HEALTHIER FEDS AND FAMILIES: INTRODUCING INFORMATION TECHNOLOGY INTO THE FEDERAL EMPLOYEES HEALTH BENEFITS PROGRAM

HEARING

BEFORE THE

SUBCOMMITTEE ON THE FEDERAL WORKFORCE AND AGENCY ORGANIZATION

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

ON

H.R. 4859

TO AMEND CHAPTER 89 OF TITLE 5, UNITED STATES CODE, TO PROVIDE FOR THE IMPLEMENTATION OF A SYSTEM OF ELECTRONIC HEALTH RECORDS UNDER THE FEDERAL EMPLOYEES HEALTH BENEFITS PROGRAM

MARCH 15, 2006

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HEALTHIER FEDS AND FAMILIES: INTRODUCING INFORMATION TECHNOLOGY INTO THE FEDERAL EMPLOYEES HEALTH BENEFITS PROGRAM

WEDNESDAY, MARCH 15, 2006

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON FEDERAL WORKFORCE AND AGENCY ORGANIZATION,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 3:18 p.m., in room 2154, Rayburn House Office Building, Hon. Jon C. Porter (chairman of the subcommittee) presiding.

Present: Representatives Porter, Norton, Cummings, Van Hollen, and Clay.

Staff present: Ronald Martinson, staff director; Chad Bungard, deputy staff director/chief counsel; Chad Christofferson and Alex Cooper, legislative assistants; Patrick Jennings, OPM detailee/senior counsel; Mark Stephenson, Tania Shand, and Adam Bordes, minority professional staff members; and Teresa Coufal, minority assistant clerk.

Mr. PORTER. Good afternoon. I would like to bring the meeting to order, and I certainly appreciate all of you being here today. A quorum being present, the Subcommittee on the Federal Workforce and Agency Organization will come to order.

This will be the first of two hearings that focus on a bill that I and Representative Lacy Clay from Missouri have introduced, namely, H.R. 4859, the Federal Family Health Information Technology Act. In the past decade, information technology has exploded onto the scene and revolutionized the way we do business in every industry. Companies from every sector of the marketplace have made huge investments in technology development and are reaping the benefits tenfold.

For example, last month, General Motors announced that it would be awarding a $15 billion contract for information technology development. Analysts are saying that this is the single largest information technology contract ever awarded through a bidding process. If information technology is so pervasive in every industry from automotive to financial services, why has it seemingly bypassed one of the largest industries in the United States—health care? The answers to that question are many, but the good news is that the barriers blocking health information technology from growing are rapidly crumbling. People are working harder than

ever to see that health information technology is not simply something that a few companies are using, but is a reality for all Americans.

As health information technology systems are developed, I believe that not only will the quality of health care delivery improve dramatically, but so will the quality of health care overall. Some have estimated that over 90 percent of the activity spent on delivering health care depends on the exchange of information. Information flows constantly from patients to doctors to carriers to pharmacies and others, yet we are still using the processes of yesterday. With health information technology, we will not only decrease the amount of time it takes to exchange this information, but we will greatly increase the accuracy of the information that we exchange.

One of the sad realities in the industry today is that medical errors are a major problem. The Institute of Medicine estimates that medical errors account for approximately 45,000 to 98,000 deaths each year in the United States and over 770,000 injuries due to adverse drug events, many of which could have been prevented through the use of information technology. If listed among deadly diseases, medical errors would be considered among the leading causes of death, even outpacing highway accidents, breast cancer, and AIDS. This is no slight to our medical professionals, who are the best in the world, but rather is an indictment of the antiquated technology they rely on.

The use of technology will reduce medical errors by making health information more accessible to both patients and providers no matter where the patient is receiving the care. For example, the Boston Globe recently reported a senseless preventable death of a 79-year-old retired chemist who died after doctors at Massachusetts General Hospital treated him for a stroke when he really was having an insulin reaction. It is easy to see how an electronic medical record could have assisted the physicians in correctly diagnosing this patient. In a world where our cars, our pets, and our checking accounts have their own computerized record, it is time for every American to benefit from the same technology.

Back home in Nevada, I spend a lot of time with foster kids. Unfortunately, health records for these children are scarce, which leads to needless multiple tetanus shots and other inoculations and multiple exams, and putting these children at risk for encountering a medical error because their prior medical histories are not always known. With the technological advances that we have made, this is unacceptable. And as you know, technology today is in dog years. For every 1 year, it is 7. Technology is changing rapidly, becoming more and more efficient and more and more accessible.

As chairman of this subcommittee, I have been working closely with leaders from government and industry to develop legislation to bring health information technology to the health plans the Federal Government offers to its own employees. We have a wonderful opportunity to improve the quality and delivery of health care for the over 8 million participants in the Federal Employees Health Benefits Program and at the same time serve as a model to effect change elsewhere. Passing this up would be a huge mistake—a mistake we cannot afford since many lives would be unnecessarily

placed at risk, especially since the solution is literally at our fingertips.

The bill that I have introduced is based on very successful demonstration projects around the country, and we will hear from several individuals who were involved in those demonstrations this afternoon. The bill does recognize that there are three basic components of a complete electronic health record: No. 1, the carrier-based electronic health record; No. 2, the personal electronic health record; and, No. 3, the provider-based electronic health record. And recognizing this, the bill will establish a carrier-based electronic health record and personal electronic health record and provides incentives for creating a provider-based electronic health record.

The first component of the bill will require all carriers participating in the Federal plan to create a carrier-based electronic health record for each of the participants. This piece of electronic health record will provide each participant and his or her providers with the information maintained by the member's carrier in a format useful for diagnosis and treatment. This claim-based component of the electronic health record can provide valuable information by leveraging the data, technology, and capabilities of health plans to improve health care decisions by patients and providers. This information is already there, and to ignore it would cause innocent people to unnecessarily suffer injury or death.

Hurricanes Katrina and Rita serve as stark examples of the value of carrier-based electronic health records. When Hurricane Katrina hit, many medical records were destroyed or were not immediately available for patients, potentially putting some patients at great risk. Hoping to avoid the medical disasters associated with Hurricane Katrina, Blue CrossBlue Shield of Texas extracted data on its members who lived in the areas that were evacuated before Hurricane Rita hit. To help physicians care for Hurricane Rita evacuees, Blue Cross took its carrier based data for 830,000 members and converted it into an electronic health record available to any treating provider and did it in 4 days—830,000 members were converted into an electronic health record in 4 days. Those records contain historic and current data such as lab results, pharmacy information, and basic medical history.

The second component of the bill requires a carrier to create a personal electronic health record at the request of an individual and would allow each individual to participate in his or her own health care by enabling the individual to input information into the electronic health record, such as personal health history, family health history, symptoms, over-the-counter medication, living will information, diet, exercise, or other relevant information and activities. As our guest today, Speaker Newt Gingrich, will mention, it will provide for ownership for health care, for individuals to have ownership over their own information and their health care.

The third major component of the bill provides for a creative mechanism for individual providers to obtain funding for health information systems in their offices. Specifically, the funding would be available to providers to implement an interoperable electronic provider-based records system. The bill would establish a trust fund at the Office of Personnel Management that would accept private contributions. OPM will then issue grants from the fund to

participating carriers to be distributed as performance incentives to their contracting health care providers to implement the provider-based electronic health records. Now, to tie all these components together, the bill will require that within 5 years of passage, each participant will have his or her own electronic health record contained on a portable digital medium.

I would also like to quickly address three additional issues surrounding the bill. First is privacy. Privacy is always at the top of the list of concerns, and for the many groups that I met with, it was always the No. 1 issue that was brought forward, so rightfully so, it needs to be taken care of. There is nothing more personal and private than a person's medical information. Under my bill, we will ensure that participants' medical information is kept private and secure by requiring compliance with the Health Insurance Portability and Accounting Act. In addition, there are some great minds at the Department of Health and Human Services thinking long and hard about this important issue, particularly through the work of the Health Information Security and Privacy Collaboration.

Second, I would also like to address interoperability. The administration has gathered the Nation's leading experts in this area to develop standards that everyone can work under. The bill that I will be introducing will follow the standards being developed by the Department of Health and Human Services. I am not interested in creating a system of electronic health records that will be obsolete or incompatible with other systems.

Third, and finally, we must deal with the issue of cost. Under the bill, the Federal Employees Health Benefits Program rates should not increase and insurance carriers will not be burdened with paying the administrative costs to implement the requirements in the bill. The bill includes provisions to ensure that electronic health records are implemented over a number of years and that participating insurance carriers can tap into existing funds dedicated for administrative purposes being held by OPM during the implementation stages.

Additionally, there are significant savings that can be seen with the implementation of health information technology in the Federal Employees Health Benefits Program. In my own State of Nevada, Health Plan of Nevada has done a tremendous job of implementing the HIT system. Their transition from paper records to electronic records has saved them nearly $1.7 million, resulting from a more than 50 percent reduction in medical records, staff, and paperwork, and certainly the errors. The think tank Rand Corp. estimated that, in addition to the saving of lives, the U.S. health care system could save as much as $162 billion annually with the widespread use of health care information technology.

Making electronic health records available for patients is the SMART thing to do, and SMART serves as a perfect acronym to demonstrate the strengths of the health information system. "S" is very simple; it stands for Significantly reducing medical errors. "M" stands for Making prescription errors extinct. "A" represents the prevention of Adverse effects from conflicting course of treatment. And the "R" stands for Reducing redundancy of testing and paperwork. And "T" stands for recognizing that it is Time to improve the

quality and the delivery of health care in the United States for every American citizen.

The bottom line is simple: the technology is there to save lives and improve the quality of health care. It would be a colossal error to not take advantage of using technology to turn valuable claims data, for instance, into electronic health records. There are many, many successful HIT demonstration projects throughout the country that have shown us that this can be done. The Federal Employees Health Benefits Program cannot afford to wait any longer.

I look forward to the discussions today from our experts and from all the witnesses.

[The prepared statement of Hon. Jon C. Porter and the text of H.R. 4859 follows:]

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INDEPENDENT

Opening Statement of Chairman Jon Porter

Hearing of the House Government Reform
Subcommittee on Federal Workforce and Agency Organization

"Healthier Feds and Families: Introducing Information Technology into the Federal Employees Health Benefits Program."

March 15, 2006

Thank you so much for attending the hearing this afternoon. This will be the first of two hearings that focus on a bill that I and Representative Lacy Clay from Missouri have introduced, namely, H.R. 4859, the Federal Family Health Information Technology Act. In the past decade, information technology has exploded onto the scene and revolutionized the way we do business in every industry. Companies from every sector of the marketplace have made huge investments in IT development and are reaping the benefits.

For example, last month, General Motors announced that it would be awarding a fifteen billion dollar contract for information technology development. Analysts are saying that this is the single largest IT contract ever awarded through a bidding process. If information technology is so pervasive in every industry from automotive to financial services, why has it seemingly bypassed one of the largest industries – health care? The answers to that question are many, but the good news is that the barriers blocking health information technology from growing are rapidly crumbling. People are working harder than ever to see that health information technology is not simply something that a few companies are using, but is a reality for all Americans.

As health information technology systems are developed, I believe that not only will the quality of health care delivery improve dramatically, but so will the quality of health care overall. Some have estimated that over 90% of the activity spent on delivering health care depends on the exchange of information. Information flows constantly from patients to doctors to carriers to pharmacies and others – yet we are still using the processes of yesterday. With

health information technology, we will not only decrease the amount of time it takes to exchange information, but we will greatly increase the accuracy of the information we exchange.

One of the sad realities in the industry today is that medical errors are a major problem. The Institute of Medicine estimates that medical errors account for approximately 45,000 to 98,000 deaths each year in the United States and 770,000 injuries due to adverse drug events, many of which could have been prevented through the use of health information technology. If listed among deadly diseases, medical errors would be considered among the leading causes of death, even outpacing highway accidents, breast cancer and AIDS. This is no slight to our medical professionals, who are the best in the world, but rather is an indictment of the antiquated technology they rely on.

The use of technology will reduce medical errors by making health information more accessible to both patients and providers no matter where the patient is receiving care. For example, the Boston Globe recently reported a senseless preventable death of a 79 year-old retired chemist who died after doctors at Massachusetts General Hospital treated him for a stroke when he really was having an insulin reaction. It is easy to see how an electronic medical record could have assisted the physicians in correctly diagnosing this patient. In a world where our cars, pets, and checking accounts have their own computerized record, it is time for every American to benefit from the same technology.

Back home in Nevada, I spend a lot of time with foster kids. Unfortunately, health records for these children are scarce, which leads to needless multiple tetanus shots, needless multiple exams, and putting these children at risk for encountering a medical error because their prior medical histories are unknown. With the technological advances that we have made, this is unacceptable.

As Chairman of this Subcommittee, I have been working closely with leaders from government and industry to develop legislation to bring health information technology to the health plans the Federal Government offers to its own employees. We have a wonderful opportunity to improve the quality and delivery of healthcare for the over 8 million participants in the Federal Employees Health Benefits Program and at the same time serve as a model to affect change elsewhere. Passing this up would be a mistake – a mistake we cannot afford since many lives would be unnecessarily placed at risk, especially since the solution is literally at our fingertips.

The bill that I have introduced is based on very successful demonstration projects around the country and we will hear from several individuals who were involved in those demos this afternoon. The bill recognizes that there are three basic components of a complete electronic health record: (1) the carrier-based electronic health record; (2) the personal electronic health record; and (3) the provider-based electronic health record. Recognizing this, the bill will establish a carrier-based electronic health record and personal electronic health record and provides incentives for creating a provider-based electronic health record.

The first component of the bill will require all carriers participating in the Federal plan to create a carrier based electronic health record for each of their participants. This piece of the

"electronic health record" will provide each participant and his or her providers with information maintained by the member's carrier in a format useful for diagnosis and treatment. This claim-based component of the "electronic health record" can provide valuable information by leveraging the data, technology and capabilities of health plans to improve health care decisions by patients and providers. This information is already there – to ignore it would cause innocent people to unnecessarily suffer injury or death.

Hurricanes Katrina and Rita serve as stark examples of the value of a carrier based electronic health record. When Hurricane Katrina hit, many medical records were destroyed or were not immediately available for patients, potentially putting some patients at great risk. Hoping to avoid the medical disasters associated with Hurricane Katrina, Blue Cross Blue Shield of Texas extracted data on its members who lived in areas that were evacuated before Hurricane Rita hit. To help physicians care for Hurricane Rita evacuees, Blue Cross took its carrier based data for 830,000 members and converted it into an electronic health record available to any treating provider and did it in four days. Those records contained historical and current data, such as lab results, pharmacy information and basic medical history.

The second component of the bill requires a carrier to create a personal electronic health record at the request of an individual and would allow each individual to participate in his or her own health care by enabling the individual to input information into the "electronic health record," such as personal health history, family health history, symptoms, over-the-counter medication use, diet, exercise and other relevant health information and activities. The creation of a personal based electronic health record will simply provide program participants with greater control over their health information.

The third major component of the bill provides for a creative mechanism for individual providers to obtain funding for an HIT system in their offices. Specifically, the funding would be available to providers to implement an interoperable electronic provider-based records system. The bill would establish a trust fund at the Office of Personnel Management that would accept private contributions. OPM will then issue grants from the Fund to participating carriers to be distributed as performance incentives to their contracting health care providers to implement provider-based electronic health records. To tie all of these components together, the bill will require that within five years of passage, each participant will have his or her own electronic health record contained on a portable digital medium.

I would also like to quickly address three issues surrounding the bill. First, privacy is always at the top of the list – and rightly so. There is nothing more personal and private than a person's medical information. Under my bill, we will ensure that participants' medical information is kept private and secure by requiring compliance with the Health Insurance Portability and Accountability Act. In addition, there are some great minds at the Department of Health and Human Services thinking long and hard about this important issue, particularly through the work of the Health Information Security and Privacy Collaboration.

Second, I would also like to address interoperability. The Administration has gathered the nation's leading experts in this area to develop standards that everyone can work under. The bill that I will be introducing will follow the standards being developed by the Department of

Health and Human Services. I am not interested in creating a system of electronic health records that will be obsolete or incompatible with other systems.

Third, and finally, we must deal with the issue of cost. Under the bill, FEHBP rates should not increase and insurance carriers will not be burdened with paying the administrative costs to implement the requirements in the bill. The bill includes provisions to ensure that the electronic health records are implemented over a number of years and that participating insurance carriers can tap into existing funds dedicated for administrative purposes being held by OPM during the implementation stage.

Additionally, there are significant savings that can be seen with the implementation of health information technology in the Federal Employees Health Benefits Program. In my own State of Nevada, Health Plan of Nevada has done a tremendous job of implementing an HIT system. Their transition from paper records to electronic records has saved them nearly $1.7 million, resulting from a more than 50 percent reduction in medical records, staff, and paperwork. The think-tank RAND Corporation estimated that in addition to the saving of lives, the U.S. healthcare system could save as much as $162 billion annually with the widespread use of healthcare information technology.

Making electronic health records available for patients is just the SMART thing to do and SMART serves as a perfect acronym to demonstrate the strengths of health information technology. **S** stands for **significantly** reducing medical errors and administrative costs. **M** stands for **making** prescription errors extinct. **A** represents the prevention of **adverse** effects from conflicting courses of treatment. **R** stands for **reducing redundancy** of testing and paperwork and **T** stands for recognizing that it is **time** to improve the quality and delivery of healthcare.

The bottom line is simple: the technology is there to save lives and improve the quality of health care. It would be a colossal error to not take advantage of using technology to turn valuable claims data, for instance, into electronic health records. There are many successful HIT demonstration projects throughout the country that have shown us that this can be done. The Federal Employees Health Benefits Program cannot afford to wait any longer.

I look forward to the discussion from all of the witnesses this afternoon.

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I

109TH CONGRESS
2D SESSION

H. R. 4859

To amend chapter 89 of title 5, United States Code, to provide for the implementation of a system of electronic health records under the Federal Employees Health Benefits Program.

IN THE HOUSE OF REPRESENTATIVES

MARCH 2, 2006

Mr. PORTER (for himself and Mr. CLAY) introduced the following bill; which was referred to the Committee on Government Reform

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A BILL

To amend chapter 89 of title 5, United States Code, to provide for the implementation of a system of electronic health records under the Federal Employees Health Benefits Program.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Federal Family Health Information Technology Act of 2006".

1 **SEC. 2. ELECTRONIC HEALTH RECORDS.**

2 (a) IN GENERAL.—Chapter 89 of title 5, United
3 States Code, is amended by inserting after section 8902a
4 the following:

5 **"§ 8902b. Electronic health records**

6 "(a) This section provides for the establishment, in
7 connection with the program established under this chap-
8 ter, of electronic health records for each covered indi-
9 vidual, including—

10 "(1) requiring the establishment of a carrier
11 electronic health record under subsection (b);

12 "(2) requiring the offering by carriers to cov-
13 ered individuals of a personal electronic health
14 record under subsection (c); and

15 "(3) providing carrier-based incentives for es-
16 tablishing provider-based electronic health records
17 under subsection (d).

18 "(b)(1) Each contract under this chapter shall re-
19 quire that the carrier establish, maintain, and make avail-
20 able, in accordance with standards adopted by the Office
21 of Personnel Management under this section, a carrier
22 electronic health record for each covered individual who
23 is enrolled under this chapter in a health benefits plan
24 offered by the carrier.

25 "(2)(A) A carrier electronic health record for a cov-
26 ered individual under this subsection shall consist of a car-

1 rier's health information on the individual's health care
2 claims, health care services data, or both, such as informa-
3 tion describing the individual's inpatient facility admis-
4 sions, emergency room visits, and claims for prescription
5 drugs. Such a record shall include, to the maximum extent
6 practicable, such information as it relates to claims or
7 services for another carrier in which the covered individual
8 was previously enrolled under this title.

9 "(B) The information under subparagraph (A) shall
10 cover the period beginning on the later of January 1,
11 2008, or the date of the covered individual's enrollment
12 with the carrier under this title. Such period is not re-
13 quired to be longer than the period specified in standards
14 adopted by the Office of Personnel Management under
15 this section.

16 "(C) In the case of a covered individual who changes
17 enrollment under this title after the effective date specified
18 in paragraph (4) from one carrier to another carrier, the
19 first carrier shall transfer information from the carrier
20 electronic health record under this subsection to the sec-
21 ond carrier to the extent specified by the Office of Per-
22 sonnel Management by not later than 90 days after the
23 date the first carrier receives notice of the change in en-
24 rollment.

1 "(3) Information from a carrier electronic health
2 record for a covered individual shall be made available to
3 the individual and shall be made available (in accordance
4 with the regulations promulgated pursuant to section
5 264(c) of the Health Insurance Portability and Account-
6 ability Act of 1996) to a health care provider treating the
7 individual. A carrier shall make such information avail-
8 able, in accordance with standards adopted under this sec-
9 tion—
10 "(A) promptly;
11 "(B) over a secure internet or other electronic-
12 based connection;
13 "(C) in a format useful for diagnosis and treat-
14 ment; and
15 "(D) in a format that permits its importation
16 into a personal electronic health record under sub-
17 section (c).
18 "(4) The previous provisions of this subsection shall
19 apply with respect to contracts for contract years begin-
20 ning with—
21 "(A) the 3rd contract year (or 4th contract
22 year, if the Office of Personnel Management deter-
23 mines that carriers are not prepared to implement
24 the previous provisions of this subsection by such

1 3rd contract year) beginning after the date of the
2 enactment of this section; or
3 "(B) such earlier contract year as the Office of
4 Personnel Management may determine.
5 "(c)(1) Each contract under this chapter shall re-
6 quire the carrier in accordance with standards adopted
7 under this section—
8 "(A) to provide, upon the request of a covered
9 individual, for the establishment and maintenance of
10 a personal electronic health record for the individual;
11 "(B) to establish a method for the individual to
12 access the individual's personal electronic health
13 record through a mechanism that is integrated with
14 access to the carrier electronic health record for the
15 individual under subsection (b); and
16 "(C) to establish a method for the individual to
17 transfer the individual's personal electronic health
18 record to the individual (or to a carrier or other en-
19 tity designated by the individual) upon the request
20 of the individual at any time, including at the time
21 of disenrollment of the individual.
22 "(2) A personal electronic health record for a covered
23 individual shall consist of such personal health informa-
24 tion, such as family health history, symptoms, use of over-
25 the-counter medication, diet, exercise, and other relevant

1 health information and activities, as the individual may
2 provide. Such record may also include information from
3 a provider-based electronic health record referred to in
4 subsection (d) as well as from a carrier electronic health
5 record.

6 "(3) Each contract under this chapter shall require
7 the carrier to enable health information to be imported
8 in standard electronic format into a personal electronic
9 health record from a provider-based electronic health
10 record and from a carrier electronic health record con-
11 sistent with standards adopted by the Office.

12 "(4) Nothing in this subsection shall be construed as
13 authorizing the carrier or another person, other than a
14 covered individual, to access a personal electronic health
15 record of the individual without the authorization of the
16 individual.

17 "(5) The previous provisions of this subsection shall
18 apply with respect to contracts for contract years begin-
19 ning with the contract year beginning after the first con-
20 tract year with respect to which the requirements of sub-
21 section (b) are in effect under subsection (b)(4).

22 "(d)(1) Each contract under this chapter shall re-
23 quire the carrier to provide, in accordance with standards
24 adopted by the Office under this section, incentives (sub-
25 ject to the availability of amounts from the Federal Fam-

1 ily Health Information Technology Trust Fund, as estab-
2 lished by section 4 of the Federal Family Health Informa-
3 tion Technology Act of 2006) for providers to implement
4 a comprehensive system of provider-based electronic
5 health records for all patients covered by the contract.

6 "(2) The previous provisions of this subsection shall
7 be effective with respect to contract years beginning with
8 such contract year as the Office of Personnel Management
9 shall determine.

10 "(e) Beginning with the contract year beginning after
11 the first contract year with respect to which the require-
12 ments of subsection (b) are in effect, each carrier shall
13 report to the Office of Personnel Management its progress
14 and plan for enabling each covered individual, upon re-
15 quest, to store and access, through a portable, electronic
16 medium, the individual's personal electronic health record
17 established under subsection (c), as well as the carrier
18 electronic health record for the individual (established
19 under subsection (b)) and provider-based electronic health
20 records relating to the individual referred to in subsection
21 (d). Such plan shall provide a means for such storage and
22 access through such a portable medium beginning with the
23 5th contract year after the first contract year with respect
24 to which the requirements of subsection (b) are in effect.

1 "(f)(1) Standards adopted under this section regard-
2 ing carrier, personal, and provider-based electronic health
3 records shall be consistent with any standards for inter-
4 operability of electronic health records developed by
5 ONCHIT.

6 "(2) In addition to paragraph (1), the Office of Per-
7 sonnel Management shall consult with ONCHIT in the im-
8 plementation of this section, including the establishment
9 of effective dates under subsections (b)(4)(B) and (d)(2).

10 "(3) For purposes of this subsection, the term
11 'ONCHIT' means the Office of the National Coordinator
12 for Health Information Technology in the Department of
13 Health and Human Services, and includes any successor
14 to the functions performed by such Office.

15 "(g)(1) The Office of Personnel Management may
16 waive any or all of the requirements of this section for
17 a carrier described in paragraph (2) insofar as the carrier
18 has established an electronic health record system that
19 substantially meets the purpose of each such requirement
20 that is waived.

21 "(2) A carrier described in this paragraph is a carrier
22 that—

23 "(A) is an integrated health care system that
24 combines the functions of a health plan, hospitals,
25 pharmacy, laboratories, and clinicians; and

1 "(B) has developed and is implementing, as of
2 the date of the enactment of this section, a provider-
3 based comprehensive electronic medical record for
4 each member of the health plan.
5 "(h) For purposes of this section, the term 'covered
6 individual' has the meaning given such term by section
7 8902a(a)(1)(B).".
8 (b) CONFORMING AMENDMENTS.—(1) Section 8902
9 of title 5, United States Code, is amended by adding at
10 the end the following:
11 "(p) A contract may not be made which is not in con-
12 formance with the requirements of section 8902b, except
13 that the Office of Personnel Management may phase in
14 or waive conformance with some or all of such require-
15 ments during the first two contract years in which a car-
16 rier has a contract under this title.".
17 (2) The table of sections for chapter 89 of such title
18 is amended by inserting after the item relating to section
19 8902a the following:

"8902b. Electronic health records.".

20 **SEC. 3. PROVISION REGARDING RATES.**
21 During the period ending with the contract year fol-
22 lowing the first contract year with respect to which the
23 requirements of subsection (b) of section 8902b of title
24 5, United States Code, as inserted by section 2(a), are
25 in effect, in determining rates under section 8902(i) of

1 such title, the Office of Personnel Management shall not
2 take into account any carrier administrative costs, mone-
3 tary savings, or return on investment resulting from im-
4 plementation of carrier and personal electronic health
5 records required under subsections (b) and (c) of such sec-
6 tion 8902b, except that the Office shall have access to the
7 unused portion of contributions set aside in the Employees
8 Health Benefits Fund under section 8909(b)(1) of such
9 title without fiscal year limitation for such use as the Of-
10 fice considers necessary to assist carriers in complying
11 with such subsections.

12 **SEC. 4. FEDERAL FAMILY HEALTH INFORMATION TECH-**
13 **NOLOGY TRUST FUND.**

14 (a) IN GENERAL.—The Office of Personnel Manage-
15 ment shall establish the Federal Family Health Informa-
16 tion Technology Trust Fund (in this section referred to
17 as the "Trust Fund") for the purpose of receiving dona-
18 tions to be used to award grants to carriers who meet cer-
19 tain requirements as set forth by the Office.

20 (b) ACCEPTANCE OF DONATIONS.—In accordance
21 with the section, the Office may accept donations made
22 to the Trust Fund. Donations made to the Trust Fund,
23 and grants awarded from such Fund to carriers, shall not
24 be considered to be the solicitation or payment of remu-
25 neration of any kind, nor shall receipt of such grants be

1 considered an inducement to refer, purchase, order, or
2 lease any good, facility, item, or service.

3 (c) DEPOSIT OF AMOUNTS RECEIVED.—Funds re-
4 ceived by the Office under this section shall be transmitted
5 by the Office to the Trust Fund.

6 (d) FUNDS TO BE USED FOR CARRIER GRANTS.—
7 The Office shall award grants from the Trust Fund to
8 carriers under chapter 89 of title 5, United States Code,
9 to be distributed under section 8902b(d) of such title as
10 incentives to their contracting health care providers for
11 implementing provider-based electronic health records
12 based on requirements and qualifications set forth by the
13 Office and standards adopted under section 8902b(f) of
14 such title.

15 **SEC. 5. IMPLEMENTATION.**

16 The Office of Personnel Management shall provide
17 for the implementation of this Act through appropriate ad-
18 ministrative guidance, which may be by regulation, by car-
19 rier letter, or otherwise.

20 **SEC. 6. HIPAA COMPLIANCE.**

21 Nothing in this Act shall be construed as affecting
22 the application or compliance with regulations promul-
23 gated pursuant to section 264(c) of the Health Insurance

1 Portability and Accountability Act of 1996 (relating to ac-
2 cess to and disclosure of health information).

○

Mr. PORTER. I would now like to recognize Eleanor Holmes Norton. Would you like to——

Ms. NORTON. Thank you, Mr. Chairman. I am pleased to speak for this side.

I want to thank you for this initiative. This is a very important initiative because you are getting into some of the really important issues if one is serious about this matter. I want to thank my good friend and former Speaker of the House, Newt Gingrich, and welcome him back and recall our fond days of working together. The former Speaker and I worked together closely on many projects affecting the District of Columbia and always on a win-win basis. We did not agree on many subjects, so we got together and figured out how to do it on a basis that we could agree. And in that spirit, I think we should approach this matter because, Mr. Chairman, if I may say so, the one thing I don't think we have to do is to convince people of the necessity of finally applying technology to the medical sector. Indeed, the medical sector is well nigh primitive as compared with virtually every other major sector in American life, and I really don't think it is because the various components of that sector are ignorant of the advantages of technology.

As I say, one has to live in the technology age perhaps a few hours, only a few hours, considering how far we have come to understand what the advantages would be. And, therefore, as with any intriguing issue like this, the way to approach it is only, frankly, with respect to the hard questions. The easy ones are settled as far as I am concerned.

It is not what to do. It is how to do it that has received so little, if you will forgive me, of the gray matter that it will take to finally bring the medical sector into the same part of the 21st century that the rest of America is in. And considering how much of our resources they eat up, we better figure out how to do that.

I certainly believe it is quite appropriate, Mr. Chairman, that the Federal sector, even Federal employees, should always lead the way. We ought to be the best sector when it comes to health care. Would that we were, we ought to be the best sector when it comes to showing the private sector how to do it so we are all on the same page.

I may have a little disagreement with some who speak first and foremost—as you do not, Mr. Chairman—about the importance of technology in the medical field as saving money. So I think we ought to put that aside. Sure, it will save money over years. But as with everything, we ought to say to everybody there are up-front costs of investment and you have to understand that if you want the advantages. And some of the advantages you cannot do without. We should not play that down, and those up-front costs cannot come from the cost of health care, which is already in such great ascendancy that nobody can find it. And if I may say so, Mr. Chairman, I think it has something to do with the reluctance of the medical sector to bite off this issue at all. So you have wisely tried to find a way to deal with that matter.

It is not, frankly, costs and I would never try to sell it to the American people and certainly not to this Congress this way. Neither the American people nor the Congress of the United States believes in the notion that you invest and the more you invest and

the more wisely you invest, you get a yield. We are a country that believes in instant yield. You invest a little and you get a whole lot out. So you invest a little in education and everybody comes out, you know, going to college and you are at the top of the list instead of at the bottom. Not in the private sector. We understand that you do not get a benefit for a long time. You do not look at how a company is doing by finding whether there is a profit yet, if it goes for years and years without a profit, you understand that.

In selling this, we have to make clear people understand what they do get out of it, that they are going to have to invest, and that gradually this will pay off. What will pay off almost immediately, if we do it right, it seems to me, is the terrible price we pay in mistakes in the health care system in an utterly mobile country, in not even knowing or remembering who the health care providers were, what the medications were, forgetting perhaps or having no paper trail to vital information that affects your health, a world in which pharmaceuticals are able to do more and more for you, but you got to have a lot of information before they do what they are supposed to do. No question in my mind we got to do that. The more advanced medical science gets, the more we need medical technology to help us matriculate through all that is now available to us.

This issue raises profound problems. The way in which you propose to fund this matter, Mr. Chairman, would probably raise some problems for lots of folks. The notion of the use of reserves in any way would have to be looked at very carefully. I take no opinion on it now, but I do note that even some of the private sector carriers have raised questions about that kind of use.

Questions of liability go, of course, to privacy, but well beyond that, carriers themselves begin to raise the notion that even if you get the kind of security that most people do not trust, frankly, the technology system to give us, with firewalls and everything else you can talk about, whether or not they want to be responsible for having the medical records of everybody in there, you know, Members of Congress, people with security clearances, people whose identity is not supposed to be known at all—I mean, it is the hard questions that interest me, not whether or not, you know, my next-door neighbor and I can go in and I cannot get his and he cannot get mine. It is the hard questions. And it is some of the questions that technology has not even now begun to deal with in the ordinary course.

I am the last one to say they cannot deal with it. This may be the way in which there is a real incentive to deal with these questions. But they have to be dealt with.

I will not say anything about privacy except this one thing, Mr. Chairman. I think that the Federal work force is an appropriate guinea pig to experiment on—that is to say, if, in fact, you have willing guinea pigs. Now, if you are going to put people's medical records out there in the great cyberspace beyond, just let me say right here don't go to—as your counsel, as the one who went to law school——

Mr. PORTER. Actually, you are my Congresswoman. Remember, I live in your district here part-time. [Laughter.]

Ms. NORTON. As your Congresswoman for the period during which you are in Washington, as your counsel, do not even consider

everybody is in it and you have to opt out. You cannot start with even a small pool of people are in it unless you opt out—not when you are dealing with people's medical records, not when you are dealing with that one group of records that people most fear getting beyond whom they want to get—not when even if your doctor gets it and it is online or your doctor or the hospital that you move to, you don't now if it is the clerk there, if it is somebody else, other than the professional who gets it. You have to deal with the hard questions, I say.

Let me leave you, Mr. Chairman, with this one phrase: "Medicare prescription drug program." If you keep that in your head the whole time and all of the glitches that came from throwing all those people out—and, by the way, we told the poor people, you all are in so you do not even have to worry about it, until all over the country people said that we cannot find the names.

If we are going to do this—and I would very much countenance our doing it—we should take a very small pool of the willing and test it. They will be all around us. There will be the computer nuts who want to be in this small group. There will be people who are intrigued and want their records in the same place. They may live in the same place. There are a whole bunch of them. We have 3 million folks who work for the Federal Government. It would be lovely if they could all be in the same kind of unit. And part of the art of this will be figuring out who should try it out, making sure that they are willing, and again, as your counsel, I say make sure they sign that they have been willing. And then let us go for it and see what we can find out, just as I expect to find out much from hearing from our witnesses today.

Thank you again, Mr. Chairman.

Mr. PORTER. Thank you, Congresswoman. I appreciate your comments.

Next I would like to introduce my cosponsor, Mr. Clay.

Mr. CLAY. Thank you. Thank you, Mr. Chairman, and especially for calling today's hearing on ways we can improve the use of information technology in our health care delivery system, and also thank you for inviting me to sit on the panel today on the Federal Workforce and Agency Organization Subcommittee. I appreciate that.

I especially want to express my gratitude to you for our mutual efforts in developing health IT legislation that can benefit our public health infrastructure for generations to come. And as you mentioned earlier, the Rand Corp. recently estimated that the implementation of a nationwide health care information network that is utilized by 90 percent of providers will produce an annual savings of approximately $162 billion while reducing the number of adverse patient drug reactions in hospitals by more than 2 million per year.

The only way to achieve these outcomes, however, is through the leadership of the Federal Government, and I am a proud cosponsor of Chairman Porter's Federal Family Health Information Technology Act of 2006. This bill utilizes the market power of the Federal Government by establishing a process for the development of electronic health records for all Federal employees by utilizing our Federal Employees Health Benefits Program for EHR purposes. We

are creating a model for consumers, employers, and insurers to build comprehensive electronic health records for all individuals.

In addition, I have recently introduced H.R. 4832, the Electronic Health Information Technology Act of 2006, along with Chairman Porter. H.R. 4832 seeks to accomplish two major goals: first, it will codify the office of Dr. Brailer and strengthen his role as the leading health information technology standard-setting authority in the Federal Government; and, second, the bill seeks to partner with the private sector through grants and a direct loan program that will provide key economic assistance for institutions seeking to expand their EHR capabilities.

If we continue our pursuit of utilizing IT through the health care delivery system, we are sure to experience shorter hospital stays, improved management of chronic disease, and a reduction in the number of needless tests and examinations administered over time. The creation of such a network will prove far more efficient in both economic and human terms.

This concludes my remarks, Mr. Chairman, and I ask that they be included in the record.

Mr. PORTER. Without objection.

Mr. CLAY. Thank you.

Mr. PORTER. We have some procedural matters, and I ask that we have unanimous consent that all Members have 5 legislative days to submit written statements and questions for the hearing record; that any answers to the written questions provided by the witnesses also be included in the record. Without objection, so ordered.

I also ask unanimous consent that all exhibits, documents, and the materials referred to by Members and the witnesses may be included in the hearing record; that all Members be permitted to revise and extend their remarks. And without objection, it is so ordered.

It is also the practice of this subcommittee to administer the oath to all witnesses, so if you would all please stand, I would like to administer the oath, and please raise your right hands.

[Witnesses sworn.]

Mr. PORTER. Let the record reflect that the witnesses have answered in the affirmative. Please be seated.

We are honored today to have a very special guest who is a leader in many areas of our country on many issues, but one in recent history, in combination with, I believe, Senator Clinton, he has become a champion on moving health information technology forward.

Mr. Gingrich, Honorable Newt Gingrich, understands that health care is only as good as its weakest link, and a weak link is that of information flow and some of the current technology. I believe that Mr. Gingrich also understands that we have some of the best doctors and health care professionals in the world, but we need additional information technology available.

So, Mr. Gingrich, we welcome you today and look forward to your comments, and you are now recognized for 5 minutes.

STATEMENT OF HON. NEWT GINGRICH, FORMER SPEAKER OF THE HOUSE

Mr. GINGRICH. Well, thank you very much for inviting me to this very important hearing, and I am delighted to see a bipartisan effort such as this by Chairman Porter and by Congressman Clay, and it is something I very strongly support as a general direction. I am also delighted to be back with my good friend, Congresswoman Norton, who has done just a tremendous job representing the city, and under very difficult circumstances at times, and has been stunningly effective.

I also want to note that you have a very, very good series of panels. Dr. Malik Hasan, who has been a pioneer for many years in this area and who at HealthTrio has developed a SNOMED-based language approach that is very sophisticated and the next generation, Dr. Jane Barlow of IBM, and others are all going to be, I think, very helpful to you.

I do think bipartisan efforts in this area are useful. That is why Senator Clinton and I actually met launching a House bill. Congressman Tim Murphy and Congressman Patrick Kennedy introduced a bill in this general area, and we shocked everybody by showing up together to say we were for it. But I think this is an area where we can save lives and that is very important.

I start with a very simple premise. Paper kills. Paper prescriptions increase medication error; 8,000 to 9,000 Americans a year die from medication error. Paper records in hospitals make it much harder to have accurate, quality systems; 44,000 to 98,000 Americans a year die from errors in hospitals. If we had a pandemic, whether it was the avian flu or an engineered biological attack, the losses because of the absence of personal electronic health records could be in the millions.

I would also point out that personal health records are not a radical new idea. The Veterans Administration, an area where Government has truly pioneered, has been a leader and now has over 13 million electronic health records. PeaceHealth in Oregon, Washington, and Alaska has about 1,400,000 people with electronic health records. The Mayo Clinic in Jacksonville has been paper-free since 1996. Kaiser Permanente has about 13 million people with electronic health records. And TRICARE, the Defense Department health system, is beginning to roll out an electronic health record. So the capability is real.

We at the Center for Health Transformation believe that the Federal Government can dramatically improve the health of all Federal workers with personal health records, and I agree with Congresswoman Norton's observation that it is better to get into this by volunteerism and incentives than it is to try to coerce everybody. But let me just point out that 93 percent of the country believes they should have the right to quality and cost information before making a health decision; 90 percent of the country believes you should mandate electronic prescribing in order to avoid medication error. There is a huge potential market that will sign up for this if given a chance, and it has an impact both in saving lives and in saving money.

The Indiana Heart Hospital, for example, reported an 85-percent reduction in medication error by going to electronic records.

PeaceHealth in a pilot project in Eugene, Oregon, using a GE Healthsystem model, indicated an 83-percent reduction in medication error, a 40-percent improvement in diabetes control, and a 100-percent improvement in LDL control for cholesterol. So these are important things.

I would urge—and I believe your bill captures this—individuals should own their own personal health record. This is about their life. Doctors can keep a copy for legal and administrative and medical reasons. Hospitals or labs can keep a copy. But the core universal document should belong to the individual, and current privacy laws protecting personal health information clearly apply to electronic data as well.

Let me go a step further and say you should in passing recommend to your friends on the appropriate subcommittee that Medicaid needs to change its law so when people leave Medicaid, the information could actually be transferred to their job or business. It currently is not. It is technically blocked. And it strikes me as an anachronistic and actually a destructive provision.

The individual's right to know, I would urge the committee to look at myfloridarx.com and floridacomparecare.gov. These are two Web sites developed by Governor Jeb Bush, and the Federal Employees Health Benefits Plan should offer exactly the same service nationally for all Federal employees. Myfloridarx.com, you can actually go online, put in your Zip code, the drug you want to purchase, and every drug store in your area shows up with its price. And it turns out in one neighborhood within 2 miles, there is a 100-percent difference to buy a particular drug. At one drug store it is $101. In another drug store, it was $203. And as you can imagine, people rapidly talk to each other when that price differential is that big, and so it is a big, powerful tool to give citizens the power to make choice to save their own money to lower costs.

The floridacomparecare.gov actually lists number of procedures done by a hospital, quality of the outcome, and price, and is already having a substantial effect in informing Floridians.

I would also suggest you look at the Humana and Blue CrossBlue Shield of Florida joint venture called Availity, where they are now going to connect at least a third of the State, and if they add Medicaid, over half of Florida will begin to have medication and other records online.

I would also point out, as Congressman Clay noted, I think with legitimate pride, that in addition to the work you are doing, which is exactly right, there is effort underway with Congressman Clay's H.R. 4832, with the bill that Chairwoman Johnson and Chairman Deal introduced, H.R. 4157, with Congressman Gingrey's H.R. 4641 creating a tax deduction for doctors who want to buy equipment. I would strongly urge you to encourage your associates to reform Stark and anti-kickback law so that hospitals can provide electronic health records, because if you combine that with this bill, you won't have to have any kind of trust fund. The fact is if you modify Stark and anti-kickback rules, the hospitals of this country will save so much money by having electronic transfer of information rather than paper transfer that they will provide virtually every doctor in the country with an electronic health record capa-

bility at no cost. They are today blocked from that by an essentially obsolete law.

Let me also suggest that we need an accurate scoring caucus. Fred Smith of FedEx was the first person who got me to think about this because he pointed out that he could never have invented FedEx with Congressional Budget Office scoring, because they cannot distinguish investment from cost and they do not understand market effects. You are about to see this with Medicare because the market effect of the new drug benefit is going to come at least 30 percent under the projection in cost because it turns out competition is driving down the cost, and we are actually driving down the cost of prescription drugs for America's senior citizens.

Central Utah Multi-Specialty Clinic invested in electronic health records. They believe they will save $14 million over 5 years. I do not believe the Congressional Budget Office would score a penny.

The Henry Ford Health System in Detroit has introduced electronic prescribing. They believe for a $1 million investment they saved $3.5 million the first year in the cost of drugs as doctors prescribe less expensive medication, and they believe they are saving 3 hours a week per nurse for not having to sit online talking to a pharmacist. I do not believe the Congressional Budget Office would score a penny.

If we could take the $4.4 billion a year in waste that the New York Times estimates for New York State Medicaid alone, if you could take the fraud and waste out of the current system, and if you could take the inaccuracy and paper out of the current system, I think we could afford to cover with a very large tax credit every single citizen and have a 300-million payer system.

I give you this as background because you cannot get there as long as the Congressional Budget Office has an obsolete, reactionary, bureaucratic model of scoring that denies the power of the market and denies factual evidence from the private sector. That is important for this project because one of the things I want to suggest to you is that you consider introducing as part of this—and I like your bill very, very much. But consider something we did to get hospital quality reporting. In the Medicare bill, we said hospitals that report quality will get 0.1 percent more from Medicare, and hospitals that fail to report quality will get 0.1 percent less. That happened to score out at zero under CBO rules.

I would urge you to consider that by the 3rd year the Government will pay more if you have an electronic health record and less if you have a paper model. And the analogy I will give you is electronic ticketing. Electronic ticketing for airlines is not more expensive. It is cheaper. And it is so much cheaper that Continental Airlines 2 years ago announced that for 1 year they would give you a paper ticket but charge you $50 for the paper ticket, and at the end of 1 year they would never give you a paper ticket. You could print out your own at home, but they were simply never again going to deal with having to have paper.

Now, this is the direction of the future. I very strongly support this bill, and I will close with this observation because I think this is a very intelligent bill moving in exactly the right direction. And I particularly like, Chairman Porter, your point that this would not—as I understand your interpretation, this would not have OPM

creating an entire new pattern of standards but, rather, would have OPM looking to HHS to adopt and follow the leadership of Secretary Leavitt, who I think is doing an extraordinary job in this general area.

The reason I really like your bill so much is that you are the first folks I have seen who are directly using the power of the Government as a purchaser—not as a regulator, not as a controller, but just simply saying, look, if you want to come and provide insurance for the largest single private purchasing of insurance in the world, which is the Federal Employees Health Benefits Plan, terrific; we just want you to migrate toward making sure that any Federal employee that wants it can have an electronic health record for themselves and their family.

Using the Federal Government's purchasing power will change the health system faster than any possible regulatory regime, and I think this bill is a very, very important step in the right direction, and we would certainly do anything we could—I would personally—to try to be helpful in making sure that this bill gets a full hearing, and I would only hope it is signed into law this year.

[The prepared statement of Hon. Newt Gingrich follows:]

STATEMENT OF

FORMER SPEAKER OF THE HOUSE NEWT GINGRICH,

FOUNDER OF THE CENTER FOR HEALTH TRANSFORMATION*,

BEFORE THE

SUBCOMMITTEE ON THE FEDERAL WORKFORCE

AND AGENCY ORGANIZATION

WEDNESDAY, MARCH 15, 2006

Chairman Porter, Ranking Member Davis, and members of the Subcommittee:

I appreciate the opportunity to testify today about how health information technology will help us build a 21st Century Intelligent Health System that saves lives and saves money for all Americans.

In a 21st Century Intelligent Health System, every American will have the tools to maximize their health, happiness, and security. Every American will have insurance coverage and access to the care that they need when they need it. Every American will be empowered to make responsible decisions about their own health and healthcare. Every American will own their health records. Every American will have a right to know the price and quality of medical services.

In a 21st Century Intelligent Health System, the focus will be on prevention and wellness. Innovation will be rapid, and the dissemination of health knowledge will be in real time and available to all Americans. And

* The Center for Health Transformation is a collaboration of transformational leaders dedicated to the creation of a 21st Century Intelligent Health System in which knowledge saves lives and saves money for all Americans. For more information on the Center and our Health Information Technology project, please contact project director David Merritt at 202-375-2001.

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reimbursement for health care will be a function of quality outcomes, not a function of volume.

If healthcare in America is to survive and transcend the challenges of the future, we must build this system. It will require fundamental changes of the health system we know today, but they are changes that are absolutely necessary. And to get there, the widespread adoption of health information technologies is essential.

In this testimony, there are eight key messages that I urge this subcommittee and the Congress to act upon. They will help modernize healthcare through information technology and build that 21st Century Intelligent Health System.

1. Paper Kills

Paper kills. It is that simple. Instead of saving lives, our current paper-based health system is taking them. With as many as 98,000 Americans still being killed by medical errors every year, ridding the system of paper-based records and quickly adopting health information technology will save lives and—at the same time—save money.

This is not just a theory. Examples abound of the dramatic benefits of health information technology. The Indiana Heart Hospital in Indianapolis built a new facility that is totally paperless, and they reduced medication errors by 85%. If we could achieve the same results nationwide, we would save more than 6,000 Americans every year, since medication errors kill nearly 7,500 citizens annually, according to the Institute of Medicine. Indiana Heart Hospital's new system also reduced physician administrative time by 30%. This means that healthcare providers can now spend more time with their patients and provide them with higher quality care.

PeaceHealth is a billion-dollar hospital system with 1.4 million patient records with six facilities in Alaska, Washington, and Oregon. With the help of IDX (now GE Healthcare), a member of the Center for Health Transformation, PeaceHealth has built something truly transformational called the Community Health Record. The Community Health Record contains all the information a provider needs to care for a patient—from lab

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results to MRI images to cardiology charts. It is secure, HIPAA-compliant, and totally online. Patients can access their records from anywhere via a secure connection—individuals are able to refill prescriptions, correspond via email with doctors, check lab results, schedule appointments, and request referrals. Every stakeholder has access to these records, including doctors, nurses, case managers, health plans, and independent physician groups.

What are the results? Adverse drug events have been reduced by 83 percent, as documented by a pilot study in Eugene, Oregon. Allergy lists are close to 100 percent complete, thanks to an expert technical rule that flags missing information. Compliance with diabetic guidelines has tripled in three PeaceHealth facilities, thanks to a combination of online disease management tools and the involvement of diabetes educators. Hemoglobin A1C levels of less than 7, the target level for diabetes control, improved from 44 percent in 2001 to more than 60 percent last year. And LDL levels of less than 100, the target range, jumped from 28 percent in 2001 to 52 percent last year.

Another example is the Central Utah Multi-Specialty Clinic. Allscripts, also a member of the Center for Health Transformation, built the ambulatory electronic health record for this clinic, which has 70 physicians, nine locations, and cares for more than 200,000 patients. In its first year of use, they saved $1 million through improved efficiencies and automation. They expect to save more than $14 million in five years. That is real money that can be put back into the practice, such as hiring more doctors, nurses and healthcare providers, or buying new equipment. This can directly increase consumers' access to care and dramatically advance the quality of care they receive.

These are real results that are happening today. But they are happening on far too small of a scale.

The number one priority of every stakeholder in healthcare should be to get these technology into the hands of every healthcare professional in the country.

Once health information technology is ubiquitous, we will have erected a core building block of a 21st Century Intelligent Health System.

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2. *Personal Health Records Are A Significant Step in Building a 21st Century Intelligent Health System*

Personal health records are a significant step forward in our efforts to build a 21st Century Intelligent Health System—a system that is enabled by an interoperable national health information network.

Hospital admissions, physician office visits, diagnosis codes, procedure codes, pharmacy orders, and other valuable pieces of information are often electronically captured by a health plan through the claims process. Claims data, particularly when combined with other information such as family history, allergies, and medication history, can be a powerful foundation on which to build a personal health record that will help improve individual health and healthcare.

By introducing the Federal Family Health Information Technology Act of 2006 (H.R. 4859), Chairman Porter and Representative Lacy Clay complement existing efforts already underway in the health plan community to deploy these consumer-centric tools. Insurers are actively building and deploying interfaces that consumers can securely use for decision support, education on chronic conditions, and email with their providers. Using claims data, these health plan personal health records are often personalized with an individual's medical history, contact information for their physicians, and tailored information for their health conditions.

Center for Health Transformation member America's Health Insurance Plans (AHIP), the trade association whose members provide health benefits to more than 200 million Americans, published a lengthy report in November 2005 with detailed case studies of health plan efforts to promote consumer-centered health information technology such as the personal health record. AHIP itself is actively developing an industry-wide, interoperable personal health record that houses an individual's claims data. This effort will create an interoperable health plan personal health record by allowing individuals' claims history to electronically travel with them from insurer to insurer.

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Group Health Cooperative in Washington state has developed a sophisticated interface for its members. MyGroupHealth.com gives consumers the opportunity to view their online medical records; consult with their doctors via email; order and renew prescriptions; schedule and cancel appointments; obtain lab test results and an explanation of results; and access a searchable drug reference library. According to AHIP, nearly 200,000 Group Health members have registered for MyGroupHealth.com, and more than 23,000 secure emails are exchanged between consumers and healthcare professionals every month.

Blue Cross Blue Shield of Florida and Humana, a member of the Center for Health Transformation, have partnered to roll out a statewide health plan personal health record to better inform physicians of their patients' health status. Using the existing Availity infrastructure, which all network physicians with Humana and BCBS of Florida currently use to check eligibility, a button will be added that will allow physicians and nurses to print a simple two-page summary with a patient's medication history, lab order history, diagnosis codes, and provider information. This effort lays a foundation upon which both health plans and healthcare providers can add on functionality to make the technology more sophisticated.

In this program, if a consumer who currently has coverage with Humana but changes plans and selects BCBS of Florida, their personal health record will follow them. This multi-plan approach is the only one of its kind in the country. It is the beginning of a permanent personal health record that follows the consumer wherever they go.

Nearly a third of Floridians are covered by Humana and BCBS of Florida, and these two plans are actively recruiting other insurers to join the effort, including Medicaid. By adding Medicaid beneficiaries to the project, more than half of the state's population will be involved[1].

Companies like HealthTrio, an innovative technology company that is also a member of the Center for Health Transformation, offer powerful IT solutions to health insurers today. As you will hear from Dr. Malik Hassan

[1] Unfortunately, an antiquated CMS rule restricts how much information the Florida Medicaid program can share. If a Medicaid beneficiary leaves the program and obtains private coverage, current law prohibits Florida from sharing their claims history with the new insurer. This is just one example of many where antiquated and bureaucratic thinking stands in the way of progress.

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of HealthTrio, his new technology uses advanced SNOMED coding to collect data from disparate sources, which can be used to measure outcomes, improve clinical data protection, combat waste and fraud, and quickly display massive amounts of disparate data in a useable way.

Health plans are leading these initiatives across the country. H.R. 4859 would make these kinds of efforts a standard benefit to all federal employees enrolled in the Federal Employees Health Benefits Program (FEHBP).

The functionality of personal health records will grow over time. H.R. 4859 outlines a roadmap that begins with making basic patient claims information available to both individuals and physicians. Health plans will then allow their members to add content to the record, which is a functionality that currently exists with many health insurance plans. Like the AHIP effort, when an individual moves from one FEHBP carrier to another, their full personal health record and all its contents will follow them to their new insurer. H.R. 4859 codifies this level of health plan interoperability.

Soon, these personal health records will allow physicians, hospitals, and laboratory companies the ability to add information upon request by the member. Rather than just having information on the laboratory tests that the health plan paid, the personal health record will house the actual test results themselves. Physician offices and hospitals could connect their existing electronic health records to synchronize data between their system and the consumer's personal health record. Physician notes, transcriptions, and other clinical information that a physician or hospital electronic health record captures could complement the data the consumer and health plan enter. For those clinicians and facilities without an existing electronic health record, this could play a significant role in moving them into the 21st century.

By deploying a personal health record for every federal employee covered by FEHBP, we can harness vast amounts of electronic claims data that exist today that could be the building blocks of a more sophisticated system. With passage of H.R. 4859, we could see tremendous progress over

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the next five years in the advancement of consumer-centered personal health records.

3. The Federal Government Can Dramatically Improve the Health of all Federal Workers Covered under FEHBP through Consumer-Centered Personal Health Records

The Federal Government can and should help lead in the creation of a 21st Century Intelligent Health System, particularly through its role as the nation's largest purchaser of healthcare, which is why Chairman Porter and Representative Clay should be applauded for introducing the Federal Family Health Information Technology Act.

By using markets—and not mandates—to modernize healthcare, H.R. 4859 is a significant step forward because it makes individual-centered personal health records a part of the suite of benefits offered to federal employees.[2]

In essence, H.R. 4859 directs the federal government to say to its suppliers, in this case the insurance carriers, "if you want to do business with us, you must create a personal health record for each federal employee as a part of your insurance package." Each individual health insurance carrier can decide on its own whether to accept this requirement or not.

This will be no different than the requirements any other supplier would expect to see when they negotiate with their customers, whether they are the federal government or General Motors. In fact, all large employers and healthcare purchasers should demand that their health insurance carriers improve their performance, service, and technology—beginning with the federal government.[3]

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[2] With more than nine million federal employees, the Office of Personnel Management (OPM) administers the world's largest employer-sponsored group health insurance program. From dental and vision benefits to healthcare coverage and long-term care insurance, more than 350 insurance carriers do business with the FEHBP. Like any other employer, OPM negotiates annually with each carrier over price, premiums, coverage, and other services that will be part of FEHBP.

[3] Using the Federal Government's purchasing power–not its regulatory power–is the right approach to affect change. The Centers for Medicare and Medicaid Services (CMS) should do the same with its suppliers: health insurance companies, doctors, hospitals, and other healthcare professionals that provide care to the tens of millions of Medicare and Medicaid beneficiaries. CMS should say to its Medicare Advantage plans, we are not going to do business with you unless you provide a personal health record for

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4. *The Individual Owns Their Personal Health Record and All of their Health Data*

With the rapid development of individual-centered health information technology such as the personal health record, the question then arises, "Who owns the data?" Doctors, hospitals, and other providers often believe that they own the encounter data because they saw the patient and collected the information. Employers and health plans often believe that they own the data because they paid for the services. Laboratory companies, pharmaceutical manufacturers, and other stakeholders often believe they own the data because they ran the tests or provided a product or service to the patient.

All are correct to some extent, but they forget that there is one constant variable running through all these scenarios: the individual. The individual owns the data, which they can then allow each stakeholder to have a copy of their data.

Individuals have the right to control—and must have the ability to control—who can access their personal health information. All health information technology should be deployed to improve individual health, not to protect the status quo of proprietary claims to data. In this case, where federal employees may decide to activate a personal health record, each stakeholder should be given equal access to the record—by the consumer—in the course of delivering care.

5. *The Individual's Right to Know Price and Quality of Health Services is Dependent Upon Widespread Adoption of Health Information Technology*

Every American has the fundamental right to know the price and quality of health and healthcare services *before* making a purchasing decision.

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every beneficiary you cover. CMS should say to physicians, we are not going to do business with you unless you practice evidence-based healthcare. CMS should say to hospitals, we are not going to do business with you unless you make quality and performance data of your hospital available. And CMS should say to all of them, we will not do business with you unless you make public your prices.

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An individual's right to know price and quality goes hand in hand with health information technology. Electronic physician offices, wired long-term care facilities, and modernized hospitals can easily capture and report price and quality information. But they must first have the capability to capture information. This is yet another reason why the adoption of health information technology is so vital.

Americans are accustomed to leading their lives empowered with the responsibility and knowledge to determine what is best for them. Outside of healthcare, we live in the world of Expedia, Travelocity, CraigsList and Consumer Reports. Within minutes, any citizen can find price, cost, and performance data on an infinite number of products and services. This transparent system puts the consumer squarely at the center of the market—and as a result, consumers have more choices of greater quality at lower cost.

This is absent in healthcare. Individuals are at the mercy of antiquated system that has not kept pace with the technological advancement, transparency, and modernization that nearly every other industry has embraced. The information age has left healthcare behind, and the consequences are tragic: medical errors continue to kill thousands; costs continue to rise faster than inflation; the number of uninsured continues to climb; and consumers still remain at the edges of the system. We can change this. But in order to do so, informed and proactive consumers must be at the center of the system.

In most cases the current healthcare system prevents Americans from comparing the price and the quality of the various health services, products, or providers they are considering. This situation is tantamount to asking someone to shop for a car when the dealer hides the prices, rolls back the odometers, and does not disclose that their lot is filled with a fleet of rental cars. We cannot expect Americans to be better consumers of healthcare if we do not provide them with information about the quality of the providers they see and the real prices of the services they receive.

For more information on this important issue, please see my testimony I provided on this subject to the House Energy and Commerce Committee

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Subcommittee on Health on March 15, 2006. This is available at www.healthtransformation.net.

6. Additional Congressional Actions Can Spur Adoption of Life Saving, Money Saving Health Information Technology

We know that health information technology can help transform our system. But we can only get there if physicians and other providers adopt the technology. It cannot happen without them.

In the August 2005 issue of the *Annals of Internal Medicine*, Dr. Richard Baron described his recent move from a paper-based office to an electronic practice:

> "We recently implemented a full-featured electronic health record in our independent, 4-internist, community-based practice of general internal medicine... Its financial impact is not clearly positive; work flows were substantially disrupted; and the quality of the office environment initially deteriorated greatly for staff, physicians, and patients. That said, none of us would go back to paper health records, and all of us find that the technology helps us to better meet patient expectations, expedites many tedious work processes (such as prescription writing and creation of chart notes), and creates new ways in which we can improve the health of our patients."

Dr. Baron and his colleagues should be applauded for their leadership. Despite the costs and headaches, they charged through the uncertainty and modernized their practice. This is no small accomplishment for today's physicians.

According to a recent study by the Centers for Disease Control and Prevention, only 17 percent of all physicians currently use electronic health records. There is even less adoption by smaller physician practices. The lack of widespread adoption among physicians is primarily due to the uncertainty over who can and will pay for the necessary infrastructure. The vast majority would like to invest in life-saving technologies, but they face real financial and practical challenges in implementing such systems.

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Many physicians in small group practices and those who are solo practioners find the costs to be prohibitively expensive. Some estimates put the initial cost of an advanced electronic health record system from $33,000 to $86,000 per doctor, with annual maintenance costs often running in the tens of thousands of dollars. Hardware, software, tech support, and data storage are huge investments for small business owners like group practices and solo physicians.

But help is out there.

a. Enhanced Tax Deductions for Healh IT Equipment Purchases

Representative Phil Gingrey introduced legislation, H.R. 4641, which increases the tax deductions offered to healthcare providers who purchase an electronic health record system. It raises the first year immediate equipment deduction from $100,000 to $250,000. The bill also increases the maximum annual total of deductible property from $400,000 to $600,000. While it is not the direct financial assistance that many physicians desire, it is something.

b. CMS Health Care Quality Demonstration Program

CMS announced last year the creation of the Medicare Health Care Quality Demonstration Program (also known as the 646 demonstrations). A major focus of these five-year demonstrations will be to improve the delivery of care in ambulatory offices by testing significant changes to payment and reimbursement, as well as performance measures and the practice of evidence-based medicine. Health information technology, and reimbursing for its use, will be front and center.

c. Quality Improvement Organizations

Every state has a Quality Improvement Organization that can assist small- and mid-sized physician practices with their technology needs. Through a new three-year contract with the Department of Health and Human Services, these private organizations help physicians assess the benefits and overcome barriers to adopting health information technology. According to the American Health Quality Association, the trade association

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for Quality Improvement Organizations, in the six months since the program began in August 2005, more than 2,000 physician practices are already working with their local QIO. From readiness assessments and cost analyses to guidance on advanced functionality and workflow redesign, physicians can utilize their expertise and experience—at no charge. It is a "no-brainer" for physician practices across the country to tap into this valuable resource.

d. Reforming Stark and Anti-Kickback Barriers to Health IT Adoption

Representatives Nancy Johnson and Nathan Deal introduced H.R. 4157, which, among other things, addresses the financing question by breaking down the barriers of Stark and Anti-kickback laws as they relate to health information technology. Representative Lacy Clay introduced H.R. 4832 which also provides clear, concise, and workable reforms to Stark and Anti-kickback laws. Large hospital systems and other entities, such as pharmaceutical manufacturers and clinical laboratories, generally have the resources to provide their community physicians, clinics, and rural hospitals with the hardware, software, and expertise to get them into the information age—and beyond the clipboard. Current Stark and Anti-kickback laws prohibits these organizations from collaborating with community physicians and other facilities on health information technology. Representative Johnson's and Representative Clay's bills correct this unintended consequence.

H.R. 4859 attempts to address the financing issue in a creative way. The bill proposes the creation of a trust fund to be administered by the Office of Personnel Management. Any organization could donate to the trust, such as pharmaceutical manufacturers, laboratory companies, and foundations. The funds would then be allocated to the health plans that would in turn provide the funds to its network providers to invest in health information technology.

This approach is complicated, cumbersome, and bureaucratic. A far easier approach is to reform Stark and Anti-kickback laws to allow organizations to directly collaborate with physicians on their health information technology needs. There is no good reason why an entirely new

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bureaucratic program should be created when a simple one-page fix to existing law would accomplish the same goal.

Members of the Center for Health Transformation, along with outside groups from a wide range of industry perspectives, have drafted clean, concise, and workable exceptions to 42 U.S.C. Section 1320a-7b(b)) and 42 U.S.C. Section 1395nn. These proposals would break down the barriers of Stark and Anti-kickback and allow collaboration on health information technology, while retaining their original intent of rooting out corruption and fraud.

In the end, all of these approaches are band-aids, not permanent fixes. The Congress and CMS should immediately begin the process of fundamentally reforming the way healthcare providers are paid for their services. Providers need long-term, predictable revenue streams that are tied to the investment in and use of health information technology. But payment reforms cannot stop with health information technology. They must also address the quality, efficiency, and appropriateness of care that all clinicians provide.

7. Ensuring Accurate Scoring by the Congressional Budget Office Can Dramatically Expedite the Adoption of Life Saving, Money Saving Health Information Technology

Financing the adoption of health information technology could be rapidly expedited with reimbursement reform at CMS. But it might be expedited even more quickly through reforming the scoring processes at the Congressional Budget Office (CBO). Ensuring more accurate scoring at the CBO will lead to a dramatic improvement in American health and health care. Doing so will literally save thousands of American lives and billions of their tax dollars.

The CBO, which was created to serve as Congress' budget and economic adviser, has long used outdated models to analyze the costs of proposed legislation. These models ignore the economic growth, efficiencies, and cost savings that result from implementing innovative and transformational policies. This mentality pervades similar agencies as well,

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like the Office of Management and Budget, the Joint Tax Committee, and the Treasury Department.

Today, we spend billions on government programs that are financial black holes, while at the same time the CBO will not properly score legislation that would actually reap dramatic improvements—both financially and socially.

For instance, the Health Alliance Plan and Henry Ford Health System in Southeastern Michigan partnered with the Big Three automakers, who are all members of the Center for Health Transformation, to implement electronic prescribing in the region. In the first 12 months of the program, the technology automatically caught more than 85,000 prescriptions that generated drug-interaction or allergenic alerts. The lives saved and suffering avoided in just one year is worth the investment.

The financial results are equally amazing. According to the Henry Ford Health System, the $1 million start-up investment generated a $3.1 million savings, primarily due to increased generic drug utilization. Generic use jumped by 7.3% because of the automatic alerts that physicians receive when they begin to prescribe a branded drug if a comparable generic is available.

If federal legislation were introduced to wire the nation's physician offices for electronic prescribing, the savings would be breathtaking. The savings electronic prescribing would generate in Medicare alone would go a long way towards balancing the federal budget.

The way the CBO scored Senate bill 1418, the Wired for Health Care Quality Act, is another example of how bad scoring methods can hurt good policies. The bill contains grant funding for connecting physicians and creating community networks, which the CBO scored to cost $652 million from 2006 through 2010. Notwithstanding the overwhelming evidence that health information technology dramatically improves the quality of care while saving money, the CBO score did not incorporate any macroeconomic savings in its analysis. The CBO provided a four-page overview of the federal dollars that would be spent, but not a word on the anticipated savings. As a result of the score, the upfront costs for providing health

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information technology funding appear enormously high and therefore may unnecessarily discourage Congressional support.

Tennessee is one of several states that has shown bold leadership in introducing health information technology into Medicaid. Within the year, every Medicaid beneficiary will have an electronic health record. Tennessee officials project that for every $1 spent on the new technology in its first years of operation, the state will save $3 to $4—from reductions in duplicate tests, adverse drug effects, and unnecessary inpatient admissions. They estimate the savings on this investment will grow to at least 9-to-1 as the number of doctors using the system increases.

The CBO will not score savings—from the electronic prescribing outcomes and the Tennessee estimates to countless other examples of investment in health information technology saving lives and saving money. Ignoring the savings and outcomes from capital investments is foolish, much like trying to save money by refusing to change the oil in your car. Nearly every member of Congress will vote for a bill if it improves the lives of their constituents and saves money at the same time, but they are unlikely to vote for a bill that is simply scored as costing the millions of dollars. This backward approach is a significant barrier to passing legislation that will dramatically improve patient safety and drive down health care costs.

8. The Private Sector Should Take the Lead Role in Developing Data Standards For Health Information Technology

Many healthcare providers worry about the lack of data standards for these technologies, particularly electronic health record systems. Today, if a facility or doctor invests in a sophisticated system, they are unable to electronically share patient data with others, even though their patients will likely have many other touchpoints in the system. In essence, they have created their own silo, and they fear that their technology will be obsolete once there are data standards that connect all the silos.

This fear is not unjustified, but it is overblown. The United States did not become the most powerful country in history because we let technological challenges stop us. Space exploration, discovering new energy sources, developing vaccines, and millions of other successes prove

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that when faced with complex technological hurdles, we will overcome them. In fact, when you combine our scientific and technological expertise with our entrepreneurial drive and the opportunity to make money, there is no doubt that we will solve the interoperability dilemma. And we will do so with the current systems in mind.

H.R. 4859 addresses interoperability by requiring the personal health records to conform with data standards of interoperability adopted by the Office of Personnel Management. The bill states that data standards "shall be consistent with any standards for interoperability of electronic health records developed by ONCHIT,"(the Office of the National Coordinator for Health Information Technology), and the Office of Personnel Management shall consult with ONCHIT in the implementation.

This language gives far too much authority to the Office of Personnel Management to develop data standards. They should not be in the business of setting interoperability standards, even if they are "consistent" with those set by the Office of the National Coordinator. The data standards embedded into any personal health record through the FEHBP should be determined by health information technology experts, not health benefits experts.

The private sector, particularly companies that develop health information technology products, should take the lead role in developing these standards. The Electronic Health Record Vendors Association is a group of more than forty technology companies. It is lead by industry innovators like Siemens, GE Healthcare, and Allscripts, all of which are members of the Center for Health Transformation.

The Vendors Association unanimously approved an updated Interoperability Roadmap just last month that outlines workable and pragmatic approaches. The Vendors Association, as well as other industry groups and experts, are actively working in conjunction with or as part of Federal efforts on data standards and interoperability, such as Secretary Leavitt's American Health Information Community.

The Office of Personnel Management should follow the leads of others in this area, not be empowered to act on its own.

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In the debate about moving to an electronic system, technology is the easy part. Through the Internet, fiber-optic cables, and broadband connectivity, the technology exists to build a national, interconnected system. It is the political, financial, proprietary, and cultural battles that will make this transformation much more difficult. These are significant obstacles—but they can be overcome.

Looking Ahead

We are on the cusp of enormous change in health and healthcare. If you look at the typical interaction a consumer has with the healthcare system, it does not differ fundamentally from the typical encounter a generation ago. The clinical side has certainly changed dramatically with stunning advances in medical technology, but the administration of healthcare is at a stand-still.

We must have in healthcare the same level of technological advancement that we embrace in all other sectors of society. Change of this magnitude is never easy. It is always disruptive. It replaces existing paradigms, upsets comfortable routines, and creates uncertainty. It will force entrenched stakeholders to change. But the level of difficulty should not dissuade us from progress, because in the end our goal is a 21st Century Intelligent Health System—a fully interoperable, interconnected healthcare system that saves lives and saves money for all Americans. This system will improve individual health, reduce costs, and build a brighter future for all Americans.

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Mr. PORTER. Thank you very much for your kind comments and certainly the insights.

You know, a challenge is the provider side. I am old enough to remember my doctor that carried the little bag and actually made house calls. And the doctors of today are under a lot of pressure, a lot of challenges, from Federal regulations, you know, the file cabinet police that they are concerned that they are going to be put out of business, privacy, also medical liability. And I would like to ask you a question about the providers, but also add a comment to that.

A companion to this bill I am going to be proposing is a medical liability insurance incentive for the providers that take part in using appropriate technology, that there be an incentive to reduce some of their costs. Because you know medical liability cost are literally putting health care professionals out of business. We have had signs in Nevada at OB/GYNs on their buildings that say "For Rent" because they are concerned about liability, the point being that we have had some improvements in Nevada as of late, but the medical liability is not in my jurisdiction, Mr. Speaker. Of course, it is a different committee. But my plan is to add that as another part of this to make sure that providers have another incentive, because it will save lives and reduce the cost of insurance.

But to my question: Do you have any other thoughts on encouraging the doctors—and the doctors, bless them, are not necessarily always good business people, do not always get along with each other because they are very independent, and they are specialists. Do you have any additional ideas?

Mr. GINGRICH. Well, let me make three points about this. You have put your finger on a very key reason, and I think this is part of what Congresswoman Norton was saying when she was saying lots of people tell us where we need to go, but they don't necessarily tell us how to get there. And it is the how to get there sometimes that stops us, even when we are all in agreement. So I want to say three quick things.

First of all, I want to go back to a line I started with. Paper kills. Any major purchaser who is allowing the system to continue to deal with the people that they care about with paper is risking the lives of those people. We know technically this is true, so I would start by saying any doctor or any hospital that is not migrating to health information technology is, in fact, saying that they are not seriously concerned about killing people. It is literally that direct.

Second, the University of South Florida has a program they are developing that I would commend to you where, if you use the electronic health record, it includes an entire section on informed consent, and they designed this to meet your point, which is how do I get my doctors to think this is worth their while. And what they figured out was if they could design, working with both trial lawyers and defense attorneys, an ideal model of informed consent so that the doctor knew they had the minimum liability risk, the doctor would suddenly have a very direct interest in having that as part of their health record. And so I would strongly recommend the University of South Florida program as something you would want to look into.

Third, you might have to add this on the floor because of committee jurisdiction again, but I just want to go back to what I said earlier both about Congressman Clay's bill, about the earlier work that was done by Congressman Murphy and Congressman Kennedy and by the very important bill introduced by Congresswoman Johnson and Congressman Deal, and that is, you should provide somewhere that providers, whether hospital or doctors, who are engaged in serving Federal employees ought to have Stark and anti-kickback waived for the purpose of allowing the hospitals to provide the electronic health records. This is an enormous savings for the system. It allows us to avoid the Federal Government getting in the middle of it, and our estimate is that you would have virtually 100 percent coverage of doctors. But if you added that provision in, I think you would find that most of the electronic health record problems would disappear within 2 or 3 years.

Mr. PORTER. Thank you.

Congresswoman, questions?

Ms. NORTON. Thank you, Mr. Chairman, and thank you again, Mr. Speaker.

I wanted to—I am reading your testimony. I wondered if we may be talking past each other. Maybe, because I haven't seen the wording of the bill, on page 16, the way the bill is worded, you indicate in your testimony on page 16 that—of course, the standards have to come from the industry. What in the hell do we know—excuse me. What in the world does OPM or anybody in Government know? You say, "The data standards embedded into any personal health record through the FEHBP should be determined by health information technology experts, not health benefits experts."

I have to assume that H.R. 4859, to which you refer, which gives responsibility on data standards for interoperability to OPM, simply means that the Government does not say that the private sector can do anything it wants to do without anybody on our side looking to see whether it basically conforms to status. You know, to use an analogy, the Government puts, you know, contracts out. One of the great—although this obviously is a huge contract, but I will give you what is more typical. It has a gazillion contracts out. Nobody monitors the contracts. And so, you know, you are on your own, contractors.

Well, this, of course, is something very special, and somebody in Government—I am not sure who—would have to have some final say if FEHBP is involved over what those who have the expertise design as standards.

So I wonder if this is even a matter of disagreement here, but the way in which you pose it in your testimony makes it look as though it may be.

Mr. GINGRICH. Well, let me say first of all, I may have not been clear, and I apologize to the gentlelady if I was not clear. I strongly believe that the Department of Health and Human Services, which is a Government agency, has a primary role in helping develop standards for interoperability in terms of health records nationwide. And Secretary Leavitt has organized an American Health Information Community, which has been meeting regularly, and I think Secretary Leavitt is moving in that direction. My only observation—I think it was conforming with what the chairman said in

his opening remarks—is I think OPM is better directed to follow the lead of HHS and allow HHS to be the primary standard setter for the whole country rather than to have a second electronic health record standard program being developed at OPM, which I think would be redundant and, frankly, not nearly technically as competent.

But within that framework, you and I are on the same road. I am a Theodore Roosevelt Republican. Theodore Roosevelt decided, after reading Upton Sinclair's "The Jungle," which has a scene in which a man falls in a vat and gets turned into sausage, which he supposed read shortly after breakfast, and he sent up the Food and Drug Act of 1903 as a consequence. I like the idea that any free market restaurant I go into anywhere in America has drinkable water. I like the Government guaranteeing that minimum. Now, they can compete on price and quality and food, but they have to get up to drinkable water before they get to play. They have to get up to edible food.

So I agree with you. There are certain standards—and I mention in here, for example, I think the Government should make clear that electronic health records are ultimately the property of the patient. They are not the property of the insurance company. They are not the property of the doctor or the lab. They belong to the person about whom they are developed. It is a very important distinction from where we have been in the past. And so I agree, Congresswoman Norton, I think your point there is well taken. And my only observation was to not have redundancy between two Government agencies.

Ms. NORTON. We do not need to be regulators here. We need to just make sure the standards are what they say they are.

On page 12 of your testimony, first of all, let me say I am pleased to see that you agree that the guinea pigs should all be willing. We are both enough of libertarians to understand that, that we do not want to get into new controversy when we are trying to get out of it with this—when we begin this.

I would like your views, frankly, Mr. Speaker, on how this should be begun. I mean, I agree with you, here is a group of—a rather closed group at that—people who use the same insurance companies and the rest. You know, it is a very large group, very varied group. They are a group of very high political and educational consciousness, and they all work for the Federal Government.

If you wanted to begin with the Federal Government, have you given any thought to how you would approach the notion of getting employees of the Federal Government to be those who first cast out this notion with their own health care plans?

Mr. GINGRICH. Well, let me say first of all that I think if you look at what the Veterans Administration is experiencing, they will tell you that they are very, very excited and happy with the electronic system they have. They want to improve it and upgrade it, but they really do believe it has been a remarkable breakthrough, and it is a place where the Federal Government has been a real leader in creating the technology——

Ms. NORTON. But those are the veterans, not the employees, I take it.

Mr. GINGRICH. Right. But I think everybody who works with it who is a Federal employee would tell you, they are for having that kind of record. They have seen the power of that kind of a record system. I think at TRICARE—and these are Federal employees—Defense Department employees are now going to have a, everyone eligible for TRICARE is going to end up with an electronic health record. That is happening.

So in a sense, what you are doing is extending into the private sector and into the private market for the civilian Federal employees, something which is absolutely happening for the Defense Department, for those people who are eligible for TRICARE.

Third——

Ms. NORTON. But many of those are veterans and their families, right?

Mr. GINGRICH. That provides active duty military, reservists and retirees.

Ms. NORTON. They always can make you do what they want to do, but when you are dealing with a civilian work force where——

Mr. GINGRICH. No. My only point is that these—again, I agree with your point. I would certainly be inclined at this stage to make it available, not make it mandatory. But I think because the Federal employee work force is actually a pretty smart work force, you are going to see an amazing number who say, "Yes, I want that," particularly when they look at 83 percent reduction in medication error. I mean the Federal work force is not stupid. And they look at, OK, I can improve my chance of not getting the wrong medicine by 83 percent. I can improve my chance of managing my diabetes by 40 percent. I can improve my change of managing my cholesterol by 100 percent. I mean these are numbers from real studies in real medical facilities around the country. So I think you will see a very rapid migration in this direction.

I would hope that looking at this hearing, and looking at conversations that I know that the Director of the Office of Health Information Technology at HHS, Dr. Brailer, has had with OPM, I would hope that when OPM issues their letter, I think April 15th or so, asking for next year's bids, that they will have provisions that are very parallel with this bill, that they will be following carefully the leadership of Chairman Porter and Congressman Clay in looking at how to make the—and I would certainly hope they will take your advice, Congresswoman, and do it in a positive way.

My experience has been, when I talk to people in the consumer care area who are in the private sector, that somewhere between a third and 90 percent of the work force in blue collar factories choose electronic health records once they understand the option, and that it grows very rapidly as people talk to each other about why it is an advantage.

Maybe I am too optimistic, but as you know, that has always been one of my weaknesses. But I am very happy to make it voluntarily initially, make it incentivized, encourage them to do it, and I think it will grow much faster than people expect.

Ms. NORTON. I couldn't agree with you more. I don't think you are being overly optimistic. I think you would have a confluence of the young people in the work force, and the older people in the Federal work force, for very different reasons, and if anything, you

would have more people perhaps than any pilot of this kind could use.

Finally, let me say that I very much agree with you that if we can find a way to deal in a bipartisan way, take the privacy matters, take the technology matters, and feel comfortable with them, that they—and Stark and anti-kickback laws removed or considerably reformed, would do exactly what you say they would do. From the point of view of the hospital, now having to communicate with physicians in ways that hark back to the early part of the 20th century, I do believe that the incentive for them would be greater than the incentive for us.

So I thank you very much for all of the hard thinking you have done in this area. It is typical of you, Mr. Speaker.

Mr. PORTER. Mr. Clay.

Mr. CLAY. Thank you, Mr. Chairman.

Let me echo too what my colleague has said. I appreciate Speaker Gingrich's efforts and leadership in a national health IT infrastructure, and helping to make that a reality.

Let me ask you about the Federal Government. Since we administer the Medicare and Medicaid programs, what lessons can be learned by the entire health care industry in terms of improving the quality and efficiency of care provided to the general population? Are we becoming more effective in implementing programs that demonstrate positive results in both public and private health care settings? And you also mentioned to Delegate Norton that the VA has a model program as far as IT and electronic health records. Maybe you want to expound on that a little.

Mr. GINGRICH. That is a very good question. Let me say that probably the two largest pioneers at personal health records were the Veterans Administration and Kaiser Permanente. Both of them have very sophisticated systems. The VA system is now based on a relatively old software, and so is the Kaiser Permanent system, about a 15-year-old software. But there is no question that it has worked and that it has provided a dramatic improvement in quality of care.

The biggest lesson I think you learn out of this is that when you can gather—two things happen—when you can gather data about individuals, you can provide them much better prevention, a much better chronic disease management, and they take better care of themselves because they know their status better, and the doctor can take care of them better.

Second, when you gather enough data on a depersonalized level, you begin to see patterns. There is no accident that it was the electronic health record at Kaiser Permanente that first indicated Vioxx was a problem because they saw enough different records simultaneously electronically that their expert systems could say, wait a second, we have more people showing up with heart problems than should be. So you suddenly had them saying, wait a second, here is an early warning, that in a paper-based system might have taken 3 extra years.

So it is the combination of more accurate information about you personally and a better ability to survey the whole system that really leads to these dramatic improvements. And I do think, as a conservative who is often very critical of Government, I do think

you have to give the Veterans Administration a lot of credit for dramatic pioneering in an area that is very, very important.

Mr. CLAY. Are we in a position today to quickly detect and respond to major public health emergencies such as SARS and cases of bioterrorism, given the challenges that remain in health IT, and have the standards established through Dr. Brailer's office brought better response capabilities to those utilizing electronic health information systems and records?

Mr. GINGRICH. I am probably more adamant about this than almost anything we talk about, and I appreciate you asking the question. I believe, if you look at the disaster of Katrina, and the failure of the city of New Orleans and the failure of the State of Louisiana, and the failure of the U.S. Government, all three of which failed the people of that area—I say this as a graduate of Tulane and my younger daughter was born in New Orleans—I believe that there is no reason to believe that the Federal Government today, or the State and local governments today, are any better prepared for a major catastrophe of a biological nature, an avian flu pandemic or an engineered biological attack than they were prepared after Katrina.

I think that people are kidding themselves. Every day that we don't have a 21st century virtual public health service that ties together 55,000 drug stores electronically, every veterinarian in the country, every dentist in the country, every nursing home in the country, every doctor, every hospital, and every retired doctor, nurse, pharmacist, veterinarian and dentist, because if you had a real crisis you would have to surge all of those assets in real time, and every day you failed people would die.

Second, after you look at a 1,100,000 paper records—I spoke to the American College of Cardiology on Monday in Atlanta at their annual meeting. And they got a briefing about New Orleans. We lost 1,100,000 paper records in the Gulf Coast, 1,100,000. Now, somebody who is getting chemotherapy for their cancer suddenly had no records. And the fact that we are sitting here a half year later and do not have a Federal bill to create as a national security matter—remember, in 1955, President Eisenhower said we needed a National Defense Highway Act so we could build interstates so if we had a nuclear war people could evacuate the cities. It is a dual use system. Middle class people travel all over America. Trucks use it every day, but it was originally designed as a national defense matter.

The fact that we do not have today a national defense health information infrastructure act, I think is an enormous mistake. And if we get unlucky, we will lose several million Americans for not having built the system. So I appreciate you asking me that question.

Mr. CLAY. Let me, just in closing, Mr. Chairman, out of curiosity, if we eliminate all of this paper, what kind of pushback do you think we will get from the paper mill industry and logging industry? [Laughter.]

Mr. GINGRICH. I have a number of friends in the paper industry, and I want to assure you that they are confident that the Government of the United States will find enough new ways to generate paper. [Laughter.]

That none of them think they are going to become endangered by the elimination of medical records. But I appreciate your concern for them.

Mr. CLAY. Thank you, Mr. Speaker.

Mr. PORTER. Thank you.

Mr. Cummings, do you have any comments or questions?

Mr. CUMMINGS. First of all, good afternoon, Mr. Speaker, good seeing you again. I was just listening to you talk about Katrina, and I thought about the will to do something like this, the will to do this. You talk about the highways. It sounds like this is a good start to do something that is very positive, but I think what happens—and maybe you can help me with this—is do you think the Congress does not have the will to do these make-sense kinds of things that—I mean when we look at Katrina and we see how bad off our emergency systems were and are, when we consider September 11th and I guess we all pretty much assumed that we were in a better position than we were on September 11th, and we really don't see much improvement since September 11th. And this is in no way knocking Republicans or Democrats. I am just throwing this out as a general concept. It just seems to me that we—somebody told me, I will never forget, when I first ran for office, he says—I was down like 15 or 20 points within 3 weeks of the election, and this guy told me, he said, "Look, I'm not the campaign manager." He says, "Most people know what to do to win, but they don't have the will to do it, and they don't do it."

I think we know what we need to do, the things we need to do, but it just seems like there is so much going on that distract us—just like we were able to build a highway system, probably some folks said full sped ahead, and got it done. I am wondering, you know, how much faith do you have even if we put something like this on the books, that it would happen?

Mr. GINGRICH. Let me say first of all, I appreciate that question more than you can imagine. I think it is very thoughtful and I think it captures the great difficulty that I had the 20 years I was serving actively. I think every Government class in the country ought to read what you just said, because you just captured the dilemma of the American system. Let me break it into a couple parts.

First of all, the Founding Fathers wanted to avoid dictatorship, and so they consciously designed a machine so inefficient that no dictator could force it to work. [Laughter.]

They did such a brilliant job we can barely get it to work voluntarily, and they would look down and say, "That is exactly right." This is part of—days when I am about to go crazy, I just laugh and remind myself, Washington and Franklin and Madison and all those guys are really happy because this is really hard.

Second, we are at one of the great turning points in American history, and you nailed it just now. And I would immodestly suggest if you go to my personal Web site, Newt.org, there are two papers there. One is on 21st century entrepreneurial public management, and the other is on transforming the legislative branch. The point I make there is exactly your point at a core level. The system is broken. I describe it as that we have inherited this box, and this box is an 1880 male clerk sitting on a wooden stool with a quill pen and an open ink well. That is the Civil Service Act. It is 125-

years-old. Modified by a 1935 New Deal bureaucracy, where you use a manual typewriter with carbon paper.

I was telling the administration just last summer—because I developed this model originally looking at Iraq and the global war on terror, and I was going around before Katrina saying, "We are going to have a catastrophe," because this box doesn't work.

I would say to you, if you look at FEMA's total failure, you look at the current SBA problems, and you look at the Corps of Engineers, the fact that the Congress is not doing aggressive oversight—and let me say this as a Republican—I don't care if we have a Republican President, our Constitution is designed to have very aggressive oversight by the legislative branch because it is the only way the system works, just as, by the way, I think the President should occasionally veto things because it is the only way you retain balance. The system is designed for this conflict. But you all should be right now taking apart FEMA and rebuilding it. You should be taking apart the Small Business Administration and rebuilding it. You should be taking apart the Corps of Engineers and rebuilding it, because, I mean, how much more evidence do you need than the last 6 months? So I think you and I are close together.

What I am intrigued with is these things take time. Remember, I cited the Eisenhower 1955 proposal for an interstate highway system. Eisenhower wrote a book called "At Ease: Stories I Tell My Friends," and in one of the stories he had in that book, he said in 1919 he led the Army's first transcontinental truck expedition. And he remembers sitting on—actually in your State, Congressman Porter—he remembered sitting under the stars in Nevada, having crossed a stream, imagining to himself what it would be like to have highways that connected the whole country. 36 years later, as President, he proposed that system.

These things sometimes take time. I am up here, cheerfully optimistic, because I think with your leadership we are going to get electronic health records for Federal employees, and that is going to be a major break in the system. And by the way, by the time you take care of the hospitals and doctors and take care of Federal employees, you just took care of 50 percent of the doctors and hospitals in the country, and from the standpoint that legitimately I would hope a number of you have for the disparities and outcomes, you get to an electronic health record—and we worked very closely with Morehouse Medical School and Dr. David Sacher, Dr. Elizabeth Ofili on this. We are going to dramatically reduce the disparities and outcomes if we have electronic health records. I mean these are a big breakthrough.

So what you are doing may be a building block toward a dramatically bigger future, but that was a great question and a great observation, and you put your finger on a big deal.

I will say one last thing. I had a great honor yesterday. The State of Florida, the House of Representatives down there—they only have a 9-week session—they took an entire day off to have a workshop for all their members on transforming health in Florida, and it was very interesting how they did it. It was a very powerful moment of everybody stopping, you know, no packed fundraiser, no running off to constituents, no 205 other assignments. And we had

a ton of members of the Florida Legislature deeply engaged in learning and talking and thinking. It was a very encouraging moment.

Mr. CUMMINGS. Thank you.

Mr. PORTER. Mr. Van Hollen.

Mr. VAN HOLLEN. Thank you, Mr. Chairman. First, let me thank you, Mr. Chairman, for introducing this piece of legislation because I do think it is a very important conversation to start. The conversation has begun, but this is an example of something we can maybe move forward on as an example from the Federal Government. As I told you yesterday, I think using the Federal program to begin to push others in the country in the right direction is a good idea, and, obviously, the details need to be worked out and there are a lot of important details to be worked out.

Let me also thank you, Mr. Gingrich, for your many ideas you have had in the area of health care recently. I don't always agree with every one, but I have to tell you, the more ideas that are churning out there, the better off we will be as a Nation, because I think this is an area, as I know you have said, where we can have dramatic improvements going forward. I agree that Congress needs to be more aggressive in its oversight in a whole range of areas, and I think the question of competence is something that the American people are going to come to value even more highly than they already do, and as a Government, whether it is Republican or Democrat, we owe them a higher degree of competence than we have seen in many recent instances.

Let me ask you, with respect to just some of the—and I don't know if you have had an opportunity to look at the details of the bill—but one of the issues is whether or not you are going to allow people to voluntarily opt into this system, or whether you are going to set it up so they are required to automatically be enrolled, and given the fact that the Federal Government is launching an experiment in this area, and the fact that a lot of people are concerned about the privacy implications of electronic records, do you have a view on that question?

Mr. GINGRICH. I was earlier associating myself with Congresswoman Norton's position because—and I say this at a practical level—if we try to impose, and we arouse all the privacy advocates and we arouse all of the Federal employee unions, that will slow this bill down so much, that if we can get it to be voluntary in Phase I, I think we will actually have more people signed up in the length of time it would take to fight the bill through if you have a lot of opposition. So I would rather make it a voluntary system. I did suggest the incentive of saying to the plans we would pay slightly more in the 3rd, 4th and 5th year if it is an electronic record and slightly less if it is a paper record, and that would incentivize the plans to encourage people to join.

But I think you are going to get—if you look at e-ticketing nowadays at airports, you know, Americans aren't stupid. As Americans learn—and I said it earlier, examples of 83 and 85 percent reduction in medication error, that saves your life; 40 percent improvement in diabetes management, that saves your life; 100 percent improvement in cholesterol management. These are case studies in places that have used these records. Federal employees are

smarter. They are a very smart group collectively, as you know, and I think they will talk to each other. Within 3 or 4 years it will be in the high 90's. And I think, frankly, if the last 3 percent would rather have paper and risk dying, that is their prerogative as a free people.

Mr. VAN HOLLEN. Thank you. I think you are right. I think the amount of resistance you are going to get is not worth the effort, and I think that people will see this as a good thing and voluntarily do it.

We don't have a lot of time. What is going on—and I apologize, Mr. Chairman for being late. We had a briefing in the Judiciary Committee.

But in the private sector, to what extent is there movement? How rapid is the movement in this area, and where do you predict that going, and how important do you think it is to move forward in this area in order to get the rest of the market to move?

Mr. GINGRICH. You are asking the right question. First of all, there is enormous movement in this area. There is a tremendous new program at the University of South Florida, which I was just getting briefed on yesterday in Tallahassee. There is a big project by Humana and Blue CrossBlue Shield of Florida called Availity, which will cover a third of the people of Florida, and if they had Medicaid will be over half the people of Florida. Kaiser Permanente has 13 million health records nationwide that are electronic. The Veterans Administration has about 13 million health records that are electronic. As you go around the country, Peace Health in Oregon, Washington State and Alaska, has about 1,400,000 health records that are electronic. So as you go around the country you just see the momentum beginning to build in that direction.

One of the things I am passionate about is modifying Stark and anti-kickback so that hospitals can provide free health information technology equipment to doctors they are legally barred today from doing. They can't even provide it to each other. So, for example, the largest hospital in western Michigan would probably provide health information technology to all the small rural hospitals in the upper peninsula, but it is currently illegal under Stark and anti-kickback. Well, that is utterly irrational.

The Federal Government, unfortunately, is not going to pay for it. As a national security matter I would have the Feds pay for it and get it done in 2 years. If they are not going to pay for it, the easiest source of sophisticated capital is the hospitals. They actually save enough money, if patients are transferring in electronically rather than in paper, they save a lot of money on unnecessary labs that don't need to be taken. So I would encourage you to look at that as a major component of this.

Mr. PORTER. Thank you very much. Mr. Speaker, we appreciate you being here. Once again, it was an honor to have you here. We look forward to working with you. Thank you.

Mr. GINGRICH. Thank you.

Mr. PORTER. In the element of time I am going to combine actually the second and third panel, so if both panels will come forward, please, we will have a chance to get the table set up.

We will start with Mr. David Powner, who is Director of Information Technology Management Issues, Government Accountability

Office. We will then have Dr. Jane Barlow, Well-being Director, Health Benefits Operations with IBM; then have Mr. David St. Clair, founder and CEO of MEDecision, Inc. Dr. Edward Ewen, Jr. was going to be with us, but had to take care of a patient. Dr. Paul Handel will be next, who is vice president and chief medical officer, Texas Division, HCSC; Jeannine Rivet, executive vice president of United Health Group and then Dr. Malik Hasan, who is CEO, Health View, retired CEO of Health Net. So we will start with Mr. Powner.

STATEMENTS OF DAVID A. POWNER, DIRECTOR, INFORMATION TECHNOLOGY MANAGEMENT ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE; JANE F. BARLOW, M.D., MPH, MBA, IBM WELL-BEING DIRECTOR, GLOBAL WELL-BEING SERVICES AND HEALTH BENEFITS, THE IBM CORP.; DAVID ST. CLAIR, FOUNDER AND CHIEF EXECUTIVE OFFICER, MEDECISION, INC.; PAUL B. HANDEL, M.D., VICE PRESIDENT AND CHIEF MEDICAL DIRECTOR, BLUE CROSS BLUE SHIELD OF TEXAS (A DIVISION OF HEALTH CARE SERVICE CORP.); JEANNINE M. RIVET, EXECUTIVE VICE PRESIDENT, UNITEDHEALTH GROUP; AND MALIK M. HASAN, M.D., CHIEF EXECUTIVE OFFICER, HEALTHVIEW, RETIRED CHIEF EXECUTIVE OFFICER, HEALTH NET

STATEMENT OF DAVID A. POWNER

Mr. POWNER. Chairman Porter and members of the subcommittee, we appreciate the opportunity to testify on health care information technology. As we have highlighted in several recent reports completed for Chairman Davis of the full committee, significant opportunities exist to use technology to improve the delivery of care, reduce administrative costs, and to improve our Nation's ability to respond to public health emergencies. This afternoon I will briefly describe the importance of information technology to the health care industry, discuss key Federal leadership efforts to bolster the adoption of IT, and highlight key aspects of your proposed legislation, Mr. Chairman, that are critical to achieve the President's goal of a nationwide implementation of interoperable health care systems.

Information technology can lead to many benefits in the health care industry that we have reported on over the past several years. For example, using bar code technologies and wireless scanners to verify the identities of patients and their correct medications can and has reduced medical errors. In addition, surveillance systems can facilitate the timely collection and analysis of disease-related information to better respond to public health emergencies. Its standards-driven electronic health records have the potential to provide complete and consistent medical information necessary for optimal care.

Just last month, the Select Committee that investigated Hurricane Katrina concluded that the lack of electronic health records contributed to difficulties and delays in medical treatments to evacuees. Fortunately, several efforts led to the development of a Web-based portal to access prescription information for these evacuees. This highlights the importance of electronic records with even lim-

ited information, which was made possible when commercial pharmacies, health insurance programs and others made accessible key prescription data.

Several major Federal health care programs, including Medicare, Medicaid and OPM's Federal Employees Health Benefits Program provide health care services to over 100 million Americans. Given the Federal Government's influence over this industry, Federal leadership can lead to significant change, including the adoption of IT. Given this, in April 2004, President Bush called for the widespread adoption of interoperable electronic health records within 10 years, and established the position of the National Coordinator for Health IT.

Although the coordinator has issued a framework, established working groups of industry experts and awarded contracts to define a future direction, we have testified and recommended that the National Coordinator: one, establish detailed plans and milestones to carry out the President's call for interoperable health care records; two, complete detailed plans with private sector input for defining standards to enable interoperability of data and systems; and three, to fully leverage the Federal Government as a purchaser and provider of health care.

Turning to your proposed legislation, Mr. Chairman, I would like to commend your action to leverage the Office of Personnel Management as one of the largest purchasers of electronic health benefits to advance the creation of electronic health records. The Federal Employees Health Benefits Program has over 8 million beneficiaries and advancing electronic health records to this critical mass would be significant. Your focus on electronic health records is critical since they are a central component of an integrated health information system. In addition, they have the potential to reduce duplicative tests and treatments, and could lead to reductions in medical errors.

Another key aspect of your proposed legislation, Mr. Chairman, is its focus on adopting standards that are consistent with the National Coordinator's efforts. IT standards are critical to enable interoperability of data and systems, and it will be especially important if carrier-based records are to be interoperable with provider-based information.

We remain concerned about the development of such standards and highlighted these concerns before Chairman Davis at a full committee hearing last fall. Although the identification of standards continues to be one of the major focus areas for the National Coordinator, to date, the standard-setting processes have resulted in conflicting and incomplete standards, and the consensus on the definition and use of standards remains a work in progress.

Hopefully, the standard-setting initiatives will gain momentum in the near future so that provisions of your bill calling for these standards can be carried out.

In summary, Mr. Chairman, efforts like your proposed legislation that provide tangible solutions to jump start adoption rates of electronic health records, and that leverage Federal programs and resources are critical to carrying out the President's goal.

This concludes my statement. Thank you, Mr. Chairman, for your leadership in driving this much-needed technology.

[The prepared statement of Mr. Powner follows:]

United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on Federal Workforce and Agency Organization, Committee on Government Reform, House of Representatives

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HEALTH INFORMATION TECHNOLOGY

HHS is Continuing Efforts to Define a National Strategy

Statement of David A. Powner
Director, Information Technology Management Issues

GAO-06-346T

Abbreviations

CHCS	Composite Health Care System
CMS	Centers for Medicare and Medicaid Services
Community	American Health Information Community
DOD	Department of Defense
EHR	electronic health record
HHS	Department of Health and Human Services
IT	information technology
NIST	National Institute for Standards and Technology
ONC	Office of the National Coordinator for Health Information Technology
OPM	Office of Personnel Management
VA	Department of Veterans Affairs

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March 15, 2006

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Highlights

Highlights of GAO-06-346T, a report to Subcommittee on Federal Workforce and Agency Organization, Committee on Government Reform, House of Representatives

HEALTH INFORMATION TECHNOLOGY

HHS is Continuing Efforts to Define a National Strategy

Why GAO Did This Study

As GAO and others have reported, the use of information technology (IT) has enormous potential to improve the quality of health care and is critical to improving the performance of the U.S. health care system. Given the federal government's influence in the health care industry, it has been urged over the years to take a leadership role in driving change to improve the quality and effectiveness of medical care, including the adoption of IT. In April 2004, President Bush called for widespread adoption of interoperable electronic health records within 10 years; established the position of the National Coordinator for Health IT, who was appointed in May 2004 and released a framework for strategic action two months later. In May 2005, GAO recommended that HHS establish detailed plans and milestones for each phase of the framework and take steps to ensure that those plans are followed and milestones are met. HHS agreed with our recommendation.

GAO (1) assessed the progress being made by the Department of Health and Human Services (HHS) since 2005 to develop a national health IT strategy and (2) provided an overview of selected federal agencies' health IT initiatives related to the national health IT strategy.

www.gao.gov/cgi-bin/getrpt?GAO-06-346T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact David A. Powner (202) 512-9286 or *pownerd@gao.gov*.

What GAO Found

HHS has continued efforts to develop a national health IT strategy. For example, HHS—through the Office of the National Coordinator for Health IT—has established the organizational structure of the office and awarded $42 million in contracts intended to advance the use of health IT. These contracts address a range of issues important to encouraging the adoption of IT such as reviewing standards activities for gaps and duplication (see table). In addition, HHS has established the American Health Information Community to obtain public and private sector input on how to make health records digital and achieve interoperability for health information exchange. HHS intends to use the results of the contracts and the Community proceedings to define future direction. Key HHS divisions also continue funding and supporting the development of health IT initiatives that support the goals of the framework. According to the National Coordinator, he intends to release a strategic plan with detailed plans and milestones later this year.

Health IT Contracts Awarded by HHS's Office of the National Coordinator

Contract	Date Awarded	Duration	Cost	Description
Standards Harmonization Process	September 2005	1 year	$3.2 million	To develop and test a process for identifying, assessing, endorsing, and maintaining a set of standards required for interoperable health information exchange.
Compliance Certification Process	September 2005	1 year	$2.7 million	To develop and evaluate a compliance certification process for health IT, including the infrastructure components through which these systems interoperate.
Privacy and Security	September 2005	1½ years	$11.5 million	To assess and develop plans to address variations in organization-level business policies and state laws that affect privacy and security practices, which may pose challenges to health information exchange.
National Health Information Network Prototypes	November 2005	1 year	$18.6 million; 4 contracts	To develop and evaluate prototypes for a nationwide health information network architecture for widespread health information exchange.

Several federal agencies collaborating with HHS—namely, the Departments of Veterans Affairs, Defense, and Commerce, and the Office of Personnel Management— also have responsibility for their own health IT initiatives related to the national health IT strategy. These agencies participate in the American Health Information Community. Veterans Affairs and Defense play critical roles in the advancement of electronic health records, which they have developed and are implementing in their facilities. The Office of Personnel Management is attempting to use its position as one of the largest purchaser of employee health care benefits by encouraging its carriers to use applications such as enabling a physician to transmit a prescription electronically to a patient's pharmacy of choice. The National Institute for Standards and Technology is also providing technical expertise in the standards development and harmonization process and established a Web site to assist in standards development efforts.

Mr. Chairman and Members of the Committee:

I am pleased to be here today to comment on federal efforts to advance the use of information technology (IT) for health care delivery and public health. As we and others have reported, the use of IT has enormous potential to improve the quality of health care and is critical to improving the performance of the U.S. health care system. The federal government has been working to promote the use of IT in public and private health care settings. With the growing momentum behind a national health IT strategy, leveraging federal efforts is an important component of this strategy. Several federal agencies are collaborating with the Department of Health and Human Services (HHS)—namely, the Departments of Veterans Affairs, Defense, and Commerce, and the Office of Personnel Management—as it works toward developing a national strategy to advance the use of health IT.

At your request, today we will (1) discuss our assessment of the progress being made since 2005 by HHS's Office of the National Coordinator for Health IT and other key divisions toward the development of a national IT strategy and (2) provide an overview of selected federal agencies' initiatives related to the national health IT strategy. In preparing this statement, we reviewed agency documents that describe the current status of HHS's and other federal agencies' activities related to a health IT strategy and supplemented our analysis with interviews of agency officials. We also summarized our prior reports. Our work was performed in accordance with generally accepted auditing standards.

Results in Brief

HHS—through the Office of the National Coordinator for Health IT—has continued efforts to define a national health IT strategy. HHS has established the organizational structure of the Office of the National Coordinator and awarded about $42 million in contracts intended to advance the adoption of health IT. These contracts address a range of issues important in advancing the use of IT, such as reviewing standards activities for gaps and duplication and reviewing privacy and security laws across federal and state

governments. In addition, the Secretary of HHS has established an advisory body called the American Health Information Community to obtain public and private sector input. The Community, composed of representatives from federal agencies and the private sector, began meeting in October 2005 to advise HHS on how to make health records digital and achieve interoperability for health information exchange. HHS plans to use the results of the contracts and the Community proceedings to define future direction. HHS also has other important health IT programs and initiatives, such as the demonstration grants awarded by the Agency for Healthcare Research and Quality and the Centers for Disease Control and Prevention's Public Health Information Network. These initiatives are intended to address a variety of issues to accelerate and encourage the adoption of health IT across the health care industry and support the goals of the framework for strategic action. According to the National Coordinator, he intends to release a strategic plan later this year that will guide the nationwide implementation of interoperable health IT by establishing milestones and performance metrics.

Several federal agencies collaborating with HHS—namely, the Departments of Veterans Affairs, Defense, and Commerce, and the Office of Personnel Management—also have responsibility for their own initiatives related to the national health IT strategy. Many of these agencies, as well as a representative from the Department of the Treasury, participate in the American Health Information Community, HHS's newly formed Health IT Policy Council, and the Federal Health Architecture.[1] Veterans Affairs and Defense, as major federal health care providers, play critical roles in the advancement of electronic health records (EHR). Veterans Affairs has developed and implemented an EHR system; Defense is still in the process of implementing one in their facilities. The Office of Personnel Management is planning to use its position as one of the

[1]HHS's Federal Health Architecture program is intended to define a framework and methodology for establishing a target architecture and standards for interoperability and communication. An architecture describes an entity in both logical terms (e.g., interrelated functions, information needs and flows, work locations, systems, and applications) and technical terms (e.g., hardware, software, data, communications, and security).

largest purchasers of employee health care benefits to encourage its carriers to use applications such as electronic prescribing.[2] When the agency issued its 2005 annual call letter to carriers last April, it requested that plans describe their health IT initiatives, including any currently in place for doctors and pharmacies to use electronic prescribing. The National Institute for Standards and Technology is also providing technical expertise, largely in the standards development and harmonization process, and has established a Web site containing information on health care standards, organizations, and resources to assist in standards development, implementation, and use by developers and other stakeholders.

Background

Studies published by the Institute of Medicine and others have indicated that fragmented, disorganized, and inaccessible clinical information adversely affects the quality of health care and compromises patient safety. In addition, long-standing problems with medical errors and inefficiencies increase costs for health care delivery in the United States. With health care spending in 2004 reaching almost $1.9 trillion, or 16 percent of the gross domestic product, concerns about the costs of health care continue. As we reported last year, many policymakers, industry experts, and medical practitioners contend that the U.S. health care system is in crisis.[3]

Health IT—the technology used to collect, store, retrieve, and transfer clinical, administrative, and financial health information electronically—is seen as a promising solution to improve patient safety and reduce inefficiencies. Hence, it has great potential to improve the quality of care, bolster preparedness of our public health infrastructure, and save money on administrative costs. As

[2]Electronic prescribing enables a physician to transmit a prescription electronically to a patient's pharmacy of choice. It decreases prescription errors caused by hard-to-read handwriting and automates the process of checking for drug interactions and allergies.

[3]GAO, *21st Century Challenges: Reexamining the Base of the Federal Government*, GAO-05-325SP (Washington, DC: February 2005).

we reported in 2003, technologies such as electronic health records[4] and bar coding of certain human drug and biological product labels have been shown to save money and reduce medical errors.[5] For example, a 1,951-bed teaching hospital reported that it realized about $8.6 million in annual savings by replacing paper medical charts with electronic medical records for outpatients. This hospital also reported saving more than $2.8 million annually by replacing its manual process for handling medical records with electronic access to laboratory results and reports. Health care organizations also reported that IT contributed other benefits, such as shorter hospital stays, faster communication of test results, improved management of chronic diseases, and improved accuracy in capturing charges associated with diagnostic and procedure codes.

However, according to HHS, only a small number of U.S. health care providers have fully adopted health IT as there are significant financial, technical, cultural, and legal barriers to its adoption. These include a lack of access to capital, a lack of data standards, and resistance from health care providers.

Federal Government's Role in Health Care

According to the Institute of Medicine, the federal government has a central role in shaping nearly all aspects of the health care sector as a regulator, purchaser, health care provider, and sponsor of research, education, and training. Seven major federal health care programs, such as Medicare and Medicaid, provide health care services to approximately 115 million Americans. Table 1 summarizes the number of citizens who receive health care services from the federal government and the cost of these services.

[4]There is a lack of consensus on what constitutes an electronic health record (EHR), and thus multiple definitions and names exist for EHRs, depending on the functions included. An EHR generally includes (1) a longitudinal collection of electronic health information about the health of an individual or the care provided, (2) immediate electronic access to patient- and population-level information by authorized users, (3) decision support to enhance the quality, safety, and efficiency of patient care, and (4) support of efficient processes for health care delivery.

[5]GAO, *Information Technology: Benefits Realized for Selected Health Care Functions*, GAO-04-224 (Washington, D.C.: Oct. 31, 2003).

Table 1: Beneficiaries and Expenditures in Major Federal Health Care Programs for Fiscal Year 2004

Federal Agency	Program	Beneficiaries	Expenditures
HHS	Medicare	42 million elderly and disabled beneficiaries	$309 billion
HHS	Medicaid	43.7 million low-income persons	$276.8 billion (joint federal and state)
HHS	State Children's Health Insurance Program	5.8 million children[a]	$6.6 billion (joint federal and state)
HHS	Indian Health Service	1.8 million Native Americans and Alaska Natives	$3.7 billion
VA	Veterans Health Administration	5 million veterans	$29.1 billion
DOD	Tricare Program	9.2 million active-duty military personnel and their families, and military retirees	$24.4 billion
OPM	Federal Employees Health Benefit Program	8 million federal employees, retirees and dependents	$27 billion

Source: HHS, VA, DOD, and OPM budget documents.

[a] Based on FY 2003 data

Given the federal government's influence in the health care industry, it has been urged to take a leadership role in driving change to improve the quality and effectiveness of medical care in the United States, including the adoption of IT. In April 2004, President Bush called for widespread adoption of interoperable electronic health records within 10 years and issued an executive order[6] that established the position of the National Coordinator for Health Information Technology, who was appointed in May 2004. The National Coordinator is to develop and implement a strategic plan to guide the nationwide implementation of interoperable health IT in both the public and private sectors. Two months later, HHS released *The Decade of Health Information Technology: Delivering Consumer-centric and Information-rich Health Care—Framework for Strategic Action.*

[6]Executive Order 13335, *Incentives for the Use of Health Information Technology and Establishing the Position of the National Health Information Technology Coordinator* (Washington, D.C.: April 27, 2004).

The framework describes actions to be taken by the public and private sectors to develop and implement a strategy that is built on already-existing work in health IT. The framework defines goals and strategies that are to be implemented in three phases.[7] HHS is in the initial phase of implementing activities of the framework by coordinating federal health IT efforts across the government and reaching out to private industry. The framework also introduced the concept of regional health information organizations, which are considered an essential element in the establishment of a national health information network. Regional health information organizations—entities that enable the exchange and use of health information—are expected to facilitate information exchange across different jurisdictions and hospital systems.

Other federal agencies also play an important role in fostering the adoption of health IT. The Department of Veterans Affairs—one of the country's largest health care providers—has had an automated information system in its medical facilities since 1985. The agency's Veterans' Health Information Systems and Technology Architecture is an integrated outpatient and inpatient system that includes its electronic health record—the Computerized Patient Record System. The Department of Defense has provided IT support to its hospitals and clinics since 1968. The Composite Health Care System (CHCS), deployed in 1993, is the primary medical information system now used in all military health system facilities worldwide. In 1997, the department initiated CHCS II and is in the process of implementing the system in their facilities. Now known as the Armed Forces Health Longitudinal Technology Application, it will eventually replace CHCS. The Office of Personnel Management (OPM) has responsibility for the Federal Employees Health Benefit Program, which is one of the largest employer-based health insurance programs in the country. The government pays on average about 72 percent of the cost of the coverage and enrollees pay the remainder based on a formula set by law.

[7]These goals address the development of market institutions to lower the risk of health IT procurement (phase I), investment in clinical management tools and capabilities (phase II), and support for the transition of the market to robust quality and performance accountability (phase III).

National Strategy and Greater Interoperability Still Needed

In the summer of 2004, we testified on the benefits that effective implementation of IT can bring to the health care industry and the need for HHS to provide continued leadership, clear direction, and mechanisms to monitor progress in order to bring about measurable improvements.[8] Last year, we reported that HHS, through the Office of the National Coordinator for Health IT, and in conjunction with other federal agencies, had taken a number of actions toward accelerating the use of IT to transform the health care industry, including the issuance of a framework for strategic action as a first step toward defining a national strategy. To accelerate the adoption of interoperable information systems, we recommended that HHS establish detailed plans and milestones for each phase of the framework and take steps to ensure that those plans are followed and milestones are met.[9] The department agreed with our recommendation.

We have also reported on major public health IT initiatives and challenges that still need to be overcome to strengthen the IT that supports the public health infrastructure.[10] Federal agencies face many challenges in improving the public health infrastructure. These challenges include (1) integrating current initiatives into a national health IT strategy and federal architecture to reduce the risk of duplicative efforts, (2) developing and adopting consistent standards to encourage interoperability, (3) coordinating initiatives with states and local agencies to improve the public health infrastructure, and (4) overcoming federal IT management weaknesses to improve progress on IT initiatives. Until these agencies address all these challenges, movement toward building a

[8]GAO, *Health Care: National Strategy Needed to Accelerate the Implementation of Information Technology*, GAO-04-947T (Washington, D.C.: July 14, 2004).

[9]GAO, *Health Information Technology: HHS Is Taking Steps to Develop a National Strategy*, GAO-05-628 (Washington, D.C.: May 27, 2005).

[10]GAO, *Bioterrorism: Information Technology Strategy Could Strengthen Federal Agencies' Abilities to Respond to Public Health Emergencies*, GAO-03-139 (Washington, D.C.: May 30, 2003); GAO, *Information Technology: Federal Agencies Face Challenges in Implementing Initiatives to Improve Public Health Infrastructure*, GAO-05-308 (Washington, D.C.: June 10, 2005).

stronger public health infrastructure will be limited, as will the ability to share essential information concerning public health emergencies and bioterrorism. We recommended that HHS coordinate with state and local public health agencies, align federal public health initiatives with the national health IT strategy and federal health architecture, and continue federal actions to encourage the development and adoption of data standards.

Last September, we testified before the full committee about the importance of defining and implementing data and communication standards to speed the adoption of interoperable IT in the health care industry.[11] Hurricane Katrina highlighted the need for interoperable electronic health records as thousands of people were separated from their health care providers and paper medical records were lost. As we noted, standards are critical to enabling this interoperability. Although federal leadership has been established to accelerate the use of IT in health care, we testified that several actions[12] are still needed to position HHS to further define and implement relevant standards. Otherwise, the health care industry will continue to be plagued with incompatible systems that are incapable of exchanging key data that are critical to delivering care and responding to public health emergencies.

For the past seven years, the Departments of Defense (DOD) and Veterans Affairs (VA) have been working to achieve the capability of sharing medical information. However, they have been severely challenged in their pursuit of the longer-term objective—providing a virtual medical record in which data are computable.[13] As we have noted, the departments had achieved some success in sharing data through the one-way transfer of health information from DOD to VA

[11]GAO, *Health Care: Continued Leadership Needed to Define and Implement Information Technology Standards*, GAO-05-1054T (Washington, D C : Sept. 29, 2005).

[12] These actions included the lack of mechanisms for better agency coordination of the various standards efforts, incomplete milestones associated with these efforts, and no mechanism to monitor the implementation of standards across the health care industry.

[13]Rather than data being provided as text for viewing only, data would be in a format that the health information application can act on: for example, providing alerts to clinicians of such things as drug allergies and plotting graphs of changes in vital signs such as blood pressure.

health care facilities.[14] According to the departments, the use of such computable medical data contributes significantly to the usefulness of electronic medical records. In the past year, VA and DOD have begun to implement applications that exchange limited electronic medical information between the departments' existing health information systems. The agencies have implemented three recommendations that we made in June 2004, such as developing an architecture for the electronic interface and establishing a lead entity for the project, but they have not developed a clearly defined project management plan and they have experienced delays in exchanging computable patient health data.

HHS Continuing Efforts to Define a National Health Information Technology Strategy

HHS—through the Office of the National Coordinator (ONC) for Health IT—has continued efforts to define a national strategy, building on the framework already established. HHS has established the organizational structure of the Office of the National Coordinator. It has also awarded about $42 million in contracts to address a range of issues important in developing a robust IT infrastructure, such as reviewing IT standards activities for gaps and duplication and reviewing privacy and security laws across federal and state governments. In order to obtain public and private sector input, the Secretary of HHS has established an advisory body called the American Health Information Community (Community). The Community began meeting in October 2005 to advise the Secretary concerning efforts to develop standards and achieve interoperability of health IT. HHS has other important programs and initiatives such as the demonstration grants awarded by the Agency for Healthcare

[14]GAO, *Computer-Based Patient Records: VA and DOD Made Progress, but Much Work Remains to Fully Share Medical Information*, GAO-05-1051T (Washington, D.C.: September 28, 2005); GAO, *Computer-Based Patient Records: Improved Planning and Project Management Are Critical to Achieving Two-Way VA–DOD Health Data Exchange*, GAO-04-811T (Washington, D.C.: May 19, 2004); and *Computer-Based Patient Records: Short-Term Progress Made, but Much Work Remains to Achieve a Two-Way Data Exchange Between VA and DOD Health Systems*, GAO-04-271T (Washington, D.C.: Nov. 19, 2003).

Research and Quality and the Centers for Disease Control and Prevention's Public Health Information Network.

The National Coordinator is Continuing Efforts to Develop a National Health Information Technology Strategy

HHS's Office of the National Coordinator for Health IT (ONC) has continued to move forward with its mission to guide the nationwide implementation of interoperable health IT in the public and private health care sectors. Building on the framework for strategic action, last summer the National Coordinator announced the organizational structure of his office and recently announced the appointment of his management team. ONC is organized as follows:

- Immediate Office of the National Coordinator—provides executive direction to the office and is responsible for carrying out the office's mission and functions.
- Office of Health IT Adoption—works with all other ONC offices to identify health IT strategies, implement plans, and monitor outcomes toward meeting the President's goals.
- Office of Interoperability and Standards—provides leadership in developing and implementing nationwide interoperable health IT infrastructure and standards to support the secure and seamless exchange of health information.
- Office of Programs and Coordination—ensures the integration of all efforts across the ONC and supports the dissemination and adoption of the federal government's policy on health IT.
- Office of Policy and Research—conducts studies in support of ongoing health IT and coordinates efforts that inform policy decisions related to health IT.

Since our May 2005 report, HHS has also awarded a series of contracts that address the development of the infrastructure needed to support a national health information network. These contracts, outlined in table 2, total about $42 million.

Table 2: Health IT Contracts Awarded by HHS's Office of the National Coordinator

Contract	Date Awarded	Duration	Cost	Description
American Health Information Community Program Support	September 2005	1 year	$0.8 million	To provide assistance to the National Coordinator in convening and managing the meetings and activities of the Community to ensure that the health IT plan is seamlessly coordinated.
Standards Harmonization Process for Health IT	September 2005	1 year	$3.2 million	To develop and test a process for identifying, assessing, endorsing, and maintaining a set of standards required for interoperable health information exchange.
Compliance Certification Process for Health IT	September 2005	1 year	$2.7 million	To develop and evaluate a compliance certification process for health IT, including the infrastructure components through which these systems interoperate.
Privacy and Security [a]	September 2005	1½ years	$11.5 million	To assess and develop plans to address variations in organization-level business policies and state laws that affect privacy and security practices, including those related to HIPAA, which may pose challenges to interoperable health information exchange.
National Health Information Network Prototypes	November 2005	1 year	$18.6 million (4 contracts)	To develop and evaluate prototypes for a nationwide health information network architecture that maximize the use of existing resources such as the Internet to achieve widespread interoperability among software applications, particularly electronic health records. These contracts are also intended to spur technical innovation for nationwide electronic sharing of health information in patient care and public health settings.
Measuring the Adoption of Electronic Health Records	September 2005	2 years	$1.8 million	To develop a methodology to better characterize and measure the state of electronic health records adoption and determine the effectiveness of policies aimed at accelerating adoption of electronic health records and interoperability.
Gulf Coast Electronic Digital Health Recovery	September 2005	1 year	$3.7 million	To plan and promote the widespread use of electronic health records in the Gulf Coast regions affected by recent hurricanes. These agreements are expected to bring together local and national resources, coordinate the planning for a digital health information recovery, and develop a prototype of health information sharing and electronic health record support that can be replicated throughout the region.

Source: HHS Office of the National Coordinator for Health Information Technology

[a]Jointly managed by the Agency for Healthcare Research and Quality and the Office of the National Coordinator.

As part of HHS's plans to include private sector involvement, the Secretary of HHS established the American Health Information Community, a public-private collaboration to advise HHS on how to make health records digital and achieve interoperability for health information exchange. The Community will also provide a forum for public and private interests to recommend specific actions that will accelerate the widespread application and adoption of electronic health records and other health IT applications. Chartered for two

years, with the option to renew for no more than five years, HHS intends for the Community to be succeeded by a private sector health information initiative. (The first meeting of the Community was held in October 2005). To date, it has identified several potential breakthrough areas[15] and established four priority areas—consumer empowerment, biosurveillance, electronic health records, and chronic care management. Workgroups are in the process of being established, each with a specific charge to be accomplished within one year (e.g., deploy a widely available pre-populated medication history linked to the registration summary). Milestones have been established to present findings and recommendations to the Community on a quarterly basis.

HHS intends to use the results of its contracts and the Community workgroups to define future direction. The National Coordinator's office intends to release a strategic plan later this year now that his management team is in place. This plan is expected to guide the nationwide implementation of interoperable health IT by providing detailed plans and milestones, as we had recommended.

Other HHS Divisions Contribute to the Department's Efforts on the National Health Information Technology Strategy

As we have previously reported, the role of the National Coordinator includes the coordination of programs and policies regarding health IT across HHS. Building on ongoing agency initiatives—health IT demonstration grants, the Federal Health Architecture, and the Public Health Information Network[16]—these activities address a variety of issues important to accelerating and encouraging the adoption of health IT across the health care industry. Key HHS divisions, such as the Centers for Medicare and Medicaid and the Agency for Healthcare Research and Quality, continue funding and supporting the development of health IT initiatives that support the

[15]Breakthrough areas are projects that can potentially achieve measurable results in two to three years.

[16]The Public Health Information Network is a national initiative intended to integrate and coordinate existing systems by serving as a comprehensive architecture, information exchange network, and a set of services that will integrate existing capabilities and advance the ways in which IT can support public health.

goals of the framework for strategic action. The National Coordinator also plans to form an HHS health IT committee for improving coordination within the agency. Examples of health IT initiatives associated with the framework, some that we have previously reported on, include:

- The Centers for Medicare and Medicaid Services (CMS), in conjunction with VA, released a test version of VistA-Office EHR for evaluation by a limited number of physician's practices. This system is targeted for use in clinics and small physician offices and will be subject to the same certification requirements as private sector products. CMS is continuing with the Doctor's Office Quality Information Technology initiative, a two-year demonstration designed to improve quality of care and patient safety services provided to Medicare beneficiaries by promoting the adoption of electronic health records in primary care physician offices. Quality measures developed by the program will be reported by participating practices to the Quality Improvement Organization Clinical Warehouse. The warehouse will review and validate electronically transmitted information regarding physician performance and identify opportunities for improvement. CMS also awarded $6 million for electronic prescribing pilot programs.
- The Agency for Healthcare Research and Quality is continuing its support of demonstration and developmental projects to better understand the connection between improved care and health IT. It awarded more than $22.3 million in grant funds for the implementation of 16 health IT demonstration projects in October 2005. In addition, the agency created the National Resource Center for Health IT to provide technical assistance and share new knowledge and findings from the real-world experiences of its grantees.
- The Health Resources and Services Administration formed the Office of Health IT in December 2005 to promote the adoption and effective use of IT for improving the delivery of care in the

safety net community.[17] It is also continuing its work with federal community health centers to implement ambulatory electronic health records, including the development of initial performance measures to demonstrate the cost benefits of health IT. In addition, the Health Resources and Services Administration has provided funds for telehealth and other health IT projects through its Office for the Advancement of Telehealth.

- The National Institutes of Health is continuing its efforts to achieve interoperability as part of its standards development initiative (i.e., Systemized Nomenclature of Medicine-Clinical Terms) and development of a virtual infrastructure to allow research centers to pool data, such as the Cancer Biomedical Informatics Grid and the Rare Disease Clinical Research Network. It plans to host a joint meeting with the Agency for Healthcare Research and Quality in May 2006 to look at how a national health information network can support clinical studies and trials.
- The Centers for Disease Control and Prevention is continuing work on the information systems that support the Public Health Information Network. For example, data collection for BioSense is being expanded to include emergency room data at selected cities and plans for the National Electronic Disease Surveillance System call for it to move to a Web-based data entry system.

Other Federal Agencies Have Initiatives Related to the National Health Information Technology Strategy

Several federal agencies collaborating with HHS —namely the Departments of Veterans Affairs, Defense, and Commerce, as well as the Office of Personnel Management— also have responsibility for their own health IT initiatives related to the national health IT strategy. Many of these agencies, as well as a representative from the Department of the Treasury, participate in the American Health Information Community, HHS's newly formed Health IT Policy

[17]The safety net community is made up of providers that by mandate or mission organize and deliver a significant level of health care and other health-related services to the uninsured, Medicaid, and other vulnerable patients.

Council, and the Federal Health Architecture. In 2004, the Office of the National Coordinator for Health IT was assigned responsibility for the Federal Health Architecture. According to the National Coordinator, he is planning to renew the Federal Health Architecture workgroups this spring in order to improve coordination and collaboration on federal health IT. In addition to the Departments of Defense, Veterans Affairs, and Commerce, other federal agencies involved with the Federal Health Architecture include the Departments of Agriculture, Homeland Security, Justice, and the Environmental Protection Agency.

As major federal health care providers, the Departments of Defense and Veterans Affairs play critical roles in the advancement of electronic health records. The experience of these agencies in implementing electronic health records and in health information exchange across organizational boundaries offer important lessons learned—both positive and negative—that could be applied as health care delivery organizations adopt electronic health record systems. According to HHS, the Department of Defense has a lengthy history working in remote and medically underserved areas and has experience in using IT, such as telehealth, to deliver care in isolated areas that can be compared to the conditions in some rural environments.

According to the Office of Personnel Management, it is planning to use its position as one of the largest purchasers of employee health care benefits to contribute to the expansion and use of electronic health records, electronic prescribing, and other health IT-related provisions. The agency is represented on the American Health Information Community and, according to agency officials, has been holding informal discussions with staff from the Office of the National Coordinator. In July 2004, the Office of Personnel Management outlined various options for health plans in the Federal Employee Health Benefit program, such as adopting systems based on generally accepted and certified standards. When the agency issued its 2005 annual call letter[18] to carriers last April, it requested

[18]Call letters provide guidance for benefit and rate proposals from FEHB program plans for the next contract term.

that plans describe their health IT initiatives, including any currently in place for doctors and pharmacies to use electronic prescribing. According to an agency official, it received responses from participating health plans and reviewed them to establish a baseline with the intention of measuring progress on the use of health IT.

The National Institute for Standards and Technology (NIST) is also collaborating with HHS, largely by supporting the Office of the National Coordinator and its contractors with technical expertise. Initially, its support had been focused on the standards development and harmonization process. NIST supports a Website—the Health Care Standards Landscape—to address the need for a Web-based repository of information on health care standards, organizations, and resources that can assist in standards development, coordination, implementation, adoption, and use by system developers and other stakeholders.[19] In addition, NIST is expected to leverage its technical resources by assisting HHS with the national health information network architecture and the certification process for health IT.

In summary, HHS's efforts to transform the use of IT in the health care industry are continuing although much work remains. As we recommended last May, HHS still needs to establish detailed plans and milestones as part of the national strategy and take steps to ensure that those plans are followed and milestones are met. The National Coordinator plans to release a strategic plan later this year that establishes milestones. Given the billions of dollars the federal government spends annually towards health care and the potential of IT to save money and improve quality, it is important that coordination continue across the federal government and that federal resources are leveraged appropriately.

[19] The Website is http://hcsl.sdct.nist.gov.

Contacts and Acknowledgements

If you should have any questions about this statement, please contact me at (202) 512-9286 or by e-mail at pownerd@gao.gov. Other individuals who made key contributions to this statement are M. Yvonne Sanchez, Nancy E. Glover, and Teresa F. Tucker.

Mr. PORTER. Thank you very much.

For those who are here for the first time at a congressional hearing, understand that Members will come and go for different committee hearings happening at the same time. We may even be called to vote on the floor here at some point. But know that your testimony is very valuable and is a part of the record being scrutinized by a lot of folks. So we appreciate you being here. The number of people here today is not a reflection of the importance of this issue. It is just the process with multiple committees happening at the same time.

Dr. Barlow, welcome.

STATEMENT OF JANE F. BARLOW, M.D.

Dr. BARLOW. My name is Jane Barlow. As well as being Director for IBM's Health Benefits Operations, I am responsible for the delivery of $1.7 billion in health care to over 500,000 IBM beneficiaries in the United States each year. I appreciate the opportunity to testify on behalf of IBM in support of this important legislation.

IBM's strategy in health benefits is simple. We focus on health people for high performance. This strategy underscores investment in health to realize the productivity and innovative potential of our employees. The personal health record is critical to achieving this goal.

In 2005, IBM announced that it would provide personal health records to its entire U.S. work force. To set up the records, employees enter information in a secure Web site. They input such things as medical conditions, family history, medications and allergies. Later this year, their personal health record will automatically import their medical and prescription drugs claims history. The ultimate goal is to enable all types of health information to flow into the record to form a comprehensive portable portrait that the patient can access when they desire and share with their provider when they choose.

Since we rolled out personal health records late last year, over 45,000 IBM employees have signed up. It is important to note we are not creating new information. The carriers have always collected claims data. It is how they pay bills. But the personal health record will allow our employees to look at their comprehensive claims history, many for the first time. I believe electronic health records will drive two changes in health care. First, they will increasingly make health care organize around the patient; and second, electronic health records and their related systems will improve our employees' interaction with their doctor.

Let me explain. The personal health record empowers consumers with the information they need to actively manage their health and health care. As a result of the personal health record, our employees are asking more questions about cost and quality. With this broader personal health history, they are able to have a collaborative relationship with their physician that extends beyond the day's illness to address the most important health needs for that individual. This informed relationship with their provider is critical to improving health care quality and reducing costs.

With the aid of electronic health records and the tools to support them, providers will have all the information about a patient and can focus on the most important health issues for that patient across the continuum of care.

Let me give you an example of feedback I received from a happy employee. This employee reported suffering depression for most of her adult life. As a result of participating in our disease management program, she was able for the first time, to work with a provider who had a comprehensive view of her medical history and other personal factors. They were able to identify a successful treatment plan for her, and she reported that this had totally changed her life, and for the first time in 18 years she felt fully alive and productive.

My hope is that the personal health record will afford this opportunity for every patient.

Provider adoption of personal health records is key. While the legislation establishes some incentives, reforms and reimbursement and additional sources of funding will have a dramatic impact on the adoption and value of the electronic health records created by the act. Finally, this bill will help lead the critical transition to digital health care by allowing the exchange of health information in standard electronic formats.

IBM strongly supports the use of standards. We believe standards are critical and necessary to ensure providers and patients have the information they need.

In summary, personal health records will drive a more innovative and efficient patient-centric system. Personal health records are the foundation of a standardized infrastructure for the electronic exchange of health care information, one that enhances the ability of providers to deliver high-quality care.

Finally, improving the health and wellness of a work force, whether at IBM or across the Federal Government, is a strategic investment that can pay substantial dividends, promoting greater economic competitiveness and capacity to innovate.

Thank you.

[The prepared statement of Dr. Barlow follows:]

Testimony
Of

Dr. Jane F. Barlow, MD, MPH, MBA

IBM Well-Being Director
Global Well-Being Services and Health Benefits
The IBM Corporation

Before the Subcommittee on Federal Workforce and Agency Organization of the Government Reform Committee

March 15th, 2006

Chairman Porter and members of the Federal Workforce Subcommittee. My name is Jane Barlow and I am the Well-Being Director for IBM Global Well-Being Services and Health Benefits. I am a physician and have additional degrees in public health and business. My group is responsible for the health and health benefits of over 500,000 IBMers, retirees and dependents. The IBM Corporation spends over $1.7 billion on health care each year.

IBM appreciates the opportunity to testify in support of the Federal Family Health Information Technology Act of 2006. By providing federal employees with a health record that can link them electronically to their provider, the Act will allow federal employees to improve their health and satisfaction with their healthcare experience -- while reducing health care costs.

In 2005 IBM announced that it would provide personal health records to its entire U. S. workforce. To protect employees' privacy, the personal health record system available to IBMers today is managed by an outside vendor and we have instituted contractual provisions and process controls in order to prevent inappropriate access to employee-specific data.

To establish their personal health record, our U.S.-based employees begin by entering basic information: medicines, allergies, major conditions, and details on their doctors and insurance coverage. Later this year, their personal health records will grow to automatically include medical and prescription drug claims history.

Even this basic information has real utility today. It can be emailed or faxed to a provider—and even sent from a Web-enabled mobile device—or simply stored or printed out for easy access in an emergency, or when an IBMer is traveling.

The ultimate goal is to enable all types of electronic health information, including one's lab results, prescription histories, medical images and more to flow into the record to form a comprehensive, portal portrait of a patient.

Equipping and empowering patients with personal health records is only the start. Enabling such data to flow electronically to doctors, hospitals and other providers authorized by the patient will allow health care to become a highly interoperable, and innovative, system ... something it is far from today.

We expect that personal health records (and the standards-based systems to manage their exchange) will do for health care what the Web browser did for the Internet: create rapid growth and adoption of an entirely new platform for societal innovation.

The model for such high-level transformation is already evident in the global system for secure financial transactions we encounter daily: in ATMs and credit cards, stock markets and electronic billing systems.

The benefits of "wiring" health care into a coherent information exchange are far reaching, from saving lives by preventing medical errors and improving diagnoses, to saving billions of dollars by eliminating redundant tests and streamlining the byzantine payment and administrative processes in health care that vex so many Americans.

Chairman Porter's bill will help lead this critical transition to digital health care by requiring that federal employees be provided personal health records that allow the exchange of health information in standard electronic formats. IBM strongly supports the use of standards to exchange data within the health system, and applauds the role that our federal government can play in catalyzing the proliferation of electronic health records.

Just as the value of a network rises exponentially with the number of devices connected to it—the so-called network effect—the power of the personal health record will rise dramatically the faster we can build a critical mass.

What's more, with a large enough base of personal health records, the private and public sectors will create strong incentives for physicians, hospitals, and other health system participants to begin to adopt the infrastructure for health care that will improve quality and reduce costs.

Of course, personal health records offer the federal government the same advantages—improved quality of care and associated cost savings—that persuaded IBM to become arguably the nation's largest enterprises to adopt PHRs

But personal health records will also drive two vital changes in the nature of health care itself. First, they will increasingly make the patient the centerpoint around which health care organizes itself. And second, personal health records and their related systems will support greater transparency across health care, and in many dimensions, including prices.

To this first point, national surveys tell us that nine of ten consumers want to be more involved in managing their health care (Hart Research). Fifty-two percent want to make final treatment decisions for themselves or a family member, and 38% want to make decisions together with their doctor (Rand).

President Bush in his 2006 State of the Union address, emphasized that Health care Savings Accouts, or HSAs, were a tool for consumer empowerment, along with personal health records.

To the second issue of transparency in health care President Bush also noted in the State of the Union that Americans should be more able to access information about the price and quality of health care. A digital information infrastructure will be essential to enabling this lever of innovation

Indeed, President Bush also said that the Administration will work to develop nationwide IT standards to accelerate patient access to electronic records, so this bill strongly resonates with the will of the people and this President's agenda for health care.

It comes as no surprise that if the value of PHRs and digital health are to be fully realized, the security and privacy of patient information must be ensured. Fortunately, the Federal Family Health Information Technology Act of 2006 includes sensible mechanisms to safeguard the privacy of the federal employees' health data, including controls to set access to the PHR.

Meanwhile, the bill offers innovative approaches to encourage providers to exchange health information with the patient's PHR. We believe that both privacy protections and provider incentives are critical if significant exchange of health information is to occur.

To put IBM's experience with personal health records in some context, I would first like to describe our broader efforts on improving employee health and reducing costs. That backdrop is, in fact, how we progressed to offer personal health records for our employees.

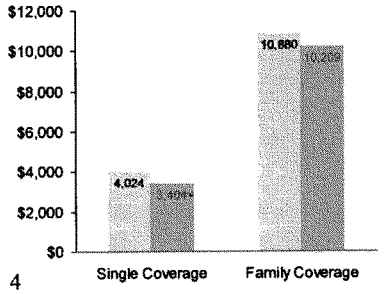
In today's information-rich, consumer-driven environment, we see patients seeking greater control over their health care, much as they have taken center stage in other spheres, from their finances to their entertainment. Information-empowered patients—which each of us undoubtedly want to be—can apply their greater knowledge to improve their health and to hold down costs.

As a result of our consumer-centric health programs for employees, IBMers are healthier and have lower health expenses than others in our industry. We have demonstrated that information-rich, patient-centric wellness programs aren't marginal benefits. They are very good business:

- IBM's employee injury and illness rates are consistently lower than industry levels.
- We have documented significant decreases in the number of health risks among IBM employees as a result of participating in our wellness initiatives.
- IBM's disease management programs have demonstrated a 9%-24% reduction in emergency room visits and a 13-37% reduction in hospital admissions resulting in an overall 16% reduction in medical and pharmacy costs adjusted for medical trend over a 2 year period.

With the health improvements, we have seen cost benefits -- IBM health care premiums are 6% lower for family coverage and 15% lower for single coverage than industry norms. Our employees benefit from these lower-cost as well -- they pay 26 to 60% less than industry norms. And IBM health care premiums have been growing significantly more slowly than US health insurance premiums.

US Average Annual Premiums for Covered Workers: Industry Average vs. IBM (Source: Kaiser Foundation)



The health and improvements and cost reductions are the result of over 40 programs managed by my department. These programs include health promotion, industrial hygiene and safety, medical management, and benefit design.

We have also had significant success in improving the management of care for employees with chronic problems such as asthma and diabetes. In total, our well-being programs drive over $100 million in annual savings. However these programs have limits--they rely on retrospective data and in most cases patient self-selection.

Prospective health care involves collaborating with the employee in a more coordinated fashion to prevent health care problems -- in effect, heading problems off before they occur. IBM is developing patient-centric programs that are doubly proactive: they both reach out actively to a wider range of employees, and are more able to help them anticipate and manage health risks.

The personal health records that we are providing to all of our employees in the US are a prime example of this patient-centered approach. When an IBMer first goes to the Web site for their personal health record, they are offered a financial incentive to complete an employee health risk appraisal, develop a personal preventive care action plan and identify quality hospitals in their area.

The process surveys a range of issues including exercise level, family histories and cholesterol control, if applicable. Based on the results, an IBMer can subscribe to receive expert information, articles and advice on how to reducing their risks. It identifies eligibility for additional benefits and services such as disease management and refers employees to those resources. Decision support tools for drug comparison and interactions, hospital quality and Leapfrog results (from the Leapfrog Group's performance measurement system) provide individual support for optimizing benefits quality and costs.

For IBM, the risk assessment tools and the personal health records we provide our workforce are an investment that we recoup through improvements in employee health and the significant cost savings that result. For individual employees, the incentives we provide—to take the assessment, or track their self-paced exercise regimens —are essential to helping us capture these business benefits.

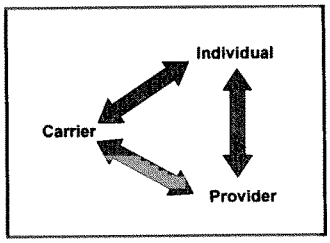
The effectiveness of these "carrots" are why IBM also supports the provisions in the legislation that would offer incentives to providers to adopt electronic health records. In fact, IBM is already implementing a similar incentive plan.

In New York's Hudson Valley, where many of our employees live, we are funding a program that rewards doctors each time they use a new electronic system for writing prescriptions (e-prescribing).

Even large companies, like ours, need incentives. IBM is one of four companies selected as prime contractors to build the prototype of the Nationwide Healthcare Information Network (NHIN), the prototype of just such an interoperable infrastructure that would transform care via personal health records and deeply interconnected medical communities. These contracts were awarded by the Office of the National Coordinator of Health IT (ONCHIT) at the Department of Health & Human Services.

* * *

I would like to turn now to highlight a few provisions in the Federal Family Health Information Technology Act that our IBM experience would support



- Exchange of Data is eased by Use of Standards
  - The legislation would require that federal employee health benefit carriers provide carrier electronic health records that are able to exchange health information in open standards.
  - Health information will be enabled to be imported from a provider based electronic health record consistent with standards adopted by the Department of Health and Human Services/Office of the National Coordiator for Health IT (ONCHIT).
  - The legislation requires that federal employees who change carriers be able to transfer information between carrier electronic health records if the employee changes plans.
- Building on Existing Sources of Health Information
  - The legislation would leverage existing claims data by inserting it into the carrier electronic health records and move through stages to allow exchange of health information with the federal employee's personal health record and providers electronic health record.
- Privacy and independence
  - The legislation restricts access to the personal health record to those with authorization from the federal employee and specifies full compliance with the Health Insurance Portability and Accountability Act (HIPAA).
  - The personal health records could be provided by a vendor independent from the carrier.

As the interoperable network grows, it will allow federal employees to view their prescriptions, treatments, and other health records -- and exchange personal health information as they choose.

The legislation provides several incentives to drive the system of interoperable health records within the limitations of the federal employees health benefits program. First, the

Act establishes a trust fund that can receive donations to be used to award grants to health care providers for implementing interoperable electronic health records. Second, the legislation provides that the office of personnel Management can use unused portions of contributions set aside in the Employees Health Benefits Fund to assist carriers.

These incentives will be helpful, but clearly additional incentive from other sources would increase the rate of individual use and provider adoption of electronic health records.

Improving the Quality of Care Via the Internet and Interoperable Information

National surveys tell us that more and more Americans look to the Internet for health information. In 2004, half (51%) went online for health information; this equals 111 million Americans, up from 54 million in 1998 (Harris). In 2005, eight of ten (80%) Internet users searched online for health information (Pew). In addition, more than seven of ten Americans (72%) favor establishing nationwide electronic health information exchange, and six out of ten Americans (60%) support creating a secure online PHR (Markle).

A subset of consumers (12%) also used the Internet to research health providers' costs or quality in the past year, according to a 2004 survey (Forrester Research). As consumers take more responsibility for their own health care, this percentage will increase.

All of this evidence points towards the emergence of a new model of health care, one not centered around payors or providers, but consumers of health care. At IBM we call this market shift Patient-Centric care. And we are organizing our efforts, as a leading employee and facilitator of business innovation, to speed its arrival.

Because it is designed to be controlled by the consumer, the personal health record clearly differs from records that medical professionals may collect and maintain, so-called electronic medical records (EMRs). Today, the EMR systems that are in place are used to document episodes of care delivered within hospitals or in physician practices.

While patients are entitled under HIPAA rules to get copies of all their medical records from providers, in practice much of this information remains stranded, either in paper form, or because there is no uniform way to extract data from electronic systems. The President's initiative focuses on implementing interoperable electronic health records that would reach across time and place to create longitudinal personal health records for every American.

The PHR: A Digital Bridge

The transformation of health care from paper and analog records to digital medical data will not be instantaneous, but a gradual transition over several years. During the switchover, the personal health record can serve as an operational bridge, filling in the gap for the provider at the bedside or in the clinic, or helping a patient's various providers

have a more complete picture, even before a fully interoperable health care network emerges.

The ultimate role of a personal health record is to capture the full range of data relevant to an individual patient from a variety of sources and institutions, and to be able to share that data with the electronic medical record systems of appropriate providers.

Such electronic sharing of patient data is even more pressing today in light of the Katrina hurricane tragedy, in which thousands of patients' paper records were destroyed, or were inaccessible when patients were relocated.

A personal health record, for example, should allow diabetics to track their daily blood glucose reading, upload the results directly and digitally from their glucometers into their personal health record, and make that information available to the electronic health record systems that providers use to help them manage their condition.

Advocates propose a wider range of content in future personal health records than is possible today, through linkages to multiple data sources and informatics tools.

Types of Data in the Future PHR
• Self Reported/Validated Personal Data • Personal Emergency Response Clinical Data • Comprehensive Lifelong Medical Summary • Comprehensive Lifelong Dental Summary • Medical and Dental Plan Benefits and Transactions • Personal Clinical Reference Library • Decision Support Tools • Authorized PHR Custodians and Other Users

PHR Benefits

The personal health record is essential to efforts "to improve the quality and efficiency of health care and the ability of consumers to manage their care and safety"—the very same objectives of the Nationwide Health Information Network (NHIN). By giving consumers the tools and the information they need to actively manage their own care, personal health records serve as a trusted knowledge resource to enhance access, quality, and continuity in all sectors of health care.

Consumers report that they want the benefits personal health records promise. According to a survey by the Markle Foundation, Americans would use personal health records to check for mistakes in their medical record (69%), check and fill prescriptions (68%), get lab results over the Internet (58%), and conduct secure and private email communication with their doctor or doctors (57%). Clearly, these capabilities mean convenience and reassurance for the consumer, but they also promise better and safer care. As the private-public collaborative known as Connecting for Health reports, "inadequate availability" of patient information, such as laboratory test results, is "directly associated" with 18% of

adverse drug events. Such events are not uncommon: "More than one in five Americans report that they or a family member had experienced a medical or prescription drug error." (Commonwealth Fund Website)

Chronically ill patients, major users of health care services, are also eager to use personal health records. This is no small matter. About half of all Americans (than 125 million) have one or more chronic illnesses, and care for these conditions amounts to 78% of the nation's health care expenditures. (State Official's Guide to Chronic Illness)

According to the California Health care Foundation, chronically ill patients indicated they would share their personal health information with doctors not involved in their care for better coordination of medical treatment (60%), enhanced coverage/benefits (59%), access to experimental treatment (58%), to find current information on medical developments (54%), or gain financial incentives (52%). As experienced users of the health care system, chronically ill patients realize the benefits of bringing together health data and information from multiple sources into a single, coherent record.

Comment [MSOffice1]: Note the survey never relates to PHRs at all – it just says consumers would be willing to share their personal health information in exchange for a benefit

Health plans and employers understand that increasing patient compliance with clinical guidelines benefits them by keeping plan members healthy and employees productive. . As more and more of health care costs are assumed by employees, consumers will have greater motivation to search out quality data and take action on trusted recommendations for closing care gaps and optimizing benefits. Given the changes in pension plans and concerns about Medicare solvency, consumers are less confident that health care benefits will be available as they age. It is reasonable to expect the numbers of consumers who choose to leverage tax advantaged health savings accounts (HSAs) to increase over the next five years. Health plans are well prepared to meet the requirements of savvy consumers who expect their PHR to include the balance in their HSAs and realized investment returns – a view of financial preparedness to handle future health care costs.

Such knowledge in the hands of the consumer can improve clinical outcomes, is non-invasive to physicians, and saves real dollars across the ecosystem.

Critical Issues to Consider

Standards

Technical standards are essential to achieving comprehensive interoperability of health care systems. Without technical standards, there will be multiple electronic health records that cannot "talk" to each other. Both regional health information organizatons (RHIOs) and the contractors building the Nationwide Health Information Network (NHIN) are working to foster comprehensive standards so health care organizations implementing electronic health records and personal health records. Today, consumers are often unable to transfer or migrate their personal health information when they change health plans or providers, or change jobs, especially if their employer is the personal health record sponsor. Interoperable standards could allow the migration of data from one solution to

another, but that is not a reality today and, given the use of unstructured text entries, may not be a reality for quite some time.

Translation of Health Data into Understandable Records

For PHRs to empower patients, the information in them must be presented in understandable terms and language, not medical or scientific jargon. Despite growing momentum for technical standards to create electronic interoperability, "a mechanism for meaningful translation to engage consumers is lagging." Even if, for example, a diabetic can use his PHR to find the results of his hemoglobin A1c test, the information may not be useful. "Without standards for translating raw health data into simple terms and integrating the data with other essential information and infrastructure tools, individuals who manage their own health records may still feel overwhelmed or lost."

Privacy

According to a 2005 survey, two-thirds of all Americans report high levels of concern about the privacy of their personal health information, with ethnic and racial minorities and the chronically ill showing the greatest concern:

- Is of a racial/ethnic minority: 73%
- Is not of a racial/ethic minority: 52%
- Has been diagnosed with a disease: 67%
- Has not been diagnosed with a disease: 63%

One in four consumers report being aware of incidents where the privacy of personal information was compromised. In addition, they believe (erroneously) that paper records are more secure than electronic ones (66% vs. 58%). (California Health care Foundation)

These attitudes about privacy are reflected in the requirements consumers indicate are important for electronic health information exchange. Nine of ten consumers want a system that confirms the identity of anyone accessing it. Eight of ten want to personally review who has accessed their information, and to be asked before their information is shared. (Markle) Clearly, privacy issues, and the public's perceptions of those issues, must be addressed in order for personal health records to succeed. One way to accomplish this would be to develop a standard and simple format to be incorporated into personal health records that would explain privacy policies and rights available to consumers.

Incentives for Adoption and Use

Establishing a system of electronic health records will be limited by the availability of incentives. Individuals, providers, and other participants have to bear the direct costs of establishing the electronic health records, and the indirect cost to transform their established processes to use them. The current U.S. health care system pays providers based on volume and not quality. Those reimbursement flaws have also retarded the establishment and use of interoperable electronic health records. While the legislation

establishes some additional incentives, reforms in reimbursement and additional sources of funding will have a dramatic impact on the adoption and health value of the electronic health records created by the Act.

Summary

- Personal Health Records (PHR) are a central component in transforming health care into a more innovative and efficient system. In 2005, IBM implemented a PHR for its U.S. workforce and strongly endorses legislation to make a PHR available to all federal employees.

- PHRs are one critical component in the larger effort to create a comprehensive infrastructure for the electronic exchange of health care information: from patient to doctor, between doctors and other providers, and for the advance of public health on many fronts, including clinical genomics and pandemic preparedness.

- PHRs, Health Savings Accounts (HSAs) and many other aspects of the move toward digital health care reflect the emergence of a new model of health care, one in which the patient is the center and organizing principle around which care will evolve.

- Managing the health and wellness of a workforce, whether at IBM or across the federal government, is today a strategic investment that can pay very substantial dividends and promote greater economic competitiveness and capacity to innovate.

Mr. PORTER. Thank you, Dr. Barlow.

Next we will have Mr. St. Clair, founder and CEO of MEDecisions.

STATEMENT OF DAVID ST. CLAIR

Mr. ST. CLAIR. Good afternoon, Mr. Chairman. Thank you for inviting me to testify before this subcommittee today on what we consider to be a very important topic.

As you said, I am David St. Clair, Founder and CEO of MEDecision. We are the recognized market leader in collaborative care management solutions for the health care industry. Our clinical systems are used nationwide to help coordinate care for about one in every six insured people in this country, including millions of Federal employees and their families.

I am here today representing two other organizations as well. I am here on behalf of HIMSS, the largest trade association for health information technology, and I am here as the spokesman for the CollaboraCare Consortium, an alliance of 16 innovators in the emerging regional health information market.

We believe that electronic health records will really improve the way health care is delivered in this country. Using technology to facilitate collaboration among health care stakeholders will result in the right information reaching the right people at the right time, which can improve lives, indeed, save lives, and make health care more affordable in the process.

We need not wait until physicians and other providers fully embrace the use of electronic medical record systems in their practices. Sharing information that already exists within payer repositories, with individuals and their care team can improve health care outcomes.

For these reasons, MEDecision, HIMSS and the CollaboraCare Consortium, enthusiastically endorse the Federal Family Health Information Technology Act of 2006.

There are just a few points I would like to emphasize in my testimony today, and as you will hear, many of them really speak to the notion that of the things that are called for in the proposed legislation are already well under way in the private sector.

My first point is, our success at creating and deploying carrier based health records, which we call the payer-based health record [PBHR], has already demonstrated the value of those records at the point of care. In his written testimony, Dr. Ed Ewen, a practicing physician with the Christiana Care Health System in Delaware, and their head of Clinical Informatics, underlines his belief that the information in the Blue Cross Blue Shield of Delaware PBHRs, being used in the Christiana Care Level 1 Trauma Center, has, one, improved the quality of care being delivered to patients in need. For instance, they found that the PBHR gave them substantially more—their quotes—medication information 48 percent of the time than they had through any other means. And two, that effort has decreased the cost of that higher quality care.

The key to understanding the value of carrier-based health records is illustrated in the graph on my left. We have laid out the population. This data is from the 3.7 million health records we created last month for the Blue Cross Blue Shield of Illinois popu-

lation. We have laid them out based on their relative burden of illness. As you can see on the left, the sickest 5 percent of the population, which represents, by the way, over 40 percent of the total health care spent for this population, have, on average, 11 different medical conditions, including three chronic care conditions, and those individuals have taken 13 different classes of medications and seen 9 different providers of care within the past year.

This population, more than any other, is in need of assistance in bridging the information gaps or the information chasms evident in the medical community today. Just one of these patients generates raw claims data that fills 60 pages that I have in my hand here today. What we have as a technology challenge and clinical challenge is to reduce that to the four-page summary that we are using today in the State of Delaware, and soon in the State of Illinois.

My second point, the technology we use have been creating valuable information from payer data for over 10 years. In 2001 we started using the PBHR to support case and disease managers as they worked with those individuals with the chronic diseases. For instance, Blue Cross Blue Shield of Massachusetts uses the payer based health record to drive their disease management programs both through telephone contact and tailored correspondence.

Third, if you direct your attention to the second graphic here, our belief, since I started the company 18 years ago, is that we need to be able to share a composite view of a patient's history with all members of the care team, the patient themselves to help with their own decisionmaking, with the clinical staff who are actually treating the patient, and with the care managers, the case managers and disease managers who are helping coordinate their care. While there will still be decisions to make and perhaps disagreements, at least we are all starting with the same basic information.

Fourth, last year, in anticipation of the destruction of Hurricane Katrina, we partnered with Blue Cross Blue Shield of Texas, and created 830,000 payer-based health records for the potential evacuees along the Texas Gulf Coast in 4 days. When Rita stormed ashore, Blue Cross Blue Shield of Texas was ready.

This year we have created 3.7 million payer-based health records for the membership of Blue Cross Blue Shield of Illinois in 4 weeks. We will be extending that capability across the populations for Blue Cross Blue Shield of Texas, New Mexico and Oklahoma, all for their parent company, Health Care Services Corp.

We and the physician executives of HCSC—and you will be hearing from Dr. Handel in a few minutes—will be working with the provider communities and consumer advocates to roll out secure access to these records by the members and by the physicians who treat them. Our success with the project in Delaware we replicated on a much broader scale with 10 million records available nationally. I want to point out that represents 3.3 percent of the U.S. population who will have electronic records available from one payer in 1 year.

Finally, that brings me to the last point, access and cost. The PBHR, whether enhanced by PHR data or not, will improve the quality and safety of health care for virtually everyone who participates. We strictly adhere to HIPAA privacy and security regulations and allow individuals to opt out of the program if they have

privacy concerns. In addition, we implement data filters that respect State law, prohibiting the sharing of certain classes of information. The key for adding a voluntary PHR—and we have five such partners in the CollaboraCare Consortium—is it will allow consumers who wish to share all their data, some of their data, or none of their data to control that process at a granular level.

The technology and delivery infrastructure is very inexpensive when used across a broad population. Based on our experience in Delaware, we would project that the PBHR and PHR programs being called for in the legislation will cost well under $1 per member per month for that coverage, which represents a very small fraction of the monthly premium for those particular individuals.

Thank you very much for the opportunity to testify before the subcommittee today. I am prepared to take any questions you may have.

[The prepared statement of Mr. St. Clair follows:]

David St.Clair, CEO of MEDecision
Testimony (Final) 3/15/06

TESTIMONY FOR THE
SUBCOMMITTEE ON THE FEDERAL WORKFORCE AND AGENCY ORGANIZATION

Mr. Chairman, Ranking Member Davis and distinguished members of the Subcommittee. Thank you for allowing MEDecision, Inc., to submit a formal statement for the record on the extremely important topic of using payer-based health record technology to improve healthcare. I am David St.Clair, Founder and CEO of MEDecision, Inc., the recognized market leader in collaborative care management solutions for the health insurance industry. Our clinical systems are used nationwide to help coordinate care for about one in every six insured people in the US, including millions of federal employees and their families. Since 1988, MEDecision has been leading the effort to create clinical information technology to improve the quality and affordability of healthcare. I also represent two other organizations. I am here on behalf of the Health Information Management Systems Society (HiMSS), for which I serve as an Advisor on their Board of Directors. HiMSS, as the Subcommittee is well aware, is the largest trade association for health information technology. And I'm here as the spokesman for the CollaboraCare Consortium, an alliance of 16 innovators in the emerging regional health information technology market.

We commend this Subcommittee's commitment to improving health care for Federal Employees and their families and to driving healthcare reform through the development, standardization and interoperability of health information technology.

The growth in healthcare costs, which far exceeds the growth of the economy in general, drives demand for additional technical solutions and an interest in clinical best practices. There is also an interest in identifying the highest of the high risk patients - the 5 or 10% of patients that is responsible for the majority of healthcare costs in our country. On average, these patients in a recent sample have 11 different medical conditions (including 3 chronic conditions), have taken 13 different classes of medications and have seen 9 different providers in the past year. This population, more than any other, is in need of assistance in bridging the information gaps – chasms – evident in the medical community.

We believe that electronic health records will change the way healthcare is delivered in this country. Using technology to facilitate collaboration among healthcare stakeholders will result in the right information reaching the right people at the right time – which can positively impact patient outcomes and make healthcare more affordable. Recognizing that we need not wait until physicians and other providers fully embrace the use of electronic medical records systems in their practices, forward-thinking payers predict the impact that sharing their information can have on healthcare outcomes and embrace this sharing as the proper course of action to take. For these reasons, MEDecision, HiMSS and the CollaboraCare Consortium enthusiastically endorse the Federal Family Health Information Technology Act of 2006, recently introduced by Congressman Jon C. Porter (R-NV).

Payer-based health record: the first step toward the electronic health record

For 18 years, the central focus of MEDecision has been to improve the relationship among patients, payers and providers. While all three groups are both suppliers and users of patient data, payers are currently the best source of information. Percentage-

wise, nearly 100% of the insured population has the opportunity to have a payer-based health record because they've had claims paid in an automated system – compared with 15% of that population potentially having even a partial electronic medical record with a provider, and less than 1% with an electronic personal health record today.

To improve healthcare in this country and change the way patient information gets used by physicians at the point of care, the place to start is not just with personal health records or with providers' electronic medical records - both are relatively "thin" sources of data. Rather, the logical starting point is the payer-based health record because it mines the richest source of data available for almost everyone with health insurance of any sort. And the number of records available matters immensely, because in order to get physicians or hospitals to modify their workflow, a new capability must apply to a significant portion of their patient population. We believe that mobilizing this payer-based data as quickly as possible will greatly impact the quality and affordability of healthcare in the United States today.

MEDecision, HiMSS and the CollaboraCare Consortium support the legislation's proposal to use the Federal Employees Health Benefits Program (FEHBP) as a model for providing all 8.5 million beneficiaries with an electronic health record by the end of the decade, starting with payer-based health records, then adding personal health records, and then providing resources via grants for providers to implement electronic medical records systems.

The process outlined in the bill is the same process already being followed by several forward-thinking payers. In all instances, the value of these patient clinical summaries was immediately recognized by both the health plans and the providers who received patient data at the point of care. The physicians using patient clinical summaries strongly believe that this payer-based information is improving the quality and safety of the care they are delivering. The payers, in turn, also believe that the improvement in the quality of care will ultimately reduce the overall cost of care for their customer base, making the very modest investment in the payer-based health record technology a good one.

Introduction of the payer-based health record

In 2004, MEDecision introduced the payer-based health record (PBHR) as the best source of information in digital form on patients and their overall clinical histories available at that time. The PBHR represented the sum of all available information – including years of paid claims data, pharmacy data and care management data that was generated by physicians and other providers in all kinds of settings, including the vast majority that had no electronic medical record systems of their own.

While we readily acknowledge that the payer-based health record is not a complete electronic health record, it is the logical starting point because payers have the only large quantities of data that already exist in electronic form. By partnering with our clients, MEDecision has learned that payer data is most effective when it has been clinically validated and cleaned. Using patented clinical rules technology, MEDecision now refines and validates much of the data and pushes the PBHR to the next level of utility. The benefits of a clinically enhanced PBHR, which includes more accurate information, ultimately leads, early adopters believe, to better decisions and better outcomes. The clinically enhanced PBHR paves the way to the full electronic health

record and to the next generation of healthcare in this country. (See attached "Defining the Roadmap to the Electronic Health Record" for further details.)

MEDecision's experience in Texas, Delaware and Illinois provides "proof of concept" for the technology and the approach contained in the Federal Family Health Information Technology Act of 2006.

Creating 830,000 payer-based patient records in four days

Today, MEDecision's customer base of 60 health insurers includes 21 Blue Cross and Blue Shield plans nationwide, two of which are leading the movement toward creating and sharing payer-based health records. Last summer, MEDecision teamed up with Blue Cross Blue Shield of Texas (a subsidiary of the Health Care Services Corporation) to create payer-based health records for their 830,000 members who were potential evacuees from an approaching Hurricane Rita. This effort required two days' worth of work on the part of the payer's technical staff who gathered claims data for members who lived in the zip codes in the Texas coastal areas. They turned the data over to MEDecision and in two more days we organized and processed the data using patented clinical validation rules to create clinically enhanced payer-based health records for the affected members. When Hurricane Rita stormed ashore, Blue Cross Blue Shield of Texas members had their clinical histories available through their insurer for use by their doctors should the need arise far from home.

Blue Cross Blue Shield of Texas initiated this project simply because they recognized it was the right thing to do to. To ensure the best health outcomes for their members, particularly having watched the aftermath of Hurricane Katrina, they chose to act swiftly and decisively. I submit to you that the passage of the Federal Family Health Information Technology Act of 2006 is in the same category – it's the right thing to do.

Implementing the PBHR at a Level 1 trauma center

In another case, MEDecision joined forces with a major payer in Delaware and the state's largest provider, Christiana Care Health System – both of whom serve approximately 50% of the population – to create and share payer-based health records.

Dr. Edward F. Ewen, Jr., Director of Clinical Informatics at Christiana Care Health System, was instrumental on the provider side for managing the relationship with the health plan, arranging for the receipt of the payer-based information, setting up the processes within the hospital, and putting all this into production. We agreed to start using the PBHR in the hospital's Emergency Department, a Level 1 trauma center, which is appropriately one of the highest cost care delivery settings in any hospital. It is in this environment where the patients are at the highest risk, and also where the doctors typically know the least about their patients because they often arrive unconscious and alone.

For the first time in the nation's history, a regionally dominant health plan is synthesizing data to create a composite patient clinical summary and to export it in real-time for a patient arriving in the Emergency Room. The patients benefit because the clinical staff now knows what conditions they've been treated for, the relative severity of those conditions, what medications the insurer has paid for and the date of their last refills,

who the patients' doctors are, what services they'd delivered and what tests they ran. The clinicians benefit because they can focus on treating their patients for presenting problems more safely and efficiently. And the insurers, employers and society benefit because we end up with healthier citizens and lower healthcare costs.

Early results, generally anecdotal (pending a full study), show specific areas of marked benefit: improvements in medication histories, evidence of medication/condition contraindications, and a reduction in hospital admission rates.

"Substantially more" medication information

According to preliminary findings at Christiana Care, emergency physicians now have "substantially" more medication information about a patient 48% of the time. More complete drug information helps prevent interactions and helps highlight possible contraindications. For example, in an initial review conducted at Christiana Care, the patient clinical summaries disclosed that out of a total of 59 high-acuity ER admissions in one month, three patients with heart conditions had filled prescriptions for Viagra but failed to tell the hospital staff that potentially life-saving information. On the other hand, about a quarter of the time, the doctors managed to get information about drugs the patient had taken that the summaries were missing; almost all were aspirin.

Anticipated cost savings

Christiana Care Health System, their associated payer and MEDecision have retained an external research organization to do a formal ROI analysis on this program and that study is underway. However, early results of the program suggest that electronic transmission of the patient clinical summary to emergency room physicians lowers ER patient treatment costs. Anecdotal experience indicates that approximately 7.5% of the sample high-acuity patients seen in the ER would not have been admitted if attending physicians had had immediate access to the data in the patient clinical summary. At a typical ER admission cost of approximately $8,000 per patient, millions of dollars could be saved annually as a result just from avoided admissions alone. The savings attributable to reduced medication errors and avoided duplicative testing costs can only add to the opportunity for ER savings across the country.

Rolling out electronic health records to 10 million BCBS members

One of our largest customers, Health Care Services Corporation (HCSC), is building payer-based health records and implementing personal health record systems for their 10 million members, including about 500,000 FEHBP beneficiaries. In four weeks, we created 3.7 million electronic health records for members covered by the HSCS subsidiary, Blue Cross Blue Shield of Illinois. In the coming months, these records will be delivered to clinicians who are treating those individuals, on demand and in secure transactions across the country. The clinical summaries will also be made available to the members themselves as part of the HCSC-branded member portal, integrated into a fully functional personal health manager. But, just as importantly, those same records will be made available to the members themselves in pre-populated, secure personal health record systems supported by several of MEDecision's partners in the CollaboraCare Consortium. HCSC believes that they can best serve their members, their corporate and governmental customers, and the healthcare system by helping individuals "engage" in their own healthcare, regardless of what secure and private

personal health record system that member chooses to use. That, Mr. Chairman, is leadership.

It is interesting to note that this one payer covers 3.3% of the U.S. population. If you look at the last 25 years of electronic medical record system adoption in this country by physicians, hospitals and others, the total penetration for electronic medical records is probably 15% or less of the US population. So in effect, one payer can add over 20% to the total population with electronic health records available in less than one year.

The real opportunity now is to mobilize the data that the payers have as quickly as possible, because we can then use that information to improve the quality and affordability of care – while we're still trying to figure out exactly who pays for electronic medical records systems, which are the best ones, and how to make them interoperable. We can dramatically increase the use of clinical data in treating patients in a relatively short period of time, at a relatively low cost. The only technology required in a physician's office to get started is a computer with an Internet connection and a printer, and the total cost for the creation of the payer-based health records, the personal health record system and the delivery to the point of care is less than $1 per person per month, a fraction of a percent of the insurance premium for the individual's health coverage.

The necessary technology is available today

In conclusion, MEDecision, HiMSS and the CollaboraCare Consortium strongly believe that there is an opportunity to improve the quality and affordability of healthcare in this country through the use of electronic health records. The enabling technology is available today. We salute those forward-thinking payers who are embracing opportunities for change rather than shrinking from it.

The Federal Family Health Information Technology Act of 2006 can mobilize the data in dozens of health plans because, even though the proposed mandate is only for the 3% of the population who are FEHBP members, the technology can be easily extended once it is in place for one group. The bill, once passed by Congress, will be a step in the right direction for demonstrating the leadership that payers can take to affect health outcomes. We salute the federal government's willingness to use its own resources to lead the way.

Mr. Chairman and Ranking Member Davis, the commitment of this subcommittee will help yield the greatest benefit of all: better health for our citizens. We at MEDecision, HiMSS and the CollaboraCare Consortium are proud to be part of that process. We look forward to working with you, the Subcommittee, Congress, OPM and ONCHIT to develop a healthier future for all Americans.

Thank you again, Mr. Chairman and Ranking Member Davis for the opportunity to appear before this Subcommittee. I am prepared to answer any questions you may have.

David St.Clair, CEO of MEDecision
Testimony (Final) 3/15/06

Defining the Roadmap to the Electronic Health Record

Abstract

The electronic health record (EHR) – a composite of all available information from patients, payers and providers – has long been cited by both the healthcare industry and the federal government as essential for decreasing medical errors, improving quality of care and reducing costs. The first step toward a usable EHR was the introduction of the payer-based health record (PBHR), which was introduced in 2004. The next step is the enhanced PBHR, which offers a quantum improvement in clinical and economic value. This white paper examines the differences between the PBHR and the enhanced PBHR, and defines the subsequent, necessary steps that must be taken in order to achieve a broader EHR.

I. Overview

When considering the need for an electronic health record, the healthcare market historically defined the EHR in terms of information that was available inside doctors' offices, hospitals and laboratory facilities. Sometimes the industry would discuss data that the patient had, but for the most part the EHR was considered to be based on provider-side data sometimes found in an electronic medical record system, or EMR.

At MEDecision, we examined the situation and determined that if you look at the overall healthcare system, there are three major constituencies – patients, payers and providers – and each has a set of information that becomes important when creating an overall electronic health record for an individual.

In order for the next generation of healthcare to come about, the industry needs to merge all available data about a patient and communicate a consistent view among the patient, payer and provider. At MEDecision, we believe one important step towards this goal is a new clinical validation step to produce, initially, an enhanced PBHR built on the structure of the PBHR we introduced to the market in 2004. Likewise, this same clinical validation step will be critical to the success of the future, more comprehensive EHR, a step needed to produce a credible and accurate summary of a patient's medical history from disparate (and frequently inaccurate) data sources.

II. Components of the Electronic Health Record

Provider Data: Electronic Medical Record

One source of patient data resides with physicians and hospitals that have electronic medical record systems. This data includes diagnoses, problem lists, service information, physician notes, diagnostic imaging data, and a growing set of test results.

While providers may have extensive information about the patients from when the patient first saw them as an individual physician, or when the patient was admitted to their particular hospital, they have little or no information about the services and care being delivered to that patient in other settings or by other practitioners. This results in silos of reasonably rich information on individual patients, but not a comprehensive picture because providers have no ability to pull all the components together into one composite picture.

But the major difficulty with using the electronic medical record as a primary data source is its scarcity: it is estimated that less than 17% of physicians in this country ever use an EMR. For a significant number of them, the only time they ever use an EMR system is when they go into hospital that has admitted one of their patients. Therefore, using EMRs as the foundation for a nationwide electronic health record system will be difficult for years to come since EMRs contain clinical data for only a very small percentage of the overall population.

Patient Data: Personal Health Record
Another source of patient data is the patient population itself. Some patients maintain personal health records that contain information that neither the payers nor the providers have – such as family history, over-the-counter medications, allergy information, basic life-style data, and so on.

However, until recently, a personal health record must be manually filled out and maintained by a patient (or a family member or care giver), which is one of the reasons that PHRs are so rarely used. The fact that the patient has to update the record after every doctor visit, new medication or test result is an almost untenable proposition, especially for patients who are chronically ill. As a result, only an estimated 1% of the population maintains a personal health record. Also, given the individual's lack of medical knowledge and their interpretation of clinical information given to them verbally by a busy physician, the quality of clinical data in a PHR is suspect.

Payer Data: Payer-based Health Record
The third source of patient data resides within the walls of "payers," which include health insurance companies, managed care organizations, self-insured corporations, and government organizations such as Medicaid agencies and CMS. Payer data includes such information as pharmacy claims, medical and surgical claims, behavioral health claims, heath risk assessments, and case, disease and utilization management data.

Payer organizations are not only sources of data but also important users of data. This is because the care managers – the clinical staff within the payer organization – have a very important role in helping to coordinate and manage the care of people with chronic diseases and severe illnesses.

While all three groups are both suppliers and users of data, payers are currently the best source of patient data. Percentage-wise, nearly 100% of the insured population has the opportunity to have a PBHR because they've had claims paid in an automated system – compared with 15% of that population potentially having even a partial EMR, and only 1% with a personal health record.

III. PBHR: the place to start

If you are trying to improve healthcare in this country and change the way patient information gets used by physicians at the point of care, you don't start with personal health records or with EMRs, which are relatively "thin" sources of data. You start with the PBHR, because it is the richest source of data available for almost everyone. And the number of records available matters immensely, because, in order to get physicians or hospitals to modify their workflow, a new capability must apply to a significant portion of their patient population.

MEDecision introduced the payer-based health record (PBHR) in 2004 as the best source of information in digital form on patients and their clinical history available at the time. The PBHR represented the sum of all available information – including years of paid claims data, pharmacy data and care management data that was generated by physicians and other providers in all kinds of settings, including all of those that had no EMR systems of their own.

Raw Data
The PBHR begins with raw claims data, which simply lists all the patient information without an attempt to organize or validate it. Raw data can exist at the patient, payer and provider levels, but for the purposes of a PBHR, the first step is to collect all the payer data. A patient with even a moderate history of illness can have hundreds of paid claims over the past few years, so the volume of raw data can be immense.

Summarized data
Summarized data can also occur at all three levels, resulting in a summarized EMR, PHR, or PBHR. The standard PBHR summarizes some of the raw data, but because there are no clinical rules, the result is a very splintered set of reports – where sometimes there is too much information and other times too little, particularly for acutely ill patients.

Moving from raw data to summarized data helps organize the information, but on a pure data processing level and not a clinical processing level. While this data can be put onto a Web portal, it is difficult for a doctor to readily interpret and trust. As a result, the information does not yet have sufficient value. It is a good start, but real value comes from the enhanced PBHR.

IV. Defining the Enhanced PBHR

Believing that raw claims data is not necessarily the most useful data, MEDecision has taken the next step and created an enhanced PBHR which involves applying clinical rules to cross-validate information in those data records. Conceptually, this same process can also be used to provide an enhanced EMR and PHR. Ultimately what we care about is the enhanced EHR, which is the clinically validated sum of the three principal data sources.

Enhancing a data record is taking steps to refine the data in such a way that makes it more intelligible. MEDecision has filed a patent on cross-validation technology, which is what enables the data to be clinically cleaned and

summarized. At the simplest level, this technology performs tasks such as grouping diagnosis codes into condition codes to eliminate often inaccurate specificity when specificity is unnecessary. For example, it is much more useful if we can tell the next family practitioner that the patient had a heart attack three years ago, rather than simply presenting them with 7 potentially different diagnosis codes related to that patient's heart disease.

Two primary challenges in validating payer data are (1) erroneous preliminary diagnoses that are later corrected and (2) rule-out codes, where there is information about a service (e.g., a test or an admission) that was performed in order to rule out a particular condition. The challenge is to make sure that a rule-out doesn't end up as a condition, leading a treating physician to believe that their patient actually had a heart attack instead of being admitted to simply rule one out, as is often the case.

Clinical Intelligence
Grouping data into conditions require s real clinical knowledge. Clinical intelligence considers such questions as: How do you want to group these codes? How do you figure out from other data in the composite record which grouped condition is the most appropriate? Do you care about some variation in the condition or not?

Rule-out codes and incorrect diagnoses require more processing. Here, you need to look at the entirety of the available data as well as subsequent events. For instance, if you have four doctors who over a three year period say this patient is bulimic, chances are good that it is true. However, if you have one doctor who says it, and it shows up on one claim, you have to question it. Even then, you need to examine what services were delivered to the patient over the next six to twelve months, see what medication were they on and consider any other evidence to determine if this is truly a condition that was treated, or could potentially be a rule-out or misdiagnosis.

A sad case in point: a 2 ½ year old girl started exhibiting some very strange symptoms and was originally diagnosed as psychotic. A year later, she was taken to another specialist, diagnosed with a very rare neurological disorder, given new medication, but nothing was resolved. Another year later, another specialist ran a blood test and discovered that the child had Lyme disease. The girl was treated and the complex symptoms disappeared. The claims records (and any associated EMR data, of course) show that this child was psychotic, that she had a rare neurological disorder, and that she was treated for Lyme disease. By using clinical intelligence, we will be able to conclude that the psychosis and neurological disorder were, in fact, likely misdiagnosed Lyme disease, and that they can be ignored in all further processing and risk assessment.

Clinical Rules vs. Validation Rules
Clinical rules underlie both enhanced data and clinical intelligence, but their intent is different. Validation rules are meant to take complicated sets of data from an increasing number of sources that have duplications, mistakes and holes – and try to weave the information into one coherent, composite record. At MEDecision, we use the term *data weaving* for this process: taking all the

raw data that can be rolled up into summarized records, but then make it valuable. The validation process is part of that weaving function – eliminating duplicates, eliminating errors and trying to sort out the truth about the patient's clinical history.

Clinical intelligence, on the other hand, says: once you have the best record we know how to create, what are the implications of that record? For instance, if a patient has four conditions, and we look at the medications they are taking and the services they are receiving are there gaps in care? We compare this information with clinical best practice, which might suggest that the patient be on a different medication, or that they should be receiving a particular service, such as having their blood tests with increased frequency. So clinical intelligence says, once I have the best record - the enhanced PBHR or EHR - what can I say about it? The result is enhanced and actionable information rather than simply a collection of data.

In addition, clinical intelligence also considers the legal implications about what information can be shown to a doctor or to a patient on a state-by-state basis so as to insure patient privacy as dictated by law. The Patient Clinical Summary (PCS), which is a branded MEDecision product, is the sum of the enhanced PBHR (and, soon, EHR) with clinical intelligence applied. Today the PCS is almost entirely based on the enhanced PBHR, since the other data sources do not exist in sufficient quantity yet. However, as the other data sources come on line willing to exchange data, that data will be added to the enhanced PBHR to create the enhanced EHR, which in turn will be the foundation for the ever-improving versions of the PCS. MEDecision has established the CollaboraCare Consortium to allow us to gain access to EMR and PHR data from our partners and, in turn, distribute EHR data back to their respective users.

Formatting

Information formatting is an important consideration and represents challenges in a couple of ways. The PCS can be formatted into a PCS report, which is a document that can be printed out and handed to the physician and a patient for use at the point of care. It can also be sent in an unformatted version as a PCS data service that feeds into an EMR or PHR. The PCS report facilitates collaboration because the physician and the patient could be viewing exactly the same information as a care manager and a specialist in another doctor's office, while the PCS data service is beneficial in reducing data entry requirements by pre-populating an EMR or PHR.

VI. Summary

In the quest to ultimately create a valuable EHR, there is pending legislation to mandate a PBHR. While we don't maintain that the payer-based health record is a complete electronic health record, it is the logical starting point because it is the only place that that large quantities of data exist in electronic form. The enhanced PBHR refines and validates much of the data and pushes it to the next level of utility.

MEDecision has piloted this solution at a major payer, which is sharing data with its key hospital, a level one trauma center. The solution has provided them with additional data at the point of care, which has been shown to improve the quality of care they can deliver and reduce costs by eliminating unnecessary services. Hospital physicians have commented that this is a "quantum leap" improvement in available information because the only data they previously had was that data that was located inside the hospital.

The benefits of the enhanced PBHR, which include more information, better decisions and better outcomes, extend to all parties and ultimately to the general population by improving healthcare and making it more affordable for all.

In short, the enhanced PBHR paves the way to the electronic health record and the next generation of healthcare in this country.

PRESENTS THE

PATIENT CLINICAL SUMMARY

(PATENT PENDING)

This Proposal contains trade secrets and information proprietary to MEDecision,I nc. Each recipienti s entrusted to maintain its confidentiality. It should be disclosed only to those employees involved in reviewing the requested information for the sole purpose of selecting a care management system vendor. MEDecision assumes that you will handle this information with the same care you handle your own proprietary information. This information is assumed to be held in total confidence by you on a need-to-know basis and should never be shared with a MEDecision competitor.

Report generated on: 01/28/2005
Information provi ded by: MCO 1
Report based on services provided as of: 12/31/2004

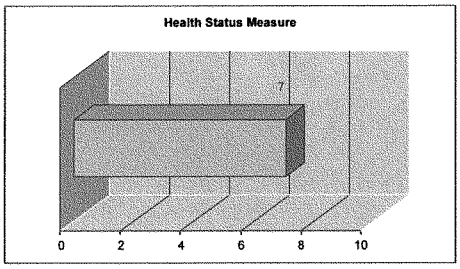
MEDecision

Patient Summary

Name:	BRACERO, DEANGELO	**ID:**	JM1QBZJ1H00	**Eligibility:**	01/01/2000 - 01/01/2006
Address:	548 WEADLEY ROAD GULPH MILLS, PA 19406	**DOB:**	01/01/1957	**Phone (H):**	610-995-9877
		Gender:	M	**Phone (W):**	610-269-5200/1154
PCP:	STELLA, BRIAN	**PCP ID:**	610687090	**PCP phone:**	215-463-5254
Case categories:	DM - DIABETES				

Health Status Measure

The Health Status Measure indicates risk in the next 12 months. 1 is low 10 is high.



Medical Conditions

High Severity

Condition	Start date
GLAUCOMA	04/04/2004
DIABETES MELLITUS	02/20/2004

Medium Severity

Condition	Start date
ABDOMINAL PAIN	04/11/2004
ISCHEMIC HEART DISEASE/ANGINA PECTORIS	04/06/2004
HEART FAILURE (CHF)	01/03/2004
OTHER HEART DISEASE	01/03/2004

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Name: BRACERO, DEANGELO | ID: JM1QBZJ1H00 | Eligibility: 01/01/2000 - 01/01/2006
DOB: 01/01/1957 | Gender: M

Medical Conditions (continued)

Low Severity

Condition	Start date
OTHER GI TRACT DISEASE	04/11/2004
MUSCLE DISORDER	02/21/2004
RENAL FAILURE	01/10/2004

Inpatient Facility Admissions

Facility	Admit date	Disch. date	Days	Principal DX
KENTON LAFORGE	02/22/2004	03/02/2004	9	250.12 - DIABETES W/KETOACIDOSIS, TYPE II

Emergency Room Visits

PATIENT HAS HAD 0 EMERGENCY ROOM VISITS IN THE PAST 12 MONTHS

Monitored Services

Service	# of services	Last service date	Most recent servicing provider	Phone #
HEMOGLOBIN A1C	3	07/31/2004	GERALDO MCHUGH	610-828-2218
LIPID/CHOLESTEROL TESTING	1	07/31/2004	GERALDO MCHUGH	610-828-2218
GLUCOSE TESTING, BLOOD	5	07/31/2004	DAINA GUSSMAN	215-644-5468
CHEM./METABOLIC PANEL TESTING	51	07/25/2004	DAINA GUSSMAN	215-644-5468
CARDIAC MONITORING (HOLTER)	1	06/20/2004	WENDELL VENDETTI	610-249-5587
SURGICAL PATHOLOGY	1	04/30/2004	DAINA GUSSMAN	215-644-5468
ABDOMINAL ULTRASOUND EXAMS	2	04/17/2004	HEATH SUDDUTH	215-646-9872
URINALYSIS	4	04/16/2004	DAINA GUSSMAN	215-644-5468
AMYLASE (SERUM) ASSAY	2	04/16/2004	DAINA GUSSMAN	215-644-5468
CBC AND COMPONENT COUNTS	4	04/16/2004	DAINA GUSSMAN	215-644-5468
ELECTROCARDIOGRAM (ECG)	1	04/05/2004	WENDELL VENDETTI	610-249-5587
HEART ECHO EXAM	3	03/01/2004	WENDELL VENDETTI	610-249-5587
CALCIUM ASSAY	4	02/23/2004	DAINA GUSSMAN	215-644-5468

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DOB: 01/01/1957 | Gender: M

Monitored Services (continued)

Service	# of services	Last service date	Most recent servicing provider	Phone #
CARDIOVASCULAR STRESS TEST	2	02/22/2004	WENDELL VENDETTI	610-249-5587

Medications

Medication class	# fills	Last fill date
CARVEDILOL/COREG	9	12/28/2004
ACE INHIBITORS	9	12/28/2004
PIOGLITAZONE/ACTOS	8	12/28/2004
LANSOPRAZOLE/PREVACID	7	12/10/2004
AMOXICILLIN PREPARATIONS	1	04/29/2004
OSMOTIC LAXATIVE/BOWEL PREPS	1	04/17/2004
LOOP DIURETICS	3	04/13/2004
INSULIN	2	03/26/2004
NEEDLES&SYRINGES	1	03/09/2004
AMOX K CLAVULANATE/AUGMENTIN	1	03/02/2004
DIGITALIS GLYCOSIDES	2	02/12/2004
POTASSIUM SUPP./CHLORIDES	2	02/01/2004
AMLODIPINE/NORVASC	1	01/25/2004
POTASSIUM SPARING DIURETICS	1	01/14/2004

Providers Seen

Provider name	Specialty	Phone #	Last service date
WENDELL VENDETTI	CARDIOLOGY	610-249-5587	09/06/2004
DEWITT EPPES	FAMILY PRACTICE	610-296-8200	07/31/2004
LAWRENCE URBINA	EMERGENCY MEDICINE	610-723-4452	04/17/2004
KASEY CLONINGER	INTERNAL MEDICINE	215-828-1960	04/01/2004
SPARKLE YANEY	OTHER	610-443-1205	02/22/2004

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ID: JM1QBZJ1H00
Gender: M
Eligibility: 01/01/2000 - 01/01/2006

Early Detection Flags

- RENAL FAILURE OF LOW SEVERITY

Treatment Opportunities

- DIABETIC and NO EYE EXAM IN 12 MONTHS
- RENAL FAILURE WITH ANEMIA AND NO EPOETIN USE

Information contained in this report is to be held in the strictest confidence and should only be used for Treatment, Payment and Healthcare operations. You agree to keep the Confidential Information strictly confidential in the same manner and with the same care and discretion that You treat Your own most confidential and sensitive information. You agree not to publish, disclose, div ulge or disseminate the Confidential Information to any third party. You further agree to grant access to Confidential Information only to Your staff and employees who are under an obligation to keep the Confidential Information confidential and who will not disclose any such Confidential Information. "Confidential Information" shall include the IDs, Patient Demographic and Patient Clinical Information.

Information provided by: [illegible]

PATIENT CLINICAL SUMMARY

TERMS AND CONDITIONS FOR SECURITY AND CONFIDENTIALITY OF PATIENT RECORDS AND INFORMATION

1. General. An authorized provider ("Provider" or "You") are permitted to access certain patient care information for patients whom Provider treats in connection with Payor's care management program. Payor maintains confidential patient records and information that can be accessed through the Patient Clinical Summary software tools ("PCS System"). The PCS System is licensed to Payor by MEDecision, Inc. ("MEDecision") pursuant to a licensing agreement ("License Agreement"). MEDecision shall have the same rights against any Provider using the PCS System as it has against Payor under the License Agreement. Provider is placed in a unique position of trust since a major responsibility of Provider is the security and confidentiality of patient records and information. Security and confidentiality concern all providers who have access to confidential patient information. The purpose of these terms and conditions ("Terms and Conditions") is to clarify the Provider's responsibilities when utilizing the PCS System in connection with Payor's care management program. By accessing and utilizing this information, you agree to the Terms and Conditions of this agreement ("Agreement"). If you do not agree with these Terms and Conditions or you have inadvertently accessed this information, you should immediately cease using this information.

2. Scope of Use Subject to the terms of this Agreement and for the sole purpose of assisting in the evaluation and treatment of patients, Provider is permitted to access and use the PCS System. Provider may use the PCS System and Confidential Patient Information (defined below) made available thereunder only upon patient consent and as authorized or required by applicable federal and state law, including, without limitation, the privacy and security regulations promulgated pursuant to the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"). You should refer to Payor's Privacy Policy for limitations on your right to use and disclose Confidential Patient Information in connection with Payor's care management program and to determine if a use or disclosure of such Confidential Health Information is otherwise permitted hereunder. You agree you have read and understand Payor's Privacy Policy. Use of Confidential Patient Information is permitted only for Provider's internal use on the PCS System in the ordinary course of business in connection with Payor's care management program, and such Confidential Patient Information shall not be used directly or indirectly on behalf of any other party. Further, notwithstanding anything to the contrary in these Terms and Conditions, Provider may not (a) use or otherwise disclose Confidential Patient Information for any other purpose other than a purpose expressly stated in these Terms and Conditions; or (b) use or disclose Confidential Patient Information in the manner that violates or would violate applicable federal or state law. Within these parameters, Providers may use Confidential Patient Information for, in, and on a single computer unit used by Provider (the "Work Station").

3. Security Key. Provider may activate and use the PCS System provided that Provider is a participating provider of Payor and has been issued an appropriate access code and password. Provider shall keep such access code and password secure from unauthorized access by and disclosure to any third party

4. Confidentiality. In general, Provider must treat all patient records, materials, information and Protected Health Information ("PHI") accessed on or through the PCS System as confidential (collectively, "Confidential Patient Information"), and not use or disclose such Confidential Patient Information except as permitted hereunder. PHI means individually identifiable health information that is transmitted electronically or maintained in electronic or other medium. The term "individually identifiable health information" means health information, including demographic information collected from an individual that: (i) is created or received by a health care provider, health plan, employer or health care clearinghouse; and (ii) relates to the past, present, or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present or future payment for the provision of health care to an individual; and (a) identifies the individual; or (b) creates a reasonable basis to believe the information can be used to identify the individual. The term "health information" means any form of oral or written information that: (i) is created or received by a health care provider, health plan, public health authority, employer, life insurer, school or university, or health care clearinghouse; and (ii) relates to the past, present, or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present, or future payment for the provision of health care to an individual. Provider shall not, for any reason, either directly or indirectly, divulge any Confidential Patient Information to any third party or use such Confidential Patient Information for Provider's own benefit.

5. Expressly Prohibited Uses. Provider agrees that Provider (a) shall not make or permit unauthorized use or disclosure of any Confidential Patient Information maintained or stored on the PCS System or accessed by Provider through the PCS System; (b) shall not seek personal benefit or allow others to benefit personally by knowledge of any Confidential Patient Information which has come to him by virtue of his access to the PCS System; (c) shall not exhibit or divulge the contents of any record or report a false, inaccurate, or misleading entry; nor shall Provider knowingly expunge or cause to be expunged in any record or report a data entry; (d) shall not remove any official record or report or copy thereof from where it is maintained; (e) shall not aid, abet nor act in conspiracy with another to violate any part of these Terms and Conditions; (f) make unauthorized use or disclosure of the Confidential Patient Information; (g) disassemble, decompile, recast, or reverse engineer the PCS System or create a substantially similar system; (h) distribute any Confidential Patient Information for commercial gain or otherwise; (e) copy the Confidential Patient Information in any form except as necessary to use such Confidential Patient Information in accordance with this Agreement; or (f) modify, alter, delete or obscure any Confidential Patient Information Provider shall ensure his compliance with this Agreement and shall bear the responsibility for any breach of this Agreement by him. Any knowledge of a violation of these Terms and Conditions shall immediately be reported to Payor. If Provider breaches any of the Terms or Conditions of this Agreement, Provider's access to this information shall be terminated immediately. Violation of these Terms and Conditions may also lead to reprimand, suspension or termination of Provider from Payor, consistent with Payor's credentialing policies.

6. Authorization for Use Compliance Verification. Provider expressly authorizes Payor to electronically access, from time to time, the Work Station to verify Provider's compliance with Section 2 hereof. In connection with such access, Payor shall have the right to verify: (a) the name of Provider; (b) the name of Provider's registered user number; (c) the internet address of the Work Station; and (d) the name of the registered user on the network.

Information provided by: MCO 1

7. Warranty Disclaimer PROVIDER UNDERSTANDS AND AGREES THAT (A) ANY INFORMATION MADE AVAILABLE IS PROVIDED TO PROVIDER "AS IS" AND (B) MEDECISION AND PAYOR EXPRESSLY DISCLAIM, ANY AND ALL REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, WHETHER ARISING BY STATUTE, COURSE OF DEALING, USAGE, OR TRADE, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF ACCURACY, COMPLETENESS, PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OR TITLE.

8. Limitation of Liability. UNDER NO CIRCUMSTANCES WILL MEDECISION OR THE PAYOR BE LIABLE FOR ANY INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS INFORMATION MEDECISION'S AND PAYOR'S LIABILITY FOR ANY CAUSE OF ACTION ARISING UNDER OR IN CONNECTION WITH THIS INFORMATION OR OTHERWISE (WHETHER ARISING IN TORT, CONTRACT OR OTHERWISE) WILL BE LIMITED TO THE AMOUNT OF LICENSE FEES RECEIVED BY MEDECISION UNDER THE LICENSE AGREEMENT.

9. Patient Care Responsibility. Provider acknowledges and agrees that MEDecision is not engaged in the rendering of medical, health or psychological diagnosis, treatment, evaluation, patient care or any other kind of personal professional services in licensing the PCS System to Payor. The PCS System and the information to be made available are to be used as a tool to assist Provider in connection with Payor's care management program. MEDecision expressly disclaims all responsibility for any liability, loss or risk which is incurred as a consequence, directly or indirectly, of Payor's use of the PCS System.

10. Indemnification. Provider hereby agrees, at Provider's own expense, to indemnify, defend and hold harmless MEDecision and Payor from and against any loss, cost, damages, liability, or expense arising out of or relating to (a) a breach by Provider of the Terms and Conditions of this Agreement, or (b) any violation of any law, regulation or rights of a third party.

11. Miscellaneous. Neither party shall be responsible for any delay or failure of performance resulting from causes beyond its control. This Agreement may be modified and updated from time to time and Provider will be informed of such changes. This Agreement is governed by Pennsylvania law. Provider consents to jurisdiction of the courts in Pennsylvania. Provider may not assign this Agreement. Any noun or pronoun used in this Agreement shall be construed in masculine, feminine or neuter as its sense and use may require.

12. Survival. The provisions of Sections 4, 7, 8, 9, 10, 11, and this Section 12 shall survive termination of this Agreement.

By accessing this information, you represent that you have the authority to do so and acknowledge and agree that you have received a copy of, have read, do understand, and will comply with these Terms and Conditions for Security and Confidentiality of Patient Records and Information.

Mr. PORTER. Thank you very much.

Next we have Dr. Paul Handel, who is the vice president and chief medical officer Texas Division, HCSC. Welcome.

STATEMENT OF PAUL B. HANDEL, M.D.

Dr. HANDEL. Chairman Porter, thank you very much for inviting Health Care Service Corp. to submit formal testimony on the electronic health record.

I am Paul Handel. I am a doctor with approximately 40 years of clinical experience in caring for and caring about patients. At the present time I am vice president and chief medical officer, Blue CrossBlue Shield of Texas, a division of Health Care Service Corp. My testimony today will reflect the position of Health Care Service Corp. I am not representing the Blue Cross Blue Shield system in any fashion.

HCSC is a non-investor owned company that operates through four divisions in Illinois, Texas, New Mexico and Oklahoma. We cover approximately 10 million lives, and we are now the fourth largest carrier in the country. We firmly believe that electronic health records can benefit health care in the United States by increasing the accessibility to quality care and making health care more affordable.

The record, the electronic health record, as your own experience that you related about your mom, and David talked about a few moments ago, really looks toward our elderly population and the sickest part of our population, which consumes the vast majority of our health care resources. These people are invariably unable to give concise histories because of either age, underlying conditions or perhaps even their medications. They also have a team of physicians that are caring for them. They have multiple ancillary providers that are involved, and their histories become relatively unclear. Without a question, collating the data for these people will be instrumental in improving their health care.

Additionally, the connectivity that we are envisioning here will facilitate the education and the provision of preventive services to all of our population, and, candidly, in the big picture, that will address what I think is a graver, much larger issue, and that is the spiraling increase in our health care costs.

We have a large data base of electronic information. We realize the value this data has on the development of electronic health records, and for our own members in particular. We have already begun to focus on providing claim-based personal health records to our members because we believe it is an extremely effective way to positively impact their outcomes.

I want to emphasize that we are just now beginning to learn what information is useful, and how do we educate consumers, physicians and other providers as to the value of the electronic health records. The flexibility to continue to innovate is absolutely imperative.

We have heard a fair amount of discussion today from everyone concerning Katrina. I can tell you that in Texas, we lived through over 300,000 people coming to Texas as refugees without any health care information. Most of them could tell their doctors they were taking a blue pill, a yellow pill, they had received treatment

for cancer, but they didn't know what drugs they were taking. It was a real debacle.

As we prepared for Rita, we prepared within 4 days time, from a Thursday morning to Monday morning, patient clinical summaries on 830,000 patients across the Gulf Coast, and into western Louisiana. We partnered with the Texas Medical Association, and on Monday morning, 4 days after starting our efforts, we were able to put forth an 800 number by either e-mail or blast fax to over 40,000 Texas doctors, a contact point where they could get the patient clinical summaries if anybody had been displaced and showed up in their practices.

Our success in creating the electronic plan-related health records for the hurricane victims really pushed us forward to roll out our records to all of our members in HCSC. We will start the program in Illinois with approximately 3.7 million members, and continue to roll that out through the remaining divisions over the course of the year.

The core reason why we began to implement a health record like this for our members is that we will not consider saving money or reducing medical errors, but on a higher level, to ultimately improve the accessibility to quality and affordable health care for all, and parenthetically, in the process, we will probably save money and reduce medical errors.

In conclusion, I would like to stress the importance of allowing health plans to continue to create innovative products with the flexibility to make changes that meet local customer needs and market demands. We agree with the need to utilize technology to establish uniform standards for health data, facilitating interoperability, efficiency of communication and safety. We believe that implementing a payer-based health record is the right thing to do. We will continue to pilot projects for developing various means of electronic transmission of plan-related health information in this way. We feel that other carriers will find the most successful features to create value and usage for the personal health records.

Thank you very much.

[The prepared statement of Dr. Handel follows:]

HCSC Testimony
V.1 3/8/06

SUBCOMMITTEE ON THE FEDERAL WORKFORCE AND AGENCY ORGANIZATION

Mr. Chairman, Ranking Member Davis and distinguished members of the Subcommittee, thank you for inviting Health Care Service Corporation to submit a formal statement for the record on the important topic of using electronic health records to improve healthcare in this country. I am Paul Handel, VP and Chief Medical Officer, Blue Cross Blue Shield of Texas, a Division of Health Care Service Corporation (HCSC). My testimony today reflects the position of HCSC. I am not speaking on behalf of the Blue Cross and Blue Shield System.

HSCS is a non-investor-owned mutual legal reserve company that operates through its divisions in Illinois, Texas, New Mexico and Oklahoma that offer a variety of health care benefit products and related services to employer groups and individuals. The mission of Health Care Service Corporation is to promote accessible, cost effective and quality healthcare for our customers. We currently issue policies and administer contracts covering approximately 10 million lives.

The importance of electronic health records

At HCSC, we firmly believe that electronic health records can benefit healthcare in the United States by increasing accessibility to quality care and making healthcare more affordable. The electronic health record holds the greatest value for the sickest individuals of our country – the 10% of the population that accounts for 80% of the cost. Typically, these people have multiple conditions that require several specialists, multiple medications and numerous ancillary care providers. As a result, these individuals require careful care coordination from case and disease managers. They are also likely to be the least able to communicate the complexity of their health status and histories to their next treating physician. This complexity confounds the medical community's attempts to reduce information errors and minimize the cost of duplicate and otherwise unnecessary care. The electronic health record collates data from all sources, not just payers and doctors, and converts this into information related directly to health Additionally, this connectivity facilitates the provision of preventive services and education, both of which are imperative for the long term answer to our health care costs.

Leveraging the value of payer data

Today, payers such as HCSC have a large base of electronic data – continually gathered through care management programs and claims payments over time – from which to construct a broad picture of an individual's history across the continuum of care. This information includes data from doctors, hospitals, laboratories, pharmacies and more.

HCSC recognizes the value that this data can have on the development of an electronic health record system in general and for our own members in particular. As a result, we have already begun to focus on providing claims based personal health records to our members because we believe it is an extremely effective way to positively impact health outcomes. I want to emphasize that we're just now beginning to learn what information is useful and how to educate consumers and providers of the value EHRs can provide. The flexibility to continue to innovate is essential.

Creating 830,000 electronic health records for hurricane evacuees in four days

A case in point: After witnessing the devastation caused by Hurricane Katrina, HCSC teamed up with, MEDecision, Inc. to proactively create electronic health records for all the members of Blue Cross Blue Shield of Texas who might be affected by the approaching Hurricane Rita.

MEDecision developed a payer-based health record known as the Patient Clinical Summary (PCS) in 2004. The PCS chronicles a patient's comprehensive health plan record, including every medical treatment, lab test, medication and related service that has been paid for by the individual's health plan. This summary can include a patient's demographic profile, health status measure, medical conditions, inpatient and emergency room admissions, monitored services, specialist visits and treatment options.

While we had not yet implemented the PCS program in Blue Cross Blue Shield of Texas, we immediately decided to create electronic health records for our members who lived in the Texas coastal communities that were likely to be hit by Hurricane Rita. Our technical staff spent two days pulling claims and pharmacy data on individuals who lived in the potentially affected zip codes and turned that data over to MEDecision. The staff at MEDecision spent the next two days processing, refining and formatting that data to build plan related health records for the 830,000 members who were potential evacuees from the coast of Texas.

Proof of concept becomes program for BCBS of Illinois

Our success in creating electronic plan related health records for potential hurricane victims in Texas in four days and our overall plan to roll out electronic health records to all of our members has led HCSC to initiate an electronic health record program at Blue Cross Blue Shield of Illinois.

Our program in Illinois will be the first step in providing electronic plan related health records to all 10 million of our Blue Cross Blue Shield members by providing health records for 3.7 million members through 136 hospitals to be implemented as part of the current workflow. Upon an eligibility screening, an electronic health record for Blue Cross Blue Shield of Illinois members can be generated. This process will provide the right information to the right people at the right time to affect health outcomes and influence faster, more accurate decision making.

That is the core reason why we have begun to implement an electronic health record program for our members. We're not undertaking this project to save money or to reduce medical errors, but on a higher level to improve accessibility to the quality and affordability of healthcare for all.

In conclusion, I'd like to stress the importance of allowing health plans to continue to create innovative products with the flexibility to make changes that meet local customer needs and market demands. HCSC agrees with the need to utilize technology to establish uniform standards for health data, facilitating interoperability, efficiency of communication and safety. Given the standards are fair, workable, equitable and implemented in a reasonable time frame, HCSC believes that implementing a payer based health record program is the right thing to do. Because we cover 10 million lives in this country, we believe it's important to step forward and serve as an example for other payer organizations.

We at HCSC will continue to conduct pilot projects for developing various means of electronic transmission of plan related health information. In this way, we and other carriers will find the most successful features to create value and usage for personal health records.

Thank you again, Mr. Chairman and Ranking Member Davis for the opportunity to appear before this Subcommittee. I am prepared to answer any questions you may have.

Mr. PORTER. Thank you very much, doctor.

Next is Jeannine Rivet. I hope I pronounced your name right. Executive vice president, UnitedHealth Group. Welcome.

STATEMENT OF JEANNINE M. RIVET

Ms. RIVET. Good afternoon, Chairman Porter. I appreciate the opportunity to share with you our experiences in offering personal health records to the consumers that we serve. I am Jeannine Rivet, executive vice president of the UnitedHealth Group, a diversified health and well-being company, dedicated to helping people achieve improved health and well-being through all stages of their lives.

UnitedHealth Group's family of businesses offers a broad spectrum of products and services to approximately 65 million individuals nationwide, everything from commercial health plans to Medicare offerings such as Part D drug plans, Medigap, Medicare Advantage Plans, Medicaid services, health analytics and informatics, and specialty solutions such as nurse triage services, centers of excellence, dental, vision plans and behavioral coverage.

To our UnitedHealth business we also offer health benefits to Federal employees and annuitants under the Federal Employees Health Benefits program, 14 States and the District of Columbia with more than 322,000 members enrolled in our various plans. At UnitedHealth Group we have invested heavily in technology as part of our efforts to advance the quality of care provided to individuals and to improve the efficiency of our health care system. Our investment in technology allows us to provide our plan members with comprehensive information about the cost and effectiveness of different treatment options, as well as to help them find the highest quality providers. This type of information, we believe, is critical to improving outcomes and to enabling consumers to maximize the value they receive for their health care dollar, and to more easily manage their health care.

One of the primary ways we provide this type of information to our members is through our consumer Web site, myuhc.com. Members can log onto UnitedHealth's Web site and find top-performing providers who meet objective quality and efficiency criteria, or find information on hospital quality for more than 150 procedures. They can order prescription refills and they can compare the cost of drug alternatives, and receive monthly statements providing explanation of benefits for all services.

Last spring, we expanded our Web site capabilities by integrating a personal health record that gives consumers greater access to and control over their health care data so that they can make informed decisions. Through myuhc.com, which is a secure Web site that protects the privacy and security of members' data with user names and passwords, our members can use their personal health record to view their full history based on claims data, store information on their medical histories, as well as contacts with health care practitioners and upcoming appointments, receive condition specific alerts and appointment reminders, enter and track clinical data such as glucose levels and blood pressures, as well as their own information and lifestyle behaviors such as weight and sleep

habits, and they can enter notes, reminders and personal observations.

In addition, members have the option of giving their physicians and family members access to their personal health records including access to their personal health summary, which is a printable health summary, detailing the most recent conditions, medications, procedures and lab results, which is viewable online or through swipe card technology.

Currently, about 4½ million consumers have access to a personal health record through our Web portal. We too have a Hurricane Katrina example regarding the impact and positive results from having a personal health record. Within the greater New Orleans area we were a critical resource to our members. They use their personal health records to reestablish health care records including medical, lab, pharmacy and immunization records with their physicians' offices since many of the physicians were dislocated, or their offices were flooded and the data was lost.

As part of our effort to design a responsive personal health record, we conducted a number of in-depth telephone interviews and focus group sessions with consumers, physicians and employers. We gathered some very helpful information through these efforts. Some common themes were: accessibility, portability and convenience are key benefits of a personal health record. Primary concerns, not surprisingly and already noted, were Internet security, privacy and accuracy of data. And everyone felt that the personal health record would enable the patient-physician interactions. Consumers had a very positive response to the concept and were open to using personal health records. Physician awareness was mixed. Once the personal health record concept was explained, physicians responded favorably. However, noted concerns regarding the cost of the personal health record and the possibility that patients may be able to block out information from the health care provider.

Their concerns over the cost of personal health records verified the need for incentives for adoptions such as the one, Chairman Porter, that your bill contains. Employers have limited awareness or experience with a personal health record. However, again, once explained they saw value, primarily for their employees, but less value for themselves as the employer. And all consistently recognized the need for further education on ease of use, benefits, security and confidentiality.

Based on our experience and research, we continue to refine our direction, focusing on enhancing the consumer position relationship. Also we have identified a number of requirements for facilitating widespread adoption that you may wish to consider as you move forward with your efforts to expand use of personal health records in the FEHB program. Most important, a strong and consistent information and education campaign that clearly shows the value of using a personal health record, as Ms. Norton referenced earlier. Also a tailored consider experience, which is organizing data and features in a manner that makes it easy to navigate and access information of choice, with health information displayed and described in ways that are easy to understand.

Secure and private infrastructures and processes are critical. Accurate and timely information will build trust and credibility.

Flexibility is needed to address consumer needs, preferences and desires. Fully integrated records to create easy access for the individual. And we agree with you, Chairman Porter, interoperability with provider office technology is necessary.

In closing, let me say that at UnitedHealth Group we are confident that the use of appropriately designed personal and electronic health records will make a significant difference in improving health outcomes for individuals, and will make it easier for them to manage their health care effectively. That is why we have invested considerable time and resources.

Chairman Porter, we appreciate your leadership on this very important matter, and thank you for the opportunity to share our experiences with you today, and I would also be happy to answer any questions you may have for me.

[The prepared statement of Ms. Rivet follows:]

Testimony of
Jeannine M. Rivet
Executive Vice President
UnitedHealth Group

For

The U.S. House of Representatives
Committee on Government Reform
Subcommittee on the Federal Workforce and Agency Organization

Hearing on
"Healthier Feds and Families: Introducing Information Technology into the Federal Employees Health Benefits Program"

March 15, 2006

Introduction

Thank you Chairman Porter, Representative Davis and distinguished members of the Committee for the opportunity to testify before you at today's hearing on using of health information technology to improve the health of federal employees and annuitants, and their families. I am Jeannine Rivet, Executive Vice President of UnitedHealth Group. UnitedHealth Group (www.unitedhealthgroup.com) is a diversified health and well-being company dedicated to helping people achieve improved health and well-being through all stages of life. Headquartered in Minneapolis, Minnesota, UnitedHealth Group offers a broad spectrum of products and services through six operating businesses: UnitedHealthcare, Ovations, AmeriChoice, Uniprise, Specialized Care Services and Ingenix. Through its family of businesses, UnitedHealth Group serves approximately 65 million individuals nationwide.

UnitedHealth Group has extensive experience providing health care services to the federal government, state governments and private payers in many types of competitive environments. Currently, we offer health benefits to federal employees and annuitants under the Federal Employees Health Benefits Program in 14 states – Arizona, California, Colorado, Illinois, Iowa, Maryland, Missouri, Nevada, Ohio, Oklahoma, Oregon, Texas, Virginia, Washington – and the District of Columbia. We have more than 322,000 members enrolled in our various FEHB plans. These plans include M.D. IPA in the Mid-Atlantic (DC, MD, VA), PacifiCare in the West (AZ, CA, CO, NV, OK, OR, TX, WA), UnitedHealthcare (CO, MO, OH) and John Deere Health Care (IL, IA). Through our various plans, we have been a carrier in the Federal Employees Health Benefits Program for over 20 years.

UnitedHealth Group is a strong supporter of using health information technology to advance the quality of care provided to individuals and to improve the efficiency of our health care system. Over the past five years, we have invested $2.5 billion on technology in an effort to bring simplicity and enhanced administrative efficiencies to the U.S. health care system. Our investment in technology allows us to apply a data-driven approach to provide plan members with information about the cost and effectiveness of different treatment options, as well as to help them find the highest-quality providers. Health care delivery remains complex and fragmented, and if critical information is not seamlessly available at the point of care, medical errors, duplication and waste can result. Our technology supports automatic, seamless and patient-centered information flow, and it puts control of the information in the hands of the patient. We strongly believe that patient-empowered exchange of health care information will improve quality and affordability of care. Moreover, by preparing and encouraging patients to make informed health care decisions, they will maximize the value they receive for their health care dollar, enjoy better health and more easily manage their health care.

myuhc.com

UnitedHealthcare introduced its consumer service website, myuhc.com, in 2000 to provide members with easy access to health information and services so that they can manage their health care effectively.

Members logging on to UnitedHealthcare's website can:

- Find providers designated under the UnitedHealth Premium^{SM} program which identifies providers who meet objective quality and efficiency criteria based on claims-related data that compare physician complication rates and practice patterns with evidence-based medical guidelines

- Find information on hospital quality, including data on patient safety, length of stay, mortality, patient volume and complications for more than 150 procedures

- Order prescription refills online and compare the cost of drug alternatives

- Receive actionable information, based on their claims, related to improving the quality of their care and achieving cost savings. For example, members who have experienced heart attacks but have not filled prescriptions for beta blockers – which have proven efficacy in reducing future heart attacks – receive messages encouraging them to talk with their doctors about the benefits of beta blockers. Members who fill prescriptions for brand-name drugs receive messages indicating how much they could save by switching to equally effective generic alternatives.

- Receive monthly statements online providing explanations of benefits for all services

In March 2005, UnitedHealthcare expanded the functionality of its consumer website by integrating personal health records that give consumers control over their health data in order to inform and empower decision making. Members' information was automatically pre-populated into their personal health record, and we added easy access through myuhc.com, a secure website which protects the privacy and security of members' data with user names and passwords, in keeping with industry authentication and validation standards. Over the past year, our members have used their personal health records to:

- Store information on their medical histories and contacts with health care practitioners

- Enter and manage self-reported data, including tracking and charting of wellness and clinical data and notes/observations

- Capture personal and family contact data

- Enter and track clinical data, such as glucose levels and blood pressure, as well as information and lifestyle issues affecting health, such as weight and sleep habits

- Enter notes and personal observations about their own health

- Print their personal health summary for use with their practitioner

In addition, in June, members will have the option of giving their physicians and family members access to their personal health records. Such access gives doctors a more complete view of patients' health information than they would have from their own records so that they can provide care best suited to patients' needs, preferences and prior use of services. Members can grant their physicians access to their Personal Health Summary, a printable health summary detailing the most recent condition, medication, procedure and lab result data viewable online or through swipe card technology.

As of March 2006, we have approximately 4.5 million consumers with access to a personal health record through our web portal, myuhc.com.

Personal Health Records Research

In an effort to refine our personal health record and to make it more responsive to consumer and physician needs, in November 2005 we employed an independent research firm to conduct qualitative research on the personal health record concept and to determine the needs and interests of consumers. Through a number of in-depth telephone interviews and focus group sessions with consumers, physicians and employers/payers, the research revealed some interesting findings that have helped us to identify ways to make our personal health record even more useful to consumers and their doctors.

Consumers

We were very encouraged to learn through our research that the majority of consumers are positive toward the personal health record concept and are open to using it. In fact, according to this research, consumers see many advantages to such a service. Some of the specific key findings for this group include:

- Accessibility, portability and convenience are the key benefits of a personal health record to consumers. Having easy access to their medical records is highly valued, and consumers recognize that with a PHR they can take their information wherever they need it. They also think personal health records make managing their health care more convenient.

- Consumers generally believe a personal health record will help patient-physician interactions. They believe it would help their physician be more informed about their history. They see it as especially helpful for elderly patients or people with chronic conditions.

- Internet security and privacy are the primary concerns consumers have with personal health records. This concern is due in large part to the vital and extremely sensitive – and vital – nature of health information that must be safeguarded against any form of abuse. That said, though, many consumers believe these security and privacy concerns could be overcome through the use of multi-level passwords and the ability to designate who has access to what information.

- Consumers want the right to limit access to the information in their PHR; however, most indicated they would provide full access to their physician.

- Consumers are comfortable with a health plan providing or supporting this service.

Overall, assuming privacy issues are addressed and the service is free, most consumers indicate they would adopt a personal health records. The ability to easily access their records and the convenience it would provide are the primary motivators.

Physicians

We found that awareness of personal health records is mixed among physicians. While several of the physicians in our studies said they have a general understanding of the concept, others were simply unaware of it. Once the concept was explained to them, they had the following reactions:

- Like consumers, physicians responded favorably to the concept. Easy access to patient health records provides two key benefits to physicians: accessibility will allow physicians to provide better care to patients, and easy access to patient records is expected to improve efficiency in physician practices.

- Physicians believe the key benefits of a PHR to consumers are better care, feeling more empowered and portability of their medical records. With doctors having more complete medical information, patients may have fewer problems with drug interactions, fewer tests repeated and a quicker resolution to their problem.

- Physicians' key concerns, like consumers, are privacy of patient data, as well as cost and accuracy of patient-entered data. Several expect it will be expensive to implement personal health records, and the idea of patients entering their own data received mixed reactions from physicians; they worry that patients may edit doctors' notes or enter incorrect data.

- Most physicians are opposed to allowing an "opt out" capability that would allow patients to block some information from being accessed by their health care provider.

- Most physicians we spoke with indicated they would be interested in adopting personal health records. Their main reasons for doing so are to obtain access to patient records and to achieve efficiencies in their practice.

Employers

The research into employers' perceptions of personal health records revealed that there is little awareness of, and experience with, personal health records among employers. Moreover, we found that employers tend not to see a clear or consistent benefit to them in making personal health records available to their employees, although they clearly see value for their employees and would encourage them to use the records. Other key findings include:

- They believe that having access to their medical records would allow employees to better manage their health care and keep track of doctor's visits, medications, etc.

- Some employers believe that employees may be more likely to use wellness, care management or preventative care services. They think that employees may become more aware of these services if tied to a personal health record and, consequently, may use them more often.

- They believe that confidentiality and security will be a key concern of employees.

- They are comfortable with health plans providing their employees with access to personal health records; they would view that as an added service by the plan.

- Employers desire ease of navigation, integrated reporting and more of an outcomes focus.

So overall, while employers are mixed on their likelihood to offer a personal health record for their employees, they clearly see the value to their employees and are comfortable with their health plans making personal health records available. They see consumer education on the ease of use, benefits, security and confidentiality as key to getting their employees to use personal health records.

Refinements to UnitedHealth Group's Personal Health Record

Based on our experience and the finding of our research, we are making a number of refinements to our carrier-based personal health records. In November 2005, UnitedHealthcare added a feature that allows members to print summaries of their personal health records with the click of one button, so they can easily bring key information with them to their doctors' appointments. We have had significant adoption of this feature – nearly 70 percent of consumers using the PHR accessed this feature.

In addition, we plan to add more features such allowing members to restrict access to certain portions of their records. We also will conduct member satisfaction surveys and will evaluate the extent to which personal health records are leading members to enroll in disease management and wellness programs, access UnitedHealthcare's 24-hour nurse advice line, use the nurse chat room function and undertake other activities that promote health and well-being.

Conclusion

In conclusion, our experience in offering consumers a personal health record, as well as our research to determine the key needs of consumers as related to a personal health record, have enabled us to identify a number of requirements for facilitating widespread adoption. These requirements for success include:

- A strong and consistent information and education campaign that clearly shows the value of using a personal health record to the consumer

- A tailored consumer experience, organizing data and features in a manner that makes it easy to navigate and access information of choice, with health information displayed and described in ways that are easy to understand
- Secure and private infrastructures and processes
- Accurate and timely information to build trust and credibility
- Flexibility to address consumer needs, preferences and desires
- Health records fully integrated so that individuals have easy access to their PHR from the carrier's consumer portal and easy access back to the consumer portal from the PHR
- Interoperability with provider office technology

Chairman Porter, we commend you and the Members of this subcommittee for your appreciation of the benefits and value that health information technology can bring to the quality, efficiency and effectiveness of health care. We appreciate your leadership in advancing the use of personal health records/electronic medical records within the Federal Employees Health Benefits Program and are supportive of your efforts.

Currently, there are a number of models of personal health records being offered to consumers. Since they are still an evolving feature of our health care system, no one knows for sure yet what approach will truly get consumers what they need and will use. However, our efforts and research have shown us that the most effective approach is a simplified approach. Therefore, as you move forward with your efforts to advance this critically important health care service, we would ask that you continue to provide flexibility for the market to determine what consumers want and what will get them fully engaged so that we can design and refine personal health records to best meet their needs.

We are confident that the use of appropriately-designed personal and electronic health records will make a significant difference in improving health outcomes for individuals and will make it easier for them to manage their health care effectively. Again, we appreciate your leadership on this very important matter and thank you for the opportunity to share our experiences in offering a carrier-based personal health records. I would be happy to answer any questions you might have for me.

Addendum to Testimony of Jeannine R. Rivet

Committee on Government Reform

Subcommittee on the Federal Workforce and Agency Organization

"Healthier Feds and Families: Introducing Health Information Technology Into the Federal Employees Health Benefits Program"

March 15, 2006 Hearing

UnitedHealth Group®

Personal Health Record: Features & Capabilities

Data Capture

- Ability to auto-populate and manage claims data
  - Conditions, Procedures, Medications, & Lab Results
- Ability to capture and manage self-reported data
  - Enter important allergy & vaccination information
  - Enter Health Tracking information
- Ability to capture and manage personal information
  - Family history
  - Personal & Emergency Contacts

Data Integration

- Make data available to internal program
- Continue to share data via provider portal

My Personal Health Record

Your Personal Health Record can help you keep track of your medical history, prescriptions and other health information. You can also add your own information to each of the categories below.

→ Learn More About Personal Health Record

Personal Health Summary

Conditions

Description	Date
< pri. Diagnosis description>	<mm-dd-yyyy>
< pri. Diagnosis description>	<mm-dd-yyyy>
< pri. Diagnosis description>	<mm-dd-yyyy>
< pri. Diagnosis description>	<mm-dd-yyyy>

Add Comment

Medications

Medication	Generic	Dosage	Date
<brand name>	<Generic Name>	<dosage>	<mm-dd-yyyy>
<brand name>	<Generic Name>	<dosage>	<mm-dd-yyyy>
<brand name>	<Generic Name>	<dosage>	<mm-dd-yyyy>
<brand name>	<Generic Name>	<dosage>	<mm-dd-yyyy>

Add Comment

Procedures

Procedure	Date
<procedure description>	<mm-dd-yyyy>
<procedure description>	<mm-dd-yyyy>
<procedure description>	<mm-dd-yyyy>

Add Comment

Labs

Test	Measurement	Date
<lab result>	<measurement>	<mm-dd-yyyy>
<lab result>	<measurement>	<mm-dd-yyyy>
<lab result>	<measurement>	<mm-dd-yyyy>

Add Comment

Personal Health Record

One-Click Health Summary

- On-line & printable summary
- Displays most recent 24 months of
  - Condition
  - Medication
  - Procedure
  - Lab results data
- Available through consumer & provider portals
- Also available through swipe-card technology
- Protects consumer privacy by suppressing sensitive information
- Tangible tool to support patient-physician relationship

Personal Health Summary—Jane Doe
8/21/2003 to 09/20/2005

Printed By <User Name> on <MM/DD/YYYY> at <HH:MM TT>. PRINT

Placeholder for Disclaimer, placeholder for disclaimer. Placeholder for disclaimer.

About Me

Is this information correct? Contact your benefits administrator to find out how to make any changes to your address or other information.

1211 Forrest Hills Drive
Cleveland, OH 44134
Date of Birth: 10/24/1963

My Condition Summary

Information about health conditions you have been diagnosed with is shown below. The numbers in parentheses are ICD codes, which doctors use to categorize diagnoses. These codes are used universally by doctors and health insurance companies, so if you see a different doctor, he or she will easily understand your health history and health care needs.

Tear of Knee
Secondary Diagnosis: Joint Effusion-Leg
ICD Codes – Primary: 8380 Secondary: 71906
Date: 8/9/2005 First: 8/9/2005
Physician: Dr. Tomasz Mastelaerz

Diabetes Uncomplicated Type II
Secondary Diagnosis: None
ICD Codes – Primary: 25000 Secondary: None
Date: 7/21/2005 First: 7/21/2005
Physician: Dr. Tomasz Mastelaerz

Normal Delivery
Secondary Diagnosis: Delivery-Single Liveborn
ICD Codes – Primary: 650 Secondary: V270
Date: 10/29/2004 First: 10/29/2004
Physician: Dr. Tomasz Mastelaerz

Headache
Secondary Diagnosis: Anemia
ICD Codes – Primary: 7840 Secondary: 2859
Date: 9/24/2004 First: 9/24/2004
Physician: Dr. Tomasz Mastelaer

My Medication Summary

This is a list of your prescription history, based on your medical claims. If you are taking any medications, including vitamins, over-the-counter drugs, herbal supplements or prescription drugs not listed here, be sure to discuss them with your doctor.

Brand Name: Tylenol w/Codeine 3
Generic: Acetaminophen w/Codeine
Dosage: 30-300mg tablet
Refills Available: 0
Supplied Days: 3
Last Date Filled: 02/09/2005 First Date Filled: 02/09/2005
Times Script Filled: 1

Brand Name: Celexa
Generic: Citalopram Hbr
Dosage: 40mg tablet
Refills Available: 1
Supplied Days: 30
Last Date Filled: 8/9/2005 First Date Filled: 5/5/2005
Times Script Filled: 2

Brand Name: Clobex
Generic: Clobetasol Propionate
Dosage: .05% cream (gm) PTOPRIL A4D
Refills Available: 99
Supplied Days: 30
Last Date Filled: 09/20/2005 First Date Filled: 09/20/2005
Times Script Filled: 1

Mr. PORTER. And we thank you for being here. We appreciate it.

Next, Dr. Malik Hasan, CEO of HealthView, and retired CEO of HealthNet. Welcome.

STATEMENT OF MALIK HASAN

Dr. HASAN. Thank you, Mr. Chairman, and let me thank you on two counts: first, for allowing me to present my view; and, second, I am also your constituent and voted for you. [Laughter.]

And it seems like I voted right. I am very happy with my vote.

Mr. PORTER. I may ask you to say that again someday, so don't forget that, OK? Thank you.

Dr. HASAN. As you will notice from my bio, I have had a very diverse experience in the delivery of health care in the United States. I have firsthand observed the flow of information and the current limitations in physician offices—because I used to run a physician office—hospitals, because I was involved in the operation of a hospital, also the free-standing facilities, and was the founder and operator of a major health plan. The experiences allowed me to observe the gaps in care. Such gaps result in poor coordination of care with the resultant poor and expensive care. Resources are very poorly utilized.

The introduction of the electronic health record, as envisaged in this bill, will start bridging those gaps and commence the transformation of the health care delivery system which is sorely needed, because it is not just the Federal employees. Once the carrier starts a process for Federal employees, they will also extend it to their other employee groups and other members, thus starting a snowballing effect.

The features of the electronic health record as described in this bill are essential to achieve the goals which are envisioned in this bill. The bill allows the creation of a longitudinal record, starting with the carrier's input and entries by the consumer and additional information imported from the provider's EMR, thus providing ultimately a very complete medical record which is important for the continuing care of the patient. This will also provide prompt and accurate access to a medical record in an electronic format to the patients and, more importantly, also the providers who are not familiar with the patients, with better understanding of the problems and their management. This electronic record provides a record which, as I mentioned above before, is going to be very important for the continuing care of the patient.

In addition, the integration of the SNOMED—and this alphabet soup stands for Systematized Nomenclature for Medical—I am blocking on the full name. But it is in my written testimony—allows the information to be encoded as opposed to being just text. And it allows for its proper arrangement and organization within the record. It also enhances the privacy feature because the information is encoded. You can basically rifle-shoot which information should be available to whom as determined by the patient, rather than giving full access to the record.

The encoding of data through SNOMED is described more fully in attachment two. It will take too much time for me to go over that here. It would in the future also allow outcome measurements leading to standards for evidence-based practice of medicine, popu-

lation-based studies, profiling the providers, and making it much easier and cheaper to conduct drug trials.

One of the problems with the drug trials is that the FDA considers that anytime they are going to approve something, it is going to be in the public domain and, so to speak, can be withdrawn, nobody is going to look at it. On an electronic record, you can survey, keep on the surveillance, and pull out the medicine as soon as some red flag arises.

SNOMED also allows the patient to have full control over the records and fully protect the privacy. So far, any attempts at reforming health care have invariably centered around the reform of health care financing rather than addressing the root causes of poor and expensive care. This legislation is a joint step toward elimination of the barriers to the high-quality, cost-effective care.

We are fortunate to have the finest physicians and hospitals, but this advantage is compromised because of a lack of electronic health record. The absence of an electronic health record creates an environment that prevents proper coordination of care, allows ignorant care, and even worse, inappropriate care, which is duplicative, wasteful, and allows serious errors. This legislation will go a long way in eliminating all those sins of commission and sins of omission.

Thank you, Mr. Chairman, and I am prepared to answer any questions.

[The prepared statement of Dr. Hasan follows:]

188 Inverness Drive West, Suite 140
Englewood, CO 80112-5205
Phone 303 397-3000
Facsimile 303 397-3001

Testimony of Malik M. Hasan, M.D.
Subcommittee on the Federal Workforce and Agency Organization
March 15, 2006

Mr. Chairman and members of the committee, thank you for giving me this opportunity to present my views on the proposed legislation.

Let me introduce myself – I graduated from King Edward Medical College in Pakistan. I had my training at the National Hospital of Neurological diseases, from 1962 to 1966, and practiced in the United Kingdom. I was admitted as a member of the Royal College Physicians of London. I immigrated to the United States in 1971. I was on the Neurology Faculty of Rush University, in Chicago, from 1971 to 1974. From 1975 to 1992, I was in a private practice of Neurology in Pueblo, Colorado. In addition, I served on the Board of Directors of the Colorado Medical Society, as well as the Board of Parkview Regional Medical Center of Pueblo, Colorado. I was also appointed to the Colorado Health Data Commission by the Governor of Colorado and confirmed by the Colorado Senate. In 2003, President George W. Bush appointed me as the United States Delegate to United Nations Commission on Human Rights.

I was the managing partner of my and my partners' Neurology/Neurosurgery group, and I was closely involved in the running and the operations of Parkview Hospital. I had a significant role in turning around that hospital, which had previously was failing, and in building it into a vibrant, leading regional medical center. I was also in charge of a freestanding CT Scan lab, as well as the later addition of an MRI. In 1985, I founded a health plan named Qual-Med, which evolved into HealthNet. I served as Chairman and CEO of both companies.

In 1997, the Smithsonian Computerland Museum awarded me a medal in healthcare information technology innovation. HealthNet and I, as its CEO, were also finalists for the Smithsonian Award in healthcare technology innovation, because of our work in algorithms-based phone triage system. I retired from HealthNet in 1999, by which time, HealthNet was a Fortune 200 company.

In 1999, I founded HealthTrio, which is a healthcare information technology company. We develop modern, core administrative systems for health plans and an internet-based program to connect physicians, hospitals, health plans, employees, and health insurance brokers. In 2000, we started developing a Personal Health Record/Electronic Health Record ("PHR/EHR"). The development of these programs was successfully completed, and last year, we actually achieved a complete re-write of these programs and integrated SNOMED into the PHR/EHR.

I have had the good fortune of participating in the delivery of healthcare in the United States in all phases: as a consumer, a physician, an academic, as an operator of a physicians' group, an operator of a free standing facility, founder and operator of a major health plan, close involvement in the operation of a medical center, and founder of a successful healthcare technology company.

This diversity of experience has allowed me to observe, first hand, the delivery of healthcare at every level, including the flow of information, and its current limitations in physicians' offices, hospitals, freestanding facilities, and health plans. More importantly, this experience has allowed me to observe the gaps in care. Such gaps result in poor care. Resources are wasted due to lack of adequate healthcare information technology.

The introduction of the PHR/EHR, as envisioned in this bill, will start bridging those gaps and commence the transformation of healthcare delivery, which is sorely needed in this country.

To fully understand the role of healthcare information technology in the delivery of healthcare, one should clarify the differences between the PHR/HER, on one hand, and the Electronic Medical Record ("EMR"), on the other hand. The PHR/EHR and EMR, while distinct, are complementary to each other.

The EMR consists of all information relating to clinical encounters between the patient and the provider. The information recorded and available is related to the providers using that particular EMR. The size of the EMR may vary from an EMR being used by a single physician, group of physicians, a hospital, or a large system, like the Veterans Administration system. The information is profusely detailed and is the medico-legal record of the care given. The information, which is retrieved from a single source, is limited only to that information entered into the system by the providers using that single system. It is conceivable that the EMR could be connected to other EMRs, through RHIOs or the NHIN. However, delays in the speedy retrieval of information from multiple EMRs is likely, if not guaranteed, and en masse usage of EMRs in this fashion runs the real risk of information overload. Moreover, gaps in the record, both known and unknown, will exist. For example, one such gap is a lack of EMRs in the physicians' offices (currently, only 10% to 15% of the physician offices have EMR capabilities). Another gap is a lack of connectivity or interchange of data between various EMR networks. In addition, the consumer has no ability to make direct input on a regular and sustainable basis. In the exchange of the data between systems, privacy issues may be difficult to resolve. Briefly stated, the EMR has great depth, but limited width.

The PHR/EHR starts out as a journal or questionnaire entry by the consumer/patient. Unlike the EMR, which is provider-centric, the PHR/EHR is patient-

centric. The information entered by the patient is supplemented with data extracted from claims information that has been submitted by providers to health plans. This process has the virtue of creating a complete longitudinal record of all encounters between the patient and various providers, spanning all providers, irrespective of whether they belong to one physicians' group or different ones. It spans various providers located in different geographical areas, as well as various specialties. The clinical information present in the PHR/EHR can be supplemented by importing clinical information using HL-7 messaging or custom interfaces from the EMRs of the providers, such as hospitals, physicians, labs, imaging centers, PBMs, and free standing facilities. In this process, information, which is imported, can be pre-selected as needed for continuing care of the patient. On the other hand, information which has no relevance for future care (including unimportant nursing and physician notes) is not included in the PHR/EHR, thus avoiding clutter and information overload. This arrangement allows the treating physician to have prompt, efficient, easy access to the summary of all healthcare encounters of a patient in one place. Privacy issues are resolved by giving the patient complete online control – the patient has the ability to grant (or not grant) permission to various individuals, including care-givers, access to parts of the record as pre-determined, by the patient on a need-to-know basis. Briefly stated, the PHR/EHR has full width, with limited depth.

The PHR/EHR, by allowing the direct input of information by the patient into the PHR/EHR, allows inclusion of valuable information in the record on continuing basis. It also engages the patient to participate in their care. The Return on Investment ("ROI") is lucrative. One of our clients (the Mercy System in St. Louis) provided a PHR system to one of their employers in the manufacturing industry, with very impressive results (health care costs were reduced by 25%). This case study, with the ROI, is included as Attachment One to this testimony.

In addition, the opportunity to integrate SNOMED (which HealthTrio has already done) in the PHR/EHR is invaluable. The benefits of doing so opens all sorts of doors to improve the quality of care and reduce the costs. These benefits are explained in more detail in Attachment Two.

So far, any attempts at the reform of healthcare have invariably centered around the reform of healthcare financing, rather than addressing the root causes of poor and expensive care. This legislation is a giant step towards elimination of the barriers to high quality, cost-effective care. We are fortunate to have the finest healthcare system in the world, with very well-trained care providers, availability of state-of-the-art medical technology, innovative drugs, excellent access to medical facilities, and a national will to provide enough funding. All these advantages are being compromised though because of a lack of effective electronic health records. The absence of electronic health records creates an environment that prevents proper coordination of care, allowing

inappropriate, ignorant care that is duplicative and wasteful, alongside unnecessary errors of various types, including medication errors.

In the pre-internet era, at Qual-Med, we created a rudimentary EHR, which was accessible only internally, and yet, the Qual-Med medical directors were able to use the information to increase significantly the quality of care and lower costs. The effects were consistent from one geographical area to another. The functionalities proposed in this legislation can achieve even greater strides and are very appropriate and necessary. Qual-Med, a small privately founded health plan, was able to outperform much larger plans because of this rudimentary EHR. Besides the ability of consumers to input their information into the PHR/EHR, and the adding of clinical information from the claims through data extraction to the PHR/EHR, it is critical that physicians be able to view the record (with the permission of the patient) in order to initiate any interventions and add any notes. The online availability of the PHR/EHR enhances the value and increases adoption of the PHR/EHR, both by patients and physicians. To reap the full benefits of the PHR/EHR, universal adoption is ideal.

Attachment One

Case Study: ROI through Adoption of the HealthTrio *connect*™ PHR

A St. Louis-based health plan, providing coverage for 230,000 lives, was faced with the challenge of attracting and retaining accounts in a marketplace dominated by profit-challenged employers, many of whom have been considering dropping their health insurance benefit completely in order to increase revenue. The health plan decided that by improving the personal health of its patient population through a health management program, it could keep its products affordable for its subscribers and their employers. As a result, the health plan created a health improvement program, with a patient-centered approach to healthcare that focuses on patients taking charge of their own health.

After an exhaustive search for enabling technology, the health plan chose HealthTrio *connect*™ PHR, an Internet-based health management tool from HealthTrio. HealthTrio *connect*™ PHR was chosen because of its unique cross-stakeholder PHR, the depth of functionality in the patient portal, and the product's short implementation period. This decision was quickly validated as, in its first year, the program returned remarkable results with high user participation, compliance, and cost savings.

The program was developed based on the premise that members should be both accountable and responsible for wellness and health behaviors. It was designed to:

- Foster a corporate culture that focuses on wellness and rewards employees who get and stay healthy;
- Offer incentives that include richer benefits and reduced out-of-pocket expenses to members who agree to manage their health; and
- Provide consumers with online tools. HealthTrio *connect*'s™ PHR enables consumers to record health activities, set reminders, and access customized health information on topics relevant to each individual health situation.

In order to qualify for participation in the program, employees used the Internet to fill out an eligibility questionnaire and complete a health risk assessment ("HRA") with questions related to key health areas such as cholesterol, weight management, diabetes, smoking, and seat belt usage.

The HRA then provided the following: a personalized report, good habit score, list of good habits, list of changes to reduce health risk, recommendations for preventive screenings and narrative explanations. Employees used the HealthTrio *connect*™ PHR to create an action plan, monitor personal goals and activities, and access health information.

The pilot employer was eager to head off an expected 28% increase in its health costs. Initially, they were focused on the short-term. As the program progressed they started to see the benefit of thinking long-term and working to enhance their employees' overall health, and thereby reducing avoidable health care costs. They communicated their goals to employees to avoid making them nervous about a new program and achieved 76% enrollment in this program. Key messages included:

- Health insurance is part of compensation, which can reduce take-home pay;
- While we are prepared to share the risk for unavoidable health conditions, we should not ask fellow employees to share the cost of unhealthy behaviors, like smoking and failure to wear a seatbelt;
- Good personal health is as important as job safety; and
- We can only offer better benefits if you do your part.

In order to ease the transition to a new program, employees were given lower co-pays and lower than expected monthly contribution levels as an incentive for joining. To ease concerns about employee access to the Internet, the company installed, at little cost, PCs on-site, manned by employees trained on the enrollment process and use of the HealthTrio *connect*™ PHR. The company also supported the program with newsletters, weight loss contests, a benefit fair and subsidized health promotion classes such as smoking cessation classes.

The company saw an increased awareness by employees of health issues and the link between health behavior and health care costs. Increased awareness of current medical conditions, and a goal-oriented environment focused on long-term wellness, caused employees to make positive changes. Lifestyles and habits that trigger preventable disease including tobacco usage, poor diet, and lack of exercise began to change, and results were astounding.

Results

The health plan chose initially to pilot this approach in its manufacturing base, the most cash-strapped segment of its employer customers. In this largely blue-collar community, it was estimated that over 50% of the employees were not "regular" computer users. However, about 76% of employees and their spouses signed up to participate. Of those who signed up, participation remained high throughout the year.

Full period compliance rates for key health maintenance and improvement measures among this population were dramatic:

Health Issue/Program	**Compliance Rate**
Cholesterol Screening	73%
Tobacco Cessation	63%
Weight Loss	79%
Diabetes – A1c Testing	75%
Mammogram Screening	81%
Pelvic / PAP Exam	85%
Prostate Exam	91%
Colon Rectal Exam	80%

Over 85% of those participating in this program accessed their on-line health information at least twice that year. Consumers welcomed the opportunity to participate in programs that improved their overall health while lowering their monthly health insurance premiums. These results underscore that with the proper kind of integrated system support, consumers welcome the opportunity to participate in programs that improve their overall health. These statistics underscore the extent to which health care is improving as patients engage in these health and disease management initiatives.

Importantly, these initiatives have not only improved health and wellness – they have had an impressive effect on the bottom line of both the health plan and its participating employees and employers. The employers and employee groups serviced by the health plan are long-term customers with well established trends and baselines. Based on historic data, the health plan had well understood actuarial projections for medical costs, which were expected to rise significantly without introduction of the PHR-based health care management approach. By utilizing this approach, the employer experienced a 25% decrease in medical expenditures. Savings in medical costs for this employer were $45 per member per month ($540 per member per year):

Service Type	**Previous Year PMPM**	**Program Year PMPM**	**Savings**
Inpatient	$ 62	$ 22	$ 40
Outpatient	$ 50	$ 45	$ 5
Professional	$ 51	$ 45	$ 6
RX	$ 15	$ 21	$ (6)
Total	**$ 178**	**$ 133**	**$ 45**

The results are compelling and much better than originally anticipated and expected. The health plan began offering the health improvement program as its core product to an ever-increasing number of patients and organizations that understand the magnitude of both the financial and health benefits. The health plan's adoption of the PHR shows that supporting the concepts of enhancing the health and productivity of employees by providing personalized, real-time tools that empower patients to take control of their own health delivers what is most sought: ***better health, better health care, happier patients, and lower costs.***

Attachment Two

SNOMED

SNOMED stands for "Systematized Nomenclature of Medicine." SNOMED is a data dictionary/vocabulary with over 370,000 words, concepts, and phrases. This project was initiated about twenty years ago by the American College of Pathology. The National Health Service of the United Kingdom, the National Library of Medicine, the Department of Health and Human Services, and other national health systems later joined the American College of Pathology in developing this universal medical language. SNOMED allows other coding systems (such as ICD-9 and ICD-10, CPT codes, etc), which are distinct from and incompatible with each other, to be integrated together under the SNOMED coding in one unified language.

The use of SNOMED with the PHR/EHR provides transformational opportunities to improve further the quality of care and reduce cost. The use of SNOMED enables ***clinical information to be encoded*** and allows an integrated/associative, electronic review of the data. What can be potentially achieved with SNOMED capability is briefly outlined below.

A. Outcomes Measurements

The presence of ***encoded clinical data on an electronic platform*** allows, with limited effort, the use of reporting programs which will generate outcome measurements relating to specific conditions and various interventions in the entire plan population. Currently, the outcome measurements studies (both prospective and regression studies) are done on a limited basis and usually over a limited patient population for specific, short time periods due to the extensive effort required to collect and analyze data. The ability to measure outcomes in a large population with ease and timeliness is the elusive "Holy Grail" of modern medicine. With the ability to measure the various outcomes, one could easily do the following:

1. Compare the effectiveness and cost of care as claims or cost data is embedded in the EHR, versus the drawbacks of alternate management for a specific condition(s). This comparison will lead to more widespread practice of evidence-based medicine.

2. The providers could be easily profiled for the quality and cost-effectiveness of care provided by them. This profiling provides the opportunity to impact and intervene on the practice patterns of providers with poor outcomes.

3. The comparison of the efficacy and side-effects of various drugs within the same drug group (e.g. statins) or new drugs versus older and less expensive ones.

4. The cost-effectiveness of workups for diagnostic purposes (such as x-rays versus CT Scans versus MRIs to diagnose back pain)could be determined.

B. Integration and Presentation of Data

SNOMED coding allows data to be collected from disparate sources, such as clinical components of the claims data, direct input by members, data collection through interfaces such as HL7, and other interfaces to be integrated with data from hospitals, labs, PBMs, imaging centers and other outpatient facilities. The data is fully and properly integrated/associated and presented:

1. The member interface can be tailored to members' needs and the data presented will be specifically relevant to the members' needs.

2. The EHR presentation to the providers can be tailored to their specialty and allows them to review the pertinent information. This presentation makes the process time-efficient. Additional information is available if the provider needs it.

C. Improved Clinical Data Protection

With the advent of patient web access to personal health records, a critical success factor is the user's comfort in having their data available on the Web. How well the information is protected is critical. SNOMED codification of the data allows patients to protect entire sections of their health records by selecting an entire category for protection. For example, the patient can protect all medications, visits, illness/conditions, procedures, and other related events for the entire mental health section by protecting that section from designated individuals through selecting the SNOMED "mental health" category.

D. Eliminates Waste and Fraud

With the ability to obtain direct input from the patient, which is encoded and then compared with the provider's input, any discrepancies are thereby revealed and reconciled, effectively ending the need for various files in disparate locations. Also, the ready access of information in the EHR has the potential to eliminate the ordering of duplicate tests and medications.

E. Disease Management and Care Management

With clinical information available in an encoded format, opportunities to introduce disease management initiatives for managing additional diseases would become available. The current management of chronic diseases would improve radically with significantly better results at lower costs. Caregivers, with their patients joining the program online, can integrate information with overall management of these patients' health conditions, likely obtaining better health results. New and more efficient workflow can be designed around the EHR. Similarly, the current care management programs, to identify the gaps in care and corrective action, would have to be redesigned with new workflow, based around the availability of encoded clinical information on an electronic platform. This redesign would allow the introduction of care management programs easily and in a sustained and considerably more efficient manner.

[The prepared statement of Dr. Ewen follows:]

Dr. Edward F. Ewen, Jr.
Christiana Care Health System
Testimony (Final) 3/15/06

SUBCOMMITTEE ON THE FEDERAL WORKFORCE AND AGENCY ORGANIZATION

Mr. Chairman, Ranking Member Davis and distinguished members of the Subcommittee, thank you for inviting Christiana Care Health System to submit a formal statement for the record on the important topic of using electronic health records to improve the quality of healthcare in this country. I am Dr. Edward F. Ewen, Jr., a member of the Department of Internal Medicine and Director of Clinical Informatics at Christiana Care Health System.

Based in Wilmington, Delaware, Christiana Care Health System is one of the largest health care providers in the mid-Atlantic region, delivering about half the care for all the residents of Delaware and serving portions of Pennsylvania, Maryland and New Jersey. Christiana Care is a not-for-profit, privately owned organization that includes two hospitals, Christiana Hospital and Wilmington Hospital. Our core values include caring, integrity, leadership, service and teamwork and we follow a tradition of providing excellent healthcare to our community, as evidenced by our accreditation in a 2005 survey by the Joint Commission on Accreditation of Health Care Organizations (JCAHO).

As an internist and treating physician at Christiana Hospital, I believe that having more information about a patient at the point of care can greatly impact the quality of care that a physician can provide. Therefore, I enthusiastically support the Federal Family Health Information Technology Act of 2006 and am very happy to provide testimony on how electronic health records can benefit patients, based on our experience at Christiana Care.

Better information leads to better care

Physicians need a reasonably complete medical picture of a patient in order to make important medical decisions. Unfortunately, they are often unable to get complete and accurate information quickly enough to determine the best course of care to obtain the best outcome. This is especially true in an emergency room, where patients can arrive unconscious and unaccompanied. Physicians have little or no knowledge of the patient's existing medical conditions, whether they are taking medication, or if they are susceptible to allergic reactions. In such instances, physicians have the greatest need for patient data, yet are least likely to be able to obtain it.

Emergency room physicians attempt to obtain medical information about arriving patients by interviewing them if they are conscious, inquiring about their histories from family members or from the ER's computerized records if the patient had been treated there previously. An internal electronic record system is often the sole means of obtaining patient data for patients that arrive unconscious and alone.

Integrating electronic patient clinical summaries into the workflow

In September of 2005, Christiana Care integrated the electronic availability of patient clinical summaries into our workflow at our Level 1 Trauma Center. This project was a joint effort of Christiana Care; our largest payer, Blue Cross Blue Shield of Delaware (BCBSD) and their technology provider, MEDecision, Inc. For the first time in the nation's history, a dominant health plan is analyzing and summarizing all the data they have about a member to create a complete patient clinical summary and exporting it in

real-time when a patient arrives in our emergency room. Health plan member data are made immediately available when and where physicians need it most, at the point of care.

In order for the use of payer-based health records to be practical, there have to be enough records available to make it worth the provider's while to change their workflow to accommodate it. In other words, if there is only an electronic record for one out of every 1000 patients, staff will be less inclined to look for those records. However, if there is a great enough presence by the health plan in a region, the admitting staff would be more likely to routinely look for the records because there would be an electronic health record for the majority of patients seeking service. We had the perfect situation in place for our pilot program since our payer partner, BCBSD, covers nearly 50% of the privately insured population in our coverage area.

Now, every time a BCBSD member arrives at the ER, it is part of the admission staff's workflow to perform an eligibility transaction through BCBSD, pull down the printable version of the patient clinical summary and give it to the triage nurse, who records the information in the record or hands it to a doctor.

The ER physician now has a more complete picture of what conditions a patient has, the relative severity of those conditions, what drugs they're on, the last time they were in an ER or hospital, who their doctors are and the physicians' phone numbers. For example, if a heart patient has a cardiologist, we have their name and phone number readily available, which saves time at a critical moment.

The patient clinical summary improves patient safety by disclosing the patient's drug information, allowing us to avoid conflicting and possibly incompatible combinations of medication. For example, out of a total of 59 ER admissions in one month, in three different instances we discovered that people with heart conditions had also filled prescriptions for Viagra, yet did not admit it to the admissions staff. This information could save a person's life.

Mandating a payer-based health record: a starting point for the EHR initiative

I strongly support the Federal Family Health Information Technology Act of 2006 because mandating a payer-based health record is the logical starting point for the electronic health record initiative that promises to improve healthcare and reduce costs for all citizens in this country.

While having some information is better than having none, having good information is the best. In order for the payer-based health record to be valuable, it cannot simply be just a summarization of raw claims data. A very sick patient can have hundreds of claims items in their records and a physician can't possibly pour through that. We need to have the information cleaned and validated according to clinical rules. The good news about the patient clinical summary that we're using from BCBSD is that all of that clinical validation is already done, which is not the case in all the systems we have seen out there.

Dr. Edward F. Ewen, Jr.
Christiana Care Health System
Testimony (Final) 3/15/06

Clinical staff places high value on patient clinical summary

We have had a phenomenal experience using patient clinical summaries at Christiana Care Health System. Probably one of the greatest compliments a cadre of clinicians can give to a new tool is to depend on it so much that it becomes completely integrated into their workflow.

Bringing in new technology or a new piece of information and introducing it into the workflow of a very complex and hectic emergency environment is a daunting task, and it took us a fair amount of time to work out the details. But once we went live, it was a matter of weeks before we were up and running. Patient clinical summaries have been integrated into the workflow of the clerks, nurses and physicians, and they use it on everyone they can find information on. Not every patient in the database will have data for us to see because some of them are not on medication or don't have much in the way of medical problems, but for the majority of the participating patients, there's something there to find.

Because we're a Level 1 trauma center, we see many people who come in either unconscious or with their level of consciousness impaired. One of the immediate quick wins for the trauma team and the emergency room was having any information on a patient that came in as a trauma code. Frequently these people come in from an automobile accident or work-related accident, so they come in with almost no information whatsoever.

More complete medication information 48% of the time

In an unofficial test of the value of patient clinical summaries, Dr. Paul Kaplan of BCBSD and I went through nearly a month's worth of BCBSD patients who had come into our ER that were ranked at the highest severity levels by our triage system. We looked at the medication lists that we were collecting on these patients at the triage desk, and compared them with the data that was available through the patient clinical summary from BCBSD for congruence and completeness.

In 25% of the cases, both our nurses taking histories from the patients and the data from the patient clinical summary agreed almost completely in all important aspects. In another 25% of the cases, we had more information than the summary, primarily because of one over-the-counter medication, aspirin, that doesn't show up in claims records. In 48% of the cases, the patient clinical summary had more information than we had in our record. That's how we made the case internally for this initiative being very important. It's how we convinced our clerical staff that when they identified a BCBSD patient, they needed to take a second to go online, bring up the patient clinical summary and print it out. That percentage number set the stage for the potential benefit of patient clinical summaries. And it's just one aspect of the patient clinical summary—medications.

Physician list and phone numbers save critical time

Another aspect of the patient clinical summary that our doctors find very useful from an efficiency standpoint, particularly if a heart patient has a cardiologist, is the physician list. The physician list includes the direct dial contact information for every physician who has

seen the patient in question and saves our staff the time of searching for those names within our systems or by interviewing the patient or their families.

One of the most important things emergency physicians need to do is get in touch with the patient's outpatient care physician. A good example is orthopedic injuries, which usually don't occur on a regular basis, so frequently the patient won't remember the name of their orthopedist. Having this information readily available shortens the search time necessary to find the appropriate follow-up care for the patient.

Anticipation of significant ROI

Although there hasn't been enough time to make a definitive statement, cost savings can be easily recognized through a reduction in duplicate testing. Having a list of previously ordered, high-cost imaging procedures available while making a decision on ordering new tests has a great impact on the cost of care. The significant problem in an ER is that you do not have a longitudinal relationship with the patient, so you do not have access to that information. The patient clinical summary provides or backfills what, for a primary care physician, would be handled with a longitudinal record.

Bringing payers and providers closer together

We rarely get the opportunity to work closely with a payer developing innovative approaches to improving patient care in real-time at the bedside. What the ER physicians and clinicians came to understand through the process of implementing the patient clinical summaries is that everyone is trying to do what is best for the patient.

The relationship between payers and providers has historically been antagonistic, but the patient clinical summary is a tangible example of how we can help each other. Before the patient clinical summary pilot program, I do not think physicians in the ER ever really had the chance to appreciate what a payer has to offer in terms of improving care. I can see a change in the ER physicians' and staff attitudes since beginning this program when they talk about the difference having this summary makes when they're seeing patients, and their recognition that it's been given to them by the predominant payer in this state.

In conclusion, the patient clinical summary is a hands-down winner from a clinical care standpoint, and there isn't a member of the staff who wouldn't agree with that here. It's so much better to be able to work with information than to be working in the dark. The relief that it brings people, the peace of mind alone as a practitioner is worth a lot.

For this reason, I enthusiastically support the Federal Family Health Information Technology Act of 2006. Based on our experience with payer-based health records from Blue Cross Blue Shield of Delaware and MEDecision, I feel that the technology proposed by this bill will improve the care and affordability of healthcare for the 8.5 million federal employees. I also believe it will ultimately help to extend this valuable technology to all citizens in our country.

Thank you, Mr. Chairman and Ranking Member Davis for the opportunity to appear before this Subcommittee. I am happy to answer any questions you may have.

Mr. PORTER. Actually, you are all going to be lucky because we are going to be called to vote here shortly, so there is not time for a whole lot of questions. But we are going to be giving you questions, if you could submit within 5 days some of the responses.

I want to make a comment, and then I am going to ask a question. I met with a veteran the other day, and I know we have talked about the Veterans Administration here really at length today. He is probably in his mid to late seventies, and he actually was here with the Veterans of Foreign War, as they traditionally come this time of year to talk about veterans issues. And one of his colleagues was a doctor, and I just happened to mention this bill that we are talking about today. And the gentleman that I am referring to that was in his late seventies, he had a huge smile on his face. And he said, "You know, I am now receiving care through the Veterans Administration," and he started bragging about the personal health record. He went on and on and on, on how he could communicate with his doctor, he could read it, he knew exactly—and as Speaker Gingrich said, he had ownership. It was a tremendous example of what I am hoping every American will be able to have to take advantage, hopefully with this bill's passage, moving it along much faster than originally envisioned.

But having said that, I wanted to share that with all of you, that this is a real person, a real veteran with real health problems, that is just so excited to break down these barriers and have ownership of his own health care. But with the limited time, I would like to ask Mr. St. Clair a question. We talked about the system being voluntary or an opt-out. Would you comment, with your expertise in this area, on that particular portion for the participant, please?

Mr. ST. CLAIR. Certainly, Mr. Chairman. I was interested in Speaker Gingrich's remarks around the notion of voluntary participation in systems like this, particularly when he also mentioned the fact that disaster recovery, responding to crises, was a very important goal of his.

Our view is that basic transport of clinical information that follows the HIPAA regulations is the most appropriate way to respond to the crisis in quality of care and patient safety and to crises of different sorts in this country. So we need to be able to mobilize data that exist within the walls of payers to benefit the patient through treatment in an opt-out environment, in our opinion.

However, having said that, the use of personal health records is truly a voluntary act, and we believe that one of the real benefits of implementing both the payer-based health record and the personal health record systems at the same time, or essentially at the same time, is that the personal health record lets those early adopters who want to make sure that all of their information can be sent to their doctors in emergency rooms and others when they are seeking treatment control that process and put more information in and make corrections. But, on the other hand, it also allows those who really don't want it to happen to opt out very, very easily. We currently allow opt-out procedures for folks who are having their information processed in our systems and delivered on behalf of our customers, but we think that the trickle of records that would come in would prevent the vast majority of providers, physi-

cians and others in this country, from ever changing their work flow to adapt to the presence of records.

The fact that we can go into the State of Illinois with 3.7 million records really makes it so that the hospitals, the emergency rooms, the physicians there will automatically build into their work flow the notion that those records are available. If only 5 percent of that 3.7 million opt in and we are not allowed to distribute the rest, no hospital, no doctor will bother to do that, other than those on a very, very sort of early adopter phase. So we think it is really an issue of proving to the Nation that, in fact, this basic kind of information should be delivered unless people say they do not want it to be delivered.

Mr. PORTER. And this question is to whoever would like to respond. As I have been meeting with the different insurance companies and the providers that have instituted this new technology, and they all brag about the advantages, but to an organization, they have talked about the challenges of a cultural change within the business, not only for the doctors but also everyone up and down the food chain.

My goal with the trust funds, or whether we can fix it through Judiciary and other means, is to also have some of these funds available to help in training and transition, because at Sierra Health Services of Nevada, Health Plan of Nevada, we spent a lot of time looking at their system. And I spoke of it earlier in my opening comments on how successful it has been.

But they said one of their biggest challenges was the cultural change, and in my prior life, I did work for an insurance company, and we went through major technological changes—I date myself—in the 1980's and the 1990's and transitioning. I know that there was a challenge. But do you have any insights on this change of culture once the hardware and the software is in place on encouraging this change more rapidly?

Dr. HASAN. Edison invented the electric bulb, which is a very obvious and a very easy thing to use. It took over 30 years to be integrated in the usual life and the work flows and work processes. The PC, we are seeing the benefit of the PC revolution, which started in late 1970's, early 1980's, now. So we will have to be patient and make it available, going back to the issue of whether it should be mandatory or whether it should be voluntary. For the carriers it should be, in my opinion, mandatory. For the membership, it would be—by nature of it, it would be voluntary, whether they use it or not, but it has a negotiating effect. Once people start using it, get the benefit, like you spoke to that person from the Veterans Administration, people have that experience, they go out, talk to their friends, speak to their acquaintances—that is how you will see the culture change. Culture is not going to change by mandate. Culture is not going to change by legislation. But what legislation can do is to make it available for the people to change their habits and their culture.

Mr. PORTER. Yes?

Dr. HANDEL. I think Dr. Hasan is on target. The other thing we realize is if we can integrate what we are doing into the normal work flow of offices and hospitals, that is going to make a big difference also. If this is looked upon as yet another hurdle to over-

come, another major problem, I think we will have resistance. But the experience that we have had in Delaware already, where the emergency room doctors initially did not want to use it, but now they understand how valuable it is, has created a whole new culture very rapidly. And I think our job as the industry, if you would, is to make this as easy and as integrated into the work flow as possible.

Mr. PORTER. Yes?

Dr. BARLOW. Chairman Porter, I would like to suggest that there are actually two cultural changes that need to take place here. One is the change to move from thinking about health care in a provider-centric model to one that is moving to thinking about health care in a patient-centric model. And what I mean by that is care today and the information that we have in order to deliver care centers around the provider and what they have and what they can effectively get from other individuals to be able to support that patient.

Giving the patient more information to give their provider helps to change the provider's focus to a more patient-centric model, but we really need to get where we can totally organize data around that patient so that any provider, anyone who interacts with the system thinks about it in terms of the patient, not themselves and what they have. I think that is key.

Mr. PORTER. If I can interrupt, you know, in Las Vegas, we have 40 million visitors a year. Think about that. You know, the State is only 2.2 million people, but we have 40 million visitors. And as I have visited the hospitals and the emergency rooms and the trauma center and talked about health care delivery to our visitors, one of the major—the largest hospital in Las Vegas that is part of Humana, they said 8 or 9 percent of all their emergency room visits are by visitors from somewhere else, and how frustrating in trying to deliver health care when they cannot find out any information. They are not sure of the meds. Sometimes they cannot communicate. And I think you are absolutely right. It has to be driven from the patient, and that is an example where if you travel anywhere in the world, you should have access.

I am going to conclude the meeting because we are going to vote here shortly, but I just want to leave you with one thought. I started the meeting today talking about a foster child. You know, these foster kids do not have the advantages of the latest technology, and they do not have the latest in health care in many respects and many times do not have a loving home to take care of other than a foster parent trying to be their parents.

I firmly believe, as I said in my opening comments, that by working with a first-class system, which we have as Federal employees—we have the best in the world, and making it even better—we will truly help those least among us in this country. And in combination with the funds we passed in December, $150 million to help with Medicaid and health information technology to transition, I believe that not only do we have the best system today, we will have a far better system in the future.

So thank you all very much for your testimony, and I look forward to working with you in the future. The meeting is adjourned.

[Whereupon, at 5:19 p.m., the subcommittee was adjourned.]

[The prepared statements of Hon. Wm. Lacy Clay and Hon. Elijah E. Cummings follow:]

STATEMENT OF THE HONORABLE WM. LACY CLAY
HEALTH CARE QUALITY WITHIN FEHBP
MARCH 15, 2006

Thank you, Mr. Chairman, for calling today's hearing on ways we can improve the use of information technology in our health care delivery system. I especially want to express my gratitude to you for our mutual efforts in developing health IT legislation that can benefit our public health infrastructure for generations to come.

The RAND Corporation recently estimated that the implementation of a nationwide health care information network that is utilized by 90% of providers would produce an annual savings of approximately $80 billion, while reducing the number of adverse patient drug reactions in hospitals by more than 2 million. The only way to achieve these outcomes, however, is through the leadership of the federal government. This is why I have partnered with Chairman Porter on legislation that will strengthen the federal government's role in health information technology for the betterment of all citizens.

To begin, I am a proud cosponsor of Chairman Porter's Federal Family Health Information Technology Act of 2006. Simply put, this bill utilizes the market power of the federal government by establishing a process for the development of electronic health records for all federal employees. By utilizing

our federal employee health benefits programs for E-H-R purposes, we are creating a model for consumers, employers, and insurers to build comprehensive electronic based health records for all individuals.

In addition, I recently introduced H.R. 4832, the Electronic Health Information Technology Act of 2006, along with Chairman Porter. H.R. 4832 seeks to accomplish two major goals. First, it will codify the Office of Dr. Brailer and strengthen its role as the leading health information technology standard setting authority in the federal government. Second, the bill seeks to partner with the private sector through grants and a direct loan program that will provide key economic assistance for institutions seeking to expand their E-H-R capabilities.

If we continue our pursuit of utilizing IT throughout the health care delivery system, we are sure to experience shorter hospital stays, improved management of chronic disease, and a reduction in the number of needless tests and examinations administered over time. While it is not a panacea, I believe the creation of such a network will prove far more efficient in both economic and human terms than its financial costs.

This concludes my remarks, Mr. Chairman, and I ask that they be included in the record.

Opening Statement of

Representative Elijah E. Cummings, D-Maryland

Subcommittee on the Federal Workforce and Agency Organization Hearing Entitled: "Healthier Feds and Families: Introducing Information Technology in the Federal Employees Health Benefits Program."

Committee on Government Reform
U.S. House of Representatives
109th Congress

March 15, 2006

Mr. Chairman,

Thank you for calling this critically important hearing to assess the utilization of information technology in healthcare within the Federal Employee Health Benefits Program.

One need not be an expert to understand how medical errors and inefficiencies in our healthcare system contribute not only to an increase in costs, but to an increase in human loss from death and injury. I am deeply disturbed that medical errors result in more deaths annually than AIDS, highway accidents, or breast cancer with approximately 44,000 patients dying each year in U.S. hospitals. In clear and plain terms, this state of affairs is intolerable.

The Institute of Medicine concluded in a report entitled, *To Err is Human: Building a Safer Health System*, that most medical mistakes are the product of fundamental deficiencies in the organization of our healthcare system. For example, medical records or prescriptions that are poorly drafted or illegible can result in a patient obtaining the wrong type of treatment with potentially grave

implications for their health.

While health IT is no "cure-all, be-all" to the entrenched healthcare challenges aforementioned, it holds the potential to advance patient safety, the quality of our healthcare system, and reduce cost by improving the collection, storage, transfer, and sharing of health information.

Further, in a post 9-11 world where the threat of bioterrorism coexists alongside the threat of pandemic influenza, Health IT could prove essential in rapid detection and response. Unfortunately, the lack of a standardized format for electronic records, cost prohibitions, and privacy concerns all create obstacles to the establishment of a nationwide electronic health information infrastructure.

The Federal Family Health Information Technology Act (H.R. 4859) would provide for the implementation of a system of electronic health records under the Federal Employees Health Benefits Program (FEHBP). More specifically, every FEHBP carrier would be mandated to establish an electronic record for every FEHBP enrollee and their provider. The electronic information would be required to be formatted in such a manner that facilitates diagnosis and treatment.

While the principle of employing electronic health records within the FEHBP is commendable, I have some concerns with how this principle is implemented under H.R. 4859. I share the position of employee groups that FEHBP enrollees should be granted the discretionary authority to decide whether or not they would like to have their

personal health data stored, transmitted, and shared electronically.

Moreover, I share their concern that the Employees Health Benefits Fund would, for the first time, be utilized to carry out the Health IT mandates in the bill. Historically, this Fund has only been utilized to cover cost and expenses associated with administering the FEHBP and providing reserves to health plans.

Mr. Chairman, we must reject efforts to maintain the status-quo in our healthcare system when evidence shows that it is rife with inefficiencies and errors. Make no mistake, we can simply do better. We would do well by the expectations of the American people if we move ahead on implementing Health IT in a manner that is both deliberative and responsive to the needs of all interested parties -- from the carriers to the FEHBP enrollees and their dependents.

I yield back the balance of my time and look forward to the testimony of today's witnesses.

Hearing of the Subcommittee on Federal Workforce and Agency Organization

"Healthier Feds and Families: Introducing Information Technology into the Federal Employees Health Benefits Program"

Responses to Written Questions Requested by Rep. Jon C. Porter

Submitted by Newt Gingrich

Do you think H.R. 4859 can improve the quality and delivery of health care for the over 8 million participants in the Federal Employees Health Benefits Program and at the same time serve as a model to affect change elsewhere?

The use of health information technology—be it electronic prescribing or an electronic health record—will indeed improve the quality and delivery of healthcare. H.R. 4859 is a significant step forward because it makes individual-centered personal health records a part of the suite of benefits offered to federal employees. With your legislation, over the next five years we could see tremendous improvements in the quality, efficiency, and affordability of healthcare delivery and administration.

With the existing claims data held by insurance carriers, wouldn't it be a mistake not to leverage the value of that data to positively impact health outcomes by providing carrier-based electronic health records?

Deploying a personal health record for every federal employee covered by FEHBP will harness vast amounts of electronic claims data that exist today. This data, particularly when combined with clinical data from physicians, hospitals, and laboratories, are the building blocks of what we at the Center for Health Transformation call a 21st Century Intelligent Health System.

In your testimony, you outline several successful HIT efforts throughout the country. In your opinion, do these efforts successfully demonstrate that what is proposed in H.R. 4859 can meet the same level of success?

In the long-term, FEHBP personal health records could achieve the same level of success. However, it depends on how ubiquitous health information technology becomes. That is why the number one priority of every stakeholder in healthcare must be getting technology into the hands providers.

In your written testimony you touch on the absence of price and quality comparison within healthcare. Can you please briefly describe how HIT implementation will improve this ability and what we can expect when price and quality comparison becomes available?

The collection and reporting of data is far easier to do when information is electronic. A good example of how electronic data can improve healthcare is how PeaceHealth responded to the Vioxx debacle in 2003. When Merck announced the Vioxx recall in September 2004, PeaceHealth was able to search its records for every individual for

whom the drug had been prescribed, sort the list by clinic and physician, and in less than a day, notify each physician which of his or her patients were affected by the recall. To run such a report manually, searching through the records of 1.5 million patients would have taken weeks or months. Capturing quality or performance data electronically will allow this information to be much more accurate than with paper records, and the distribution of this data will be far quicker as well.

When price and quality information are available on a broad scale, we will see in healthcare the kind of rich, effective, and readily available information that our citizens see in every other aspect of their lives. Americans are accustomed to leading their lives empowered with the responsibility and knowledge to determine what is best for them. Outside of healthcare, we live in the world of Expedia, Travelocity, CraigsList, and Consumer Reports. Within minutes, any citizen can find price, cost, and performance data on an infinite number of products and services. This transparent system puts the consumer squarely at the center of the market—and as a result, consumers have more choices of greater quality at lower cost. When the same level of information is available in healthcare, we will see similar results.

United States Government Accountability Office
Washington, DC 20548

March 22, 2006

The Honorable Jon C. Porter
Chairman, Subcommittee on Federal
Workforce and Agency Organization
Committee on Government Reform
House of Representatives

Subject: *Health Information Technology: Responses to Subcommittee Post-Hearing Questions Concerning the Introduction of Information Technology into the Federal Employees' Health Benefits Program*

Dear Mr. Chairman:

This letter responds to your request that we answer questions relating to our testimony of March 15, 2006.[1] In that hearing, we discussed our assessment of the progress being made since 2005 by the Department of Health and Human Services (HHS) and provided an overview of selected federal agencies' initiatives related to the national health information technology strategy. Your questions, along with our responses, follow.

1. *In your prepared statement you state that health information technology (IT) offers a promising solution to improve patient safety and reduce inefficiencies. Could the introduction of health IT into the Federal Employees' Health Benefit Program accelerate the use of health IT across the country? In other words, is H.R. 4859 a step in the right direction?*

As we testified on March 15th and have previously reported over the past few years, health care delivery organizations and insurers have described quantitative and qualitative benefits of health IT. The federal IT initiatives at HHS and other federal agencies, such as the Office of Personnel Management's Federal Employee Health Benefit Program, demonstrate federal leadership and show promise to accelerate the use of IT in the health care industry. Leveraging federal resources, as H.R. 4859 attempts to do, to accelerate the adoption of electronic health records is a step in the right direction.

2. *In your view, what is slowing down the implementation of health IT and how does H.R. 4859 help overcome some of these obstacles?*

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[1]GAO, *Health Information Technology: HHS is Continuing Efforts to Define a National Strategy*, GAO-06-346T (Washington, D.C.: March 15, 2006).

Although federal leadership has been established to accelerate the use of health IT, HHS still needs to establish detailed plans and milestones as part of the national strategy and take steps to ensure that those plans are followed and milestones are met. Last fall we testified that identifying and implementing health IT standards is essential to achieving interoperable systems and data in the health care industry and is critical in the pursuit of effective electronic health records and public health systems.[2] In addition, leveraging the federal government as a purchaser and provider of health care could accelerate the adoption of health IT, which H.R. 4859 attempts to do.

3. *To help physicians care for Hurricane Rita evacuees, Blue Cross Blue Shield of Texas took its carrier-based data for 830,000 members and converted it into an electronic health record available to any treating provider and did it in four days. Those records contained valuable historical and current data, such as lab results, pharmacy information and basic medical history. The first component of H.R. 4859 takes the same approach. How important is it to improve the quality and delivery of health care by leveraging the value of the existing claims-based data by providing carrier-based electronic health records?*

Medical claims data maintained by insurers proved valuable in the development of KatrinaHealth.org, an online service that helped individuals affected by Hurricane Katrina and their providers gain access to electronic prescription medication records. Through KatrinaHealth.org, authorized pharmacists and doctors were able to get records of medications of evacuees, which helped the evacuees renew their medications and helped health care professionals avoid errors when prescribing new medications. As demonstrated, carrier-based data can be effectively used; however, fully leveraging electronic health records will also involve provider-based information, which is acknowledged in your bill.

4. *In announcing his ten-year goal of providing the majority of Americans with electronic health records, President Bush admonished, "The federal government has got to take the lead." In your opinion, is H.R. 4859 consistent with the President's ongoing initiatives and will it in fact help lead the charge of health IT implementation on a larger scale?*

H.R. 4859 is consistent with the Administration's ongoing plan to transform the health care industry's use of IT for improving health care quality, preventing medical errors, reducing costs, improving administrative efficiencies, and reducing paperwork. As I testified, the federal government has a central role in shaping nearly all aspects of the health care sector as a regulator, purchaser, health care provider, and sponsor of research. With several major federal health care programs that provide services to about 115 million Americans—including eight million federal employees, retirees, and dependents—and the billions of dollars the federal government spends annually

[2] GAO, Health Care: Continued Leadership Needed to Define and Implement Information Technology Standards, GAO-05-1054T (Washington, D.C.: September 29, 2005).

towards health care, it is important that coordination continue across the government and that federal resources are leveraged appropriately.

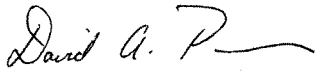
5. *One of my major goals for H.R. 4859 is to ensure interoperability among health IT systems and in fact, the bill requires that the records developed must be consistent and adopt the standards set forth by HHS. Is this the right approach?*

Yes, this is the right approach. IT standards, including data standards, enable the interoperability and portability of systems within and across organizations. Many different standards are required to develop interoperable health information systems. As I previously testified before Chairman Davis at a full committee hearing last fall, identifying and implementing health IT standards is essential.[3] Although the identification of standards continues to be one of the major focus areas for the National Coordinator, much work remains to reach consensus on these standards.

In responding to these questions, we relied on previously reported information and agency documentation describing federal health IT initiatives that had been compiled in support of our March 15, 2006 testimony.[4] We performed our work in accordance with generally accepted government auditing standards during March 2006.

Should you or your office have any questions on matters discussed in this letter, please contact me at (202) 512-9286 or pownerd@gao.gov.

Sincerely yours,



David A. Powner
Director, Information Technology
Management Issues

(310813)

[3] GAO-05-1054T
[4] GAO-06-346T

Healthier Feds and Families: Introducing Information Technology into the Federal Employees' Health Benefits Program

Paul Handel, MD, Health Care Services Corporation (HCSC)

Do you think H.R. 4859 can improve the quality and delivery of health care for the over 8 million participants in the Federal Employees Health Benefits Program and at the same time serve as a model to affect change elsewhere?

We firmly believe that electronic health records can benefit healthcare in the United States by increasing accessibility to quality care and making healthcare more affordable. Today, payers such as HCSC have a large base of electronic data from which to construct a broad picture of an individual's history across the continuum of care. HCSC recognizes the value that this data can have on the development of an electronic health record system in general, and for our own members in particular.

HCSC believes that implementing a payer-based health record system is the right thing to do. Because we cover 10 million lives in this country, we believe it's important to step forward and serve as an example for other payer organizations.

According to your testimony, Blue Cross Blue Shield of Texas , in the days immediately before Hurricane Rita made landfall, extracted data for 830,000 members and converted the data into electronic health records. Was it difficult to accomplish this and how did it affect the quality of the health care of members after the hurricane?

In four days, working around the clock, Blue Cross Blue Shield of Texas was able to identify which members were in the path of the hurricane and extract three years of pertinent clinical data from their internal systems for those members based on zip code. The data was securely delivered to MEDecision, where the data was loaded onto their systems, analyzed and formatted into patient clinical summaries which were delivered electronically to care managers at Blue Cross Blue Shield of Texas.

The information contained in the patient clinical summaries included the most pertinent information that would be needed by a provider seeing an evacuee with no prior knowledge of their background: a concise, general overview of each patient's current and historical medical data from doctors, labs, pharmacies and other provider organizations that have been paid for by the patient's health plan. Care managers at Blue Cross Blue Shield of Texas had access to these electronic health records via a secure internet connection and were able to dispense these records to providers through the Hurricane Rita Response Team hotline that was set up for just this purpose.

This was done in four days with great effort. One would think that without a crisis the creation of patient clinical summaries for a large membership would be labor intensive but not difficult. Fortunately, following Hurricane Rita we did not have to deploy the records, so the effect on quality is theoretical. It would have been substantial without question.

With the existing claims data held by insurance carriers, wouldn't it be a mistake not to leverage the value of that data to positively impact health outcomes by providing carrier-based electronic health records?

Payer data is the richest source of data available for almost everyone. It includes such information as pharmacy claims, medical and surgical claims, behavioral health claims, heath risk assessments, and case, disease and utilization management data.

Percentage-wise, nearly 100% of the insured population has the opportunity to have a carrier-based electronic health record because they've had claims paid in an automated system – compared with 15% of that population potentially having even a partial EMR, and only 1% with a personal health record. The number of records available matters immensely, because, in order to get physicians or hospitals to modify their workflow, a new capability must apply to a significant portion of their patient population.

Since payer data provides such a broad range of information about a patient and because so many patients have an opportunity to have carrier-based electronic health records, it would be a missed opportunity to not leverage the value of providing carrier-based electronic health records to physicians and patients.

H.R. 4859 requires the creation of a carrier-based electronic health record, using claims-based data, does this approach parallel the successful efforts being made by Blue Cross Blue Shield of Texas, as well as other carriers?

H.R. 4859 requires "carrier-based health information on the individual's health care claims, health care services data, or both, such as information describing the individual's inpatient facility admissions, emergency room visits, and claims for prescription drugs." We, at HCSC, have already begun to focus on providing claims-based personal health records to our members because we believe it is an extremely effective way to positively impact health outcomes. The patient clinical summaries that we are deploying with MEDecision's help contain this data and more.

Raw claims data is not necessarily the most useful data. Our deployment involves taking steps to refine the data in such a way that makes it more intelligible by using cross validation technology to clinically clean and summarize the data. This extra step allows our patient clinical summaries to be more useful

to physicians at the point of care, which greatly impacts the overall quality of healthcare.

Healthier Feds and Families: Introducing Information Technology into the Federal Employees' Health Benefits Program

Questions for the Record

Question: Do you think H.R. 4859 can improve the quality and delivery of health care for the over 8 million participants in the Federal Employees Health Benefits Program and at the same time serve as a model to affect change elsewhere?

Answer: UnitedHealth Group believes that the use of appropriately-designed electronic personal health records will make a significant difference in improving health outcomes for individuals and will make it easier for them to manage their health care effectively. We think this feature will be particularly helpful for the many annuitants who participate in FEHBP. In the aggregate, this group tends to have more chronic conditions, which may mean multiple physicians and multiple prescription medications. Having access to a personal health record that provides easy access to their health information will make it simpler for them to track and manage their conditions and health care needs. In addition, in June of this year, participants will be able to provide their family members with direct access to their PHR, as well as manage physician access to their personal records, further enabling the management of their health care needs.

Moreover, as Mr. Gingrich stated during his testimony, the use of electronic personal health records could help reduce disparities in health care. Program participants for whom English is a second language would be better served by being able to provide their physician with access to their complete health care record, rather than having to try to explain complex medical issues in a second language. They also could provide access to their records to family members with greater proficiency in English to assist in their medical encounters.

Since the Federal Employees Health Benefits Program is a large health care program, we believe requiring the use of electronic personal health records by program carriers and providers could have a significant impact on driving the entire industry forward on this important matter.

Question: As an insurance carrier in the FEHBP, what benefits do you feel H.R. 4859 will bring the participants of the program?

Answer: H.R. 4859 will offer all FEHBP participants an opportunity to access and control their health data in a real-time fashion. FEBHP participants will have the benefit of a single source of health information to facilitate improved healthcare decision making and coordination of care, thereby strengthening their relationship with their physicians.

Question: How does H.R. 4859 currently coincide with programs currently being offered by UnitedHealth Group?

Answer: H.R. 4859 has many similarities with UnitedHealth Group's current personal health record offering. H.R. 4859 proposes that the health record contain standard medical claims information including diagnosis, medication, procedure and lab result records, which are all data elements we currently make available in our personal health record service. Additionally, H.R. 4859 proposes that additional self-reported information related to issues such as family medical history, allergies, and such be incorporated into the health record. Our personal health record allows for individuals to enter these types of notes and personal observations about their health.

Our personal health record feature also includes additional elements such as portability, access management rights and privileges, and additional tools to support the review and understanding of the health record. Moreover, we automatically aggregate the data in a useable and efficient format to create a personal health record. The member simply chooses whether or not to activate the PHR.

Question: Do you see H.R. 4859 as a positive move forward in HIT and a way to really push the healthcare industry forward towards electronic health records?

Answer: UnitedHealth Group sees H.R. 4859 as a positive step toward creating not only standards but leadership in heath information technology. This is evidenced by the proposal to create and integrate carrier, member and physician based medical records; that integration and coordination is sorely lacking in health information technology today. UnitedHealth Group takes a firm position that the creation, integration and continued enhancement of all three medical records is critical for successful health improvements and advancements for the entire healthcare industry.

Moreover, we believe that providing FEHBP participants with access to personal health records will facilitate better patient-physician interactions, enabling physicians to make more informed treatment decisions. Ultimately, this will result in reduced errors and significantly improved health outcomes.

Question: UnitedHealth Group is currently offering a personal health record to its participants. Can you tell us how you have addressed issues of privacy and what the overall response has been by your plan participants?

Answer: We currently protect our members' privacy through the use of standard industry security measures such as user names and passwords. We plan to add additional protections to provide our members' with even greater assurances that their personal health records are completely secure.

In addition, we automatically suppress data on sensitive health issues such as sexually transmitted diseases, mental health, substance abuse and reproductive health. We took the step of automatically suppressing this information to further protect privacy and to help gain member trust and acceptance of the personal health record feature.

The overall response to our consumer portal, myuhc.com, and our personal health record tool has been extremely positive. Use of these features has grown continuously. Today, nearly 5 million members have signed up to use myuhc.com, which offers access to their personal health record.

Responses to Questions for the Record from Mr. David St. Clair:

- **Do you think H.R. 4859 can improve the quality and delivery of health care for the over 8 million participants in the Federal Employees Health Benefits Program and at the same time serve as a model to affect change elsewhere?**

H.R. 4859 will improve the quality of life, quality of care and the affordability of that care for Federal employees and their families.

In some ways, H.R. 4859 will demonstrate the Federal Government's leadership. In other significant ways, the legislation simply permits all Federal employees and their families to enjoy the same quality and delivery of health care that is enjoyed by millions of other Americans. And, because some forward thinking FEHBP carriers are already implementing carrier-based electronic health records and personal health records for their members, H.R. 4859 will permit all Federal employees to enjoy the improved quality that some already enjoy.

For instance, BCBS of Illinois recently created 3.7 million carrier- based health records using its databases. These records contain clinically-validated information on hundreds of thousands of Federal employees and their families; those carrier-based records are already being used to help identify individuals who could benefit from case and disease management services, and will be available to physicians and hospitals who treat them in the coming months. The carrier-based summaries are available in a private and secure manner to beneficiaries through the BCBS of Illinois personal health management portal, so that these members have the opportunity to see, interact with, and add to their own records. The BCBS of Texas, New Mexico and Oklahoma members will be brought on-line later this year, bringing the totals to over 10 million carrier-based records, including those for over 500,000 FEHBP beneficiaries.

As important as the positive effect on the 8.5 million FEHBP beneficiaries, however, is the policy implication – the "message" – that the legislation sends. H.R. 4859 sends a clear message that the Federal government is committed to moving clinical data exchange forward as a means to better protect and serve the country, and it's confident enough to choose to be an "early adopter" of leading-edge technology. It's not simply asking <u>others</u> to trust in technology and security, but it's willing to stand up and enter the new world of health care. Progress in big change requires lots and lots of small advances, each of which teaches lessons, improves confidence and builds momentum. The very public adoption of new approaches by the FEHBP will give the next set of big employers the

confidence that they, too, can create and trust change – and their move will trigger yet others, and so on.

- **You have had a lot of experience with HIT systems that use carrier-based records. Some have suggested that we make creating electronic health records completely voluntary within the FEHBP. Can you explain the types of problems or concerns that might arise by creating such a system?**

First, **the system is voluntary**. An environment where people are aware that they have choice and are given a process to implement that choice is "voluntary." Suggestions that FEHBP members do not have choice are plainly wrong in law and in fact. It is also important to note that the information in the carrier-based electronic health record is already in use in some form by most carriers internally. H.R. 4859 for the first time mandates that the member's own information is shared with them.

As OPM implements H.R. 4859 it should provide education to help Federal employees and their families to understand the value of their current participation in the clinical data exchange program – improved safety, quality and affordability – and also describe their rights and the process to opt out of the program if they so desire. The implementation of the personal health record systems will provide the beneficiaries with a simple way to view the information being shared, learn who has seen it, and to control how that information is shared, if at all, in the future.

Under Federal law today, everyone has the right to determine who sees their Protected Health Information. In general, HIPAA calls for a presumption that consumers wish to share their EHR with members of their care team ("health care treatment and operations") unless they specifically notify the holders of their records that they wish to "opt out." However, for all other potential uses and users of the consumer's EHR, the consumer must provide explicit approval ("opt in") before their information can be shared and used.

HIPAA, therefore, allows details of a consumer's clinical history and status to be shared among members of their care team – physicians, nurses, therapists, case managers, quality assurance professionals and, yes, the staff that support them by actually receiving and transmitting the information – to improve the quality and safety of the care the consumer receives. The intent of the allowable sharing under HIPAA is to directly benefit the consumer and, when necessary, to allow the consumer's insurer to accurately pay appropriate bills on the consumer's behalf. Today, "covered entities" - insurers, physicians, group practices, hospitals, pharmacies and other providers - use the HIPAA regulations to carefully

share complex information about consumers; certain business partners and vendors assist them under the terms of Business Associate agreements that specify their responsibilities to keep patient data confidential.

Under HIPAA, consumers have the right to control who has access to their records. They can choose to allow "covered entities" to continue to exchange their data freely for purposes of health care treatment or they can choose to stop it. They can choose to continue to prevent the use of their PHI for research and data mining, or they can choose to allow it. Each of those consumer choices has potential consequences, both for the individual consumer and for society as a whole.

Beyond the legal status of the current voluntary system, there is a practical concern. Adoption of the new networks for exchanging clinical data relies entirely on achieving a critical mass. Key to success is persuading physicians and hospitals to modify their workflows to accommodate the step of retrieving the patient's information. The presumption needs to be that the patient's carrier-based electronic health record will be there. If a physician knows that there's only a 1-in-50 or 1-in-20 chance of finding a patient record, they will virtually never instruct their staff to go look for it. Even Christiana Care, a true early adopter eager to try new approaches to improving patient care, had challenges getting internal traction when we were able to deliver carrier-based health records for about 25% of their patients.

The numerical challenge presented by a true "opt in" policy is created by the assumption it makes about what has been referred to historically as "the silent majority." In a normal distribution curve (often referred to as "the bell curve"), the leading edge of the bell are the early adopters – the consumers who are eager to participate and go out of their way to sign up. At the trailing edge of that bell are the people who will <u>never</u> participate – the consumers who will go out of their way to ensure that they are <u>not</u> going to have their data exchanged. The debate, of course, is the size of those two cohorts and what effect marketing efforts have on increasing or decreasing the sizes of those groups. I tend to think of each being about 5-10% of the population, leaving about 85% of the people in the huge bulge in the middle that will not normally make or reveal a decision. That is supported by experience: less than 5% of the BCBS of Delaware members "opted out" (either by their employers or by themselves) of the carrier-based health record project we conducted with Christiana Care Health System. On the other end, even in an early-adopter population of Consumer-driven Health Plan members – the people who have actively chosen to adopt a new health plan that THEY control – the major CDHP carriers report that less than 15% of the members interact with any clinical part of the information portals, and only 35% ever even log on at all.

Another example - a major mid-west BCBS plan which is a customer of ours reports that only about 1% of their members has chosen to enroll in their clinically-enabled personal health manager over the past year.

So, if a true "opt in" strategy is used, and consumers are not coerced or fooled en masse into giving "consent" by signing an authorization buried in a pile of other legalistic registration papers written in small print, then we would be trying to have the physicians and hospitals in Illinois adopt a new workflow to get them to retrieve one of only about 250,000 or so records from BCBS of Illinois instead of the current 3.7 million. Even if we reduce that total number by the number of potential "opt out" consumers, we've still taken 3 million records off the table, and put 3 million people's health at risk, increased the probability that they will be given the wrong medications and that they will receive unnecessary and potentially harmful treatment in emergency rooms and urgent care centers across the country. If we believe that sharing electronic health information is the right thing to do to improve the quality, safety and affordability of care for individuals and for society, then we should presume that those 3 million people and their neighbors and employers would be better off by having their information shared until and unless the individuals say "Stop."

Third, undercutting the current voluntary structure under HIPAA, which the health care industry has spent billions of dollars to implement, will immediately constrict the flow of protected health information for all purposes and consequently, dramatically reduce the quality of health care in this country. Carrier-based health record programs already in place or being developed will halt.

We need not go backwards – disable capabilities that already exist for hundreds of thousands, perhaps millions, of FEHBP beneficiaries – to ensure that the clinical data sharing program is voluntary. It already is voluntary. We need to educate, not eviscerate.

- **During our research and drafting of this legislation many have expressed a concern over privacy and keeping their personal health information private. Can you briefly explain to us the difference with privacy laws and regulations that we may expect when we compare the current health record situation with one involving electronic health records as seen in H.R. 4859?**

No form of health data sharing is absolutely, totally secure, so privacy can not be absolutely guaranteed. Just as today's paper records can be thumbed through by a hospital janitor or lost as they are wheeled between departments, electronic records can be stolen or misplaced, too. But computer security systems are far superior to anything that protects paper today, and audit trails abound. There are unscrupulous individuals who

seek to exploit information that they've received legally and illegally – that never changes. But there are existing laws to protect EHR data and to punish those who misappropriate or misuse it.

We need to consider the trade-offs between the risk to individuals from disclosure of private information versus the benefit to those individuals and society at large from the appropriate use of private information in the treatment and management of disease. Dr. S. Robert Levine, MD, the Chairman of the Health Priorities Project of the Progressive Policy Institute (the policy think tank of the centrist DLC), in his own words, "envisions an information-age health care system focused on helping every American achieve optimal health-related quality of life and function." Dr. Levine said, in his testimony before the National Commission on Vital Health Statistics on February 24, 2005:

> "This sub-committee's charge is to address issues of privacy, confidentiality, and the protection of patient information relating to the establishment and use of a national health information infrastructure. In confronting this important challenge, I have no doubt that you are making substantive effort to detail all the relevant risks and uncover leading-edge methods of mitigation, and many on your panels have already done a good job raising the necessary questions and offering ideas for solutions.
>
> But I have to ask, in doing so, are we, collectively, missing the forest for the trees? I say this because I believe, strongly, that notwithstanding all the legitimate concerns about privacy -- made more intense by the too frequent and frightening stories about accidental release and deliberate theft of sensitive information -- the greatest threat, the biggest risk to people with diabetes, or heart disease, or cancer, or HIV/AIDS or any other chronic disease or disability seems not to be from un-authorized sharing or use of their personal health information, rather it is from the failure to share or the inadequate use of that information, and sometimes even valuing protecting privacy over protecting an individual's life, their health, and the health of their families, friends and neighbors."

Like Dr. Levine, I strongly believe that we need to enable the sharing of information – promote it in every way possible to improve the quality of care in this country – and use existing and new laws to come down hard on those who intentionally or repeatedly misuse and misappropriate that very sensitive and private information.

- **There has been some concern over interoperability standards as you are well aware. Do you feel that the time frame this bill provides is enough for those standards to be fully developed, and if not, can this bill be implemented successfully before those standards are fully created?**

  As a company, we are very active in the development of interoperability standards, both for our own use with partners and at the national/international level. I can't assure the Subcommittee that the national standards will be enforceable by 2008, but I can assure you that the principal vendors who are producing technologies to create carrier-based health records and PHRs are already integrating around what could be temporary standards – the business opportunity is too great to wait. Unlike the situation for small, stand-alone EMR vendors, our payer customers aggregate information for millions of people, so the cost of an interface on a per-member basis, even if it were totally customized, is trivial. For instance, we are implementing an HL7-based interface with the 5 PHR vendors who are our partners and with another outside our circle; we will use that same strategy with the other vendors who want access to the information from the 42 million people insured by our current customers.

  On the EMR side, I believe that the industry and the government will adopt a set of national standards for EHR interoperability within the 5-year horizon anticipated by this legislation.

- **If HIT were introduced into the FEHBP, how would it affect the use of HIT outside of the FEHBP?**

  I believe that adoption by the FEHBP under current HIPAA regulations would spur further adoption by other large employers and payers, and build confidence. The need for the most conservative payers to evaluate and adopt the technology, at least for their FEHBP membership, would help spread the technology through the payer community more rapidly than it would "naturally." That will allow networks to make more records available in each market (and increase the "hit rate"), raising the likelihood that EMR vendors will hook up and use the records to pre-populate their systems, driving use of EMRs and making more data available for making patients' records more complete and more accurate.

  If the FEHBP requires an "opt in" model and rolls back the gains allowed by HIPAA for its membership, that will retard adoption of HIT nationally, and stymie current implementation within and outside the FEHBP.

- **You have provided a lot of support to carriers in the implementation of electronic health records and have been a part of a lot of success stories, can you please explain briefly if you believe H.R. 4859 can help achieve those same levels of success within the Federal Employees Health Benefits Program?**

  I absolutely believe that our customers (including 21 BCBS plans and over 40 other health plans) will help make the FEHBP program a success for the Federal employees and their families. Many are already implementing their own programs that mirror the one laid out in H.R. 4859, so I believe that the FEHBP will start to see real progress very quickly. But the legislation as currently drafted is still important because: 1) it requires that all FEHBP beneficiaries be allowed access to the latest technologies and 2) it sends a message to the market that will help ensure the most rapid adoption of life-saving technology for all Americans.

Responses to the Questions for the record from Dr. Malik Hasan

Question for Everyone. Response: I very strongly believe that H. R. 4859 will without any shadow of doubt will improve the quality and delivery of health care for the over 8 million participants in the Federal Employees Health Benefits Program. I strongly believe that it will not only be a model to affect change elsewhere but will be the catalyst for the Health plans to offer to the other Employer groups and thus have a strong cascading effect.

Response to Questions addressed to DR Malik M. Hasan, Chief Executive Officer, Healthtio(please note the correction) and Retired Founder and CEO of Healthnet:

1. Over a period of time H. R. 4859 by initiating the introduction of Electronic Health Record as envisioned(Carrier-based record, Personal Health Record and Provider Health Record) will have an enormous impact and bring the quality of care ultimately to a perfect or near perfect level. This will be achieved at multiple levels;

a. better coordination of care between multiple care givers and the patient. The right hand will know what left hand is doing,

b. errors in treatments particularly medication errors would be eliminated,

c. by integrating Snomed and encoding of the data will allow national medical disasters such as start of 'flu epidemic or early stages of a bio terrorism attacks to be more quickly picked up. This would allow more lead time to initiate countermeasures.

d. by integrating Snomed thus allowing encoding of data would allow population based outcomes to be measured based on various medical interventions, population based longitudinal studies of the various health risk factors and impact of lifestyle choices. Based on these studies Standards of Evidence-based Practice of Medicine, Preventive and Wellness programs could be formulated regarding management and prevention of most of the medical disorders. This is not a theoretical issue. To this day we do not definitely know such basic information such as what is the optimal blood pressure for each age groups and what should be the threshold where the treatment be initiated. We do not know for sure what is the optimal level of exercise or what is the optimal diet as witnessed by the recent changes in the food pyramid. There is uncertainty as to the optimal treatment of some of the common diseases. Similarly the comparative efficacy of various drugs in the same drug group is not fully known. The main reason for the absence of this information is because most of the studies currently are done on a few hundred cases or at most some thousands of patients. It is possible that the results are distorted by selection bias, not having an adequate control group, not accounting for gender differences or racial differences. By having the ability to analyze data on millions of patients from encoded data on an electronic platform will make these determinations easier, much less costly(not having to analyze data manually on paper based records) and far more meaningful because of the large size of the groups which are studied. Gender and racial differences would be easily recognized.

e. by integrating Snomed thus allowing encoding of data would allow Provider Profiling regarding the quality of care by various providers including physicians and hospitals for the care provided to the entire population. This will allows the patterns of practice to be impacted by targeted educational programs and appropriate incentives,

f. empowering the consumer to engage in the preventive measures and management of the disorders add a new dimension to enhancing the quality of care.

Response to Question 2: I believe H.R.4859 is the step in the right direction. I believe it is clearly superior to other HIT bills as it provides a clear and credible roadmap to achieve the goal of rolling out a National Electronic Health Record in the shortest period of time and at a very modest cost. Moreover it could be implemented with the technology which already exist.

Response to Question 3: I believe that H. R. 4859 will achieve a broader change in healthcare industry far beyond the Federal Employees. Once the largest employer in the country asks for this change the other employers will follow suit. Moreover for almost all the Health plans in the country, Federal Employee group is one of their largest group. The Health plans would initiate the roll out of the Electronic Health Record so as not to lose this group as a client. Once the Health Plans do this for one large group, the cost and effort to do it for other groups would be small. Moreover, the Health Plans once they focus on this issue would realize that it is in their best

interest to extend it to all their enrollees as it would improve the quality of care and reduce the cost of healthcare.
Response to Question 4: I agree with the approach provided that HHS keeps their focus and do not go out on wild goose chases and try to make standards overly complicated and attempts to slay non-existent dragons. For Example: This bill takes a very rational approach by recognizing the importance and relevance of Carrier Based Electronic Health Record. The Blue Cross Blue Shield of Texas ability to provide a meaningful record in 3 days for almost 900000 patients in a case of National Emergency proves the validity of this approach. However, I am not privy to any initiative that HHS has so far taken which even recognizes the existence of a Carrier based Electronic Health Record. As far as I could determine this legislation provides a far more comprehensive, practical roadmap to achieve the goal of a national roll out of an Electronic Health Records than anything coming out of HHS. It would be crucial that HHS be directed to provide Standards which will support the features and timelines as outlined in H. R. 4859 and not to subvert the intent of the legislation by supporting or creating Standards which are inconsistent with the intent of legislation both in terms of features and timelines.
Please let me know if there are any follow up questions.
DR MALIK M. HASAN

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