the nursing home group and as compared with the other MCO group. Both Medicare and Medicaid claims databases will be examined for health care expenditures. In addition, actual costs of the Aging in Place program will be included in the analysis.

Data Collection

All clients participating in the Aging in Place project will be assessed by registered nurses using a specially designed comprehensive assessment that is similar to the nursing home MDS, the MDS-HC.[29] Assessments will be completed on a bimonthly basis, when readmitted after hospitalization, and at times of significant changes in condition. We added several nursing home MDS items to the assessment to be able to calculate comparative QIs with nursing home residents. The MDS-HC and additional MDS items will be collected at the point of care using the CareFacts computerized clinical documentation system. The CareFacts system (CareFacts Information Systems, St. Paul, Minnesota) is a point-of-care documentation system that provides a comprehensive relational database related to home health care practice.

Since UNSC is a home health care agency it also is required to collect OASIS (Outcome Assessment Information Set) data. In addition, the Omaha System is used to guide clinical data collection and provide a standardized framework for nursing diagnoses, interventions, and outcomes.[30] The OASIS data set is included in the assessment and discharge documentation with mapping to the Omaha System, MDS-HC, and additional MDS items when necessary to prevent duplication of data entry.

The clinical data collected at the point of care during the process of care delivery are data related to cost and quality monitoring. Home care providers view documentation as a burdensome and sometimes meaningless exercise, especially if data elements collected are not supportive of the practitioner's need for information to provide care. Computerized information systems that support practice by designing data entry and access to complement the provider's information needs also provide an excellent source of data for the evaluation of care. The CareFacts system was designed to complement the provider's need for information so that data are documented once during the process of care delivery rather than after care delivery. Because of the ease of data entry, multiple problems and interventions can be identified at each patient encounter. It would be

difficult to obtain such information from handwritten paper records. The data available from such a documentation system will provide a useful database to study health care practice in the Aging in Place model and link those data to the cost and quality analyses.

Conclusion

We believe the Aging in Place model is a viable alternative to nursing home care for many frail elders. In this demonstration project we will develop, implement, and evaluate this model. Evaluation will include examination of both the cost and quality of care delivered in the Aging in Place model compared to similar clients in nursing home care and similar clients receiving standard community support services. The results of this project will provide pilot data on the effect of the model on the quality of life of frail elders and determine whether this model is a cost-effective alternative to nursing home care. The findings of this project will provide guidance to consumers, researchers, providers, insurers, and policy makers.

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VI.

Donald W. Reynolds Center on Aging and Donald W. Reynolds Department of Geriatrics Annual Report 2001

Donald W. Reynolds Department of Geriatrics

Annual Report: 2000–2001

HIGHLIGHTS OF ACCOMPLISHMENTS

The Donald W. Reynolds Department of Geriatrics of the University of Arkansas for Medical Sciences (UAMS):

1. Has achieved in 3½ years all of the milestones in the original proposal to the Donald W. Reynolds Foundation.
2. Has an established and well accepted mandatory rotation for medical students. An article with details of our program will be published in the *Journal of the American Geriatrics Society* in February 2002.
3. Has expanded the number of geriatricians through recruitment and training. We now have more fellowship-trained geriatricians per capita than anywhere in the nation.
4. Has developed a robust and successful clinical program that not only provides superb patient care but also serves as an ideal laboratory for education and clinical research. We are now the largest clinical program on the UAMS campus, receive the highest marks on customer satisfaction surveys, and have the lowest staff turnover in the system. Growth in patient numbers has been exceptional (Figures 1 and 2).
5. Has experienced, as a measure of research success, a 148% growth in grant support to nearly $37.6 million in the past 4 years (Figure 3). The National Institute on Aging provides the most research support to UAMS of any in the National Institutes of Health.
6. Is the only academic program at UAMS ranked in the top 20 by *U.S. News and World Report*.

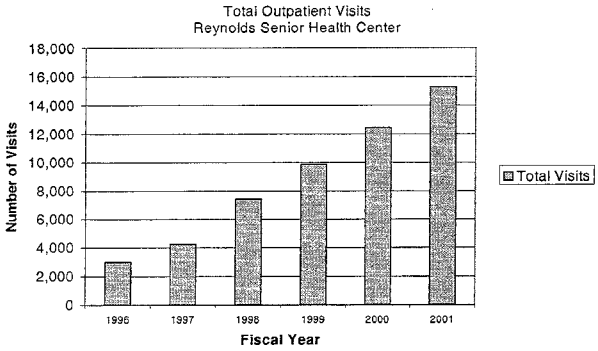


Figure 1

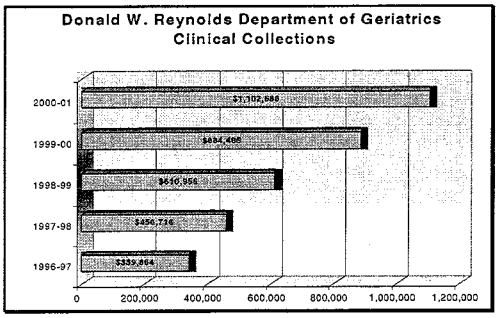


Figure 2

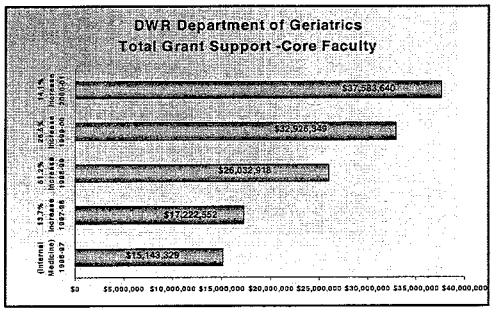


Figure 3

7. Maintains a strong commitment to the state of Arkansas at large and has as one of its priorities a mandate to improve the health of every older Arkansan, no matter where they live. Thanks to support from the Tobacco Settlement and the Administration on Aging, a Center of Excellence in Geriatrics will be established in each of the seven Area Health Education Center sites across the state. Of particular importance, every major community in the state has a hospital that is establishing a senior health center. We believe that these centers will have a great impact on the health of older persons living in rural settings, will provide unique research opportunities, and will serve as a model for novel approaches to health care nationwide.

EXECUTIVE SUMMARY

ADMINISTRATIVE STRUCTURE

A strong Executive Committee for the Donald W. Reynolds Department of Geriatrics (RDG) has been developed. This group meets at least twice monthly and works as a cohesive team. Each member of the Committee is responsible for managing his or her own division, assuring continued success despite rapid growth. The Executive Committee is empowered and plays a critical role in assisting Dr. Lipschitz with decision-making, resource allocation, recruitment, and future development. The members of the Executive Committee are as follows:

Chair, Department of Geriatrics	David A. Lipschitz, MD, PhD
Executive Vice Chair and Director, Geriatric Research Education and Clinical Center (GRECC)	Dennis H. Sullivan, MD
Vice Chair for Basic Research	Sue T. Griffin, PhD
Vice Chair for Clinical Programs	Pham H. Liem, MD
Vice Chair for Education	Cathey Powers, MD
Vice Chair for Program Development	Claudia J. Beverly, PhD, RN
Vice Chair for Cognitive Disorders and Neurogerontology	Victor W. Henderson, MD
Vice Chair, Nutrition, Metabolism, and Exercise Laboratory	William J. Evans, PhD
Vice Chair for Long-Term Care Research	Cornelia Beck, PhD, RN, FAAN

EDUCATION

A major goal of the Donald W. Reynolds Foundation's programs in geriatrics is to increase the number of qualified geriatricians trained to treat older persons. We have addressed this issue in the first 4 years of this program by developing a mandatory rotation in geriatrics for medical students. In addition, the geriatrics fellowship program has expanded, leading to an increase in the number of graduate geriatricians electing academic careers in the field and in the number of practicing geriatricians in the state. These efforts are summarized as follows:

Junior Medical Students

Developing a mandatory rotation for junior medical students was the highest priority for the new RDG. Now in its third year, the program is fully established, stable, and well received by students. By the end of the second year, evaluations had improved to be in the same range as other experiences for junior medical students, and our assessments of the current year suggest continued improvement.

Geriatrics Fellows

The Geriatrics Fellowship has increased significantly in popularity. Since the grant award

- In all, 12 fellows have graduated from the program.
- Nine fellows have assumed faculty positions in medical schools.
- Four fellows have entered the academic track. Stuti Dang, MD, and Medha Munshi, MD, have accepted positions at the University of Miami and Harvard Medical School, respectively. Jennifer Dillaha. MD, will continue to train in the RDG and, in November 2001, will take a position as the resident geriatric expert in the Arkansas Department of Health. One fellow, Carmen Arick, MD, did not complete training and entered private practice in Hot Springs. Two fellows entered the academic track in July 2001.
- Three fellows—Mohamed Aniff, MD, Thomas Benton, MD, and Burcu Ozdemir, MD—have joined the RDG as clinician educators.
- Three fellows—Randy Shinn, MD, Theresa Shinn, MD, and Scott Simmons, MD—remain on the faculty as clinician educators in the Schmieding Center for Senior Health and Education in Springdale.

- Six third-year residents at the University of Arkansas for Medical Sciences (UAMS) applied for a Geriatrics Fellowship commencing in July 2001; five were accepted.
- A Special Fellowship in Geriatrics, recently created through a Veterans Affairs (VA) grant, supports second- and third-year fellows in the clinician scientist (basic, clinical, or health services research) and clinician educator tracks. Fifteen GRECCs submitted applications for this fellowship program. The Arkansas GRECC was one of six nationwide to receive funding.

Impact of Geriatric Training on Geriatricians in Arkansas

As a consequence of our commitment to geriatricians, we believe we now have more geriatricians per capita than anywhere in the nation. At present, there are:

- Twenty-four fellowship-trained geriatricians in Little Rock.
- Seven geriatricians in Northwest Arkansas.
- Geriatricians—one each—in Hot Springs, Batesville, Russellville, and El Dorado.

Medical Residents

At all times, two internal medicine residents and one family medicine resident rotate on the UAMS geriatrics service. They spend their time in inpatient, ambulatory, home, and nursing home care.

Postgraduate Education for Physicians

- Two annual postgraduate symposia on aspects of geriatrics were sponsored by the GRECC, the Arkansas Geriatric Education Center (AGEC), and the Donald W. Reynolds Center on Aging (RCOA).
- An annual update on geriatrics for primary care providers was sponsored by the GRECC, the AGEC, and the RCOA.
- The Arkansas chapter of the American Medical Directors Association held two symposia on nursing home issues.
- To make the health care community aware of the programs of the RDG, a quarterly newsletter, *Geriatric Rounds*, is mailed to 4,000 members of the American Geriatrics Society

and to the Association of Professors of Medicine, Deans of Medical Schools and Chancellors or Presidents of Medical Schools.

Interdisciplinary Education Programs

The RDG provides support for and contributes to the training of health care providers in other disciplines, including:

- A 7-week mandatory rotation in the baccalaureate program in nursing.
- GRECC Expansion Traineeships for graduate nurses, occupational therapists, pharmacy residents, and a postinternship registration-eligible dietitian.
- A geriatric nurse practitioner track in the Masters of Nursing science program.
- A geriatric nutrition track in the Masters of Science in clinical nutrition program.
- Recent funding of the AGEC's major mandate to train rural health care professionals in geriatrics. This goal is being achieved through a series of video teleconferences that are broadcast via interactive compressed video to receiver sites at the Area Health Education Centers (AHECs), the Rural Hospital Network, and independent receiver sites (colleges, community colleges, community education centers, hospitals). Video teleconferences are taped and edited and are available for distribution as VHS tapes; six tapes are currently available. A new program, Arkansas Geriatric Education Mentors and Scholars (AR-GEMS), is being developed for pilot-testing in spring 2002. This program will train practicing health professionals in a concentrated didactic course with home study modules, and provide experiences in local Centers on Aging throughout Arkansas.
- Interdisciplinary courses focusing on issues in aging (death and dying, communicating with older adults), which have been developed and introduced into the curriculum as electives for students in all UAMS colleges.
- The AGEC's launching of its Web site, which offers information about upcoming educational programs through a calendar and program brochure. The site has a downloadable registration page.

Educational Programs Targeting the General Public

- The Senior Outlook Series covers important topics about aging and age-dependent diseases. Topics covered include diabetes, hypertension, depression, coronary artery disease, and memory loss.
- The SeniorLife Program offers older adults and their families access to the most up-to-date and innovative health care information and services at UAMS. SeniorLife members receive the quarterly newsletter *SeniorView*, which provides useful information on aging.
- The SeniorNet program, housed in the RCOA, teaches older adults the basics of computer use—for example, word processing, e-mail, and Internet skills.
- In November 1999, the first 13 segments of the series "Aging Successfully with Doctor David" were filmed at AETN with generous support from the Donald W. Reynolds Foundation. The series aired in Arkansas, Nevada, and Oklahoma. In June 2000, the Public Broadcasting Service offered the series nationally. The series aired in approximately 40% of the U.S. market. Topics covered include nutrition, exercise, stress management, screening, depression, memory loss, and Alzheimer's disease, among others (see Appendix P). A further 14 episodes were filmed in June and July 2000 and aired nationally in November 2000.
- Dr. Lipschitz now writes a weekly column on aging successfully, which appears in Donrey Media newspapers nationwide.

RESEARCH

The RDG has developed a number of research foci concerned primarily with studying the causes of age-related dependency (cognitive loss or physical disabilities). These research efforts may be summarized as follows:

Cellular and Molecular Biology of Aging

- Sue T. Griffin, PhD, leads a large group of scientists studying the basic biology of Alzheimer's disease (AD). Her group has pioneered research on the role of inflammation in the development of AD. She has also identified a number of genes that are critically important in this disorder. This past year Dr. Griffin's NIA-sponsored project was renewed for $7.2 million over 5 years.

- Robert Shmookler Reis, PhD, is studying the nematode *Caenorhabditis elegans* to isolate and characterize genes governing longevity. In June 2001, Dr. Reis and his group applied to the NIA for a competitive continuation of funding for this project, for which he is the principal investigator. If funding is continued, this program will bring in an additional $7.9 million over 5 years.
- Usha Ponnappan, PhD, focuses on the effects of aging on the immune system.
- Joan McEwen, PhD, is studying the effects of aging on cellular metabolism.
- Beata Lecka-Czernik, PhD, is studying the role of adipogenesis and age-related alterations in fat metabolism in osteoporosis. In June 2001, she received funding from the National Institutes of Health (NIH) for a researcher-initiated (R01) grant proposal to study the role of a key enzyme (PPR-γ) in the formation of osteoblasts.
- Charlotte A. Peterson, PhD, leads a group studying the molecular mechanisms of muscle mass loss.

Nutrition, Exercise, and Metabolism Laboratory

- William J. Evans, PhD, leads a large group of scientists studying the role of exercise in aging and in the prevention of physical dependency. He directs the Nutrition, Metabolism, and Exercise Laboratory of the RDG.
- UAMS was recently named a member of the National Space Biomedical Research Institute for the National Aeronautics and Space Administration. Dr. Evans is head of the unit that studies the role of exercise and nutrition in reducing the loss of muscle mass that accompanies aging.
- Dr. Evans and his group played a pivotal role in developing the successful grant proposal for establishing a General Clinical Research Center (GCRC) at UAMS. Clinical research on aging constituted a very important component of this application.
- Dennis H. Sullivan, MD, heads a group studying the role of nutrition in outcomes of frail older persons. He and his group are also investigating mechanisms to reduce dependency and early mortality through aggressive nutritional and exercise interventions.

Cognitive Impairment Research

- Cornelia Beck, PhD, RN, FAAN, heads a group of researchers examining the role of disruptive behaviors in dementia and strategies for improving best practices in long-term-care settings.
- A grant award by the NIA has established an Alzheimer's Disease Core Center with Dr. Beck as principal investigator. This grant will permit the integration of all RDG research programs in AD, provide supportive services, and allow dissemination of research programs to scientists and the general public. A critically important registry of patients with memory disorders will be created by the grant. This registry will form a database that will be an invaluable resource for studies.
- Victor W. Henderson, MD, accepted the positions of Vice Chair of the RDG for Cognitive Disorders and Neurogerontology and Director of the Dementia Center of Arkansas. He was the final senior recruit planned in the initial application to the Donald W. Reynolds Foundation. Dr. Henderson has the necessary resources to develop a robust clinical research program in AD and greatly complement Dr. Griffin and Dr. Beck's expertise.

Donald W. Reynolds Department of Geriatrics Core Faculty

Summary of New Grant Awards during the Academic Year July 2000–June 2001

	Current Year Total	Total Award
NIH	$3,931,901	$15,459,917
Industry	3,466,265	18,804,458
VA	715,353	3,319,265
Total	$8,113,519	$37,583,640

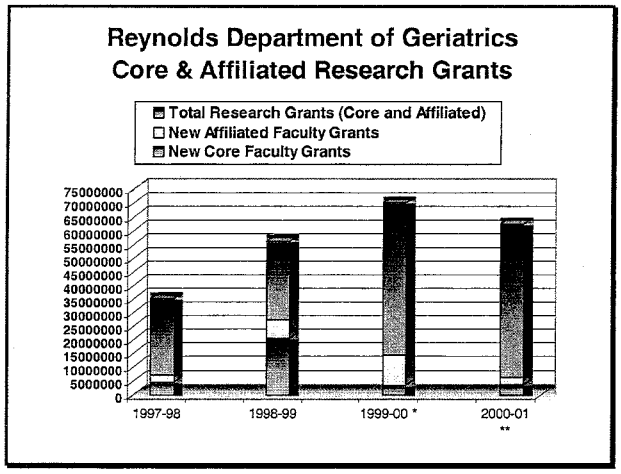


Figure 4

SERVICE

- The Reynolds Senior Health Center (RSHC) is the site of more than 15,000 clinic visits annually. This primary care clinic for seniors is well received and supported by the community and by University Hospital. The major goal of the RSHC is to promote functional independence in older persons. A priority is to deliver care to relatively healthy older persons in order to promote successful aging through diet, exercise, stress management, and

screening. The evaluation and management of frail older persons are offered through a team of health care providers including physicians, nurses, pharmacists, dietitians, and rehabilitation specialists. A major focus is the care of patients with memory loss. Approximately six new patients with this disorder are seen weekly in the RSHC. Adequate resources, including a full-time neuropsychologist, are available to meet the needs of these patients and their families.

- RDG faculty staff eight nursing homes and four transitional care units.
- Reed Thompson, MD, heads a hospice and palliative care program within the RDG.
- The House Call Program, directed by Delbra R. Caradine, MD, was established in spring 2000 to provide in-home visits by a geriatrician to individuals who are unable to come to the clinic for care.
- Clinical programs of the RDG parallel those developed at the VA Medical Center. The Little Rock GRECC initiated the concept of geriatric evaluation units and interdisciplinary teams to provide comprehensive care to older adults with complex medical histories. Currently, the Central Arkansas Veterans Healthcare System has a complete array of clinical programs in aging. These include a geriatric primary care clinic, a 162-bed nursing home care unit (which includes a dementia unit, a geropsychiatric unit, and a transitional care unit), a hospitalwide consultation service, an inpatient geriatric evaluation and management unit, an adult day health care program, a system of monitoring patients by telephone, home-based primary care with satellite offices across the state, transitional care, inpatient respite care, a geriatric rehabilitation medicine service, and hospice services.

Outreach: The Arkansas Aging Initiative

The RDG remains firmly committed to improving the health and well being of every older Arkansan, no matter where they reside. This commitment, plus our strength in geriatrics, led to $2 million in state funds for the Arkansas Aging Initiative (AAI). Our plans are summarized as follows.

- The Tobacco Settlement funds will be used exclusively to provide support for health care providers and general public education in seven Centers of Excellence in Geriatrics to be created in each of the AHEC regions. Two of the seven centers have been established. The

Schmieding Center for Senior Health and Education in Springdale opened in temporary space in May 2000, and a building to house the Schmieding Center on Aging is currently under construction and will open in January 2002. The South Arkansas Center on Aging in El Dorado opened in July 2001.

- For the designation as a Center on Aging, the local community must commit to the formation of a locally supported, hospital-based senior center. A major result of the program is that Senior Health Centers, like that in Little Rock, are now in place in Springdale, El Dorado, and Texarkana. Senior Health Centers are in development in Jonesboro and Fort Smith. It is anticipated that these centers will be fully functional by July 2002. A Senior Health Center will be in place in Helena by 2003. The result will be the creation of a statewide network of programs providing improved care to older persons.
- Educational programs are in development. A needs assessment is being conducted at each site across the state. Based on the results of the needs assessment, a unique program will be designed for each site. A portion ($250,000) of Tobacco Settlement funds has been earmarked for each of the seven sites; $250,000 will remain centrally to allow the RCOA to coordinate the statewide program.
- A doctoral-level educator has been hired centrally to coordinate the education program and develop modules applicable to each site.
- The AGEC, funded by the federal Bureau of Health Professions, will be a major resource for this effort. We are very confident a new application for continued support of this program will add an additional $350,000 annually to the support that we have centrally for outreach programs.
- Research will be a central aspect of this effort. We must assure the programs developed are of value and make a difference. Under the leadership of Dr. Victor Henderson, a grant has been funded by the Agency on Aging in Washington, DC, to undertake a pilot research study aimed at developing larger research programs that document efficacy.

DEVELOPMENT

During our capital campaign, the RCOA has received strong support from the community. While the majority of funds were earmarked for the facility, we were able to obtain some program support. A summary of our fundraising accomplishments is included in the following table.

Total Funds Raised by the RDG and RCOA—June 30, 2001

FUNDS RAISED TO SUPPORT THE FACILITY		
Donald W. Reynolds Foundation Building Support		$19,212,835
Facility Matching Funds		$3,685,000
Beverly Enterprises	($1,000,000)	
Jackson T. Stephens	($1,500,000)	
Other Donors	($1,185,000)	
Jackson T. Stephens Building Support (For Costs Not Covered by DWR Foundation)		$1,500,000
Ottenheimer Rehabilitation and Fitness Center		$1,150,000
Ottenheimer Brothers Foundation	($1,000,000)	
Hussman Foundation	($75,000)	
Walter Hussman	(37,500)	
Marilyn Augur	(37,500)	
Charles T. Meyer Aquatherapy Pool		$400,000
Center on Aging Art Fund		$272,676
Cooper Communities	($200,000)	
General Support for Art	($72,676)	
Center on Aging Library		$52,500
Elizabeth Pruet	($25,000)	
Judy Grundfest	($25,000)	
Nancy Kaufman	($1,500)	
Edward B. Dillion	($1,000)	
	Subtotal	**$26,273,011**
FUNDS RAISED TO SUPPORT PROGRAMS		
Donald W. Reynolds Foundation		$10,500,000
Donald W. Reynolds Endowed Chair for Public Policy		$1,500,000

Jackson T. Stephens Chair		$1,500,000
William and Alexa Dillard Chair		$1,500,000
Ingelwood Scholars Chair		$1,000,000
K.B. Udupa Chair		$1,000,000
Frank Lyon Family Endowment		$500,000
Support from Multiple Small Gifts ($10,000 or less)		$350,000
Charles and Joan Taylor Alzheimer's Fund		$160,000
Philip R. Jonsson Fund for Education		$150,000
Wilkie Hogan Alzheimer's Research		$50,000
Marion W. Miller Lovett Lecture Series		$50,000
Thompson Endowment		$30,000
Senior Net Technology Fund		$30,000
L.T. & Lou Speed Scholarship Fund		$25,000
	Subtotal	**$18,345,000**
FUNDS RAISED TO SUPPORT OUTREACH EFFORTS		
Schmieding Center for Senior Health and Education		$15,000,000
Gladys and Elmer Ferguson Family Rural Aging Program		$400,000
South Arkansas Center on Aging		$163,010
	Subtotal	**$15,563,010**
EXPECTED FUNDS RAISED THROUGH PLANNED GIFTS		
Anonymous donation		$500,000
Fred Darragh		$75,000
Howard & Johnie Moum Annuity # 1		$50,000
Howard & Johnie Moum Annuity # 2		$30,000
Carolyn Scruggs CRT		$26,074
	Subtotal	**$681,074**
TOTAL FUNDS RAISED		**$60,862,095**

Donald W. Reynolds Center on Aging

The RCOA was formally dedicated in September 2000. It is now fully functional and nearly fully occupied. It is a truly unique facility that creates a special synergy facilitating improvements in all aspects of our mission. Highlights of the facility follow.

- The educational resources include a superb auditorium named in honor of Jo Ellen Ford.

- State-of-the-art telecommunication resources will allow us to connect to affiliated programs throughout the state. Already conferences initiated elsewhere in the U.S. are offered in the RCOA. Conferences that we will stage will also be offered nationwide in the near future.
- Telemedicine and consultation resources are available in the facility.
- The Reynolds Senior Health Center is a state-of-the-art clinic focusing on the prevention of dependency. It is uniquely designed to meet the needs of an older population and to allow cohesive interdisciplinary care. The clinic invariably ranks, in surveys, as the post popular clinic on the UAMS campus. We expect to reach 18,000 clinic visits this coming year.
- A student lounge, equipped with workstations and computers, is available for medical students. There is Internet access, as well as access to electronic journals through the UAMS library Web site, to aid in medical student education.
- The Ottenheimer Rehabilitation and Fitness Center promotes functional independence and is the major site for ambulatory physical and occupational therapy for older persons. It also offers the Fitness for Life Program. For $30 a month, persons age 55 years or older can use exercise equipment under the close supervision of highly trained physical therapists.
- The Charles Meyer Aquatherapy Pool is extensively used for the rehabilitation of patients with gait and balance problems or with back and joint pain. It is also used for aerobic exercise training.
- A large area of the RCOA is devoted to health services research and the AD and related disorders program. This fully functional area is nearly fully occupied and includes the research programs of Dr. Cornelia Beck and Dr. Victor Henderson.
- One floor of the RCOA is devoted to clinical research: the Nutrition, Metabolism, and Exercise Laboratory, headed by Dr. William Evans.
- One floor in the building is devoted to basic research. This area is occupied by Dr. Sue Griffin and her group studying AD, Dr. Charlotte Peterson studying muscle, and Dr. Beata Lecka-Czernik studying the effect of aging on the ability of cells to form fat.
- The administrative area on the ground floor is well designed and fully occupied.

- A unique aspect of the RCOA is its art collection, which provides the facility with its personality. Made possible, in large part, by a gift from Cooper Communities, this $400,000 collection represents the best work of Arkansas artists with a special emphasis on those who are older.

SUMMARY

A great deal of progress has clearly been made since the inception of the Reynolds Department of Geriatrics in July 1997. The program is now stable and robust and continues to grow. Our goals for the future are to consolidate and expand our existing programs. A main goal will be the recruitment of a second person to head the RDG. This will allow us to expand our critical mass of geriatric medicine specialists, increase research opportunities, and provide a greater array of options for academic mentoring of young geriatrics trainees.

VII. Executive Summary: Schmieding Center for Senior Health and Education Annual Report 2001

Executive Summary 2001

The Schmieding Center for Senior Health and Education was established January 1, 1999 as the first satellite Center of Excellence affiliated with the Donald W. Reynolds Center on Aging at the University of Arkansas for Medical Sciences. The Schmieding Center is a cooperative effort by the Center on Aging, the Area Health Education Center-Northwest, and Northwest Health System. The purpose of the Center is to provide patient care services and education about aging issues for the community and health professionals to the citizens of Northwest Arkansas.

The service area for the Schmieding Center for Senior Health and Education includes 11 counties: Washington, Benton, Carroll, Madison, Boone, Newton, Marion, Searcy, Baxter, Stone, and Izard. Since its inception, the Schmieding Center has focused on education and patient care services in Washington County. This year several education programs were offered in other counties as part of the initial outreach effort. During 2002, the outreach program will be designed and implemented to cover the entire 11 county area. To reflect the expansion of the programs, the name of the Schmieding Center was changed to the Schmieding Center for Senior Health and Education of Northwest Arkansas.

The third annual report details the growth, accomplishments, and progress made by the Schmieding Center for Senior Health and Education in the year 2001.

Administration

The administrative structure changed for 2001 with the appointment of Beth Vaughan-Wrobel, EdD, RN to the position of Associate Director. Also the amount of her time with the Schmieding Center was increased to 90%. Larry Wright, MD continued to serve as the Director of the Schmieding Center for Senior Health and Education for 30% time. In 2002 his time with the Center will increase to 50%.

The leadership team, composed of representatives from the partner organizations, continued to meet monthly to review the activities of the Center. Due to the planning that is occurring for the outreach of the Schmieding Center, the Executive Director of the Area Agency on Aging of Northwest Arkansas was added to the leadership team.

The current 1999-2001 Milestone Chart was used throughout 2001 to direct the activities of the Schmieding Center and a new milestone chart was prepared for 2002-2004.

The Schmieding Center for Senior Health and Education Community Advisory Committee with representatives from the community, Schmieding Foundation, AHEC-NW, and Northwest Health, met quarterly. Dr. Claudia Beverly, Director of Arkansas Aging Institute, continued to serve as Chair of the Advisory Committee. The role and membership of this Committee will expand during 2002.

Physical Facilities

The Center for Senior Education and the Center for Senior Health continued to operate in separate quarters during 2001. These temporary spaces are no longer adequate because of the increase in number of patients seen in the clinic, students in the home caregiver training program, and education programs offered, as well as the addition of staff.

The target date for completion of the new building is January 31, 2002, and the open house is planned for April 9, 2002. Everyone is eagerly awaiting the opening of this lovely new facility.

Schmieding Center for Senior Education

The program structure of the Schmieding Center for Senior Education was revised to include information technology, and a Coordinator of Information Technology was employed. The components of the program structure now include: Education Programs, Elder Care Programs, and Information Technology.

Education Programs: The home caregiver training program continued to be very successful during 2001. The curriculum was approved by the Office of Long Term Care and was registered with the federal copyright office.

Forty-nine (49) persons graduated from the Elder Pal courses, 31 from the Personal Care Assistant courses, and 8 from the Home Care Assistant courses. Since 1999, a total of 126 persons have graduated from the Elder Pal training, 76 from the Personal Care Assistant training, and 16 from the Home Care Assistant training.

During 2001, 9 undergraduate registered nursing students, 9 licensed practical nursing students, and 2 family nurse practitioner students completed rotations through the clinic and education center. Two students started the clinical sequence of courses for the gerontology nurse practitioner program. Plans were made for senior medical students to start rotations at the Schmieding Center in July 2002.

The continuing education programs for health professionals and nursing assistants increased this year. Nine (9) programs were offered to 349 registered nurses and 14 programs were provided to 122 nursing assistants. Several programs were offered for the medical community.

The community education programs were well received again this year. Forty-three (43) programs were offered to 1,042 attendees. The staff of the Center for Senior Education presented 30 programs to over 716 persons in the community. In March, the staff started producing a newspaper column for a local newspaper and 15 columns were published.

Elder Care Programs: The Schmieding Center serves as the information center for all resources in Northwest Arkansas for home care, caregiving and aging issues. 519 consultations were provided to persons needing assistance with caregiving concerns. The

Schmieding Center Registry of Caregivers lists those persons graduating from the home caregiver training program who want to be known that they are available for service. The Registry is mailed to any person in the community who requests it.

The Dementia Caregiver Support Group is a 10-week education program that teaches caregivers how to use Validation as a way to communicate with people who are confused, disoriented, or have dementia. One group was held in late 2001 with an average of 10 persons attending each session. Application has been made for the Schmieding Center for Senior Education to become an Authorized Validation Organization. With the designation, the Center would be authorized to officially provide Validation Therapy training on a regional basis.

Schmieding Center for Senior Health

The Center for Senior Health provides primary care and geriatric consultations to older adults by an interdisciplinary team composed of 2 geriatricians, 2 nurse practitioners, a medical social worker, a neuropsychologist, and nursing and support staff. The clinic has experienced patient growth and another geriatrician will join the practice in December. Over 8,000 patient encounters occurred January-November 2001. In addition to the outpatient care rendered in the clinic, the geriatric team actively cared for patients in the hospital and nursing home. The staff also made over 150 home visits throughout the year.

The staff made several presentations in the community, was on television, and appeared in newspaper articles. As with the Center for Senior Education, having the staff visible in the community serves as good publicity and promotion of the services provided at the Schmieding Center.

In 2002, Northwest Health will launch a large campaign to promote their senior services. This will coincide with the opening of the new building of the Schmieding Center for Senior Health and Education of Northwest Arkansas. At that time the name of the clinic will become Northwest Senior Health – Schmieding Center.

Conclusion

The accomplishments of the Schmieding Center for Senior Health and Education of Northwest Arkansas have been many during 2001 and reflects the success of the program. Throughout the year, several persons have visited Northwest Arkansas to learn more about the education programs and patient care services offered through the Schmieding Center.

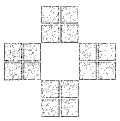
As the programs have grown and developed during 2001, the physical facilities housing the clinic and education programs have been stretched to their maximum capacity. The staff is eagerly awaiting the completion of the new building and the opportunity to dedicate it to the mission of the Schmieding Center for Senior Health and Education of Northwest Arkansas on April 9, 2002.

VIII.

John A. Hartford Foundation (JAHF) Geriatric Nursing Initiatives

JOHN A. HARTFORD FOUNDATIONN (JAHF) GERIATRIC NURSING INITIATIVES

Program Title	Program Focus	Program Components	Coordinating Center/Contact	Start Date	Funding Level
The JAHF Geriatric Interdisciplinary Team Training (GITT) Program	Developing models of academic geriatric interdisciplinary team training in medicine, nursing, and social work.	Curriculum, training and evaluative materials for team development in academic centers	New York University Division of Nursing; Dr. Terry Fulmer, Director; Jacqueline Jenkins, Contact: Jl15@nyu.edu; http://www.gitt.org	1995	13 sites for planning year @ $ 1.3 million. 10 sites for 3 years @ 9.5 million. NYU Resource Center renewed for 3 years @ $1.3 million. Proposal pending for NYU RC for additional 2 years @ $325,000.
The JAHF Institute for Geriatric Nursing	Promoting the highest level of competency in the practicing nurse	A national resource for training materials and best practices for nursing students, faculty and practicing nurses	The New York University Division of Nursing; Dr. Mathy Mezey, Director; Elaine Gould, Contact: Elaine.Gould@nyu.edu; http://www..Hartfordign.org	1996	$5 Million for 5 years. Renewed in 2001 at same level
The JAHF Program: Building Academic Geriatric Nursing Capacity	Developing academic leaders, scholarship, and best practices in geriatric nursing	5 Academic Centers of Excellence; pre & post doctoral & MBA scholarships; leadership development.	The American Academy of Nursing (AAN); Dr. Claire Fagin, Program Director; Patty Franklin, Contact: Pfrankli@ana.org	2000	5 year program funding 5 Centers @ at total of $6,652,601 and the Coordinating Center & Scholar Program funded @ $8,053,045 over 5 years.
The JAHF Geriatric Nursing Education Project	Increasing gerontological nursing content in baccalaureate and advanced practice nursing programs	Awards to 20 baccalaureate and 10 advanced practice nursing programs for curriculum and clinical innovation in geriatric nursing.	The American Association of Colleges of Nursing; Dr. Geraldine "Polly" Bednash, Executive Director; Dr. Joan Stanley, Project Director & Contact: jstanley@aacn.nche.edu Http://www.aacn.nche.edu	2001	A 3 year program totaling $3,997,443.
The JAHF Nursing School Geriatric Investment Program	Expand the capacity for leadership in the field of geriatric nursing in major schools of nursing.	Awards made to 7 schools of nursing to support strategies to advance the quality of health care to older adults.	The American Academy of Nursing (AAN): Dr. Claire Fagin, Program Director: Patty Franklin, Contact: Pfrankli@ana.org	2001	A 3 year program totaling $2,201,954.
The JAHF Creating Careers in Geriatric Advanced Practice Nursing	Developing careers and enhancing practice and leadership capacity in geriatric nursing	Scholarship support for students enrolled in advanced practice nursing programs in geriatrics	The American Association of Colleges of Nursing; Dr. Geraldine "Polly" Bednash, Executive Director; Dr. Joan Stanley, Project Director & Contact: jstanley@aacn.nche.edu http://aacn.nche.edu	2002	A 3 year program totaling $2,229,168.



BUILDING ACADEMIC GERIATRIC NURSING

Caring for Older Americans

Recommendations for Building a National Program For Graduate Nursing Education In Gerontology

Based on the Proceedings from the Expert Panel on Graduate Geriatric Nursing Education and Practice

March 2001

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A John A. Hartford Foundation Program Initiative

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Sponsoring Partners

The John A. Hartford Foundation's
Building Academic Geriatric Nursing Capacity Program
and the
Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration, Department of Health and Human Services

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Executive Summary

The nursing shortage in the United States is well documented. There is a crisis atmosphere when discussing this problem in health care forums. Beyond the critical issue of the nursing shortage, however, lies a much greater problem bearing down on our older Americans, a segment of the population that grows day by day and has unique health problems needing specialized care.

As Americans age, their healthcare needs change dramatically. For example, in addition to changing nutritional needs, personal habits and physical activity levels, older adults' responses to certain medications and pharmaceutical drugs may also change. Meanwhile, the nursing profession that has the knowledge and training to appropriately address and respond to these changes does not have the personnel to keep pace with these growing needs.

The shortage of nurses to care for older Americans is felt acutely in hospitals, long-term care facilities and home care service agencies. Despite the increased aging of the population and the associated need for nursing services in long-term care facilities, the number of nurses working in these facilities has decreased by more than 10 percent since 1996. Furthermore, there is currently no nationally-accepted geriatric specialty curriculum in the United States to prepare those individuals interested in pursuing geriatric nursing.

According to a study presented at the **Expert Panel on Graduate Geriatric Nursing Education and Practice**, only 4,200 nurses (out of an estimated 70,000-80,000 advanced practice nurses) have been certified by the ANCC as advanced practice gerontological nurses since 1991. When broken down, those numbers show that only 3,400 geriatric nurse practitioners and 800 gerontological clinical nursing specialists have been certified in the last 10 years. Because the current advanced practice gerontological nurse workforce it is so small and practices predominantly in institutional long-term care and urban settings, it is growing more difficult to answer the increasing demand for quality geriatric health care. Further, payment and licensing issues present significant barriers to advanced practice nurses who choose geriatrics as a specialty field.

And so, we have the typical good news/bad news scenario: Americans are living longer, more productive and fulfilling lives, but the nursing profession—an integral part of an effective health care system—is not keeping pace, either in education or numbers, with this growing segment of the population.

To confront the issues facing graduate geriatric nursing education in the United States today, an expert panel was convened in March 2001 in Washington, D.C. The papers presented by panel members focused primarily on the need for more advanced practice gerontological nurses and the gaps that exist in advanced practice geriatric nursing education. Specific topics addressed how to integrate geriatric content into master's-level coursework, the role of "telehealth" in the future of graduate geriatric nursing education, and insuring cultural competence in nursing care of older adults.

The **Expert Panel on Graduate Geriatric Nursing Education and Practice** was charged with two goals:

1. To develop strategies to strengthen the education of master's-level nurses for geriatric practice
2. Provide the foundation for a national effort for advanced graduate nursing education in gerontology

The following recommendations are based on the proceedings of the panel's two-day conference. Within the six recommendations lies the cornerstone of the group's work: The need to produce more advanced practice gerontological nurses. Associated with this need was a call for the creation of a nationally-standardized geriatric nursing curriculum for all master's-level nursing, a curriculum which will prepare sufficient numbers of gerontological nurse practitioners who will provide the expert care for the nation's growing number of older Americans.

These recommendations provide an outline for further discussion of building a national program for graduate nursing education in gerontology. Specifically, the recommendations call for a new, national curriculum to be created after the current status of geriatric nursing has been studied and a consensus has been reached on the needs for the future.

Further, it is recommended that faculty members teaching geriatric nursing must themselves receive advanced geriatric education. In order to build the pool of faculty for this field, it is recommended that innovative funding mechanisms be created. And finally, a national tracking system must be created so that educators and practitioners can regularly evaluate the profession, and that all pertinent information gained from these efforts be made available in a repository of geriatric nursing knowledge.

NOTE: Some of the issues discussed in the meetings were not directly applicable to these six recommendations, but will be useful in the ongoing discussions of a new, national geriatric nursing curriculum. These ideas are included in an appendix.

Recommendation One

Increase the numbers of gerontological nurse practitioners and other advanced practice gerontological nurses

The current number of gerontological nurse practitioner programs cannot meet the need for quality geriatric health care services. Strengthening existing masters-level programs and developing new, innovative and flexible graduate programs must begin now in order to attract nurses who will serve as clinical leaders in geriatric nursing within the future health care system.

Actions

- Blend programs and specialty areas such as clinical nurse specialists/nurse practitioner roles
- Develop post-master's-level programs in gerontology
- Develop fast-track (BS-MSN) curricula to prepare Gerontological Nurse Practitioners (GNPs)
- Offer major and minor concentrations in graduate geriatric nursing education programs
- Develop programs that encourage adult, family, oncology, and women's health master's-level programs to prepare graduates dually eligible for certification in a specialty and in geriatrics

Develop incentives for practicing nurses to pursue a new career focus in geriatric nursing

Recommendation Two

Obtain innovative funding for graduate study in geriatric nursing

Building a national geriatric nursing curriculum will require a targeted effort to identify public and private sources of funds to support projects with a geriatric focus. This requires building public/private partnerships and partnerships within the private sector to provide funding to strengthen the role of geriatric nursing.

Actions

- Establish funding mechanisms to support innovative clinical experiences and preceptorships
- Develop new categories of publicly- and privately-supported grants focused on geriatric education and practice (e.g. grants to support oncology nurses who wish to study geriatric components)
- Require a commitment of students who receive financial aid from a participating institution to work in geriatric care settings after graduation
- Work with employers to provide incentives for nurses to obtain geriatric specialty training
- Link with state-level work force development efforts to encourage the growth of geriatric nursing
- Establish criteria for loan forgiveness programs

Recommendation Three

Prepare faculty that will prepare master's-level gerontological nurses

There is a shortage of nursing faculty on the master's level. The panel recommends immediately increasing faculty development in advanced practice geriatric nursing to create a teaching force that will be ready and able to put the new curriculum to use. Work must begin now to provide all nursing faculty members with core knowledge of standardized geriatric content and practice.

Actions

- Develop a mentoring program in which experienced geriatric faculty encourage and support the interests of other nursing faculty
- Build a consultation network of geriatric nursing experts to assist educational institutions in improving their geriatric content
- Build an awareness among existing nursing faculty about geriatrics and the need for geriatric content to be included in all nursing education courses
- Host workshops for non-geriatric faculty to expose them to practical experiences in geriatrics
- Offer faculty stipends/tuition for summer internships in geriatrics

Recommendation Four

Develop a new, national master's-level geriatric nursing curriculum

The demographics of the American population mandate that all levels of nursing education prepare graduates to provide competent, quality health care to older adults. Therefore a new national master's-level geriatric nursing curriculum must be developed to prepare a workforce that is ready to respond to the demands of this growing segment of the population. These advanced practice gerontological nurses must also have an understanding of and competence in health care systems, reimbursement sources and interdisciplinary practice.

Actions

- Create a geriatric nursing "education pipeline" that will encourage nurses at the undergraduate level to consider and plan for careers as master's-level gerontological practitioners and/or faculty
- Develop new geriatric core competencies and credentialing requirements, using evidence from collective research and data (see Recommendation Five)
- Establish a team of national geriatric nursing experts to develop the curriculum and call upon national nursing organizations for support
- Develop joint ventures with Geriatric Education Centers
- Enhance existing Centers of Geriatric Nursing Excellence and add more centers that may also be designated as regional centers
- Develop core geriatric curriculum components and apply them to all other advanced practice nursing programs

Recommendation Five

Create national standards, methodologies and a tracking system for evaluating the status of graduate-level geriatric nursing

At present, there is no standard mechanism by which to measure, coordinate or track data on the impact geriatric nursing has on the patient population or on the practice of nursing. Evaluating progress within the profession is made more difficult given that no standard indicators exist. Only with more research and data can evidence-based curricula, consistent with nationally standardized competencies and identified needs, be developed.

Actions

- Form a task force to determine the methodologies needed to track data on:
  - the supply of advanced practice gerontological nurses
  - the programs preparing advanced practice nurses
  - the articulated need for these graduates
- Create geographic clusters of agencies and academic centers to profile the aging population by service area to find strengths and weaknesses in levels of care (i.e. tracking the number of geriatric nurses in long-term care and resident care facilities)
- Launch a targeted effort to identify public and private sources of funds to support research projects with a geriatric nursing focus
- Establish standard indicators by which geriatric nursing can evaluate its progress

Recommendation Six

Create a repository of geriatric nursing knowledge

Information on the supply and demand of advanced practice nurses, programs and current state of knowledge in geriatric nursing will be accumulated, stored and shared through a dynamic center that promotes access to geriatric resources and enhances scholarly dialogue among nurses, providers and consumers.

Actions

- Develop a plan for evaluating and approving materials for the repository
- Determine gaps in existing geriatric materials and make appropriate recommendations
- Collaborate with key partners, such as the National Library of Medicine, to expand resources and establish public awareness
- Develop effective electronic communication pathways

Appendix

Below is a compilation of the panel's suggestions that are relevant to the overall recommendations and worth further consideration when building a national program for graduate nursing education in gerontology.

- Consider the community that comprises all of the organizations, agencies, patients and other individuals involved in geriatric care when developing educational content
- Include an identified level of geriatric competencies as a program outcome of all nursing education
- Evaluate programs and develop evidence-based research techniques when developing geriatric nursing education
- Host a national summit on geriatrics to address the need to improve recruitment and retention of nurses in geriatric settings
- Integrate geriatric nursing and practice into broader public relations activities in the nursing community, such as the nursing PR campaign "Nurses for Healthier Americans"
- Hold sessions and panel discussions about geriatric nursing at broader nursing meetings and conferences
- Establish a "Speakers Bureau" of geriatric nursing experts who inspire interest in geriatric nursing
- Establish preceptor arrangements between advanced practice students and geriatric nursing leaders
- Require a commitment of students who receive financial support from a participating institution to work in geriatric care settings after graduation
- Establish criteria for follow-up after graduation to determine if students who were supported continue to use their geriatric knowledge and skills
- Evaluate outcomes of nursing assistant-to-registered nurse student projects supported by Division of Nursing grant funds
- Integrate core geriatric content, including mental health, family theory, and the consultative role of the advanced practice nurse, into other specialty areas (i.e. adult and oncology nursing)
- Develop practice-oriented, interdisciplinary educational programs that link clinicians, educators and students

- Include geriatric education in paraprofessional, associate, baccalaureate, graduate, and post-graduate programs for nurses

- Include in the nursing knowledge repository: practice models; best practices; consultative roles; evaluated models of practice; continuing care communities; education models; learning activities and exercises; paraprofessional training; innovative curriculum designs; innovative uses of technology; success stories and cautionary tales; Web-based resources; workforce issues; consumer issues; case studies; national research papers

- Encourage paraprofessionals to pursue geriatric nursing degrees and encourage all interested and competent nursing students to seek leadership training

- Promote and provide professional development opportunities to practicing nurses so they will be able to provide competent, quality care for older adults

- Develop administration programs for certified geriatric nurses

- Broaden the focus of geriatric nursing through continuing education programs in such areas as reimbursement systems, care management, collaborative practice supervision, and delegation

- Convene accrediting bodies to consider new models of certification that eliminate onerous requirements of dual certification and promote reasonable certification requirements

- Review competency process being conducted by AACN to ensure compatibility

- Identify and evaluate barriers to certification

Panel Members & Participants

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John A. Hartford Foundation, Inc.

Donna I. Regenstreif, PhD, Senior Program Officer

Sarajane Brittis, PhD, Program Officer

The CHAIRMAN. Thank you very much, Ms. Beverly.

Mr. Martin.

STATEMENT OF MICHAEL MARTIN, EXECUTIVE DIRECTOR OF THE COMMISSION FOR CERTIFICATION IN GERIATRIC PHARMACY, ALEXANDRIA, VA

Mr. MARTIN. Good morning, Mr. Chairman, Senator Craig, Senator Hutchinson, Senator Lincoln. My name is Michael Martin and I am the Executive Director of the Commission for Certification in Geriatric Pharmacy or CCGP.

I would first like to commend the members of this committee for their support and work on legislation to assist seniors gain access to improved care under Medicare, to receive coverage for prescription drugs, and to improve the quality of care in nursing facilities. In addition, I would like to commend the members' current interest in enacting Federal standards in assisted living facilities to improve quality of care.

CCGP was invited by the Alliance for Aging Research to join the efforts to unite the health professions in addressing the critical lack of geriatric-trained health care professionals. CCGP is proud to state that it has been proactive and in the forefront of identifying the need for pharmacists who are specially trained to provide pharmaceutical services to the nation's elderly population. In fact, we were created in 1997 principally to identify this need, document the scope of practice, and administer a post-licensure certification process to recognize those pharmacists with the unique requisite skills to provide comprehensive care to the elderly.

Effectively caring for the elderly requires a cooperative effort among the entire health care team. I am here today to discuss the role of pharmacists in the interdisciplinary health care team and specifically how certified geriatric pharmacists or GCPs can improve the medication and therapy management of seniors. I will also address areas in which congressional action can help to increase seniors' access to the expertise of pharmacists.

The CGP designation can help ensure consumers that the pharmacist has special knowledge regarding the needs of the senior population. CGPs can be effective in any setting to manage seniors' medication regimens, including hospitals, the community, and long-term care.

Currently the CGP designation is the only designation that recognizes the clinical expertise of these senior care pharmacists. This designation has been recognized in the pharmacy practice acts of Arizona, North Carolina and Ohio. The CGP credential also has been recognized by the Department of Veterans Affairs and is recognized in Australia and Canada. Yet only 720 out of nearly 200,000 pharmacists in the United States have received the CGP designation. The reasons for this include the following.

Lack of Federal recognition of pharmacists under the Social Security Act makes the pharmacist unable to bill Medicare and Medicaid for the clinical services that they provide to manage patient medication therapy.

Most pharmacists who currently specialize in senior care have acquired their skills on the job because until recently, the clinical literature lacked data regarding the effects of medications on sen-

iors, particularly the old old, those aged 85 and older, the fastest-growing segment of our population.

The lack of formal training in geriatric pharmacy. Currently schools of pharmacy often lack the availability of curriculum in geriatric care. As the members of this committee are aware, a shortage of pharmacists currently exists in the United States.

There are a number of reasons why geriatrics has not been a popular specialty for health care providers. These include the complexity of care for older patients, an unfortunate lack of interest in individuals approaching the end of their lives and most significantly, a lack of payment mechanisms that address the unique medical approach required to effectively manage older patients.

This lack of emphasis on the special medication needs of seniors must end. Currently, medication-related problems cost the United States health care system more than $200 billion per year and are the fifth leading cause of death in the United States. These medication-related problems, including adverse drug reactions, improper dosing, either over- or underprescribing, multiple medications for the same indication, and drug-induced hospitalizations, are often preventable. In fact, a 1997 study published in the Archives of Internal Medicine found that in nursing facilities, interventions by consultant pharmacists reduced the number of patients who experienced a medication-related problem by almost 50 percent and saved $3.6 billion per year in these settings.

To assist pharmacy and the geriatric population to gain access to the types of services necessary to ensure the highest quality of care, I urge the committee and your colleagues in Congress to take the following steps.

Pass a Medicare prescription drug benefit that includes pharmacy for pharmacist medication therapy management services. This legislation should recognize the CGP designation for pharmacists who participate in medication therapy management.

Pass legislation to recognize pharmacists under the Social Security Act to allow pharmacists to be paid directly for the clinical services they provide.

Pass legislation to provide funding for additional pharmacists to relieve the shortage and to provide incentives to bolster geriatric curriculum in schools of pharmacy.

Provide funding for pharmacist residency programs in geriatric care. Schools of pharmacy need to develop curriculum to teach students and incentives need to be provided for students to complete rotations at hospitals, nursing facilities and other long-term care facilities and in the community to provide for the special needs of seniors.

Sponsor and support legislation to require additional pharmaceutical research regarding the effects of medication on the elderly.

Preserve the Federal Nursing Facility Standards and the requirement that consultant pharmacists provide drug regimen review to reduce medication-related problems.

The CHAIRMAN. Mr. Martin, excuse me. I am going to have to ask you, if you could, to summarize because we just had a vote that has just begun.

Mr. MARTIN. Yes, sir.

We must reform the way our nation approaches medical care for seniors. Effective health care for seniors requires a coordinated assessment and case management provided by an interdisciplinary team focussed on the patient's overall well-being. Public and private health care systems simply do not pay for that kind of care. Instead, they pay for extensive tests and treatment but not for the kind of care needed to identify the at-risk elderly and protect them from potentially life-threatening medical problems.

Again thank you very much for this opportunity to appear before you to address this important national issue and we look forward to working with you on this issue in the future.

[The prepared statement of Mr. Martin follows:]

Statement of

Michael C. Martin

Executive Director

Commission for Certification in Geriatric Pharmacy

(CCGP)

Before the

Senate Special Committee on Aging

Regarding

The Lack of Health Care Professionals

Trained in Geriatric Care

February 27, 2002

COMMISSION FOR CERTIFICATION
IN GERIATRIC PHARMACY

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Mr. Chairman and Members of the Subcommittee,

My name is Michael C. Martin and I am the Executive Director of the Commission for Certification in Geriatric Pharmacy (CCGP). I would first like to commend the Members of this committee for their support and work on legislation to assist seniors gain access to improved care under Medicare, and to receive coverage for prescription drugs, and to improve the quality of care in nursing facilities. In addition, I would like to commend the Members' current interest in enacting federal standards in assisted living facilities to improve quality of care.

CCGP was invited by the Alliance for Aging Research to join their efforts to unite the health professions in addressing the critical lack of geriatric-trained health care professionals. Effectively caring for the elderly requires a cooperative effort among the entire health care team. I am here today to discuss the role of pharmacists in the interdisciplinary health care team and specifically how Certified Geriatric Pharmacists (CGPs) can improve the medication therapy management of seniors. I also will address areas in which Congressional action can help to increase seniors' access to the expertise of pharmacists.

CCGP was founded in 1997 by the American Society of Consultant Pharmacists (ASCP) to oversee the certification program in geriatric pharmacy practice. ASCP is the international professional society representing senior care pharmacists to provide medication therapy management and distribution services to the senior population in nursing homes, assisted living facilities, adult day care centers, retirement communities, and in the home. CCGP was created to recognize and certify those pharmacists who have the special knowledge, skills, and abilities to provide comprehensive pharmaceutical care to the elderly. CCGP is a nonprofit corporation, autonomous from ASCP and with its own governing Board of Commissioners. CCGP is responsible for establishing certification standards, developing and administering the Certification Examination in Geriatric Pharmacy, establishing eligibility criteria and program

policies, and issuing credentials. Candidates who successfully meet all program requirements receive the designation "Certified Geriatric Pharmacist" or CGP.

To earn the CGP credential, pharmacists must demonstrate their expertise through a rigorous, three-hour, psychometrically sound certification examination. The 150-item multiple-choice CCGP exam is designed to assess candidates' knowledge in three areas of practice: patient-specific activities (34%), disease-specific activities (56%), and quality improvement/utilization management activities (10%). The exam was developed by a 12-member committee of geriatric pharmacy practitioners and educators under the guidance of CCGP testing contractor Applied Measurement Professionals, a nationally prominent testing company based in Lenexa, Kansas.

The CGP designation can help ensure consumers that the pharmacist has special knowledge regarding the needs of the senior population. CGPs can be effective in any setting to manage seniors' medication regimens, including hospitals, the community, and long-term care.

Currently, the CGP designation is the only designation that recognizes the clinical expertise of these senior care pharmacists. This designation has been recognized in the pharmacy practice acts of Arizona, North Carolina, and Ohio. The CGP credential also has been recognized by the Department of Veterans Affairs and is recognized in Australia and Canada. Yet, only 720 out of nearly 200,000 pharmacists in the United States have received the CGP designation. The reasons for this include the following:

- Lack of federal recognition of pharmacists under the "Social Security Act" makes pharmacists unable to bill Medicare and Medicaid for the clinical services that they provide to manage patient medication therapy. To remedy this situation, Senator Tim Johnson introduced S. 974, "The Medicare Pharmacists Services Act," that would recognize pharmacists under the "Social Security Act" and bill Medicare for the services they provide.

- Most pharmacists who currently specialize in senior care have acquired these skills on the job because until recently the clinical literature lacked data regarding the effects of medications on seniors, particularly the "old, old", age 85 and older, the fastest growing segment of the population. Because of the effects of aging on the body, seniors require very specific dosing adjustments to ensure that toxicity leading to medication-related problems do not occur. However, until recently and even now, clinical literature does not provide the necessary information to appropriately provide care. As a result, many pharmacists are not confident with their ability to manage the medication therapy of seniors much less become certified in geriatric care. This committee should sponsor and support legislation to require additional pharmaceutical research regarding the effect of medications on the elderly.

- Lack of formal training in geriatric pharmacy. Currently, schools of pharmacy often lack the availability of curriculum in geriatric care. Students should be trained in schools of pharmacy regarding the special needs of seniors. The lack of expertise among current pharmacists leads to a vicious cycle of a lack of experts to teach students to become geriatric pharmacists. Just like the need exists for schools of pharmacy to develop curriculum to teach students, incentives need to be provided for students to complete experiential rotations at hospitals, nursing homes and other long-term care facilities, and in the community to provide for the special needs of seniors.

- As this committee is patently aware, a shortage of pharmacists currently exists in the United States. This means that pharmacists often work 6-7 days a week leaving little time for preparation for a rigorous exam to earn a credential in geriatrics. This could be relieved through legislation proposed by Representative Jim McGovern in the House. This bill would provide federal funding to schools of pharmacy to increase the number of pharmacists to relieve the current shortage.

There have been promising signs that interest in geriatrics, and the awareness of the impending crisis in health care for older Americans, is increasing. There are countless advocacy groups representing the aging, nearly all educational institutions address geriatrics, and frequent reports in the media on health issues among older Americans reflect the growing importance of this issue. But it's clear that the rate at which medical schools, pharmacy schools, nursing, and other health care disciplines are producing individuals who have the motivation and expertise to manage this complex population continues to lag behind its staggering growth.

There are a number of reason why geriatrics has not been a popular specialty for health care providers. These include: the complexity of care for older patients; an unfortunate lack of interest in individuals approaching the end of their lives; and, most significantly, a lack of payment mechanisms that address the unique medical approach required to effectively manage older patients.

This lack of emphasis on the special medication needs of seniors must end. Currently, medication-related problems cost the United States health care system more than $200 billion per year (approximately 60 percent can be attributed to the geriatric population) and are the fifth leading cause of death in the United States. These medication related problems including adverse drug reactions, improper dosing (over or under prescribing), multiple medications for the same indication, and drug induced hospitalizations are often preventable. In fact, a 1997 study published in the *Archives of Internal Medicine* found that in nursing facilities, interventions by consultant pharmacists reduced the number of patients who experienced a medication related problem by almost 50 percent and saved $3.6 billion per year in these settings.

The need for pharmacists' intervention, particularly CGPs, will become more acute as medications become a more integral part of medical therapy. While medications may replace other more invasive medical interventions such as surgery, they are sophisticated technology that require careful monitoring by highly trained professionals. This need will increase when Medicare finally provides seniors with a drug benefit. Already, seniors age 65 and over consume nearly one-third of the one billion prescriptions dispensed each year. The percentage of prescription products consumed by seniors will continue to grow as millions of baby boomers age and require medications for chronic conditions. In addition, the number of prescriptions dispensed continually increases each year and this number will also increase.

To assist pharmacy and the geriatric population gain access to the types of services necessary to ensure the highest quality of care; I urge the committee and your colleagues in Congress to take the following steps:

- Pass a Medicare prescription drug benefit that includes pharmacy for pharmacist medication therapy management services. This legislation should recognize the CGP designation for pharmacists who participate in medication therapy management.

- Pass legislation to recognize pharmacists under the "Social Security Act" to allow pharmacists to be paid directly for the clinical services they provide.

- Pass legislation to provide funding for additional pharmacists to relieve the shortage and to provide incentives to bolster geriatric curriculum in schools of pharmacy.

- Provide funding for pharmacist residency programs in geriatric care.

- Preserve the federal nursing facility standards and the requirement that consultant pharmacists provide drug regimen review to reduce medication related problems.

Much of the tragic waste of health care resources, and even more tragic consequences to our nation's seniors is preventable. In Medicare and Medicaid certified nursing facilities, for example, federal standards require that a consultant pharmacist review every resident's prescribed drug regimen at least once a month, and report concerns and recommendations to physicians. These professional services provided by the pharmacist save millions every year by preventing or resolving medication-related problems. Every Medicare and Medicaid-eligible senior should be afforded, as a basic protection, the kind of pharmacist-conducted medication supervision that protects today's nursing facility residents.

When nursing facility reforms, including requirements for monthly drug regimen reviews conducted by a consultant pharmacy, were enacted in 1974, the typical nursing home resident was indistinguishable from today's assisted living resident. The health status and medication use patterns of seniors who reside in assisted living facilities and in the community are nearly identical to those of nursing facility residents.

Thirty years ago, many individuals were placed in nursing homes because of incontinence or other disability that today can be managed by drug therapy or improved support systems. But the kind of abuses, poor supervision, and inadequate care that led to federal nursing home reforms are already being seen in the growing assisted living environment.

There are no federal standards protecting residents of assisted living facilities, nor for Medicare- or Medicaid-eligible seniors in a variety of other settings. And, of course, while the Medicare program does not pay for outpatient prescription drugs for community dwelling seniors, it pays billions for the health consequences of medication-related problems.

Pharmacists save lives. They can save more, as well as millions of health care dollars, if mechanisms are in place that pay qualified pharmacists for their professional medication consulting services, either as part of compensation for dispensing pharmaceuticals, or as a separate clinical service.

Certified Geriatric Pharmacists, the experts in monitoring pharmacotherapy in seniors, are uniquely qualified to identify individuals who are at high risk for medication-related problems, or to identify and resolve health problems that are not being recognized as drug-related. Pharmacists act as patient advocates on behalf of the seniors they serve, working with physicians, nurses, caregivers, family members, and other health professionals to protect seniors from drug related problems and improve their quality of life.

Certified Geriatric Pharmacists are particularly aware that seniors, such as those living in nursing facilities, are often forgotten. Many nursing facility residents have no family, or receive visitors only rarely. They may be difficult to manage and hard to communicate with, but geriatricians, pharmacists, nurses, and other's dedicated to geriatric medicine serve as their advocates, and recognize their value.

If we continue to neglect the health care needs of seniors, the health care system will face collapse under the incredible cost of tens of millions of seniors living into their 70s, their 80s, their 90s, and beyond. Care for the elderly requires looking at the whole patient, not just a disease or an organ system, to anticipate the enormous health risks facing nearly every senior. It is a focus not on one ailment, or even on the management of symptoms, but of preserving the patient's ability to live as independently as possible, to allow them to continue, as long as

possible, to perform their activities of daily living and to preserve their functionality.

Yes, seniors want to be free of pain, and they want to manage their symptoms and chronic illness. But what seniors want most of all is to preserve their independence, to avoid being a burden to others, to be treated with respect and consideration. In seniors, drug related problems cannot be viewed in isolation, nor even can a review of all the drugs a geriatric patient consumes yield a complete picture of the risk for drug-related problems.

For example, the consensus of opinion among researchers and clinicians is that an elderly individual who takes nine or more medications should be considered at risk for medication related problems. That's a conclusion you could draw without any additional information about the patient. But a senior taking only four different prescribed medications who also has a history of falls or incontinence is also considered to be at risk for medication problems, according to a consensus drawn from evidence-based research.

Why? Because a potentially catastrophic event for a senior, such as a fall, is actually a medication-related problem. Health care providers who are not specialists in the care of the elderly may not recognize it as such, but medications that cause dizziness, or that make a senior get up to go to the bathroom in the middle of the night and suffer a fall and a broken hip, constitute a medication-related problem.

As a result, we pay for emergency room visits, hip replacement surgery, physical therapy, repeat visits to the hospital, treatment for stroke, and nursing home care. That's how a relatively healthy senior, with one medication-related event, can go from independence to tragedy. We don't pay for the relatively simple measures that could have prevented all that suffering, and all that expense.

Identifying these kinds of risk factors requires health care specialists that look at the whole patient, and who understands the extraordinary complexity of drug therapy in a patient with altered metabolism, physical disabilities, multiple chronic illness, limited caregiver support, neurological and psychological problems, and myriad other factors.

Effective care of seniors requires an interdisciplinary approach, including pharmacists, physicians, nurses, physical therapists, nutritionists, care managers, and others. The efforts of these professionals to prevent life-threatening, costly health care problems among the elderly must be appropriately compensated. This is cost-effective care that simply doesn't fit with our current thinking about payment for medical services.

We must reform the way our nation approaches medical care for seniors. Effective health care for seniors requires a coordinated assessment and case

management provided by an interdisciplinary team focused on the patient's overall well-being. Public and private health care systems simply do not pay for that kind of care. Instead, they pay for expensive tests and treatments, but not for the kind of care needed to identify the at-risk elderly and protect them from potentially life threatening medical problems.

I would like to commend the members of the Senate Special Committee on Aging for the leadership role it has played in raising our nation's awareness of the health care needs of the elderly, and in taking insightful initiatives to address their unmet needs. Seniors are unique patients who require and deserve the care of unique pharmacists.

Again, thank you very much for this opportunity to appear before you to address this important national issue and we look forward to working with you on this issue in the future.

The CHAIRMAN. Thank you, Mr. Martin, and I thank all the panel members.

Dr. Cefalu, thank you for being with us. You have some disturbing statistics. We only have, I think, 44 physicians in the entire State of Louisiana that have a certificate of certification in geriatric medicine, which is really astounding.

You made about eight different recommendations as to things that can be done. It is interesting that almost every one of them involves money. The question that I need to explore, is there not money in treating older people? I mean all doctors are being reimbursed basically the same way, I take it. Or is there discrimination against the way people treating older people in geriatrics are being paid that is different from the way physicians and other specialties are being reimbursed?

Dr. CEFALU. Well, there are several factors, as we have said. There is the 5.4 percent cut, which has further complicated the issue but the issue is, as has already been explained——

The CHAIRMAN. But that cut is not just for geriatrics. That is across the board.

Dr. CEFALU. Across the board. The main issue is—I mean that is the last blow but the main issue has already been discussed today, the issue that it takes an extreme amount of time for physicians in private practice to see older patients and get the same reimbursement that they would for treating a 20-, 30-, 40-year-old patient.

Now when you are talking about 10 and 12 medications and seven or eight chronic conditions, the age factor, it does not take 5 to 7 minutes to see an older patient.

The CHAIRMAN. Do the reimbursement rate—and maybe you do not know this because I do not know it—are the reimbursement rates under Medicare not taking into consideration the time that a doctor spends with the patient? He gets reimbursed the same amount if he spends 5 minutes or an hour?

Dr. CEFALU. Absolutely. That is basically the issue. The current system does not factor in the time and complexity of the visit and that is the whole point that we are coming at the Health Care Financing Administration, is to correct that visit for the time and complexity that it takes to see that patient.

For instance, Senator, when you see an older patient with confusion, polypharmacy, that is not a 7- or 10- or 15-minute visit. For the healthy Medicare HMO patient that has maybe one illness and is on one medication for hypertension, fine, but not for the minority elderly, the underprivileged elderly, the majority of the elderly. I mean you are talking about a Medicare HMO population that may make up 3 to 5 percent of the elderly but the majority of the patients require time-intensive visits.

We are talking about a population that is the most rapidly growing segment of the elderly and that is the 85 plus, the frail elderly, where this is particularly an acute situation, where they require more time than any other segment of the elderly, much more than the middle old or the young old.

The CHAIRMAN. Thank you. You mentioned providing an exception for the overall graduate medical education cap for geriatricians.

Dr. CEFALU. Yes, sir.

The CHAIRMAN. How would that work? Universities are, through the Medicare program, reimbursed for training physicians but if you just remove the cap, that does not encourage anybody to go into geriatrics. I mean you just have more people studying to be doctors but it does not say that more people have to study to be geriatricians.

Dr. CEFALU. No, it does not. The Medicare cap specifically relates to Louisiana by the way in which, as I said in my testimony, neither LSU school has a fellowship. So that is a disincentive for any facility in Louisiana to encourage the development of geriatric programs. It is money out of their back pockets. It is a money issue but there is no reimbursement for it at all. So there is no incentive for teaching, for the teaching component, the Medicare component itself.

Regarding the cap, though, that is one issue. The other issue is, as I said, the time and complexity of a visit. That is a major issue here. But if there is a cap—let me say again if there is a cap that was instituted in 1997, then there is no incentive to expand the fellowship programs across the United States. Again in Louisiana this is critical that that cap be removed or we are not going to be able to do anything in the State.

The CHAIRMAN. Is there a natural or maybe abnormal reluctance on the part of physicians to want to treat older people?

Dr. CEFALU. There is. It is not a glamorous specialty.

There is also the reluctance related to the medical training issue, and that is just as in pediatrics, older patients have unique illnesses, such as confusion, such as incontinence, such as falls, which are not direct so they do not meet the eye, as is a 20- or 40-year-old patient. They require training to learn how to evaluate confusion and falls. Falls are not simply related to arthritis. There are many different causes for falls—medications, a drop in blood pressure. They are numerous.

So the atypical presentation of disease in the elderly makes it implicit that medical students at all 4 years of training and residents and fellows receive training in geriatric medicine. You just cannot assume that the medicine is the same as treating a 20- or 40-year-old.

It is like pediatrics. Pediatric patients have their own illnesses, their own atypical presentation of disease, their own limitations in dosages. Well, the same applies to the elderly and you just cannot assume that a 75- or 80-year-old patient is going to be treated the same way as a 20- or 40-year-old because the processes are different. The aging process has with it certain changes that may be associated with certain systems that you may not be aware of. There are certain disease states that present very atypically and if that physician is not trained, he is going to miss the boat and the problem here is not only excess cost in the hospital but delayed diagnosis and excess mortality for these patients.

We are coming back to the training issue, that physicians are not trained and if they are not trained, they do not feel comfortable and they avoid these patients.

The CHAIRMAN. Well, you have made some very good points. The fastest growing segment of our population are seniors. The baby

boomers, again with 77 million getting ready to enter into this category, we will have a larger number of people in this category who live for a lot longer than they used to. I think it has become very clear that we are inadequately situated to treat these people from a medical standpoint. We simply do not have the medical professionals that we need to treat the fastest growing segment of our population, which have unique problems and unique medical disabilities, as you have said, that a 20-year-old does not have.

We are going to have to work together—the medical profession, as well as the Congress, as well as the public at large—to try to correct this. This is a real challenge that we have to face.

We have a vote, as I indicated. Senator Blanche Lincoln is going to be coming back and if I could, because I know she has some questions, I am going to go vote and she is on her way back. As soon as she gets back she will continue this and we should wrap it up very shortly. In the meantime, the committee will take a short recess.

[Recess.]

STATEMENT OF SENATOR BLANCHE LINCOLN

Senator LINCOLN. If I could have everyone's attention, I think we will call the committee back to order.

I would like to begin first by thanking the chairman for holding this very important hearing today. I have been extremely interested and involved in the issues of geriatrics and geriatric training, the care of our elderly in this country, and I think that interest comes from being of the "club sandwich" generation. I have not only my aging parents and my young children that depend on my husband and I but my husband's grandmother is 104, so we have three generations on either side of us and it is a very, very important issue to us personally, as well as to our nation.

Shortages in geriatric care have indeed placed our nation's seniors in peril, a situation that will only worsen with the coming "Aging of America" and our demographic crisis.

I would certainly like to thank the chairman both for his interest and his enthusiasm on this issue in providing us a forum to discuss some of the potential solutions to the looming crisis that our country has.

We can accomplish the goal of improving our geriatric health care in the United States by boosting the number of certified geriatricians and other geriatric providers in our country and by improving access to geriatric care. As has been mentioned, I have sponsored the Geriatric Care Act with Senator Reid. I have depended on many of you for input and certainly the professional aspect on what we need to do in improving the care of our aging population in this country.

It is worth remembering that we are not just struggling with the shortage of geriatric physicians; we are also struggling with the shortage of nurses—and I compliment my colleagues here on the committee for their introduction of the Nurse Reinvestment Act—social workers, psychologists, nutritionists and pharmacists who work with geriatricians to provide a web of comprehensive care for our most frail, vulnerable seniors.

We had a wonderful forum in Arkansas several months ago on the continuum of care. We filled up one auditorium and two overflow rooms at the medical school with numbers of providers from all different areas of care for our seniors. They were very interested in what we are trying to do in Washington. Their input is vital as we come up with the right solutions because we do not have the time to make any wrong turns.

I know that my colleagues share that commitment and that is why I applaud Senator Breaux, as chairman. His excitement about this issue, both on the Aging Committee and on the Finance Committee will give us a great opportunity to be able to focus on many of these issues.

I have so many things that I could say and I know that I do not need to take up too much time but I would like to just say that when Senator Harry Reid and I introduced the Geriatric Care Act we were excited to be able to put forth a bill to increase the number of geriatricians in our nation through training incentives and Medicare reimbursement for geriatric care. We have fine-tuned some of the aspects of our bill and we will be reintroducing it soon.

It was amazing to me to find out that out of 125 or so medical schools in this country, only three offer programs in geriatrics. UAMS and the Don Reynolds Center is right at the heart of that, and in Arkansas we are extremely proud of that. But as a mother of small children, realizing that every one of those 125 medical schools provides a school of pediatrics, with the ever-increasing number of aging in our population in our nation, it just astounds me that only three of those medical schools are focussed on geriatrics. So I am delighted we have the opportunity today to focus in on that.

The care of our senior citizens in this country is extremely broad. Certainly the training of geriatricians but there are many other issues that we are looking at at this point from on the Federal level in keeping all healthcare providers financially solvent.

I was just visiting with a community from our home State of Arkansas earlier this morning where four of the cardiologists in their community, they will lose two of them by the end of this month or next month because of their reimbursement cuts. Of course, 75 percent basically of their clientele are the elderly in that community.

So there are a lot of different aspects of providing health care to our elderly in this country and we have to focus on many of them here in the time that we have to be able to do something.

The Geriatric Care Act also removes the disincentive caused by the Graduate Medical Education cap established by the Balanced Budget Act of 1997. As a result of this cap, many of our hospitals have eliminated or reduced their geriatric training programs. There are many things, as I have just mentioned, that were a result of the 1997 Balanced Budget Act that we need to readdress for our providers and that is hopefully something we can do in the Finance Committee in the coming months.

I am very proud of the work that is being done at the Don Reynolds Center on Aging and the Department of Geriatrics at the University of Arkansas for Medical Sciences. Thanks to Dr. David Lipschitz and especially to Dr. Claudia Beverly who is here with us today, I feel like Dr. Beverly and I have really traveled some

miles together. She has taught me a great deal and I think certainly my family's experiences and willingness to share it with the Reynolds Center has hopefully in some ways benefited them, as well.

One of the other things that we are extremely proud of is that Arkansas has more geriatricians per capita than any other State in the nation, with a total of 35. That may be why our elderly population is increasing, as well, as a percentage of our population, because we do provide the care and the focus there, but we want to definitely translate that to the rest of the Nation and I will certainly be at the center stage in trying to promote that with my colleagues.

As Dr. Beverly discussed some in her testimony, nurses are an essential part of the care in all health care environments, whether they be hospitals, nursing homes, home health or hospice, and I am certainly a strong supporter of the Nurse Reinvestment Act that the Senate passed last year and really appreciate the leadership of my colleagues, particularly Senator Mikulski and Senator Hutchinson from Arkansas, in addressing the national nursing shortage.

We should also recognize that in addition to encouraging people to enter the nursing profession, we must offer them opportunities to train in geriatrics, and I was pleased that Dr. Beverly mentioned some of those aspects.

In closing, I would just like to say that all of us here today could share stories about the challenges that we face by our parents, our grandparents, our family and our friends, as they contend with passing years.

Just to touch on what Mr. Martin mentioned in terms of the pharmacy, my grandmother lived with us the last 2 years of her life and coming from a small community, we knew of that comprehensive care provided by pharmacists because we only had a couple of doctors, a couple of pharmacists, and several others in the community. But whenever she was sick she said, "Don't worry the doctor is with me. I'll just call the pharmacist." She said, "The doctor's busy; the line is backed up." Instead she would call Mr. Kelly and he would say, "Miss Adney, you know, you can stop taking your blue pill but keep on your yellow pill and make sure that you take it with a biscuit or some milk because it needs to go down with something."

It is amazing. It is a continuum of care and it is a collaborative effort in our aging years. Consequently, my grandmother had a very peaceful time.

So I think it is so important that everyone is at the table and that we discuss what everyone has to bring to this discussion. As we look at our loved ones and those that are dealing with the aging process, I hope that each and every one of us will remember these are the people who have raised us. They are the ones who have loved us, who have worked for us, who have fought for us. It is our turn now to work for them, to fight for them, to come up with a solution to what we are faced with in the next 10 to 15 years, and this is where we must start.

So again I applaud my chairman. I am pleased that he has seen this as an important issue, he has brought it up, and he has given us the opportunity to talk about it and discuss it and come up with

some solutions. I know that he and others will join me as we work in the Finance Committee, as well, to look at how we can bring some of these issues up.

So we thank you all for being here. I have a couple of questions, if I may.

Dr. Cefalu, you talked a lot about how geriatricians who understand the health needs of older patients could cut down on inappropriate hospitalizations, multiple visits to specialists, and needless nursing home admissions. I believe that although Medicare reimbursement for geriatric care may be expensive, it would save significant amounts of money in multiple areas in the long run. Could you elaborate on that or how it might happen?

Dr. CEFALU. Yes, it is all about bringing health care back to the holistic approach, if I could use that term, or the whole patient. We have a society, which to a certain extent in good, in that there is a lot of subspecialization related to research, and that is all great. But to some extent we have missed the boat in that there is not enough primary care, there is not enough gatekeeping, there is not enough coordination.

Geriatric health care, because of the huge number of patient problems from confusion, the polypharmacy, as I mentioned, the falls, all issues that are outside a typical office visit and a primary care physician's typical medical school training require an extensive amount of time and training for evaluation. They involve a gatekeeper but also not only the physician component but the expertise of the geriatric nurse, the expertise of the geriatric pharmacist or the pharm-D, the medical social worker because psychosocial problems are so critical. Psycho-social disposition. Where is this patient going to go? Can he go back home? They're a frequent faller; no, they cannot go home. Maybe they need to go to a nursing home. Maybe they can go to adult day care. Rehab, which is something out of the expertise and training of a typical family physician or internist.

So all of these issues require a team and physicians, and I know this myself because in a rural Kentwood private practice I was just stymied by the older patient who came in who was on 9 or 10 medicines and all of these problems. I did not even have the training at that time before my fellowship to know how to even evaluate confusion and that possibly it might be related to depression or medications. Mistakenly maybe I did mislabel somebody as dementia when they were not and hopefully that did not happen, but I was enlightened after my fellowship.

But I also realized at that time that it was not me. It was not just my inadequate training. It was the fact that I needed enough time to evaluate that patient to where it would pay me to stay in private practice and at least break even instead of closing my office, like so many physicians have done and said, "I can't deal with older patients because I can't make a living."

But it is also having the social worker, the nurse, the pharmacist and the rehab, that team there and to have those resources to be able to evaluate that person fully because all those resources are necessary. The only place that is being currently done is in academic settings where that type of assistance and resources can be

subsidized; the physician's visit is subsidized. But in the private setting you just cannot make it.

So it is a team approach because all of these people have expertise that can be provided in a primary care or consultation visit, whether it is in-patient or out-patient. Unless the Care Act is implemented that provides for the physician to be able to see that patient and be reimbursed for his or her time with the team and the resources, then it is not going to happen. Until Senator Breaux had to leave but until that cap is removed, that is going to be a disincentive to training and we are not talking about general removal of the cap. We are talking about only, as your bill states, for the limited number of fellowship programs out there that have to do with geriatric training.

That was a long answer but it cannot be answered in one or two sentences. Thank you.

Senator LINCOLN. I am aware that you had earlier answered the question about the difference between a geriatrician's typical patient and a regular physician, the kind of time that is involved, the kind of consultation with others, whether it is the pharmacist, whether it is the social worker or the psychologist. All of those are so critical and it was made so blatantly clear to me when I visited the Reynolds Center and saw how they operated with all of that team together. There is no way that a physician could make it on that single reimbursement for the time that they were spending, compared to the regular patients.

Dr. Beverly, again thank you for coming to Washington. You know I am president of your fan club. Your experience and testimony here today but your experience particularly has been invaluable to me in terms of being able to figure out what roads we need to take in order to try and solve some of these problems.

My personal experience with the Reynolds Center on Aging, with a father who is in the advanced stages of Alzheimer's, and a mother who is a primary caregiver and also aging, are critical components in my personal experience.

It was so real to me when the other day I had a call from a constituent on the other side of the State who had been dealing with an aging spouse for the last 5 or 6 years. She mentioned that she had finally found the Reynolds Center. She said it was amazing. She said, "I'm not going to 10 different doctor's appointments I know these doctors are not talking to one another about the comprehensive health of my husband." She said, "We got to the Reynolds Center and realized that this comprehensive approach was so valuable to us as a family and for him as an individual because there was the interaction and the communication." That certainly makes a difference.

I would like for you, if you could, to just elaborate on your suggestions to train nurses in geriatrics. What is the biggest difference in patient care that you see when you compare regular nurse-practitioners with geriatric nurse-practitioners?

Ms. BEVERLY. I think the biggest difference in patient care is that when you have a nurse at whatever level that has received knowledge and developed skills in the care of older adults, we see better outcomes and we see that in whichever setting we are in.

I think one of the concerns that I have is—and I am going to start with nursing in general—has been our ability to keep the pipeline into nursing what it ought to be. When we look at nursing and we see—and this came out of the 2000 RN Sample Survey—is that during a 20-year career a nurse will realize a $6,000 increase in salary and that is a huge problem.

At the same time, having enough faculty prepared in geriatrics to train or even faculty in general to educate our nurses when today the reality is that the practice setting usually pays $15,000 to $20,000 more to faculty, so we see the drain on faculty not only because faculty are getting older but we are not seeing younger faculty come into the mainstream.

So we talk about that in general for nursing but specific to geriatric nursing, it is even more critical. SREB, Southern Regional Educational Board, just finished a study in geriatrics. It is on the bottom of the 16 specialty areas in terms of faculty preparation or it is next to the bottom. I think that when we see less than 23 percent of our baccalaureate programs including geriatrics as a standalone course, then we are faced with a major problem of preparing nurses.

But I would also like to respond a little bit about our senior health center, which is a hospital-based out-patient clinic. The Reynolds Center is associated with University Hospital and it is the hospital that operates it as a hospital-based out-patient clinic. The value of those type clinics is that there is a facility fee that is reimbursed by Medicare. We like to have 80 to 90 percent of our patients being Medicare. No private physician can afford 80 to 90 percent Medicare patients.

We also, for all new patients, have one hour with patients and we have on return, 30 minutes. At the core of this care is an interdisciplinary team that is a geriatrician, a geriatric nurse-practitioner, a social worker, but we also have consultation from pharmacy, neuropsychology, and others.

The beauty of it is that hospitals can choose to do this and MCSA in El Dorado and Northwest Health Systems in the northwest part of the State have chosen to develop hospital-based out-patient clients but the problem is these clinics lose money but the thing the hospitals like about it is then it does generate funds for the hospital and most of the time you will be about break-even in the primary care clinic.

So we are working with hospitals around the State and I think it is very important to begin looking at that type of reimbursement and is it really covering what the needs of older adults need, and so forth?

One last thing with geriatric nurse-practitioners that we are finding. We graduated eight geriatric nurse-practitioners from our program in December. Seven of them to date do not have a position in geriatrics because of funding, because of lack of a nursing home or lack of a position that would fit with what their skills are. Part of that is reimbursement. How do they pay for it? How do you enter into a collaborative practice?

The need is overwhelming and the need is there. We have to look at how we can make sure that the positions for nurses are created

with that expertise and develop that and we are beginning to look at that issue.

Senator LINCOLN. We do need to if we are graduating geriatric nurse-practitioners with the skills that are so needed. I mean that is one of the things the Robert Wood Johnson Foundation found for us in Arkansas—in terms of senior needs, there are a lot of underutilized programs and services out there. We must make sure people are aware of what is there.

Just one quick question, Mr. Martin. It astounds me that medication-related problems are the fifth leading cause of death in the United States. That is amazing.

You talked about pharmacist intervention. Maybe you could just elaborate a little bit on what that entails. How is it initiated? Under current systems is there a patchwork of ways that that pharmacist intervention happens? Obviously there are better ways that we could do it and we are striving toward those but maybe you have some shortcuts or ideas that would be best for us.

Mr. MARTIN. Currently there is a patchwork. One of the first things I would like to put back on the table, as we have already heard from Dr. Cefalu and Dr. Beverly, the difficulty for doctors and nurses to get reimbursement. You can then imagine the struggle that pharmacy is having when it is not formally recognized as part of the health care team, by the fact that they are omitted from the Social Security Act and other areas like that. So that huge struggle of just being recognized is one of the first issues that I think we need to address.

There are practice settings where the pharmacist does do an excellent job. These would be in nursing facilities, long-term care settings, where their skills and expertise in medication management services is recognized, is utilized. Outside of that arena it is painfully and woefully being neglected or not getting tended to at all. So there are some practice areas where pharmacy is able to do its job but outside of those limited areas, it is really not able to do the work that they are trained to do.

Senator LINCOLN. Well, to all of you all, and I will close our hearing here shortly, but I think one of the things that is so amazing to people is when you do talk about the fact that there is only three out of 125 medical schools that offer a program in geriatrics. Each one of them has a program in pediatrics. How can we get the benefits of geriatric out—the message that it is essential? How do we do that? Because whenever I say that to people they are just amazed because they have aging parents or aging grand-parents and they are thinking about how much of their time and their frustration is caught up in caring for that aging population and they know that they are one day going to be there. If we are that ill-prepared now and the time that it takes to train these individuals and the fact that we are losing geriatricians and those that are able to train them.

Is there a way that we can get more of that word out? How do we do that?

Dr. CEFALU. One of the best ways at the medical school level and the nursing school level and the pharmacy level is we have not done a good job in teaching what successful aging is. Medical students' idea of aging is let us go to the nursing home and see this

bedridden, contracted patient with a pressure ulcer that has a tube in his stomach and has a catheter coming out and several other tubes.

The best way to enhance geriatric care is to teach it from the standpoint of how to prevent the aging process and all the complications and to prevent unnecessary medication utilization, that type of thing. So exposing all students and professionals in training and, for that matter, trying to provide an optimal environment of healthy aging for the healthy senior so that they see the positive side of aging and not the end result is one of the ways to go.

Real quickly I want to thank you for sponsoring these bills, especially related to the cap. That is critical for our State. If we do not have the removal of the cap specifically for geriatric fellowships, and that is all we are talking about, then that is going to really impede our ability to get a program going next to our sister state, Arkansas, which has done a beautiful job. So I want to thank you for that.

Senator LINCOLN. Oh, absolutely. I will be looking to you all to assist in getting that word out because although I am not as close to the 65 number as some of my colleagues are, I have to say I am still very concerned about what it is going to be like when I do get there. My husband is a physician; I have looked at the time he has spent in his training, his fellowship. It takes time to train medical professionals and if we do not start now, even though I am farther away from it than anyone else in the Senate right now, I am still worried that we will not have made the kind of preparation time we need to be prepared, and that is going to be critical.

Ms. BEVERLY. Can I add? I think that there is a myth out there in colleges of medicine and nursing and pharmacy when faculty will say well, we do teach geriatrics; we integrate it across in several different courses. But geriatrics has a defined body of knowledge that needs to be pulled out and needs to be recognized and it needs to be a mandatory stand-alone rotation, both clinical and theory, so that the student is exposed in a very positive way to healthy aging, to what functional assessment is all about, to the continuum of settings in which individuals receive care. To do that, you have to have a faculty excited about geriatrics and I think especially the initiative through the Hartford Foundation across the country—I do not know where our map went but we are now beginning to have scholars in geriatric nursing. We are also having centers of excellence. We are reaching out to states so that we can, especially in nursing, gain that enthusiasm.

I might say in terms of medicine, when we first started teaching the 4-week mandatory rotation for our junior medical students, we were 10 points below the bottom when students came back and told us how they liked it. But now, in our fourth year, we are about in the middle and we keep rising each year in terms of students liking geriatrics. So we have also seen an increase in applicants to our fellowship program because they are beginning to have some positive experience in geriatrics. We are seeing the same in nursing in terms of if they have a course in the undergraduate program then we see more entering or applying for the masters program and we are beginning to see that increase at the doctoral level in terms of geriatric nursing.

So I think it starts with exposure but it is costly to do that. We have to get the colleges across the country in medicine, in nursing, in pharmacy, really keyed into this problem and to begin doing something about it.

Senator LINCOLN. From Mr. Martin's standpoint it has to be—as I said, watching both my aging parents and my grandparents, it is not until you get to that stage, when you are dependent on four or five or six different prescription drugs in your daily life, that you realize the importance of that interaction with physician care and all of the other things that you are doing.

We need to get people certainly aware of the importance of that integration into their comprehensive care before they get to the age where they need all of that.

Mr. MARTIN. One of the things we need is an expanded awareness that pharmacists are a part of the health care team, recognizing them through collaborative practice acts within the various states, education on a consumer level. It is interesting that all the polls always come back and say the consumer trusts the pharmacist the most but I think the consumer still is unaware of all the services that a pharmacist can provide.

So outside of settings such as nursing facilities or other long-term care settings where the pharmacist is indeed a part of the team, we need to expand that into all of the practice settings, into the community, into other settings so that the consumer is indeed aware that this is the person he can turn to for those types of services.

Again reimbursement is going to be a large issue for all of this because under the current structure—this is going to sound a little too noble but pharmacists kind of do it out of the goodness of their heart. They understand that these services are needed and they provide them whenever they can and they often do not get reimbursed for them, so that is probably one of the first fixes we need to go after.

Senator LINCOLN. Right.

Well, I want to thank all of you for joining us today. I do apologize that I was absent for the first panel. I know that there was some very moving testimony there and I certainly will have that relayed to me. But I do want to thank all of you all and I especially want to thank Senator Breaux, our chairman, for taking an interest in this issue and moving forward. No doubt I think you all have gotten the message that I am extremely interested and will certainly be working on how we can improve the quality of health care but also the dignity of life to our aging citizens in this country. Thank you.

The committee is adjourned.

[Whereupon, at 10:55 a.m., the committee was adjourned.]

APPENDIX

Thwarting Peril:
Academic Internal Medicine's Recommendations for Fostering Geriatric Care Professionals

Testimony

Senate Special Committee on Aging Hearing
"Patients in Peril: Critical Shortages in Geriatric Care"

Wednesday, February 27, 2002

Association of Professors of Medicine
Association of Program Directors in Internal Medicine
Association of Subspecialty Professors

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On behalf of the Association of Professors of Medicine (APM), the Association of Program Directors in Internal Medicine (APDIM), and the Association of Subspecialty Professors (ASP), thank you for the opportunity to comment on the current and projected shortages of geriatrics health care professionals. The associations applaud Chairman John B. Breaux, Senator Larry E. Craig, and the Senate Special Committee for holding this hearing. As leaders in the internal medicine and medical education communities, the members of these organizations are extremely concerned about meeting the health care needs of an increasingly elderly population.

APM is the national organization of departments of internal medicine at the US medical schools and numerous affiliated teaching hospitals as represented by chairs and appointed leaders. APDIM is the professional and educational organization dedicated to the promotion of excellence in the training of internal medicine, representing 95 percent of accredited internal medicine residency programs. ASP is the national organization of subspecialty internal medicine divisions at the US medical schools and several non-university teaching hospitals. Internists, including subspecialists and general internists, account for 200,000 of the nation's 600,000 physicians. Internal medicine includes 11 subspecialties (allergy and immunology, cardiology, endocrinology and metabolism, gastroenterology and hepatology, geriatric medicine, hematology, infectious diseases, nephrology, oncology, pulmonary and critical care medicine, and rheumatology) as well as general internal medicine.

Departments of internal medicine are dedicated to a tripartite mission of providing excellent clinical care, educating the next generation of physicians and other health care professionals, and conducting groundbreaking research. Academic internists are 24 percent of full-time faculty at US medical schools; teach the most residents and fellows (approximately 29,800 or 30 percent of all physicians-in-training); provide the most clinical care in academic health centers; conduct the most research of any set of departments sponsored by the National Institutes of Health ($2.07 billion) as well as the pharmaceutical industry.

With regard to the geriatric patient population, general internists and subspecialists presently bear the burden of geriatric care in the physician workforce and will continue to do so in the future. Physician-scientists in departments of internal medicine conduct research on Alzheimer's disease, Parkinson's disease, and many other illnesses striking the elderly patient population. Internal medicine clerkship, residency, and fellowship directors are responsible for educating tomorrow's physicians about geriatric care through student rotation, curriculum development, and graduate medical education.

The timing of this hearing is particularly crucial as these missions move forward in parallel with the population. As such, the associations will focus their comments on:

- **The Problem**: The demographic imperative requires more geriatric health care professionals now.
- **The Solution**: How legislation can support the development of a prepared geriatric care workforce.

The Demographic Imperative

As America moves forward in the 21st century, studies forecast a progressive rise in the average age of the population. Today, there are approximately 39 million Americans aged 65 or older. By 2050, approximately 21 percent of the population will be aged 65 years or greater; persons over 85 are conservatively projected to rise to 18.9 million, and the number of persons over 100 may be more than 800,000. Although increased education, improved way of life, and technological advances have greatly changed the living status of the elderly, age will continue to be linked with disease and disability.

This rapidly and increasingly elderly population creates a daunting problem for the geriatric care workforce. Older patients are more likely to suffer from multiple chronic and disabling medical conditions. As a result, geriatric patients tend to require a greater range of professional health care services than younger patients. Also, disease can affect elderly patients differently than younger ones, and illness may be misdiagnosed or managed only as symptoms of normal aging. In addition to the special needs of the chronically ill, elderly patients often have problems and characteristics unique to their age group. They may need assistance to get to and from an office or an examination room; they may have difficulty answering questions or completing paperwork. Health care professionals not trained in geriatric care may not be able to identify or address these problems, especially in the "oldest old" patients (persons over 85 years of age).

Teams of health professionals are best suited to provide this care. Geriatric medicine is characterized by its multidisciplinary approach. The complex and interactive physical, mental health, and social problems associated with geriatric health care require the coordinated work of physicians, nurses, pharmacists, social workers, occupational therapists, psychologists, physician assistants, and physical therapists to ensure that elderly patients receive appropriate care. The advanced training physicians receive—expert preparation in basic and clinical sciences, acquiring advanced diagnosis skills, and schooling in pathophysiology—prepare them to lead teams of geriatric health care professionals.

Trained to manage complex and multiple conditions, internal medicine physicians are uniquely poised to accept the responsibilities of caring for an elderly population. General internists and subspecialists already treat the most prevalent diseases among the elderly, including heart disease, cancer, arthritis, hypertension, diabetes, gastrointestinal disease, and pneumonia.

Nonetheless, a core group of geriatricians will be the best group to care for the often frail and functionally impaired patients of the elderly population. Their experience in elderly care makes them ideal consultants to internists with elderly patients, especially in respect to some often complex problems especially common among geriatric patients, such as adverse drug reactions and multiple drug interactions. Geriatricians have special expertise in dealing with problems of memory and confusion that can make patient

management much more difficult whether in a hospital, a nursing home, or a patient's own home.

The National Health Policy Forum estimates that the physician workforce will need 36,000 geriatricians by 2030; however, current geriatric training efforts will fall far short of this need. Geriatricians will also be imperative to the training of the future geriatric workforce—including physicians and other providers—as well as to the clinical research necessary to develop preventative and treatment options. Data developed by the International Longevity Center indicate the current geriatric population needs 2,400 academic geriatricians. Although academic geriatricians exist in the current workforce, their numbers are low and the labor intensive clinical demands of elderly patient care reduce their already limited time for education and research.

Increasing the Number of Physician Geriatric Medicine Is Part of the Solution

- **Modernizing Medicare Reimbursement**

The Institute of Medicine and the Medicare Payment Advisory Commission cite low Medicare reimbursement as the primary reason for inadequate reimbursement to geriatric medicine providers. By the nature of the care they provide, these providers—certified geriatricians as well as general and subspecialist internists—depend heavily on Medicare reimbursement. However, the geriatric population is also characterized by patients with chronic medical conditions and physical impairments, both of which require more time and effort to be expended on their care. As a result, providers of geriatric care spend more time with each patient and see fewer patients but are reimbursed less through payment schedules based on the "average patient."

Unless Medicare adjusts payment for geriatric care, fewer and fewer physicians will be able to specialize in caring for the elderly. Current physicians are unable to fiscally justify geriatric care; furthermore, the low reimbursement will disincentivize physicians-in-training from entering the geriatric care workforce. In addition, as physicians leave the educational continuum with an average $100,000 debt, Congress needs to ensure that Medicare reimbursement is appropriate and that providing geriatric care is a viable option for young physicians.

Moreover, the Medicare physician payment system does not cover care management and coordination or assessment, a major component of geriatric care. Care coordination and assessment services for the frail elderly or at-risk individuals would include periodic health screening and assessment, management of and referral for medical and other health services, monitoring and management of medication, patient and family caregiver education and counseling, managing and facilitating transitions among health care professionals and across settings of care, and providing access to physician consultation services, especially in emergencies.

"The Geriatric Care Act of 2001" (S 775) would **institute an additional system of Medicare billing codes for care coordination and assessment**, bringing reimbursement

to a level equal to the time and effort expended in caring for the frail or impaired elderly. Revising the fee schedule will assist current providers and remove barriers to entry into geriatric practice for future physicians. The associations strongly endorse this recommendation and believe that establishing this new set of billing codes will encourage more physicians to provide more geriatric care.

- **Updating Graduate Medical Education (GME)**

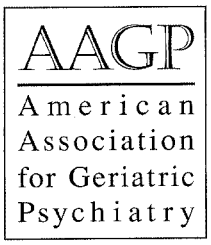
Another contributor to the geriatric physician shortage is the ceiling on the number of resident and fellowship positions Medicare will fund as established in the Balanced Budget Act of 1997 (PL 105-33). S 775 supports the revision of Medicare support of GME for geriatrics education—starting by **providing exception to the cap on the number of Medicare-funded fellows**—and would benefit the geriatric workforce in several ways.

- These positions could be open to geriatric medicine fellows who wish to complete an additional year of training in preparation for an academic career. This additional year of training must be fully funded to ensure the development of a cadre of academic geriatricians, ready to teach other health care providers and conduct basic, clinical, translational, and health sciences research that would aid the care of the elderly.

- Slots opened by lifting the cap could be filled by subspecialists interested in pursuing the geriatric aspects of their discipline. Encouraging and fully funding such training would result in a core group of subspecialists appropriately prepared to treat the complex diseases of older Americans. These gerosubspecialists would improve the integration of geriatric-specific issues in clinical care and research into all subspecialty disciplines.

Moreover, positions beyond the cap could be filled by potential geriatricians who would provide clinical care.

APM, APDIM, and ASP applaud the efforts of the Senate Special Committee on Aging to address the shortage of geriatric health care professionals. The associations appreciate the opportunity to comment on the issues and solutions and encourages support of S 775, "The Geriatric Care Act of 2001." The academic internal medicine community looks forward to supporting the legislation of these changes to improve the care of elderly Americans today and in the future.



STATEMENT FOR THE RECORD SUBMITTED BY THE AMERICAN ASSOCIATION FOR GERIATRIC PSYCHIATRY

SPECIAL COMMITTEE ON AGING
UNITED STATES SENATE

HEARING ON
PATIENTS IN PERIL: CRITICAL SHORTAGES IN GERIATRIC CARE

FEBRUARY 27, 2002

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Statement for the Record Submitted by the
American Association for Geriatric Psychiatry to the
Special Committee on Aging
United States Senate
Hearing on the Shortage of Geriatric Health Care Professionals
February 27, 2002

The American Association for Geriatric Psychiatry (AAGP) commends the Special Committee on Aging for holding this hearing to focus attention on the shortage of health care professionals with the specialized training necessary to identify and treat the health care problems of older Americans. AAGP is a professional membership organization dedicated to promoting the mental health and well-being of older people and improving the care of those with late-life mental disorders. Our membership consists of over 2000 geriatric psychiatrists as well as other health care professionals who focus on the mental health problems faced by senior citizens.

Geriatric psychiatry is a relatively new sub-specialty of psychiatry. It has developed in response to the uniqueness of mental disorders of late life that, coupled with the distinct characteristics of the late stages of life, result in specialized needs of older adults with mental health problems. The field of geriatric psychiatry is based on a discrete, definable, and rapidly growing body of scientific knowledge that has evolved over the past several decades, through the efforts of an international community of clinicians and researchers.

First recognized by the American Board of Psychiatry and Neurology (ABPN) in 1991, our sub-specialty includes physicians who have completed medical school, four years of post-graduate residency training in psychiatry, and then a fellowship in geriatric psychiatry of one or two years (post-graduate residency years five and six) during which they receive intensive training in the biological and psychological aspects of normal aging, the psychiatric impact of acute and chronic physical illness, and the biological and psycho-social aspects of the pathology of primary psychiatric disturbances of older age. While residency training prepares them for a career in general psychiatry, a fellowship in geriatric psychiatry gives them in-depth experience in the diagnosis and treatment of mental health disorders in older adults. In addition to passing a certification exam in general psychiatry, they must also pass one in geriatric psychiatry.

Geriatric psychiatry is also a relatively small sub-specialty. Statistics kept by ABPN indicate that it issued 83 certificates in geriatric psychiatry in 2000 (compared with 1097 for psychiatry). Between 1991 and the end of calendar year 2000, ABPN issued a total of 2,508 certificates in our sub-specialty – which is a close indicator of the total number of board-certified geriatric psychiatrists nationwide.

As the members of the Committee are well aware, older Americans are becoming a larger and larger proportion of our nation's population. According to the U.S. Census Bureau, the number of individuals age 65 and older grew by 74 percent between 1970 and 1999 – from 20 million to almost 35 million. The median age of the population has increased significantly from 28 years in 1970 to almost 36 years of age in 1999. These trends will accelerate further as 76 million "baby boomers" attain age 65 between 2010 and 2030. By 2030, older adults will account for 20

percent of the total U.S. population – up from 13 percent in 2000. Within this cohort, persons 85 years and older comprise the most rapidly growing segment of the U.S. population.

As the population ages, the number of older Americans experiencing mental problems will almost certainly increase. Nearly 20 percent of those who are 55 years and older experience mental disorders that are not part of normal aging. The most common conditions, in order of prevalence, are anxiety, severe cognitive impairment (such as that caused by Alzheimer's disease), and mood disorders (such as depression). In addition, the number of older adults seeking treatment for their mental problems could increase in future years as the stigma associated with mental disorders fades with the passing of earlier generations.

As geriatric psychiatrists are already in short supply, these demographic and social trends portend an intensifying shortage in the future – even if the number of physicians who train in geriatric psychiatry increases significantly over the next 10 to 20 years. How many geriatric psychiatrists are needed? A somewhat dated study by the Institute on Aging indicated that 400-500 academic geriatric psychiatrists and another 4,000 to 5,000 geriatric psychiatrists active in patient care would be needed by 2010.[1] More recent analysis indicates that 1,221 M.D. faculty will be needed to provide adequate training in geriatric psychiatry in the short term (defined as the next 10 years).[2]

Meeting the mental health needs of older Americans in the future will be challenging in light of these trends. However, as noted in an article recently published in the *American Journal of Geriatric Psychiatry* [3], there are a number of encouraging developments:

- First, the field of geriatric psychiatry has made substantial progress in the development of consensus recommendations and practice guidelines for the diagnosis and treatment of specific conditions, such as late-life depression and Alzheimer's disease, in older Americans. This has permitted health care professionals in primary care and other specialties, and their patients, to benefit from the specialized knowledge and expertise contributed by geriatric psychiatrists. The recommendations and guidelines also identify the types of cases and the circumstances in which a patient should be referred to a geriatric psychiatrist.

- Second, general psychiatrists are in a position to utilize the scientific and therapeutic advances made by geriatric psychiatry and are seeing a greater proportion of geriatric patients in their practices. In 1996, 18 percent of general psychiatrists had a geriatric caseload in excess of 20 percent, an increase of 148 percent over 1982 levels and of 25 percent over 1989 levels.

- Third, because the Psychiatric Residency Review Committee of the Accreditation Council for Graduate Medical Education has recommended that residency programs in general psychiatry incorporate some training experience with geriatric psychiatry, recently graduated general psychiatrists may be more likely than their predecessors to have some knowledge of the unique aspects of diagnosing and treating geriatric populations.

What can Congress do to improve access to mental health services for older Americans now and in the future? Since Medicare provides health care coverage to the great majority of Americans who have attained age 65, its policies can have a significant impact on access to care for this population – not only through how much it pays for mental health services and what it does and does not cover, but also through its policies regarding payment for the costs associated with graduate medical education (GME).

Under the Medicare fee schedule for physicians' services, fees are set based on the amount of physician work and practice expenses that are involved in providing a particular service to the typical adult patient – not the typical geriatric patient. Because the amount of work effort involved in diagnosing and treating a geriatric patient is often significantly greater than for a non-geriatric adult, this approach results in under-compensation for the amount of work involved. Congress should consider encouraging the Centers for Medicare and Medicaid Services (CMS) to create a coding modifier that would permit those physicians to receive higher payments for treating geriatric patients who require a particularly intense level of physician effort to receive higher payment.

Gaps in the types of services Medicare covers are not only a detriment to geriatric patients, but also create financial disincentives for physicians who are considering entering specialties in which their practice would be limited to treating geriatric patients. Older Americans frequently have chronic and disabling health care conditions that require constant monitoring and a continuing course of treatment. Even when these conditions are primarily physical, they often have a significant impact on the mental health of the individual. Although coordinating the care of such patients often entails significant involvement of family members, other personal care givers and other health professionals, Medicare generally does not cover or pay for care coordination services because they do not involve a "face-to-face" encounter between the physician and the patient, but instead require time-consuming contacts, including telephone communications with other care givers – including family members and other health care professionals. S. 775, introduced by Senator Blanche Lincoln, would provide Medicare coverage of care coordination services for a subset of Medicare beneficiaries with serious and chronic disabling conditions. Medicare reimbursement for such services will recognize the value of these services and make fields such as geriatric medicine and geriatric psychiatry more attractive to physicians in the future. AAGP commends Senator Lincoln and the co-sponsors of her bill for their efforts to close this gap in coverage, and we urge those on this Committee who have not yet co-sponsored S. 775 to do so.[4]

Current Medicare policy on graduate medical education (GME) may also discourage training more physicians in geriatric sub-specialties in the future. The Balanced Budget Act of 1997 (BBA) caps the number of full-time equivalent residents and fellows it will recognize (and make payment for) at the number of residents and fellows each teaching hospital had in 1996. While these facility-specific caps permit each hospital to shift the number residents and fellows it has among the different specialties, this is a "zero sum" game that may make it difficult to increase the number of residents and fellows in accredited geriatric programs. S. 775 and a bill introduced by Senators Tim Hutchinson and Larry Craig -- S. 1362 -- would both address this

potential problem by allowing teaching hospitals to add a limited number of training positions in geriatric medicine and geriatric psychiatry[5] without reducing the number of residents and fellows in other fields. AAGP supports these initiatives and urges other members of the Committee to do so.

Finally, arbitrary and unfair limits on what the Medicare program will pay for outpatient mental health services – which require beneficiaries to bear 50 percent of the cost of these services – create real financial barriers to access to needed care. While AAGP recognizes that elimination of this policy carries a substantial budget price tag, it believes that this change is as important to modernizing Medicare as the addition of a prescription drug benefit. When left untreated, mental disorders are associated with poorer physical health, excess disability, heavier utilization of non-mental health care resources, and increased mortality.

While Medicare clearly plays a major role in determining access to mental health services for older Americans and in shaping the economic incentives for physicians and other health care professionals to specialize in treating geriatric patients, the Federal government can promote the training of more geriatric specialists and the appropriate treatment of geriatric patients in other ways as well.

For example, under section 753 of the Public Health Service Act, the Department of Health and Human Services funds geriatric education centers, geriatric education and training projects, and geriatric academic career awards to promote the development of academic geriatricians. Additional funding for these activities would increase the number of physicians involved in geriatric research and in training future generations of health care professionals to meet the special needs of older Americans. S. 1362 would authorize increased funding under section 753 and raise the maximum geriatric academic career award from $50,000 to $75,000 a year. AAGP supports this initiative, and encourages others on the Committee to do so as well.

Likewise, the Agency for Healthcare Research and Quality (AHRQ) provides funding for the development of practice guidelines that help to educate health care professionals about the appropriate ways to diagnose and treat specific conditions. As noted earlier, guidelines have already been developed on late-life depression and Alzheimer's disease, and their dissemination has increased the awareness of many health care professionals on these matters. Additional guidelines should be developed for other geriatric mental health, such as anxiety and sleep disorders, as well as late-life alcohol and drug abuse that often accompanies other mental disorders. Existing guidelines will also need to be revised as advances in medical research lead to new knowledge that should be rapidly disseminated and translated into improved clinical care. Congress could play an important role in seeing that this occurs.

In closing, AAGP would like to thank the Committee for holding this important hearing and focusing greater attention on the shortage of health care professionals with the specialized training necessary to identify and treat the health care problems of older Americans. We look forward to working with the members of the Committee to improve access to mental health care for geriatric patients in the future.

1. National Institute on Aging, *Personnel for Health Needs of the Elderly Through the Year 2020* (NIH Publication 87-2950), Washington, D.C., 1987.

2. Reuben, Bradley, Zwanziger, et al., "How Many Physicians Will Be Needed to Provide Medical Care for older persons? Physician Manpower Needs for the Twenty-first Century," *Journal of the American Geriatric Society*, 1993; 41: 560-569.

3. Colenda, Pincus, Tanielian, et al., "Update of Geriatric Psychiatry Practices Among American Psychiatrists: Analysis of the 1996 National Survey of Psychiatric Practice," *American Journal of Geriatric Psychiatry*, 1999; 7: 270-288.

4. As of February 13, 2002, Senators Bingaman, Corzine, Graham, Landrieu, Mikulski, Murray, Reid, Rockefeller, and Snowe have co-sponsored S. 775.

5. Due to a technical drafting error, S. 775 does not currently include geriatric psychiatry within the scope of its graduate medical education provisions. AAGP understands that it was Senator Lincoln's intention to do so and that a new version of the bill will be introduced in the near future.

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February 27, 2002

Honorable John Breaux
Chairman
Senate Special Committee on Aging
SD-G31 Dirksen Senate Office Building
United States Senate
Washington, D.C. 20510

Dear Chairman Breaux:

The American Psychiatric Association (APA), the medical specialty representing 38,000 psychiatric physicians nationwide, respectfully submits the attached testimony for inclusion in the record for today's hearing on geriatric health workforce training issues.

The APA commends you for holding today's hearing, and looks forward to working with you, Senator Craig, and other members of the Committee in crafting solutions to the problems we outline in our testimony.

Thank you for the opportunity to present information on this important topic.

Sincerely,

Nicholas M. Meyers
Deputy Director, Federal Relations

Enclosure

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STATEMENT OF

THE AMERICAN PSYCHIATRIC ASSOCIATION

TO THE

SENATE SPECIAL COMMITTEE ON AGING

HEARING ON

GERIATRIC HEALTH EDUCATION AND TRAINING

WEDNESDAY, FEBRUARY 27, 2002

For Additional Information:
American Psychiatric Association
Division of Government Relations
202-682-6060
Contact: Nicholas Meyers, Michael Strazzella or Julie Abadie

Chairman Breaux, Senator Craig, and members of the Committee, the American Psychiatric Association commends you for holding this important hearing on geriatric health education and training.

The American Psychiatric Association (APA) is the medical specialty association representing more than 38,000 psychiatric physicians nationwide. Our members are the frontline specialists in medical treatment of mental illness, and practice in all settings, including private practice, group practice, hospital-based services, nursing facilities, and community-based care, along with health programs under the auspices of the Federal Government such as the Public Health Service, the Indian Health Service, and the Department of Veterans' Affairs (VA health system). In addition, psychiatrists serve as academic faculty and practice in academic medical settings, and are at the forefront of research into the sources of and new treatments for mental illness.

This statement will focus on issues related to mental disorders in the elderly population, including the scope of such disorders, education and training of psychiatrists, and particularly ongoing barriers to access to medically necessary treatment for mental illness. While APA strongly supports the infusion of additional funds for geriatric medical education and training, including additional funds for existing programs in geriatric psychiatry, we also urge your Committee in the strongest possible terms to address the substantial shortcomings in federal programs that fund treatment of the elderly, most particularly including Medicare. Bluntly, if Congress does not eliminate long-standing statutory discrimination against Medicare patients seeking treatment for mental illness, no amount of geriatric education and training funding will close the treatment gap.

I. Scope of the Problem:

In 1999, then-U.S. Surgeon General David Satcher, M.D., Ph.D. released a landmark study on mental illness in this country. The Surgeon General's report is an extraordinary document that details the depth and breadth of mental illness in this country. According to Dr. Satcher, "mental disorders collectively account for more than 15 percent of the overall burden of disease from *all* causes and slightly more than the burden associated with all forms of cancer." The burden of mental illness on patients and their families is considerable. The World Health Organization reports that mental illness (including suicide) ranks second only to heart disease in the burden of disease measured by "disability adjusted life year."

Some 35 million Americans are presently age 65 and older. America's elderly population will increase rapidly as our Baby Boom population -- 76 million strong -- reach age 65 between 2010 and 2030. By 2030, older Americans will constitute 20 percent of the population, and our oldest old (85 and up) will comprise the most rapidly growing segment of all. The percentage of ethnic minority elderly will increase rapidly as well.

Mental disorders are highly prevalent in the elderly population. The Surgeon General's report on mental illness found that 20 percent of the population age 55 and older experience mental disorders that are not part of what should be considered as normal aging. Common disorders include Alzheimer's disease, depression, anxiety, cognitive impairment, drug misuse and abuse, and alcoholism.

The impact of mental illness on older adults is considerable. Prevalence in this population of mental disorders of all types is substantial. 8 to 20 percent of older adults in the community and up to 37 percent in primary care settings experience symptoms of depression, while as many as one in two new residents of nursing facilities are at risk of depression.

Older people have the *highest* rate of suicide in the country, and the risk of suicide increases with age. Americans age 85 years and up have a suicide rate of 65 per 100,000, twice the national average. Older white males, for example, are six times more likely to commit suicide than the rest of the population. There is a clear correlation of major depression and suicide: 60 to 75 percent of suicides of patients 75 and older have diagnosable depression. Put another way, untreated depression among the elderly substantially increases the risk of death by suicide.

Mental disorders of the aging are not, of course, limited to major depression with risk of suicide. The elderly suffer from a wide range of disorders including declines in cognitive functioning, Alzheimer's disease (affecting 8 to 15 percent of those over 65) and other dementias, anxiety disorders (affecting 11.4 percent of adults over 55), schizophrenia, bipolar disorder, and alcohol and substance use disorders. Some 3 to 9 percent of older adults can be characterized as heavy drinkers (12 to 21 drinks per week). While illicit drug use among this population is relatively low, there is substantial increased risk of improper use of prescription medication and side effects from polypharmacy.

Given the demographic factors cited above, including the substantial increase in the numbers of the elderly between now and 2030 and the prevalence of mental disorders in this population, it is clear that there is a pressing need to ensure an adequate supply of general psychiatrists with additional training in disorders of the elderly, and particularly of psychiatrists specializing in the care of geriatric patients.

II. Geriatric Psychiatry Workforce Issues:

Despite the pressing need for delivery of mental health services to elderly patients, some studies show that as low as one-half of older adults acknowledging mental health problems actually receive treatment, and a relatively small percentage of those receive care from a specialized provider. At least half of all elderly patients receive their mental health care from primary care practitioners rather than specialty providers.

While primary care practitioners are clearly the first line of treatment for all disorders affecting the elderly, some studies suggest that underdiagnosis and undertreatment of mental disorders is a serious problem. For example, significant numbers of elderly patients who commit suicide have visited a primary (nonspecialty) care practitioner in close proximity to their demise. The fact that a majority of older persons will receive mental health services, at least initially, from their general medical practitioner highlights the need for effective teaching of geriatric mental health care to current and future primary care providers. It also underscores the need for closer collaboration between primary care and psychiatry, and particularly between primary care and geriatric psychiatry.

The proper assessment and treatment of mental disorders in late life is complicated by the prevalence of comorbid medical conditions and related disabilities in the elderly population. Thus, proper care of the elderly who seek treatment for mental illness requires specialized knowledge and clinical skills that enable the practitioner to assess complex interactions between medical illness, psychiatric disorders, the general processes of aging, together with the cultural, social, ethnic, and environmental factors that impact the patient.

Thanks to strong support from the National Institute of Mental Health, the field is increasingly able to rely on a rapidly growing body of scientific knowledge specific to mental disorders in the elderly. APA and the American Association for Geriatric Psychiatry have also responded directly to the needs of elderly patients by proposing and successfully enabling the establishment of geriatric psychiatry as a subspecialty. Current program requirements for residency education in geriatric psychiatry are extensive, and administered by the Accreditation Council for Graduate Medical Education. The training period is 12 months, and must occur following satisfactory completion of an ACGME-accredited residency in general psychiatry.

The educational program must include a wide range of clinical experience, including Geriatric Psychiatry Consultation (inpatient, outpatient, and emergency services); Long-Term Care, and Other Medical Specialty Experience (e.g., neurology, physical medicine and rehabilitation, geriatric medicine or geriatric family practice). The specialty content of the ACGME requirements is very extensive. Space does not permit an exhaustive review of the requirements in this testimony, but key requirements include:

- scientific understanding of aging processes and diseases of the aged, altered pharmacokinetics, pharmacodynamics, and sensory acuity in the elderly;
- understanding the gradations between normal and abnormal changes of memory, cognition, personality, and sexuality;
- special issues in ethnic elderly cohorts;
- epidemiology, diagnosis and treatment of all major psychiatric disorders seen in the elderly, including dementia, delirium, psychoses, anxiety, sleep disorders, substance abuse disorders, etc.
- performance of mental status examinations, community and environmental assessment, family and caregiver assessment, medical assessment, and physical functioning assessment;
- multidimensional geriatric assessment using the appropriate synthesis of clinical findings together with historical and current information from the patient, family members, or other caregivers, and;
- the indications, side effects, and therapeutic limitations of psychoactive drugs and the pharmacologic alterations associated with aging, including drug interactions, overmedication, and compliance problems.

These extensive requirements underscore the complexity of treating mental disorders in the elderly population, and emphasize the critical role played by psychiatric physicians and particularly by geriatric psychiatrists in the proper diagnosis and treatment of mental illness among the elderly. There are currently 56 accredited programs in geriatric psychiatry nationwide. Since 1990, roughly 2,500 psychiatrists have received certificates for added qualifications in geriatric psychiatry from the American Board of Psychiatry and Neurology, the entity administering the subspecialty examination. The fact that 2,500 psychiatrists now hold certification in geriatric psychiatry is a strong response to the needs of the nation and demonstrates psychiatry's commitment to state of the art diagnosis and treatment of mental illness in the elderly. We can and will do better in the years ahead.

III. Structural Barriers to Geriatric Mental Health Treatment:

While APA joins with other organizations in calling on Congress to focus additional funds to enhance geriatric health education and training, we wish to state for the record that education and training in geriatrics are only part of a solution to a much larger problem, namely the barriers to delivery of medically necessary psychiatric services to older Americans. As we note, mental disorders are substantial in this population, yet the Federal Government itself creates substantial barriers to treatment. These include the following:

- **Medicare 50 Percent Copayment:**

Medicare law now requires patients to pay a 20 percent copayment for Part B services. However, the 20 percent copayment is not the standard for outpatient psychotherapy services. For these services, Section 1833(c) of the Social Security Act requires patients to pay an effective discriminatory copayment of 50 percent.

This bears repeating: If a Medicare patient has an office visit to an endocrinologist for treatment for diabetes, or an oncologist for cancer treatment, or a cardiologist for heart disease, or an internist for the flu, the copayment is 20 percent. But if a Medicare patient has an office visit to a psychiatrist or other physician for treatment for major depression, bipolar disorder, schizophrenia, or any other illness diagnosed as a mental illness, the copayment for the outpatient visit for treatment of the mental illness is 50 percent. The same discriminatory copayment is applied to qualified services by a clinical psychologist or clinical social worker. This is quite simply discrimination.

- **190-Day Lifetime Reserve:**

In a similar vein, Medicare law limits to 190 days in a patient's lifetime the number of covered days to which beneficiaries are entitled if they seek treatment in a freestanding public or private psychiatric hospital. The 190-day lifetime reserve does not apply to hospital care for non-psychiatric illness in general hospitals, nor does it apply to treatment received for psychiatric illness in psychiatric wards in general hospitals. Yet if patients seek treatment in hospitals that specialize in the diagnosis and care of patients with mental illness, they are covered only for 190 days in their lifetime. Again, this is statutory discrimination against patients with a specific diagnosis receiving treatment in a particular facility.

- **Intermediate Services:**

Medicare coverage lags well behind private sector development of a range of psychiatric services that are less intensive than hospital-level services but more intensive than outpatient services. These include, for example, crisis residential programs and mental illness residential treatment programs, group homes, residential detoxification programs, residential centers for substance abuse treatment, psychiatric rehabilitation, intensive case management, day treatment, ambulatory detoxification, and so on. The currently available "intermediate" level of service, partial hospitalization, is effectively on hold due to shortcomings in the statutory authorization of the program.

- **QMB Discriminatory Payment Reduction:**

A related problem is the doubly discriminatory treatment of low-income patients who are eligible for both Medicare and Medicaid. Under current law, state Medicaid programs are required to make Medicare cost-sharing assistance to such patients, known as "QMBs" (for qualified Medicare beneficiaries). In brief, states are required to buy into the Medicare program for QMBs (who are by definition poor individuals), paying the Part A and Part B premiums, along with deductibles and copayments. In 1992, the then-HCFA Medicaid Director issued a directive that states were no longer obligated to pay a portion of the payment for psychiatric outpatient services subject to the underlying discriminatory Medicare 50 percent copayment requirement, since that portion was held not to be an incurred beneficiary expense. That finding put HCFA in the position of saying that for Medicare purposes, the 50 percent copayment was an incurred beneficiary expense, but for Medicaid -- and QMB -- purposes, a portion of the copayment was not. The direct result of the finding was that most states stopped paying for the full amount of the copayment, creating an enforced substantial "discount" for services provided to one group of Medicare patients, and a significant disincentive to treat such patients along with the discount.

- **Medicare Regulatory Problems:**

APA has testified before Congress on the often adversarial relationship that exists between CMS, Medicare Part B carriers, and physicians in the field who are simply trying to get paid for the medically necessary services they deliver. We have documented widespread variations in carrier coverage policy, along with extensive information about difficulties psychiatrists have in getting paid for services delivered to priority populations, including elderly patients in nursing homes.

- **Medicare Payment Update:**

Because of technical problems in Medicare's complex physician payment update, the 2002 Medicare update (also applicable to non-physician health professionals, including clinical psychologists and clinical social workers) was a negative 5.4 percent. The negative update has translated into real dollar reductions of -- it is reported to APA -- up to 10 percent relative to the same payment for the same service in the same state last year.

Mr. Chairman, taken together, the examples cited above spotlight significant disincentives inherent in federal programs funding delivery of services to the elderly. The examples also underscore the dramatic need for sweeping changes to Medicare and other federal programs to eliminate statutory discrimination against patients seeking treatment for mental disorders. The underlying discrimination is compounded by problems such as regulatory hassles and the extraordinarily unwise 5.4 percent reduction in the Medicare update.

Regardless of the specific mental disorder diagnosed, it is absolutely clear that mental illness in the Medicare population causes substantial hardships, both economically and in terms of the consequences of the illness itself. As Dr. Satcher put it in his landmark report, "mental illnesses exact a staggering toll on millions of individuals, as well as on their families and communities and our Nation as a whole."

Yet there is abundant good news in our ability to effectively and accurately diagnose and treat mental illnesses. Mental illness treatment works. Unfortunately, today, a majority of Medicare patients who need treatment for mental illness do not seek it or do not get it from specialty providers. Much of this is due to statutory discrimination that compels patients seeking treatment for psychiatric illness to pay more out of their own pockets. Congress would be outraged and rightly so if federal law forced a Medicare cancer patient to pay half the cost of his or her outpatient treatment, or a diabetic 50 cents of every dollar charged by his or her endocrinologist. So why is it reasonable to tell the 75-year-old that she must pay half the cost of treatment for major depression? Why should a schizophrenic patient incur a 20 percent copayment for visiting his internist, but be forced to pay a 50 percent copayment for visiting a psychiatrist for the treatment of his schizophrenia? Why also should patients not have access to the full range of services now available to treat their disorders?

IV. Legislative Solutions:

In addition to addressing general issues associated with geriatric medical education and training, APA respectfully calls to your attention the following legislation that, together, would significantly enhance our ability to deliver medically necessary care to our patients:

- **S. 1362, Advancement of Geriatric Education Act**

Sponsored by Senators Hutchinson and Craig, this legislation would permit teaching hospitals to add up to 5 Full Time Equivalents in geriatric residency or fellowship programs above 1996 levels without reducing the FTEs in other specialties, authorizes full Medicare GME payments for a second year of fellowship, and lifts current caps on Public Health Service funding of training in geriatrics. The legislation would directly assist in the expansion of current numbers of geriatric psychiatrists, and it deserves the support of the Senate.

- **S. 841/ H.R. 599, Medicare 50 Percent Copayment:**

These bills, sponsored by Senators Snowe and Kerry and cosponsored by Senator Collins in the Senate, and by Representative Roukema in the House, would repeal Medicare's statutory discriminatory 50 percent copayment, and instead require patients seeking outpatient treatment for mental illness to pay the same 20 percent copayment now charged for all other Medicare Part

B services. Enactment of the Snowe-Kerry-Collins and Roukema bills would end 40 years of blatant discrimination against patients who, for no fault of their own, suffer from mental illness. Enactment of the legislation would also eliminate the Medicare QMB problem.

- **S. 690/H.R. 1522: Medicare Mental Health Modernization Act**

These bills, sponsored by Senator Wellstone and Representative Stark, would address many of the underlying structural deficiencies in the Medicare program, including repeal of the 190-day lifetime reserve limit on treatment in a freestanding psychiatric hospital, and establishment of intermediate-level services not currently covered by Medicare. While APA does not support every provision of the two bills, we welcome these important efforts to address major shortcomings in Medicare's coverage of treatment for mental illnesses.

- **H.R. 3391: Medicare Regulatory and Contracting Reform**

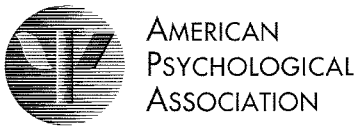
This compromise bill would give physicians greater flexibility in setting up schedules for repaying Medicare overpayments, limit carrier use of extrapolation and prepayment review, require carriers to give clear, accurate, and timely responses to questions from physicians, block implementation of any new E & M guidelines until they have been pilot tested, and clarify Medicare coverage of emergency services. The bill passed the House last year by a 418-0 vote; APA urges the Senate to take prompt action on this important legislation.

- **S. 1707/H.R. 3351: Medicare Payment Equity**

These two bills would address the 5.4 percent negative update in the Medicare program, bringing vitally needed relief to physicians and other health practitioners from problems with Medicare's complex payment formula. Action is needed this year or additional significant payment cuts will occur in 2003. More than 70 Senators and 300 Representatives have cosponsored the bills; APA urges prompt action.

Mr. Chairman and members of the Committee, the American Psychiatric Association joins in saluting you for your foresight in holding this important hearing on the need for geriatric medical education and training in order to ensure the best possible care of our nation's growing number of elderly patients. The problems are particularly acute for elderly patients seeking treatment for mental disorders, who must cope not only with the need to seek care, but also with the unfortunate fact that they are required to pay more for such care when they are able to seek it. We urge you to take a holistic approach to the problem, addressing the supply of physicians who are trained in geriatric medicine at the front end, while simultaneously acting to end the tremendous disincentives to patients to seek medically necessary care for mental illness.

Thank you.



Testimony on Geropsychology and Aging: Multiple Strategies, Positive Outcomes

By Steven H. Zarit, PhD and Bob G. Knight, PhD

Submitted to
The Senate Special Committee on Aging

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Washington, DC

The Challenges of An Aging Society For Clinical Practice*

Four social trends have dramatically altered the age distribution of the population and have led to new opportunities for working with this age group. These trends are as follows: the aging of the population, the changing character of aging, the effectiveness of treating older people, and coverage of outpatient mental health benefits by Medicare.

The Aging of the Population

The first and most important of these social trends is that the number of older people in the population has grown dramatically. In the past, the proportion of elderly in the population was relatively small; for example, in 1900 only 4% of people living in the United States were older than 65. By 1990, 13.5% of Americans were older than 65, with that figure projected to increase to as high as 17% by the year 2010 (Treas, 1995). Much of this growth is attributable to better control of infectious diseases and other causes of mortality in childhood and adulthood. As a result, a bigger proportion of people in any birth cohort can expect to survive to age 65 and beyond. The life expectancy is now almost 73 years for men and almost 80 years for women. People who survive to age 65 actually have even longer life expectancies: another 15 years for men and 19 years for women (U.S. Bureau of the Census, 1992). When fewer people lived beyond age 65, it was easier to ignore the mental health needs of the aged. Now, turning 65 is an expected occurrence, and people reaching that age may have one fourth or more of their life ahead of them.

The Changing Character of Aging

The second trend is that characteristics of the older population have changed. Current generations of older people are healthier and better educated than previous cohorts. In comparison with past generations, they have greater economic security. These trends will continue as the baby boomer generation begins reaching old age in the year 2010. One consequence of these changes is that older people are more psychologically minded and open to the possibility of psychotherapy. Opportunities exist not just for assisting in management of significant problems but also for making interventions that promote and extend the period of productive and healthy life (Park, Cavanaugh, Smith, & Smyer, 1993).

The Effectiveness of Treating Older People

A third factor leading to increased opportunities for treating older people is that psychotherapy is clearly and unequivocally successful. Despite historical pessimism about the ability of older people to change or to benefit from psychotherapy, the preponderance of the evidence suggests that older clients improve when given appropriate treatments by competent clinicians (Scogin & McElreath, 1994; Myer, Zarit & Qualls, 1990). Rates of improvement and the extent of gains are often similar to those found in younger clients. Psychotherapy can improve outcomes when used in conjunction with medications and in many situations when medication is not appropriate or is contradicted because of health problems. Psychotherapy is effective in traditional one-to-one sessions and in other modalities, such as couples and family therapy. Even in circumstances in which older clients cannot benefit from talking therapy (e.g., if they are suffering from moderate or severe symptoms of dementia), interventions that focus on family members or on hospital or nursing home staff can make significant improvements in the patient's condition and in how family or staff are coping.

*Zarit, Steven H. (Ed); Knight, Bob G. (Ed). A guide to psychotherapy and aging: Effective clinical interventions in a life-stage context. [Edited Book] *Washington, DC, US: American Psychological Association. (1996). x, 294pp.* (chapter title: "Psychotherapy and aging: Multiple strategies, positive outcomes." pages 1-13)

In the past, cost was a major barrier to treating older people. Since 1989, however, outpatient mental health services, including assessment, consultation, and psychotherapy, have been covered by Medicare. This change has reduced but not eliminated financial concerns because Medicare covers only 50% of the cost of these services, compared with 80% of medical charges. Nonetheless, this change has made mental health services more affordable for a greater number of older people.

The cost of care for the growing number of elderly is, of course, a major social concern. Although a great deal of attention has been paid to slowing the increase in the cost of Medicare, psychotherapeutic interventions can reduce the use of inappropriate and often more expensive medical services while restoring older people to their maximum level of functioning. For example, many depressed people visit their primary care physicians frequently with a variety of minor complaints that are often related to their mood. The treatment of depression can reduce the use of physician visits, medical tests, and even hospitalization.

The convergence of these social trends has created opportunities for clinicians to assess and treat older people in many different settings: inpatient psychiatric hospitals, outpatient clinics, the aging services network, private practice, and, increasingly, hospitals and nursing homes. It is clear that the demand for treatment greatly exceeds the number of clinicians with formal training in geropsychology. Few clinical training programs have offered specializations in geropsychology in the past, and even now most programs do not even offer a basic course in aging. To meet the needs of the growing population of older people, clinicians will need to develop competencies and expertise through their own ongoing education.

Common Problems That Bring Older People Into Psychotherapy

A wide range of concerns and problems can bring an older person into treatment. There are, however, certain patterns that are encountered with more frequency in this age group. The psychological problems of this population are likely to include depression, anxiety, and adjustment disorders. These psychological problems are likely to be comorbid with medical illness and may therefore complicate medical treatment. This interaction of physical and psychological problems is a common issue in psychotherapy with older adults and a common motivation for referrals from physicians and clinics. Grieving for loved ones, especially when the grief is for several people who have died, also may be linked to depression, anxiety, and other psychological disorders that bring older adults to therapy.

Physical frailty and cognitive frailty caused by dementia-related illnesses in later life affect family members as well as the identified patient and the treatment team. Caregivers of older people with dementia and a variety of physical problems are at risk for developing clinical syndromes of depression and anxiety and may need psychotherapy in addition to or instead of the supportive services that are available in many communities.

As diagnosis improves and people with progressive cognitive impairment are identified at the earlier stages of the disease process, a group of clients is created who still have sufficient cognitive functioning to participate in psychotherapy but who are at significant risk of depression and other psychological problems as they accept their diagnosis and learn to cope with more limited cognitive functioning. These early-stage older adults with dementia may benefit from psychotherapy.

Finally, older adults come to psychotherapy for the same variety of reasons that bring younger adult clients to therapy. Common issues can include marital problems, sexual dysfunction, family conflicts, personality disorders, and substance.

Developing Effective Treatment With Older People

The key to developing competencies in clinical practice with older people is to understand the similarities and differences as compared with other age groups. A sound foundation in modern clinical practice is needed to begin working with older people, one that will contribute considerably to effective practice. However, there are specific types of knowledge about older people, their problems, their families, and the settings in which they reside that are integral to clinical geropsychology. In particular, competency in clinical geropsychology incorporates the following areas: knowledge of the aging process; the diversity of the older population; assessment; and differences in the process of psychotherapy, the goals and issues of treatment, and settings between younger and older clients.

Knowledge of the Aging Process

Most older people are healthy, competent individuals who live independently. Most do not fit the stereotypical characterizations of old age. They are not senile or rigid, nor have they become increasingly neurotic, emotionally dependent, or childlike as they age. Clinicians need to be familiar with these normal aging patterns and their differentiation from disease. An understanding of the aging process will help clinicians identify appropriate goals for the clients and to counteract negative views of aging.

Diversity of the Older Population

The older population is not a homogeneous group with one pattern of functioning or set of needs. Like any other broad social group, older people encompass a wide range of people who differ as much from one another as they do from younger people. Social characteristics such as education, occupation, wealth, and ethnicity are usually more important than age in shaping current attitudes and beliefs, as well as the types of problems older people might have and the resources available for addressing those problems.

A major consideration in later life is gender. Because of women's greater life expectancy, they outnumber men in the population over 65 by a ratio of 3:2 (U.S. Bureau of the Census, 1992). This difference becomes greater at advancing ages. At age 65, there are 81 men for every 100 women, but, by age 90, there are only 33 men per 100 women. As a result, communities of older people are predominantly female.

The older population is frequently divided by age into "young, old," "old, old," and sometimes "oldest, old." The ages these categories refer to are roughly 55-74 for young, old, 75-84 for old, old, and 85+ for oldest, old. These categories, however, are not precise and do not indicate stages of development. In fact, the original formulation of young, old and old, old by the social psychologist Bernice Neugarten (1974) emphasized functioning rather than chronological age. Young, old people lived independently and were capable of functioning at a high level, whereas old, old individuals had chronic disabilities and needed help and assistance. Disability becomes more common with advancing age, but even in the 80s and 90s, significant numbers of older people remain independent and active (Zarit, in press).

Assessment

Although important with any age group, assessment has perhaps an even more central role in geriatrics. Because of stereotypes about aging, there is a tendency to view any problem as being due to aging or senility. As a consequence, many potentially treatable problems may be overlooked.
Even conditions that are largely irreversible, such as Alzheimer's disease, may have treatable components. Clinicians, then, need to know how to identify the common disorders of aging, such as dementia and depression, and to use the results of assessment to build a strong treatment plan.

The Process of Psychotherapy Is Sometimes Different

Although psychotherapy with older people often is similar to that for younger people, clinicians should be prepared to make modifications in their approaches. Changes include conducting sessions at a slower pace, talking clearly and slowly for people with hearing loss, and using written notes to help clients with mild memory problems. On a different level, clinicians need to be aware of their own feelings and attitudes toward older clients and to recognize instances of both negative and positive countertransferences. Some examples of negative countertransferences occur when clinical material stimulates the clinician's own fears about aging or unresolved issues with a parent or grandparent. Although the clinical geropsychology literature has tended to emphasize these negative countertransferences, there also are instances in which clinicians' enthusiasm about working with older people caused them to overlook or excuse their clients' problems and limitations.

The Goals and Issues of Treatment Are Sometimes Different

Clinicians need to understand the special concerns and issues that can arise later in life. Old age is a long and varied time of the life cycle. It cannot be understood through simple formulas, such as Erikson's (1963) famous dichotomy of "ego-integrity or despair." The period of late life covers a longtime during which many different stressors and problems can be experienced by people who have vastly different psychological and social resources available for coping. Certainly, clients will present problems related to concerns about aging or decline, as well as how to cope with the consequences of chronic and debilitating conditions. Loss is a common theme, but often in subtle and varied ways, so that it is difficult to characterize all older people within a few categories. Of particular importance for therapists is to understand the implications of losses, whether it is the death of a spouse, an illness, or other problem. A loss may present opportunities for rehabilitation and recovery, which an inexperienced clinician can overlook. Concerns about death and dying occur, but most often these occur in the face of a life-threatening illness, not as a general preoccupation. Many of the clinical problems presented by older clients are familiar, such as marital or family conflict, but they may present in later life with a different twist or focus.

The Settings for Treatment Are Sometimes Different

Treatment of older people may take place in an office or outpatient clinic. However, clinicians may find that they are seeing older clients in a variety of settings. Home visits are often important when working with physically frail or disabled older clients. Hospitals, nursing homes, and other specialized institutional settings are frequently places in which older people or their families or advocates seek assistance. In those settings, the geropsychologist needs to combine a knowledge of the problems of aging with an understanding of how that institution functions in order to make

effective interventions. In a nursing home, for example, interventions are often made through the staff or family rather than directly with an older patient. The clinician must sometimes subtly and tactfully redirect or educate staff so that they can manage more effectively a troublesome patient.

Summary

The aging of the population presents new challenges and opportunities for the practice of psychotherapy. Well, planned psychological interventions with older people, their families, and, sometimes, the professionals and service personnel they interact with, can make substantial differences in well, being and quality of life.

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Written Testimony of

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Before the Senate Special Committee on Aging
United States Senate

"Patients in Peril: Critical Shortages in Geriatric Care"
Wednesday February 27th 2002

The International Longevity Center – USA is pleased to have the opportunity to submit written testimony for this important hearing highlighting the need to address the shortage of health care professionals trained in geriatrics. The ILC-USA is a not-for-profit, non-partisan research and education organization whose mission is to help individuals and societies prepare for longevity and population aging in positive and productive ways. The ILC's priorities are to promote healthy aging and to extend the productive lives of an aging population.

I understand that this hearing is taking a broad perspective on the shortage of all health care providers - physicians, nurses, social workers, pharmacists, and others - who are trained in geriatrics. It is essential that our nation address all of these workforce shortages in order to better care for its aging population. The ILC's goal is to contribute to this hearing by focusing on one particular aspect of the situation, which is the critical

shortage of academic geriatricians. As you are all aware, most medical students and residents currently receive little if any training in geriatric medicine, which can frequently result in inappropriate or inadequate health care for older people. This problem can be addressed, however, in a cost-effective manner within the current health services delivery system. We simply need to ensure that **all** physicians, primary care and specialists, receive basic education and training in the care of older people during their medical studies. In order to meet this goal, we need the teachers, the academic geriatricians. Since there are currently very few teachers in the field, a geriatrics faculty development initiative must be undertaken.

An academic geriatrician is a physician who has the proper combination of medical, academic and scientific training to teach geriatrics. On average, a qualified academic geriatrician requires four years of additional education, research and clinical training after the initial residency in family practice, internal medicine, or psychiatry. The ILC has estimated that a minimum of about 1,400 to 1,450 academic geriatricians – roughly 10 at every medical school, allopathic and osteopathic - will be necessary to prepare our physician workforce for our aging population. Recognizing that some schools will have the capacity and inclination to support additional faculty members, a total cadre of about 2,400 academic geriatricians is both realistic and ideal. It has been reported that there are currently fewer than 600 faculty members who list geriatrics as their medical specialty, out of a total of almost 100,000 medical school faculty members.

Academic geriatricians serve as role models and mentors to medical students, and their presence at every medical school - allopathic and osteopathic - will ensure that geriatrics becomes mainstreamed into the entire medical education and training process. The result would be that no person graduates from medical school and completes a residency, regardless of specialty, without receiving education and training in geriatrics.

There currently exists a program operated by the Health Resources and Services Administration (HRSA) called the geriatrics academic career award (GACA). This program is specifically intended to promote the career development of academic

geriatricians, and serves as a good model for how the federal government can establish a commitment to creating a cadre of academic geriatricians.

The ILC has prepared an algorithm to outline the development and financing of a cadre of academic geriatricians over the next 20 years. The algorithm focuses on how the federal government can help support a geriatric faculty development initiative, which involves financing a minimum of 1,400 academic geriatricians. It is assumed that private philanthropy will continue to support additional research and training fellowships, which is necessary to achieve the larger goal of 2,400 academic geriatricians. Some data from the ILC's algorithm are summarized in Table 1.

According to the algorithm, which will be detailed in a forthcoming ILC Issue Brief, about 35 new candidates will enter a geriatrics faculty development program each year. These candidates will be those residents who have completed their initial residency plus the one-year fellowship in geriatrics currently supported by the Medicare graduate medical education program or the Veterans Administration. After the geriatrics fellowship, about three additional years of advanced research, education and training would need to be supported for an individual to become an academic geriatrician, so the algorithm calculates that each candidate will be in the program for three years. The size of the individual award would begin at $75,000 per year, which is based on similar grant programs at the NIH, and adjusted for inflation. The number of new entrants to the faculty development program would increase each year as the program matures, reaching 145 individuals entering per year. According to our algorithm, after 20 years, accounting for attrition, the initiative would produce about 1,400 academic geriatricians. The average annual cost over 20 years would be a mere $22 million, and in the first few years would be less than $10 million! This is an extremely modest investment, but it will produce significant returns.

Table 1

Year	New Candidates	Number in Program	Cumulative number of Academic Geriatricians Produced	Annual Cost
1	35	35	0	$2.6 million
4	35	94	59	$7 million
8	70	188	207	$15 million
12	140	317	444	$26 million
16	145	381	917	$34 million
20	145	389	**1403**	$35 million
			Average Cost per Year Over 20 Years	**$22 million**

It should be noted that the legislation establishing the National Institute on Aging did not authorize a means to develop academic geriatricians. In contrast, the National Heart Institute was able to support the development of about 16,000 cardiologists during the first 22 years of existence. This federally-sponsored effort no doubt contributed to the 60% reduction in deaths from heart disease. The presence of academic geriatricians on the faculty of every medical school, both allopathic and osteopathic, to teach all medical students about geriatrics will improve the health and well-being of older people, and ultimately save our health care system money as mistakes and misdiagnoses are reduced.

Although the federal government has not yet effectively focused on addressing the shortage of geriatricians, there are signs that this issue is growing more prominent. Funding for the HRSA geriatrics programs was increased from $12.4 to $20.4 million for Fiscal 2002, thanks to the efforts of Congressman Ralph Regula and others. This funding supports the Geriatric Education Centers (GECs) and Geriatrics Fellowships for physicians and other health care providers, as well as the GACA. The GECs and Fellowships would also benefit from continued funding increases, but this testimony, as earlier stated, and the algorithm apply solely to the need to fund a geriatrics faculty

development initiative to produce academic geriatricians. The ILC believes that the need for the teachers in the field is crucial.

In addition to the federal contribution to a geriatrics faculty development initiative, private philanthropy can continue supporting additional research and training fellowships, as well as supporting the infrastructure needs of institutions, such as endowing chairs, building facilities, and developing curriculums. A coordinated public-private effort will be necessary to achieve the overall goal of 2,400 academic geriatricians.

Given the current situation, and the impending retirement of the baby boom generation, such an initiative should begin as soon as possible. We have 10 years before the baby boom generation begins to retire, and 20 years before the population over the age of 65 practically doubles. Our nation must take steps to better meet the health care needs of an aging population. A plan for modest but incremental increases in funding to create a cadre of academic geriatricians would be an effective way to help achieve the ultimate goal of improving the health and well-being of all older people.

Thank you again for this opportunity to discuss this important issue.

COUNCIL ON SOCIAL WORK EDUCATION

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February 22, 2002

The Honorable John Breaux, Chairman
U.S. Senate Committee on Aging
The United States Senate
Dirksen Senate Office Building - G 31
Washington, DC 20510-6400

Dear Senator Breaux:

The enclosed written testimony from the Council on Social Work Education (CSWE) is intended for the February 27, 2002 hearing on Geriatric Training. CSWE represents over 3,000 social work educators and 600 professional schools and academic departments of social work, it is the sole accrediting authority for social work education in the United States.

CSWE, and its *Strengthening Aging and Gerontology Education for Social Work* project, submits this testimony in support of addressing the serious shortage of well-prepared social work professionals to meet the health and mental health needs of a growing aging population. Professional social work offers a comprehensive approach to meeting an individual's physical, emotional, spiritual and social needs, and this perspective is essential in providing quality health and mental health services to older Americans and their families.

Demographic demands make it essential that the federal government respond to the critical need for preparing an adequate number of social work geriatric specialists and also those with basic professional competence in aging services.

I thank you and your Committee members for your attention.

Sincerely,

Donald W. Beless, Ph.D.
Executive Director

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Testimony Submitted by the Council on Social Work Education to the Senate Special Committee on Aging for the February 27, 2002 Geriatric Training Hearing

Submitted by Donald W. Beless, Ph.D. Executive Director

For questions and further information, contact: Anita L. Rosen, Ph.D., Director of Special Projects Council on Social Work Education, 1725 Duke St. - Suite 500,Alexandria, VA 22314 703-519-8080, arosen@cswe.org, www.cswe.org.

The Council on Social Work Education (CSWE) is a nonprofit organization committed to promoting quality in social work education. Representing over 3,000 social work educators and 600 professional schools and academic departments of social work, it is the sole accrediting authority for social work education in the United States. CSWE pursues this mission through setting and maintaining policy and program standards, accrediting bachelor's and master's degree programs in social work, promoting research and faculty development, and advocating for social work education.

As the result of extensive assessment of geriatric and gerontological social work (CSWE/SAGE-SW, 2001), CSWE submits this testimony in recognition of three critical issues that must be addressed:

1. ***There is a serious shortage of well-prepared social work professionals to meet the health and mental health needs of a growing aging population; and***
2. ***There is a demonstrated need for social work professionals who work with older adults and their families as part of the health care team.***
3. ***There is need to greatly increase efforts to prepare social workers for interdisciplinary health and mental health practice in a wide range of settings with diverse, older adults and their families.***

The Need for Social Workers

With the Baby Boom generation approaching older middle age and with advances in health care extending the average life span, the U.S. population includes a rapidly increasing number of adults older than 65 and an unprecedented number of the oldest old (85 and older). In addition to rapid growth of the oldest-old, there is a significant increase in the diversity of the aging population. As a result of these demographic changes, there will be a greater need for social workers to use their skills to enhance the quality of life for older adults and their families and to assist them in navigating ever-changing and increasingly complex health, mental health, social services and community environments. Social work offers a comprehensive approach to meeting an individual's physical, emotional, spiritual and social needs, and this perspective will be essential in providing services to older Americans and their families.

As the need for gerontological social workers increases over the next decade, the shortage will be acute unless dramatic changes occur in educational outreach, incentives and opportunities

and in the system that supports and encourages social workers to pursue specialization in gerontology.

The dramatic growth of the aging population affects all aspects of society and creates new and growing demand for a variety of health, mental health and social services. This growth in the aging population is well documented (Administration on Aging [AoA], 2000), including the rapid growth of those people 85 and older, which has doubled people 100 and older having tripled.

Of significance is that this increase in the number of people in the oldest-old (85+) category substantially increases the demand for health, mental health and social services because this population group has higher incidence of dependency and disability than those aged 65-84 (Administration on Aging [AoA], 2000). The unique characteristics of the old-old present non-traditional medical problems in the health care system that are often misdiagnosed, and are exacerbated by "social isolation, emotional vulnerability, and poverty" (Blanchette & Flynn, 2001).

As adults age, they face a combination of physical, social and psychological changes that differ from the experiences of adults in younger age groups. The changes associated with aging are synergistic in their effects on an older adult's quality of life and on the need for supportive services. The comprehensive view of human needs that social work affords makes the social worker a key member of any interdisciplinary health service delivery team. Social workers provide an array of clinical, social, and case management services to individuals, families, and communities. They work with older adults, their family members and with other health, mental health and social services providers to optimize the older adult's independence and well-being. With an increasing number of intergenerational families composed of three, four and five generations and with a growing number of grandparents raising their grandchildren, social workers can provide critical assistance to families juggling the demands of multigenerational caregiving. Social workers also address important issues of loss, grief and bereavement that are often associated with aging persons and families.

The aging of the population provides new challenges to the health, mental health and social services system. Work with older adults and their families requires the comprehensive, biopsychosocial skills that are the focus of social work practice (CSWE/SAGE-SW, 2001).

In addition to rapid growth of the oldest-old, there is a significant increase in the diversity of the aging population (Administration on Aging [AoA], 2000). Social workers in health and mental health care, child welfare and social services are increasingly involved with a diverse population of older clients, their families and caregivers (Peterson & Wendt, 1990; Damron Rodriguez & Lubben, 1997; Wallace, 2001).

The growth of the aging population and accompanying changes in health care are a prime opportunity to demonstrate that social workers have an important place on the interdisciplinary health or social service team. Social work is unique among health and mental health professions because its practitioners consider an integrated view of clients -- the physical, mental and social aspects of a person. Social work education and practice value such constructs as client self-determination, mobilizing the family system, and a comprehensive approach to human

development that is essential in the provision of services to older adults and their families (Greene, 2000).

Social work, unlike most other health and mental health professions, has focused on underserved populations, diversity and community-based care (Berkman, Damron-Rodriguez, Dobrof & Harry, 1996), all critical skills for work with older adults and their families. Professional social work to underserved populations includes comprehensive case management expertise, coordination of health, mental health and social services, clinical services and counseling to help older people age in place. This approach is emotionally positive for older adults, and can provide considerable savings in Medicare, Medicaid and out-of-pocket health care costs. Social workers are the largest group of service providers for people with severe mental disorders and - especially in rural areas of the country - often are the only mental health service providers for wide geographic locales. Basic geriatric competency is critically important for all social workers.

Social work skills with older persons and their families have been shown to be effective (Gremier & Gorey, 1998) through a meta-analysis of published studies evaluating social work interventions. The eighty-eight studies examined by Gremier and Gorey (1998) demonstrated the efficacy of a broad range of social work interventions that work in a variety of settings with diverse populations.

The demographics of aging clearly indicate a need and a demand for social workers that specifically work in services to the aged (Scharlach, et. al, 2000; NIA, 1987; Peterson & Wendt, 1990).

Geriatric Education in Social Work Today

The most recent Council on Social Work Education (CSWE) statistics (Lennon, 1999) indicate that approximately 23 or16% of Masters of Social Work (MSW) programs have a gerontology specialization, 7 (5%) have sub-concentrations, 17 (12%) offer aging as a specified "Field of Practice" and 6 (4%) offer a certificate in gerontology. However, despite the fact that the population is aging, today there are fewer specialty programs than 7 years ago (Damron-Rodriquez, Villa, Tseng & Lubben, 1997), and only 2.4% of the current 32,000 MSW students specialize in geriatrics or gerontology.

In education, too few programs provide gerontology curriculum at the bachelor's (BSW) level or geriatric specialization at the master's (MSW) level (Damron-Rodriquez & Lubben, 1997). Only 10% of students take a geriatric or gerontology course when available (Damron-Rodriquez, Villa, Tseng & Lubben, 1997).

Focus groups conducted by CSWE/SAGE-SW staff to assess the current state of geriatric social work education indicated that, in most programs, unless a student entered the program with knowledge or interest in aging issues, they had little opportunity to acquire it at the MSW level. In addition, there are few opportunities for working professionals to participate in continuing education on aging through academic-sponsored courses.

CSWE recognizes that competing interests are a normal part of professional education in any field, but the current situation does little to expand geriatrics or gerontology education in order to place it on equal footing with the other age groups across the lifespan. ***This is necessary since the majority of social workers will have practice opportunity with older people or with their families*** (Reed, Beall & Baumhover, 1992; Scharlach et al., 2000).

Lack of Incentives for Faculty and Students

The need for teaching geriatrics and gerontology is clear. The reality is that currently, there is limited interest or opportunity to expand geriatric education through specialization. A significant issue for geriatric social work focuses on the educational environment and preparation for practice with older people. The majority of both BSW and MSW educational programs provide little direct or infused geriatric or gerontology content for their students (Scharlach et al., 2000).

A major study of funding for the education and training of geriatric-care personnel (Dawson & Santos, 2000) indicate that "there are national shortages of geriatric-care personnel in the medical, mental health, and social service professions who are prepared to provide effective services for the nation's older population" (Dawson & Santos, 2000, p. 1).

Social work, an integral part of the interdisciplinary geriatric team, has few full-time geriatric social work trainees in field practica. Social work educators report that programs have lost interested faculty "due to a lack of grant support for aging-related programs" (Dawson & Santos, 2000, p. 14). Lack of trainee funding for first year MSW placements was seen to be the primary reason for the limited supply of gerontologically trained social workers (Dawson & Santos, 2000). Other than the "...Veterans Administration Geriatric Research Education and Clinical Centers, no significant national resource presently exists for supporting students interested in aging" (Scharlach et al., 2000, p. 528). Historically important support for curricula enhancement, demonstration projects and training has all but been eliminated from the Administration on Aging (AoA) discretionary budget. Specifically designated funding from the Bureau of Health Professions (BHPr) for gerontological social work has been placed in a broad behavioral sciences category that invites funding competition from a variety of professions.

Addressing the Social Work Workforce Shortages

Major efforts are required to address population changes, the needs of the increasingly diverse older population, and the broadening range of health, mental health, and social service settings in which professional social workers will be involved with the health care of older adults. Efforts should prepare social workers for interdisciplinary health and mental health practice in a wide range of settings with diverse, multigenerational clients. Some suggested areas for improvement of the current situation include:

1. Developing or increasing the number of student stipends and traineeships through federal government agencies such as HRSA, SAMSHA, NIH, BHPr., that are available specifically for social work internships in geriatrics and gerontology.

2. Increasing significantly the number of social work researchers and educators who have the expertise and the competence and vision to promote the optimal well-being and support of older adults;

3. Providing specified government research and demonstration project funding for social work researchers and academics through HRSA, PHS, CMS, NIH, CDC, SAMSHA, AoA and related government entities with a mission to effectively serve the health care needs of older persons.

4. Providing incentives for social work education programs to modify curriculum to help prepare all social work students with basic geriatric and gerontology competency.

5. Developing and promoting government regulation that encourages employers, payors, funders, and consumers to make use of social work services for older adults and their families, such as mental health, case management and caregiver support services.

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AOTA® The American Occupational Therapy Association, Inc.

Occupational Therapy: Skills for the Job of Living

Statement of the American Occupational Therapy Association Senate Special Committee on Aging For the Record of the Hearing on The Shortage of Geriatric Health Care Professionals Held on February 27, 2002 Submitted March 12, 2002

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Occupational Therapy and the Elderly

Occupational therapy is a health and rehabilitative profession that is built on the role of goal-directed activities, or "occupations," in leading fulfilling and productive lives. Occupational therapy is provided as an intervention to enable individuals with illnesses, injuries or disabilities to overcome the effects of those conditions and lead full lives, pursuing goal-directed activities of their choice. Such activities can range from assisting children's development around learning to understand their environment, play and learn skills like handwriting to helping older adults adjust to self-care, dressing, remembering, and exercising mental capacity as their preferred goal-directed activities even as their abilities change or diminish.

In Medicare, the main payer of health care for the geriatric population, occupational therapy is covered under hospital, skilled nursing care, home health, partial hospitalization for mental illness, hospice and as an outpatient service. Occupational therapy addresses physical, mental, cognitive, social, psychological and functional consequences of aging.

The issue of geriatric training and promotion of gerontic practice for occupational therapists and other health professionals is a critical one. The American Occupational Therapy Association (AOTA) is pleased that the Committee held the hearing on February 27, 2002 and offers its support for the Committee's activities to increase attention and response to this issue.

Current Challenges to Geriatric Practice

In occupational therapy, the long tradition of practice in geriatrics has resulted in a significant number of practitioners providing services under the Medicare program in all settings. There are trends for new graduates to move into pediatric and school-based practice. Thus the Committee's interest in promoting education for geriatric practice is one that resonates with the occupational therapy profession as it works to continue and reinvigorate geriatric practice.

Training for occupational therapy has always emphasized and covered the full life span and human development from birth through the last stages of life. Current curriculum standards for a program approved by the Accreditation Council for Occupational Therapy (ACOTE) require coverage of the full life span. Research in recent years has made great strides in investigating how occupational therapy can provide intervention to people who are older to make their lives more full, comfortable, safe and productive.

Yet while this continuing emphasis on geriatrics is positive, there have been problems in meeting the changing needs of the growing older segment of society. In particular, Medicare support for training students in situations where Medicare is providing payment needs further examination. Medicare Graduate Medical Education (GME) funds are used primarily for hospital-affiliated training for physicians and for nurses and allied health professionals, only for hospital-based training programs. These latter types of programs are now almost non-existent. Other reimbursement for training is limited under Medicare. In a Congressionally mandated report published in 2001 by the Medicare Payment Advisory Commission (MedPAC), the issue of Medicare payment for nursing and allied health professionals was examined. While the Commission recognized that the ability to provide a quality Medicare program was directly linked to the availability of qualified, well-trained practitioners, its recommendations focussed on further examination of the impact on care of providing training for such professionals. MedPAC further suggested that rather than focussing on Medicare reimbursement, that Congress should move to other sources in targeted programs to support training.

AOTA supports MedPAC's suggestion for more funding in targeted programs and urges the Special Committee to support such efforts. AOTA also believes that the Medicare program has a role to allow for payment for services provided while students are receiving training. After the Balanced Budget Act of 1997's payment reforms were implemented, fieldwork sites for students in geriatric facilities were nearly eliminated. Changes in how occupational therapy was paid for caused confusion and extreme caution about reimbursement availability among the providers. Policy changes had very negative effects partly because information and direction from the Centers for Medicare and Medicaid Services (CMS) on how to implement new payment methods were difficult to interpret. Geriatric fieldwork suffered significant losses in 1998 through 2000 as providers worked to reorder their approach. Some of the policies have been changed or illuminated by CMS but geriatric fieldwork has suffered significant damage and sites are not easy for educational programs to find. This may have an impact on future choice by young occupational therapists of geriatrics as a specialty.

One positive policy was expressed under the prospective payment system for skilled nursing facility services (PPS/SNF) under Medicare Part A. The patient categorization system allows patients to receive a limited amount of therapy provided by students. This policy allows for supervised training for such students in this important geriatric setting.

However, AOTA has had to work for many months to gain agreement from CMS that provision of services by professionals while students are participating can be billed under Medicare Part B in certain circumstances. AOTA believed the original interpretation by CMS was an inconsistent policy approach and is gratified that CMS has been willing to modify its position. But educating providers, practitioners and training programs to this change will take time and fieldwork placements that provide Part B services have been lost. Regaining them will take time. In

addition, CMS contractors (carriers and fiscal intermediaries) are still denying reimbursement despite the change in policy allowing such reimbursement. AOTA continues to work with CMS to promote appropriate training opportunities for students within the Medicare program. The Special Committee would do well to further the investigation into Medicare policy in GME and alternative support for training, including providing for costs associated with service provision.

History of Occupational Therapy in Geriatrics

Occupational therapy, a profession that had its beginnings in mental health services around the turn of the 19th to the 20th Century. Now occupational therapists practice in large part in facilities that have a majority of elderly patients. In particular, occupational therapists are heavily involved in care in nursing facilities, following a significant growth in this practice area in the 1990's. But the profession is also moving, with the interests of a changing aging population, to working in the community to promote healthy, productive aging through lifestyle and other interventions.

In 1947, a prominent occupational therapy researcher, Grace Hildenbrand, published several articles in the American Journal of Occupational Therapy on aging and the needs of the geriatric population, documenting this then emerging practice area (attached). The focus of these articles was to nourish the role of occupational therapy with geriatric medicine in supporting the aging process in a changing society. Occupational therapy was viewed as a way to promote vitality and self worth, to provide assistance in adjusting to change in ability and function, and to provide a service to society as the number of elderly Americans continued to grow.

In the 1970's occupational therapy geriatric practice grew to such an extent that in 1977 the American Occupational Therapy Association established a Geriatric Special Interest Section. This special membership group within the overall professional organization thrives even today.

In the 1990's, practice began to work toward focus on home and community approaches to aging in addition to growth in the nursing facility practice area. While working with individuals in their recovery from stroke, hip replacement, or other acute conditions, occupational therapy began to focus on promoting function and activity for individuals with chronic conditions such as Parkinson's disease and dementia or Alzheimer's disease. Contemporary research and practice are now focussing on extending community life for individuals who are aging, addressing issues such as compensatory strategies for home care for people with dementia, home modifications for safety and accommodation of limitations, and intervention to promote continued community participation through safe driving for the elderly. There has also been research on the provision of occupational therapy for well elderly as a preventive strategy to reduce the rate of physical and mental change. The practice of occupational therapy in geriatrics has become a critical and thriving area of practice.

Training and Research

Occupational therapists are trained at the baccalaureate, masters or doctoral level. Occupational therapy assistants receive a two-year degree. The curriculum requirements for both are heavily weighted with geriatric focus and content as part of the requirements for the curriculum to address knowledge and understanding of human development throughout the life span.

Indeed, many programs offer specialized courses on geriatrics. Some offer specialty concentrations as well.

The University of Central Arkansas' course, "Occupational Therapy Practice in Geriatrics" teaches students to recognize aging as a normal process of human development. The course provides basic biological and psychosocial theories of aging and works to assure that students recognize the anatomical, psychological and cognitive changes of advancing age and differentiate these changes from disease or pathological processes. This training provides for a more complete understanding of aging as separate from illness or injury. The course then moves to provide students with the tools to conduct gerontic practice in activity programming, prevention and safety precautions, care of the terminally ill, activities of daily living, therapeutic adaptations to promote function, activity and productivity through the life span, and in cognitive and psychosocial treatment for specific conditions. All is geared toward promoting optimum occupational performance of older adults.

At **Thomas Jefferson University in Philadelphia, Pennsylvania**, a concentration in Older Adults requires three courses: The Aging Process and Related Changes in Older Adults; Older Adults and Their Living Environment; and Innovative Practice with Older Adults.

At **Louisiana State University** the courses in Adaptation through the Life Span and Clinical Reasoning, and Advanced Issues in Psychosocial Occupation all focus on understanding the changing nature of development, activity and needs as one approaches and moves through the latter years of life.

University programs in occupational therapy are taking the lead in research on many of the above referenced expanding areas for gerontic occupational therapy. This research then informs the training that is provided to occupational therapy students.

At **Washington University in St. Louis, Missouri**, a newly established doctoral program has three possible concentration areas, including one in geriatrics. Also in Missouri, Maryville University is conducting research in interventions for safe driving for elders, investigating ways to provide assistance and training to elder drivers to promote their and the public's safety and continued mobility.

At **Jefferson University in Philadelphia, Pennsylvania**, research has been conducted on providing occupational therapy intervention for patients with dementia and their caregivers to modify the home environment for both safety and to provide an atmosphere that is less likely to trigger problems and negative behaviors for people with dementia (attached).

At the **University of Southern California**, groundbreaking research, published in the Journal of the American Medical Association (attached) with follow-up research published in the Journal of Gerontology: Psychological Sciences (attached) that showed that providing occupational therapy to well older adults living in the community to promote active mental and physical lives succeeded in reducing the rate of decline in both health and mental status.

All of this research is just beginning. Training for future researchers must be begun now as well as development of faculty for training future geriatric experts. Federal support for faculty and

leaders is common in other areas; training funds and scholarships for development of leaders is provided under the Individuals with Disabilities Education Act, Part D. Under Title VII of the Public Health Services Act, however, the President's Budget proposed for FY2003 has slashed funding for scholarships and other support for training in geriatrics and in the allied health professions.

Conclusion

Occupational therapy is a profession steeped in tradition and energized with forward-looking efforts in geriatric practice. University training programs in occupational therapy pay particular attention to geriatric issues but more research and encouragement of choosing this area of practice is needed. The Special Committee is poised for a leadership role to address these issues. AOTA looks forward to supporting the work of the Committee and providing assistance as it works to identify and implement solutions to meeting the needs for geriatric practitioners in the future.

Found Horizons For The Aging

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Occupational therapy is an objective means of treatment through the use of occupations prescribed by a physician to hasten a patient's recovery from sickness or injury or to contribute to a patient's adjustment to hospitalization. The field is a broad one which uses a vast variety and media of activities; mental or physical, guided for their therapeutic value to the specific needs of individual patients. The activities may be handicrafts, studying a language, typewriting, gardening, printing, photography, recreation, etc. A professionally trained occupational therapist carries out the physician's prescription through the selection and adaptation of activities which meet the patient's specific needs and interests. The purpose of the activity varies with individual needs. One patient may require occupational therapy to assist the restoration of muscular function or muscular coordination. Another may require prescribed occupational therapy to assist in his mental rehabilitation. Still other patients may require prescribed activities or recreation to prevent possible neuroses and to build up morale. Some patients will, because of their specific needs, require prescribed work for vocational rehabilitation while others may require prescribed leisure time activity. Regardless of the type of patient then, we find occupational therapy prescribed whether the individual be psychotic, neurotic, blind, physically handicapped, cardiac, industrially injured, mentally defective, infirm or aged.

Occupational therapy is needed and it has received a great impetus as a result of its success as therapy with individuals represented from the specialized fields mentioned above.

The effects of preventive or diversional therapy, functional therapy, or prevocational therapy can not be overestimated. Through preventive or diversional therapy, unhealthy mental trends are replaced with constructive mental trends, attention is aroused, an opportunity for self-expression is made available, emotional stress is eased, invalid habits are thwarted, initiatives are developed, self-respect is encouraged and encouragement is substituted for discouragement. Functional occupational therapy aids in restoring function to disabled joints and muscles, mental and physical co-ordination are developed, muscle tone is developed, atrophied nerve and muscle tissue are re-educated.

The social effects of therapeutic activity are important in sustaining a feeling of well-being and security and in lessening feelings of defeatism and insecurity. Opportunity for group cooperation and the sharing of responsibility as well as opportunity for social contacts in constructive activities are made available.

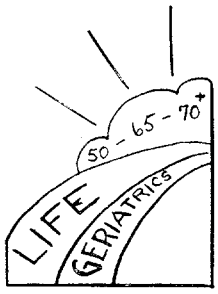
It is natural for man to keep busy. Lack of activity does more than just kill time. It kills initiative, interests and it broadens feelings of defeatism, insecurity and depression. Through occupational therapy aptitudes can be detected, skills can be evaluated, work habits can be developed, pre-vocational counseling can be given wherein disability is minimized and capabilities capitalized.

In planning the program of activities for any type of patient, the therapist must first consider the specific needs of the patient; then plan a project which is within the mental and the physical capacity of the individual. The completion of an attractive project gives the maker a distinct psychological lift but the failure in completing a project because of its complexity, tends to increase feelings of finality and defeatism; feelings which so many of the dependent, aged or infirm patients seem to have.

The use of bright colors, varied textures of media as well as the use of several tools in constructing the project has a tendency to stimulate the patient while a craft technique involving the use of one small tool, one color, a single texture or the repetition of one movement tends to have a sedentary, relaxing effect upon the patient. The use of crafts which demand large tools, wide movements, great mental effort and the use of several tools, de-

mand strength and supply an outlet for excessive energy.

Craft activity can and should be selected to meet needs of patients as well as their mental and physical capacity, not to forget the individual's interests. As the individual's strength and capability increases, the activity should be graded accordingly.



Today great emphasis is being placed upon occupational therapy with the aged. We are aware of the fact that the number of aged in our population is steadily increasing and that some ten million aged in our country alone, constitute great socio-medical problems. Geriatrics, a specialized field, takes into consideration the study of the aging and their problems, as well as the health of the aging, the medical problems of those who are normally aging and the mental and physical illnesses which bring on premature old age. The object of geriatrics, then, is not only to increase the span of life of an individual, but also to assure the aging one of better health, a life full of vitality with proper physical functioning and to reveal the important part played by the mind as well as all this humanitarian endeavor.

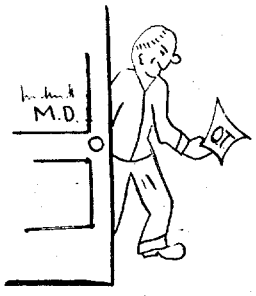
Individuals of sixty-five years are often referred to as having outlived their usefulness to society. We have only to refer to the work which thousands of our aged performed during our late war emergency. They proved they worked efficiently and quite capably despite their advanced years.

Our socio-economic conditions are such that keen competition often forces persons of sixty years or so to retire from industry. This enforced retirement often requires many, because of unfortunate circumstances, to retire to a public institution for the dependent aged.

Adjustment to this mode of living is not too acceptable for the most part since they feel insecure, lonely, and defeated. Occupational therapy plays an invaluable part in fulfilling this latter aim of geriatric medicine. Idleness and lack of purposeful activity, the greatest enemies of the aged, do more than just kill time. They kill initiative, self-respect and they broaden feeling of defeatism. They encourage mental, physical deterioration and invalidism. Physicians know how contributive a factor mental tension is to the ill health of the body and mind and that by removing this tension, the body and mind are often enabled to function better.

Truly to age is to change and in this continuous process functions of the bodily organs and tissues are altered. There results a gradual retardation of tissue repair, tissue elasticity decreases, and cells atrophy. However, these manifestations as well as the more usual objective characteristics of aging; poor circulation, impairment of vision; hearing, tremors of the hands, etc., are greatly exaggerated in the minds of younger people. Slight mental disturbances such as lapses of memory, forgetfulness of names, stalling in conversation are disturbances which come with physiological changes. Because of the older person's tendency to conservatism, because of emotional and social decline, we find the older person withdrawing into himself. These general senescent degenerations which are very gradual and insidious often make the older person feel more fearful, sensitive, bewildered and isolated.

To many, old age is considered a penalty. However, old age is an accomplishment and it can be enjoyed. And so, it is the purpose of the writing to follow to acquaint you with one of the country's largest municipal institutions, The New York City Home for Dependents,



where every effort is made to make for happy, pleasant living for approximately 1800 guests who receive full custodial care at the home. The occupational therapy program fulfills the latter aim of geriatrics medicine wherein the aged are encouraged to enjoy their life in better health and vitality and to adjust their personality to senescent changes.

Every guest of the home can, in the occupational therapy department, find a channel of expression whereby absolute enjoyment of leisure is attainable with the freedom to choose his own field of endeavor. The occupational therapy department consists of five craft shops, a print shop and a sewing room. Here a wide and varied program of challenging craft techniques are made available under the supervision of trained occupational therapists.

Following the routine physical examination and admittance procedures entailed in admitting a guest to the home, assignment to a ward is made according to the physical condition of the guest. Every effort is made to assign the guest to graded activity in some department of the home. Guests are referred to the occupational therapy department by the doctor. Following an interview with the director of occupational therapy an assignment to a specific shop is made taking into consideration the guest's physical and mental capacities, his likes and his interests. A tour of the specific shop is made and the therapist plans a program of stimulating craft activity which meets the specific needs, and the physical and mental capacities of the guest.

Through the guest's volition and efforts, adjustment to institutional life is made more acceptable. The wide media of challenging crafts offer an opportunity for self-expression, emotional stress is eased, initiatives are developed, invalid tendencies are thwarted, encouragement is substituted for discouragement, attention is aroused, self-respect is encouraged and morale is sustained. Feelings of defeatism and finality; feelings which so many of our handicapped, aged seem to have, are lessened. Possible neuroses are prevented. Opportunity for group co-operation and the sharing of responsibilities are made available. Through occupational therapy, aptitudes are detected, skills are developed and the handicapped soon learn that they are not wholly incompetent. Handicaps are minimized and abilities are capitalized.

In so far as possible the craft shops are in a separate building away from the wards. The furniture is painted in a gay manner and a happy, social atmosphere prevails as mixed groups of workers chat while they work or while they listen to musical programs, special messages from the superintendent or news programs which are broadcast over the public address system found in each shop. However, for the more seriously handicapped guests, shops adjacent to their wards are available. Ramps to accommodate wheel-chairs, and the blind are provided. The more able-bodied male guests willingly volunteer to push wheel-chair guests or lead newly admitted blind guests to the shops.

A great deal of scrap material is used in the construction of attractive, useful articles. Old, leaking pots and pans, odd pieces of wood from orange crates, prune boxes, tea cases, apple boxes, selvage pieces of roofing and copper gutters, old rayon stockings, burlap bags, wire bindings from crates, various scrap cuttings from the sewing room, selvage ends of scarfs, bleached typewriter tape, pieces of sample materials, broom stick handles, empty boullion jars, empty cans, sample wall paper books, used X-ray film, cardboard, tooth brush handles, selvage pieces of leather, plastic and odd pieces of millinery felt are among the many welcome sources of so termed "scrap materials" which are transformed into attractive articles.

The west industrial shop, located on the second floor of the industrial building, accommodates approximately thirty of the more able-bodied guests. These men and women are aged, have slight handicaps in vision, hearing; some are arthritic while others have slight cardiovascular and circulatory disturbances.

These folks look forward to spending approximately four hours of each day in a pleasant group atmosphere doing various kinds of craft projects in which they are interested. In this shop we find much scrap material being used in craft construction.

One aged, male guest can be seen completing an attractive hooked rug. The design of the rug was drawn on a discarded coffee burlap bag. Old, rayon stockings were used to hook the rug. These were stripped of their color and re-dyed in many hues. It is interesting to note that approximately 500 old stockings will be used to complete this 3′ x 4′ rug.

The guest carving the salad sets is carving them from a piece of scrap wood using only

a pen knife, and a piece of broken window glass as tools.

Old, leaking pots and pans are opened at their seam, flattened out, cut and are re-shaped on a sand bag. Attractive bon-bon dishes, hurricane lamps, candle holders, and ash trays are but a few of the many useful articles which have been transferred from this very source of discarded utensils.

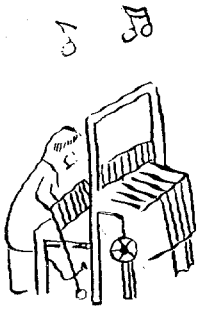
In one section of the shop is found a collection of prune boxes, orange crates, odd pieces of crates, short lengths of wood from packing boxes, etc. A hard of hearing aged gent of 82 years happily constructs doll cradles and wheel barrows from this source of wood while another guest carves hors' d'oeuvre trays from short lengths of scrap gum wood.

Polished pieces of copper from discarded roof parts and gutters are transformed into attractive jewelry boxes, book ends and letter boxes by combining pieces of copper on pieces of scrap wood.

Other folks can be seen weaving fine luncheon sets, knotting strong belts of waxed cord, lacing leather articles, and polishing finished projects. One gent, aged 74 weaves sturdy rush seats in foot stools, rockers and chairs. Another gent of 71 years prefers to crochet gloves and it is most novel to note that the improvised crochet hook which he uses was carved from an old tooth brush handle.

Fine linen table cloths, cocktail napkins and tray sets are attractively worked and hemstitched by the women while gay stuffed toy horses are made from scrap pieces of upholstery fabrics and selvage scarf ends.

Adjacent to this shop we find our east shop where both sighted and sightless guests lend enthusiasm while they chat and work. May I



remind you that total blindness does not mean complete incompetency. In order to permit free moving about, wide, clear aisle space is maintained and furniture or tools are never changed without informing the sightless guests. Praise is given only when the blind individual merits it and he is encouraged to be as independent as possible in the care of tools and in traveling to and from shop. Self pity is discouraged and the blind are encouraged to develop a normal healthy attitude toward himself and his environment.

Much discarded material is used in this shop in the weaving of attractive pattern rugs. Selvage ends of scarf fabrics, dyed typewriter tape, the more colorful parts of condemned dresses which the guests are no longer able to wear, slip cover cuttings from the sewing room are indeed welcome sources of would be scrap materials which are woven into firm rugs by our blind weavers.

Colorful luncheon sets, table runners and pot holders are woven by another sightless guest who has reached a ripe old age of 90.

A blind gent carefully builds novel trays, vases and jewelry boxes of clay while an aged lady co-guest forms ash trays and figures from clay. A discarded ice box has been fitted with plaster of paris slabs which are kept wet thus serving our clay workers as a damp box where partially completed clay projects can be stored and kept plastic while guests are absent from the shop.

For any guest who prefers wheel work to hand building, we have a potter's wheel available. Operating the wheel demands good hand and leg co-ordination. With our aged, blind folks this capacity is not too good; however they excel at hand building techniques.

The partitioned-off section of this shop accommodates our antique hand printing press. In this shop an aged guest of 80 yrs. sets type by hand while a blind buddy pumps the press by hand. During 1947, approximately 45,000 various institutional forms were printed in this small shop. All guests are invited to submit articles for publication in the *City Home News* which is a paper compiled by the guests and distributed once each month. The news staff, under the supervision of the supervisor of occupational therapy, contributes articles of interest, social functions, recreational notes, poems, as well as special features which make for interesting reading to the City Home population.

Several of the aged female guests in this shop prefer to do simple sewing tasks. These women prepare weaving material for our weavers, several of whom weave three rugs each day.

In this same shop an "orthopedically exceptional" guest constructs gay fruit platters, hot dish mats and lunch sets from reed and raffia.

As I mentioned above, for our more seriously handicapped guests; post spastics, polios, muscular dystrophy, bi-lateral amputee and cardiac guests, we have shops adjacent to their wards so that stair climbing and long traveling distances are eliminated. In these shops too, activity is prescribed according to the needs and interests of the particular guest.

Miss X, age 68 yrs., has an enucleated right eye and a seriously deformed right hand. She braids rugs on an upright frame and is encouraged to beat each row of coarse braid material in place by using her deformed fingers as a combe-like beater. Hand and finger muscles which might otherwise atrophy from disuse are kept in good tome because of the extension and hyper-extension movements of the fingers and wrist which are required in carrying out this braiding project. In addition to completing a rug in which she is interested, this guest is performing prescribed corrective exercises, her attention is taken from her deformity, her morale is sustained, her leisure time is spent in a constructive manner and her adjustment to institutional living is made more easy. Self-respect and group responsibility are developed and her apparent handicaps are minimized in her own mind.

Mr. A, age 45 yrs., is among the younger of our guests. He is a post spastic, has a right enucleated eye, impaired speech and because of contractures, he is confined to a wheel-chair. This guest possesses a great deal of energy which if not curbed in constructive activities leads to undesirable behavior. In addition to rug hooking, this guest takes great pride in caring for and assisting with the cleaning of his shop. Much of his energy is expended in wheeling himself about the shop in performing cleaning tasks. By becoming absorbed in rug hooking and in sanding of wooden toys, this guest's attention is aroused, relaxation of tight muscles ensues and further contractures are prevented.

Despite handicaps, crafts and tools can be adapted to meet individual needs. Table looms for paraplegias and bi-lateral amputees enable those folks who are interested in weaving to do so by using finger depressors to change pattern sheds rather than using foot treadle techniques to do so. Built-up work benches and improvised work tables will accommodate bulky wheel-chairs. Padded tool handles enable deformed fingers to establish a firm grasp; and prevent possible blisters from friction during their use.

Our F and K occupational therapy shops accommodate guests who are handicapped from paralysis, amputations, muscular dystrophy, multiple sclerosis, etc. They too work in such media as leather, weaving, wood, metal, ceramics, knotting, raffia and in these shops likewise a variety of discarded materials are used in craft construction.

Mr. B. an 81 yr. old guest of the K shop has a bi-lateral amputation and is confined to a wheel-chair. Despite his handicaps, he is able to work at an improvised woodwork table where he spends hours making novel toys from

old packing boxes, orange crates, and prune boxes. So interested is this guest in toy making, that he spends his holiday time seeking and drawing new ideas for gay toys.

The L occupational therapy shop accommodates a group of blind women who enjoy weaving rugs, crocheting roving rugs, sewing novel felt eyeglass cases and cosmetic purses, crocheting luncheon sets, braiding rugs and raffia work. Many of the older women prefer to darn and repair guests' clothing, bed linens, towels and aprons by hand. For this group of faithful workers we have a large, airy sewing room. The guests meet here each day and listen to radio programs while they sew. To these workers are extended weekly treats of tea, jelly and cookies. In 1947, approximately 113,000 pieces of clothing and bed linens were repaired by these ladies.

We have among our group of guests those women who are too handicapped, or women who prefer to sit on their sun porches and sew a little during the day. Aprons and towels are brought to these women once each week. Outstanding in this group is a little, white-haired lady of 91 years.

In addition to our crafts program several gay parties are held throughout the year. The Marguerite Austin day room is gaily decorated with cut-outs and festooning appropriate for the holiday being celebrated, ample refreshments are served, prizes are awarded to lucky contestants and all the occupational therapy guests mix and mingle, dance, and a fine time is had by all. Arrangements are made so that our handicapped guests can attend these functions.

During the summer months cooling refreshments are served in each shop and every guest is remembered on his birthday with a greeting and a small token.

Approximately 25 sales are held during the year; articles made by the guests are exhibited and sold. Every guest receives ⅔ of the selling price after the cost of materials has been deducted. Accurate individual production sheets are kept by a full time bookkeeper who prepares monthly pay cards for guests whose articles were sold during the month.

Student affiliates from eleven recognized schools and universities which offer degrees in occupational therapy serve one month with us during their training period. They observe and practice occupational therapy with the blind; under supervision of a registered occupational therapist.

The success of our activities is due to the co-operation and enthusiasm as well as ability which our staff members possess. Add to this our superintendent, Mr. Maxwell Lewis, who is deeply sympathetic to our program and one readily learns why our occupational therapy work at the New York City Home serves its purpose so fully.

Through our planned activities, the guest's attention is aroused, an opportunity for self-expression is made available thereby releasing emotional stresses and strains, initiatives are developed, encouragement, morale and feelings of well being, security and self respect are developed, all of which hastens the guest's adjustment to and makes for pleasant, happy living in a large municipal home for dependents.

A detailed bibliography on Geriatrics may be obtained from the American Occupational Therapy Association, 33 West 42nd Street, New York 18, N. Y. Cost 25c.

particular hobby; all activities which will lead to an avocation later. Their interest will be maintained but directed to their own ability and all these activities will lead to more ways of using the same abilities as skill is developed.

For the average man a job and a hobby is necessary. The first to take care of his economic needs, the second to satisfy his social needs and keep his perspective objective rather than subjective. Many patients will have to lead a restricted life even after their return to maximum ability. A work day whether short or average may enable him to achieve financial independence, but it is certainly not going to demand all his waking time. His incapacities prevent him from joining his friends in an active enterprise. To keep his thoughts active and his interests on the future, he will need an engrossing avocation to which he can turn when he has additional strength and energy.

This interest will give his life a purpose and bring him friends with mutual interests. In other words, he will be an alert, contributing individual, rather than a self-centered, self-sorry bore.

Everyone needs respect, love and companionship to maintain a complete ego. Because one has suffered a serious illness, does not change the basic needs of the personality, rather they are intensified. Therefore all treatment extended to the *whole person* from the hospital to his return to his full capacities is to help and train him to make the most of his life, not the best of his misfortune. A well-adjusted older person who has had a long or serious illness and recovered admirably is not "brave and self-effacing" but rather one whose engrossing interests keep his thoughts focused on the future. Some were trained this way from childhood but many learned their new and satisfying interests from occupational therapists in the hospital.

With life expectancy increasing and chronic illness being seldom fatal, our future society needs the help of occupational therapists today in every chronic illness that those afflicted may become contributing members of society during their entire life whether they are members of a family or residents of a convalescent home or a home for aged, and regardless of their physical handicaps.

Geriatrics and the Economic Plight of Our Aging

GRACE C. HILDENBRAND, M.A., O.T.R.
City Home, Welfare Island, New York City

Geriatricians tell us that "old age" begins at no specific birthday but rather that old age is an individual matter varying with persons. The New York State Joint Legislative Committee on Problems of the Aging frequently employs the arbitrary age of 65 as the beginning mark of the older category; this being a purely statistical convenience.

In New York State alone there are approximately 1,200,000 persons of 65 or more. Since 1870 the elderly have more than quintupled in number. At this rate, the number of persons 65 or more in New York State will double by 1980.[1] Unless we take measures to break down age discrimination in industry, and to open up new opportunities for them, our elderly will cause great social and economic problems.

Thanks to medical progress, the average life expectancy in our country has risen considerably. According to a recent Metropolitan Life Insurance Company bulletin, white females now have a life expectancy of 70.28 years; white males 65.12.[2] Truly, our aging population is steadily increasing, but are the possibilities of their earning a living increasing? Definitely not! The present services to our aged are not in proportion to the great increase in their numbers.

The conquest of infectious diseases, the role of surgery, new healing drugs, the better management of a number of metabolic diseases and the application of proper diet all tend to increase the average length of life. Geriatricians are not only concerned in retarding the progressive deteriorations associated with the various kinds of aging, (anatomical, psychological, physiological, pathological, etc.) but also in extending the period of vigor and use.

Dr. Louis Dublin, a leading biostatistician, lists diseases of the heart and coronary arteries

as the main cause of death among the elderly in our state. Next in frequency he lists: cancer, accidents, diabetes, pneumonia and tuberculosis.

In the state of New York approximately one-half a million persons are disabled by chronic illness each year. This figure breaks down to 279 per thousand at ages of 65 and over with an illness duration of 131 days per older case as compared to 58 days for other age groups.[3] The prevention of degenerative ailments is a major aim of geriatrics and it should be a public health concern as well.

A periodic health inventory is a must for the elderly from which disease can be detected and from which deterioration of organs which may deceptively seem to function efficiently can be detected. Old age clinics, chronic illness centers, designed primarily for the elderly are desperately needed. Mass health education whereby enlightenment can be given to the elderly on longevity and proper therapy, community programs for the elderly, adequate federal old age assistance, federal housing are all vital problems within the realm of geriatrics.

Factors contributing mainly to the growth of our aged population, we realize, are due to increase in the expectation of life at birth, to a decrease in the birth rate, and to the immigration of foreign born 65 years and over. By 1975, it is expected that persons between 45-64 years of age will constitute 25% of our population.[4] These older persons will constitute a definite social and economic problem since there is less demand for their services in the work-a-day world than for younger persons.

One of society's problems with respect to this group is to provide economic security through adequate retirement benefits. A table prepared by the Social Security Board based on census data of 1940 revealed that 41% of all aged employed men were in agricultural pursuits. Non-agricultural industries in highest proportions were finance, insurance, and real estate. Only three industries: agricultural pursuits, hotel and lodging places, in 1940, employed as many as 5% of women over 65 years.

Estimates by the Social Security Board covering the entire United States show that of the total of 10,500,000 persons 65 years of age and over:

34% or a total of 3,600,000 derived income from employment (2,700,000 earners and 900,000 wives of earners).

10% or a total of 1,100,000 derived income from old-age or survivors insurance benefits under the federal program.

7% or 700,000 derived income from railroad, civil service, state and local government systems, veterans pensions, and compensation.

21% or 2,200,000 derived income from federal-state, old age assistance programs.

2% or 200,000 received institutional care.

26% or 2,700,000 derived income from other sources: recipients of unemployment insurance, relatives, savings, etc.

When one considers that old age assistance grants in New York State in 1946 averaged about $42.00 on a monthly basis, today's high-cost of living presents a most pressing problem for our aged population to solve.

Industry has an enormous public relations problem in regard to its older workers. In New York State, three main categories of jobs were mentioned as being most suitable for the elderly: dead end jobs; watchmen, elevator operators, sweepers, etc., monotonous repetitive jobs; light assembly work, routine machine operation and highly skilled or responsible jobs; inspectors, instructors, tool and die makers, executives, etc.[5]

We well realize that in the future, the elderly will constitute an increasing portion of our population, of our workers, and of our consumers. When we consider industry's attitude towards the older worker, we see that what is needed desperately for industrial leaders is a correlation between the physical and mental abilities of the elderly with various types of jobs, a survey of occupations, with age the prime factor. Desperately needed are job analyses. education of management that all men of 60 and over are not incapable of employment. A revision of workmen's compensation should be made to protect employers from liability or pre-existing disabilities, lower compensation rates for older people so that large industries would take them on. Progress in expanding employment opportunities will be realized only after thorough investigation and research by unions, industry, and government; all working as a team to better the economic status of the older person.

The physiologic age of a worker is not synonymous with his chronologic age. We know that in the process of aging all organs do not age evenly. How old a person is will depend greatly on what the medical profession has done for him, on the stresses and strains; physiolog-

ical and psychological, and on his mode of life.

Ideally, the geriatric survey, like a health inventory, may be made at any age. An examination of an aged person should take under consideration any illnesses, ancestory; inheritable diseases, manner of living, present diet, blood tests, urine analysis, chest x-ray, etc.

In order that oldsters may enjoy their advanced years with some degree of security, it should also be the vital concern of industry to provide adequate retirement pensions, to open up new opportunities for the elderly and to break down age discrimination in industry. It is society's obligation to assure the aged ones of adequate health clinics, proper housing facilities, and recreational activities. Then and only then will our aged population feel that life is worth living, with a minimum of the stresses and strains placed upon them which result from financial and health insecurity. Thus will a coming crisis be avoided and our aging population find its proper place in the democratic economy we all feel so anxious to preserve.

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[1] New York State Joint Legislative Committee on Problems of the Aging; Letter of Transmittal — Senator Thomas C. Desmond, Chairman.

[2] Health Progress, Metropolitan Life Insurance Company, 1948.

[3] New York State Joint Legislative Committee on Problems of the Aging; Letter of Transmittal — Senator Thomas C. Desmond, Chairman.

[4] P. K. Whelpton *Forecasts of the Population of the United States, 1945-1947.* U. S. Department of Commerce, 1947.

[5] *Industry Views its Elderly Workers.* Albert J. Abrams, Director, New York State Joint Legislative Committee on Problems of the Aging.

NATIONALLY SPEAKING

From the President

By this time it is hoped that you have seen the new brochure *A Career of Service in Occupational Therapy.* If not you will shortly. The main purpose of this publication is to assist in the recruitment of students for occupational therapy training. The startling revelation that there are 2200 vacancies for occupational therapists in our hospitals should make each of us consider thoughtfully our responsibilities for the future of occupational therapy. It is a recognized fact, and in reality many of us have observed in some other professional circles that if the needs cannot be met by the desired qualified personnel then standards are lowered, so that somehow the personnel need is met as adequately as possible by supplemental help.

A supply of this new literature has been sent to the schools and will be issued to state associations or any group or center which can use them to advantage. Your national office had 50,000 of them printed and will be glad to send you whatever you need.

This is the season when many of the state associations hold their annual meetings. Several of the schools and occupational therapy centers are holding "Career Days" for the purpose of interpreting occupational therapy and enlisting the interest of prospective students. Exhibits of patients, adapted equipment, and literature is needed to extend the recruiting effort in every area. There are many regional meetings with hospital and professional groups through which you can help to spread the "good word" about occupational therapy. Have you seen the article in the March 1949 *Glamour* on *Hospital Professions for Women?* More extensive publicity and interpretation is needed at the high school level about occupational therapy.

Are you contacting those responsible for vocational guidance at this level? A plan to launch a recruitment campaign is about to be started. A chairman of publicity for this purpose will shortly be appointed to work with the state associations. In the meantime will all members please keep in mind ways and means to help in the effort of recruitment. Graphic material, pictures, and project material will be needed. Films and slides will be of great value. Can you speak to groups or write articles on your own experience in any area of occupational therapy? We will need factual but stimulating material. Use every opportunity to encourage young women with the personality and ability to consider occupational therapy as

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A Randomized, Controlled Trial of a Home Environmental Intervention: Effect on Efficacy and Upset in Caregivers and on Daily Function of Persons With Dementia

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Purpose of Study: The authors determined short-term effects of a home environmental intervention on self-efficacy and upset in caregivers and daily function of dementia patients. They also determined if treatment effect varied by caregiver gender, race, and relationship to patient. ***Design and Methods:*** Families ($N = 171$) of dementia patients were randomized to intervention or usual care control group. The intervention involved 5 90-min home visits by occupational therapists who provided education and physical and social environmental modifications. ***Results:*** Compared with controls, intervention caregivers reported fewer declines in patients' instrumental activities of daily living ($p = .030$) and less decline in self-care and fewer behavior problems in patients at 3 months post-test. Also, intervention spouses reported reduced upset ($p = .049$), women reported enhanced self-efficacy in managing behaviors ($p = .038$), and women ($p = .049$) and minorities ($p = .037$) reported enhanced self-efficacy in managing functional dependency. ***Implications:*** The environmental program appears to have a modest effect on dementia patients' IADL dependence. Also, among certain subgroups of caregivers the program improves self-efficacy and reduces upset in specific areas of caregiving.

Key Words: Clinical trial, Home modification, Home care

A primary focus of caregiver research has been on developing and testing interventions for families caring for persons with dementia. Most tested interventions have been psycho-educational, typically involving a combination of counseling, education, stress management, and problem-solving skill development. Recent reviewers of this burgeoning research have concluded that psycho-educational interventions are only moderately effective in reducing caregiver distress and that a broad range of intervention strategies to address the multiple needs of caregivers at each stage of the illness trajectory should be tested (Bourgeois, Schulz, & Burgio, 1996). These reviewers also suggested the need for future studies to determine what types of interventions benefit which types of caregivers (Biegel & Schulz, 1999). The few studies that have examined caregiver characteristics in relationship to service use and treatment outcomes suggest differential effects along a number of dimensions. For example, Cox (1998) found that African American caregivers benefited more than White caregivers from a psychosocial intervention, and Zarit, Stephens, Townsend, Greene, and Leitsch (1999) showed that brief users of adult day services tended to be spouses.

In this study we evaluated an innovative intervention approach involving occupational therapist home visits targeted at helping caregivers modify their living space to address daily caregiving challenges. Whereas psycho-educational interventions have been extensively evaluated, that is not the case for a home environmental approach. The rationale for using the home environment as a therapeutic modality is based in a competence-environmental press framework and recent advances in control theory. A competence-environmental press framework suggests that as competency declines, an unchanging physical and social environment poses significant demands or press on an individual that may result in negative behavioral and functional outcomes (Lawton & Nahemow, 1973). Adjusting and simplifying dimensions of the environment to match reduced competency may minimize excess disability in persons with dementia. For example, removing unnecessary objects from a room may enhance orientation and reduce confusion and agitation.

Additionally, personal control theory provides the rationale for why an environmental approach may also benefit caregivers. According to this theory, main-

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taining control is a universal imperative achieved by using primary mechanisms such as changing the immediate environment (e.g., people, objects), secondary mechanisms such as changing cognition or emotions, or a combination thereof (Schulz & Heckhausen, 1999). The unsuccessful application of these mechanisms to achieve control may result in negative affective consequences such as emotional upset and lowered self-efficacy. Applied to the caregiving context, family members may be motivated to use an environmental strategy, a primary mechanism, as a part of their repertoire of coping strategies to achieve personal control over overwhelming and unpredictable situations. Maintaining personal control may in turn reduce upset and enhance self-efficacy beliefs among caregivers.

A few exploratory studies have shown that family caregivers accept and use environmental strategies and perceive them as helpful in addressing specific dementia-related behaviors. These studies, however, have used single-case and panel designs, and outcomes have been limited to utilization rates of environmental strategies and self-reported benefits. Pynoos and Ohta (1991), in a pilot study of 12 family caregivers, found that 66% of recommended environmental strategies were reported by caregivers as initially effective in managing specific problems, and of those, 89% remained in use at study follow-up. Consistent with this study, Gitlin and Corcoran (1993) found that among 17 spouse caregivers, 92% of environmental strategies offered by occupational therapists to improve bathing routines were subsequently implemented by caregivers and were reported as helpful in reducing resistance to bathing. For managing incontinence, caregivers used 53% of the recommendations that were offered. These findings suggest that caregivers are selective about which environmental strategies they use but that those that are acceptable are implemented. Other studies have also shown that caregivers, independent of a formal service provider and through trial and error, adjust the physical home environment in response to safety concerns, wandering, or a decline in self-care (Olsen, Ehrenkrantz, & Hutchings, 1993). In clinical practice, environmental recommendations for home safety have become routine in hospital and home care (Alzheimer's Association, 1997). Nevertheless, the effects of helping caregivers modify their home environment on caregiver well-being and level of dependency of the person with dementia remain untested.

We report on a randomized controlled study of a home environmental intervention with family caregivers. The intervention provided caregivers with a set of skills and strategies that lowered the threshold or press of the social and physical environment for the person with dementia. That is, the intervention was designed to help caregivers develop an environment supportive of reduced competencies such that the person with dementia would exhibit fewer disruptive behaviors and experience a slower rate of decline in instrumental and basic activities of daily living (IADLs and ADLs). Moreover, because this approach provided caregivers with practical skills and a mechanism to exert control over difficult situations, it targeted caregiver upset and self-efficacy beliefs in managing day to day. Therefore, we anticipated that the intervention would affect behavioral occurrences and functional dependency of the person with dementia as reported by the caregiver as well as the caregiver's own level of upset and self-efficacy with these problem areas.

Additionally, in this study, we wanted to determine whether certain caregivers evinced greater benefits than others from this type of intervention on the basis of gender, race, and relationship to the person with dementia. An environmental intervention is behaviorally demanding in that it requires caregivers to actively problem solve; change lifelong daily routines; and adjust or remove material aspects of the environment that may have personal, symbolic, and historical meaning. We speculated that the intervention might not work for everyone. Previous research on caregiving has shown that family caregivers differ in their coping styles and appraisals of their situation on the basis of a number of characteristics including gender, race, and their relationship to the person with dementia (Kramer, 1997; Levin, Chatters, & Taylor, 1995). Because our previous research showed that women were more likely to comply with a home environmental intervention than men (Gitlin, Corcoran, Winter, Boyce, & Marcus, 1999), we speculated that women would derive greater therapeutic benefit than men. We also anticipated that minority caregivers, the majority of whom were African American in this study, would demonstrate greater benefit than White caregivers on the basis of previous research that has shown that African Americans are more likely to derive improved self-efficacy from behavior-change interventions. Finally, given that studies on caregiving have consistently shown that spouses have higher rates of upset and depression than nonspouse caregivers (Pruchno & Resch, 1989), we believed that spouses had more to gain from this intervention.

In this study we have contributed systematically to the growing body of caregiver intervention research by testing a new intervention approach; examining outcomes for both the caregiver and the person with dementia; and determining whether treatment effects vary by caregiver gender, race, and relationship.

Methods

Participants

Family caregivers were recruited from local social service and medical centers and through media announcements in the Philadelphia region between 1993 and 1996. To participate in the study, caregivers had to live with a family member with a medical diagnosis of Alzheimer's disease or a related disorder, perceive themselves as the primary caregiver, report dependence of the person with dementia in at

least two ADLs, and report one or more difficulties managing either IADL or ADL assistance or a dementia-related behavior (e.g., wandering, agitation). Caregivers of persons who were bedridden and nonresponsive to touch or the physical environment were excluded from participating in the study. We designed these criteria to provide a sample of caregivers that were confronted with difficulties managing functional dependency and behavioral difficulties, the target of the intervention. These criteria also excluded caregivers of persons for which an environmental adaptation would have relatively no benefit given their severe stage of dementia.

A trained interviewer met with eligible caregivers in their homes, obtained signed informed consent approved by the Institutional Review Board, and conducted the baseline interview. Following the baseline interview, caregivers were randomly assigned to either treatment or a usual care control condition. Randomization was stratified by gender (male, female) and race (minority, White) to ensure equivalence between experimental and control group participants along these two characteristics. Participants were interviewed again following completion of the intervention at 3 months postbaseline. Control group participants received education materials and a booklet describing home environmental safety tips at the conclusion of the study.

Home Environmental Intervention

The environmental program, described in detail elsewhere (Corcoran & Gitlin, 1992; Gitlin et al., 1999) is briefly reviewed here. The intervention, which is based in a competence-environmental press framework and personal control theory as discussed earlier, is a targeted, multicomponent program led by an occupational therapist. It involves educating caregivers about the impact of the environment on dementia-related behaviors and helping caregivers simplify objects in the home (e.g., remove clutter), break down tasks (e.g., one- or two-step commands, lay out clothing in the order in which it is to be donned), and involve other members of the family network or formal supports in daily caregiving tasks. For example, occupational therapists provided education about dementia and the relationship between excess stimulation (auditory and visual) and behavioral disturbances such as agitation or resistance to assistance with self-care. Strategies such as removing objects to simplify the home and breaking down tasks provided primary control mechanisms by which caregivers could manage problems areas, such as agitation or the inability to follow directions or initiate tasks by the person with dementia.

The program consisted of five 90-min sessions that were spaced approximately every other week over 3 months. In the first home session, the occupational therapist met with the caregiver to develop a targeted plan that addressed the specific aspects of daily care (e.g., bathing, dressing, activity engagement, caregiver fatigue) that were problematic and for which the caregiver wanted to learn new strategies. Education about the disease process was also introduced in this session. In the second visit, the occupational therapist used role-play, direct observation, and interviewing to explore the ways in which the caregiver handled problem areas and conceptualized or cognitively framed their situation. Education about dementia and the role of the physical and social environment was presented in relation to the specific care difficulties presented by caregivers. The therapists engaged caregivers in mutual problem solving to identify alternate care strategies using an environmental perspective. Environmental simplification and task breakdown strategies were introduced, and caregivers were asked to practice their use prior to the next home visit. In each subsequent home visit, the occupational therapist reinforced education about dementia through written materials and discussion, addressed a targeted problem area, observed the caregiver using previously recommended strategies, provided refinements to those strategies, and/or offered new recommendations. In the course of providing verbal instruction, the therapist used cognitive restructuring and validation to instill greater perceived control and confidence in the caregivers' own abilities to manage the problem and to develop more realistic appraisals of the caregiving situation, dementia-related behaviors, and expectations. Helping caregivers reframe attributions and explain events was important to enable behavioral change and the use of environmental strategies. Also, therapists served as coaches and provided ongoing validation and reinforcement of the caregivers' use of environmental strategies. In the final visit, the occupational therapist reviewed previously introduced strategies and how they might be applied to future potential problems.

The 10 occupational therapists that served as interventionists for this study were licensed practitioners with at least 1 year experience in home care or working with older adults. Although occupational therapists are formally trained in a person-environment framework, this intervention represented a nontraditional approach in that the focus was exclusively on enhancing the environmental problem-solving skills of the caregiver. Accordingly, the intervention represented a unique program for which training was required. Therapists participated in 20 hr of training conducted by the investigators in which they were introduced to the intervention protocol, specific strategies, and treatment documentation. We monitored the occupational therapists throughout the study using several techniques to ensure treatment fidelity. These included formal case reviews, on-site observation of randomly selected visits, and follow-up interviews with caregivers to evaluate their satisfaction with the intervention process.

Measures

Basic background characteristics of family caregivers and their coding included age, income, education, and number of months caregiving collected as continuous variables and gender, relationship to per-

son with dementia (spouse, nonspouse), race (White, minority), and marital status (married, not married).

Outcome Variables

Nine outcome variables were examined, three of which referred to the performance of the person with dementia, and six of which referred to the well-being of caregivers.

Outcomes Related to the Dementia Patient.— Concerning the dementia patient, we were interested in three outcomes: the frequency of occurrence of behavioral problems, the level of dependency in ADLs, and the level of dependency in IADLs. For behavior problems, family caregivers reported on the frequency of behavioral occurrences using 29 items from the Memory and Behavior Problems Checklist (MBPC; Zarit, Reever, & Bach-Peterson, 1980) and four additional behaviors reported in the literature that were relevant to the focus of the intervention. Although respondents rated how often each problem occurred on a 5-point Likert scale (0 = "never" to 4 = "at least once a day"), for these analyses we computed an index that reflected the total number of behaviors that occurred. We refer to this index as *Behaviors*. High scores indicated the occurrence of a greater number of problem behaviors (Cronbach's alpha = .78).

For dependency, family caregivers were asked to rate the level of ADL dependence of the person with dementia using a modification of the Functional Independence Measure (FIM; Granger & Hamilton, 1992). We used eight items from the mobility domain of the FIM (bathing, eating, dressing upper and lower body, toileting, grooming, getting around the house, getting in and out of bed). For this study, we collapsed the FIM ratings of complete independence (7) and modified independence (6) to represent independence (without or with an assistive device or extended time). We also reverse coded the scoring of items. A high score reflected greater dependency such that 1 referred to complete independence and 6 to total dependence. We computed a total score by averaging the scores for all items. We refer to this index as *ADL dependence*. Cronbach's alpha for ADL dependence was .90.

Caregivers were also asked to rate the level of dependence in nine IADLs using the same 6-point modified FIM rating scale described previously. Included were eight items from Lawton and Brody (1969; meal preparation, management of finances, telephone use, housework, laundry, grocery shopping, travel, and taking medication) and one additional item, leisure participation. We averaged the scores for these items to derive the index we refer to as *IADL dependence*. High scores indicated greater dependence. Cronbach's alpha was .60 for this sample.

Outcomes Related to Caregiver Well-Being.— We examined two dimensions of caregiver well-being: self-efficacy and upset in managing dementia behaviors, IADL dependence, and ADL dependence.

Self-efficacy refers to an individual's assessment of his or her ability to perform specific activities and achieve a desired outcome (Bandura, 1997). Whereas the related concept of mastery refers to a global assessment, self-efficacy concerns beliefs about one's competence to successfully perform discrete or specific tasks. Self-efficacy beliefs may therefore vary across specific activities of caregiving (Haley et al., 1996; McAvay, Seeman, & Rodin, 1996). This relationship may exist because self-efficacy influences the initiation and maintenance of effort in demanding situations. To examine situation-specific self-efficacy, we used the approach of Haley and colleagues (Haley, Levine, Brown, & Bartolucci, 1987; Haley et al., 1996) in which caregivers rate their level of confidence in handling specific caregiving tasks and problems. This approach allows the computation of average self-efficacy scores based on the particular problem areas of caregiving. Scores are independent of the total number of items. Thus, for each reported behavioral occurrence that was identified with the MBPC and each ADL and IADL activity for which assistance was required as measured by the modified FIM, caregivers were asked to rate their confidence in managing the item. Initially, we scored each item using a 5-point Likert scale (0 = "not at all confident" to 4 = "extremely confident"). For these analyses, however, we followed the approach of McAvay and colleagues (1996) and recoded each item into a dichotomous indicator to reflect low versus high levels of efficacy (0 = "not at all or a little confident," 1 = "moderately to extremely confident"). This approach is clinically meaningful and maximizes the potential to detect change at post-test. We then computed three indices by summing the respective dichotomized scores on each item and dividing by the number of reported items. We refer to these indices as *behavior self-efficacy, ADL self-efficacy,* and *IADL self-efficacy*. Higher scores indicated greater perceived self-efficacy in managing behaviors that occurred or the self-care activities in which caregiver assistance was provided. Cronbach's alpha could not be calculated for these indices, because each caregiver rated different items within each index (Haley et al., 1996).

Upset reflects the operational definition of a caregiver's appraisal in coping with problem areas (Lazarus & Folkman, 1984). Caregivers were asked to rate their level of upset on a 5-point scale (0 = "no upset" to 4 = "extremely upset") for each behavioral occurrence and IADL and ADL item. We followed the procedures for self-efficacy and recoded each item as a dichotomous indicator (0 = "not at all or very little upset," 1 = "moderate or extreme upset"). A mean caregiver upset score was then computed for each index. We refer to these indices as *behavior upset, ADL upset,* and *IADL upset*. Higher scores for each index indicated greater caregiver upset. To derive an alpha coefficient, we coded caregiver upset as 0 (no upset) for cases where no problem was reported. We reasoned that if the problem did not exist, then the care-

giver did not experience upset with that area. Cronbach's alpha for this sample was .88 for the behavior upset index, .57 for the IADL upset index, and .76 for ADL upset index.

Analysis

We compared background characteristics of the caregiver, the three outcome variables specific to the functioning of the person with dementia (behaviors, ADL dependence, and IADL dependence), and the six outcome variables specific to caregiver well-being (ADL self-efficacy, IADL self-efficacy, behavior self-efficacy, ADL upset, IADL upset, and behavior upset) using chi-square and *t* tests as appropriate to determine significant differences between experimental and control group participants at baseline.

Following the intention-to-treat principle, all randomized participants with follow-up data were included in the analyses regardless of number of intervention sessions completed. We examined the main effects of the intervention on ADL and IADL dependency and behavioral occurrences of persons with dementia (the three outcomes related to the dementia patient), and domain-specific caregiver self-efficacy and upset (the six outcomes related to caregivers) at 3 months postbaseline using analysis of covariance (ANCOVA) with the entire sample for which data were available. Baseline values were the covariates in each of the nine analyses.

Next, we used separate regression analyses to examine possible differential effects of the intervention on the basis of gender (male, female), relationship (spouse, nonspouse), or race (White, minority) of caregivers. Each of these analyses consisted of a sequence of models. For each analysis, we entered the baseline score of the outcome variable first to control for initial differences between participants. Next, treatment assignment was entered. In the third step, the characteristic of interest was entered (e.g., gender, relationship, or race). In the final step, the effect of the intervention was measured by the interaction of treatment and the specific characteristic. We considered these analyses to be secondary to the initial main effects model. We therefore tested each interaction in separate models because we did not have sufficient power to test all the interactions of interest in a single model. We report in this article only the interactions that were large in magnitude and/or reached statistical significance.

We repeated the previous analyses with two additional covariates, months caregiving and behavior self-efficacy, in addition to the baseline value of the outcome variable. We conducted these analyses to control for potential nonrandomized bias because there were large differences between caregivers who remained in the study and those that dropped out along these variables, although these differences were not statistically significant. However, the results did not change and we do not report these models.

The reported *p* values were not corrected for multiple endpoints. We conducted analyses of the main effects for nine outcomes. The secondary analyses of the interactions considered a total of 27 interactions (3 for each of the 9 outcomes). We conducted all analyses using SPSS version 9.0. The level of significance was set at .05.

Results

Recruitment and Attrition Rates

A total of 202 family caregivers were enrolled in the study, of which 100 were randomly assigned to intervention and 102 were assigned to the control group. Of this group, 171 participated in the 3-month postbaseline assessment, 93 in the treatment group, and 78 in the control group. This represented a total of 31 caregivers that were unavailable at post-test or a 15% attrition rate for the total sample. Of the 31 caregivers who dropped out, 7 (23%) were in the experimental group and 24 (77%) were in the control group. This differential dropout rate was statistically significant ($p = .001$). Reasons for not participating in the follow-up interview included illness (6 caregivers), illness of the care recipient (7 caregivers), extended vacation (5 caregivers) or unknown reasons (13 caregivers).

We compared the 31 dropouts (intervention and control participants) to the 171 remaining participants (stay-ins) on their baseline scores for demographic variables and outcome variables (Table 1). There were no large or statistically significant differences between the two groups, except for months caregiving and behavior self-efficacy, in which differences were large but not significant.

We also compared experimental group participants who dropped out ($n = 7$) to experimental group participants ($n = 93$) who remained in the study along all variables. Again, there were no large or significant differences between the groups. Likewise, similar analyses showed no statistical differences between control group dropouts ($n = 24$) and control group stay-ins ($n = 78$) on any study variables.

Sample Characteristics

Baseline characteristics of participants in both the experimental and control groups are shown in Table 2. There were no large or significant differences at baseline between the two groups. The sample was primarily female, married, and had a high school or higher education. Of the 171 participants, 126 (74%) identified themselves as White, 43 (25%) identified as African American, 1 caregiver identified as Hispanic, and 1 identified as other. Spouse caregivers represented 25% of the sample. Therefore, most caregivers were not spouses, with daughters and daughters-in-law constituting 59% of the sample; sons, sons-in-law, and grandsons 13% of the sample; and other family relationships (e.g., nephew) 3% of the sample. Caregivers were, on average, 61 years of age (range = 23 to 92 years) and reported providing care for an average of 45 months (range = 2 months to 16 years).

Table 1. Comparison of Stay-Ins and Dropouts at Baseline

Factor	Stay-Ins		Dropouts				
	M or *F*	*SD* or %	*M* or *F*	*SD* or %	*t* Value	χ^2	*p*
Patients							
ADL dependence, *M*	3.06	1.43	2.57	1.32	−1.78		.077
IADL dependence, *M*	5.48	.59	5.25	.76	−1.85		.065
Behaviors, *M*	1.81	.67	1.78	.80	−.22		.822
Age, *M*	78.50	7.60	78.61	6.22	.08		.936
Gender							
Male	58	33.9	6	19.4		2.57	.109
Female	113	66.1	25	80.6			
Caregivers							
ADL self-efficacy, *M*	.80	.33	.75	.43	−.63		.535
IADL self-efficacy, *M*	.87	.29	.81	.37	−.93		.352
Behavior self-efficacy, *M*	.75	.29	.61	.37	−1.98		.055
ADL upset, *M*	.27	.35	.31	.40	.45		.654
IADL upset, *M*	.21	.32	.18	.31	−.43		.667
Behavior upset, *M*	.48	.28	.48	.31	.08		.937
Age, *M*	60.48	13.75	62.48	14.65	.74		.461
No. months caregiving, *M*	44.73	33.82	39.94	34.05	−.72		.469
Education, *M*	13.88	3.03	13.77	3.23	−.17		.863
Income, *M*	6.92	4.78	6.53	5.06	−.40		.690
Gender							
Male	46	26.9	11	35.5		.94	.328
Female	125	73.1	20	64.5			
Race							
Minority	45	26.3	7	22.6		.19	.661
White	126	73.7	24	77.4			
Relationship to Patient							
Nonspouse	128	74.9	26	83.9		1.18	.278
Spouse	43	25.1	5	16.1			

Notes: ADL = activity of daily living; IADL = instrumental activity of daily living; M = mean; F = frequency. For chi-square statistics, $df = 1$ and $N = 202$.

This group of caregivers reported, on average, minimal to no upset with ADL and IADL dependencies and only a modest level of upset with behavioral occurrences. Caregivers also reported, on average, a moderate level of self-efficacy in managing IADLs, ADLs, and behavioral disturbances. Care recipients varied widely in their level of functional dependency as reported by caregivers. A high level of dependency

Table 2. Comparison of Experimental and Control Group Participants on Background Characteristics

Variable	Experimental Group ($n = 93$)		Control Group ($n = 78$)				
	M or *F*	*SD* or %	*M* or *F*	*SD* or %	*t* Value	χ^2	*p*
Caregiver							
Age, *M*	59.70	±14.35	61.41	±13.03	.82		.419
Race							
Nonwhite	22	23.7%	23	29.5%		.74	.388
White	71	76.3%	55	70.5%			
Gender							
Male	24	25.8%	22	28.2%		.12	.725
Female	69	74.2%	56	71.8%			
Education, *M*	14.06	±3.36	13.65	±2.58	−.88		.378
Income, *M*[a]	7.14	±4.88	6.64	±4.69	−.68		.502
Relation to Dementia Patient							
Nonspouse	70	75.3%	58	74.4%		.02	.891
Spouse	23	24.7%	20	25.6%			
No. Months Caregiving, *M*	41.01	±32.54	49.15	±34.98	1.57		.117
Patients							
Age, *M*	78.61	±7.28	78.36	±8.02	−.22		.829
Gender							
Male	31	33.3%	27	34.6%		.03	.860
Female	62	66.7%	51	65.4%			

[a]Income Level 6 = $2,501–3,000 per month; Level 7 = $3,001–3,500 per month.

(mean FIM score = 5.5) occurred in IADLs, with 56% of caregivers reporting moderate to complete dependence in all nine IADLs and 23% reporting moderate to complete dependence in eight IADLs. In contrast, a minimal level of dependency (mean FIM score = 3.1) in ADLs was found, with only 13% reporting some level of dependence in all seven ADLs.

Compliance With Intervention

Compliance with the intervention was measured in two ways. First, we considered the number of visits completed, referred to as the *level of participation*. Second, we considered the proportion of strategies used to those provided by the occupational therapists at each intervention session, referred to as the *level of adherence*. We considered participation in four home sessions and use of or adherence to at least 50% of the strategies provided in intervention as necessary to achieve a treatment effect. We found that the intervention group participated in an average of four home visits, with 69% participating in at least four sessions and only 9% in one session. We also found that 75% of the strategies provided by the occupational therapists were used or adhered to by caregivers. We thus considered compliance with the intervention, as measured by participation and adherence, to be adequate (Gitlin et al., 1999).

Effect of Intervention on Study Outcomes

Table 3 shows baseline and post-test mean scores along with the adjusted mean and confidence interval for experimental and control group participants for the nine outcome variables. There were no significant or large differences at baseline between experimental and control group participants for the nine outcome variables. In regard to the outcomes related to dementia patients, there was a statistically significant effect in one of the three outcomes studied; caregivers in the experimental group reported less decline in IADL dependence in the person with dementia than control group caregivers ($p = .03$). There was a trend toward less decline from baseline to post-test for behaviors and ADL dependence, although these were not statistically significant.

For each of the six study outcomes related to caregiver well-being, ANCOVAs showed a marginal improvement from baseline to post-test for the experimental group in comparison with the control group, although these improvements were not statistically significant.

Effect of Intervention for Specific Subgroups

We conducted separate regression analyses to examine intervention by specific caregiver characteristic (race, gender, and relationship) interaction effects. Table 4 shows the adjusted mean effect, difference of means, confidence interval for the mean difference, and interaction p values for significant interaction effects and those approaching significance. Not shown on the table is the interaction term of ADL self-efficacy by race. Although this interaction did not approach statistical significance, the magnitude of the interaction effect was large (adjusted mean effect, minority = .08, White = .00) such that minority caregivers showed a trend toward improvement and Whites did not.

As shown in Table 4, a number of interaction effects were larger than the main effects (Table 3). The largest interactions were for caregiver behavior self-efficacy and behavior upset. For behavior self-efficacy, women showed a benefit and men declined by an equal amount. For behavior upset, nonspouses showed no benefit and spouses a large benefit. The other large benefit was for minority caregivers in IADL self-efficacy in contrast to no benefit for Whites. Finally, with regard to ADL dependence, male caregivers reported less decline in self-care dependence of dementia patients than female caregivers, and this approached significance.

Discussion

In contrast to previous caregiver studies that have tested psycho-educational approaches, in this inter-

Table 3. Comparison of Experimental ($n = 93$) and Control ($n = 78$) Group Participants on Study Outcomes

	Baseline				3-Month Follow-Up						
	Experimental		Control		Experimental		Control				
Factor	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	Adjusted Mean Difference	95% CI	*p*
Caregivers											
ADL self-efficacy	.81	.33	.80	.34	.93	.18	.90	.21	.03	−03, .08	.375
IADL self-efficacy	.87	.30	.87	.26	.96	.15	.95	.14	.01	−.03, .05	.704
Behavior self-efficacy	.77	.27	.74	.32	.84	.24	.80	.27	.03	−.03, .10	.314
ADL upset	.26	.35	.29	.36	.25	.34	.34	.37	−.06	−.16, .03	.156
IADL upset	.17	.30	.22	.33	.17	.29	.22	.32	−.02	−.10, .07	.663
Behavior upset	.48	.27	.47	.30	.43	.31	.45	.29	−.02	−.09, .05	.501
Patients											
ADL dependence	2.93	1.49	3.23	1.36	3.24	1.59	3.57	1.38	−.06	−.30, .18	.599
IADL dependence	5.43	.62	5.56	.50	5.54	.60	5.75	.36	−.13	−.24, −.01	.030
Behaviors	20.25	5.39	18.74	6.31	17.20	7.73	14.43	9.82	1.85	−.42, 4.13	.110

Note: CI = confidence interval; ADL = activity of daily living; IADL = instrumental activity of daily living.

Table 4. Adjusted Means for Treatment by Caregiver Factor Interactions

Dependent Variable	Factor	Adjusted Mean Effect	95% CI of Difference	*p* for Interaction
Caregiver				
IADL self-efficacy	Male	−.07		
	Female	.03		
	Difference	.10	.0003, .20	.049
IADL self-efficacy	Minority	.09		
	White	−.02		
	Difference	−.10[a]	−.20, −.006	.037
Behavior self-efficacy	Male	−.08		
	Female	.08		
	Difference	.16	.009, .31	.038
Behavior upset	Nonspouse	.02		
	Spouse	−.14		
	Difference	−.16	−.32, −.0005	.049
Patients				
ADL dependence	Male	.32		
	Female	−.21		
	Difference	−.53	−1.06, .005	.052

Note: CI = confidence interval; IADL = instrumental activity of daily living; ADL = activity of daily living.
[a]Because of rounding, difference does not add up.

vention trial we evaluated an environmental approach. This five-session home program involved educating caregivers about the impact of their living space on dementia-related behaviors and introducing modifications to the home in response to caregiver concerns with dependency and behavioral disturbances. The intervention provided caregivers with primary control mechanisms, that is, strategies to reduce environmental press, and self-knowledge of their skills. The findings of this study suggest that an environmental approach has a positive impact on both the caregiver and the person with dementia such that it may slow the progression of IADL dependence of patients and enhance self-efficacy and reduce upset for select caregivers.

The present study systematically builds on and expands caregiver intervention research in four significant ways. First, we used a controlled design to determine the impact of an innovative approach that has previously not been systematically tested. Second, the intervention was innovative in that it involved teaching family caregivers the knowledge and skills to manipulate components of the physical environment, skills that are not traditionally included in psycho-educational caregiver interventions. Also, this intervention was innovative in that it differed from traditional occupational therapy practice. Typically, occupational therapy home care is driven by reimbursement considerations, so treatment focus is on the impaired person and improving function. Although therapists may provide education to caregivers, the service remains patient based. Third, this study extends knowledge about the types of outcomes to include in caregiver intervention research. Self-efficacy has not typically been included in previous intervention research. Also, with few exceptions, research has not examined functional change in the person with dementia following a home intervention (Bourgeois, Burgio, Schulz, Beach, & Palmer, 1997; Chang, 1999). Fourth, this study extends previous research on caregiver interventions by examining whether certain caregivers derive benefit from the intervention than others. As articulated by Biegel and Schulz (1999), the next step in caregiver studies is to identify specific characteristics of individuals who benefit from different types of interventions. We evaluated the impact of caregiver gender, race, and relationship on treatment gains as a first step in understanding the relationship between intervention and caregiver characteristics.

In accordance with clinical trial research principles, we first examined intervention effects for the entire sample. We found a small but statistically significant effect such that caregivers in the treatment group reported fewer declines in IADLs than caregivers in the control group 3 months postbaseline. This suggests that through intervention the caregivers developed an environment that was supportive of IADL performance such that persons with dementia experienced slightly less dependency in comparison with controls over time. That is, although caregivers in both the experimental and control group reported decline in IADL performance from baseline to 3 months, those in treatment were able to maintain more function of the person with dementia. To assess IADL status, we used the FIM response set, which is a measure of level of assistance required to perform a task. It reflects caregiver burden in that scores represent the level of care provided, at least as perceived by the caregiver. This finding suggests that the intervention had a modest impact on the level of burden as perceived by caregivers in the area of IADL management. The extent to which there was an objective reduction in dependence in IADLs remains questionable. A limitation of this study might have been the reliance on caregiver report to characterize dependence of the dementia patient. Some research has suggested that caregivers tend to report greater functional de-

pendence in persons with dementia (Skurla, Rogers, & Sunderland, 1988). Nevertheless, one recent study has shown that scores derived from caregiver self-report of function of a person with dementia using the FIM significantly correlates with FIM scores derived from direct observation of performance by a trained professional (Cotter, Burgio, Stephens, Roth, & Gitlin, in press). Thus, caregiver ratings of function in our study may reflect objective IADL performance.

There were no statistically significant differences, however, in the other eight outcome measures, including ADL dependence and behaviors, and caregiver self-efficacy and upset scores between the experimental and control groups. The analyses showed a trend toward improvement in all areas for the experimental group, but these minimal effects were not statistically significant, for several possible reasons.

First, one reason we did not see main effects is that we did find interaction effects, suggesting that the intervention did not have a consistent effect. The inclusion of groups that did not benefit from intervention may dilute the main effects.

Second, a limitation of the present study may be that intervention effects were examined at one time point immediately following completion of the intervention. Caregivers may need more time to practice and use environmental strategies before beneficial outcomes are measurable. The 3-month post-test may have been too close to the intervention for us to adequately evaluate treatment effects. A few caregiver intervention studies have shown a delayed intervention effect such that caregivers report reduced burden and less depression but only over an extended period of time (Mittelman et al., 1995). Studies on environmental interventions with other populations have also reported a delayed positive effect of up to a year (Mann, Ottenbacher, Fraas, Tomita, & Granger, 1999). Future research should consider evaluating the impact of home environmental strategies over a longer time period.

Third, it may be that an environmental approach for caregivers requires a higher dose and level of intensity than that tested in this study. Case presentations and anecdotal comments by the interventionists support this point. Interventionists reported that some caregivers appeared to need more time than the protocol allowed to practice and incorporate the recommended environmental strategies. Also, interventionists reported that caregivers who initially rejected recommendations often inquired about these strategies at the final intervention visit. A consistent finding in research on the use of environmental modifications is that individuals are highly selective in their acceptance and use of environmental strategies and need repeated opportunities to think about and practice strategies. In their review of caregiver interventions, Biegel and Schulz (1999) also suggested that more may be better and that interventions of high intensity and long duration appear to work best.

Fourth, a limitation of this intervention trial was that some recommendations, such as the purchase or installation of adaptive equipment (e.g., commode or grab bars), were recommended but not actually provided or installed for the caregiver. Providing equipment was beyond the scope of this particular study. Other community-based studies have shown that recommending such strategies without assisting in their installation may result in noncompliance because of the cost and time required for an individual to follow these prescriptions. Although these types of recommendations represented a very small percentage of those offered in intervention, they may still have had some impact on outcomes. Yet another explanation may be that this group of caregivers initially reported only minimal upset with dementia-related behaviors and functional dependency and moderately high self-efficacy. There may have been a ceiling effect such that the potential for improvement was limited.

Turning to the subgroup analyses, we were interested in determining whether there was a differential treatment effect. Because our previous research had shown differential compliance rates on the basis of caregiver characteristics, we were interested in determining treatment effects for men and women, spouses and nonspouses, and minority and nonminority participants (Gitlin et al., 1999). Also, because the intervention was behaviorally demanding and required caregivers to engage in mutual problem solving and behavioral change, we reasoned that it might benefit only certain caregivers who may be predisposed to this type of approach.

This intervention trial did suggest that there were modest gains for specific groups of caregivers. Specifically, women showed enhanced self-efficacy in managing both troublesome behaviors and IADL dependence compared with men. This gender difference may be explained in part by previous research on the coping styles of male and female caregivers. This literature suggests that women are more likely to focus on the emotional aspects of care, spend more time carrying out both instrumental and personal care, and admit the need for assistance and seek social support (Connidis & Davies, 1990; Neal, Ingersoll-Dayton, & Starrels, 1997). Conversely, men tend to be more self-reliant and use an authoritative, problem-solving approach that may reflect their traditional work role (Kramer, 1997). Consequently, the caregiving style of women may be a better match with the client-driven approach to treatment delivery of this environmental program. In this intervention, occupational therapists initially worked with caregivers to identify their specific areas of concern and tailored strategies to address those areas. Also, because women may be more intensely involved with instrumental and personal care, they may actually experience more environmental challenges and may therefore be receptive to an intervention that provides instruction in its modification. Alternately, previous research has shown that being male is associated with a higher sense of control (Pearlin & Schooler, 1978; Thoits, 1987). Male caregivers in our study did report at baseline higher confidence (mean = .83) in managing troublesome behaviors than women (mean = .73, p = .031) and managing IADL dependency

(mean = .92 for men and .85 for women, $p = .07$). As a result, there may have been less room for improvement among male participants. Also, as previously reported, we found the men had lower rates of adherence to the intervention (Gitlin et al., 1999). Hence, higher self-efficacy at baseline combined with lower compliance with intervention may explain why male participants showed less self-efficacy enhancement after intervention. Ideally, to benefit from the intervention, participants should start with low self-efficacy and be maximally compliant with the program.

Minority participants in the treatment group also showed greater improvement in IADL and ADL self-efficacy compared with White participants. Of the 45 minority participants in this sample, 43 (96%) were African American. The treatment by race differential found in this study may be explained in part by previous research reporting lower mean levels of self-efficacy among African Americans compared with Whites (Lachman, 1985). Minority participants in our study did report at baseline lower self-efficacy in managing behaviors and ADL and IADL dependency compared with White participants, although the difference was statistically significant only for ADL self-efficacy. This suggests that African American study participants had more room for improvement because they initially had lower scores. Alternately, other studies have shown that African American caregivers may be predisposed to experience improvements in self-efficacy (McAvay et al., 1996).

It is difficult to determine from this study whether the enhancements evidenced by minority caregivers are in part explained by gender. However, the fact that women showed gains in the domain of behavior and IADL self-efficacy and that minority caregivers gained in ADL and IADL self-efficacy would suggest that these groups obtained somewhat different benefits. Clearly, more research is required to disentangle these relations and the salience of both race and gender in structuring intervention gains.

We predicted that the intervention would not only enhance self-efficacy but also reduce levels of upset. We found, however, that the intervention did not reduce upset for either women or men. One explanation may be that upset and self-efficacy represent conceptually distinct appraisals, such that caregivers may find a behavior upsetting but have confidence in their ability to manage it. Another explanation for why we did not see a treatment by gender interaction for upset is a floor effect. There was minimal upset reported at baseline with behaviors and IADL dependency such that improvement may not have been possible.

We did find a differential treatment effect on the basis of the familial relationship of the caregiver to the person with dementia and upset. Specifically, spouse caregivers demonstrated reduced upset with behavioral occurrences in comparison with nonspouse caregivers. Both groups reported similar low levels of upset and moderate levels of self-efficacy at baseline, so a ceiling effect for one group or the other was not operative here. One explanation for this treatment by relationship differential may be related to the consistent finding in previous research of the relatively high rate of depression and emotional upset experienced by spouse caregivers. Spouses may thus be more likely to experience reduced upset or intervention benefit than nonspouse caregivers. Previous research has shown that behavioral disturbances are the primary source of upset for family caregivers rather than IADL and ADL dependency of the person with dementia. Also, the literature has consistently shown a significant relationship between depressive symptoms and reactions of caregivers to problem behaviors. A reduction in the level of upset with behavioral occurrences may be clinically significant in that it may lessen the risk for depression.

Thus, intervention effects were seen more in the area of self-efficacy for select participants. The gains in self-efficacy that were shown for women and minority caregivers, although admittedly modest, may be clinically important. There is abundant research literature showing that feeling efficacious is beneficial to both psychological and physical health (McAvay et al., 1996; Rodin & McAvay, 1992). The role of perceived control in buffering the effects of stressful situations in older people has been shown to function similarly among family caregivers (Skaff, Pearlin, & Mullan, 1996). Specifically, caregivers with high levels of mastery tend to be at lower risk for depression and role overload (Yate, Tennstedt, & Chang, 1999).

We could not compare the differential treatment effects we found in this study to other caregiver intervention trials because, with few exceptions, such studies have not systematically tested for differences. One study that tested the effectiveness of a brief education program for 40 spouse caregivers of persons with dementia (Chiverton & Caine, 1989) found no gender difference in coping ability as a consequence of intervention. Likewise, Mittelman and colleagues (1995) found that gender was not associated with changes in depression over time following an intervention.

In summary, the entire treatment group demonstrated gains in the area of IADL dependence, and there was a decline in upset and improved sense of efficacy beliefs for specific subgroups of caregivers. The data suggest that this is a helpful approach with female, African American, and spouse caregivers, whereas the intervention would need to be adjusted to match the needs of male and nonspouse caregivers. The findings also suggest that further research is warranted to evaluate a more intense and long-term intervention involving home environmental strategies, its underlying mechanisms, and the subsequent impact of improved self-efficacy on caregiver psychological and physical health. Finally, the findings provide preliminary evidence of the importance of examining intervention effects for specific subgroups of caregivers and incrementally add to an understanding of who benefits from interventions.

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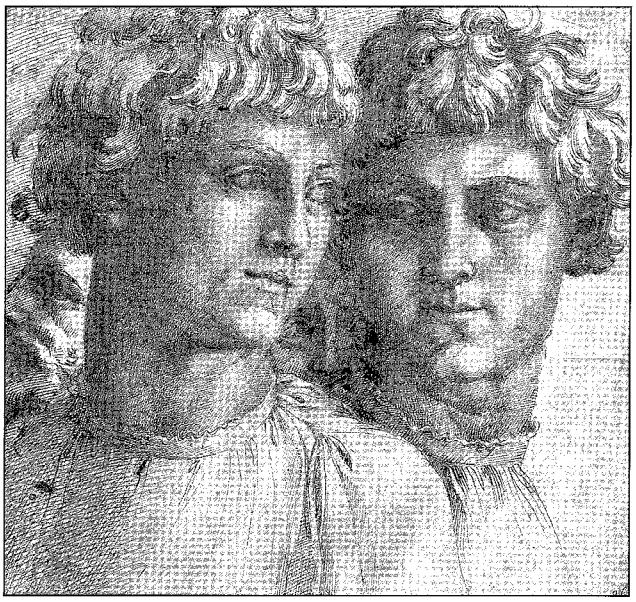

See "Occupational Therapy for Independent-Living Older Adults"—the lead article in this reprint from the *Journal of the American Medical Association*

Original Contributions

Occupational Therapy for Independent-Living Older Adults

A Randomized Controlled Trial

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Context.—Preventive health programs may mitigate against the health risks of older adulthood.

Objective.—To evaluate the effectiveness of preventive occupational therapy (OT) services specifically tailored for multiethnic, independent-living older adults.

Design.—A randomized controlled trial.

Setting.—Two government subsidized apartment complexes for independent-living older adults.

Subjects.—A total of 361 culturally diverse volunteers aged 60 years or older.

Intervention.—An OT group, a social activity control group, and a nontreatment control group. The period of treatment was 9 months.

Main Outcome Measures.—A battery of self-administered questionnaires designed to measure physical and social function, self-rated health, life satisfaction, and depressive symptoms.

Results.—Benefit attributable to OT treatment was found for the quality of interaction scale on the Functional Status Questionnaire (P=.03), Life Satisfaction Index-Z (P=.03), Medical Outcomes Study Health Perception Survey (P=.05), and for 7 of 8 scales on the RAND 36-Item Health Status Survey, Short Form: bodily pain (P=.03), physical functioning (P=.008), role limitations attributable to health problems (P=.02), vitality (P=.004), social functioning (P=.05), role limitations attributable to emotional problems (P=.05), and general mental health (P=.02).

Conclusions.—Significant benefits for the OT preventive treatment group were found across various health, function, and quality-of-life domains. Because the control groups tended to decline over the study interval, our results suggest that preventive health programs based on OT may mitigate against the health risks of older adulthood.

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THE NUMBER OF Americans aged 65 years or older has risen dramatically from 3.1 million persons (4% of the US population) in the early 1900s to over 33 million persons (nearly 13% of the population) in 1995.[1] It is projected that over 17% of the American population will be elderly by the year 2020, that 42% of this group will be older than 75 years, and that the "oldest old" group (aged 85 years or older) will more than double in size by 2030 and will nearly double again by 2050.[2] If present trends persist, it can be expected that longer life spans will be marked by poorer health-related quality of life.[3,4]

Health-related quality of life is generally thought of as "those aspects of self-perceived well-being that are related to or affected by the presence of disease or treatment,"[5(p1348)] encompassing such dimensions as physical and social functioning, bodily pain, and vitality.[5,6] While aging, per se, may account for certain losses, its role has generally been overstated.[4,7] For example, chronic disease has become the most severe health problem among older adults and often leads to chronic disability.[8,9] Older adults are also presented with unique psychological stressors (eg, financial hardship, death of a spouse, retirement) that can contribute to psychiatric disorders such as depression, paranoia, or anxiety and lead to substance abuse.[7,10-12] In addition, older individuals are confronted with social stressors (eg, changes in roles, difficulty interacting with the surrounding environment, and logistical problems performing daily activities) that may lead them to discontinue lifelong pursuits and experience a decrease in life satisfaction.[12,13]

Studies of what is now referred to as "successful aging" reveal that considerations extrinsic to aging or disease such as diet, lifestyle and daily routine, degree of social support, amount of exercise, and sense of autonomy and control play a strong positive role in enabling older individuals to maintain their health and independence.[9,14-16] Research has shown that remaining active and productive is a key component of successful aging.[14,15] Such findings offer hope for the potential to design effective activity-based interventions capable of enhancing the lives of elderly individuals. However, given the diversity of challenges faced by older adults, the complexity of interlocking physical, psychological, economic, and social factors must be taken into account.

In response to this need, we conducted between 1994 and 1996 a randomized controlled trial, the Well Elderly Study, to evaluate the effectiveness of preventive OT specifically targeted for urban, multiethnic, independent-living older adults. Typically, OT is provided to older individuals to facilitate independence after catastrophic illness or accidents when significant functional impairment or disability is present.[9,17-19] However, we reasoned that many of the principles of OT intervention, given their focus on fostering productive and meaningful activity (occupation), maximizing independence, and enhancing function, constituted a potentially effective approach to preventing ill-

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ness and disability and promoting health in this vulnerable population.[20] We hypothesized that mere participation in a social activity program does not affect the physical health, daily functioning, or psychosocial well-being of well elderly individuals; and compared with participation in a social activity program or an absence of any treatment, preventive OT positively affects the physical health, daily functioning, and psychosocial well-being of well elderly individuals (1-sided alternative).

METHODS

Study Subjects

The planned study population was independent-living, culturally diverse men and women, aged 60 years or older, who had the capacity to benefit in multiple outcome areas from involvement with OT. Subjects were excluded if they were unable to live independently or if they exhibited marked dementia. In response to the need to accrue study subjects and to assess the effectiveness of OT among a non-English-speaking population, the study population was augmented to include Mandarin-speaking subjects. Inclusion of Mandarin-speaking subjects required the cultural adaptation and translation of the research protocol and testing instruments into Mandarin and use of Mandarin-speaking occupational therapists and social activity control group leaders during all phases of the study.

Subjects were recruited from residents of Angelus Plaza (a large government-subsidized apartment complex for independent-living seniors in Los Angeles, Calif), from residents in private homes or other facilities in the surrounding areas who used the Angelus Plaza Senior Citizen facilities, or from residents of Pilgrim Tower (a government-subsidized apartment complex in Pasadena, Calif). To maximize the resources at the Angelus Plaza and Pilgrim Tower facilities (the evaluation and treatment sites), to reduce the effects of seasonal changes on the study, and to minimize the effects of subject interaction, subjects were recruited at different times in 2 cohorts, with the second cohort completing each study phase approximately 16 months after the first cohort. Methods of recruitment included staffed recruitment tables placed in facility lobbies and at on-site functions such as dances and coffee hours, flyers, articles in the residence newsletter, presentations at regular meetings such as the Senior Citizens Club, and letters placed under residents' doors. All study volunteers signed an institutionally approved informed consent form prior to study enrollment.

A questionnaire was used to collect information on subjects' sex, age, ethnicity, medical conditions, number of current medications, disabilities, marital status, education level, number of children, languages spoken, and length of residence at Angelus Plaza or Pilgrim Tower (where applicable). An occupational therapist administered the Tinetti Balance Examination[21] to each subject. A physician trained in geriatric medicine conducted a medical history, performed a physical examination, and evaluated the health status of each subject using standardized instruments including the Modified Mini-Mental State Examination (MMSE),[22] the (self-reported) Geriatric Depression Scale,[23] and the LaRue Global Assessment.[24]

Randomization and Treatment

Using a completely randomized design with computer-generated random numbers and a blocking factor of 6, we assigned eligible subjects to 1 of 3 treatment groups within strata defined by language of testing: an OT group, a generalized group activity ("social") control group, or a nontreatment control group. Subjects in the OT group were encouraged to attend all treatment sessions and to refrain from discussing their treatment experience with other subjects. Subjects in the social control group were encouraged to participate in all activity sessions and to refrain from discussing their activities with subjects from other groups. The period of treatment was 9 months.

The central theme of the OT program was health through occupation, with occupation defined not in the conventional sense of type of employment, but more broadly as regularly performed activities such as grooming, exercising, and shopping. Findings from 2 previous studies,[25,26] principles extracted from the occupational science literature,[27-31] and approaches conventionally used in OT[18,20] were drawn on to design the OT protocol. The key intent of the treatment was to help the participants better appreciate the importance of meaningful activity in their lives, as well as to impart specific knowledge about how to select or perform activities so as to achieve a healthy and satisfying lifestyle.[32] The therapeutic approach entailed exposing the subjects to both didactic teaching and direct experience with a broad range of activities. Concurrent with this exposure, each subject was asked to analyze the role of each activity in affecting health and well-being in his or her personal life. Modular programmatic units centered on such topics as home and community safety, transportation utilization, joint protection, adaptive equipment, energy conservation, exercise, and nutrition. (Details of the OT protocol are available from the authors.)

Subjects randomized to the OT group received 2 hours per week of group OT and a total of 9 hours of individual OT during the 9-month treatment period. Up to 10 seniors were assigned to each group. Group sessions were individually administered by registered occupational therapists trained in working with elderly populations. Four therapists (2 per cohort) were involved in administering treatments; each therapist received a minimum of 10 hours of instruction on the specific study intervention and was blind to the study hypotheses.

The social control program focused on activities designed to encourage social interaction among members of the group. During the generalized activity sessions, subjects went on community outings, worked on craft projects, viewed films, played games, and attended dances. The subject matter covered in these sessions was tailored to the interests of the participants. Subjects randomized to the social control group followed a meeting schedule similar to that of the OT group. Up to 10 seniors were assigned to each group session. Group sessions were administered by nonprofessionals who were blind to the study hypotheses. Because individual sessions were not held for the subjects in the social control group, the weekly group sessions were extended to 2.25 hours to ensure that the total number of treatment hours experienced per subject in the social control and OT groups were similar.

No intervention was applied to subjects assigned to the nontreatment control group.

Primary Outcome Measures

To evaluate the effectiveness of the treatments, testing was performed both at baseline and at the end of the 9-month treatment period. Subjects were tested using self-administered questionnaires designed to measure physical and social function, self-rated health, life satisfaction, and depressive symptoms. Testing was overseen by paid research assistants, blind to group assignment and study hypotheses. Subjects were instructed not to interact with each other during testing. Large-print versions of the forms were used, and subjects were assisted if they were unable to complete the forms independently.

The primary outcome variables assessed in the study were derived from the following battery of 5 questionnaires:

1. Functional Status Questionnaire.—The Functional Status Questionnaire assesses potential functional disabilities or disruptions of daily activities in physical and social domains.[33] Physical function was measured using 2 subscales: basic activities of daily living (B-ADL) and instrumental activities of daily living

(I-ADL), which assess such activities as walking and preparing meals. Social function was measured using 2 subscales: social activity and quality of interaction, which assess the subjects' social role performance and affective quality of interactions with others. All subscales were converted into a percentage scale ranging from 0 to 100, with a score of 100 indicating no functional disability.

2. Life Satisfaction Index-Z.—The Life Satisfaction Index-Z is a 13-item questionnaire designed to measure life satisfaction in older populations[34] and has been used as an indicator of health-related quality of life.[35,36] Participants rated items such as "I am just as happy now as when I was younger" on a scale from 0 to 2. Summary scores range from 0 (low satisfaction) to 26 (high satisfaction).

3. Center for Epidemiologic Studies (CES) Depression Scale.—The CES-Depression Scale consists of 20 questions designed to determine the frequency with which participants experienced depressive symptoms within the previous week.[37] Questions addressed symptoms such as depressed mood, loss of appetite, and feelings of hopelessness. Summary scores range from 0 (no depressive symptoms) to 60 (many symptoms).

4. Medical Outcomes Study (MOS) Short Form General Health Survey.—The MOS Health Perception scale administered in this study is a subset of the MOS Short Form General Health Survey.[38] This scale consists of 5 questions that assess subjects' perceptions of their own general health. Subjects rated questions such as "My health is excellent" on a 5-point scale. Final scores reflect a percentage scale from 0 (poor) to 100 (good).

5. RAND 36-Item Health Status Survey, Short Form-36 (RAND SF-36).—The RAND SF-36 measures a range of physical and mental health-related dimensions.[39,40] It specifically addresses 8 health domains: bodily pain, physical functioning, role limitations attributable to health problems, general health, vitality (energy and fatigue), social functioning, role limitations attributable to emotional problems, and general mental health. One final item asks participants to rate how much their general health has changed in the past year. All subscales are scored on a 0 (low) to 100 (high) percentage scale. This instrument was administered only to the second cohort of subjects as part of a decision to broaden the study.

Statistical Analysis

Summary scores for each of the instruments were calculated by adding the scores for all answered questions on the particular instrument and converting to a percentage scale where appropriate. Items missing a response were either assigned a value computed by published algorithms based on the responses to the subject's completed questions or assigned the average value of the questions answered by the subject if such algorithms were unavailable. For each study variable, including demographic and control variables, χ^2 analyses and analyses of variance were performed to test for differences at baseline across the 3 treatment groups.

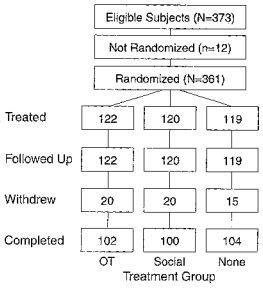
For each outcome variable, treatment effects were examined by calculating signed change scores (posttreatment score minus pretreatment score). Analyses of variance were performed to determine demographic factors related to the change scores independent of treatment groups. Factors found to be significant were used as covariates in subsequent analyses. Analyses of covariance were then conducted using the change scores for each variable to test for equivalency between the social and nontreatment control groups, and to test for differences between the OT group and an overall control group consisting of the combination of the social and nontreatment groups. Statistical testing was carried out at the .05 level, using 2-tailed assessments to test for equivalency between the social and nontreatment control groups and 1-tailed assessments to examine whether the OT group produced more positive mean change outcomes. In the later case, the direction of difference was specified on an a priori basis before the outset of the trial.

Assuming a 20% attrition of subjects over 9 months and conducting testing of hypotheses at the .05 level (1-tailed), a projected sample size of 360 (with a 2:1 allocation ratio) permitted a degree of power equal to 80% in detecting a moderate population effect size ($\geq$0.3) attributable to the OT treatment.[41] For the RAND SF-36, which was administered to the second cohort, a projected sample size of 220 permitted 80% power in detecting a population effect size of 0.4 or greater.[41]

RESULTS

Baseline Characteristics

A total of 373 volunteers were eligible for the study. Of these, 12 withdrew prior to randomization for personal reasons (unwilling to make the time commitment). Of the 361 volunteers (97%) who were randomized (143 in cohort 1 and 218 in cohort 2), 216 (60%) were residents of Angelus Plaza, 74 (20%) used the Angelus Plaza Senior Citizen facilities but resided in private homes or other facilities in the surrounding areas, and 71 (20%) were residents of Pilgrim Tower. Randomization resulted in the assignment of 122 subjects to the OT group, 120 subjects to the social control group, and 119 subjects to the nontreatment control group (Figure).



Profile for the Well Elderly Study. OT indicates occupational therapy group; Social, social control group; and None, nontreatment control group. Unwillingness to make the time commitment was the primary reason subjects were not randomized. Primary reasons for withdrawal were death (8), illness (3), relocation (13), personal matters (11), and loss to follow-up (20).

No significant differences in demographic characteristics were found across treatment groups (Table 1). The mean (SD) age was 74.4 (7.4) years, and 65% of the subjects were female. Ethnic group representations were Asian (47%), white (23%), African American (17%), and Hispanic (11%). In the Asian group, 66% were tested in Mandarin. The majority (73%) of subjects lived alone, and 27% of the subjects reported at least 1 disability.

No significant differences were found across treatment groups in baseline medical history and physical examination results (Table 2). Overall, 77% of the subjects had good or excellent balance on the Tinetti, 89% of the subjects scored normal on the MMSE, 75% of the subjects were regarded as normal according to the Geriatric Depression Scale, and 80% of the subjects had fair or better health according to the LaRue Global Assessment. The median number of medications taken was 3 per day.

In general there were no treatment group differences in pretest means on any of the questionnaire-based outcome variables (data not shown in tables). However, the nontreatment control group had a lower average RAND SF-36 vitality score than did either the social control group or the OT group, both P values $\leq$.05.

Follow-up and Compliance

Of the 361 subjects, 306 (85%) were evaluable at 9 months: 102 (84%) in the OT group, 100 (83%) in the social control group, and 104 (87%) in the nontreatment control group (P=.62) (Figure). For the 55 unevaluable subjects, the reasons

Table 1.—Self-reported Demographic Characteristics by Treatment Condition*

Characteristics	Control: Nontreatment (n=119)	Control: Social (n=120)	OT (n=122)	P Value
Sex				
Male	43 (36)	39 (33)	44 (36)	.80
Female	76 (64)	81 (67)	78 (64)	
Age group, y				
<70	28 (23)	39 (33)	29 (24)	.38
70-79	59 (50)	57 (47)	59 (48)	
≥80	32 (27)	24 (20)	34 (28)	
Ethnicity				
African American	22 (18)	20 (17)	19 (16)	.60
White	24 (20)	30 (25)	29 (24)	
Hispanic	15 (13)	15 (13)	9 (7)	
Asian (English speaking)	17 (14)	14 (12)	27 (22)	
Asian (Mandarin only speaking)	38 (32)	37 (31)	36 (30)	
Other	3 (3)	4 (3)	2 (2)	
Living alone	88 (74)	85 (71)	90 (74)	.83
Disabled	30 (25)	35 (30)	34 (28)	.78
No. of disabilities, mean (range)	0.4 (0-7)	0.4 (0-4)	0.4 (0-4)	.74

*Values are frequency (column percent). OT indicates occupational therapy.

Table 2.—History and Physical Examination Results by Treatment Condition*

Characteristics (Score Range)	Control: Nontreatment (n=119)	Control: Social (n=120)	OT (n=122)	P Value
Tinetti Balance Examination (1-18)				
≤16 (Fair)	30 (26)	25 (21)	26 (22)	.70
17 (Good)	16 (14)	21 (18)	15 (12)	
18 (Excellent)	71 (60)	73 (61)	80 (66)	
Mini-Mental State Examination (0-30)				
≤23 (Impaired)	17 (14)	13 (11)	9 (8)	.23
>23 (Unimpaired)	101 (86)	106 (89)	111 (92)	
Geriatric Depression Scale (0-15)				
≤5 (Normal)	90 (76)	87 (73)	93 (76)	.74
>5 (Depressed)	28 (24)	33 (27)	29 (24)	
LaRue Global Assessment of Overall Health (1-4)				
1 (Poor)	30 (25)	22 (19)	20 (16)	.77
2 (Fair)	54 (46)	58 (49)	63 (52)	
3 (Good)	21 (18)	23 (20)	24 (20)	
4 (Excellent)	13 (11)	15 (12)	15 (12)	
No. of medications, median (range)	3 (0-9)	3 (0-9)	3 (0-9)	.79

*Values are frequency (column percent). OT indicates occupational therapy.

for discontinuation were the following: 8 died, 3 became ill, 13 relocated, 11 active participants were unavailable for posttesting for personal reasons, and 20 were lost to follow-up. Except for quality of interaction on the Functional Status Questionnaire, there were no significant differences at baseline between evaluable and unevaluable subjects on either the demographic or the primary response measures. Compared with unevaluable subjects, evaluable subjects had a significantly greater mean quality of interaction score at baseline (82.7 vs 77.7, $P=.02$). Sixty-five percent of the subjects randomized to the OT group attended at least half of the sessions (average percentage of sessions attended by subjects in the OT group=60%). Sixty-two percent of the subjects randomized to the social activity control group attended at least half of the sessions (average percentage of sessions attended by subjects in the social control group, 61%).

Baseline Factors Related to Outcome

Analyses of variance were performed to determine baseline factors related to outcome variable change scores independent of treatment groups. Demographic factors found to be significantly related to 1 or more change score variables were sex, age group, disability status, and living status (all P values <.05). In addition, for each outcome measure, the baseline scores were significantly negatively related to the corresponding change scores (all P values <.001). Based on these results, all subsequent covariance analyses adjusted for these factors.

Equivalency of Control Groups

Analyses of covariance were conducted to compare outcomes between the 2 control groups (social vs nontreatment). Except for the RAND SF-36 vitality scale, in which case the social control group fared worse than the nontreatment control group (social control mean change=−6.3 vs nontreatment control mean change=4.1, $P=.007$; $P=.04$ after adjusting for baseline differences), no significant differences were found. Because of these findings, the 2 control groups were combined for subsequent analyses.

Intent-to-Treat Analysis

Table 3 summarizes the results of the intent-to-treat analysis for subjects who completed the study. Shown are the mean pretest and posttest scores for each outcome variable, along with the unadjusted and adjusted mean change scores. Analyses of covariance revealed a significant benefit attributable to OT treatment for Functional Status Questionnaire: quality of interaction ($P=.03$), Life Satisfaction Index-Z ($P=.03$), and MOS Health Perception ($P=.05$), and for 7 of 8 measures on the RAND SF-36: bodily pain ($P=.03$), physical functioning ($P=.008$), role limitations attributable to health problems ($P=.02$), vitality ($P=.004$), social functioning ($P=.05$), role limitations attributable to emotional problems ($P=.05$), and general mental health ($P=.02$). General health was marginally significant ($P=.06$). Benefit attributable to OT treatment was maintained on the RAND SF-36 after adjusting for vitality, the single domain found to be significantly different at baseline across treatment groups. Analyses of outcomes within the OT group revealed that, compared with other ethnic groups, Asians (non-Mandarin speaking) showed greater improvement as measured by the Life Satisfaction Index-Z ($P=.01$), CES-Depression scale ($P=.03$), and the MOS Health Perception Index ($P=.04$). Finally, compared with other ethnic groups, Hispanics showed greater improvement attributable to OT treatment on the RAND SF-36: general health ($P=.01$).

COMMENT

The Well Elderly Study provides the most comprehensive test to date of the effectiveness of OT. Although a limited number of prior investigations have examined the effects of OT on older adults, the Well Elderly Study goes beyond previous studies in that it included a much larger sample size, incorporated a wider range of outcome domains, and included a greater degree of experimental control.

Significant benefits for the OT treatment were found across various health, function, and quality-of-life domains. In cases where a significant finding was present, the control groups tended to decline over the study interval, whereas the OT group either improved or exhibited a

Table 3.—Outcome at 9 Months*

Response	Condition	Pretest Mean (SD)	Posttest Mean (SD)	Change, Mean (SEM)	Adjusted Change (SEM)	P Value† (1-Tailed)
Functional Status, Life Satisfaction, Depression, Health Perception						
B-ADL	OT (n=101)	94.2 (12.2)	90.1 (19.6)	−4.1 (1.8)	−2.3 (1.6)	.31
	Controls (n=202)	90.6 (18.6)	90.1 (16.9)	−0.5 (1.3)	−1.3 (1.1)	
I-ADL	OT (n=102)	78.7 (25.9)	79.1 (26.5)	0.4 (2.0)	0.9 (1.8)	.28
	Controls (n=202)	77.8 (25.1)	77.6 (22.8)	−0.2 (1.5)	−0.4 (1.3)	
Social activities	OT (n=100)	87.9 (24.7)	84.7 (28.2)	−3.2 (2.9)	−1.0 (2.4)	.38
	Controls (n=203)	83.6 (28.3)	82.8 (27.1)	−0.8 (2.0)	−1.9 (1.7)	
Quality of interaction	OT (n=102)	83.8 (12.1)	85.4 (12.2)	1.6 (1.3)	2.1 (1.1)	.03
	Controls (n=203)	82.2 (14.9)	81.9 (13.3)	−0.3 (1.0)	−0.6 (0.8)	
Life Satisfaction Index-Z	OT (n=102)	17.5 (5.9)	18.8 (5.3)	1.3 (0.4)	1.6 (0.4)	.03
	Controls (n=203)	16.4 (6.1)	17.3 (5.9)	0.9 (0.3)	0.7 (0.3)	
CES-Depression	OT (n=101)	10.9 (8.9)	10.8 (8.2)	−0.1 (0.7)	−0.8 (0.8)	.16
	Controls (n=203)	13.8 (9.8)	13.6 (9.8)	−0.2 (0.7)	0.2 (0.5)	
MOS Health Perception	OT (n=102)	60.6 (22.8)	62.2 (23.5)	1.6 (1.9)	2.4 (1.9)	.05
	Controls (n=204)	57.5 (23.7)	56.4 (25.5)	−1.1 (1.5)	−1.5 (1.4)	
RAND SF-36						
Bodily pain	OT (n=48)	74.7 (19.1)	70.8 (20.1)	−3.9 (3.1)	−0.9 (2.7)	.03
	Controls (n=111)	65.8 (23.8)	60.2 (22.2)	−5.6 (2.1)	−6.9 (1.7)	
Physical functioning	OT (n=48)	77.0 (25.4)	72.9 (27.9)	−4.1 (2.9)	−3.2 (2.8)	.008
	Controls (n=110)	72.8 (23.3)	61.7 (25.7)	−11.1 (2.0)	−11.5 (1.9)	
Role functioning‡	OT (n=49)	75.5 (34.8)	71.9 (39.4)	−3.6 (6.0)	0.6 (5.4)	.02
	Controls (n=110)	62.5 (39.2)	51.8 (43.2)	−10.7 (4.0)	−12.5 (3.6)	
General health	OT (n=49)	73.3 (19.7)	72.8 (19.6)	−0.5 (2.1)	1.1 (2.3)	.06
	Controls (n=110)	64.6 (22.7)	62.0 (23.2)	−2.6 (1.7)	−3.3 (1.5)	
Vitality	OT (n=48)	66.0 (18.4)	70.1 (20.3)	4.1 (2.2)	6.2 (2.4)	.004
	Controls (n=111)	59.2 (23.0)	58.4 (20.9)	−0.8 (1.9)	−1.7 (1.6)	
Social functioning	OT (n=49)	86.0 (20.7)	85.5 (18.8)	−0.5 (3.2)	0.6 (2.7)	.05
	Controls (n=111)	81.3 (23.2)	77.1 (22.7)	−4.2 (2.1)	−4.7 (1.8)	
Role emotional§	OT (n=49)	83.0 (31.3)	77.6 (35.0)	−5.4 (6.0)	−3.6 (5.2)	.05
	Controls (n=111)	77.2 (37.9)	64.3 (39.6)	−12.9 (4.2)	−13.7 (3.4)	
General mental health	OT (n=48)	84.4 (15.5)	83.5 (12.7)	−0.9 (2.5)	1.1 (2.1)	.02
	Controls (n=111)	78.3 (20.7)	74.7 (18.4)	−3.6 (1.7)	−4.5 (1.4)	

*B-ADL indicates basic activities of daily living; OT, occupational therapy; I-ADL, instrumental activities of daily living; CES, Center for Epidemiologic Studies; MOS, Medical Outcomes Study; and RAND SF-36, RAND 36-Item Health Status Survey, Short Form-36.
†Analysis of variance performed with baseline, sex, age group, disability status, and living status as covariates. *P* values are given for adjusted change scores.
‡Role functioning refers to role limitations attributable to health problems.
§Role emotional refers to role limitations attributable to emotional problems.

relative reduction in the extent of decline. Further, in a statistical analysis across all 3 treatment groups of the 11 significant outcome variables in Table 3, we found that the direction of effect favored the OT group in all 11 comparisons with the social control group and in 10 of the 11 comparisons with the nontreatment control group. Results of the present study therefore suggest that preventive OT programs may mitigate against the health risks of older adulthood.

Ory and Cox[4] suggest that health professionals have been reluctant to target older adults in preventive programs, assuming that this population would fail to benefit significantly from such efforts; however, results of the present study demonstrate that preventive programs designed for older adults can be effective. Moreover, a recent study by Ware et al[42] reported that older adults show more health-related decline in managed care programs than both other clientele within the same programs and adults comparable in age and socioeconomic status who used fee-for-service systems. Again, the current findings suggest that preventive OT programs could be used in conjunction with other services to proactively manage health care and either generate health improvements or at least slow decline.

The finding that only 5 of the 15 outcome measures that were studied failed to demonstrate a significant gain for the OT group relative to controls provides solid evidence of the comprehensive positive effects of the OT intervention. Examination of the structure of the CES-D and the I-ADL, B-ADL, and social activity subscales of the Functional Status Questionnaire (ie, the variables that were not at least marginally significant) suggests that, because they have low ceilings, these tools are relatively insensitive to detect changes among the well elderly. In contrast, the RAND SF-36 subscales, which in general proved to be the most sensitive to treatment effects, had high ceilings and were therefore capable of detecting upward changes among well individuals.

The design of this study provided a rigorous test of the relative effectiveness of a nonprofessionally led activity group (the social control group) and a professionally designed program based on OT principles. Because both programs involved subjects with activity, our findings call into question the cliché that "keeping busy keeps you healthy." Conversely, it appears that simply being regularly engaged in activity through the social control program was no more effective in promoting health than receiving no treatment.

How then might one account for the superior outcomes of the OT intervention? First, activities were chosen based on principles from the OT field that pertain to the relationship of occupation to health. Through the systematic application of such principles, the OT program enabled subjects to construct daily routines that were health promoting and meaningful given the context of their lives. Fuhrer[43] has suggested that people experience elevated health and subjective well-being

when they are engaged in activities that they view as health promoting.

Second, in contrast to the social control intervention, the OT program was highly individualized, even though it occurred in a group context. As part of the treatment plan, participants were asked to apply the content to their own everyday experiences. This requirement is likely to have made the treatment activity sessions personally meaningful and effective within the participants' daily lives.

Third, the OT program included specific instruction on how to overcome barriers to successful daily living, an important consideration given that the participants had limited incomes and resources. For example, emphasis was placed on activities that required no financial outlay, and time was spent assisting subjects in learning to master public transportation systems. Through this approach, subjects were provided with the supports they needed to confront obstacles, take risks, and experience self-efficacy and personal control while participating in daily activity. Research outcomes have demonstrated the crucial role that such factors play in giving one a sense of forward progression rather than stasis.[9,12,14-16,43]

It is important to stress that the social control group was included in the study to rule out mere participation in group-based activities as an alternate explanation for the effects of OT, and not to simulate any type of professional intervention. Consequently, no attempt should be made to equate the social control condition with alternate treatment approaches, such as recreation therapy, that use involvement in activity as a treatment focus, but that require trained personnel to administer.

Programs such as the currently studied OT intervention that focus on everyday practices of people are sometimes viewed as neither requiring the expertise of a professional to administer nor being sufficiently effective to warrant large scale studies of their effectiveness. However, our study results demonstrate that superior outcomes can be expected when an activity-centered intervention is administered by professional therapists as opposed to being conducted by nonprofessionals. Further, our results suggest the need to perform more studies of this kind that may uncover additional positive effects of occupation-based treatment approaches. We believe that future research must also be directed toward uncovering the factors associated with activity, in general, that promote health and well-being. Finally, data on programmatic and medical costs obtained from questionnaires and telephone interviews with study subjects have been collected. A complete cost-benefit analysis is the subject of the next facet of the study.

Limitations of the current research are that the results may not generalize to older adults in different living situations (eg, single-family dwellers, nursing home residents) or of different socioeconomic status. On the other hand, a significant strength of the current research is that the outcomes can be extended to older adults of varying ethnicities. Future research is needed to replicate the positive effects of this preventive OT intervention for older adults in different living situations as well as to understand the mechanisms that underlie the positive effects found in the present study.

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Embedding Health-Promoting Changes Into the Daily Lives of Independent-Living Older Adults: Long-Term Follow-Up of Occupational Therapy Intervention

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The Well Elderly Study was a randomized trial in independent-living older adults that found significant health, function, and quality of life benefits attributable to a 9-month program in preventive occupational therapy (OT). All participants completing the trial were followed for an additional 6 months without further intervention and then reevaluated using the same battery of instruments. Long-term benefit attributable to preventive OT was found for the quality of interaction scale of the Functional Status Questionnaire and for six of eight scales on the RAND SF-36: physical functioning, role functioning, vitality, social functioning, role emotional, and general mental health ($p < .05$). Approximately 90% of the therapeutic gain observed following OT treatment was retained in follow-up. The finding of a sustained effect for preventive OT is of great public health relevance given the looming health care cost crisis associated with our nation's expanding elderly population.

THE number of elderly Americans has increased dramatically in recent years, a trend expected to escalate in the coming decades (Rowe & Kahn, 1998). Because older individuals are at disproportionate risk for chronic disease, functional decline, psychiatric disorder, and other health-related problems (Gatz, 1995; Murrell & Himmelfarb, 1989), it is critical for society to identify viable interventions that prevent age-related declines in health and functioning. Otherwise, our nation may be faced with an insurmountable health care burden (Gatz, 1995).

The Well Elderly Study was a randomized clinical trial conducted from 1994 to 1996 to evaluate the efficacy of preventive occupational therapy (OT) intended to reduce health-related declines among urban, multiethnic, independent-living older adults (Clark et al., 1997; Jackson, Carlson, Zemke, Mandel, & Clark, 1998). Significant benefits in health, function, and quality of life resulted from a 9-month OT intervention (Clark et al., 1997). After the conclusion of treatment, participants were followed for 6 months without further intervention and then reevaluated. In this article, we report on this follow-up assessment. We hypothesize that compared with the control groups, the long-term health of the study participants improved with preventive OT.

METHODS

Study Design

The planned study population was independent-living, culturally diverse men and women, aged 60 years or older, who had the capacity to benefit in multiple outcome areas from involvement with OT. Participants were excluded if they were unable to live independently or if they exhibited marked dementia. Prior to the 9-month experimental treatment phase, a general medical history, physical examination, and health status evaluation (using the Modified Mini-Mental State Examination [M-MMSE; Teng & Chui, 1987]), the short form Geriatric Depression Scale (Sheikh & Yesavage, 1986), LaRue Global Health Assessment (LaRue, Bank, Jarvik & Hetland, 1979), and Tinetti Balance Examination (Tinetti, 1986) was performed for each participant.

A total of 361 participants were recruited from two federally subsidized apartment complexes for older adults, located in or near Los Angeles. To maximize resources at the treatment sites, participants were recruited in two cohorts (143 in Cohort I and 218 in Cohort II) enrolled in the study at different times. The mean (±SD) age of the participants was 74.4 ± 7.4 years, and 65% of the participants were women. Ethnic group representations were Asian (47%), Caucasian (23%), African American (17%), Hispanic (11%), and other (2%). In the Asian group, 66% were tested in Mandarin (Azen et al., 1999). The majority (73%) of participants lived alone and 27% of the participants reported at least one disability. All participants signed an institutionally approved informed consent form prior to randomization.

Participants were randomized into three conditions: an OT treatment group, a generalized social activity control group, and a nontreatment control group. In both the OT treatment and generalized social activity groups, elderly

adults engaged in weekly sessions involving 8–10 participants. The OT treatment was administered by registered occupational therapists and focused on helping the older adults to incorporate positive changes within their ongoing lifestyles. Topical foci included health-relevant behaviors, transportation, personal safety, social relationships, cultural awareness, and finances. The overriding therapeutic emphasis centered on achieving a careful understanding of each elder's unique pattern of personal attributes, values, goals, and in-context life circumstances and then working with the elder to design an individually tailored plan for implementing sustainable healthful changes. Methods of program delivery included didactic presentations, peer exchange, and direct experiences and personal exploration (in connection with occasional group outings or supplementary one-on-one therapist–client sessions). On the basis of theory and research in occupational therapy (e.g., Clark et al., 1991; Gauthier, Dalziel, & Gauthier, 1987; Kielhofner, 1992; Yerxa et al., 1989), the intervention was expected to benefit elderly participants' health and psychological well-being through (a) improving their specific health practices (e.g., exercise, use of joint protection techniques) and (b) increasing their general sense of purpose and meaning via engagement in personally meaningful activity.

In the generalized social activity control condition, older adults participated in craft projects, viewed films, went on community outings, played games, or attended dances. These activity sessions were led by nonprofessionals and were intended to control for activity engagement, social involvement, and general program participation. In the nontreatment control condition, older adults merely received the assessment battery in the absence of any intervention.

Participants were evaluated at baseline and after the treatment period using the RAND 36-item Short Form Health Survey (RAND SF-36; Hays, Sherbourne, & Mazel, 1993; Ware & Sherbourne, 1992; Ware, Snow, Kosinski, & Gandek, 1993), Functional Status Questionnaire (FSQ; Jette & Cleary, 1987), Life Satisfaction Index-Z (LSI-Z; Wood, Wylie, & Sheafor, 1969), Center for Epidemiologic Studies—Depression Scale (CES-D; Radloff, 1977), and the Medical Outcomes Study (MOS) Health Perception Scale (Stewart, Hays, & Ware, 1988). Only participants in Cohort II were evaluated by the RAND SF-36.

Following the 9-month treatment phase, an intent-to-treat analysis of the questionnaire outcomes revealed a statistically significant benefit from OT for 10 measures: the FSQ quality of interaction, LSI-Z, MOS Health Perception, and RAND SF-36 bodily pain, physical functioning, role limitations due to health problems, vitality, social functioning, role limitations due to emotional problems, and general mental health scales (Clark et al., 1997). Subsequent to the treatment phase, participants were followed for an additional 6 months (follow-up phase) without further treatment and reevaluated on the outcome questionnaires.

Statistical Analysis

Because there were no statistically significant differences between the two control groups in either post-test (Clark et al., 1997) or follow-up outcomes, the control groups were combined for all analyses. Also, because no cohort main effect was found (Clark et al., 1997), data were analyzed for both cohorts combined. For each demographic and baseline history and physical examination variable, two-tailed tests were conducted for differences between participants with and without follow-up evaluations and between treatment groups (OT vs. combined control) for participants with follow-up evaluations.

For each outcome variable, treatment effects were examined by calculating signed change scores (long-term follow-up minus pre-test score) and then by using analysis of covariance to test for change score differences between the OT treatment group and the combined control group. Covariates included the variables previously found to be related to the change scores at the time of post-testing (Clark et al., 1997). To examine whether the results may have been affected by excluding participants with missing data, additional analyses were conducted in which regression analyses were used to impute values for missing scores (based on participants' post-test outcomes as predictors). Statistical testing was performed at the 0.05 alpha level, using one-tailed assessments to examine whether OT produced more positive mean change outcomes.

To directly determine the extent to which the OT-based benefits at the conclusion of therapy endured over time for the set of 10 measures associated with a significant OT effect at the time of post-testing, Cohen's effect size estimates were calculated (OT treatment group vs. control group, separately for both follow-up and post-test phases) using the adjusted change score means and standard deviations (Cohen, 1988). The mean effect size for follow-up assessment was then divided by the post-test effect size mean to derive an overall percentage reflective of the degree to which the post-therapy OT-based gains were retained over the 6-month follow-up interval.

Results

Long-Term Follow-Up

Of the 361 participants randomized in the Well Elderly Study, 285 (79%) were evaluated both at the conclusion of the treatment phase and at 6-month follow-up. The percentages of participants with follow-up evaluations did not differ between the treatment groups. For patients with long-term follow-up, the age distribution was: <70 years old (26%), 70–79 years old (51%), ≥80 years old (23%); 67% of the participants were women. Ethnic group representations were Asian (50%), Caucasian (20%), African American (17%), Hispanic (11%), and other (2%). The majority (73%) of participants lived alone, 26% of the participants reported at least one disability (the maximum number of reported disabilities was seven), 80% of participants scored good to excellent on the Tinetti Balance Examination, 90% were unimpaired on the M-MMSE, and 75% scored normal on the Geriatric Depression Scale. The average number of medications was three.

We contrasted the demographic characteristics and history/physical examination results between the 285 participants with long-term follow-up and the 76 participants who dropped out of the study. Participants who dropped out had lower scores on the Tinetti Balance Examination ($p = .04$)

and LaRue Global Health Assessment ($p = .05$) and reported taking more medications ($p = .03$). On average, participants with follow-up evaluations attended more OT and social control group sessions than participants without follow-up evaluations (44–52% vs. 10%, $p < .01$). We also contrasted demographic characteristics and history/physical examination results between the 96 OT participants and 189 control participants with 6-month follow-up data. No significant between-group differences were present.

Table 1 presents the results of the follow-up intent-to-treat analysis. We report the means of the unadjusted pre-test and 6-month follow-up scores, as well as the covariate-adjusted pre-test to follow-up change scores for each outcome variable. Analyses of covariance of pre-test to follow-up change scores revealed a significant benefit from OT for FSQ quality of interaction ($p = .05$) and for six of the eight SF-36 scales: physical functioning, role functioning, vitality, social functioning, role emotional, and general mental health ($p < .05$). We found marginally significant differences for the SF-36 scales bodily pain and general health ($p < .10$). Analyses based on imputing regression-based scores for missing values revealed a similar outcome, with five of the above seven variables remaining statistically significant beyond the .05 level; two variables were marginally significant at the .10 level.

Across the 10 measures that exhibited a positive OT effect at the time of post-testing, the mean effect size was equal to 0.32 (range = 0.20 to 0.47). The corresponding mean effect size at follow-up was equal to 0.29 (range = 0.02 to 0.52), indicating that approximately 90% (0.29/0.32) of the magnitude of OT-based treatment gains was retained over the follow-up interval.

Discussion

This study demonstrates that important health-related benefits attributable to OT continued over a 6-month interval in the absence of further treatment. Of the 10 health and well-being measures significantly enhanced by OT immediately following the conclusion of therapy, seven measures were significant and two measures were marginally significant at 6-month follow-up testing.

Positive follow-up treatment effects were most pronounced in the SF-36 variables, which have high ceilings and are therefore well suited for detecting differences among well elders. A further general tendency was for stronger effects to be present for psychosocial, as opposed to physical, outcome indices. For example, the most significant results were obtained for the SF-36 vitality, social functioning, role functioning, and general mental health

Table 1. Health, Function, and Quality of Life Outcomes at 6-Month Follow-Up

Response	Condition	Pre-Test[a]	Follow-Up Test[a]	Change[b]	p Value[c]
BADL	OT (n = 95)	93.8 (12.5)	90.8 (17.8)	−1.6 (1.5)	.17
	Controls (n = 186)	90.8 (18.9)	91.6 (16.0)	0.1 (1.1)	
IADL	OT (n = 96)	78.1 (26.5)	77.4 (27.7)	−0.8 (1.9)	.49
	Controls (n = 186)	78.0 (25.2)	77.7 (23.5)	−0.7 (1.3)	
Social Activities	OT (n = 90)	88.6 (24.0)	85.1 (26.4)	−2.0 (2.3)	.49
	Controls (n = 176)	83.5 (28.3)	82.3 (27.0)	−1.9 (1.6)	
Quality of Interaction	OT (n = 96)	84.3 (12.2)	85.5 (11.2)	2.0 (1.2)	.05
	Controls (n = 188)	82.6 (14.5)	82.1 (14.1)	−0.4 (0.9)	
Life Satisfaction Index-Z	OT (n = 96)	17.6 (5.8)	18.6 (5.8)	1.2 (0.5)	.23
	Controls (n = 188)	16.4 (6.1)	17.3 (6.3)	0.8 (0.3)	
CES-D	OT (n = 95)	10.4 (8.7)	11.7 (8.8)	0.5 (0.7)	.20
	Controls (n = 188)	13.6 (9.6)	12.9 (9.0)	−0.2 (0.5)	
MOS Health Perception	OT (n = 96)	61.2 (23.1)	59.8 (23.8)	−0.2 (1.9)	.45
	Controls (n = 189)	57.8 (23.3)	58.2 (23.9)	−0.5 (1.3)	
SF-36: Bodily Pain	OT (n = 47)	75.4 (18.7)	72.1 (18.9)	−0.2 (2.7)	.08
	Controls (n = 104)	66.3 (23.6)	63.3 (21.7)	−4.8 (1.7)	
SF-36: Physical Functioning	OT (n = 47)	76.6 (25.6)	69.3 (29.7)	−6.7 (3.1)	.03
	Controls (n = 103)	73.5 (23.1)	60.5 (26.3)	−13.8 (2.0)	
SF-36: Role Functioning	OT (n = 48)	75.0 (35.0)	67.7 (42.5)	−3.5 (5.3)	.02
	Controls (n = 103)	63.3 (39.0)	48.1 (40.0)	−17.1 (3.5)	
SF-36: General Health	OT (n = 48)	73.2 (19.9)	71.0 (17.9)	−0.1 (2.3)	.06
	Controls (n = 103)	65.0 (22.7)	62.4 (21.3)	−4.6 (1.6)	
SF-36: Vitality	OT (n = 47)	65.7 (18.4)	71.4 (20.0)	7.8 (2.3)	.001
	Controls (n = 104)	59.4 (22.4)	59.7 (19.0)	−1.0 (1.5)	
SF-36: Social Functioning	OT (n = 48)	85.9 (20.9)	84.9 (18.2)	−0.2 (2.9)	.01
	Controls (n = 104)	82.7 (21.7)	74.8 (23.0)	−8.6 (2.0)	
SF-36: Role Emotional	OT (n = 48)	83.3 (31.5)	73.6 (38.9)	−8.5 (5.5)	.05
	Controls (n = 104)	77.6 (37.9)	59.9 (42.4)	−19.4 (3.6)	
SF-36: General Mental Health	OT (n = 47)	84.5 (15.6)	83.1 (13.4)	0.6 (2.1)	.02
	Controls (n = 104)	78.1 (21.1)	74.3 (18.6)	−4.9 (1.4)	

Note: BADL = basic activity of daily living; IADL = instrumental activity of daily living; CES-D = Center for Epidemiologic Study–Depression scale; MOS = Medical Outcomes Study; SF-36 = RAND 36-item Short Form Health Survey.

[a]Mean (*SD*).

[b]Mean (*SEM*) change score = (Follow-up test–Pretest) adjusted for gender, age group (<70, 70–79, 80+), disability status, and living status.

[c]Based on analysis of covariance of change scores between OT treatment and control conditions (one-tail test).

scales, whereas only marginally significant or nonsignificant effects were found for SF-36 general health, SF-36 bodily pain, and MOS Health Perception. This basic pattern is consistent with the predominantly psychosocial nature of the intervention, which would be expected to more directly influence psychological health and vitality than physical health. This result is encouraging insofar as an earlier meta-analysis (Okun, Olding, & Cohn, 1990) observed that the effects of various interventions on older adults' psychological well-being typically dissipate rapidly over time.

Although not part of the main data analysis, direct comparisons revealed a superior outcome for OT relative to the generalized social activity condition. Across the 10 variables that differentiated OT from the combined control groups at post-test, the mean effect size of direct follow-up comparisons between OT and the generalized social activity condition was 0.33, with six of the SF-36 outcomes significant beyond the .05 level. This result underscores that it is not activity *per se* that increases health and well-being. Rather, in connection with the character of the OT intervention, activity that is personally meaningful and contextually anchored within elders' everyday lives has the greatest capability to enhance health-related outcomes.

The observation of a durable effect for OT is consistent with the intent of treatment, which was to enable the older adults to permanently embed health-promoting changes into their daily routines on a longstanding basis (Carlson, Clark & Young, 1998; Jackson et al., 1998). We speculate that the individualized emphasis of the treatment played an important role in this regard. By considering each elder's personal concerns, values, and environmental resources and limitations, we intended to foster changes that were both intrinsically motivated and contextually feasible within the participant's life, factors jointly conducive to the potential for an enduring therapeutic effect.

Additional research needs to be conducted to evaluate the efficacy of OT with different elderly populations, treatment settings, and logistical approaches to treatment administration. Further, given the intent of the OT program to induce longstanding healthful lifestyle changes, it would be desirable to incorporate a longer follow-up interval in future studies.

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Statement of the Association of American Medical Colleges
on
Patients in Peril: Critical Shortages in Geriatric Care
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March 13, 2002

The Association of American Medical Colleges (AAMC) welcomes the opportunity to submit this statement for the record on how we can encourage the education and training of more geriatric physicians. The Association represents all of the nation's 125 accredited allopathic medical schools, approximately 400 major teaching hospitals, including 74 Veterans Affairs medical centers, 88,000 faculty of these institutions represented by 100 constituent academic and professional societies, and more then 160,000 men and women in medical education as students and residents.

As educators of tomorrow's doctors and as providers of health care services, medical schools and teaching hospitals are very aware of how society's needs are changing. The nation's population is aging. Older Americans are now living healthier, better quality lives as we have become more adept at forestalling the onset of disease through scientific interventions. With increased life expectancy, the number of those age 85 and over is growing rapidly. However, there are identifiable groups of older persons who are frail and more vulnerable and require significant resources or even lack access to services.

Medical education is a complex and long process. There are no "quick-fix" solutions to shifting the medical education paradigm, but medical educators are taking steps to ensure that newly trained physicians are well-schooled in providing high quality health care for our senior Americans.

Medical education takes place along a continuum, starting with four years of undergraduate medical education. In these years of medical school, students learn content, that is the knowledge, skills, values and attitudes needed for the practice of medicine and are exposed to clinical practice. They graduate as "undifferentiated" physicians. Medical school generally is followed by three to seven years of graduate medical education (GME) in a clinical setting. In their residency years, new physicians apply the content of undergraduate medical school to patients in clinical settings and specialize in their chosen discipline. As practitioners, physicians evolve their style of practice based on clinical experience and ongoing formal and informal education. Physicians are keenly aware of the need for continued learning, and participate in programs of continuing medical education (CME). The concepts of independent lifelong learning and continuous adaptation of new knowledge and techniques to medical practice define what it means to be a physician.

Opportunities to integrate learning about the care of older people abound along the entire medical

education continuum and geriatricians play key roles in this teaching. Medical schools, teaching hospitals and a variety of other organizations have been devising and implementing new methods and approaches to change and improve the medical education process at the undergraduate, graduate, and continuing medical education levels.

Undergraduate Medical Education

Nearly twenty years ago, the AAMC took the position that this country's changing demography demanded that all physicians should be trained to treat the elderly patient. With sponsorship from the National Institute on Aging and the Pew Memorial Trust, an advisory committee developed a report on the preparation for improved geriatric care in the undergraduate medical education curriculum. Five responsibilities of medical schools to accomplish the goal of better undergraduate preparation for the treatment of the elderly patient were outlined and schools were encouraged to:

- provide a focus for change in the educational and training programs to increase attention to the aging process and elderly patients;
- seek support to expand research in aging to improve clinical care, to stimulate medical student interest in the fields of gerontology and geriatrics, and to foster interactions with other specialties and disciplines;
- offer a variety of clinical settings and patient encounters, including ambulatory, long term institution, and home care experiences, through which students can learn special arrangements for the care, diagnosis and treatment of the elderly;
- arrange for students to interact with healthy, independent elderly persons; and develop geriatric educational material within all disciplines; and
- urge scientific disciplines and medical specialty societies to develop and disseminate geriatric education material in their fields.

At the time of the AAMC's geriatric report in 1982, only 15 U.S. medical schools had identifiable departments, sections, divisions or units in geriatrics or gerontology. For academic year 2001-02, preliminary data show that 56 medical schools have identifiable units, including 3 separate centers or units at the departmental level. Most schools have sections or divisions of geriatrics or gerontology in the departments of internal medicine or family practice.

For 100 years, medical schools in this country have undergone national oversight and review by the practicing profession, represented by the American Medical Association, and medical educators, represented by the AAMC. As the arbiter and standard setter for medical education, the Liaison Committee on Medical Education (LCME) conducts an annual review of all accredited medical schools, including a survey of medical education programs, to assess medical

schools' compliance, in specific terms, in courses of instruction and their place in the curriculum. The annual inventory of geriatrics training, like that of other disciplines needing greater prominence in the curriculum, examines how schools are complying with standards such as the following for geriatrics and related areas:

- The faculty must introduce current advances in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effect of social needs on demands for medical care;

- Clinical instruction...must include the important aspects of acute, chronic, continuing, preventive, and rehabilitative care;

- Students must have opportunities to gain knowledge in those content areas that incorporate several disciplines in providing medical care, for example, emergency medicine and the care of the elderly and disabled; and

- All instruction should stress the need for students to be concerned with the total medical needs of their patients and the effect on their health of social and cultural circumstances.

The LCME's annual survey asks medical schools how they comply with the standards from an operational perspective. As medical schools are organized in many different ways, so is the variation in medical school curricula. However, nearly every medical school requires the teaching of geriatrics. The vast majority (92 percent) teaches students about geriatrics as part of a required course. 15 percent cover the topic as a separate required course, the rest teach it as part of a required course. Most schools also offer separate elective courses.

Medical school graduates have indicated general satisfaction with the level of instruction being devoted to in geriatrics. In 2001, 64.9 percent of medical school graduates responding to the AAMC's annual Graduation Questionnaire (GQ) stated they felt they were well-prepared to care for older patients in acute settings and 64.5 percent felt they were well-prepared to care for older adults in ambulatory settings.

In the last two years, the John A. Hartford Foundation in New York City, working with the AAMC, has awarded a total of $4.8 million to 40 medical schools to enhance their gerontology and geriatrics curricula. A list of these schools is attached to this statement. Each institution has received up to $50,000 a year, totaling $100,000 over the course of the two-year grant. Each school offers a fully integrated curriculum spanning the four years of undergraduate medical school education. This is critical because it reinforces the relevance and importance of geriatrics and the care of the elderly throughout the curriculum, rather than limiting such information to a single course. The institutions provide medical students with the necessary skills to deliver high quality, compassionate care to the nation's burgeoning elderly population, and to handle effectively the complex issues associated with end of life care.

There are several points during the four years of medical school when students gain experience with caring for the elderly. In the preclinical phase of medical school, typically the first two years, basic scientists discuss issues of aging and senescence as these concepts apply to physiology and pharmacology for example. Also in the preclinical years, many schools are incorporating small group tutorial curricula emphasizing problem solving and taught around cases, often involving elderly patients. Students use these cases to learn not only history-taking and diagnosis skills, but also doctor-patient communications and case management skills. For example, more than 80 percent of medical schools provide training in identifying and treating elder abuse and neglect

Examples of the kinds of experiences the schools are providing medical students include "senior mentors." Senior mentors are healthy elderly who meet regularly with a student or group of students throughout the four years of medical school giving students the opportunity to experience the issues the elderly face, but elderly who are not ill. Discussions range from involvement in community activities, health issues, nutrition, to discussions about sex and companionship. Additional experiences include nursing home visits, retirement community involvement, chronic diseases of the elderly, and mental status examinations.

Medical schools also introduce students to clinical medicine early in the preclinical phase of study. These introductions to patient programs often provide ongoing interactions with the same patients, providing opportunities for the bio-psycho-social learning that is so important in understanding issues of aging. Students are assigned patients, frequently elderly, and are expected to obtain their histories and in consultation with their supervisors, devise a treatment plan. These clerkships or community preceptorships (periods of instruction) are based primarily on experiential learning. In the teaching hospital, where roughly one-quarter to one-third of all inpatient cases are Medicare enrollees, students routinely encounter elderly patients in their clinical education. Early exposure to clinical experience in a particular specialty and encounters with faculty who serve as role models and mentors during these clinical experiences are often important factors in students' career choices.

One of the schools has established an apartment where students visit an elderly couple, or individual. These people are portrayed by "standardized patients" who present the same case history and setting to each student who visits. Students are presented with different scenarios that focus on issues such as nutrition, alcoholism, abuse, loneliness – issues faced by the elderly. All of the programs and materials developed by the 40 schools funded through the John A. Hartford initiative are required, as part of the funding, to be made available to other medical schools for adaptation and implementation. The AAMC has developed a website to facilitate the exchange of information among the medical schools, as well as anyone interested in the topic.

As health care shifts from hospital inpatient-centered care to integrated managed care systems utilizing a variety of ambulatory care settings, medical educators are shifting much clinical education to diverse outpatient settings. Nearly all medical schools offer student clerkships in ambulatory care settings. The system of care for the elderly must particularly be viewed as a

large system of health and social services that are likely to be delivered in a variety of settings, ranging from the tertiary teaching hospital to the home. For example, nearly all medical schools provide educational opportunities in home health care as part of a required course or other educational experiences in home health. The challenges of providing a sufficient number of sites where students can learn from appropriate faculty are formidable. It is difficult to assure uniform quality of teaching from different clinical faculty in a wide variety of settings and to assess student learning. Experiences of the 40 schools funded by Hartford, as well as work underway in at least 20 other medical schools, will be critical to assuring better health care for the elderly.

Graduate Medical Education

Graduate medical education (GME) is recognized and accepted as an essential phase of medical education. Its principal goals are to prepare proficient practitioners of medicine and to equip them for continued professional development. Each specialty has a formally organized board that establishes the minimum length of time to be spent in training and the other criteria a resident must fulfill to be eligible for certification. While undergraduate medical education is university-based and molded by the academic traditions of higher education, GME has historically been hospital-based and developed from a tradition of "on-the-job" experiential training. Many of the same concerns about providing appropriate teachers and nonhospital teaching sites also are prevalent among educators of residents.

GME training programs are accredited by the Accreditation Council for Graduate Medical Education (ACGME). In practice, programs are required to submit information about their curricula to the appropriate Residency Review Committee (RRC) which evaluates the data during the accreditation process. For example, program requirements for residency education in internal medicine have a geriatric component:

a. Residents must have formal instruction and regular, supervised clinical experience in geriatric medicine.
b. The written curriculum must include experiences in the care of a broad range of elderly patients.
c. Geriatric clinical experiences must be offered. They may occur at one or more specifically designated geriatric inpatient units, geriatric consultation services, long-term care facilities, geriatric ambulatory clinics, and/or in home-care settings. (ACGME Program Requirements for Residency Education in Internal Medicine 2001)

Geriatrics as a defined specialty is relatively new. It was recognized by the American Board of Medical Specialties (ABMS) in 1985 as a subspecialty of internal medicine and family practice. The first examination for which a physician could become a board-certified geriatrician was offered in 1988. Thus, the specialty has not had a very long time to mature and is still developing. Residency training opportunities in internal medicine and family practice geriatrics have increased dramatically since 1989. In 1989-90, there were 50 training programs in internal medicine and family practice geriatrics approved by the Accreditation Council on Graduate

Medical Education (ACGME). In 2001-02, there were 120 approved training programs.

Obstacles and Constraints to the Development of Academic Geriatrics

Increasing the visibility of geriatrics in medical schools is difficult given the current shortage of academic geriatric faculty. Faculty can serve as important role models for medical students and they can influence students' career choice. Data from the AAMC's faculty roster database show that there are 734 faculty reporting geriatrics (either internal medicine or family practice geriatrics) as a medical specialty among the 125 allopathic medical schools. This compares with 121 faculty in June 1991 and 468 faculty in June 1995. While the number of geriatric faculty has increased more than four times since 1991, most geriatric leaders believe current numbers are inadequate.

A broad spectrum of clinical training sites where the elderly are served, from nursing homes and day care centers to physicians' offices and home care, are needed to expose medical students to elderly people with varying health status. Simply seeing elderly patients in the hospital during geriatric assessment rounds does not provide the full learning experience necessary for career choice. Patients must be evaluated in social and various care settings. However, most medical educators lament the paucity of appropriate clinical training sites at both the graduate and undergraduate education levels. Finding training sites of uniform quality and faculty who are willing to teach in these sites, particularly practitioners who must generate clinical income in a cost-conscious environment, is challenging. Establishing and maintaining high-quality educational sites is costly.

Increasing emphasis on multi-disciplinary and integrative teaching is well-suited to enhanced geriatrics education and educators are developing innovative programs, as illustrated by the AAMC/Hartford geriatrics grants initiative. However, this demands the time and attention of a limited number of trained educators who face the demands of many competing responsibilities. Medicine is an increasingly complex field, and many worthy courses compete for students' time. Like other integrative subjects that require multi-disciplinary approaches, geriatrics needs to be well-integrated into the curriculum.

Recruitment of students into geriatrics is difficult. While the number of residency training programs in internal medicine and family practice geriatrics has increased substantially since 1989, many geriatric training positions are not being filled. For the 2001-2002 academic year, only 375 of 494 geriatric training positions offered were filled.

Clearly, geriatrics has not yet enjoyed a high degree of popularity with students and residents. This patient population requires particular skills and understanding. For example, patients with impaired mental capacity may not recognize their own physician. The key to more geriatricians is making the specialty more attractive to students as a career choice. The AAMC has invested significant effort to learn as much as possible about medical student specialty choice by asking graduating seniors about factors influencing specialty choice. The results – and they haven't

changed materially from year-to-year – tell us that medical students are influenced by their educational experiences. These include positive clerkship experiences and physician role models. Students also pick specialties that interest and challenge them intellectually and that are consistent with their values and personalities. With more role models and the opportunity to see the elderly in ambulatory settings, students should develop increased interest in this career.

A significant constraint in attracting more medical students to train in geriatrics is the comparatively low level of payment for primary care and evaluation and management services under the Medicare Fee Schedule and other third party payment systems. The vast majority of geriatricians' services provided to Medicare beneficiaries are visits and consultations.

AAMC Activity Related to Improvements in Medical Education

The AAMC and its members are fully aware and sensitive to the perception that the graduates of our current medical education system may be misaligned with what society wants and needs from the medical education community. Society now recognizes the need for a broader view of health care and wants doctors who can and will attend equally well to all aspects of health care.

As part of a major initiative to address societal concerns the AAMC embarked on a project to assist medical schools in their efforts to create a better alignment between the training of new doctors and society's expectations of physicians. Called the Medical School Objective Project (MSOP), this effort was not directed specifically at geriatrics education, but applies to all medical education. In recognizing new expectations, the MSOP panel reached consensus on a set of four overarching attributes that characterize the qualities all physicians must possess: they must be altruistic, knowledgeable, skillful and dutiful. The panel also set forth learning objectives for the medical student curriculum derived from those attributes. The attributes and objectives apply equally to the education of geriatricians as they would any other medical career choice.

In January 1998, the AAMC issued the first report which sets forth the objectives that can guide medical schools in developing goals that reflect an understanding of the implications for medical practice and medical education of evolving societal needs, practice patterns, and scientific developments. Among them is that medical school graduates must demonstrate an understanding of, and respect for, the roles of other health care professionals, and the need to collaborate with others in caring for individual patients and in promoting the health of defined populations. Physicians must feel obliged to collaborate with other health professionals and to use systematic approaches for promoting, maintaining and improving the health of individuals and populations.

Emphasis on interdisciplinary learning as the health system shifts from physician-oriented systems of care to systems utilizing teams of health care professionals is critical, particularly in geriatrics. Interdisciplinary teams, in which health professionals from multiple disciplines apply their special skills, knowledge and values to achieve common goals, can enhance innovation, improve the quality of patient care, and strengthen academic-clinical ties and partnerships among

institutions and settings. While the challenges of changing behavior and cultures are great, the benefits from interdisciplinary education have huge potential.

The MSOP Report I also notes that in caring for individual patients, physicians must apply the principles of evidence-based medicine and cost effectiveness in making decisions about the utilization of limited medical resources. They must be committed to working collaboratively with other physicians; other health care professionals, and individuals representing a wide variety of community agencies. As members of a team addressing individual or population-based health care issues, they must be willing both to provide leadership when appropriate and defer to the leadership of others when indicated. They must acknowledge and respect the roles of other health professionals in providing needed services to individual patients, populations or communities.

Strategies for Schools of Medicine

In addition to revising physician education constantly due to advancements in scientific and medical knowledge and changes in treatment patterns, medical schools may wish to adopt several strategies to attract medical students to geriatrics. In 1992, the AAMC issued a report on the generalist physician that recommended an action agenda to increase the attractiveness of primary care medical careers. Many of these strategies, repeated from the report on the generalist physician in boldface type below, have been successfully employed to increase the number of students choosing careers in primary care specialties. They also can be utilized to increase the number of students choosing careers in generalist specialties from which geriatricians tend to obtain their residency training.

Schools of medicine should establish administrative units for the generalist specialties. Medical schools should establish administrative units for geriatrics where the responsibility for leadership and management of its educational effort can be focused to assure adequate support. Such units need not be formal departments or even divisions within departments, but should have sufficient administrative authority to be effective champions for the care of the elderly. Having a separate department does not necessarily mean that students will be exposed to geriatric patients. A variety of educational experiences in diverse settings such as nursing homes, home care and other nonhospital settings will expose the student to the broad spectrum of the elderly population. Every doctor in primary care and specialty medicine should be fully knowledgeable about the many diseases and disabilities of old age, and understand the techniques of maintaining function in older patients.

To recruit and advance faculty, medical schools should provide appropriate academic recognition for scholarship, teaching and role modeling among faculty in the generalist specialties. The contributions and special skills of geriatric faculty should be recognized and rewarded. Faculty from geriatrics should serve on key administrative and planning committees in the institution. The current traditional system of rewards may limit the prestige of geriatrics as a discipline, impairing the school's ability to attract and sustain adequate faculty. Retraining of

existing mid-level faculty also should be considered.

Medical schools should foster research opportunities in the generalist fields among faculty, residents and students. With the explosion in scientific discovery, there are many unanswered, urgent questions about aging. Geriatrics is poised to play an important role in meaningful research efforts to help better understand aging and disability.

Medical schools should require that all medical students have meaningful curricular experiences in the generalist specialties. This includes clinical experiences in nonhospital settings and the opportunity to encounter role models among the faculty who teach geriatrics. Most medical students make their specialty choice before the end of the third year of medical school. The early introduction of positive experiences in clerkships, preceptorships or other educational activities related to the elderly population in nursing home or home care settings, for example, will ensure that students have an appropriate base for making career decisions. Effective role models are likely to raise student interest in geriatrics.

It also is important for medical schools to partner with a variety of public and private entities. Medical schools and teaching hospitals should seek relationships that enable them to develop teaching chronic care systems for senior care. For example, a rural hospital may want to develop a senior care system, partnering for referrals of the sickest patients and sending physicians to the academic center for "in-career" internships during which the physician works alongside academic geriatricians for a limited period of time.

Recommendations for Congress

The AAMC also recognizes that the federal government can support an increase in the number of geriatricians trained through a variety of mechanisms:

Provide adequate support for existing federally-sponsored student loan re-payment programs. Students who show interest in geriatrics may hesitate to choose the specialty due to high levels of educational debt because they cannot afford to study geriatrics for two additional years. The AAMC believes that if monetary incentives are provided, they should be directed at individuals. A variety of federally-sponsored student loan programs, such as the National Health Service Corps program, already exist.

Restore adequate funding support for Title VII geriatrics programs. Increased funding is needed to support multi-disciplinary geriatric education centers (GECs), geriatric training programs (GTPs), and Geriatric Academic Career Awards. These programs are effective in providing opportunities for health care personnel to develop skills for providing better, more cost effective care for older Americans. Unfortunately, the Administration's FY 2003 budget eliminates funding for these programs.

Affiliated with educational institutions, hospitals, nursing homes, community-based centers for

the aged, and veterans' hospitals, GECs include short-term faculty training, curriculum, and other educational resource development, and technical assistance and outreach. GTPs provide fellowships for medical and dental faculty and provide for curriculum development, the hiring of faculty, and the first three months of fellowship training. Geriatric Academic Career Awards support career development of geriatricians in junior faculty positions who are committed to academic careers teaching clinical geriatrics.

Provide adequate support for the Geriatric Research, Education and Clinical Center (GRECC) program in the Department of Veterans Affairs. Established in 1975, the GRECC program increases the basic knowledge of the aging process, shares the knowledge with other health care providers, and improves the overall quality of health care received by elderly veterans. The 20 GRECCs established by the VA are at the forefront of the fields of gerontology and geriatrics. A 1997 audit by the Inspector General (IG) of the VA noted that "the GRECC's integration of research, education, and clinical care activities at major research facilities was an effective method for addressing the health needs of the elderly." The IG recommended the development of a method for implementing GRECC-developed treatment models and educational programs at more VA facilities. It should be noted that the VA maintains many programs for older veterans, including 121 geriatric evaluation management (GEM) programs across its system. Aimed at keeping the frail elderly out of nursing homes, these GEMs provide comprehensive health care assessments and other services to veterans with multiple medical problems and those with geriatric problems. The VA has set a goal of establishing at least one GRECC in each of its 22 networks; currently, there are 20 GRECCs in 18 networks.

Conclusion

As revolutions continue in biomedical science and health care services, revolutionary forces also are being exerted on medical education. Medical educators are transforming our educational paradigm by adopting a broader focus incorporating responsibility for the life-long learning that physicians will need to maintain relevant knowledge and skills in a rapidly changing profession. The AAMC recognizes that increasing the number of geriatric physicians calls for action on at least two fronts: voluntary efforts by private sector organizations and government action to eliminate barriers that prevent us from meeting the need. Medical schools, teaching hospitals and other private organizations should work with governmental bodies to find and craft solutions for increasing the number of geriatricians.

AAMC 2001 Hartford Grant Award Recipients

1. University of Alabama School of Medicine
2. Albert Einstein College of Medicine of Yeshiva University
3. University of California, Irvine, College of Medicine
4. University of Cincinnati College of Medicine
5. Columbia University College of Physicians and Surgeons
6. Duke University School of Medicine
7. Georgetown University School of Medicine
8. Indiana University School of Medicine
9. Jefferson Medical College of Thomas Jefferson University
10. Louisiana State University School of Medicine in Shreveport
11. University of Louisville School of Medicine
12. University of Massachusetts Medical School
13. Meharry Medical College School of Medicine
14. University of Missouri-Columbia School of Medicine
15. University of New Mexico School of Medicine
16. University of Pittsburgh School of Medicine
17. St. Louis University School of Medicine
18. State University of New York Upstate Medical University College of Medicine
19. University of Texas Health Sciences Center at San Antonio
20. Wayne State University School of Medicine

AAMC 2000 Hartford Grant Award Recipients

1. University of Arizona College of Medicine
2. University of California, Los Angeles, UCLA School of Medicine
3. University of California, San Francisco, School of Medicine
4. University of Connecticut School of Medicine
5. Southern Illinois University School of Medicine
6. Johns Hopkins University School of Medicine
7. University of Kansas School of Medicine
8. University of Miami School of Medicine
9. University of Minnesota Medical School
10. University of Missouri-Kansas City School of Medicine
11. Mount Sinai School of Medicine of New York University
12. University of Nebraska College of Medicine
13. University of North Carolina School of Medicine
14. Ohio State University College of Medicine
15. University of South Carolina School of Medicine
16. East Tennessee State University James H. Quillen College of Medicine
17. Texas Tech University Health Sciences Center
18. University of Texas Medical Branch
19. Medical College of Wisconsin
20. University of Wisconsin Medical School

AACOM

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Oklahoma State University College of Osteopathic Medicine

Philadelphia College of Osteopathic Medicine

Pikeville College School of Osteopathic Medicine

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The University of Health Sciences - College of Osteopathic Medicine

University of Medicine and Dentistry of New Jersey School of Osteopathic Medicine

University of New England College of Osteopathic Medicine

University of North Texas Health Science Center Texas College of Osteopathic Medicine

West Virginia School of Osteopathic Medicine

Western University of Health Sciences/College of Osteopathic Medicine of the Pacific

March 11, 2002

The Honorable John Breaux
Chairman
Special Committee on Aging
United States Senate
Washington, DC 20510

Dear Senator Breaux:

On behalf of the nineteen member colleges of the American Association of Colleges of Osteopathic Medicine (AACOM), I am pleased to submit this statement for the record on the training of geriatric physicians in osteopathic medical schools. The osteopathic medical education community is sensitive to the ever-evolving health care needs of all Americans and we are particularly aware of the increasing gap between the number of elderly patients and the number of physicians trained specifically to serve this growing population.

By training and by tradition osteopathic physicians practice "hands on," holistic medicine and value the highly close and interactive physician-patient relationship that is characteristic of our profession. It is precisely this philosophy of treating the whole person and recognizing the environment in which that person lives, that enhances the osteopathic physician's ability to consider the particular needs of each patient, including elderly patients.

Similarly, primary care training has always been at the very core of osteopathic medical education. Indeed, more than 60% of osteopathic physicians practice in primary care fields and even our medical specialists have their base training in primary care. At a minimum all osteopathic medical students receive specific instruction in geriatrics through the primary care curriculum, especially family medicine.

Several colleges of osteopathic medicine have established geriatric centers. One such institution is the Center for Aging located at the University of Medicine and Dentistry of New Jersey School of Osteopathic Medicine (UMDNJ-SOM). The school of osteopathic medicine requires formal training in geriatrics/gerontology of its all medical students and a sizeable portion of its curriculum is dedicated to the subject. The Center for Aging offers a formal didactic course in year II, a one month clinical rotation in year III and an elective rotation in year IV. The Center for Aging at UMDNJ-SOM also offers clinical and didactic experience to residents, as well as continuing education to practitioners, service providers and the lay public.

However, AACOM recognizes that much remains to be accomplished in order to enhance our medical schools' ability to train physicians who understand the needs of a "graying" population. Despite the efforts of osteopathic medical schools to provide geriatrics education, significant challenges face our institutions in their attempts to meet the health care needs of our exploding elderly population.

Recruitment of students into geriatrics as a specialty is often difficult. In the year 2000, out of ten funded residency positions in geriatrics only seven were filled. Some of the recruitment difficulties can be attributed to the low level of payment for primary care and evaluation and management services under the Medicare Fee Schedule and other third party systems. Other difficulties can be traced to a shortage of role models, i.e., trained geriatricians on medical school faculty.

In light of these challenges AACOM makes the following recommendations:

1. The Federal Government should provide adequate support for existing federally sponsored loan repayment programs and establish a new program specifically designed for students who ultimately specialize in geriatrics. Osteopathic medical students graduate with an average debt of $126,000. The cost of two additional years of geriatric specialty training is prohibitive for many who might otherwise consider this as a career choice.

2. Congress should restore adequate funding support for Title VII geriatrics programs. Several programs under the health professions education programs of Title VII of the Public Health Service Act are particularly effective in training health personnel to provide quality care for older Americans. Multidisciplinary Geriatric Education Centers programs provide faculty training, curriculum development and technical assistance. Geriatric Academic Career Awards and Training Programs provide fellowships for medical and dental faculty and curriculum development. Support for these relatively new programs over the past few years has served as a significant incentive for both medical schools and students. Unfortunately, the President's proposed budget for fiscal year 2003 eliminates all funding for these programs. Clearly these programs must not only be restored, but also increased.

3. Finally, we note that health professions education programs under Title VII of the Public Health Service Act are due for reauthorization by Congress in 2002. This presents a golden opportunity for further incentives to assist osteopathic medical schools and all health professions schools to train more professionals with expertise in delivering health care to our aging population.

Senator John Breaux
March 11, 2002
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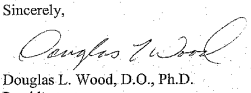
Mr. Chairman, the American Association of Colleges of Osteopathic Medicine commends you and the entire Special Committee on Aging. We stand ready to work with the Congress in assuring that the American health care system and its health professionals have the best training to deliver optimal health services to all Americans.

Sincerely,



Douglas L. Wood, D.O., Ph.D.
President

cc: Barbara Ross-Lee, D.O., Chair, AACOM Board of Governors