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LEGAL DRUGS, ILLEGAL PURPOSES: THE ESCALATING ABUSE OF PRESCRIPTION MEDICATIONS

HEARING

BEFORE THE

COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

AUGUST 6, 2003

FIELD HEARING IN BANGOR, MAINE

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LEGAL DRUGS, ILLEGAL PURPOSES: THE ESCALATING ABUSE OF PRESCRIPTION MEDICATIONS

WEDNESDAY, AUGUST 6, 2003

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The Committee met, pursuant to notice, at 10 a.m., in Council Chambers, City Hall, Bangor, Maine, Hon. Susan M. Collins, Chairman of the Committee, presiding.

Present: Senators Collins and Sununu.

OPENING STATEMENT OF CHAIRMAN COLLINS

Chairman COLLINS. Good morning. The Committee will come to order. This morning the Senate Committee on Governmental Affairs is holding a field hearing on the diversion and abuse of prescription drugs.

I am very pleased to welcome my colleague from New Hampshire and a Member of the Committee, Senator John Sununu, who has traveled to Bangor to join in this hearing this morning.

Welcome to Maine, Senator. We are delighted to have you here.

In 2001, deaths from prescription drug overdoses exceeded for the first time deaths from illegal drugs, an alarming trend that continues today.

The number of Americans who regularly abuse prescription drugs was estimated at 1.6 million in 1998. Today that estimate is 9 million.

It is tragically clear that prescription drugs, many as powerful and addictive as illicit drugs, increasingly are being diverted from legitimate use to illegal trafficking and abuse.

This national problem has hit rural States particularly hard: Kentucky, West Virginia and North Carolina, for example, are all experiencing epidemics of prescription drug abuse, particularly in their rural regions.

The Federal Drug Enforcement Administration reports that the diversion of prescription pain killers, oxycodone in particular, is an emerging threat in northern New Hampshire, a State already fighting a tide of heroin, cocaine, and other illegal drugs rolling in from the south.

No State, however, has been hit harder than our State of Maine.

As this chart shows,[1] the number of accidental deaths in Maine from all drugs increased six-fold from 1997 to 2002, jumping from 19 to 126.

Prescription drugs were present in 60 percent of those deaths last year. As you can see, there has been an extraordinary increase.

Also alarming, according to the 2002 Maine Youth Drug and Alcohol Survey, is that as many as 25 percent of the State's high school juniors and seniors abused prescription drugs.

The category of prescription drugs most prevalent in this epidemic consists of opiate pain killers classified as Schedule II drugs. That is the Federal designation given to legal drugs with the greatest potential for abuse and addiction.

The abuse of OxyContin in rural regions occurred swiftly. Now another Schedule II drug, methadone, is gaining the same degree of notoriety and it is showing up with growing frequency in autopsy reports.

In Florida, methadone was present in 556 drug deaths last year, an increase of 56 percent over 2001; in North Carolina, methadone deaths rose 700 percent in 4 years; in Maine, methadone was the cause or contributing factor in 4 deaths in 1997, but last year it was present in 46 deaths.

The chart that we are displaying now shows the dominant role that methadone has played in this crisis.[2] As you can see, a combination of drugs is most responsible for death, but right behind that is methadone.

The Federal Drug Abuse Warning Network reported that in 2001 nearly 11,000 people turned up in emergency rooms after abusing methadone, almost double the number of such visits in 1999.

Methadone was developed in the late 1930's as a pain killer. It was only in the 1960's that its value in treating addiction was recognized.

Used properly, methadone is a beneficial drug; but as the overdose numbers prove, it is a killer when used improperly.

There are no national data on the amount of diverted methadone that originates from pain prescriptions compared to addiction treatment clinics. State-by-state anecdotal evidence suggests that treatment plans account from between one-third to one-half of the diversion.

Although the majority of methadone overdoses may well come from pain prescriptions, the impact of treatment centers as a source is significant and troubling.

The increase of more than 200 percent in methadone purchases by addiction clinics since 2000 is a powerful indicator of the overall increase in opiate addiction and of the amount of clinic methadone vulnerable to diversion.

The dramatic increase in methadone abuse and deadly overdose coincides not only with the crush of new prescription opiate addicts needing treatment as well as with methadone's resurgence as a pain medication, but also with changes in the Federal regulation of addiction treatment clinics in 2001.

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[1] The chart referred to appears in the Appendix on page 82.
[2] The chart referred to appears in the Appendix on page 83.

Two significant developments occurred: The number of doses a clinic client could take home to avoid daily clinic visits was increased greatly.

Under the new regulation a patient could take home as much as a 31-day supply versus a 6-day supply under the old rule.

And second, a therapy of megadoses, doses many times greater than what had been standard, gained greater acceptance.

But it is not just methadone and other Schedule II prescription drugs, such as oxycodone, that are doing the damage. In State after State, medical treatment and law enforcement authorities are reporting an ever expanding array of prescription drugs being diverted from their intended purposes to illegal purposes.

These drugs may well be less notorious and subject to less scrutiny, and are increasingly being abused in combinations that result in addictions, dependency, and overdoses that are extremely difficult to treat.

As we will hear today, the means by which these drugs are diverted range from petty theft to large-scale fraud and organized criminal activity.

It is tragically ironic that while our streets are awash in diverted prescription medications, the under treatment of pain in legitimate patients remains a national problem.

The American Medical Association reports that each year some 13 million Americans suffer from pain that could and should be relieved. A primary reason for this, according to the AMA, is that honest and caring physicians are increasingly reluctant to prescribe adequate pain relief, lest the drugs be diverted and lead to addiction and overdose and for fear that their prescription practices will be investigated.

The diversion of prescription drugs must be brought under control, but measures to accomplish that goal cannot interfere with access to vital pain-relieving drugs by legitimate patients.

Drug abuse has its greatest impact at the local level—on our streets, in our home, our schools, and in our workplaces.

It is for that reason that much of the testimony we will hear this morning will be from those in the fields of medicine treatment and law enforcement who deal with this crisis on the front lines.

The experiences of these Mainers are shared by their counterparts throughout the country, and I know that what this Committee learns today will be a great help as we proceed as a group to work together to tackle this nationwide and growing crisis.

I would now like to turn to the distinguished senator from New Hampshire for any opening remarks that he may have; but again, let me say, Senator Sununu, how much we appreciate your being here today. I was delighted when you joined the Governmental Affairs Committee because of your well deserved reputation as a thoughtful and effective legislator. It is wonderful to have you here today.

OPENING STATEMENT OF SENATOR SUNUNU

Senator SUNUNU. Thank you, Chairman Collins. It is a pleasure to be here.

One of the reasons I am so pleased to be a Member of the Governmental Affairs Committee, in addition to your great leadership,

is the fact that we deal with so many and such a variety of complex issues.

We deal with Homeland Security and National Security issues on the Committee, challenges with our information technology system, and in this case, no different, a complex problem that involves cooperative law enforcement at the State and Federal level, regulations we are dealing with, prescription drugs, and finding the best way to deal with the problem of illegal drugs or the abuse of the prescription drugs all over the country.

It is a pleasure to be here to be able to take testimony from a number of panelists that we might not otherwise get a chance to hear from in Washington, a broad array of individuals, researchers, law enforcement representatives, and, of course, a lot of people who are involved in the treatment and the human services side of this problem.

I think the importance of dealing with problems created by illegal trade in prescription drugs and other illegal drugs is indicated by the statistics that you outlined at the beginning of the hearing, in particular, the fact that overdose deaths from prescription drugs have surpassed that from other drugs in 2001, and I think that is an alarm signal.

It underscores the importance of getting our hands around this problem and discussing and identifying better ways to deal with it. This is something that is of great importance to all parts of the country but in particular, as Senator Collins outlined, to rural areas of the country. New Hampshire and Maine, I think, have seen very similar trends in the more rural parts of our States, and that brings the problem and challenge and the issues close to home for me.

It probably means that the method that will be identified for dealing with this problem in our States or in certain parts of the rural parts of our States will be different than the way we might address or attack this kind of a law enforcement problem in more urban areas of the country.

It is important that we hear from representatives from those parts of the country that are being affected, again, from the rural areas that oftentimes do not get the attention that we would like to see in Washington.

It is important that we try to understand how to strike a good balance in regulation in providing assistance to the panelists who are represented here, that we provide right incentives to physicians—both to attract and monitor prescriptions—but also to deal with the important issue of providing pain relief to those individuals that need it so desperately to live more normal lives. And of course, with law enforcement to strike the right balance between being effective in dealing with the problem that does threaten security of our communities, but also being fair minded in the kinds of tools and power that is given to those law enforcement agencies.

This is a great setting and a great forum for this kind of hearing. I very much look forward to hearing testimony from all of you. Thank you.

Chairman COLLINS. Thank you very much, Senator Sununu.

I am now pleased to welcome our first panel of witnesses today. They are each very distinguished in their fields and bring a great deal of expertise to our discussion this morning.

Dr. Margaret Greenwald is the chief medical examiner for the State of Maine.

With her is Marcella Sorg who has a Ph.D. and is a faculty member at the University of Maine School of Nursing. She is also director of the Interdisciplinary Training for Health Care for Rural Areas Program at the Margaret Chase Smith Center for Public Policy at the University of Maine.

They are the co-authors of a very important report entitled, "Maine Drug-Related Mortality Patterns, 1997–2002," which was published last summer.

The statistical information that they gathered is used in my opening statement, and I want to credit them as being the source of that. It was really an eye-opening report, and we look forward to hearing your testimony.

I am also very pleased to welcome Dr. John Burton. He is the medical director of the Maine Emergency Medical Services and research director of the Department of Emergency Medicine at Maine Medical Center in Portland.

Dr. Burton is a very well known physician whom I have had the great pleasure of working with on a number of issues. Doctor, I very much appreciate your driving up from Portland to be with us today.

He will provide us with a view of drug abuse and overdose from the perspective of an emergency room physician.

Kimberly Johnson we are pleased to welcome as well. She is the director of the Maine Office of Substance Abuse.

Her office provides leadership for the State's drug abuse prevention, intervention, and treatment program and collects important data on the problem of substance abuse.

Thank you all for being here today.

Dr. Greenwald, we will start with you.

TESTIMONY OF MARGARET GREENWALD, M.D.,[1] CHIEF MEDICAL EXAMINER, STATE OF MAINE

Dr. GREENWALD. Thank you very much. Chairman Collins and Senator Sununu, I want to thank you for the opportunity to appear before you on a topic which is of great concern to me as a public health professional and as the chief medical examiner for the State of Maine.

The abuse of prescription medications has been a major contributor to the amount of increase that we have seen in drug-related deaths in the State of Maine, and these deaths, of course, represent only a small part of the larger problem of substance abuse, which, as you mentioned, Chairman Collins, is rapidly becoming an epidemic in rural States.

When I came to Maine in 1997, I was very pleased after being in a metropolitan area to see only 34 drug-related deaths in the entire State for the year of 1997.

[1] The prepared statement of Dr. Greenwald appears in the Appendix on page 84.

However, as the deaths began to gradually increase in the year 2000, it became clear that we were looking at a serious trend.

Since my office is in the Office of the Attorney General, I spoke with Attorney General Rowe, and he felt that it would be important to provide a good statistical look at this problem.

So Dr. Sorg and I, with the support of Kimberly Johnson from the Office of Substance Abuse and with a very important grant from the Maine Justice Assistance Council, were able to provide these statistics which we hoped would be used in just this way by policymakers and health care professionals, important to law enforcement, and also for the public to know what was happening in our State.

A little bit of background of my office. The chief medical examiner investigates all unnatural or suspicious deaths for the State of Maine, so whenever there is a drug-related death that is identified, my office is immediately notified, and we actually direct the death investigation.

As part of that investigation, we work directly with law enforcement and sometimes ask for more overall assistance from the Maine DEA or from the Maine State Police.

All of those cases are autopsied in Augusta at our facility, the office of chief medical examiner, and we do blood analyses on all of the drug-related deaths.

This includes not just the drugs which are illegal drugs which may cause the death, but we also end up seeing drugs which are legitimately prescribed to these patients and may be present in the blood.

We do a toxicology screen that literally looks for hundreds of prescription drugs in the deaths that we are examining.

When we determine a cause of death, which is one of the major points that we analyzed in this study, we are looking at all of these factors. We are looking at the circumstances of death, we look at the pathologic findings from the autopsy, and we also look at the drug tests that are there. We have to separate out those drugs which may be legitimately present from those which may have caused the death.

In certain circumstances, however, because of the number of drugs and the levels that are present, as pathologists we cannot really say which particular drug caused the death.

So you do see in the chart that you looked at earlier that there were a lot of deaths that were caused by polydrug overdoses, or multiple-drug overdoses, and that is a real problem in analyzing these deaths.

So one of the things that Dr. Sorg and I did was to separate out two distinct different analysis. One was to actually analyze the deaths by cause of death, so which drugs were specifically indicated on the death certificate as causing the death.

And then a separate and distinct analysis, which was to look at all of the drugs present in the toxicology which really gave us a picture of the drugs that were being used by the people in the State of Maine as well as those that were important in the death.

The study, as you know, covered the 5 years from 1997 and actually ended in June 2002, but the chart that indicates the accidental

and suicidal overdose, the numbers include final numbers from 2002; so it is actually an update from the study itself.[1]

I think those numbers are probably some of the most important things that came out of the study. And as you noted, in 1997 we had 34 drug deaths and in 1998 and 1999 the deaths increased slightly.

In 2000 we really had a major increase, and we began to see a two-time increase in the deaths since 1997; in 2001 there was a tripling of the drug deaths; and in 2002 the total numbers, there was a five-fold increase; and for the accidental overdoses it was, as you stated, a six-fold increase from 1997. So that is a very frightening figure.

In 2003, as we look at those numbers which are not on the chart, there does seem to be a slight decrease. Since we are very early at the point of analyzing those figures, it is a little early to tell whether that will maintain throughout the year.

But the major conclusions from the study are as follows: The increase in deaths is primarily due to accidental overdose; the majority of deaths are caused by prescription drugs; overall 62 percent of accidental deaths and 94 percent of suicides are caused by prescription drugs.

The drug deaths affect all of Maine counties across the board. There is a slight difference in Cumberland County in that Cumberland County had 34 percent of the drug-related deaths as compared to 21 percent of the population. So that county actually did have a slightly more than would be expected by population numbers.

And the demographics of the victims are essentially similar to what you see throughout Maine as a whole in terms of age and education.

Some of the significant differences were that there were 14 percent more males and there were 34 percent fewer who were married, which gives us some indication of what groups we need to look at in terms of the effects.

Prescription drug abuse is a difficult problem, a multidisciplinary approach is important. I think that the Prescription Drug Monitoring Act is a good first step but it will need some good funding as will our law enforcement which requires a lot of time and effort to investigate these deaths. As you mentioned, the doctors who are trying to treat the pain patients and separate out those people who are going to be abusing the drugs will need research and education to help them identify those two groups. Thank you.

Chairman COLLINS. Thank you very much, Doctor. Dr. Sorg.

TESTIMONY OF MARCELLA H. SORG,[2] R.N., Ph.D., D–ABFA, MARGARET CHASE SMITH CENTER FOR PUBLIC POLICY, UNIVERSITY OF MAINE

Dr. SORG. Chairman Collins and Senator Sununu, I am pleased to be here this morning to talk to you about this very important problem. I represent the Margaret Chase Smith Center for Public Policy.

[1] The study submitted for the Record appears in the Appendix on page 114.
[2] The prepared statement of Dr. Sorg appears in the Appendix on page 45.

Our Drug and Alcohol Research Program has been working with Maine and New Hampshire and other rural States to try and address these issues of rural drug use and abuse.

Our study of Maine mortality patterns includes 374 decedents, as you said, between 1997 and 2002. The investigatory challenges for death investigations are very significant because many persons have multiple prescribers and pharmacies, and it is very difficult for investigators to find data on all the prescriptions for a death.

Further, because people frequently fail to discard unused or old medications, current prescription status may not reveal complete information about the person's access to drugs even in their own home.

Additionally, the drugs at the scene may or may not be related to the drugs found in the victim.

Our study covered 5 years, but we have conducted more detailed studies in 2001 to find out about prescription status. That is where our statistics of 52 percent come from.

We looked at 2001 and discovered that prescription status is available for almost all of the suicides but for only about half of the accidental deaths.

With those who have prescription information, 88 percent of the suicide victims and 52 percent of the accident victims had a prescription for at least one drug that caused the death.

So in other words, there is a subset of those for which we have prescription information, and of those, the accidents are less likely to have a legitimate prescription.

Our examination of the 374 decedents from the 5-year period demonstrated that overdose victims are likely to have other medical problems.

Fifty-five percent have a history of mental illness including depression, and about half—50 percent—have a history of drug abuse.

The increase in drug deaths is largely a problem with drugs prescribed for pain, anxiety, and depression; and these are often found in combination.

An overwhelming majority of deaths in Maine involve narcotics prescribed for pain and including, as you mentioned, methadone, oxycodone, fentanyl, and others.

Narcotics, including heroin, are mentioned as cause of death in over 53 percent of the deaths. Prescription narcotics comprise 65 percent of the narcotics deaths.

Narcotics are among the top five drugs found in the toxicology results when we look at those for both accidental and suicidal deaths, but the drugs are different.

We tend to find methadone and heroin more in the accidents, and we tend to find oxycodone and propoxyphene in the suicides.

Methadone is mentioned as a cause of death, alone or in combination, in 18 percent of all drug deaths, 26 percent of accidental drug deaths, and 33 percent of drug deaths caused by narcotics. It is found in the toxicology tests of about a quarter of all of our drug deaths.

Methadone is often found with other narcotics, most frequently heroin and oxycodone. Most people who died from methadone toxicity were not involved in methadone maintenance programs.

We looked at 2001 and found that 21 percent were being treated in a methadone maintenance clinic, 21 percent had a prescription from a pain clinic, and 58 percent had no documented prescription.

There are wide variations in individual tolerance for methadone. Therapeutic and fatal doses overlap. Doses that are safe in one person are not safe in another.

Individual tolerance can be reduced during substance abuse treatment or if a person is in jail, for example. And so the risks are enhanced after the tolerance is reduced.

Oxycodone is a synthetic opiate. It has been marketed since 1995 in the long-acting form OxyContin, and it is taken both orally and by injection among drug abusers. It is listed as the cause of death in 7 percent of death certificates, and we find it in 17 percent of toxicology.

Benzodiazepines, which are prescribed for anxiety, are found in about a third, 32 percent, of all Maine drug death toxicology tests.

Among the toxicology tests of all the drug victims, 71 percent have one or more narcotics; 32 percent, one or more anti-anxiety drugs; and 37 percent, one or more antidepressants.

Any attempt to address the problem and the risk they pose must be comprehensive. Clearly, electronic prescription monitoring systems are necessary, but experience with these programs nationally and internationally shows that real-time technologically-advanced systems are needed to provide immediate information to prescribers and pharmacies at the point of service.

Research is needed to develop more sensitive and sophisticated practice guidelines with practitioners. Last, medical and law enforcement need expanded resources to handle the investigation needs.

Thank you once again for the opportunity to bring this to your attention.

Chairman COLLINS. Thank you very much, Dr. Sorg. Dr. Burton.

TESTIMONY OF JOHN H. BURTON, M.D.,[1] MEDICAL DIRECTOR, MAINE EMERGENCY MEDICAL SERVICES, RESEARCH DIRECTOR, DEPARTMENT OF EMERGENCY MEDICINE, MAINE MEDICAL CENTER

Dr. BURTON. Thank you very much. As you indicated, I am an emergency physician at Maine Medical Center in Portland, Maine, as well as the medical director for Maine Emergency Medical Services for the last 4 years.

Senator Sununu and Chairman Collins, about 15 months ago I was working in the emergency department, a usual Thursday, and a 16-year-old girl was brought into the emergency department at Maine Medical Center by her parents, and her story was that she was hooked on heroin and had been hooked on heroin for about 2 weeks.

Now, the way that she became hooked on heroin was 6 months earlier she started using OxyContin recreationally and she was purchasing that at her school.

[1] The prepared statement of Dr. Burton with attachments appears in the Appendix on page 48.

After about 5½ months she was unable to obtain her OxyContin and because she had a craving and a need, she progressed on to intravenous heroin abuse.

She came into our emergency department, and we were able to connect her to rehabilitation. I do not know whether she was rehabilitated successfully, but as you know, the number of stories of rehabilitation are not too optimistic for that particular substance abuse.

The second case I will tell you about was about 3 months after that. At a Saturday high school party in the greater Portland area there were three young men at the party, and as not uncommon for young males at a high school party, they were experimenting with alcohol, they were doing shots of beer.

What was uncommon about it, though, was that they were mixing their alcohol with shots of methadone. How they obtained the methadone, I am not really sure, but they obtained the methadone and were mixing it in as a poly substance.

About an hour later EMS providers were called to the scene. One of these individuals had problems breathing and was significantly impaired in terms of the level of conscious side effects of methadone.

All three of these people were brought into our emergency department. One young man who was not breathing at the scene was treated with Naloxone. It was a close call for all of them. The other two, it was a pretty close call as well. Ultimately, after a multihour period, they were discharged.

About 3 months following that there was a patient at another emergency department—one of my colleagues in western Maine relayed this—and this was a 23-year-old man who went to a house party. He was not an intravenous drug abuser, had no narcotic drug abuse history from what I was told by some of my colleagues, and he was able to obtain some methadone while he was at the party.

Now, the connection at the party was that the host of the party had a parent who was a methadone clinic patient on high doses. She apparently had been stockpiling her methadone from her take-home liberties. It was either through her opportunity that she created or the opportunity that her son created that this other fellow was at the party and ended up taking methadone and at about 2 a.m. was found not breathing and unconscious on the party lawn.

He was brought into the local emergency department and was pronounced dead upon his arrival at the hospital.

Not all the patients end up being discharged.

As has been indicated, the rise in observations that you see in emergency medical facilities, the emergency medical system, has really accelerated in the last 5 years. Based on activity it is probably about 4 percent per year for overdose patients.

However, the drug-related and the narcotic-related activity is up on the order of 25 to 50 percent, particularly in the last year, 2002.

I will tell you that that was quite motivating for myself, as well as the trauma surgeons at my hospital. It is a case that we have seen too often in the last year and a half.

There were three individuals who crashed their car on the Maine Turnpike on a clear, bright sunny day at 11 o'clock on a Saturday.

The story with them was they were all in the same vehicle, crashed the car into a bridge abutment, they were brought to the emergency department at Maine Medical Center. One of them had a fractured leg. It was a fairly high energy accident, so that the potential for severe injuries was great.

They were lethargic; they had all been at a party. In talking with them, they had received their high-dose methadone at the clinic that morning, had taken a take-home dose either between two of them or all three of them—it was not clear to me whether two of them or all three of them—but they ingested their methadone in the parking lot, partied for an indeterminate amount of time and decided to drive home on the Maine Turnpike and then ultimately crashed the car.

So I would indicate to you that the threat is not only to those who are using and abusing as we have seen before, methadone abuse, prescription drug abuse as you indicated, that then leads to other drugs in the narcotics, including heroin and methadone, and that threat is not only for those patients but also for those of us driving down the roads and working in those environments.

The numbers currently support that for the year 2002 there is one life threatening overdose in the State of Maine from narcotics treated by emergency medical services every day.

In the City of Portland that translates into one for every 7 days, so once per week.

So I thank you very much for inviting me and thank you.

Chairman COLLINS. Thank you very much, Dr. Burton. Miss Johnson.

TESTIMONY OF KIMBERLY JOHNSON,[1] DIRECTOR, MAINE OFFICE OF SUBSTANCE ABUSE

Ms. JOHNSON. Thank you. Chairman Collins, Senator Sununu, I am honored to be here with you today.

The Office of Substance Abuse became aware of the growing increase in drug abuse early in the year 2000. At about the same time, law enforcement, particularly in Washington County, began noticing growth in trafficking across the Canadian border and experienced a growth in property crime due to abuse of OxyContin.

If the medical community—particularly emergency rooms, law enforcement, poison control, and treatment field—had been collecting and sharing data at that time, we probably could have caught the problem at an earlier date and addressed it more effectively.

As it was, there was not a comprehensive review of the data that existed until the Substance Abuse Services Commission released its report, "OxyContin: Maine's Newest Epidemic," in January 2002, and I do not know if you have gotten a copy of that.

This report collated local medical and law enforcement data and reviewed national data to gain a sense of the scope of the problem. The results were alarming.

At all measures, prescription drug abuse has grown by epidemic proportions.

[1] The prepared statement of Ms. Johnson appears in the Appendix on page 56.

As we currently found out in 2002, it became clear that there was a dramatic increase in drug overdose deaths chiefly in the City of Portland. The medical examiner's office began their review.

At the same time, a research team from Yale University headed by Dr. Robert Heimer began a naturalistic study of drug abuse in Portland and in Washington County.

While they have not yet published the data, preliminary data that the team has shared with us indicates that of the 238 opiate users interviewed in Portland, 25 percent use heroin the most and the remainder used prescription narcotics the most.

Interestingly, despite the attention that has been drawn to methadone, it does not appear to be a very popular drug among the interviewees in the Yale study.

Twenty-five percent of the sample had used it at some point but it was not a preferred drug for most and was used primarily to stave off withdrawal symptoms.

Of the methadone used, half was reported to be obtained for the treatment of pain and half had come from substance abuse treatment clinics.

Historically there has been very little opiate abuse in Maine, and there has been very little methadone treatment.

But by 2001 there was a strong demand for more treatment, and the client population at the existing programs had grown dramatically.

In the span of 2 years the total methadone treatment population went from a stable population of 300 people to the current number, 1,600, and there is still unmet demand.

We believe that the recent problems with diversion and abuse of methadone have to do with the rapid growth and need for treatment, as well as the relative naivete of the drug-using population in Maine.

Drug users did not seem to be aware of the pharmaceutical qualities of methadone and did not distinguish it from other opiates that they were abusing. They did not understand that it was slow acting as well as long acting. They attempted to inject it and they took repeated doses in order to get high.

In August we reported our concerns with methadone abuse to the Center for Substance Abuse Treatment, which, as you know, is one of the centers in the Substance Abuse, Mental Health Services Authority under the Department of Health and Human Services.

CSAT offered technical assistance and help developing and funding public education efforts. We found them to be very responsive to State needs and helpful regarding this issue.

As CSAT heard from other States where methadone was being abused, they called together a working group of national experts and people from the various HHS offices to look at the etiology of the growth in methadone abuse and develop a response.

The meetings which took place this spring—both Marcella and I attended—brought together data from a variety of sources and what became clear is that the overdose death issue is more complicated than you will find in the press reports.

First of all, there has been a large increase in the use of methadone to treat pain, while the growth of methadone substance abuse treatment nationally has been moderate.

The locales that seem to have developed methadone abuse problems are places where it has been a very relatively unknown drug, and there is an inexperienced drug-using population, just as we have seen in Maine.

In my opinion, the switch of oversight of methadone treatment from the FDA to SAMHSA is coincidental to the growth in misuse of methadone.

Growth of misuse of methadone has come from increased availability as it grows as a pain treatment and out of the desperation of drug addicts that cannot obtain their drug of choice or access appropriate treatment.

Chairman Collins, you mentioned that there was a tragedy of under treatment of pain, and I will add to that that it is tragic how much we under treat addiction as well.

Given our experience over the past 3 years, I would make a number of recommendations for addressing the problem of prescription drug abuse and preventing or providing early intervention to other emerging drug problems.

I believe that having the ability to share data across various systems that deal with drug abuse is critical. I really believe that if OSA had had better data sooner, we could have stopped this problem before it became epidemic.

We have begun working with the State Bureau of Health to follow a National Institute of Drug Abuse protocol for regular data sharing across systems. Nationally the DAWN network provides a similar tool, but it is only available to urban areas.

CSAT's response to the methadone overdose issue is another good example of data sharing that could and should happen on a regular basis.

Maine finally passed a bill creating an electronic prescription monitoring program, which you have already heard about today, and I would like to say I think it is a critical tool and we appreciate the Department of Justice having funding for that and hope we can benefit.

I also think that medical providers must receive better training in addictions. Most providers do not even ask questions about alcohol consumption, let alone drug use. They are not adept at recognizing the signs of substance abuse and do not know what to do when they have a patient with addictive disorders.

Many are very misinformed about appropriate treatment protocol.

Providers that treat pain should learn how to appropriately withdraw a person who has become physically dependent on prescription narcotics. Many of the people now treated in addiction clinics began as legitimate pain patients.

First of all, medical personnel rarely screen for susceptibility to addictive disorders prior to prescribing potentially addictive medications.

Second, they often do not handle a patient's growing tolerance to a medication well, interpreting their tolerance as drug seeking or addictive behavior.

Finally, medical staff need to learn how to appropriately withdraw patients from medications to which they have developed tolerance and physical dependence, which is not necessarily addiction.

For many patients, their addictive behavior began when their need for pain medication was over, but their uncomfortable, even painful withdrawal from their prescribed medication led them to seek other sources of relief which eventually led to the cycle of addiction that we all know of.

I am concerned with current marketing practices. While Purdue Pharma has been chastised for its aggressive marketing practices, I am less concerned about marketing to prescribers who should know better through training and experience and more concerned about direct to consumer marketing.

Scheduled drugs are not marketed directly to consumers, but everything else is. When I sit and watch TV with my teenage daughter, I am amazed to see the quantity of prescription drugs advertised. They all have the same format, which is to make you think that symptoms of indigestion, PMS, or sadness may in fact be a serious disease for which medication is necessary.

In my opinion, these ads have created a sense of urgency about every medical symptom and have presented the solution as taking a pill. The pills are attractive, the side effects are described as mild, and the need as serious.

Our current generation of adolescents was raised watching these and at the same time they have been watching ads about the dangers of illegal drugs.

I do not think it should come as any surprise that they perceive pharmaceuticals as a safe and effective high. The industry practice is relatively new and only predates the growth in abuse of prescription drugs by a few years, which helps to confirm the connection in my mind.

We cannot restrict type and placement of commercial speech and things that we talk about, but I believe that we should address this new practice by pharmaceutical companies as it has created the social climate that has made prescription drug abuse inevitable.

Thank you.

Chairman COLLINS. Thank you, Miss Johnson.

Let me start with a point that you were getting to at the end of your statement and that is, do you think we need an educational campaign to alert people to the dangers of prescription drugs?

Is it your belief that individuals who would never think of trying heroin or cocaine somehow think that it is safe to experiment with prescription drugs which may be equally addictive and equally powerful?

Is there a disconnect in the public's mind in looking at prescription drugs versus illegal drugs?

Ms. JOHNSON. I think absolutely there is. It is not just drug abusers that we are talking about. If you think about the general population, maybe people that you know, I cannot tell you how many times—I am terrified of flying—I can count how many times people have said, well, you want a Xanax? I have a Valium. It is a very common practice to share your medication. I think that people do not even think of that as abuse.

I think parents, in particular, do not think about what is in their medicine cabinet. They are pretty careful about watching the alcohol and watching for symptoms of illegal drugs, but parents, grandparents, do not think about the pain medication that might be 2

years old sitting in the medicine cabinet, and I have heard anecdotes of kids going to parties and they all bring something from a family medicine cabinet and dump it into a bowl. That is the evening's entertainment, popping pills.

I think maybe we need more public education about the risks and more professional education about the risks of prescription drugs.

Chairman COLLINS. Dr. Greenwald, you made a very important point and that is the study that you and Dr. Sorg conducted showed that the abuse of prescription drugs was a problem in every single county in Maine. It was not confined to Portland, although you said that Cumberland County was even higher than proportionate of population, but you found overdose deaths in every county; is that correct?

Dr. GREENWALD. That is correct.

Chairman COLLINS. Did you find that particular drugs were in particular counties? Were there any patterns as far as the kind of abuse that is occurring in rural versus urban areas of the State?

Dr. GREENWALD. Actually, when we looked at the drugs, they seemed to be fairly evenly distributed throughout; and methadone, heroin, and oxycodone were really in all of the counties in varying numbers.

Chairman COLLINS. Dr. Sorg, your study demonstrates just how rapidly the drug problem in Maine has grown. If you look at the chart,[1] it is really an exponential growth in the abuse and consequent death from prescription drug overdoses.

One of the facts in the report that surprised me the most was that Maine's problem appears to be more severe than in other parts of New England. For example, Maine's death rate per 100,000 from opiate abuse has almost quadrupled since 1997, while Connecticut, for example, has remained basically flat.

Why do you think our State has been hit so hard by this epidemic?

Dr. SORG. First of all, I think it is something that is characteristic of rural areas right now, and it is not just the State of Maine that has experienced this.

Second, I think that—as Ms. Johnson mentioned—it is a factor with respect to the experience of the users.

In Connecticut, for example, there has been a lot of experience with opiates going back 30 years. In Maine, not so. It is a naive population. The population does not have a lot of experience.

The other part I would like to mention is that it may be related to economic conditions and a way of making money. In some cases that may have increased due to the marketing of prescription drugs.

Chairman COLLINS. Dr. Burton, you have estimated that up to 75 percent of the drug-related emergency room encounters that you have seen involve methadone.

Could you explain to us why it is so easy to overdose on methadone so that we have a greater understanding.

[1] The chart referred to appears in the Appendix on page 82.

Dr. BURTON. I think a number of cases are where I see people who are not used to using narcotics. They think it is like popping a pill.

One of the problems is that methadone is frequently dispensed in the Portland area as a liquid formula, so it is real hard to get a sense of how much is more than enough. It is not just a pill.

So instead of popping a small dose in a pill that probably would not hurt anybody, though that is still not a good idea, they end up taking this unknown quantity of liquid and they come in unconscious. These are people who are not used to this.

Even though the people who are not used to using this drug, for some reason—take interest in it, the availability, the mystique, or whatever it is—they have become addicted.

Chairman COLLINS. Is it slow acting also so that the person taking it may take more to try to get a more powerful high and not understanding it is going to depress breathing? Is that a factor?

Dr. BURTON. That is certainly a factor. If they start taking extra doses because they did not get high from the last one, it is slow acting.

What is kind of unique about the motor vehicle crashes that we have seen as trauma surgeons and emergency physicians at my hospital is that we have seen a tremendous number of methadone-impaired patients coming in from motor vehicle crashes where they have been driving.

That is not supposed to happen because the drug takes a while to kick in, and so by the time they have driven home, the drug kicks in, particularly for someone who is taking a standard dose may lead to a car crash.

So it makes many of us wonder whether the crashes that we are seeing are again because of people using extraordinary high doses in excess of 200 milligrams—it is very common in high doses—if that creates more opportunity for impairment or if that just creates more opportunity to divert it to people who then utilize it and drive impaired by it.

Chairman COLLINS. Thank you.

Dr. Sorg, I want to go back to a statement that you made in your testimony and make sure that I understand it.

You said in looking at individuals who had died from methadone toxicity that 21 percent were being treated in a methadone maintenance clinic, 21 percent had a prescription from a pain clinic, and 58 percent had no documented prescription.

Does that mean that those 58 percent obviously got methadone from illegal sources? I just want to make sure I understand what you are saying.

Dr. SORG. That is our understanding, too. The sample size is small, so the numbers may not be precise.

But certainly we do call the few clinic that are around and make sure that they are not patients with those clinics. We can rule that out.

We cannot rule out that somebody got it from a clinic out of State. But other than that, the 58 percent are probably obtaining it from illegal sources.

Chairman COLLINS. Dr. Burton, based on your experience, do you believe that most of the methadone that has been diverted is coming from prescriptions for pain relief or from addiction clinics?

Dr. BURTON. I would say—I would be careful passing an opinion on that. We have seen a lot of both.

There has certainly been a lot of physicians who prescribe methadone to control pain, it is fairly common. Actually, we have seen those patients.

However, in the last 2 years in my personal experience the numbers seem much more weighted toward those being treated from a methadone clinic, I think because they are given those higher doses and large quantities.

Chairman COLLINS. Let me follow up with you on the issue of high-dose methadone treatment.

You identified two problems in your statement, first, that it may lead to an increased risk of diversion and second, that it may lead to greater side effects, you described the automobile accident, for example, as an indication of that.

In your personal view do you believe that high-dose methadone treatment needs to be more closely regulated? Did the Federal Government make a mistake in expanding both the amount that a patient could take home from a clinic from 6 days to 31 days—in some cases—but also in approving megadoses that are getting wider acceptance but not used to be a standard treatment?

Dr. BURTON. I am an emergency physician, I am not a specialist in drug treatment.

However, I can tell you that I have read a large number of studies that seem to prove the wisdom of high-dose methadone.

What those studies do is they look at the success of patients in the programs when you drive their dosing to higher levels and that keeps them in the program.

So those individual patients do well. I would ask if anyone has ever seen a study that has simultaneously been described, during the time period studied, diversion rates, accident rates, emergency department visits, any marker that you could show of diversion.

You are not going to publish that in the study. You only want to show a patient's success and how it did for them.

So my point is that I believe that in those studies and in that data there has been a large story that is not told. And I believe that part of that story is that it creates tremendous opportunity for diversion, but also if you couple that with a take-home program of 1 week or 1 month at high dose, it is a tremendous opportunity to stock up methadone. Many of these patients have stockup up for a rainy day for when they are feeling really bad or down, so they are just keeping a stash.

So my personal opinion is yes, it needs to be reviewed, it needs to be revisited with a particular emphasis on what is the effect to the community.

Chairman COLLINS. Dr. Greenwald, you said in your statement—and you are absolutely right—that if we are going to tackle this problem, we need a multi-pronged approach.

My last question to the panel before I turn to Senator Sununu is to ask each of you: If you had one recommendation for the Committee on what needs to be done to make a difference in tackling

this terrible epidemic of drug abuse, what would your recommendation be?

And I realize this may be something at the State level, Federal level, locally, etc., but whatever it is. Dr. Greenwald.

Dr. GREENWALD. Actually, I think my recommendation would cover many of those different levels. One of the things that I see as the chief medical examiner when patients come to our office is that many of the patients come in with literally bags of prescription drugs.

So I think that a point that Dr. Sorg made is that we need to have research in good pain management and education for the physicians prescribing so that they can work with their pain patients in realizing how to best treat the patients without ending up having the patients have access to large numbers of different medications.

Chairman COLLINS. Thank you. Dr. Sorg.

Dr. SORG. I would agree with Dr. Greenwald, of course, but I also think that information for the providers that might come from a prescription monitoring program is important, and I think that information needs to be available at the point of writing the prescription.

It needs to be a real-time system and such a system is much more expensive. I think the decisionmaking process is part of the key.

Chairman COLLINS. Thank you. Dr. Burton.

Dr. BURTON. I have to think about in the last 7 months, there has been a number of us who believe that the numbers are down. I do not have data showing that, it is not zero.

I had two heroin patients in the last 3 days in the emergency department. One of these was a young woman that was dropped off at the door.

But I think the numbers are down and I think the reason why the numbers are down, if indeed they are, is largely to the efforts of people like Dr. Sorg, Dr. Greenwald, and Ms. Johnson and their efforts to include the communication and the willingness of the law enforcement community to get into discussion and also the addiction community, the owners of methadone clinics, and the representatives of the end users who sit at the same table and have a discussion and open the doors that when we see diversion occur that it is OK to then contact someone in these other areas to notify them of this so we can make sure that we are monitoring these practices and activities.

The problem is it is a piece of that pie and each group would have a different piece of that pie.

My one wish would be that we would have some process that would enable us to indicate when we see these patients—particularly allow us to do that on the medical side without getting sued or violating the patients' rights, which are important, but there are elements that we could put in there.

Chairman COLLINS. Thank you. Ms. Johnson.

Ms. JOHNSON. I think my colleagues have said it all. Better information, the ability to share information, and that includes a prescription monitoring program that includes all of the data that we

all collect and sharing that, and better physician provider education and public education.

Chairman COLLINS. Thank you very much. Senator Sununu.

Senator SUNUNU. Thank you, Chairman Collins.

Dr. Greenwald, I know that when you go into a research project you do your utmost to not have any preconceived ideas of how the data might come out, what it might show, but is there anything in particular that you can point to in your study that you found surprising or counterintuitive?

Dr. GREENWALD. I do not know if it was counterintuitive. We knew that we were seeing increases in heroin deaths, but I think that the thing that surprised me the most, perhaps because of publicity that was around methadone at the time that we did the study, but was the numbers of actual heroin deaths in the State of Maine. I did not expect to see those numbers.

Senator SUNUNU. And you mentioned that the preliminary data—I guess about a half a year's data now—2003 shows a decline?

How great a decline and what are the reasons?

Dr. GREENWALD. Well, I can give you some ideas on that. We had 126 accidental overdoses in 2002, and it looks like the numbers will be down to about 100 if the numbers hold in 2003.

Again, we are still very early in looking at those numbers. I think that all of the issues that were mentioned, particularly the communication and attention and scrutiny by the clinics and by law enforcement, I definitely have seen a difference in our deaths; and when investigation is performed, we are hearing much earlier about the concept of diversion in the deaths, so I think that law enforcement is looking at these much more closely now.

Senator SUNUNU. Dr. Burton, are the admittance numbers anecdotal evidence comporting with those numbers? In other words, are you seeing a modest decline in numbers of admittance?

Dr. BURTON. I have not seen any numbers from 2003 either from health care emergency medical services or in hospital admission data.

Senator SUNUNU. Are numbers tracked by emergency room services? Are they statewide or regionally?

Dr. BURTON. Part of the problem is that there has been no way to track this. One of the things that I point out to people is that if your daughter—I do not know that you have a daughter—if she was at a party and someone shot her in the foot just playing around and she was brought into the emergency department, I would have to report that. It is required of me to report.

Senator SUNUNU. Required by the State——

Dr. BURTON. By the State. However, if someone decided to give her a large dose of methadone and she became blue and was brought in by EMS providers, I cannot report that and to the contrary I would be discouraged because of confidentiality surrounding her rights as an individual patient.

In young people, when you see a case like that you cannot engage—or you have to seek an attorney's opinion before you can either get it into a database somewhere or contact a law enforcement official just to let them know this happened and not identify the patient.

We do not have any means in the health care system at the hospital level to track it.

Senator SUNUNU. Ms. Johnson, you mentioned the importance of data sharing and information sharing.

Have you seen these same issues of confidentiality would cause problems and improving a system for data sharing?

Ms. JOHNSON. It is very difficult to share data or information on an individual client. It really is not that difficult to share aggregate data.

Some of the data is missing. We are actually working with the Maine Medical Center and Eastern Maine Medical Center in developing a system that collects infectious disease data, but we are still looking at adding drug abuse data to that system. So missing data is part of the issue.

Senator SUNUNU. Dr. Burton, did those same obstacles make it difficult to identify—to establish firm statistics on the number of admittances who were driving under the influence, the traffic accidents for 2000, or fatalities due to the prescription drug abuse?

Dr. BURTON. I would say yes and no. Yes, the same issues apply with patient confidentiality. So then to communicate that to law enforcement or a database is problematic.

On the other hand, no because we have already thought through that about 10 years ago and there was a number of ways and some tracking is to follow that data. There are probably ways we can query that because they have worked through that.

Senator SUNUNU. Ms. Johnson, with the opportunity to provide assistance in a clinic using greater doses, so-called megadoses and greater take-home periods from 6 to 31 days, to what extent is that being utilized or taken advantage of? And to what extent have you seen that exacerbated?

Ms. JOHNSON. Current practice in addiction treatment with methadone is similar to the current practice in terms of pain treatment where we have learned that over the years we have under treated it.

The dosages that were considered acceptable in years past really are considered now to be under treatment for those patients.

I know the dosage issue is controversial in Maine, but nationally it is pretty much accepted practice. We have a handful of a very small number of patients in Maine who have very high doses, over 400 milligrams.

I get a list of some of those people. So I am less concerned about that.

The take-home—the ability to take home more than a week's worth of medication—is really an issue to address how this interferes with people's abilities to live a normal life.

That part of treatment is trying to get people to become responsible and lead normal productive lives like the rest of us. And having to go to pick up your medication every week interferes with that, particularly in a rural State.

We have people up in Calais driving to Portland 5 hours away to get medication. Some of them are doing that daily now.

People who have those kinds of long take-home privileges are people that have been in treatment for a long time and they are given strong education of their ability to have that responsibility.

There are eight criteria that they have to meet in order to have that.

What I do think about the problem in Maine is that in Portland the two clinics were only open 6 days a week, so everyone got one take-home dose a week.

It was really at the clinic's recommendation and we are changing the State regulation to reflect that, that it is going to be required to be open 7 days a week so that you do not come in Wednesday as a new patient and then Saturday get a separate dose to take home.

My conversations with the Maine DEA have indicated that the issue of liquid methadone, the clinic methadone, was primarily single dose and it was probably found in those patients relatively early on in their treatment.

They should not have had take-home privileges but did because the clinics were open 6 days a week. I suspect that since that change last summer, that has had an effect on the reduction and some of the problems that we have seen.

Senator SUNUNU. What percentage of clients are taking medication—are given the 31-day—I guess the 31-day privilege is new?

Ms. JOHNSON. Very few. Actually, my office has to approve it. There are, I think, fewer than 20 patients in the State that have privileges that are that long. Most are under 2 weeks, so except for that handful, they are all under 2 weeks and most are even shorter than that.

Senator SUNUNU. Thank you very much.

Chairman COLLINS. Thank you, Senator Sununu. I want to thank this panel very much for being with us this morning. We will put your full statements that you provided into the hearing record. Thank you very much.

I would now like to call forward our second panel where we will get the views of law enforcement officers who see the drug problems from several angles. They are on the front lines of the battle against drug traffickers, they deal with the explosion in property crime and violence that results from drug dealing and abuse, and they are often first on the scene when the abuse turns to overdose.

We are very fortunate today to have three highly experienced officers with perspectives that range from Maine's largest city to some of the most rural counties.

Portland Police Chief Michael Chitwood is a highly decorated police officer with 38 years of experience. He has dealt with the preponderance of methadone overdoses in Maine's largest city. We very much appreciate his driving up from Portland to be with us today.

Lieutenant Michael Riggs of the Washington County Sheriff's Department. He's one of the most experienced drug investigators in Maine.

His county in easternmost Maine is among the first rural regions in the Nation to experience widespread prescription drug abuse and it remains, unfortunately, one of the hardest hit.

Detective Sergeant Jason Pease of the Lincoln County Sheriff's Department has lead successful investigations in a variety of drug diversion schemes including large-scale doctor shopping rings.

His county, in the State's mid-coast region, has faced both the rural prescription drug phenomenon as well as the urban illicit drug trade.

We very much appreciate the three of you being here.

Before I call on Chief Chitwood, I just want to let everyone know, because I do not think I made the point clearly to the previous panel, that according to the most recent available data from the U.S. Department of Health and Human Services, Maine substance abuse admissions rates for all opiates other than heroin is not only more than six times the national average, but it is the highest in the Nation. So we really do have a serious problem that we are dealing with.

Chief Chitwood, thank you for being here today, and I will start with you.

TESTIMONY OF MICHAEL J. CHITWOOD,[1] CHIEF OF POLICE, PORTLAND, MAINE

Chief CHITWOOD. Thank you, Chairman Collins and Senator Sununu.

I would like to thank you for allowing me this opportunity to be here. I am here to discuss an issue that I have seen grow into epidemic proportions over the last several years.

Methadone abuse is affecting people in our communities in every county of the State. Statistics are dire and it is imperative that steps are taken to combat this rapidly growing problem.

Over the last 5 years, as you have already heard statistics from other groups, there has been a four-fold increase in drug deaths in Maine.

In the City of Portland and Cumberland County, methadone was a causation factor in at least 30 deaths in 2003 according to the State medical examiner. This rise in deaths is due mainly to accidental overdoses.

What I find most deplorable and tragic is the lives that have been destroyed on methadone. Over the past several months I have received numerous calls and letters from people who have lost loved ones due to methadone and who are desperate for help.

A woman who is present in the room today, Linda Nash, called me recently and shared with me a horrific story of how she lost her 21-year-old daughter Kelly due to methadone overdose.

Her daughter Kelly was seeking treatment for heroin addiction, and her mother watched as her methadone doses were increased steadily by a local clinic from 40 to 110 to 210 milligrams of methadone daily.

Concerned, her mother tried to speak with someone at the clinic but she felt as though her distress fell on deaf ears. At this high dosage her daughter became sluggish and ill. She fell asleep at the wheel of the car and was involved in several accidents.

The mother described Kelly as so constantly inebriated by methadone that she forgot when she took her last dosage until she took too much and died. Kelly left behind a baby boy.

[1] The prepared statement of Chief Chitwood appears in the Appendix on page 60.

What I would like to share is I would like to give a quick overview of how easy it is to hoard methadone from the clinics in the greater Portland area.

Here are 13 vials of take-home methadone that were prescribed to a 22-year-old who was an admitted heroin addict and while on the methadone program was making weekly trips to Massachusetts for his heroin.

The scripts were from one of our local clinics, The Discovery House, in South Portland, Maine. He was entrusted with take-home doses of methadone, it was hoarded and packaged for sale.

He sold his take-home methadone to support his heroin habit. The methadone in this case was seized by a tip by an informant and a search of his home.

The second vial is a vial that the label has been taken off. Again, it is 330 milligrams of methadone prescribed by another local clinic, CAP Quality Care.

Both of these cases have been settled, and that is why I am allowed to bring these before you—adjudicated, I am sorry.

In this particular case, George Higgins was recently sentenced for supplying or furnishing methadone to a young man who subsequently died as a result of the methadone that was supplied to him. Higgins was again on take-home methadone and during the course of a party, Higgins gave this dosage to a gentleman who died on August 31, 2002.

Again, another example of how easy it is. There are probably hundreds of examples statewide.

I have heard multiple tragic stories like this going on and feel helpless because we have two for-profit methadone clinics dispensing this drug without, in my opinion, adequate oversight.

The very nature of for-profit clinics creates incentives to keep people on methadone or stretch out the amount of time they are taking it and being weaned from it.

Furthermore, the clinics are sending people home with methadone and minimal counseling and education. Even someone with a criminal history can be allowed take-home methadone. Granted, not all methadone users have a criminal history, but any social deviant with a history of breaking laws and using illicit drugs should not be entrusted to handle a powerful drug responsibly.

This is not to say that criminals who are addicted do not deserve the treatment, they absolutely do. However, the treatment should be administered at a clinic under close supervision. The result of this current "drive-through-window" approach to methadone is that the drug is being diverted, misused, and causing people to die at alarming rates.

Based on my experience there is no doubt in my mind that State and Federal regulations pertaining to dispensation of methadone must be strengthened. The Federal guidelines, which were designed to make methadone treatment more accessible—for example, take-home doses—have created a crisis.

People are taking the methadone home but in too many cases they are selling it or letting their friends take it. As you know, methadone does not create a high like other drugs. The result is that you have people mixing alcohol and other drugs at a party and somebody gives them some methadone. Thinking that they are

going to get high as with other drugs, they take it and end up either dead or unconscious.

Currently the State Office of Substance Abuse, in my opinion, is not doing enough to monitor, evaluate, or intervene on this deadly trend. In fact, if anything, I feel that they have contributed to the problem by spending $24,000 on radio ads promoting methadone use like it is the cure-all, like it is going to cure opiate addiction. These funds could have been better used through education rehabilitation and enforcement.

Another way that methadone is being used is through prescription drug diversion. The methadone being abused appears to be tablets prescribed for pain. These are sold or sometimes given to addicts by people who have stolen from patients, in some cases, by patients themselves. Addicts either swallow the tablets or grind them into powder that can be inhaled or turned into liquid and injected.

Even though this is a lesser problem in Maine, it is something that we need to watch carefully. I am hopeful that the prescription drug monitoring bill that was passed during the last legislative session will be a useful tool for getting health care providers informed and educated regarding patients with drug-seeking behaviors.

While policy changes are imperative, they should be part of a comprehensive, coordinated approach. As you know, drug abuse is a complicated problem which will require a multi-faceted solution involving collaboration among diverse professions.

A comprehensive approach should include several components: Law enforcement for control, public/professional education prevention, and treatment services.

These components can be strengthened by policy changes and must be implemented in a systematic, coordinated manner throughout the State of Maine.

First, resources must be available to ensure effective law enforcement. Drug enforcement agents enforce State and Federal drug laws and conduct comprehensive investigations into illegal use of methadone, methadone diversion, and other related crimes.

The Maine Drug Enforcement Agency, MDEA, should have increased resources—both human and financial—to carry out its mission.

Second, education is essential to the primary and the secondary prevention initiatives. Just as we have campaigns to educate people about the dangers of smoking, we need programs to teach people about the risks they are taking when they abuse methadone.

Healthcare professionals must also receive education on this public health crisis so that they may become part of the solution.

Third, comprehensive substance abuse treatment services, which offer wide-ranging programs based on best practices, must be highly accessible to those who need them. These services include medical treatment, cognitive behavioral therapy, and other types of rehabilitation and recovery services.

Treatment services should be integrated into comprehensive healthcare delivery systems and need to be responsive to the community.

Currently there are deficiencies in each of the aforementioned areas. While the drug abuse problem is continuing to grow in

Maine, the number of drug enforcement officials is shrinking as part of the trend over the past decade.

Budgetary restrictions have forced the MDEA from 76 agents in 1992 with an approximate $2 million budget to just 34 today with a $1 million budget, and the drug problem has increased ten-fold.

We cannot expect to see positive changes in the drug abuse problem in Maine if MDEA resources continue to dissipate. Moreover, there is no statewide coordinated approach to education.

State officials need to work with multiple communities—medical, public health, education, law enforcement—to get the word out. Also, treatment services need to be integrated and the treatment community must collaborate with other stakeholders to ensure a sustainable solution and a reversal in the current trend.

Chairman Collins, Senator Sununu, I implore you to use the information you have learned about this issue to craft legislation that will help solve the problem.

I want to close by saying that I have been in law enforcement for 31 years. I spent the first 20 years in my career in a major urban city. I can tell you that in 1965 in the city of Philadelphia, methadone was introduced as the panacea to help cure opiate addiction. It did not work in 1966 and here we are in Maine in 2003, and I do not know that it is going to work here. Thank you.

Chairman COLLINS. Thank you, Chief. Lieutenant Riggs.

TESTIMONY OF LT. MICHAEL RIGGS,[1] WASHINGTON COUNTY SHERIFF'S DEPARTMENT

Lt. RIGGS. Good morning, Senator. Washington County was one of the first places in the country where OxyContin abuse exploded. A few years ago you started seeing national news stories about the "hillbilly heroin" taking over rural areas. The impression was that one brand-name drug moved into these small towns and did all this damage. I would like to begin by telling you what actually happened.

About 10 years ago we started finding stray pills on traffic stops and pat-down searches of somebody's pockets. When we would ask them, "What is this?" they indicated Percocet or Darvocet or some small narcotic pill mixed with Tylenol or Ibuprofen or some prescription drug.

We would ask, "what is this?" Well, the story was, I had a migraine today and my mother gave me two, and I only took one; or I had a toothache and my brother gave me one that his dentist gave him when he had a toothache. So they were let go, no big deal.

And then our informants began finding it increasingly difficult to buy marijuana or cocaine or LSD. They would come out of the house and say, all the guy had was some pills. Sometimes they would not even buy them, they did not know what they were. They had not heard of them before.

So those Percocets, Darvocets, Vicodins, and things, those are now called little ones. Those are just the little pills. We had to educate ourselves as to what it was and what it was doing to the peo-

[1] The prepared statement of Lt. Riggs appears in the Appendix on page 66.

ple that were addicted to it and how deeply rooted this addiction had become.

In 1996 it started to be OxyContin and that just took over. But I do not believe that was their fault. The addiction was already deeply rooted within the community.

It came to a point where my partner and I could not remember the last time we purchased marijuana, and we thought that was good until we were thinking about it and we realized that was bad because what actually happened was the need for marijuana or the preference for marijuana had dwindled, not gone away, because marijuana and an opiate addict usually do not mix. It is like giving a person with a broken leg an aspirin. It is not going to do them any good, so they do not use it.

This realization changed the way that we investigated drug problems. Opiate addicts were a whole new world. We had to educate ourselves about the pills and the addicts.

The more we lived with the addicts, the more we became aware of how powerful the addiction to opiates really is, and we have had to understand as much as we could without using the drugs ourselves.

We had to learn new terminology, why they mix cocaine and the opiate together and it is called a "bell ringer." We had to learn why the Canadians called it "Shake-n-Bake" and why they preferred it to the American variety, the reason being it was very water soluble. All you have to do is put the pill in the syringe, suck some water into it, shake it, and you are good to go.

We had to make believers out of doctors, lawyers, prosecutors, social workers, employers, parents, and everyone in every walk of life. For a long time higher-ups in law enforcement would look at all the pills we were getting and ask why we could not buy any real dope. People finally started realizing this is real dope. This is the worst thing we have ever encountered.

Informants were coming to us saying things like what they were seeing was making them sick and angry. One told us of a house he just left, an infant was in a car seat on the living room floor, and on the couch were two woman covered with a blanket and the two guys that lived there had gone after more pills.

The house was cold, there was not any fuel for the furnace. The baby's runny nose had dried on its face, they could not wash it because the water was frozen.

Other addicts would tell us, I hate the stuff, I wish I never heard of it, and I hope you get it all, but they cannot help you because they might need a pill tomorrow.

Another told us that the only time he had ever thought of committing suicide was the last time he was going through withdrawal. He said if he had had a gun, he would have shot himself.

We knew of instances where kids would hold other kids down at parties and shoot them up because it was funny.

One of our informants is dead now. His wife was driving too fast to get a pill. She is in prison now on unrelated charges and her kids are being raised by the grandparents and his house is being rented to college students.

These are just a few examples of the damage this has done.

For the economics of the whole thing, initially OxyContin sold on the streets for $1 a milligram. An addict could use 80 milligrams a day just to keep from getting sick, never mind getting high.

How do you get $80 a day to support your habit? You lie to everyone you know, you steal everything you can, you max out all your credit cards, you do not pay any of your bills, you cancel your insurance on your car right after you register it because you need the refund.

You get the clerk at the store to knowingly accept a bad check if you promise to give them some of the money. You sell your body, you sell your children's clean urine to addicts being tested.

After you have got some money, you fake an illness or injury and doctor shop until you get a prescription, and then you can tell your friends that you go to this doctor and tell him that you have these symptoms, he will give them a script. Maybe the friends will give you a pill or two in return.

Or you can buy a few pills from the pharmacy tech who is smuggling pills out by tucking them in his socks. You might pay the doctor's secretary to steal a script pad for you.

You can read the obituaries and break into the family's home while they are at the funeral.

This is true; I am not making this up. You can wait for your neighborhood cancer patient to go to the doctor. You can break in and take his medication.

Opiate addicts often have bad teeth. This is a blessing in disguise because if none of the above work, the emergency room doctor will give you a script until you get them fixed, which you have no intention of doing because you can do it again at another emergency room.

In closing—I see my time is up—the border does pose an issue. One of the big issues is crossing the Canadian border and the Canadian exchange in money, the exchange rate.

The number of pills coming across would be anybody's guess, but one dealer told me that he had made a Canadian dealer $135,000 in 2 months.

Another dealer said he could take $5,000 to Canada today and in 2 days he would be out of pills and have $6,000. So all that money's going across the border and nothing's coming back. That is a big impact on the community.

Chairman COLLINS. Thank you very much, Lieutenant. Detective Pease.

TESTIMONY OF JASON PEASE,[1] DETECTIVE SERGEANT, CRIMINAL INVESTIGATIONS DIVISION, LINCOLN COUNTY SHERIFF'S DEPARTMENT

Det. Sgt. PEASE. Chairman Collins, Senator Sununu, I would like to thank you for the opportunity to speak for a few moments on the impact of the drug problem in the mid-coast area.

My main focus is that of Lincoln County, but as you all know and have heard today, this is not a one-area problem. This is statewide.

Lincoln County has had an increase of epidemic proportions in heroin and opiate-based prescription drugs over the past 5 years.

[1] The prepared statement of Det. Sgt. Pease appears in the Appendix on page 70.

The drug problems surrounding prescription drugs has far surpassed all other drugs.

Over the past 5 years, we in Lincoln County and throughout the State of Maine have seen an increase in crime such as burglaries, robberies, thefts, overdoses, and even deaths because of the drug problem.

Just to give you an example, 1999—excuse me, 2000 we had a local pharmacy in the town of Wiscasset where three gentlemen broke into that place by ripping the roof, physically climbing up on the roof of the business, taking a wrench and tearing apart the roof, and climbing down in. The only saving grace in this was that there was a radio alarm inside the pharmacy, but when interviewed and talked to about this, during and after the event, the only reason they were there was for prescription OxyContin.

Since that time one of the subjects has been sent to a rehab in New Hampshire by his family. He spent half a year there, and after that he was released and overdosed in Manchester.

Since being assigned to the Criminal Investigations Division of the Lincoln County Sheriff's Office in 1999, I have handled numerous investigations into the theft of prescription pads from doctors' offices, altering of prescriptions, forging of prescriptions, and I have even dealt with subjects that have been manufacturing prescriptions on their computers.

It is a common occurrence in the mid-coast area. When I say mid-coast area, I am concentrating on northern Cumberland County, Sagadahoc County, Lincoln, and portions of Knox County.

Subjects are going into doctors' offices and while they are waiting for the doctor to come in or the doctor is out getting something for them, they are rummaging through the drawers and finding left-behind prescription pads that are blank and already have the DEA number attached to it, so all they have to do is scribble on it and take it to a local pharmacy and get it filled.

As I mentioned, we had a couple of cases where there were people taking prescriptions that they obtained and scanning them into their computer, changing the date and changing the location and being able to print those off to look exactly like those prescriptions given by the doctor, and they have been able to pass those successfully.

At first we found the majority of prescription drug users and abusers started using the prescriptions because of illnesses, pain, or to wean themselves off of heroin. But now it has been found that many of the users and abusers are on prescriptions because of their ability to obtain the dose easier by going to the doctor.

Where in the past heroin users and sellers were able to go to Massachusetts and buy the packet of heroin for $5 and return to Maine and sell it for $25 to $35 a packet, that is a pretty good profit margin, now they are able to go to their doctor and get a prescription for OxyContin, Percocet, Vicodin and spend $25 and be able to turn around and make twice as much as they were spending on selling and buying the heroin.

They are getting a price of approximately $1 a milligram on OxyContin at this point and it is costing them $40 to get the prescription filled and they are turning around and making about $250 on one bottle.

Currently we are seeing OxyContin, hydrocodone, Fetynal patches, Xanax, methadone, and Loratab. These prescription drugs are all opiate derivatives which seem to be the "hook" for the person using and abusing.

OxyContin has by far been the worst prescription abuse in the mid-coast area over the past few years of any prescription that contains opium or synthetic opium and is the drug of choice.

We have experienced numerous instances where subjects from outside of Lincoln County were traveling to doctors in our area in order to get multiple prescriptions from those doctors.

The subjects would travel to doctors in small towns such as Waldoboro, Damariscotta, and Wiscasset and visit a family medical office. The subjects were from areas like Brunswick, Augusta, and even, at some points, Portland. Again, Brunswick has two major hospitals, Parkview and Mid-Coast Hospital, and hundreds of doctors in that area, so they are choosing to come to the rural area because there is less knowledge of who is who in the town, and they are just coming in and moving into these little towns and are able to get those prescriptions filled.

This is what is referred to as doctor shopping, and this again is not a local Lincoln County problem. This is a problem statewide.

As you talked about, we have had successful cases involving doctor shopping where a specific incident, a couple coming from Brunswick and going throughout Lincoln County to the towns of Boothbay, Boothbay Harbor, Wiscasset, Damariscotta, and Waldoboro, these little towns getting at least one, if not two, prescriptions from different doctors in those towns. And then they were able to pass all those prescriptions successfully and even in some of those cases we have had them using the VA to accomplish the same goal. They are going to Togus to get their prescriptions filled also.

In similar acts, when making, forging, or filling "doctor shopping" prescriptions, they are traveling to small local pharmacies. The reason for filling prescriptions in small pharmacies is they do not have the tracking system such as a Hannaford or a Rite-Aid does.

Another problem we have noticed—Ms. Johnson kind of talked about this—is that the younger crowds are going into their parents' or their grandparents' or their family's medicine cabinet and taking pills. Most of the time the prescriptions are pain pills, they are narcotics they are taking, but from time to time they are just taking any random pill and doing what she said, taking them to parties and emptying them into bowls.

Another problem that we have seen is leftover prescriptions, family members giving other family members pain killers, as a mother giving her son her leftover Percocet because he has got a bad back and he does not have a prescription for it, but they are probably addicts.

As we in law enforcement in Maine know, the United States is dealing with the dilemma of prescription drug abuse. If there was some method of linking all doctors and all pharmacies to one system of tracking prescription drugs to clients, it may assist in the fight against drug abuse. I know we talked about the drug program and the prescription program.

There are such systems in place tracking motor vehicles, so I feel we can come up with an adequate system for the prescription drug problem.

Again I would like to thank you for your time and I am willing to answer any questions that you may have.

Chairman COLLINS. Thank you very much, Detective.

I want to thank each of you for painting such a vivid picture to the Committee on the impact of drug abuse in your communities and on the people that you are serving.

I also really appreciate your commitment to law enforcement. We are grateful for all that you are doing on the front line.

Chief, let me start with you. First let me thank you very much for bringing the vials so that we could actually see what we are talking about when clinics are giving doses of methadone for their patients to take home.

There has been dispute on whether or not the treatment clinics are a significant source of the methadone that is diverted and used.

What is your judgment? Do you think that the majority of the diverted methadone does come from clinics? Or do you think that it is from pain prescriptions? What is your feeling on that?

Chief CHITWOOD. In my opinion, in the City of Portland and in the greater Portland area, the majority of the diverted drugs are coming from the two clinics and have come from the two clinics.

Here is a perfect example. One clinic, one patient, take-home methadone, hoarded it to sell it for heroin. In this particular case, this individual was given take-home methadone, he was a career criminal with a criminal record in three States, and they are entrusting him to take vials of 340 milligrams home, and he gave a fatal dose to his friend.

That is where I see it. We very seldom see anything coming from a prescription. The prescription is usually in the pill form, and it is usually 10 milligrams. So we are not seeing that as a problem.

All the diversion, all of the deaths, all the crime scenes where we go and investigate the deaths, there has been methadone involved in it, it is a vial, and usually the name is rubbed off the label of the vial.

Chairman COLLINS. And do you see the trend toward megadoses of methadone for treatment purposes as contributing to the diversion?

Chief CHITWOOD. I see it as a problem in this sense, and this is based on law enforcement experience.

When you have somebody taking 400 and 500 milligrams of methadone, they are zombies. And I believe that that type of megadosage causes problems beyond the diversion problem.

Inebriation on the highways include problems with being able to function as a human being and function normally, and I think that from that perspective it is a problem.

How do you get somebody off of 400 to 500 milligrams of methadone? So now you have created craving. Does it do away with the cravings? Yes. But now they have the craving for methadone.

These particular clinics are for-profit. How long are they going to take $80 to $100 a week from their client, especially if their client is a career criminal who has to steal, rob and pillage to survive? That is an issue.

Chairman COLLINS. Thank you. Lieutenant Riggs, you have painted a very vivid picture of the impact of drug abuse on a rural county in increase in crime and destroying families.

Could you elaborate on the issue of being on the Canadian border as Washington County is. Does that increase the chances for diversion of drugs? Are there Canadian sources that are contributing to the drug abuse problem in Washington County and the OxyContin problem in particular?

Lt. RIGGS. Yes, ma'am. Oxycodone is smuggled into this country on a daily basis with a great deal of frequency.

By walking the St. Croix river, they come across in body cavities, they come across in vehicles, they come across on jet skis. They come across about any way that you can imagine but rarely by air.

The really ingenious efforts of the drug traffickers—one particular gentleman has an American fishing boat. He takes a little remote control boat into the Canadian shore, and the big boat does not touch the Canadian shore, and they run a little remote control boat into the Canadian land and it is picked up by his connection and brought back to the fishing boat, and he has never touched the Canadian shore.

So diversion in Canada occurs by very organized groups of doctor shoppers that include everything from children to old people.

That is brought all together to individual dealers and distributed from there across the borders into the State in fairly substantial quantities as a whole.

One of the things that we rarely see is somebody coming across the border with a thousand pills. You see them coming across the border with 20 pills, 50 pills, but there are a dozen of those people a day coming across or more.

So you are having an influx of hundreds of pills per day, at least, coming across the border.

Chairman COLLINS. Is there any cooperative effort between Maine officials and Canadian officials underway to try to better detect and deter the transportation of these drugs?

Lt. RIGGS. Yes, there is, and our Canadian counterparts are just as cooperative as they can be.

We find the officers on the streets, whether it is people like myself or an MDEA officer or the drug unit or intelligence unit, we all cooperate with one another, we all share information the best that we can until guidelines and rules and regulations prohibit sharing of that information.

When it gets into more in-depth investigations, a lot of material has to be cleared through Ottawa before we can even become privileged to it. That is a long process.

Chairman COLLINS. I appreciate your identifying that area for us.

Detective Pease, you talked about doctor shopping particularly in smaller communities where the local pharmacy is not going to have a sophisticated tracking system for prescriptions that might catch duplicative prescriptions for the same drug.

Could you comment on the elements of an effective prescription tracking program—the State of Maine has recently passed a law as have some of the other States—do we need some sort of nationwide system in order to deal with doctor shopping?

Det. Sgt. PEASE. Well, what little I know about nationwide, but I feel this is obviously a problem that is nationwide and we need to have something real-time.

We need to have something so that when a doctor or a PA or somebody writes out a prescription for a person, they are able to pull that name up using an office computer into a central system that they can look and see if this person has gotten three prescriptions for oxy or methadone or whatever the medication may be, and then that would raise some suspicions.

I think that would be beneficial to us. I realize that we have some issues of the client/doctor privilege, and we as law enforcement run into that quite frequently.

The only time we can get around that is if we can show that it is a fraudulent prescription. In Maine State law there is a provision for law enforcement to obtain that information, but that is still very hard to do even when you present the physicians with that law. It is a hard sell because they do not want to believe that it is a fraudulent prescription.

Back to the smaller pharmacies, in our area most of the pharmacies that are that small are owned or run by the different companies, but they are much smaller than a Hannaford or a Rite-Aid, so they do not have that ability to set up something.

They are all for it and they try to keep tracking this information for us as much as they can without violating those patients' rights.

But when they start seeing people coming from Brunswick or Portland or Augusta all the way down to Waldoboro, Maine, they start to raise their eyebrows that something is going on here.

Chairman COLLINS. Thank you. Senator Sununu.

Senator SUNUNU. Chief Chitwood, you expressed concern that in an urban area like Philadelphia you have seen problems with certain approaches to treatment or diversion of methadone and you talked about seeing some of those problems here.

Can you come up with a more positive experience from your work in Philadelphia? Was there anything that you have seen here in Portland that you think is unique or uniquely effective in a rural area that might not work in an urban setting but something that we will need to focus on to try to address this problem in a rural setting?

Chief CHITWOOD. I think that when you look at the opiate issue—for 10 years I have been telling people in Maine this is a problem that is going to be a crisis and here we are—if you are going to look at treatment, I believe there is a place in treatment for methadone, but it has to be a comprehensive program.

To say that—and I call it a drive-by window—to say that, OK, you have a heroin problem or you have an opiate problem, we are going to give you 400 or 500 milligrams of methadone, and you are going to live life and everything is going to be fine, I think is having your head in the sand.

I believe they need counseling. I believe that you need some type of daily collaborative approach between the patient and social workers, psychologists, and maybe methadone can be part of that treatment.

I think that what we have seen—or what I have seen in the methadone history—years ago you had a window. You went up, you took it, and you walked out. But you went right back on the street.

Now the thing is these megadoses. That is the "new technology, or new medical practice." I believe it may work in some cases.

But when you see the numbers of deaths, it is not working. But I believe we need a comprehensive program, and methadone may be a part of that initial program, but I do not believe that we are approaching it correctly.

Senator SUNUNU. You indicated that a common prescription dose would be 10 milligrams?

Chief CHITWOOD. I believe it is 10 milligrams.

Senator SUNUNU. Just for comparison, how many milligrams are represented in the vials?

Chief CHITWOOD. This is 340 milligrams. Some of these vials are 60, and 45.

Again, the young lady I spoke about, she was on a high dosage, 210 milligrams, so you can see the difference. According to the medical people that I have talked to, the dose should be around 80, 80 to 100 milligrams.

Senator SUNUNU. Lt. Riggs, are there any specific changes or recommendations that you would want to make for the modification at the local or the State level or the Federal level to help you do your job better?

Lt. RIGGS. Yes. One thing I wanted to touch on regarding the conversation about methadone is confidentiality. Confidentiality has got to be maintained, but changed. We cannot talk to doctors and be able to have doctors answer our questions. They cannot speak with us. It is very unproductive.

I talked to my own doctor about other patients, he cannot discuss it with me. I'll tell him, this one and this one and this one is selling it. I know that they are going to their doctor, I know what they are getting for medication, I know what they are on, and I know they are selling it on the side.

On a much larger scale, law enforcement is being segregated from sharing vital information more and more all the time.

A year ago I could pull pharmacy records; today I cannot because of the HIPAA laws. There is no way around that. They are segregating law enforcement more and more. Instead of easing the confidentiality and fostering communication, we are being shut out of the picture.

Reviewing the narcotic tracking program in the State, the information to law enforcement is not part of that. I need it to more effectively do my job. It has become increasingly difficult to communicate and share information because of confidentiality.

Senator SUNUNU. Thank you all very much.

Chairman COLLINS. Thank you, Senator.

Just one very quick question before I let you go.

We talked about various recommendations this morning and we touched on systems such as tracking, treatment centers, better education, and the confidentiality. We talked about a more multifaceted approach.

The one issue that has not come up that I want to ask you is whether we need tougher penalties. Lt. Riggs.

Lt. RIGGS. Ma'am, if we were to actively enforce the laws that are already on the books, we would not have to be here today. That is my opinion.

Chairman COLLINS. Thank you. Chief.

Chief CHITWOOD. It is a matter of having people to enforce it. It has to be a multi-faceted approach. No one approach is going to solve this problem. It has to be enforcement, education, and rehabilitation. It is not going to work unless you have those three.

Chairman COLLINS. Thank you. Detective.

Detective Pease. Senator, I would like to agree with both of them. The guidelines and the law, the prosecution to enforce and our ability of having to fulfill the need for prosecution by building a strong and good case, and, most importantly, with the DA's office and the AD's office, we are able to build those stronger penalties or fulfill what we already have and it will work.

Chairman COLLINS. Thank you very much. That is very helpful to get your honest view on that issue.

I want to thank all three of you. All of you have come from long distances to be here today. It was extremely helpful, and thank you for your testimony.

We are now going to hear from our final panel today.

Dr. Richard Dimond is a retired Army physician with an extensive background in teaching and research. He retired in Southwest Harbor in 1994, and at the time was a very active member of the community.

One of his most recent projects is as the organizer of a group of citizens who are very concerned about the drug problem in their midst.

Barbara Royal is the administrative director of the Open Door Recovery Center in Ellsworth. This is an out-patient substance abuse treatment center. It is the only such facility in Hancock County, and as such it deals daily with the dramatic and increasing shift toward prescription drug abuse.

We welcome both of you.

Dr. Dimond, I am going ask that you go first.

TESTIMONY OF RICHARD C. DIMOND,[1] M.D., MOUNT DESERT ISLAND DRUG TASK FORCE

Dr. DIMOND. Chairman Collins, Senator Sununu, thank you for the opportunity to testify on the increasing use of prescription drugs in Hancock County.

Alcohol and drug abuse, including opiate drugs and drug-related crimes, are not new to Southwest Harbor, Mt. Desert Island—hereafter referred to as MDI—or Hancock County, but these problems have escalated exponentially over the last 4 or 5 years.

By 1999 and 2000, many of us were becoming educated by the U.S. Attorney in Bangor about the sudden increase in overdose deaths in Penobscot and Washington Counties. We learned about prescription narcotics being used to supplement or substitute for heroin and how they have given rise to an industry characterized

[1] The prepared statement of Dr. Dimond with an attachment appears in the Appendix on page 72.

by drug-related burglaries, stealing and dealing, and doctor shopping to obtain prescriptions which were marketable by themselves.

Particularly alarming were reports of overdose deaths occurring in individuals in their mid-20's and addiction to both heroin and prescription narcotics being recognized in teenagers.

About that time, several Southwest Harbor businesses, including our pharmacy and one of our two medical clinics, experienced breaks-ins and attempted or successful burglaries that fit the picture of drug-related crimes.

Similar occurrences in Bar Harbor and an increasing concern about our adolescent population led to the formation of an MDI Task Force Education Committee in the fall of 2000 followed by two public forums about heroin and narcotic abuse in our area.

Unfortunately, by the fall of 2001, it was clear that initial enthusiasm for the formation of a Task Force Against Drug Abuse on MDI had been short lived.

Over the next year and a half, numerous arrests for possession of illicit drugs and/or drug trafficking were made, and the local press provided many reports of escalating drug abuse statewide and in our area.

Most alarming, however, was the increased frequency with which members of the community found drug paraphernalia, such as syringes and needles, behind buildings, near dumpsters, in the street, and on their private property.

Despite reporting such occurrences and other suspicious activities to our local police, citizens became increasingly frustrated because they saw little change and the situation seemed to be getting worse. Thus, explanations that a five-man police force is not equipped to do surveillance or drug-related investigative work, and that the State only had three drug enforcement agents covering the four counties in our area were of little comfort.

Finally, a Southwest Harbor boat builder and fisherman stood up at the Board of Selectmen's meeting on May 7 of this year holding a zip-lock plastic bag containing several syringes and needles found recently on his property and demanded that something be done.

On May 29—3 weeks later—225 residents of MDI and neighboring communities gathered in Southwest Harbor with a panel of eight experts representing different professional disciplines to discuss drug abuse and drug trafficking.

Emphasizing that there is no simple solution to these difficult problems, all panel members underscored the reality that only a multi-disciplinary approach, including effective education, treatment, law enforcement, and prevention strategies, is likely to make a significant difference. Nevertheless, residents were most outspoken about the immediate need for increased support from law enforcement.

Consequently the audience became increasingly frustrated with State law enforcement officials who repeatedly explained that there were insufficient funds and manpower to assign a Maine Drug Enforcement Agency agent to Hancock County in the foreseeable future.

Subsequently, discussions were held between local police departments, the sheriff, the district attorney, the director of MDEA, and the county commissioner. As a result, the sheriff proposed forma-

tion of a county-wide drug enforcement team, the only one of its kind in the State, to be made up of three officers from local police departments who would be trained by MDEA and assigned permanently as MDEA agents in Hancock County with authority to enforce anti-drug laws statewide.

The proposal was discussed at a public hearing in Ellsworth on July 22 and creates a real partnership between Hancock County and MDEA, between the county citizens and the State.

The cost of this program is about $200,000 to hire three new police officers to replace the individuals assigned to the County Drug Enforcement Team. Although this means a further increase in county taxes, the proposal appeared to be supported by most of the individuals attending the hearing, as well as by more than 200 residents of MDI and the Cranberry Isles.

This proposal to strengthen investigative law enforcement in our area is the first step in what we hope will be a powerful community response that effectively interrupts the flow of drugs through Southwest Harbor, Mount Desert Island, and neighboring communities in Hancock, Penobscot, and Washington Counties.

However, multiple other initiatives are needed as well, particularly in the areas of education, treatment, and prevention.

As is true of many rural States, Maine's resources for treatment of alcohol and opiate addiction are woefully inadequate. Currently, Hancock County has only one intensive out-patient treatment program, no emergency in-patient resources for opiate detoxification, and no residential in-patient treatment facility.

Maine initiated its Adult Drug Treatment Court Program in 2001 in six jurisdictions, but not in Hancock County. Nevertheless, we are hopeful that an Adult Drug Treatment Court will be established here in the near future.

Finally, although long-term residential therapeutic communities similar in scope to the Day Top Program in Rhineback, New York, have also proven to be efficacious in the treatment of alcohol and opiate addiction, no such program exists in Maine or northern New England. It should be noted, however, that the Maine Lighthouse Corporation in Bar Harbor is actively seeking to establish such a treatment facility.

Perhaps even more important in the long run will be the development of effective strategies focused on prevention. One such program is The Edge, which is a combined educational and recreational program for children in Washington County during and after school hours that is operated by the Maine Sea Coast Mission in Bar Harbor.

Other efforts are being initiated on MDI through a coalition, sharing an Office of Substance Abuse Prevention Grant.

As you know, Maine has experienced a shocking increase in opiate overdose deaths in the last 5 years, and most of these deaths were caused by prescription narcotics, especially in combination with anti-depressants and alcohol.

Ten of the 256 overdose deaths occurring in the last 2 years involved residents of Hancock County, and one of the latter lived in Southwest Harbor. Tragically, a young Bar Harbor man died of a prescription overdose in May, as did a young Bangor man in June after being arrested and lapsing into a coma in Ellsworth.

Between July 10 and July 17, five burglaries occurred in Southwest Harbor fitting the picture of drug-related crimes, and a Swans Island couple was robbed, bound, and threatened by an individual who took $40 and a container of prescription drugs.

Last, a Southwest Harbor couple was arrested on July 18 for heroin possession.

Previously it was thought that such problems were encountered only in urban areas of the country. Clearly, they have engulfed the rural State of Maine as well, including Hancock County and Mount Desert Island.

Accordingly, the following recommendations seem appropriate: Federal funding of programs that support education, treatment, law enforcement, and prevention efforts to combat alcohol abuse, illicit opiate abuse, and prescription drug abuse must be increased;

Federal funding should also be provided to support a pilot study of Maine's recently enacted Prescription Drug Monitoring Bill—LD 945;

Federal legislation creating a national prescription drug monitoring system should be considered; and

Similarly, Federal legislation promoting the sharing of an international prescription drug monitoring system between the United States and Canada should be considered as well.

In closing I would like to read a short passage from a letter in a local newspaper written by the parents of a young Hancock man who died of an overdose in May.

"We have seen that there are dangers that we as a society are ready to protect our children and ourselves against. They include inexperienced drivers, impure water and air, and improper electrical wiring to name only a few.

"We urge you in your capacity as Hancock County commissioners to protect our children and the future of Hancock County from the pervasive, merciless problem of drug abuse by curtailing the easy availability of illicit drugs through increased law enforcement as well as greater support for more intensive drug rehabilitation programs."

I would like to thank the Kings publicly for giving me permission to share their plea with you as well. Thank you.

Chairman COLLINS. Thank you very much, Doctor. Ms. Royal.

TESTIMONY OF BARBARA ROYAL,[1] ADMINISTRATIVE DIRECTOR, OPEN DOOR RECOVERY CENTER

Ms. ROYAL. Thank you, Chairman Collins and Senator Sununu, for having me here today.

I come here as a provider. I provide treatment assistance at Open Door.

We, too, like everyone else who has spoken here today, experience the results of what—I really agree 100 percent with Detective Riggs from Washington County.

I see this as a problem that started many years ago and has evolved to what we see here today. I do not isolate one drug or one substance out as the problem. I see this as an addiction problem.

[1] The prepared statement of Ms. Royal appears in the Appendix on page 77.

We have a new tool that we use with adolescents in treatment at Open Door and we have a difficult time understanding how dangerous it is to be in the same place as the drug. We put a bag of pot in the middle of the room, it cannot hurt you. If it sits in the middle of the room, nothing bad is going to happen. The minute you pick it up, you are in danger.

That is what is happening. If we take that analogy and use it as a State, we put OxyContin in the middle of the State—or any other substance, heroin, pot, alcohol, any other prescription drug—it is no danger to us if used appropriately, if it is used the way it is intended to be used. The minute it is picked up, used and abused, sold, it becomes a problem and that is what happens.

Now we are seeing a situation where we are dealing with a wave of addiction—I describe it as a tidal wave—we are all standing on the shore. We get hit by a few of the smaller waves, it is still coming, we have not seen full impact. And that is where I stand today. I stand there watching this huge thing coming our way.

Over the past 6 to 8 weeks, just at Open Door alone, we have seen about a 50 percent increase in walk-ins in just the past 6 to 8 weeks. I am talking primarily heroin addicts, but we are also looking at poly substance abusers pretty much across the board, all substances that can and are abused.

Most of the time we cannot find places to put them. There is no treatment available—when there is treatment available, it is nowhere near enough. So most of the time by the time our day ends at Open Door, we have many people who we have not been able to help. We have not been able to find places where they truly need to be.

There is a serious problem with the lack of detox. It definitely comes back to funding. It also comes back to education for medical staff and education for the general public.

My feeling today, I have this tremendous opportunity to sit here in front of you and say to you, one of my primary reasons for sitting in this chair today is because people are suffering unmercifully. Families are suffering. Families are losing their babies.

Anyone who has lost someone—15, 16, 17, 21, 22—when you lose a child, life is never the same. It is happening more and more and more and more.

I have a tremendous passion for the work that I do. My staff has a tremendous passion for the work that they do, because on a daily basis we work with people who are truly desperate and suffering.

We need the multi-faceted approach that several people have mentioned here today. We need prevention, education, we need detox treatment, and we need law enforcement. We need a balanced scale, we need to approach this from all directions equally.

I refer to that as the three-legged stool. You saw off one leg, the stool falls over. If you have three solid legs, that stool will stand forever, and that is what we need.

In Ellsworth alone we have a project that we have been working on for several weeks now along with many other areas around Portland, Bangor. It is called Ultralight, which is a story of the writer's brother's own overdose to heroin.

We are in the process of bringing the play to Ellsworth in September, and the reason I mention that is that what we have

watched over the past few weeks since the general public became aware of the project, we have had every walk of life offer to help. They say, I will do anything.

Everyone from our local sheriff to our president of the bank, to people who run our local organizations and businesses have stepped forward and said we want to come together as a community. That is just one example.

There is a lot of work to be done. I appreciate your willingness to be here to today. Thank you.

Chairman COLLINS. I want to thank both of you for your eloquent testimony.

Ms. Royal, are you seeing a trend towards younger people coming to your clinic?

Ms. ROYAL. We definitely are. Open Door has an age-range outpatient program for adolescents. Up until a year ago, age 14 to 18. We had to lower that age to 13 this past year.

We have referrals for 12-year-olds that we will not treat, and we refer them to other independent providers. We are just not equipped to deal with that young age group at this time, but definitely younger and younger.

The other problem that we have seen along with that is that these young people range from approximately, well, 15 all the way up to 25.

They are kind of skipping over prescription drugs and heading right into the heroin use because it is easier access and cheaper to buy.

Chairman COLLINS. It is so troubling to think of some 13- and 14-year-olds already in trouble with drug abuse.

Are you also seeing an increasing number of clients who are abusing legal drugs, prescription drugs, as opposed to heroin and other illegal drugs?

Ms. ROYAL. We are. The population that we find are most affected at this point by legal drugs, prescription drugs, and are between the ages of 18 and 25. We do all of the drug testing for the Department of Human Services in our area. So very often on a daily basis we have young people walking in who have just had their children taken away from them. We do the drug testing. We try to get them prepared for treatment.

That age group, that age range, tends to be the hardest hit for the prescription drug abuse.

Chairman COLLINS. Dr. Dimond, I want to congratulate you for your leadership in organizing and spearheading the partnership that is leading to increased emphasis on law enforcement assets to deal with this problem.

As a physician, do you also find that there has been a severe shortage of treatment options in Hancock County? I think Ms. Royal's facility is the only facility in Hancock County.

Is that part of the problem as well?

Dr. DIMOND. Sure. In fact, Open Door is the only intensive outpatient program in Hancock County. There are no acute detoxification resources on an in-patient basis anywhere in the area, and there is no residential treatment facility in Hancock County.

But beyond that, as you know and Senator Sununu from New Hampshire, in rural States, the number of professionals in the area

of mental health and addiction is preciously few so that people have little to no real access to care. It is a different dimension of the problem, forgetting whether or not they have the training to help people.

Chairman COLLINS. That was going to be my next question to you because I think that not only do we lack the facilities, but we lack the health care providers who have expertise in treating addiction; and I have also seen that in the work that I am doing on the problem of mentally ill children not getting the treatment that they need. Senator Sununu.

Senator SUNUNU. Thank you very much.

Dr. Dimond, you talked about the need for additional funding or additional resources, and your effort has obviously been very successful.

Did you run into any resistance at the local level? Any resistance to the efforts or to the concerns that you were raising?

Dr. DIMOND. Surely. As you well know, that involves taxes and there was a proposal on the table that called for an increase in county taxes, and understandably people are very concerned about that. That is not a popular thing in the face of a country that has decreasing Federal funding to a State that has decreased funding. MDEA has been flat funded in the State of Maine for years and now we have statistics, at least, of what is going on.

So as the need goes up, if you are lucky the funding stays the same. I do not think so.

So the solution is coming out of the taxpayers' pockets and is hard to accomplish; but I have to say in all honesty to think that I am sitting here in front of you and asking you for Federal dollars that are not going to come out of the taxpayers' pockets would be a dream world. But it is a world that needs to happen as a priority one way or the other.

Senator SUNUNU. Ms. Royal, of the heroin addicts that you treat at your center in Ellsworth, how many of them, what portion of them, began by using prescription drugs?

Ms. ROYAL. Several. Many—and some of them as mentioned today start out as patients who have been in a car accident or some kind of injury and started out getting a legitimate prescription that they truly needed for pain management and, unfortunately, oftentimes their dependence has often led to addiction and other serious problems.

Percentage-wise, I would say that—I am certainly not going to say 100 percent, but I am going to say somewhere between 75 and 80 percent.

Senator SUNUNU. Your center is a for-profit center or not-for-profit?

Ms. ROYAL. Nonprofit.

Senator SUNUNU. With regard to the for-profit treatment facilities that Chief Chitwood spoke about, what is their revenue model? What source do they derive their revenues, and do you have any strong feelings about the approach to revenues or the approach between profit and nonprofit centers?

Ms. ROYAL. I am sorry, I am really not sure. I would make a guess and I would say that for some that may be insurance, Medicaid, but I am not sure. Being nonprofit, we do get some State

funding through the Office of Substance Abuse and Medicaid, and the rest of that is through private donations and grant writing.

Senator SUNUNU. And has the State or any of the providers tracked different levels of performance between facilities?

Ms. ROYAL. Our facility is not a medical facility. We do not prescribe any medications. We are purely substance abuse treatment, so in that sense they differ.

Senator SUNUNU. I see.

Ms. ROYAL. I do not know enough about the for-profits to know exactly how the funding is obtained.

Senator SUNUNU. Thank you very much. Thank you again to both of you.

Chairman COLLINS. I want to thank you very much for being with us today and for your comprehensive testimony. It is extremely helpful to us as we seek to address this critical problem.

We have been able to hear today from a variety of perspectives and experts across the board in many fields. That will help us as we return to Washington to craft measures to address this burgeoning problem.

I want to thank everyone for their time and their commitment. I also want to thank my staff which has worked very hard to put together this hearing.

And I particularly want to thank Senator Sununu from New Hampshire for being here today. I very much appreciate it, particularly since I promised him a lobster lunch but he has to run and get his plane so I am not going to be able to keep that commitment.

Senator SUNUNU. I am sure you will make good on it.

Chairman COLLINS. We will do our best. I know Senator Sununu's commitment to this issue prompted his participation today, and I am very grateful for his being here.

The hearing record will remain open for 15 days.

I know that some families who have experienced the horrible tragedy of losing a loved one to a drug overdose wish to submit testimony or a letter for the record. We very much welcome that, and our staff will work with you.

I just want to thank a lot of the family members who have taken the time to be here today. You are the reason that we are pursuing this issue, and I want to thank you very much for your participation as well.

This hearing is now adjourned.

[Whereupon, at 12:28 p.m., the Committee was adjourned.]

APPENDIX

STATE OF MAINE
DEPARTMENT OF THE ATTORNEY GENERAL
OFFICE OF CHIEF MEDICAL EXAMINER

Senate Committee on Governmental Affairs
"Legal Drugs, Illegal Purposes: The Escalating Abuse of Prescription Medications"
August 6, 2003

Testimony of Margaret Greenwald, MD
Chief Medical Examiner, State of Maine

Chairman Collins and members of the Committee, my name is Dr. Margaret Greenwald and I am the Chief Medical Examiner for the State of Maine. I would like to thank you for this opportunity to address your committee on a topic of great concern to me as a public health professional. The abuse of prescription medications has dramatically increased drug related deaths in the state of Maine. These deaths, of course, represent only a small part of a much larger substance abuse problem, which is rapidly becoming an epidemic in Maine and other rural states.

When I came to Maine in 1997, I was pleased and relieved to note that we had only 34 drug related deaths for the entire year. In 1998 and 1999, the numbers of drug related deaths increased slightly. However, in the year 2000 it became clear that the increases were not just the result of episodic changes in the death rate, but the beginning of a serious trend. This suspicion was confirmed as the drug related deaths increased dramatically in the year 2001.

In Maine, the Office of Chief Medical Examiner (OCME) is a part of the Attorney General's Office. When he became aware of the growing drug related death rate, Attorney General Steven Rowe immediately suggested that we study the problem in depth. With the support of the Attorney General, with funding from Maine Justice Assistance Council (through a grant from the NIJ), and the Maine Office of Substance Abuse, Dr. Marcella Sorg and I designed and co-authored a study of Maine Drug-Related Mortality Patterns. The study was intended to provide accurate and current statistics on these drug deaths to policy makers, the health care community, law enforcement and the public.

The Office of Chief Medical Examiner is charged with determining the cause and manner of death in all non-natural or suspicious deaths. Whenever a possible drug related death is identified by local law enforcement agencies, it is immediately reported to the OCME. My office is the agency which directs the death investigation. Depending on the circumstances we may request that the Maine Drug Enforcement Agency or the Maine State Police assist the local police with their investigations. Most drug related deaths are transported to Augusta for autopsy. Blood is drawn on all potential drug related deaths. Toxicology tests are performed by a forensic laboratory which screens the blood for hundreds of prescription drugs.

The Cause of Death (for purposes of the death certificate) is a determination made by the Medical Examiner and is based on the circumstances of the death, the pathologic findings at autopsy and the laboratory tests. The toxicology report lists all drugs present in the blood at the time of death (some of which may be legitimate drugs in therapeutic amounts) and the amount of the drug present. If the Medical Examiner cannot separate and identify one or two specific drugs as the cause of death, they may list the cause as Multiple Drug or Polydrug Overdose.

In order to fully evaluate the drug deaths in the study, cases were analyzed from two perspectives

- 1st Drugs specifically identified on the death certificate as Cause of Death or Significantly Contributing to Death
- 2nd Drugs present in blood at the time of death as documented in the Toxicology report.

The study covers the deaths from January 1997 through June 2002 and was published in December 2002. The charts you have seen include the final numbers from 2002.

The numbers of drug related deaths, compared to 1997, doubled in the year 2000 and tripled in 2001. Drug related deaths for 2002 were more than 5 times what was seen in 1997. Early estimates for 2003 indicate a slight decrease in drug related deaths, if the current numbers remain consistent throughout the year. However, the death rate will probably still remain as much as 4 times what was seen in 1997. 2003 projections are for approximately 100 accidental deaths compared to 126 in 2002.

Major conclusions from the study were as follows:

- The increase in deaths were primarily due to the accidental (unintentional) overdoses. Suicide rates have remained relatively constant.
- The majority of the deaths were caused by prescription drugs. Overall, 62% of the accidental deaths and 94% of suicides or about ¾ of all the deaths were caused by prescription drugs.
- The drug deaths affected all Maine counties, generally in proportion to their percentage of the state population. The only exception was Cumberland County, which has 21% of the population and had 34% of the drug related deaths.
- The demographics of the victims was broadly representative of Maine's population as a whole. Significant statistical findings included 14% more males than expected and 34% fewer who were married, either single or divorced.

Prescription drug abuse is a complicated and difficult problem which will require a multidisciplinary approach. The recent passage of the Prescription Drug Monitoring System for Maine is a good first step. However, unless the system receives good enough funding to allow it to be designed to allow physicians real time access, a patient who is doctor shopping, may still be able to receive prescriptions for pain medication. Investigation of drug related deaths may uncover diversion of drugs from pain clinics or Methadone clinics, but these investigations require numerous careful and detailed interviews to identify and document the illegal use of prescription drugs. Most local police departments, and even Maine Drug Enforcement Agency and Maine State Police do not have enough personnel to provide these in depth investigations on every case. Physicians and other health professionals need research and education to help them find ways to adequately treat pain without enabling substance abuse and to work with their patients to minimize the multiple medications found in most medicine cabinets in the US.

Since she did most of the statistical analyses, I will let Dr. Sorg discuss the specific drug patterns we identified. If you have any questions regarding the drugs, their effects, or our interpretations, I will be happy to try to answer your questions.

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Senate Committee on Governmental Affairs
Legal Drugs, Illegal Purposes: The Escalating Abuse of Prescription Medications
August 6, 2003

Oral Testimony
Marcella H. Sorg, RN, PhD, D-ABFA
Margaret Chase Smith Center for Public Policy
University of Maine

Mr. Chairman and members of the Committee, my name is Dr. Marcella Sorg. I am a medical and forensic anthropologist in the Margaret Chase Smith Center's for Public Policy at The University of Maine. I am also a faculty member in the University's School of Nursing. The Margaret Chase Smith Center's Rural Drug and Alcohol Research Program has been working very hard to focus research and public outreach attention on issues of rural drug use and abuse. We are working with several community groups across the state, with the Maine Office of Substance Abuse, and with the Office of Chief Medical Examiner. I am grateful to you for this opportunity to address your committee on the topic of drug-related mortality.

Our study of Maine Drug Related Mortality Patterns included all of the 374 drug related deaths in Maine from 1997 to 2002, most of which were caused by prescription drugs. Investigatory challenges are significant in death investigations. Because many persons have multiple prescribers and pharmacies, it is difficult for investigators to find data on all prescriptions. Further, because people frequently fail to discard unused or old medications, current prescription status may not reveal complete information on an individual's access to drugs, even in their own home. Additionally, the drugs at the scene may or may not be related to drugs found in the victim.

Our study covered five years, 1997-2002. We conducted a more detailed examination of the 2001 case files, 90 deaths in all, to learn whether or not decedents actually had prescriptions for drugs causing their deaths. Information about prescription status was available for 96% of the suicides, but for only 52% of the accidents. Of those with prescription information, 88% of suicide victims and 52% of accident victims had a documented prescription for at least one drug that was listed in the cause of death. The lack of documented prescriptions for many drugs listed in the cause of death, particularly in the accidental deaths, suggests they have been diverted from other sources.

Our examination of the 374 decedents from the five-year period demonstrated that overdose victims are likely to have other medical problems, as documented in the autopsy and by medical history. About 55% have a history of mental illness, including depression, and about 50% have a history of drug abuse. More mental illness is reported among suicides (72%) than accidents (42%). Conversely, more substance abuse is reported among accidental overdoses (73%) than suicides (16%).

Many decedents had other physical conditions, such as cardiovascular disease, lung disease, obesity, or chronic pain. This is not surprising, since the mean age of our study population is 40 years. These underlying conditions may increase vulnerability to fatal drug overdose, either due to reduced capacity (for example, of lungs or heart) or because medications prescribed for the conditions may interact dangerously with drugs of abuse.

What particular drugs are more frequently associated with these deaths? The increase in drug deaths is largely a problem with drugs frequently prescribed for pain, anxiety, and depression. These are often found in combination.

An overwhelming majority of deaths in Maine involve narcotics (opiates and opioids) prescribed for pain, including methadone, oxycodone, fentanyl, and others. Narcotics (including heroin) are mentioned as a cause of death in just over half (53%) of all drug deaths. Prescription narcotics comprise 65% of those narcotic deaths. Narcotics are among the top five drugs found in toxicology of both accidental and suicidal deaths, but the specific drugs differ. Methadone and heroin are among the top five drugs in accidental deaths, but not for suicides. Two other narcotics, oxycodone and propoxyphene, are identified among the top five drugs for suicide toxicology.

Methadone is mentioned as a cause of death (alone or in combination with other drugs) in 18% of all drug deaths, 26% of all accidental overdoses, and 33% of deaths caused by narcotics. It is found in the toxicology tests of 24% of all drug deaths. Methadone is often found with other narcotics, most frequently heroin or oxycodone.

Most people who died from methadone toxicity were not involved in methadone maintenance programs. For the year 2001, there were 14 cases in which methadone is listed on the death certificate. Of these, 21% were being treated in a methadone maintenance clinic and 21% had a prescription from a pain clinic; 58% had no documented prescription.

There are wide variations in individual tolerance for methadone. Therapeutic and fatal dose ranges can overlap. Doses that are safe in one person can be fatal in another. Individual tolerance can be reduced during substance abuse treatment or while incarcerated, for example, raising risk. The risks for diverted liquid methadone is increased because the concentrations are not usually obvious to the user.

Oxycodone is a synthetic opiate prescribed for pain. Marketed since 1995 in the long-acting form, oxyContin, this drug is taken orally and sometimes injected by abusers. Oxycodone is implicated as the cause of death on 7% of all death certificates overall over the five year study period and appears in 17% of all toxicology tests.

Drugs prescribed to reduce anxiety, benzodiazepines, for example diazepam (valium), are found in about a third (32%) of Maine drug death toxicology tests. Often considered benign, benzodiazepines nevertheless are implicated as causing 9% of the deaths in our study (11 suicides and 23 accidents), often in combination with narcotics.

Not all substances found in toxicology tests may be related to the cause of death. Nevertheless, the frequency distribution of drugs found in victims can serve as an indirect measure of the supply of drugs available through both licit and illicit sources. Among the toxicology tests of the 374 drug death victims, 71% have one or more narcotics, 32% have one or more anti-anxiety medications, and 37% have one or more antidepressants. These three drug classes are the most important in terms of risks to public health.

Any attempt to address the problem of prescription drugs and the risks they pose to the public health must be comprehensive. Clearly, electronic prescription monitoring systems are necessary. But experience with these programs nationally and internationally shows that real-time, technically advanced systems are needed to provide immediate information to prescribers and pharmacies at the point of service. Second, research is needed to develop more sensitive and sophisticated practice guidelines, particularly for medical prescribers who care for patients who have multiple prescriptions and/or multiple health care providers. Third, investigators in both medical and law enforcement settings need expanded resources to handle what has been a nearly exponential increase in case volume.

Thank you once again for the opportunity to share our research and recommendations about this emergent problem. Dr. Greenwald and I will be happy to answer any questions you might have.

Committee on Governmental Affairs
Legal Drugs, Illegal Purposes: the Escalating Abuse of Prescription Medications

Testimony and written statement
August 6, 2003

John H. Burton, MD
Medical Director,
Maine Emergency Medical Services
Research Director,
Department of Emergency Medicine
Maine Medical Center
Portland, Maine

I first became concerned about the growing problem of narcotic and prescription narcotic abuse in Maine during the early months of 2002. At that time I was, and continue to be, the Medical Director for Maine Emergency Medical Services (EMS) as well as an emergency physician at Maine Medical Center in Portland, Maine.

My colleagues within the acute care and emergency medical fields were witnessing a dramatic increase in opiate-related medical encounters in early 2002. Maine Emergency Medical Services data currently demonstrate this alarming increase in opiate-related emergency encounters:

- Current data suggests that a life-threatening opiate-related emergency encounter appears in the State of Maine EMS system at the rate of approximately one patient every day.
- Life-threatening opiate-related encounters in the Maine EMS system have demonstrated an approximate 25-50% increase per year since 1999 – compared with a growth of all patient encounters in the EMS system during the same period of approximately 4-7% per year.
- A large spike in life-threatening opiate-abuse encounters occurred during the calendar year 2002 in the Maine EMS system.
- In 2002 in the City of Portland, Maine, a life-threatening overdose patient was encountered by EMS providers at the rate of approximately once per week

Factors that seemed to be contributing to the number of encounters appeared to be the availability of methadone as a drug of abuse, large quantities of illicitly available methadone, the utilization of methadone as a recreational drug of abuse, and similar availability and interest in prescription narcotic pills as recreational drugs of abuse.

A teenage girl that I encountered in 2002 illustrates the alarming interest by Maine's youth in opiates as recreational drugs:

> This young woman was a 16 year-old female who arrived at our emergency department with her parents. This teenage, parent-described "honor student" had been taking oxycontin for 6 months as a recreational drug of abuse. She obtained her oxycontin at her high school where she was introduced to prescription narcotic pill abuse by a friend. After approximately 6 months of oxycontin escalation and addiction, she

was no longer able to obtain this drug and subsequently began injecting intravenous heroin, as well as smoking heroin, on a daily basis. She ultimately revealed her addiction to her parents and was brought to our emergency department seeking rehabilitation.

The relationship between an innocent, high school, entry-level experience with prescription pain pills and the progression to intravenous heroin is not to be underestimated. Many patients who we have seen in the healthcare system initiate their opiate interest with prescription pain pills. Once the supply of the initial drug runs out, the individual is forced to either progress to other drugs illicitly (e.g . heroin or methadone) or in a formal treatment setting, such as a methadone clinic.

Unfortunately, most patients who present to the emergency medical system have life-threatening, immediate treatment needs. A similar case, with regard to the alarming entry age and innocence of the victims, was encountered in our emergency department in the fall of 2002:

Three young males - 18, 18, and 17 years of age were brought to our emergency department by EMS providers. These individuals were at a high school party where someone challenged them to drinking "shots" of beer "spiked" by liquid methadone. The source of the methadone was unknown. Emergency service providers were called to the party after all 3 of these individuals were witnessed to be hypoventilatory (breathing at a dangerously slow rate) and difficult to arouse. One of the patients was treated with the narcotic reversal drug, Naloxone, with all three transported to our hospital. Ultimately, all three individuals were treated and released after a multi-hour period of observation.

Other encounters have not ended so well for those interested in experimenting with available opiates, particularly heroin and methadone. One of my colleagues, in an emergency department in western Maine, relayed this patient history to me in the spring of 2003 after seeing this patient the night before:

This 23 year-old male ingested an unknown quantity of liquid methadone at an evening party. The mother of the host of the party was a methadone clinic patient on "high dose" methadone with "take-home" liberties. It was unclear whether this person willingly or unknowingly made her methadone "stash" available to her son. However, the son was able to access the methadone and presented it to the 23 year-old friend at the party. An undetermined rate of time elapsed and the patient was discovered unconscious on the party lawn during the early morning hours. 911 was activated, the patient treated and ultimately pronounced dead at the receiving emergency department within 30 minutes of his arrival.

The availability of large dose methadone has been a rather striking element in many emergency cases, I cared for this patient in the Spring of 2003:

This 20 year-old female was found in her apartment by her room-mate. She was discovered to be unresponsive and EMS/911 was called. She was treated with intravenous naloxone and transported to our emergency department. In the emegency department, she stated that she had bought 300mg methadone from a methadone clinic patient. Her intent was "to party." She later became unconscious and this led to the 911 activation. This young woman was treated in the emergency department and admitted to our intensive care unit for approximately 8 hours on a naloxone infusion – due to the long effects of the methadone. She was ultimately released from the hospital the next day.

"High dose" methadone and methadone diversion to non-clinic patients appear to be common threads in many of the emergency patient encounters. However, not all cases that we treat are from methadone diversion. I relate a particularly alarming case that I saw in the spring of 2002, with near identical scenarios witnessed again in our emergency department with 4 to 5 encounters in 2002, and continuing with multiple encounters in 2003 – the most recent treated 3 weeks ago in our emergency department. It is not uncommon for emergency departments to treat accident victims from motor vehicle crashes. However, unique in many of our experiences over the last two years has been the number of patients in motor vehicle crashes who are "methadone impaired."

Three patients were transported from the scene of a motor vehicle crash on the Maine turnpike during a Saturday morning. The EMS providers stated that the driver crashed into a bridge abutment on the Turnpike road at a high rate of speed. The most concerning element among the 3 victims was their level of consciousness – rather lethargic and dazed. On questioning in the emergency department, it became apparent that the 3 patients had left a methadone clinic that morning after ingesting their "high dose methadone" in the parking lot as well as pooling each others' take-home dosages and ingesting the drugs en masse. One patient suffered a broken leg, the others had minor injuries and were released. In this case and similar cases with motor vehicle crashes due to opiate impairment healthcare workers have been increasingly alarmed at the threat posed by these individuals to innocent victims on Maine motor highways and roads.

Patients who present with substance-impairment, particularly opiate impairment, present a challenge to emergency healthcare workers. Levels of impairment in consciousness and alertness attributed to substance abuse must be quickly and decisively delineated from impairment due to medical conditions (e.g. heart problems, diabetes) and traumatic injuries (e.g. head injuries).

The point should be made, however, that patients with opiate-abuse problems who present to the emergency healthcare system are generally a population that is biased to individuals who are suffering the effects of narcotic addiction or lack of success in treatment programs. There are certainly successful cases of patients in treatment for narcotic addiction. In July 2003, I witnessed an illustrative case:

This 38 year-old gentleman presented to the emergency department with a work-related injury: a laceration sustained while working with a large press at work. During the course of his examination, he revealed that he had suffered addiction to intravenous heroin and prescription narcotics for approximately 5 years. In the last 2 years, he had maintained a stable life and job due to his success in a methadone maintenance treatment program. He immediately returned to work after his laceration was repaired.

Data supporting my observations in my practice as well as the Emergency Medical Services for the State of is attached below. I have attached it with comments addressing the data presented.

Ultimately, the elements that appear to have most significantly impacted the number and types of encounters in the emergency medical services for the State of Maine would include, but not be limited to:

- The availability of methadone to individuals abusing drugs and experimenting with drug use
- Diversion of methadone from methadone treatment/clinic patients
- High dose methadone (in excess of 200mg/day) use by methadone clinic patients and diversion
- The availability of prescription narcotic pills such as oxycontin and generic oxycodone
- The apparent popularity of opiate abuse, particularly prescription drugs, among Maine's teen-agers and young people, relative to traditional drugs of abuse in this population (e.g. marijuana, alcohol)
- The attraction of abusers and those experimenting with drug abuse to methadone as a drug of abuse

After living and practicing emegency medicine through this dramatic rise in opiate-related emergency patient encounters, I believe that certain elements must be addressed in any effort to confront the growing and alarming trend in of opiate abuse:

- Cooperation must be facilitated and encouraged between methadone treatment facilities, public health agencies, law enforcement and medical providers. In order to achieve this, attention must be directed to sharing critical information while protecting the public's interest in safety and simultaneously patient and victim interests in privacy.
- Methadone clinic facilities should be monitored closely by regulatory agencies with particular attention towards policies for "take home programs," high dose methadone utilization, patient education towards diversion and methadone privilege abuse. Attention should also be directed to trends in abuse, diversion, and medical and law enforcement encounters within the communities and patient populations of methadone treatment facilities.
- High-dose methadone treatment strategies should be reviewed with a view that considers outcomes with regard to diversion, overdose, and side effects among clinic patients relative to more tradional dosage programs.
- Education and prevention efforts must be directed to the population at risk of drug abuse and experimentation with an attempt to educate those at risk to the life-threatening and life-addicting consequences of opiate use and experimentation.

The myriad of issues surrounding the problem of opiate abuse in the State of Maine, as well as the United States of America, cannot be quickly summarized or captured by any single statement. However, my written statement today is an attempt to lend an element from the "front lines" of the emergency health care system in the State of Maine as well as to convey patient vignettes that illustrate the observations of emergency healthcare workers.

I thank the United States Senate Committee on Governmental Affairs for its attention to this most pressing concern and the honor of contributing testimony to this hearing.

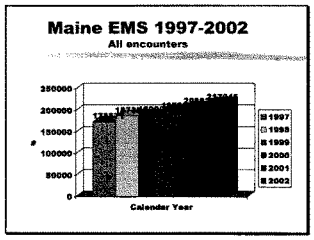
Slide 1

EMS Data 1997-2002

- Data source: EMS provider run sheets for Maine EMS encounters (approx 225k/yr)
- Data is complete 1997- 2002.
- Markers* for "opiate-related encounters:"
  Naloxone administration
  Miotic (Constricted) Pupils: 1 or 2mm
  Respiratory Depression: RR<10
- Data presented as case encounters per year as well as % growth from 1997 data.

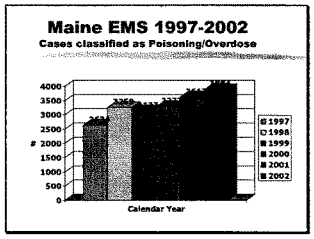
Maine Emergency Medical Services (EMS) maintains a database of all patient encounters. In attempt to address the question of narcotic/opiate-related encounters within the EMS system, I utilized it as a source for a study performed in the Spring of 2003.

Slide 2



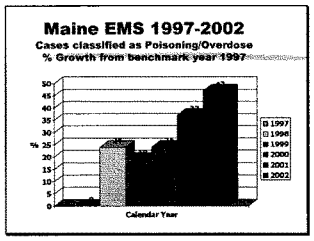
The number of encounters in the Maine EMS system has experienced a steady growth in the last 5 years with an approximately 4-7% increase per year. In the time interval 1997-2002, an increase of 25% in patient encounters has transpired.

Slide 3



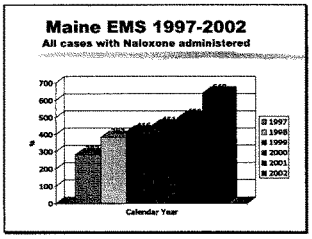
Cases classified by EMS providers, at each encounter, have also increased over the last 5 years with approximately 3800 overdose and poisoning patients seen in the year 2002.

Slide 4



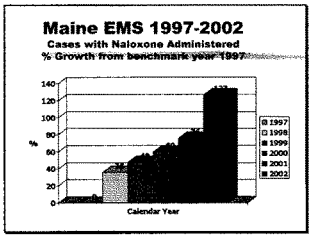
The percent rise in poisoning overdose encounters in the Maine EMS experience has been approximately double the rate of growth of all Maine EMS encounters.

Slide 5



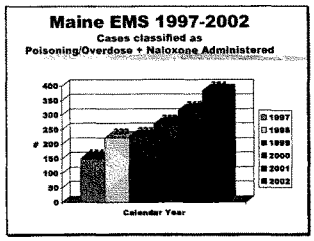
Naloxone (tradename Narcan) is a drug utilized in opiate overdose patients to reverse the effects of opiates. This drug is administered by paramedic providers in the Maine EMS system – until the year 2003 when we began a program allowing EMT-intermediate providers to administer the drug. The drug is administered intravenously in our practice.

Slide 6



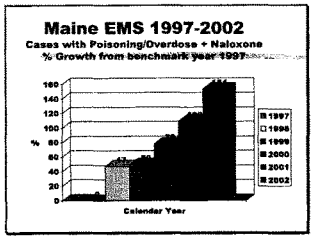
Naloxone is administered only to those patients who have suspected overdoses - with the great majority of patients suspected of opiate-related or combination-opiate overdoses. The growth of naloxone use in Maine EMS encounters has grown substantially, with a large spike in encounters during 2002.

Slide 7



There are some cases where naloxone may be administered to non-overdose patients. Therefore, I have combined the queries in the database to identify only those patients who were suspected of poisoning/overdose AND concomitantly given naloxone.

Slide 8



This slide most accurately presents the growth of life-threatening known and suspected opiate-related overdose encounters within Maine EMS during the period 1997-2002: there has been an approximately 25-50% increase per year in the EMS system since 1999.

Slide 9

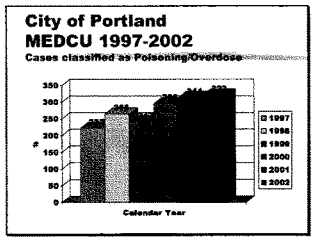
Opiate-Related Overdose Encounters in Maine EMS: 1997-2002

Conclusions

- The growth of Opiate-related Maine EMS encounters has disproportionately outpaced the growth of all Maine EMS encounters as well as Poisoning/Overdose encounters.
- There appears to be a large escalation in Opiate-related Maine EMS encounters in the period 2001-2002.

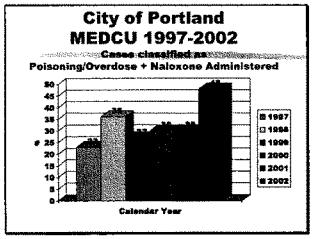
The growth of opiate related overdose encounters in Maine Emergency Medical Services has well outpaced the baseline activity in the system. **Current data suggests that a life-threatening encounter appears in the EMS system at the present rate of approximately one patient every day in the State of Maine.**

Slide 10



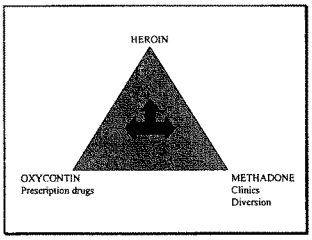
The City of Portland, Maine, similar to the State of Maine, has witnessed a steady growth in the number of medical emergency overdose patients in the last 5 years.

Slide 11



A large spike in life-threatening opiate abuse encounters occurred during the calendar year 2002. **In the City of Portland, a life-threatening overdose patient was presenting to the 911 system approximately once per week in 2002**. The activity in years prior to 2002 suggests encounters on the order of one patient every 12 days.

Slide 12



In the emergency medical system, we've observed many patients who demonstrate a close relationship between heroin, methadone, and prescription pain medications. Patients frequently are evaluated who entered the opiate-addiction world with prescription pills (e.g. Oxycontin) and then were forced to abuse of heroin or methadone due to supply problems.

Testimony of Kimberly Johnson, Director, Maine Office of Substance Abuse to the Senate Committee on Governmental Affairs Regarding Prescription Drug Abuse

Senator Collins, my name is Kimberly Johnson, and I am the Director of the Maine Office of Substance Abuse. I am pleased to present information to you today regarding the problem of prescription drug abuse in Maine and across the country.

The Office of Substance Abuse is responsible for creating an integrated approach to the problem of alcohol and drug abuse in Maine, and is the state's single administrative unit for "planning, developing, implementing, coordinating, and evaluating all prevention and treatment activities and services."

Our office became aware of growth in prescription drug abuse early in the year 2000. At about the same time law enforcement, particularly in Washington County, began noticing growth in trafficking across the Canadian border and experienced a growth in property crime due to abuse of Oxycontin.

One of the early problems Maine faced was a lack of communication between systems. If the medical community (particularly emergency rooms), law enforcement, poison control, and the treatment field had been collecting and sharing data at the time, we probably could have caught the problem at an earlier stage and addressed it more effectively. As it was, there was not a comprehensive review of the data that existed until the Substance Abuse Services Commission released its report Oxycontin: Maine's Newest Epidemic in January of 2002. This report collated local medical and law enforcement data and reviewed national data to gain a sense of the scope of the problem. The results were alarming.

In FY 1995, fewer than 100 people were admitted to substance abuse treatment in Maine for prescription narcotic abuse. In FY 2000, the last year of data available for the 2001 report, nearly 800 people were admitted for abuse of prescription narcotics. That represented 8% of the treatment population and surpassed all other categories of drug except alcohol and marijuana. That growth trend continued until this year. While all of the data for fiscal year 2003, which ended June 30, is not yet in, the growth in treatment admissions for prescription drug abuse seems to have leveled off. Unfortunately, it has been replaced by growth in admissions due to heroin abuse.

Growth in arrests for prescription drug related crimes also increased dramatically from FY 1997 to 2001. UCR reports indicated that these arrests doubled in the five year period. At that time the problem was localized to primarily Washington and Cumberland counties. Since the Oxycontin report, the problem has leveled off in those two counties, but has grown in other counties, particularly Waldo, Knox and Hancock.

Every other year, OSA performs a school survey regarding drug and alcohol use for students in 6th – 12th grade. In the 2002 administration of the survey, we asked about

abuse of prescription drugs. The results were startling. Twenty-five percent of high school seniors had abused prescription drugs at some point in their lives and 10% had done so within 30 days of administration of the survey.

In the summer of 2002, it became clear that there was a dramatic increase in drug overdose deaths in the city of Portland. The medical examiner's office began a review of five years worth of overdose death data that will be presented to you later today. At the same time, a research team from Yale University, headed by Robert Heimer, PhD, began a naturalistic study of drug users in Portland and in Washington County. While they have not yet published their data, preliminary data that the team has shared with us indicates that of the 238 opiate users interviewed in Portland, 25% used heroin the most and the remainder used prescription narcotics the most. At the time of the study, summer 2002, most of the interviewees were not yet regular injection drug users, and only half of them had ever injected. This research drew a picture for us of a young, relatively inexperienced drug using population. Maine still has very few of the hardened drug addicts that are so often portrayed. Rather, we have a population of young, new users that should be responsive to treatment if it is offered.

Interestingly, despite the attention that has been drawn to Methadone, it did not appear to be a very popular drug among interviewees in the Yale study. Twenty-five percent of the sample had used it at some point, but it was not a preferred drug for most, and was used primarily to stave off withdrawal symptoms. Of the Methadone used, half was reported to be pills obtained for the treatment of pain, and half had come from substance abuse treatment clinics. Most of the Methadone from clinics had been shared by legitimate Methadone patients rather than obtained off the street.

Because historically there has been very little opiate abuse in Maine, there has been very little Methadone treatment. In 1995, two programs opened the first Methadone treatment programs in Maine. The client population was not large enough to support two clinics at the time, and one closed. By 2001, there was a strong demand for more treatment, and the client population at the existing programs had grown dramatically. OSA funded a new program at Acadia Hospital in Bangor and a second Portland area program opened. In the span of two years, the total Methadone treatment population went from a stable population of 300 hundred people to the current 1600, and there is still unmet demand, particularly in Washington County where people are driving to Portland in order to receive their daily dose.

We believe that the recent problems with diversion and abuse of Methadone have to do with the rapid growth in the treatment population as well as the relative naiveté of the drug using population in Maine.

Drug users did not seem to be aware of the pharmaceutical qualities of Methadone and did not distinguish it from the other opiates that they were abusing. They did not understand that it was slow acting as well as long acting and that unlike most drugs of abuse that have a very short action period, Methadone reaches peak blood levels 2 – 4 hours after administration. They attempted to inject it and took repeated doses in order to

get high. We believe that many of the decedents died because while they used the drug with other people, they were alone when peak levels were reached.

Because the two Portland clinics were only opened six days a week, everyone had at least one take home dose a week. This probably increased the availability of Methadone to the non-patient drug users and was a factor in some of the overdose cases, both fatal and non-fatal. OSA chose to exceed the federal regulations and require all clinics to remain open seven days a week.

In August, we reported the concerns with Methadone abuse to the Center for Substance Abuse Treatment, one of the centers in the Substance Abuse, Mental Health Services Authority under the Department of Health and Human Services. CSAT offered technical assistance and help developing and funding public education efforts. We have found CSAT to be very responsive to state needs, and particularly helpful regarding this issue. As CSAT heard from other states that Methadone was being abused, they called together a working group of national experts and people from the various HHS offices to look at the etiology of the growth in Methadone abuse and develop a response.

The meetings, which took place this Spring brought together data from a variety of sources including the CDC, DAWN, ARCOS, TEDS and others. What is clear is that the overdose death issue is more complicated than the press reports. First of all, there has been a large increase in the use of Methadone to treat pain, while the growth of Methadone substance abuse treatment nationally has been moderate. The locales that seem to have developed Methadone abuse problems are places where Methadone is a relatively unknown drug, and there is an inexperienced drug using population, just as we have seen in Maine. In my opinion, the switch of oversight of Methadone treatment from the FDA to SAMHSA is coincidental to the growth in misuse of Methadone. Growth of misuse of Methadone has come from increased availability as it grows as a pain treatment, and out of the desperation of drug addicts that cannot obtain their drug of choice or access appropriate treatment.

Given our experience over the past three years, I would make a number of recommendations for addressing the problem of prescription drug abuse and preventing or providing early intervention to other emerging drug problems. I believe that having the ability to share data across the various systems that deal with drug abuse is critical. I still believe that if OSA had had better data sooner, we could have stopped this problem before it became epidemic. We have begun working with the state Bureau of Health to follow a NIDA created protocol for regular data sharing across systems. We will meet quarterly to share information on trends and emerging issues so that the state health care system, law enforcement, and others can develop a comprehensive plan to address problems as early as we can identify them. Nationally, the DAWN network provides a similar tool, but it is only available for urban areas. CSAT's response to the Methadone overdose issue is another good example of data sharing that could and should happen on a regular basis.

Maine finally passed a bill creating an Electronic Prescription Monitoring Program last session. While these programs remain controversial, I believe it is critical to track the prescribing of scheduled drugs in order to address the prescription drug abuse problem. All states should have these systems, and there ought to be a way to share information across states when it seems relevant. PMP programs raise significant privacy and civil rights issues and must be implemented carefully, but I know of no other way to catch "doctor shoppers" and bad doctors. Maine's program was authorized with no funding, and we are relying on a federal DOJ grant to get started.

I also think that medical providers (physicians, nurse practitioners, physician assistants, and pharmacists) must receive better training in addictions. Most providers don't even ask questions about alcohol consumption, let alone drug use. They are not adept at recognizing the signs of substance abuse and do not know what to do when they have a patient with addictive disorders. Many are very misinformed about appropriate treatment protocols. I also believe that as more primary care providers provide more treatment that was once provided by specialists (for example pain treatment and mental health treatment) the need for knowledge about dealing with addictive disorders and substance abuse becomes more critical.

Providers that treat pain should learn how to appropriately withdraw a person who has become physically dependent on prescription narcotics. Many of the people now treated in addiction clinics began as legitimate pain patients. For some, their experiences with medical practitioners led to their addiction. First of all, medical personnel rarely screen for susceptibility to addictive disorders prior to prescribing potentially addictive medications. Secondly, they often do not handle a patient's growing tolerance to a medication well, interpreting their tolerance as drug seeking or addictive behavior. Finally, medical staff need to learn how to appropriately withdraw patients from medications to which they have developed tolerance and physical dependence, which is not necessarily addiction. For many patients, their addictive behavior began when their need for pain medication was over, but their uncomfortable, even painful withdrawal from their prescribed medication led them to seek other sources of relief, which eventually led to the cycle of addiction that we all know.

Lastly, I am concerned with current marketing practices. While Purdue Pharma has been chastised for its aggressive marketing practices, I am less concerned about marketing to prescribers who should know better through training and experience, and more concerned about direct to consumer marketing. Scheduled drugs are not marketed directly to consumers, but everything else is. When I sit and watch tv with my teenage daughter, I am amazed to see the quantity of ads for prescription drugs. They all have a particular format, which is to make you believe that your mild symptoms of indigestion, PMS, or sadness may in fact be a serious disease for which prescription medication is necessary. In my opinion, these ads have created a sense of urgency about every medical symptom, and have presented the solution as taking a pill. The pills are attractive, the side effects are always described as mild, and the need as serious. The current generation of adolescents was raised watching these ads at the same time they have been watching ads about the dangers of illegal drugs. It should be no surprise to us that they perceive pharmaceuticals as a safe and effective high. This industry practice is relatively new, and only predates the growth in abuse of prescription drugs by a few years, which helps to confirm the connection in my mind. We restrict type and placement of much commercial speech, and I believe we should address this new practice by pharmaceutical companies as it has created the social climate that has made prescription drug abuse inevitable.

I'd be happy to answer any questions.

Testimony of Michael J. Chitwood
Chief of Police, Portland, Maine

At the August 6, 2003 hearing held by the Honorable Susan Collins in Bangor, Maine

Contact Information: Michael J. Chitwood, Chief
Portland Police Department
109 Middle Street
Portland, ME 04101

Thank you, Senator Collins, for allowing me the opportunity to speak with you this morning. I am here today to discuss an issue that I have seen grow to epidemic proportions over the past several years. Methadone abuse is affecting the people in my community and in every county of this state. The statistics are dire and it is imperative that steps are taken to combat this rapidly growing problem.

Over the past five years, there has been a four-fold increase in drug deaths in Maine. In the city of Portland and Cumberland County, methadone caused at least 30 deaths in 2002, according to the state medical examiner's office. The rise in deaths is due mainly to accidental overdoses.

What I find most deplorable and tragic is the lives that have been destroyed by methadone. Over the past several months, I have received numerous phone calls and letters from people who have lost loved ones due to methadone and who are desperate for help. A woman contacted

me recently and shared with me a horrific story of how she lost her twenty-one year old daughter due to a methadone overdose. Her daughter, Kelly, was seeking treatment for heroin addiction and her mother watched as her methadone doses were increased steadily by a local clinic from 40mg to 110mg to 210mg. Concerned, her mother tried to speak with someone at the clinic but she felt as though her distress fell on deaf ears. At this high dosage, her daughter became sluggish and ill; she fell asleep at the wheel of her car and was involved in several accidents. Her mother described Kelly as so constantly inebriated by methadone that she would forget when she took her last dosage, until she took too much… and died. Kelly left behind a baby boy.

I have heard multiple tragic stories like this one and I feel helpless because we have two local for-profit methadone clinics dispensing this drug *without, in my opinion, adequate oversight.* The very nature of a for-profit clinics creates incentives to keep people on methadone or stretch out the amount of time they are taking it or being weaned from it. Furthermore, the clinics are sending people home with methadone with minimal counseling and education. Even someone with a criminal history can be allowed take-home methadone. Granted, not all methadone users have a criminal history but any social deviant with a

history of breaking laws and using illicit drugs should not be entrusted to handle a powerful drug responsibly. This is not to say that criminals who are addicted do not deserve treatment—they absolutely do! However, this treatment should be administered at the clinic, under close supervision. The result of this current "drive-through-window" approach to methadone is that the drug is being diverted, misused, and causing people to die at alarming rates.

Based on my experience, there is no doubt in my mind that state and federal regulations pertaining to the dispensation of methadone must be strengthened. The federal guidelines, which were designed to make methadone treatment more accessible (e.g. take home doses), have created a crisis. People are taking their methadone home but in too many cases, they are selling it or letting their friends take it. As you know, methadone does not create a "high" like other drugs. The result is that you have people mixing alcohol and other drugs at a party and somebody gives them some methadone. Thinking that they are going to get a high as in with other drugs, they take it and end up either dead or unconscious.

Currently, the state Office of Substance Abuse is not doing enough to monitor, evaluate, or intervene on this deadly trend. In fact, they may have *contributed* to the problem by spending $24,000 on radio ads

promoting methadone use. These funds could have been put to better use through education, rehabilitation, and enforcement.

Another way that methadone is being abused is through prescription drug diversion. The methadone being abused appears to be tablets prescribed for pain. These are sold or sometimes given to addicts by people who have stolen them from patients or, in some cases, by the patients themselves. Addicts either swallow the tablets or grind them into powder that can be inhaled or turned into liquid and injected. Even though this is a lesser problem in Maine, it is something that we need to be watching carefully. I am hopeful that the prescription drug monitoring bill that was passed during the last legislative session will be a useful tool for getting healthcare providers informed and educated regarding patients with drug seeking behaviors.

While policy changes are imperative, they should be part of a comprehensive, coordinated approach. As you know, drug abuse is a complicated problem, which will require a multifaceted solution involving collaboration among diverse professions.

A comprehensive approach should include several components: law enforcement (control), public/professional education (prevention), and treatment services. These components can be strengthened by policy

changes and *must* be implemented in a systematic, coordinated manner—throughout the state of Maine.

First, resources *must* be available to ensure effective law enforcement. Drug enforcement agents enforce state and federal drug laws and conduct comprehensive investigations into the illegal use of methadone, methadone diversion, and other related crimes. The Maine Drug Enforcement Agency (MDEA) should have increased resources—both human and financial—to carry out its mission.

Second, education is essential to primary and secondary prevention initiatives. Just as we have campaigns to educate people about the dangers of smoking, we need programs to teach people about the risks they are taking when they *abuse* methadone. Healthcare professionals must also receive education on this public health crisis so that they may become part of the solution.

Third, comprehensive substance abuse treatment services, which offer wide-ranging programs based on best practices, must be highly accessible to those who need them. These services include medical treatment, cognitive behavioral therapy, and other types of rehabilitation and recovery services. Treatment services should be integrated into all

comprehensive healthcare delivery systems and need to be responsive to the community.

Currently there are deficiencies in each of the aforementioned areas. While the drug abuse problem is continuing to grow in Maine, the number of drug enforcement officials is shrinking as part of a trend over the past decade. Budgetary restrictions have forced the MDEA from 76 agents in 1992 (with an approximate $2 million budget) to just 34 today ($1 million budget). We cannot expect to see positive changes in the drug abuse problem in Maine if MDEA resources continue to dissipate. Moreover, there is no statewide, coordinated approach to education. State officials need to work with multiple communities (e.g. medical, public health, education, law enforcement, etc.) to get the word out. Also, treatment services need to be integrated and the treatment community must collaborate with other stakeholders to ensure a sustainable solution and a reversal in the current trend.

Senator Collins, I implore you to use the information you have learned about this issue to craft legislation that will help to solve this problem. Thank you for this opportunity to address this panel.

Lt. Michael Riggs
Washington County Sheriff's Department

Testimony for Senate Committee on Governmental Affairs Hearing
August 6, 2003

Washington County, Maine, is known as one of the first places in the country where OxyContin abuse exploded. A few years ago, you started seeing national news stories about "hillbilly heroin" taking over rural areas and we were always in them. The impression was that one brand-name drug moved into these small towns and did all this damage. I'd like to begin by telling you what really happened.

About ten years ago we started finding stray pills in cars during traffic stops and in searches of coat and pants pockets. They were Percocet or Darvocet or other pills that contain a narcotic plus Tylenol or aspirin. These are what would be called a "little one" today.

We'd ask, what's this? They'd say something like, I had a migraine today and my mother gave me two and I only took one or I had a tooth ache and my brother gave me one that his dentist gave him when he had a tooth ache. Certainly a violation of law, but a pretty cheap pinch, so they were let go.

As time went on, we would send informants into places to buy marijuana or cocaine and they'd come out and say the guy was out, all he had was some kind of pill he wanted to sell. These "little ones" became more and more the norm until my partner and I couldn't remember the last time we had purchased marijuana.

Initially, we thought that was good. We soon found out the opposite.
The reason why there was so little marijuana around was because marijuana wouldn't do an opiate addict any good. It would be like giving an aspirin to a person with a broken leg.

This realization changed the way we investigated drug crimes. Opiate addicts were a whole new world. First we had to educate ourselves about the pills and the addicts. The more we lived with the addicts, the more we came to understand how powerful the addiction to an opiate really is. We had to understand as much as we could without using these drugs ourselves. We needed to learn the new terminology, like why a mixture of cocaine and an opiate they'd shoot up was called a "Bell Ringer." Or why they called Canadian Dilaudid "Shake-n-Bake" and why they preferred it to the American variety. The reason is that it is more water soluble. All you have to do is put the pill in the syringe, suck some water into it, shake it and your good to go.

We had to understand that nobody was immune to this. The school teacher was an addict and selling to the students. The waitress was addicted as well as the business

owner. Carpenters, store clerks, fishermen, government employees -- it seemed everywhere you looked there was someone you'd never expect, addicted.

Then we had to make believers out of doctors, lawyers, prosecutors, judges, social workers, employers, parents, and everyone in every walk of life. For a long time, higher-ups in law-enforcement would look at all the pills we were getting and ask why we couldn't buy any real dope. Finally, people have started to realize that this is real dope. It is the worst thing we have ever encountered.

Informants were coming to us saying the things they were seeing were making them sick and angry. One told us of a house he had just left where there was an infant in a car seat on the living room floor, the two women in the house were on the couch covered with a blanket and the two guys that live there had gone after more pills. The house was cold because there wasn't any fuel for the furnace. The baby's runny nose had dried on its face. They couldn't wash it because the water was frozen.

Other addicts would tell us, I hate the stuff, I wish I'd never heard of it and I hope you get it all but I can't help you. Because they might need a pill tomorrow. Another told us that the only time he'd ever thought of committing suicide was the last time he was "Jonesing" - suffering because he couldn't feed his addiction -- and if he'd had a gun he would've shot himself. One old dope smoker told us the kids aren't fooling around with marijuana anymore -- they're going right to the pills. He knew of instances of kids holding other kids down at parties and shooting them up because it was fun.

One of our informants is dead now. His wife was driving too fast to get a pill. She is in prison now on unrelated charges. Their kids are being raised by the Grandparents and his house is being rented to college students. These are just a few examples of the damage this has done.

Now for the economics of the whole thing. Initially, OxyContin sold on the street for $1 per milligram. An addict could easily use 80 milligrams per day just to keep from getting sick, never mind getting high. That would take more.

How do you get a minimum of $80 a day to support your habit? You lie to everyone you know. You steal everything you can. You max out all of the credit cards that come in the mail plus the ones you can get off of someone you know. You don't pay any of your bills. You cancel the insurance on your car right after you register it so you can get the refund. You can get the clerk at the store to knowingly accept a bad check if you promise to give them some of the money. You sell your body. You sell your child's clean urine to addicts being tested.

After you've gotten some money, you can fake an injury or illness and doctor shop until you get a prescription. Then you can tell your friends that if they go to this certain doctor and tell him that you have these certain symptoms, he'll give them a script.

Maybe the friends will give you a pill or two in return. Or you can buy a few pills from the pharmacy tech who's smuggling pills out by tucking them in his socks. You might pay the doctor's secretary to steal a script pad for you.

You can read the obituaries. When the family is at the funeral you can break in and steal the deceased's leftover medications. If you're really starting to get sick, you can wait until your neighbor who has cancer goes to the store. Then you can break into his house.

Opiate addicts often have bad teeth. This is a blessing in disguise because if none of the above work, the emergency room doctor will give you a script until you get them fixed, which you have no intention of doing because you can do it again at a different hospital.

There are as many of these small-scale scams as there are addicts, but they don't account for the huge amount of pills on our streets. Every place in the country that has this problem has a larger source. In eastern Maine, ours is Canada.

Our addicts often go to Canada for pills. They go for two reasons: U.S. money is worth more than Canadian; prescription drugs are cheaper there. Plus, if they go get it themselves, they avoid the $5 per-pill delivery fee the dealers charge. Diverted pills are plentiful in Canada largely due to an organized group of doctor shoppers as well as some diversion from a repackaging facility located in New Brunswick.

Crossing the border by land poses a higher risk of getting caught even though they've put the pills in the baby's diaper or hidden them inside themselves, what we call body packing. The water is much less risky. They can be delivered by boat, Jet Ski, ferry, or by just walking across the St. Croix River in some places. One dealer takes his fishing boat near the Canadian shore and runs a remote controlled toy boat to shore. His connection puts the pills in the boat. The fishing boat has never landed in Canada and the remote control boat is too small to see from surveillance distance.

You can cut the price of your addiction in half if you switch from OxyContin to Dilaudid. As I said, Canadian Dilaudid is very much preferred. The only draw back with Dilaudid, American or Canadian, is that you have to shoot it up -- snorting it is a waste. An interesting question to ask an addict is, Who shot you up for the first time? Nobody did it themselves the first time, someone had to show them how to load the syringe, strap off, find blood, and shoot it. They all remember who the friend was.

Dilaudid addicts can cut the price of their addiction in half again by switching to heroin. Heroin is not preferred and is still feared by a lot of addicts. The reasoning is that you never know what you're going to get but an Oxy is always the same and a Dilaudid is always the same as well as the little ones. Addicts might prefer drugs that are legally manufactured and monitored for quality, and deemed safe, but they will turn to heroin if that's all that available or it's all they can afford. People who never in their lives thought they'd be shooting up heroin will stick that needle in their vein if it's all they've got.

The quantity coming across the border is a guess. One addict told me about a Canadian dealer who made $135,000 in two months. Another told me he would take $5,000 to Canada, bring back the pills and in two days he would be out of pills and have a $6,000 profit. That's just two examples. There are many more.

My Canadian law-enforcement counterparts are aware of the problem and are willing to assist any way they can and I appreciate their help. I believe their primary focus at the moment is cocaine. Security at the border works both ways. Its intent is to keep unwanted things out of each country but in doing so it also makes my ability to conduct surveillance on an American going to a Canadian drug dealer's house and back impossible.

Prosecution at the state level is the usual avenue a criminal case takes. Our felony drug case prosecutor is shared with four other counties. Prosecution and forfeitures at the federal level are often rejected because of thresholds individual federal prosecutors set on the amount of drugs involved that raise and lower without notice - the prosecutor might set a threshold of 500 pills to bring charges, even though our cases most often involve 50. Federal prosecutors won't pursue forfeitures of $350 or $500 in cash or a $1,000 car - too small for them. To us, that would be a big help in offsetting the cost of drug enforcement. A lot of times forfeitures can be made part of a plea agreement to eliminate usual costs. When we don't get the forfeitures the money is given back to the dealers.

Federal agencies are too often looked at as inaccessible. The division between State government and Federal government is too great. Different agencies aren't in tune with the difficulties the cop down the road is dealing with. A need for teamwork is at an all time high.

Testimony of Jason Pease
Detective Sergeant – Criminal Investigations Division
Lincoln County Sheriff's Office

August 4, 2003

United States Senate
Committee on Governmental Affairs
Washington, DC 20510-6250

Senator Collins and Committee Members,

I would like to thank you for the opportunity to speak for a few moments on the drug problem in the Mid-coast area.

My main focus of concern is Lincoln County but as you all know and have heard today the drug problem in Maine is not limited to one area.

Lincoln County has seen an increase of epidemic proportion in heroin and opiate based prescription drugs over the past 5 years. The drug problem surrounding prescription drugs has far surpassed all other drugs.

Over the past five years we in Lincoln County and throughout the State of Maine have seen an increase in crimes such as burglaries, robberies, thefts, overdoses and even deaths because of the drug problem.

Since being assigned to the Criminal Investigations Division of the Lincoln County Sheriff's Office in 1999, I have handled numerous investigations into thefts of prescription pads from doctors' offices, altering of prescriptions, forging prescriptions, and have even dealt with subjects that had been manufacturing fraudulent prescriptions on their computers.

At first we found that the majority of the prescription drug users/abusers started using the prescriptions because of illnesses, pain, or to "ween" them from heroin. But now it has been found that many of the users/abusers are on prescriptions because of their ability to obtain the pills easier by going to the doctor.

Currently we are seeing Oxycontin, Hydrocodone, Fetynal patches, Zanex, Methadone, Loratab, etc. These prescription drugs are all opiate derivatives which seems to be the "hook" for the persons using / abusing.

Oxycontin has by far been the worst prescription abused in the Mid-coast area over the past few years but any prescription that contains opium or synthetic opium is the drug of choice.

We have experienced numerous incidents where subjects from outside Lincoln County were traveling to doctors in our area in order to get multiple prescriptions from different doctors.

The subjects would travel to doctors in small towns like Waldoboro and visit a family medical office. The subjects are from areas like Brunswick, which is a town that has 2 major hospitals and hundreds of doctors. This "doctor shopping" has occurred in many towns throughout Maine and is not limited to just rural areas being hit.

Subjects have even been using doctors through the VA program to accomplish their goals of obtaining numerous prescriptions to use and sell.

In similar acts subjects when making, forging prescriptions, or filling "doctor shopping" prescriptions are traveling to smaller local pharmacies. The reason for filling the prescriptions in the smaller pharmacies is they do not have the tracking systems like a Hannafords or Rite -Aid does.

Another problem we have noticed is that of the younger crowd going into their parents', grandparents' or other family members' prescriptions and using or selling pills. Most of the time the prescriptions are pain killers (narcotics) but from time to time they end up taking pills which they have no idea what they are or what they will do.

We as Law Enforcement in Maine and all over the United States are dealing with this dilemma of prescription drug abuse. If there was some method or way to link all doctors and pharmacies to one system of tracking prescription drugs to clients it may assist in the fight against drug abuse. There are such systems in place for tracking motor vehicles so I feel we can come up with a system for the prescription drug problem.

Again, I would like to thank you for your time and I am willing to field any questions you may have.

Jason Pease
Detective Sergeant - Criminal Investigations Division
Lincoln County Sheriff's Office.

Written Testimony for the US Senate Governmental Affairs Committee Hearing in Bangor, Maine on August 6, 2003

Richard C. Dimond, M.D.

Members of the Committee on Governmental Affairs, thank you for the opportunity to testify on the increasing abuse of prescription drugs in Hancock County, Maine. Alcohol and drug abuse, including opiate drugs and drug-related crimes, are not new to Southwest Harbor, Mount Desert Island(MDI), or Hancock County, but these problems have escalated exponentially over the last four or five years. By 1999 and 2000, many of us were becoming educated by the US Attorney in Bangor about the sudden increase in overdose deaths in Penobscot and Washington Counties due to a "new" heroin and prescription narcotics. The "new" heroin, we learned, was much purer, more potent, and relatively inexpensive; therefore, it was affordable, readily available, much more dangerous, and could be "snorted" instead of being injected intravenously. In addition, we learned about Oxycontin and other prescription narcotics being used as a supplement or substitute for heroin; they too could be "snorted" and had given rise to an "industry" characterized by drug-related burglaries, "stealing and dealing", and "doctor shopping" to obtain prescriptions which were marketable by themselves. Particularly alarming were reports of overdose deaths occurring in individuals in their mid-20's, and addiction to both heroin and prescription narcotics being recognized in teenagers.

About that time, several Southwest Harbor businesses, including our pharmacy and one of our two medical clinics, experienced break-ins and attempted or successful burglaries that fit the picture of drug-related crimes. Similar occurrences in Bar Harbor and increasing concern about our adolescent population led to the formation of an MDI Task Force Education Committee in the Fall of 2000 followed by two Public Forums about heroin and narcotic abuse in our area. Unfortunately, by the Fall of 2001, it was clear that initial enthusiasm for the formation of a Task Force Against Drug Abuse on MDI had been short-lived.

Over the next year and a half, numerous arrests for possession of illicit drugs and or drug trafficking were made, and the local press provided many reports of escalating drug abuse state-wide and in our area. Most alarming, however, was the increased frequency with which members of the community found drug paraphernalia such as syringes and needles behind buildings, near "dumpsters", in the street, and on their private property. Despite reporting such occurrences and other "suspicious activities" to our local police, citizens became increasingly frustrated because they saw little change and the situation seemed to be getting worse. Thus, explanations that a five man police force is not equipped to do surveillance or drug-related investigative work, and that the State only had three Drug Enforcement Agents covering the four counties in our area were of little comfort. Finally, a Southwest Harbor boat-builder and fisherman stood up at the Board of Selectman's meeting on May 7, 2003 holding a zip-lock plastic bag containing several syringes and needles found recently on his property, and demanded that something must be done to stop this from happening.

On May 29 -- three weeks later -- 225 residents of MDI and neighboring communities gathered at a Public Forum in Southwest Harbor with a panel of eight experts representing different professional disciplines to discuss drug abuse and drug trafficking in that community. Emphasizing that there is no simple solution to these difficult problems, all panel members underscored the reality that only a multi-disciplinary approach including effective education, treatment, law enforcement, and prevention strategies is likely to make a significant difference. Nevertheless, residents were most outspoken about the immediate need for increased support from law enforcement. Consequently, the audience became increasingly frustrated with State law enforcement officials who repeatedly explained that there were insufficient funds

and manpower to assign a Maine Drug Enforcement Agency (MDEA) agent to Hancock County in the foreseeable future.

Subsequently, multiple discussions were held between local Police Departments in Hancock County, the Sheriff, the District Attorney, the Director of MDEA, and the County Commissioners. As a result, the Sheriff proposed formation of a county-wide Drug Enforcement Team -- the only one of its kind in the State -- modeled after MDEA's Resident Agent Program. The team would be made up of three officers from local police departments who would be trained by MDEA and assigned permanently as MDEA agents in Hancock County with authority to enforce anti-drug laws state-wide.

On July 22, the County Commissioners held a Public Hearing in Ellsworth to discuss this proposal in detail. As outlined by the Sheriff, the proposal creates a real partnership between Hancock County and MDEA - between the county's citizens and the State -- at a time when state and federal governments have flat-funded MDEA in spite of escalating drug problems in Maine and other rural states. The cost for this program is about $200,000 to hire three new police officers to replace the individuals assigned to the County Drug Enforcement Team. Although this means a further increase in county taxes which have spiraled upward relentlessly in recent years, the proposal appeared to be supported by most of the individuals attending the hearing as well as by more than 200 residents of MDI and the Cranberry Isles.

This proposal to strengthen investigative law enforcement in our geographic area should be viewed as the first step in what we hope will be a powerful community response that effectively interrupts the flow of drugs through Southwest Harbor, Mount Desert Island, and neighboring communities in Hancock, Penobscot, and Washington Counties. However, as pointed out repeatedly at the Public Forum in Southwest Harbor and the Public Hearing in Ellsworth, multiple other initiatives are needed as well, particularly in the areas of education, treatment, and prevention. For example, attitudes and behavior that tolerate and/or promote alcohol and drug abuse are deeply ingrained in our local culture and must be acknowledged before they can be changed. Both of these occurrences require effective community education. All of our schools need effective educational programs from sixth through twelfth grades concerning alcohol and drug abuse, including specific information about prescription drugs. Similarly, the local business community needs to be educated about the positive impact employee assistance programs can have on their work-force.

As is true of many rural states, Maine's resources for treatment of alcohol and opiate abuse are woefully inadequate. Currently, Hancock County has only one intensive out-patient treatment program for alcohol and drug abuse among adolescents and adults, no emergency in-patient resources for opiate detoxification in either adolescents or adults, and no residential in-patient treatment facility for opiate addiction in either adolescents or adults. Maine initiated its Adult Drug Treatment Court Program in 2001 in six jurisdictions state-wide, including neighboring Penobscot and Washington Counties but not Hancock County. Nevertheless, we are hopeful that an Adult Drug Treatment Court will be established in Hancock County in the near future. Finally, although long-term residential therapeutic communities similar in scope to the Day Top Program in Rhinebeck, N.Y. have also proven to be efficacious in the treatment of alcohol and opiate addiction, no such program exists in Maine or Northern New England. It should be noted, however, that the Maine Lighthouse Corporation in Bar Harbor is actively seeking to establish a treatment facility in Maine modeled after the Day Top Program.

Perhaps even more important in the long-run than the above-noted treatment programs will be the development of effective strategies focused on prevention. One such program is The Edge which is a combined educational and recreational program for children in Washington County during and after school hours that is operated by the Maine Sea Coast Mission in Bar Harbor. Other efforts are being initiated on MDI through a coalition sharing an Office of Substance Abuse Prevention Grant. MDI Communities for Children is one of the partners and it recognizes that "...young people need safe places with structured

activities during non-school hours", that such places can protect them "...from violence and other dangerous or negative influences," and that young people need health education throughout their Middle School and High School years that focuses on risky behaviors. Behaviors to be discussed repeatedly include violence and use of tobacco, alcohol, illicit drugs, and prescription drugs.

The purpose of such prevention strategies is to protect our children while they are growing up so that "...they will be safe, healthy, respected, and ready to succeed in school and beyond." Congress certainly has the power to protect, for Article I of the Constitution states that "Congress shall have power to ... provide for the common Defense and general Welfare of the United States." As you know, Maine has experienced an almost five-fold increase in opiate overdose deaths in the last five years -- from 34 in 1997 to 166 in 2002 -- and most of these deaths were caused by prescription narcotics, especially in combination with anti-depressants and alcohol. Four of these deaths occurred in 15-17 year-olds, and 19 of these deaths occurred in 18-21 year-olds. Furthermore, 10 of the 256 overdose deaths occurring in the last two years involved residents of Hancock County, and one of the latter lived in Southwest Harbor. Tragically, a young Bar Harbor man died there in May because of acute cocaine intoxication. Similarly, a 20 year old Bangor man who was arrested in Ellsworth on June 21 for unlawful drug possession and aggravated drug trafficking lapsed into coma within a few hours, and died two days later at the Eastern Maine Medical Center in Bangor also because of acute cocaine intoxication. Between July 10 and July 17, five burglaries occurred in Southwest Harbor fitting the picture of drug-related crimes, and a Swans Island couple was robbed, bound, and threatened by an individual who took $40 and a container of prescription drugs. Lastly, a Southwest Harbor couple was arrested on July 18 for heroin possession.

Clearly, drug-related morbidity and mortality -- previously thought to be problems encountered only in urban areas -- have engulfed the rural state of Maine as well, including its Downeast coast and Hancock County. In view of the above, the following recommendations seem appropriate: (1) Federal funding of programs that support education, treatment, law enforcement, and prevention efforts to combat alcohol abuse, illicit opiate abuse, and prescription drug abuse must be increased; (2) Federal funding should also be provided to support a pilot study of Maine's recently enacted Prescription Drug Monitoring Bill(LD945) that was signed into law last month; (3) If shown to be efficacious in Maine, Federal legislation creating a national prescription drug monitoring system should be considered; (4) In addition, Federal legislation promoting the sharing of an international prescription drug monitoring system between Canada and the United States should be considered as well.

Respectfully submitted,
Richard C. Dimond, M.D.
31 July 3003

Respectfully submitted,
Richard C. Dimond, M.D.
31 July 3003

"We Have Lost Forever the Promise and Companionship of a Beautiful Son"

(An open letter to the Hancock County commissioners regarding the problem of drug addiction in Hancock County, ME, published in the Ellsworth American 7/24/03, and with permission of the signators, this letter also will be read as testimony before the US Senate Governmental Affairs Committee Hearing in Bangor, ME by Dr. Richard C. Dimond on August 6, 2003)

Dear Sirs and Madam:

It was our intention to speak at the public meeting on July 22, 2003, but we honestly know that our feelings are still too close to the surface to allow us to speak coherently in public. Knowing that silence and inactivity are the enemies of the constructive change needed to overcome the drug abuse problem in Hancock County, we therefore, ask your indulgence and convey our sentiments in this letter.

On May 13, 2003, our precious younger son, Cooper, died of accidental opiate poisoning at our home in Hancock. He had been struggling with recovery, seemingly successfully. Using a caring outpatient program (Open Door Recovery), supportive self-help groups (Narcotics and Alcoholics Anonymous) and the loving sustenance of family and friends, he was making his way to his goal of health and sobriety, and by all accounts, doing well.

The nature of drug addiction is insidious and permanent in ways that only those affected can fully understand. We are living the ultimate painful reality behind the horrible problem of drug abuse in Hancock County. We have learned that drug abuse permeates our area in a shadow world that is much more far reaching than we had ever suspected.

We have learned that drug addiction affects, directly and indirectly, the acquaintance in the local grocery store, the teenager at the local fast food restaurant and the delivery truck driver on Route 1, in other words, all of us. Amidst the shock, grief and loss, we have been searching for answers to a complex situation with which we, as a society, must cope.

Youth, with its supposed invulnerability to any harm, is a time when many of us take risks. The potential damage from illegal drug use is exponentially greater than even a few years ago. The pervasive acceptance of self-medication and substance abuse in our (especially "youth"-oriented) popular culture and the ready availability of immediately addictive, powerful drugs combine to create the on-going tragic epidemic of drug abuse in Eastern Maine. We do not discount the element of an initial choice to illicitly use a drug nor do we discredit the model of addiction as a disease. We do know that given the purity and strength of the drugs, available in nearly every mall parking lot and in many school restrooms, and the immaturity of children who are using them, the first choice is often the only choice.

We do not claim to be experts in the field of drug abuse. We are parents who have lost forever the promise and companionship of a beautiful son. We have talked to many young people who battle daily with drug addiction and the parents who, daily, support their recovery and mourn their losses. Our experience is personal and our words, as you can see, are heartfelt.

We have seen that there are dangers that we, as a society, already protect our children and ourselves against. They include inexperienced drivers, impure water and air and improper electrical wiring, to name only a few. We urge you, in your capacity as Hancock County commissioners, to protect our children and the future of Hancock County from the pervasive, merciless problem of drug abuse by curtailing the easy availability of illicit drugs through increased law enforcement, as well as greater support for more intensive drug rehabilitation programs.

We have learned that, as they become enmeshed in the drug culture, some drug abusers can become drug dealers in an effort to support their habits. A combined effort between law enforcement agencies and drug rehabilitation professionals would go a long
way towards lessening illegal drug accessibility, demand for illegal drugs, and acceptance of drug abuse as a part of growing up.

The death of our cherished son has devastated our family. We live each day and each hour with our loss. The problem of drug abuse has the potential to ravage the present and
the future of Eastern Maine. Make no mistake: Without aggressive and courageous measures, there will be more addicts and other deaths, and other mourning friends and families, as well as other massive costs to our society and to resources battling the problem of drug abuse. Our son's death is an indescribable tragedy. We do not exaggerate when we state that drug abuse is a tragedy that threatens to overwhelm Eastern Maine.

Yours truly,
Dennis J. and Linda E. King
Hancock

(Respectfully submitted, Richard C. Dimond, M.D., 31 July 2003)

Barbara Royal

Administrative Director

Open Door Recovery Center

P.O. Box 958

Ellsworth, Me. 04605

207-667-3210

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"Legal Drugs, Illegal Purposes: the Escalating Abuse of Prescription Medications"

Introduction

Open Door Recovery Center has been operating in Ellsworth, Me. for the past 20 years as an Outpatient Substance Abuse Treatment Center, serving Hancock, Washington, and Penobscot Counties. Open Door treats adults, adolescents, and families. We provide prevention education in five school systems in Hancock County and part of Washington County. We have a contract with Maine Coast Memorial Hospital for detox services, both in and outpatient. We never turn away those who have no means to pay. Up until the past several months, alcohol and some poly drug abuse were the primary drugs of our clients. We have experienced a steady increase in the abuse of prescription drugs leading to heroin addiction and a higher level of poly drug abuse, in particular over the past 18 months. During the past 6 to 8 weeks there has been an even greater increase of "walk-ins" needing immediate attention for opiate withdrawal. The age group that seems to be the hardest hit are 18 to 25 year olds. Part of the cause for this may be the age of onset of use, being mid to late teens. Now at age 21-22 young people are crashing, running out of money, and becoming homeless. They come to us desperate, frightened, and angry. The available resources for serving their needs are so limited as to make it near impossible to arrange the treatment they truly need. When you look into the eyes of one of these young people, seeing the depth of their desperation, knowing you will not be able to place them safely where they need to be now, in order to save them from themselves and their dealers, then multiply this by several each day, you can begin to get a glimpse of the magnitude of the problem. Because most hospitals are not equipped to handle inpatient detox for most of these individuals, we have no choice but to try outpatient detox for most of them. We have had little to no success. Unless they are able to begin the process in a safe, inpatient environment where staff are trained to work with addicts, the addict usually ends up back at the dealers within a short period of time.

Problems with drugs:

1. Prescription drugs needed for legitimate pain management have been over prescribed and mismanaged by some over the past 2-3 years, with a particular concentration in Washington County. This has permeated surrounding counties over a period of several months.

2. As tolerance builds the need for stronger, easier to access, and cheaper drugs are needed. This is where the graduation to heroin begins.

3. Heroin is gradually becoming the drug of choice regardless availability of other opiates, especially in that younger age group.

4. Alcohol, pot, benzodiazapines, cocaine, club drugs continue to be serious problems. Often individuals combine several of these during use. This can and does lead to overdose.

Problems with services:

1. There are no where near enough detox facilities. This is a set up for the addict to fail, be a danger to others, commit suicide, or accidental death.

2. Outpatient treatment will not work for many addicts who meet the criteria for inpatient treatment. We have little to no chance of finding a placement. Waiting lists vary 3 to 6 months.

3. There are not enough physicians and nurses trained to provide inpatient detox.

4. Hospitals are not set up with the necessary space to treat addicts. Addicts who are in withdrawal should not, as a rule, be placed with med/surg. patients.

5. Every county should have a drug court. Treatment needs to be mandated as an alternative to jail when appropriate.

6. There is a serious shortage of Substance Abuse Counselors in the State. (For Open Door, it is difficult to compete with higher salaries and benefits being offered in other areas).

Problems with expenses:

1. It is more expensive to a community and the state, to incarcerate, make repeat visits to Emergency Rooms, have school drop outs, and homeless individuals, than it is to detox and treat them for substance abuse.

2. Probation officers are overwhelmed with caseloads full of individuals who truly need treatment.

3. Jails and prisons are full of individuals who will eventually be free, untreated for substance abuse, and repeat the same patterns again and again.

4. The less treatment the more crime the more material and financial loss to the community members.

5. Insurance companies make it a great challenge to arrange for the services that do exist.

6. The greatest expense of all is both loss of quality of life for individuals and families, and/or loss of life itself.

Problems with schools:

1. Every school system needs a full time substance abuse counselor. Students suffering from addiction are at risk as are the classmates attending school with them. For every addict there are at least 10 individuals directly affected by their disease and 25 more affected indirectly.

2. We are living in an age where every administrator, teacher and school board member should have education in regards to the disease of addiction and the impact it has.

Problems with health issues:

1. HIV & AIDS

2. Hepatitis C

3. Pancreatitis

4. Heart

5. Cirrhosis

6. Poor Nutrition

7. Sexually Transmitted Diseases

8. General Health Issues

How our clients present in general with drugs of choice:

Adults

1. Alcohol

2. Pot

3. Opiates

4. Benzodiazapines

5. Club drugs, ecstasy, LSD, cocaine

Adolescents

1. Opiates (both synthetic and heroin)

2. Alcohol

3. Pot

4. Benzodiazines

5. Club drugs, ecstasy, LSD, cocaine

Population abusing substances:

Every walk of life! No one is immune to addiction regardless their history, financial status, abilities academically, standing in the work force, etc. We have watched honor students, student council leaders, top athletes, and students coming from stable homes, sometimes slowly and sometimes quickly lose everything. Family relationships, and short and long term goals fall apart. We also see adolescents coming from homes where parents are also addicted and actively using, homeless, dropouts, sexual abuse victims, physical/emotional abuse victims, eating disorders, generally feeling hopeless and alone.

Without alternatives addicts continue to gravitate toward other addicts. Targeted houses and neighborhoods become hangouts for those who are lost and desperate. Sick people are trying to help sick people, primarily by helping them to stay high.

Solutions:

1. There needs to be a multifaceted approach. A. Prevention B. Detox/Treatment C. Law Enforcement

2. The Ideal: A. Substance Abuse Counselor for every school system including education, counseling, referrals. B. Sufficient facilities that provide a detox program that transitions into the treatment phase of recovery by direct admit. (In other words, no time on the street between detox and treatment), including sufficiently trained physicians, nurses, substance abuse counselors. C. Sufficient law enforcement to control trafficking. D. Drug Courts including sufficient providers for clients who enter that program.

Summary

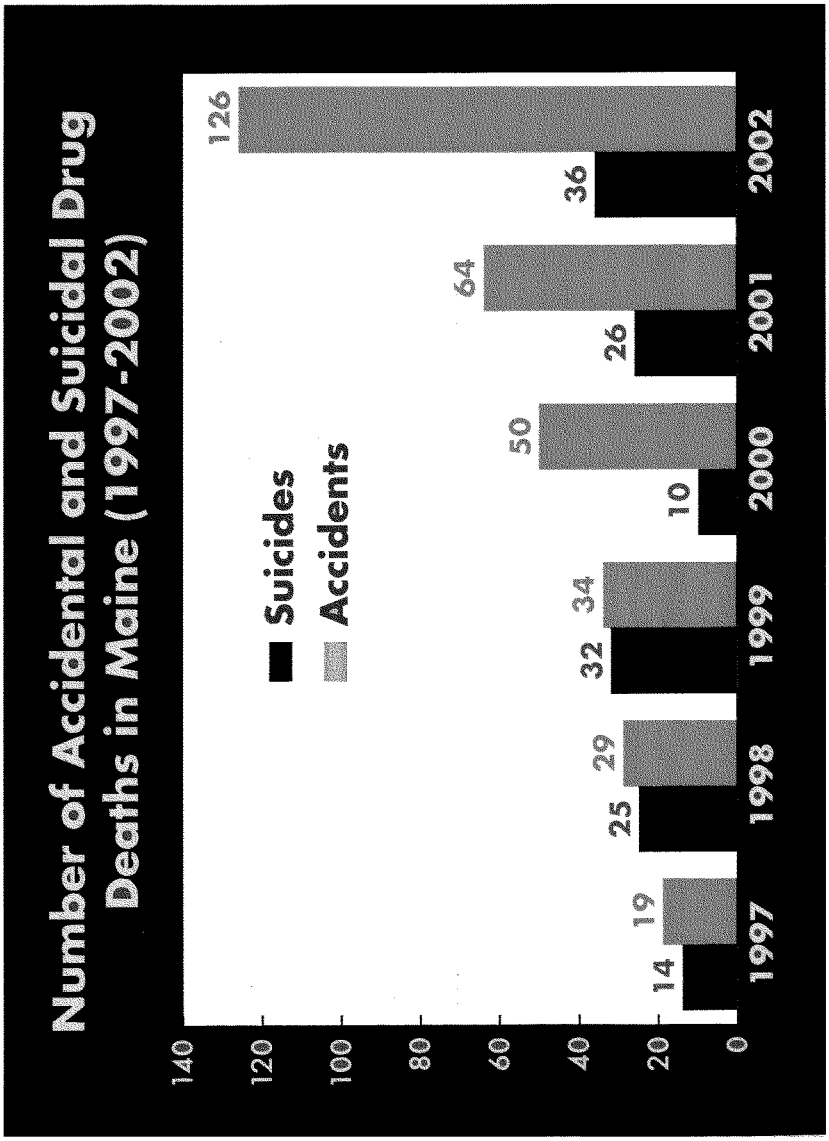
I see this as a "Tidal Wave". We are all on the shore together. We have been hit by waves that are gradually growing in size. However, the big one has not hit yet. It is coming and when it does we will be crushed. I spent my morning today in the ER with a 20 year old heroin addict. He spent the night in withdrawal there in the ER with nurses. I was called in at 7:00 AM. When I left my home to drive to the hospital I prayed for a miracle knowing that I may not be able to find a bed for

him. We got our miracle today. I was able to find a bed, and much quicker than usual. If I had not he would have returned to the street as he is living in a tent in the woods. His comment to me was... people don't get it, what will happen when all the old people die and the young people are out there addicted like me... He was one of two 20 year old heroin addicts I needed to refer today. One being born to parents who used heroin throughout the time his mother was pregnant with him, he is now homeless with no family support; the other coming from a stable, loving home with a lot of family support. This disease has no favorites. It wants to own all.

Note: This past Sept.'02 ODRC and the City of Ellsworth wrote a grant for Targeted Expansion Substance Abuse Services. Several weeks ago Senator Collin's office was kind enough to research the status of those moneys for that Federal Grant. We scored very high, however the moneys were cut by 17.9 million. Therefore we were not chosen. This grant would have allowed Open Door to hire 3 full time substance abuse counselors for the schools in Hancock County and a part of Washington County, a full time Family Counselor, another full time Substance Abuse Counselor, a van for transporting clients to treatment and AA/NA, and a system for assessing needs and tracking results for every high school student in two to five high schools. Senator Collin's office encouraged us to reapply should this grant "open" again. Thank you for your help.

Barbara Royal, Director

8-2-03



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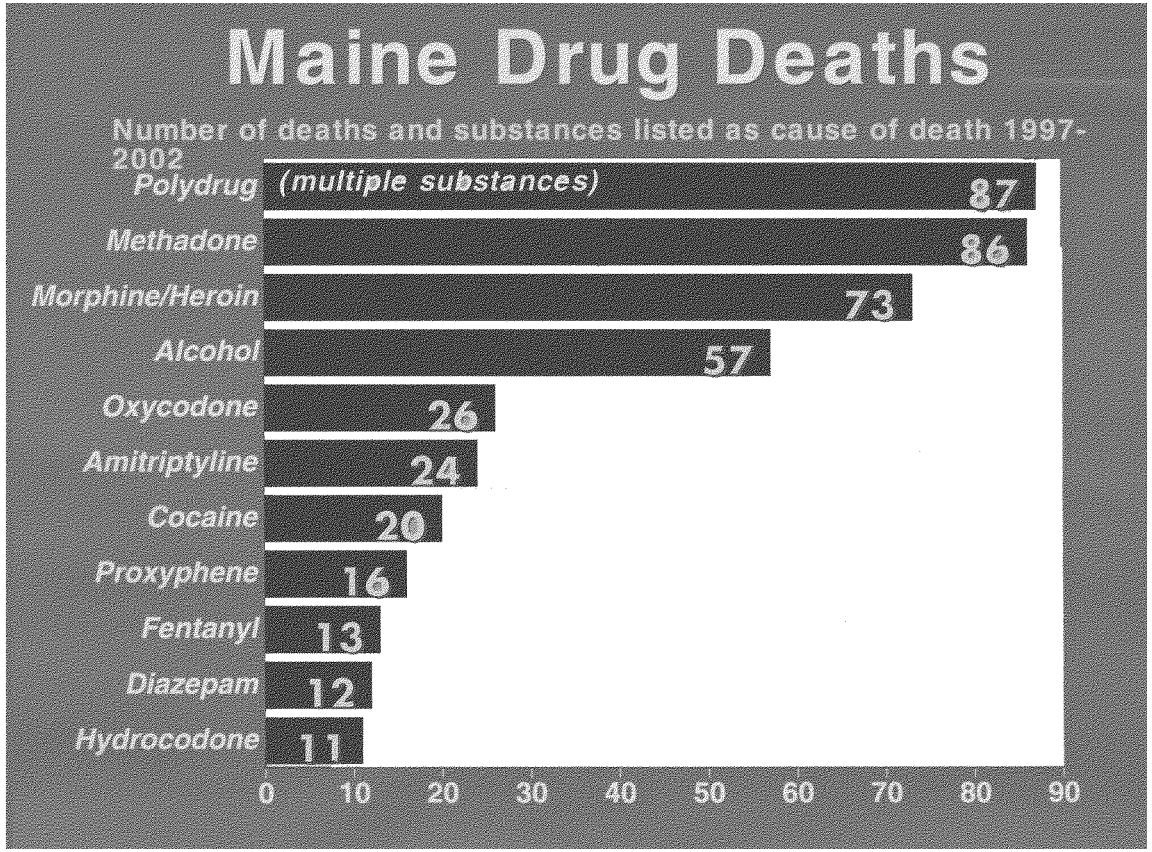
Maine Drug Deaths
Number of deaths and substances listed as cause of death 1997-2002
Polydrug (multiple substances) 87
Methadone 86
Morphine/Heroin 73
Alcohol 57
Oxycodone 26
Amitriptyline 24
Cocaine 20
Proxyphene 16
Fentanyl 13
Diazepam 12
Hydrocodone 11
0 10 20 30 40 50 60 70 80 90

Maine Drug Deaths

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Fentanyl	13
Diazepam	12
Hydrocodone	11

Patricia Hickey
61 Webster Ave.
Bangor, Me. 04401

Subject: Field Hearing on
Legal Drugs, Illegal Purposes

Senator Susan Collins
Washington, DC.

Dear Senator Collins:

Thank you for the opportunity to review the testimony regarding the escalating drug problem in our wonderful state.

I have reviewed the statements of all presenters with hope. I have had a wrenching personal experience with the problem and would like to share my thoughts with you while addressing issues and ideas raised by the presenters and asking for your confidence in identifying my family.

METHADONE CLINICS:

I do believe that these clinics serve a purpose but I also believe that their focus must be expanded to treat the individual. I truly believe that both the profit and non-profit providers address these issues as a low cost, high profit business, trading the lives of our young people.

I have had experience with both Discovery House and Acadia Hospital and would like to share my experience.

DISCOVERY HOUSE
I believe that Discovery House counselors were wonderful and open to discussion of expectations. Their take-home policy (at least in Waterville) was extremely stringent with the expectation of no take homes for the first year (driving 120 miles round trip no matter what the horrible Maine weather).

ACADIA HOSPITAL:
I believe that this program needs much improvement. The experience was a powerful example of what not to do. As a licensed hospital the expectation was that underlying illnesses would be addressed and proper medication prescribed. That did not happen. Psychiatrist had three – four month waits for appointments and referrals to other

appropriate providers were not made. Total incremental detox from the methadone program did not seem to be encouraged.

There is a new drug on the market called Buprenorphine. It was approved by the FDA in 2001 and has fewer withdrawal symptoms than methadone. It is available by prescription as a treatment for opiod dependence. The number of permits to dispense the medication is limited. The only 3 physicians with permits in the Bangor are at Acadia Hospital. I called this morning and was told they are "not yet dispensing" the drug but could not tell me why. (Their clinic is also full) This speaks volumes to me. They have a humane treatment for a horrible problem yet not only are they not utilizing this resource; they are preventing any other medical provider from utilizing it.

COMMENTS:

I agree with Barbara Royal assessment that we have not yet reached the crest of this horrendous problem.

Suggestions:

1. Require that all administrators, counselors and teachers not only receive substance abuse training but are required to report to parents suspected abuses.

2. Integrate services so that the person is treated as a whole and mental health issues treated along with the addiction (most teens also have underlying depressive issues and use drugs as self medication).

3. Upgrade the current drug program. Our current message says that cigarettes, alcohol and heroin are all the same. Yet kid's parents have a drink or smoke. The message is at best totally diluted and at worst if my wonderful parents have a drink I can have a drug.

4. Make school administrators liable for non-action. School halls are being used as drug market places. Administrators turn a blind eye. It is not credible to say that all of the students know yet the administration does not.

5. Make Buprenorphine available to more physicians a psychiatrist. It is described as particularly effective as a treatment for the young abuser.

6. Provide treatment for those convicted of drug offenses. Federal drug crimes have a rehabilitation sentence. Treatment should be provided at the state and local level. Federal funds should be made available. It is by far more cost effective to treat the cause.

7. Mandate that drug companies contribute a small percentage of their profits to treatment. It could even be tied in to a percentage of their advertising expenditures.

I have attached information on Buprenorphine. I hope for the sake of our children we have the wisdom to value their humanity.

I would be more than willing to speak to you or one of your representatives at any time.

Bless you,

Patricia Hickey

U.S. Food and Drug Administration

FDA Talk Paper

FDA Talk Papers are prepared by the Press Office to guide FDA personnel in responding with consistency and accuracy to questions from the public on subjects of current interest. Talk Papers are subject to change as more information becomes available.

T02-38
October 8, 2002

Media Inquiries: 301-827-6242
Consumer Inquiries: 888-INFO-FDA

SUBUTEX AND SUBOXONE APPROVED TO TREAT OPIATE DEPENDENCE

The Food and Drug Administration (FDA) announced the approval of Subutex (buprenorphine hydrochloride) and Suboxone tablets (buprenorphine hydrochloride and naloxone hydrochloride) for the treatment of opiate dependence. Subutex and Suboxone treat opiate addiction by preventing symptoms of withdrawal from heroin and other opiates.

These products represent two new formulations of buprenorphine. The first of these formulations, Subutex, contains only buprenorphine and is intended for use at the beginning of treatment for drug abuse. The other, Suboxone, contains both buprenorphine and the opiate antagonist naloxone, and is intended to be the formulation used in maintenance treatment of opiate addiction. Naloxone has been added to Suboxone to guard against intravenous abuse of buprenorphine by individuals physically dependent on opiates. Both drugs are supplied in 2 mg and 8 mg tablets which are placed under the tongue and must be allowed to dissolve.

Subutex and Suboxone have been studied in over 2,000 patients and shown to be safe and effective treatments for opiate dependence. Side effects most commonly seen with the use of both drugs include cold or flu-like symptoms, headaches, sweating, sleeping difficulties, nausea, and mood swings. These effects usually peak in the beginning of treatment with Subutex or Suboxone and may last a number a weeks. Clinical data indicate that the risk of serious diminished breathing may be less with buprenorphine than other opioids when used in high doses or in overdose situations. Nonetheless, buprenorphine has been associated with deaths due to diminished breathing, especially when used in combination with alcohol or other Central Nervous System (CNS) depressant drugs, according to reports from France where it has been available for several years.

Based on the potential for abuse of Subutex and Suboxone, FDA and its parent Department of Health and Human Services recommended that the Drug Enforcement Administration (DEA) place the active ingredient, buprenorphine, in Schedule III under the

Controlled Substances Act (CSA). Buprenorphine is considered to have less risk for causing psychological and or physical dependence than the drugs in Schedule II such as morphine, oxycodone, fentanyl, or methadone.

Subutex and Suboxone are the first narcotic drugs available for the treatment of opiate dependence that can be prescribed in an office setting under the Drug Addiction Treatment Act (DATA) of 2000. Until recently, opiate dependence treatments in Schedule II, like methadone, could be dispensed in a very limited number of clinics that specialize in addiction treatment. As a consequence, there have not been enough addiction treatment centers to accommodate all patients desiring therapy. Under this new law, medications for the treatment of opiate dependence that are subject to less restrictive controls than those of Schedule II can be prescribed in a doctor's office by specially trained physicians. This change is expected to provide patients greater access to needed treatment.

The sponsor, in collaboration with the FDA and with input from other Health and Human Services agencies, has developed a comprehensive risk management program designed to deter abuse and diversion from its legitimate use in patients and physicians regarding proper use of these drugs, close monitoring of drug distribution channels, and child resistant packaging.

In addition, the provisions of the DATA include limits on the number of patients individual physicians are allowed to treat and special DEA registration for the use of this drug, thus providing additional safeguards as this drug enters the office-based treatment setting.

The risk management program also provides for active and passive surveillance to identify if and when the drugs are being abused. The surveillance will include interviews with substance abusers, monitoring local drug markets, data collection, and the monitoring of adverse event reports. Reports of the results of these surveillance efforts will enable FDA to identify untoward effects from the availability of buprenorphine and, if indicated, to take appropriate actions to protect the public health.

Subutex and Suboxone are manufactured by Reckitt Benckiser Pharmaceuticals.

####

Buprenorphine

(pronounced bew-pre-nor-feen)

- What is buprenorphine?
- How effective is buprenorphine?
- Starting on buprenorphine maintenance
- Using buprenorphine with other drugs
- Buprenorphine withdrawal
- Where can I get buprenorphine and what does it cost?
- Finding out more and other issues

What is Buprenorphine?

Buprenorphine ('bup', 'B') is available by prescription (under the name of *Subutex*) as a treatment for heroin dependence. It has been found to be effective in preventing the need to continue using heroin (buprenorphine maintenance) and also in helping people to withdraw from heroin and methadone. Buprenorphine is also prescribed to treat severe pain.

This fact sheet mainly discusses buprenorphine maintenance treatment.

Buprenorphine has been found to be effective in treating heroin dependence by:

- Preventing withdrawal symptoms, such as cravings for heroin.
- Blocking the effects of heroin. Using heroin will not provide the 'high' that would normally be expected, therefore, it takes away one of the main reasons to use heroin.

How effective is buprenorphine?

The effectiveness of any treatment, including for heroin or other opioid dependency (addiction), is more likely to be successful if it is part of a comprehensive treatment program.

There is often a range of factors that contribute to an individual's drug use. Therefore, it is strongly recommended that those wanting to remain heroin-free engage in a treatment program that addresses the physical (the body), psychological (the mind) and environmental issues relating to the person's drug use. This may involve combining several treatment approaches, such as buprenorphine maintenance, counselling, alternative or holistic therapies such as massage and naturopathic treatment; and developing a positive support network, including peers, family and friends, and support groups.

Like any type of treatment or approach to heroin dependency, buprenorphine maintenance may be effective for some people but will not suit everyone. A doctor or drug counsellor that spends time assessing the person's specific situation and explaining different options will recommend an approach that is appropriate for that person.

Buprenorphine is one in a number of maintenance treatments for heroin dependence. Others include:

- Methadone (if using buprenorphine, the transfer to methadone can occur rapidly).
- Naltrexone (if using buprenorphine, the transfer to naltrexone can take place within 35 days).

more on treatment

Advantages of buprenorphine maintenance treatment

There are many benefits of being on buprenorphine maintenance compared to continuing the use of heroin including:

- Maintenance treatment holds the person stable while they readjust their lives. The person may decide later to work towards reducing their dose of buprenorphine until they no longer require medical treatment.
- Using buprenorphine on its own is unlikely to result in an overdose.
- Health problems are reduced or avoided, especially those related to injecting such as HIV and hepatitis B and hepatitis C viruses, skin infections and vein problems.
- Doses are only required once a day, sometimes even less often, because buprenorphine's effects are long lasting.
- Buprenorphine is much cheaper than heroin.
- Staying off heroin will mean that many will have the opportunity to experience more 'life opportunities', e.g. greater personal happiness, more close and stable relationships with others, employment and more money to buy goods for personal enjoyment.

What are the side effects?

Buprenorphine is generally well tolerated; however, some side effects have been reported. Most of these symptoms occur very early in treatment — in the first week or so. Side effects may be due to the combined experience of withdrawal from opioids and taking buprenorphine. It is important to report any side effects to a health professional.

The most common side effects are similar to those listed under the section of this fact sheet: 'Buprenorphine withdrawal'.

Starting on buprenorphine maintenance.

Both heroin users and those on a methadone program can use buprenorphine. After beginning on daily doses of buprenorphine, the dose is adjusted until the person is stabilised (free from withdrawal symptoms such as cravings). The dose may then be reduced to every second day or three times a week.

For heroin users, the first dose of buprenorphine is taken at least 6 hours after last using heroin, ideally, just as withdrawal symptoms begin.

People on a methadone program with a daily dose of 30mg or less can transfer straight onto buprenorphine, and are unlikely to experience withdrawal symptoms. Those on methadone doses above 30mg may need to have their methadone dose reduced before transferring to buprenorphine. If transferring to buprenorphine from methadone doses above 30mg, withdrawal symptoms may be experienced similar to those listed under 'Buprenorphine withdrawal'. It is not recommended that anyone on a daily methadone dose of more than 60mg transfer to buprenorphine.

In general, people on methadone have a slightly higher risk of experiencing withdrawal symptoms than those on heroin when transferring to buprenorphine. This means that some people may feel slightly uncomfortable for a short period of time before the buprenorphine stabilises them.

How is buprenorphine taken?

A *Subutex* tablet must be placed under the tongue and allowed to dissolve. Chewing or swallowing the tablet will make it ineffective. Injecting *Subutex* is dangerous and may lead to severe vein damage, blood clots and other health complications.

Subutex dissolves within 28 minutes after placing it under the tongue. The effects begin within 3060 minutes of taking the dose and peak within 24 hours, lasting between 4 hours to 3 days, depending on the dosage.

What is the right dosage?

The dosage of buprenorphine often varies for each person. As a guide, doses range from 4mg to 32mg per day for heroin dependence. A health practitioner should be informed of any side effects that are experienced so that the dosage can be adjusted where appropriate. When first starting on buprenorphine maintenance, it may take a number of days (typically from 37 days) for the effects of buprenorphine to become stable in the body. Continuing heroin use can make it difficult for the person to stabilise.

Missed doses

If a person misses their buprenorphine doses for more than 5 days in

a row, they will need to undergo a review by the prescribing health professional. If this occurs, it is recommended that the person start again on a lower dose of buprenorphine.

Using buprenorphine with other drugs.

Combining the use of any drugs can increase or alter the effects that are usually experienced from using the individual drug. It is often difficult to predict the consequences of combining the use of different drugs.

It is particularly important to avoid using other depressant drugs, such as benzodiazepines ('benzos'), e.g. Valium, with buprenorphine. Using benzodiazepines with buprenorphine may lead to breathing difficulties, coma or death.

Using buprenorphine with heroin or other opiates, such as methadone, increases the chances of experiencing ongoing withdrawal symptoms.

Always check with your doctor or pharmacist before using buprenorphine with alcohol, medicines or other drugs.

Buprenorphine withdrawal.

Withdrawal from long-term use of buprenorphine may produce symptoms similar to those experienced from heroin withdrawal. However, withdrawal symptoms tend to be milder with buprenorphine than those from methadone and other opioids.

Withdrawal symptoms vary from one person to another but may include:

- Cold- or flu-like symptoms
- Headaches
- SweatingAches and pains
- Sleeping difficulties
- Nausea
- Mood swings
- Loss of appetite

These effects usually peak in the first 25 days. Some mild effects may last a number of weeks.

Where can I get buprenorphine and what does it cost?

Buprenorphine can only be prescribed by a doctor who has a permit from the Department of Human Services (DHS). Like methadone, buprenorphine is subject to a dispensing fee, currently about $5.00 per dose.

Finding out more and other issues

Before a person goes on any drug treatment program, it is important that all the relevant information has been explained to them by a qualified health professional and, where appropriate, to carers such as family, friends etc. This includes the length of the program, how much it costs, what other supports are included or recommended, all the risks and side effects, and any other health issues to consider. When deciding on the suitability of buprenorphine maintenance, the following issues should also be discussed with a health professional:

- Existing liver conditions, such as acute hepatitis.
- Respiratory illnesses.
- If a woman is pregnant, wanting to become pregnant or breastfeeding (it has not been established that using buprenorphine during pregnancy is safe).
- Buprenorphine may impair the ability to drive and operate machinery safely, so it may not be appropriate for people in certain occupations.

For referral to a buprenorphine prescribing doctor or buprenorphine dispensing pharmacy, contact the alcohol and drug service in your state or territory.

Tell us what you think!!!

* **We are unable to answer requests received from outside Victoria, Australia.**

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409 King Street, West Melbourne, VIC 3003
PO Box 818 North Melbourne VIC 3051

Physician report

SAMHSA
Substance Abuse & Mental Health Services Administration
U.S. Department of Health and Human Services

Buprenorph
PHYSICIAN LO

Notice: The Drug Addiction Treatment Act of 2000 limits physicians or physician group practices to prescribing buprenorphine for opioid addiction to a maximum of 30 patients at one time. Because of this, some physicians listed on the Locator may not be accepting new patients at this time. If you are unable to find a physician within your area who is accepting new patients, please check our site later, as new physicians are being added weekly.

DOWNLOAD

Your request for ME returned the following 13 physicians:

Name	Address	
Michelle Wilson Gardner MD	The Acadia Hospital 268 Stillwater Ave Bangor, ME 04402	(207
Thornton W. Merriam M.D.	The Acadia Hospital P.O. Box 422 Bangor, ME 04402-0422	(207
Paul Tisher M.D.	The Acadia Hospital P.O. Box 422 Bangor, ME 04402-0422	(207
Laurie A. Churchill M.D.	5 Palmer Street Calais, ME 04619	(207
James Wesley Berry M.D.	Mayo Regional Hospital 897 West Main Street Dover Foxcroft, ME 04426	(207
Imad H. Durra M.D.	298 Main Street Jonesport, ME 04649	(207
Dr. Steven I Weisberger	70 Snare Creek Lane Jonesport, ME 04649	(207
Dr. Michael Edward Kelley	100 Campus Avenue Suite 208 Lewiston, ME 04240	(207
Frederick Crawford Goggans M.D.	6 Glen Cove Drive Rockport, ME 04856	(207
Thomas E. McDermott M.D.	13 Railroad Square Waterville, ME 04901	(207
Stanley James Evans M.D.	50 Park Rd. Westbrook, ME 04092	(207
Steven John Keefe D.O.	One Delta Drive Suite A Westbrook, ME 04092	(207
Charles Roger Kendrick D.O.	Mercy West Brook Recovery Center 50 Park Road, Suite 5 Westbrook, ME 04092	(207

2
HAMMOND STREET SENIOR CENTER

Kathryn T. Bernier
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Bangor, ME 04401
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August 13, 2003

Senator Susan Collins
202 Harlow St.
Bangor, Me. 04401

Dear Senator Collins,

I had the privilege of being present at your hearing at City Hall on August 6, 2003. The three different panels that made presentations to you were just wonderful.

I could expound at great length about the various aspects of the drug abuse problem in Maine (and other states) but I will be brief and just try to make you aware of my particular information.

Exactly two years ago today, I was being filmed by CBS for their show 48 Hours. The reason for this was because we had made arrangements to have my son go through a rather new treatment program for his addiction to OxyContin. At the time addiction to OxyContin was very new and Maine and West Virginia were basically the only places with the problem at all.

My son had been using OxyContin for about four years. He first started using it in college. He had no idea it was basically heroin! He was under the very misguided impression that a prescription drug would not really harm him. Amazingly, this is still very much the attitude of high school children. By July 2001 my son's life was in such a mess that he really couldn't deny there was some problem and confessed to me that he was addicted to OxyContin. He was by now "booting" which is using a needle. I was of course horrified. My daughter (his twin) found a treatment center in California that claimed a good success rate of getting people off a wide verity of drugs, including OxyContin. I was surprised to have them be so receptive to my son; they urged me not to put him on methadone stating that methadone was basically harder to get off of than heroin.

This treatment center uses a system of putting the patient under anesthesia and then flooding their brain receptors with a drug called naltrexone. The patient is under anesthesia for up to four hours (there is the risk) but when they awake....they are not only drug free but also do not crave the drug. The withdrawal takes place at an accelerated pace but the patient has no memory

of it, therefore it is pain free. My son was filmed during this process and it is amazing to see the horrors he was going through. To me this is a much more satisfactory treatment plan than putting someone on methadone where there is a 2% rate of patients who are ever able to get off the methadone completely and stay off. This treatment has a 65% success rate. That rate is very high in the world of drug addiction.

My son came home without his addiction but life still was not easy. He now had to face his social world. That is he needed to completely get rid of it! For him it was easier than most because most of his acquaintances didn't want to associate with him anyway since he had been on national TV showing his addiction. You may even have seen him. MTV also did a special about OxyContin using my son as one of the examples of just how turned around someone on drugs can get. My son had dropped out of school, lost his job and all his friends.

I truly see a huge problem in Maine and Bangor in particular. I agree with the panel and feel that education, law enforcement and treatment are desperately needed. I am offering my help in any way possible. I believe there are viable other options to methadone. I would love to have you watch the tape which aired on 48 Hours on December 12, 2001. My son's name is Troy Swett. There is a lot of information about him on the internet, and also there was a story about him that week in The New York Times. I tell you all this because if you were interested in speaking with him I am sure he would be happy to help in any way he can. He is doing just fine now and is one of the lucky ones. There aren't many right now.

I met you at the American Heart Association benefit auction in May of this year. I am the administrator of the Hammond Street Senior Center where you are always welcome. That is another age group at risk with prescription drugs. It amazes me how many of them have knee or hip replacements or back pain that end up on Oxycontin! A drug this addicting should be very carefully prescribed.

Please do not hesitate to ask for any additional information or to ask for my help in any way you wish.

Sincerely,

Kathryn Bernier
103 Poplar St.
Bangor, ME 04401

Maine Association of Substance Abuse Programs

The Voice of Maine's Substance Abuse Providers
Ruth Blauer, Executive Director

MASAP
Maine Association of Substance Abuse Programs
•Diana Stokke, Region I Coordinator
•Jarad Platt, Region II Coordinator
•Debra Dutor, Region III Coordinator
•Shirley Cronin, Office Manager

MAPP
Maine Association Of Prevention Programs
•Sandra Hobbs, Director

MAAR
Maine Alliance for Addiction Recovery
•Bruce Curran, Director

Testimony for the Senate Committee on Government Affairs
Submitted in response to the August 6, 2003 Field Hearing, Bangor, Maine

Senators Collins and Sununu,

Thank you for the opportunity to provide written testimony on the epidemic of substance abuse in Maine. I am the Executive Director of the Maine Association of Substance Abuse Programs (MASAP). MASAP, with membership representing eighty percent (80%) of the Maine Office of Substance Abuse funded substance abuse programs and providers throughout the state, is known throughout the State as the voice of Maine's substance abuse providers. I attended the Field Hearing on August 6, 2003 and applaud your initiative and interest in tackling this problem

With you and your colleagues, MASAP believes that it is time for a renewed emphasis on Maine's, and the nation's, substance abuse policies. We agree that Maine and the nation must substantially refocus its investment in the prevention and treatment of addiction. As you heard at the Hearing, the personal and social costs of addiction are devastating and escalating, as you stated, "exponentially". We do not want "Dirigo" applied to Maine's substance abuse and addiction data. We don't want Maine to see businesses continue to close or relocate out of Maine because the work force is impaired or nonexistent because of addiction. We don't want to continue to watch as the need for prison beds increases because substance addiction is the catalyst for increased crime. We do not want to continue to see Maine's citizens die from bad decisions and deadly abuse of drugs.

You heard compelling and heart wrenching testimony. Our member agencies and providers throughout Maine see this every day. The need and the demand for treatment is overwhelming. There is inadequate treatment capacity in Maine. Residential treatment is lacking. There are very limited adolescent treatment options. In every sector of state government touched by Substance Abuse and Addiction, there is inadequate funding to realistically deal with this crisis. There is now virtually no sector of society, services, and economics untouched by substance abuse.

8 Mulliken Court ·Augusta, ME 04330
Phone 207.621.8118 · Fax 207.621.8362 · Web www.masap.org

We must reallocate resources toward alcohol and drug prevention and treatment, increase interagency communication, create a state-wide network that allows identification, tracking and monitoring through a variety of tools, including real-time prescription drug monitoring and tracking substance abuse related occurrences, whether medical or legal, utilize criminal justice procedures that are shown to be effective in reducing supply and demand, and reduce the disabling regulation of addiction treatment programs.

Though your Field Hearing focused on prescription drug diversion and abuse, I want to emphasize that it is not the sole enemy in this struggle. Alcohol and other drug addiction is a medical and public health problem that affects all citizens of Maine, directly or indirectly. Substance Abuse is Maine's primary health problem and mirrors the Robert Wood Johnson data citing substance abuse as the nation's primary public health problem. Recent data shows that 103,200 of Maine's citizens are substance abusers, there were 12,000 admissions and 10,000 clients in treatment for substance abuse at MASAP member agencies in 2002, and between 70 -90% of child welfare spending is related to parental substance abuse. With a population of slightly over a million citizens, this data is cause of alarm.

Substance abuse and addiction are ongoing challenges faced daily by individuals, families, communities, businesses and all levels of government. Addiction to alcohol and illegal drugs creates impaired health, harmful behaviors, and major economic and social burdens. A 1998 report by the Portland Press Herald estimated that alcohol abuse caused the State of Maine to spend $1 billion in medical and social services costs, and lost work time. Every dollar spent on treatment saves between $3 and $7 dollars in other costs. The average cost of untreated addiction is $43,000/per person/per year. The average cost of incarceration is $36,900/year. Research demonstrates that for every dollar invested in substance abuse prevention, twelve dollars in other costs are saved. Employee substance abuse is directly linked with decreased productivity and increased work-related accidents as well as increased absenteeism, turnover and escalating healthcare costs. Studies show that 77% of the 11.8 million adult illicit drug users (9.1 million) are employed either full or part time. In addition, millions of this group is problem drinkers.

However, a gap exists between practice and best possible results. Quality in substance abuse prevention and treatment is difficult to provide and recovery is difficult to achieve for a variety of reasons. There is persistent discrimination against people with alcohol and drug abuse. Insurance coverage for treatment is not equal to that of other chronic, relapsing conditions. Access to treatment is severely constrained. Alcohol and drug treatment funding is inadequate to meet best practices and standards of care. When help is available, addiction is frequently treated as an acute condition when it is, in fact, a chronic relapsing disease like asthma and diabetes and should be treated as such.

The result is a self perpetuating cycle of less than optimal outcomes and the misperceptions about the disease. However, research has shown that treatment for the disease of alcohol and drug addiction, when delivered properly, can lead to significant reductions in drinking and drug taking, and major improvements in physical and

mental health and social functioning. Increasingly, substance abuse and addiction are viewed as a disease and not a moral failing, with more effective treatments and approaches being identified to help those seeking and working to maintain recovery.

MASAP believes that concerted efforts to eliminate the stigma associated with the diagnosis and treatment of alcohol and drug problems are essential. In addition, substance abuse should be accorded parity with other chronic, relapsing conditions insofar as access to care, treatment benefits, and clinical outcomes are concerned.

When the State of Maine supports effective quality substance abuse prevention and treatment, everyone wins. Maine must ensure that

- There is a system for effective prevention efforts
- There is a system for screening that identifies people at the early stages of their disease
- There is a system of care that is responsive to individuals and their unique situations
- There is a system that provides real time prescription monitoring and tracking capabilities
- There is access to appropriate treatment and treatment settings for adolescents as well as adults
- There is a system of monitoring and aftercare that assures sustained disease management
- There is a process for continuous feedback and system improvement
- There is parity in access to care, insurance coverage and treatment benefits, and clinical outcomes
- There is effective communication between law enforcement, healthcare providers and state agencies to develop and implement monitoring and tracking systems
- The disabling regulation of addiction treatment programs will be eliminated.
- Effective criminal justice procedures to reduce supply and demand will be developed and utilized.
- Drug courts mandating treatment rather than incarceration for nonviolent offenses will be implemented state-wide.
- There is a focus on workforce training around competency based prevention and treatment and programs that have been scientifically evaluated and found effective in reducing substance abuse.
- The stigma and discrimination associated with the diagnosis and treatment of alcohol and drug problems will be eliminated
- Substance abuse education is a required element in the training and licensure for all healthcare professionals.

Prevention and education efforts have been demonstrated to help deter our youth from substance abuse, delinquency, crime, and incarceration. There is clear evidence that treatment of addiction works. Treatment has been shown to be as effective as treatment

for other chronic, relapsing illnesses, such as diabetes and asthma. As with any treatment, continuity of care, acute and follow-up strategies, relapse management and satisfactory outcomes measures are critical to whether the treatment is delivered well and based on the needs of the individual. Treatment saves money, helps people return to work, reduces the burden on emergency care, and decreases crime rates and incarceration costs. Treatment restores families and communities.

MASAP and its member agencies work closely with the Kim Johnson and the Office of Substance Abuse prevention and treatment teams. Acadia Hospital's Methadone Clinic is a MASAP member. Our other member agencies work with opiate addicts in treatment with methadone and buprenorphine. We are acutely aware of the issues related to opiate addiction, methadone diversion, abuse and death. While Chief Chitwood was eloquent in his testimony on methadone and the for-profit Portland clinics, his statement that OSA was "promoting methadone" is misleading and incorrect.

The Office of Substance Abuse has worked to create systems and develop and implement policies and regulation that, in fact, provides oversight for Methadone Treatment, works with the federal agency (CSAT)to continuously improve methadone treatment services in Maine, and, as an accepted and effective medical treatment, promotes methadone appropriately as a standard of care for opiate addiction. OSA has not been irresponsible in its stance regarding methadone, nor has it been negligent in its monitoring of clinics, providers, and clients. When Chief Chitwood refers to the publicity that OSA allegedly created, I believe that OSA has developed a media plan designed to destigmatize methadone treatment for opiate addiction, to put a face to those in recovery, to let the Maine public know that anyone can be touched by addiction and can be helped. OSA has been commendably proactive in working toward solutions as evidenced by their leadership and collaboration that led to the recent Opiate Death Task Force and related studies. Though I applaud Chief Chitwood for his passion and his commitment, he is wrong about OSA.

In closing, I want to offer the assistance and support of the Maine Association of Substance Abuse Programs, its members throughout Maine, and MASAP's' program components – The Maine Association for Prevention Programs and the Maine Alliance for Addiction Recovery. Thank you, again, for beginning the dialogue with Maine's treatment and law enforcement communities. Please continue the process and include MASAP, MAPP and MAAR in any way that we can help.

Ruth Blauer
Executive Director

Project AWARE

Executive Summary

The Need: There is a serious and urgent need to reach Maine's youth with an important message: abuse of prescription drugs, particularly OxyContin, is dangerous. We need to raise the awareness among Maine's youth, their educators, parents, guardians, healthcare providers, and pharmacists, and the medical community about the problem of prescription drug abuse and the dangers of prescription drug use in order to prevent further abuse among youth. Moreover, we need to strengthen Maine's prescription drug abuse prevention programs. In addition, our state's youth need opportunities to participate in the development of new prevention programs and in the prevention process; they also need attractive alternatives to drugs – constructive outlets for their energy and ideas. The need for this project is urgent given the newness of the problem; the high rates of use among Maine youth, particularly in specific geographic areas; and the lack of prevention programs in place targeted at youth prescription drug abuse. New initiatives in this area are also timely. The second recommendation of the state's Office of Substance Abuse's recent report, "OxyContin Abuse: Maine's Newest Epidemic" is "Increase public education, particularly for children." Youth prescription drug abuse, especially of OxyContin, is a top issue for substance abuse service providers and state officials.

Addressing the Need: The Project AWARE Program: AWARE will be implemented by the Maine Association of Prevention Providers (MAPP), a program of the Maine Association of Substance Abuse Programs (MASAP). The AWARE project will fund an experienced Coordinator, Carl Lakari, Inc. to manage the project, and coordinate the development, implementation, and evaluation of project activities. The MASAP and MAPP Directors, Ruth Blauer and Sandra Hobbs, as well as other MAPP and MASAP staff will serve as project advisors.

AWARE is an education and empowerment initiative that aims to raise awareness about the dangers of prescription drug abuse among youth and to develop and test new education and prevention strategies in selected communities in Maine aimed at three target groups:

- Youth
- Parents and other adults
- Healthcare community

The Approach

We are approaching this project, given budget and time constraints, as primarily a public education initiative, as opposed to a science-based prevention effort. We cannot expect to significantly change behavior with this amount of money in this amount of time. But we can educate and raise awareness. Thus our focus is first on creating a community-based infrastructure for delivering information about youth prescription drug abuse, and second, developing and implementing new approaches to crafting and disseminating messages about the issue.

We will utilize the "Painfully Obvious" campaign materials and message, which aptly address the dangers of prescription drug abuse, along with new materials and messages – developed with strong youth involvement – that are positive, and promote healthy lifestyle alternatives. Our project will involve youth as key partners in program development and implementation. We want to tap the insights, perspectives, creativity, and energy of youth in our efforts to address the problem of prescription drug abuse. We will consider the "social norms marketing" approach as a possible model for new education activities.

AWARE will be a state-wide public education initiative but will target selected counties as pilot sites for the development and testing of new methods. Target counties were selected based on

data on youth prescription drug use from the MYDAUS survey referenced in the needs section of this application. Target counties include the state's two largest urban areas, Portland, which is in Cumberland County, and Bangor, which is in Penobscot County; other selected target counties are primarily rural, such as Waldo and Washington. The level of activity will vary by county as follows:
Active Education And Prevention Efforts: Knox, Lincoln, Sagadahoc, and Waldo
Education And Prevention Through Existing Networks: Cumberland, York And Penobscot
Limited Education And Prevention Efforts: Washington.
The three target audiences for the project: are youth grades six through twelve, parents and other adults, and the healthcare community. All three groups are audiences for raising awareness of the problem of youth prescription drug abuse and its associated risks. Parents, adults, and the healthcare community are audiences for a second message: the importance of monitoring and securing prescription drugs in the home.

Measurable Objectives and Project Activities
AWARE's measurable objectives are grouped by target audience as described above. Following each set of Measurable Objectives is a list of possible project activities that will enable the project to meet the stated objectives.
Measurable Objectives for Youth
1(a) Through direct education, reach approximately 1500 – 2000 youth and youth advisors, grades 6 – 12, state-wide, with information about the risks associated with prescription drug abuse.
1(b) Raise awareness about the risks associated with prescription drug abuse in 25% of event participants.

- Make presentations/hold workshops about youth prescription drug abuse to regional and state-wide youth-based organizations and substance abuse prevention networks. Possible venues include the Maine Youth Action Network, whose annual conference drew over 400 youth and youth advisor participants in 2002; the Legislative Youth Advisory Council, which has identified substance abuse as a top priority; "One ME"[1] community coalitions; and the Maine Association of Prevention Programs, which has over 900 members . The format and content of these presentations will be developed as part of this project, and will include "Painfully Obvious" materials as well as other existing and new materials.
- Create a "Youth Advisory Group" of 3-8 members in each of the four primary target counties (Lincoln, Waldo, Knox, and Sagadahoc) to: engage youth in the development and implementation of new community-based prescription drug prevention and awareness strategies, and to test youth empowerment as a prevention strategy.
- Develop partnerships with existing youth substance abuse prevention networks in the three secondary target counties, Cumberland, York, and Penobscot, and use them as venues to disseminate educational materials.
- Utilize PSAs and other free media outlets to disseminate information.

Measurable Objectives: Parents and Adults
2(a) Through direct education, reach approximately 500-700 adults in the targeted counties, with information about the problem of youth prescription drug abuse; the risks associated with prescription drug abuse; and what they can do to prevent it, specifically the "monitor and secure your medicine cabinet" message.

[1] "One ME" is a federally-funded state incentive program that will receive approximately $3 million per year for the next three years for new and expanded primary prevention programs working to reduce alcohol and tobacco use among youth age 12-17 years, using science based prevention. Eighty-five percent of the funding will be granted to local coalitions.

2(b) Raise awareness about youth prescription drug abuse among 25% of total participants.

2(c) 200 parents state-wide commit to monitoring and securing their prescription drugs in their homes.

- Develop a "monitor and secure your prescription drugs" educational initiative to educate adults about youth prescription drug abuse and the need to keep prescription drugs secure in the home.
- Deliver the above information through presentations to existing adult organizations and parent groups, such as the Elks Club, and Parent Teacher Organizations in each of the eight target counties.
- Disseminate educational materials and information through state-wide networks such as the Maine Parent Federation.
- Utilize PSAs and other free media outlets to disseminate information.

Measurable Objectives: Healthcare Community

3(a) Through direct education, reach 500-700 healthcare providers and pharmacists in targeted counties about the problem of youth prescription drug abuse; the risks associated with prescription drug abuse; and what they can do to prevent it, specifically the "monitor and secure your medicine cabinet" message.

3(b) Raise awareness about youth prescription drug abuse among 25% of healthcare providers and pharmacists.

3(c) 50% of healthcare providers agree to distribute educational materials to all patients receiving prescription drugs.

3(d) 50% of pharmacies agree to include information about youth prescription drug abuse with every prescription.

3(e) 50% of pharmacies agree to post educational materials about youth prescription drug abuse in a visible place in their pharmacies.

- Develop and test an education campaign targeted to healthcare providers and pharmacists about the problem of prescription drug abuse among youth. Then use doctors and pharmacists as vehicles for delivering the "monitor and secure your medicine cabinet" message to adults with youth in their households using prescription drugs.
- Develop a dissemination plan and disseminate information through private practices, professional organizations, hospitals, and pharmacies.
- Building on available materials from Purdue Pharma and others, develop educational materials such as pamphlets to be distributed by healthcare providers, prescription inserts, and posters to be placed in pharmacies.

  Develop corporate partnerships with pharmacies such as RiteAid and CVS.

Evaluation

The AWARE Project will be evaluated both in terms of process and outcomes. Both short-term and intermediate outcomes will be assessed for the three target groups identified in the proposal, youth grades six through twelve, adults/parents, and the healthcare community. Our evaluation process will be participatory in nature, involving program participants in decision-making about what to measure, how to measure it, and how to interpret results. This is not a traditional prevention project; part of the project's purpose is to develop and test new prevention strategies on a small-scale. We hope to use the evaluation process as a means to inform project activities and make midcourse corrections as needed. We intend to provide opportunities – both formal and informal – throughout the project for stakeholders to provide the project team with feedback about both the structure and content of project activities.

I. The Logic Model - The project team will use the Logic Model for evaluation planning.

II Process Measures Process Measures will be assessed at the end of Year 1 and 2, and tallied for the project period. In addition, after Year 1 and at the end of the project, similar tables of process measures will be constructed to track progress toward meeting overarching project objectives:

1. Create a community-based infrastructure for delivering information about youth prescription drug abuse; and,
   Inventory and describe existing information delivery systems; compare delivery system pre- and post- project.
2. Develop and implement new approaches to crafting and disseminating messages about the issue.
   Inventory and describe existing approaches and messages; compare pre- and post-project..
   The project team will finalize process measures and methods through the Logic Model development process.

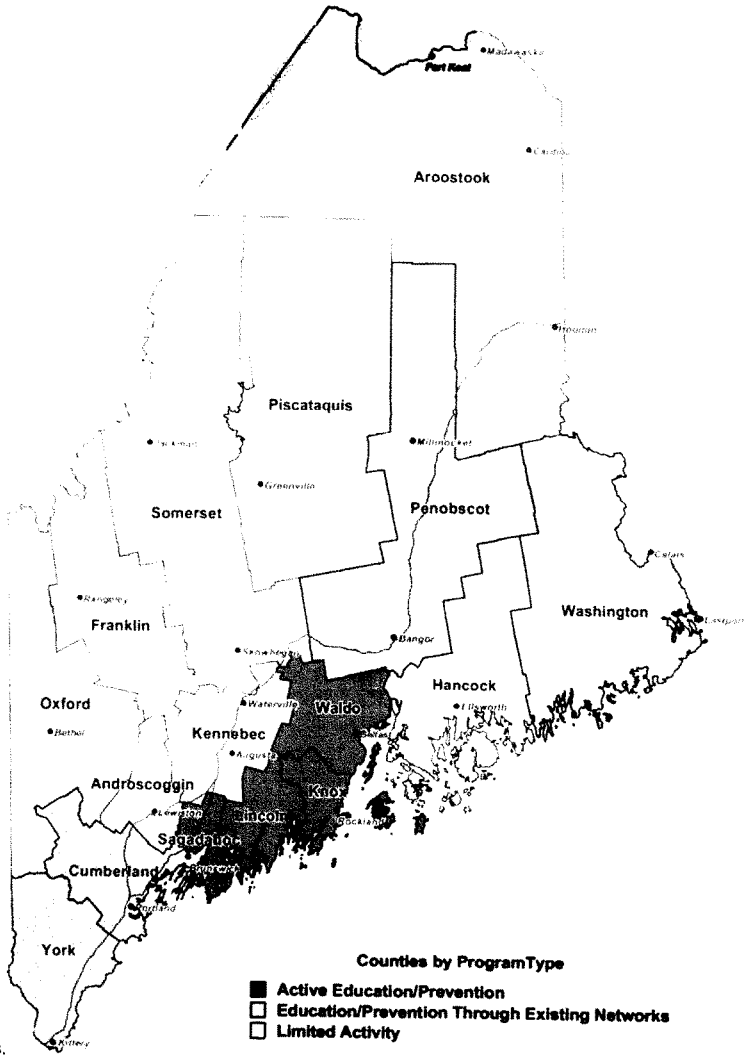
III. Outcome Measures We will use outcome measures and appropriate methods to evaluate the impact of project activities on target groups':

- Knowledge of prescription drugs
- Knowledge of the extent of prescription drug abuse among youth
- Knowledge of the risks associated with abuse of prescription drugs among youth
- Attitudes toward prescription drug use among youth
- Attitudes toward peers who use prescription drugs
- Knowledge of steps that can be taken in the home to prevent prescription drug abuse, such as securing the medicine cabinet

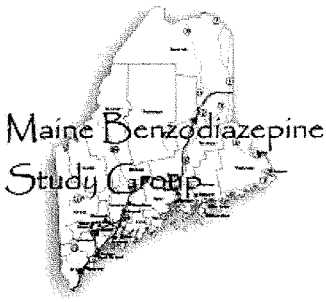
We may be able to achieve some additional intermediate/long-term impacts among the youth involved in the Youth Advisory Groups as this will be a more intensive component of the project. Among this population, at the end of the project, we may able to measure:

- Changes in self-esteem, communication skills, and social skills.
- Improved resistance skills.
- Changes in number of positive peer role models.
- Changes in number of peers who use prescription drugs.

AWARE Target Counties



process.



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August 6, 2003

Testimony for the Senate Governmental Affairs Committee

Comprised of epidemiologists, drug abuse specialists, health care providers, payers, advocates and other interested parties, the Maine Benzodiazepine Study Group is analyzing data about the extent of benzodiazepine prescribing in Maine and its impacts on patients, families and the Maine health care system.

Benzodiazepines are controlled substances that typically are prescribed to relieve anxieties and treat insomnia. In recent years, study group members have observed the consequences of overuse of benzodiazepines among Maine residents of all ages. Those consequences include behavioral problems, drug dependence, serious drug interactions, impaired driving and death. They affect families, our society and the cost of health care services.

The Study Group was formed last year to gather real data on benzodiazepine prescriptions and to consider strategies that promote appropriate benzodiazepine prescribing and use. The data are being provided voluntarily by clinicians, agencies, administrators and the State's health care plans.

The Study Group is planning to publish the collected data in a peer-reviewed journal within the next 6 to 12 months. In addition, the study group will convene conferences to develop strategies that physicians, nurses, pharmacists, psychologists, health plans, patient advocates, families and patients can use to ensure optimal benzodiazepine therapy and improved patient outcomes. This will include discussion of evidence-based discontinuation therapies and evidence-based alternative treatment modalities for anxiety, insomnia and other conditions.

The study group is eager to share our findings with Senator Collins and members of the committee. We hope we may have that opportunity early next year.

Stevan Gressitt, M.D.
Acting Secretary

19 August 2003

TO: Senator Susan Collins
RE: Prescription Drug Addiction

FR: Tammy Snyder

I am writing in regards to the problem of pharmaceutical addiction.
My brother, Keith Snyder, did not wake up the morning of April 2nd, 2003. His respiratory system had been so suppressed by prescription Methadone that his breathing stopped while he slept and he died at the age of 29. He was a single dad of a 4 year boy, Zayne, the pride and joy of his life.
Some might say many things negatively influenced my brother throughout his short life but what brought him to his untimely end was the power of Opiate addiction and the thoughtlessness of our medical industry and society as a whole.

Sometime after 1996 Keith was diagnosed with Generalized Anxiety Disorder which the doctor explained to him was a chemical imbalance and could only be treated by medication. They put him on Paxil, and then Valium and Clonipan alternately. He was not required to do any counseling.

Sometime around 1999 he fell off a ladder in North Carolina, where he lived and worked, and ruptured a disk in his back. He went to various doctors for help.

At this time he was living as a single dad raising a baby by himself. The doctors began treating him with Opiates like Vicadin and Percocet. They would often give him prescriptions for things like Ambien, as well, to help him sleep at night because the pain kept him awake. We were very concerned since he was the only adult in the house with this toddler. (In recent times he told us that he had slept for over 13 hours before while the baby was in his crib with no food or water.) Why would a doctor give such incapacitating drugs to a single parent? And again, with no physical therapy or alternative treatment or exercise program required to fix the ailment which was causing the pain.

A year or so after his disk injury his doctor diagnosed him with Fibromyalgia and began to treat him with Methadone for the pain. I was shocked. I have been treating for and studying Fibromyalgia for 10 years and all the research I have read says that Fibromyalgia is very closely related to Chronic Fatigue Syndrome and stress.

It is often caused by a trauma that the patient's body cannot recover from because they do not get quality deep sleep needed for tissue regeneration, therefore, it should never be treated with narcotics because they rob you of quality sleep…much like alcohol. You feel like you are resting because you are taking a depressant which makes you tired and helps you to fall asleep quickly but in reality your body is intoxicated and is spending its energy processing the intoxicant, not resting.

Fibromyalgia is typically treated with non-narcotic muscle relaxants, anti-inflammatories, and other pain killers plus anti-despressants and non-narcotic sleep aids to help in acquiring good deep sleep. Exercise, stretching, healthy diet, avoiding alcohol and tobaccos, and stress reduction

are also keys to reducing the pain of Fibromyalgia. Keith's doctor strictly medicated and medicated with one of the most powerful and destructive drugs made. I find this horrifically irresponsible…but wait, it gets worse.

After a couple years of this Methadone treatment my brother's tolerance to the drug increased, as happens with most drugs, especially narcotics. He had a typical narcotic contract with the doctor and was receiving three one-month prescriptions for both his Methadone and Valium at a time. I believe that was 3 scripts for 240 Methadone 10-mg tablets and 3 scripts for 90 Valium 10-mg tablets…maximum dosages of both. Again, these scripts, combined with occasional scripts for Ambien to help him sleep, was completely irresponsible. How is anyone supposed to remain a contributing member of society on such large doses of narcotics?

Not only did the drug not help but I believe it made the pain worse.

For one thing it deprives you of oxygen by suppressing your respiratory system. Second, it deprives you of sleep and therefor the ability of your body to heal itself. And like alcohol, it's strips your body of nutrients, destroys cells, abuses your liver, increases your blood pressure, and twists your perception of reality.

I saw my brother sleep. He leapt and convulsed so badly he would fall out of bed. These spasms were caused by the constant withdrawal that his body was in from the opiate he became dependent on. This doesn't sound healing to me. He bloated and became lethargic just like a junkie on street drugs…even before these scripts opened the gates to those very drugs.

Sometime in the summer of 2002 Keith totaled his Honda Civic with his son in the front seat with him. He said his reflexes were impaired due to the Methadone and he was unable to avoid a car that turned in front of him.

Around the same time he also allegedly tried to refill a Methadone script too early so his doctor abruptly stopped his treatment on the basis of a violation of their contract.

To me this should have been a huge red flag to his doctor that Keith was in way over his head, that the drugs had taken over his mind and body, and destroyed his grip on reality. I had suspected for awhile, but since I live in Maine and he was in North Carolina, it was difficult to know what was really going on. I did not know about the violation of contract accusation until after Keith was dead for example. All I knew was that in late July or early August Keith quit using Methadone cold turkey.

I have never used heroin or seen a person on heroin that I am aware of. I've never seen one in withdrawal. But I know that it is brutal and the user becomes violently ill and often believes they are dying. I also know that most recovering heroin addicts will tell you that Methadone is far worse a habit to kick then the infamous heroin. So why would we use it in medicine? Why would we treat known addicts with it? Why would we introduce previously healthy, non-dependent people to it for any reason?

When Keith's doctor stopped giving him Methadone (synthetic heroin), Keith immediately went into severe and violent withdrawal. I knew he was in withdrawal because he had called me…what I didn't know was why or what would end up happening because his doctor made the decision to just cut him off from the substance he had gotten him addicted to.

Keith went through excruciating pain, sickness, tremors, and convulsions, again, all while he was supposed to be caring for a 4 year old. He was afraid to seek professional treatment because he did not want to be labeled an addict and lose his son.

The medical industry considers addicts social deviants, criminals. The medical industry does not believe physical dependence is addiction. They say addiction is a psychological dependency. How do you separate the two? Why do they? You tell me, if your body was convulsing, pouring out gallons of sweat, and refusing to hold down food or water, would you psychologically want to do whatever it took to make the pain stop? Wouldn't the physical state drive you to want and seek out more drugs? I think they have a lot of learning to do about addiction. People do not choose to become addicts; they don't choose to remain addicts...physical effects create addicts. Patients should not be exposed to substances that are physically addicting without psychological counseling to teach them how to not have their mind be taken over by them or the loss of them.

How can a doctor recommend and give out highly addictive, lethal substances to patients, knowing that physical dependency is inevitable, and not have a plan for meeting that physical, let alone psychological, need that will remain once the drug is taken away?! It is irresponsible and it should be illegal!

Furthermore, how can we allow the billion dollar pharmaceutical producing industry to direct market their products and give free samples and kickbacks to doctors? Is that not drug pushing? In a country that claims to have a war against drugs I don't see how that fits in. The pot growers of America don't get to legally possess their product let alone sell, or heaven forbid, market it. So why do these people? Their drugs are much more powerful and deadly.

These companies are spending 80-90% of their budgets on marketing - working to create a society that thinks no matter what's wrong with you there is a pill to cure it. Even though they are not allowed to market narcotics directly to consumers, they can to industry professionals. And their endless streams of non-narcotic drug ads create a pill/immediate gratification/it's not my fault attitude throughout society where most patients don't know the difference between the drugs on TV and narcotics. If you really need some pill the doctor should recommend it; it shouldn't be sold to you in a 60 second commercial break that promises the ability to have all your problems solved by swallowing a pill rather than taking care of yourself.

Alcohol and tobacco companies are required to be more responsible than the pharmaceutical companies. They are heavily taxed and the money is allegedly used to fund health care for those negatively impacted by the addictive affects of these products, which incidentally are also very regulated and restricted in the area of marketing. Pharmaceutical companies should be as well. They are required to do education programs and ad campaigns to promote safe use AND to put true warning statements on their labels. So should pharmaceutical companies.

We send troops to Central and South America to shut down drug operations. Yet we buy pharmaceuticals from our government endorsed drug companies to keep our Air Force pilots awake (and on edge) while on duty (possibly while dropping pesticides on the very peasants I was just referring to). Do you not see the irony here? The hypocrisy?

Let me get back to my brother's story.
While he was going through the hell of withdrawal in Raleigh NC someone he knew suggested he get a little heroin to help him through. After all, it's basically the same drug in organic form, and it's only $5 a bag. A much better deal than pharmaceuticals. Within a week he was doing 2 bags a day himself. He quickly realized he was in trouble and sent his son to Maine to be taken care of

by our mother, Zayne's grandmother. Keith followed a couple weeks later, doing 5 bags of heroin between NC and CT. This is what the doctors did for my brother!

You may say that he did not have to do the heroin and that is true. But I challenge you to go through the physical and emotional turmoil of withdrawal from Methadone WITHOUT COUNSEL and see what you do.

I've heard opiate addiction compared to the need to breathe. We are all created dependent on oxygen and if someone took away your oxygen supply, you would likely panic and do whatever was necessary to get more. When you are made physically dependent on a substance as powerful as Methadone (synthetic heroin) and someone takes that away, you too become as desperate for that drug as you are for oxygen.

And who is making people dependent on this synthetic heroin? It isn't the street thug in an alley hiding from the cops? No. It is the doctor you trust to make you well.

What happens to a person convicted of selling marijuana? You go to prison. And marijuana is not nearly as physically or psychologically as addictive as Methadone. It is not even close. It is not even lethal like Methadone, unless of course it is abused for many years. What about the store clerk that sells alcohol to a minor or a bartender who gives someone one drink too many? They are all held accountable for their actions but not the doctors.

What happens to the doctor who turned my brother into an addict? He gets in his Ferrari and drives home every night after work where he probably creates several more addicts each day.

Where is the logic or justice in this?

Police and other people have tried to tell me Marijuana is a gateway drug that leads to the more dangerous hard drugs like Coke and Heroin. I am here to tell you it wasn't pot that led my brother to heroin. It wasn't pot that killed my brother. It was a prescription (for synthetic heroin) that was given to him by an alleged "care-giver" and the reckless way in which that "care-giver" took away his physically necessary synthetic heroin, without counsel or accountability, once he was physically dependent on it.

I need to finish my brother's story.
He came to Maine in September of 2002. His goal was to get off and stay off opiates. He wanted to make his doctor in NC pay for turning him into an addict…he wanted to make him understand what his careless distribution and revoking of Methadone had done to him.

Within 2 weeks of arriving in Maine, Keith took 2/3 of a newly filled Valium prescription and drove off the road, flipping his car end over end 5 times. The nearly empty Valium bottle, an empty beer can, and a half empty bottle of rum were in the car. I asked the doctors in the ER to do a tox screen. No tox screen was done.

I told the doctors he had been struggling with Opiate addiction and that he wouldn't want more. They chastised me for not taking my brother's pain seriously. They kept him incapacitated on another opiate via IV for several days then sent him home with a script for Percocet.

In October he went into a residential detox program. It lasted 5 days and more experts proclaimed him detoxified. They suggested he stay involved in outpatient counseling. As I mentioned, my brother had totaled another car by then…he had no transportation. How was he

supposed to get to these all day meetings? He had been physically and psychologically dependent on anti-anxiety and pain relieving drugs for several years by now. Where were the life skills supposed to come from to help him live life again without the doctor recommended crutch of narcotics? No medical professional had counseled him on anything but taking drugs to cure his anxiety or pain ills for the past nearly 5 years at that point! What was he supposed to do with the pain and anxiety he felt now, sober?

SO within a week of Keith's release from detox he went to his doctor and asked for Clonipan for anxiety. Sometime in the weeks that followed he started asking for Percocet again, maybe after his 3rd or 4th car accident, I'm not sure. Within the last 7 months he spent in Maine he accumulated something like a total of over $30,000 in medical bills processed through the MaineCare program and no red flags went up.

He saw many doctors, visited many ER's and pharmacies. We called many of these people and places ourselves and tried to warn them of his drug seeking. They told us they could not legally take and use the info we were offering them. We were accused of being unsympathetic to his pain. We were unsympathetic? I would say the doctors were both unsympathetic to his emotional and physical pain from the effects of narcotic addiction AND to the pain of a family watching their loved one spiral out of control. They were arrogant and uncaring (save for 1 or 2).

I did not know this then, but have since found out, he ended up at the office of Dr. David Hallbert in Belfast asking for pain meds in late February. They gave him Vicadin. He came back and said it didn't work; they gave him Percocet. He came back and said it was better but it didn't last long enough. They gave him Methadone. This all happened in about a 2-4 week period.

They did try to get him into a Pain Clinic but there was a 2 month wait.
They sent him for an MRI but he was a no show. Finally a red flag went up. He said he'd forgotten and rescheduled. They checked up on him and found out he lied. They tried to call him and he'd given them a bogus phone #. Dr. Hallbert made an entry in his chart 3/27/03 not to prescribe anymore meds to him. 3/31/03, a weekend later, Keith called and said the new script for Methadone was working much better than the Percocet but was not quite strong enough. Apparently Dr. Hallbert did not even read his own chart because he doubled Keith's dosage to 10 mg Methadone tablets and gave him a new script for 42 tablets, 2 weeks worth, despite the note he had put in his own records just 4 days earlier. Less than 48 hours later my brother was dead.

I spoke with the doctor not long ago and he told me he had decided to switch Keith to Methadone because it was safer than Percocet for chronic pain and long term treatment. I asked him why. He said Methadone is slow acting and long lasting therefore safer.
I asked him if he was aware of the overdose rate in Maine and that at least 20% of deaths occur because of Methadone; another close to 20% because of Oxycontin. I asked how he could consider them safer given this fact. How if Oxycontin and Methadone can be crushed and snorted or injected, while Percocet cannot, HOW COULD THEY BE SAFER?? He said he was not aware of this.

You want suggestions on how to stop the epidemic of drug addiction and overdoses in this country. There are many things that can be done if people are simply brave enough to stand up to the billion dollar pharmaceutical giants and the arrogant, educated, yet ignorant, majority of doctors. They both need to be made accountable for their actions. They cannot be allowed to continue to brainwash society that drugs are necessary for all ills; that drugs are safe; that physical dependency is not addiction or won't lead to it; that masking pain rather than treating the

problem is the only way; and that physical pain is more important and real than mental or emotional pain.

Here are some specific changes that can be made to accomplish this:

1 – Stop the direct marketing to end users and the kickbacks to doctors by the pharmaceutical companies…IF THE DRUG IS WORTHY IT WILL BE USED.

2 – REQUIRE insurance companies to cover holistic medical and preventative health treatments like massage, acupuncture, whirlpool therapy, rolfing, yoga, and many, many other practices that actually treat the problem NOT just the symptom. Pain is under treated but not because not enough meds are given out, but because most traditional doctors refuse to look at the whole picture of cause and effect.

3 – EDUCATE doctors, law enforcement, and SOCEITY about the dangers of ALL narcotic drugs, not just street drugs.

4 – Require pharmacies to put real warning labels on the bottles of narcotics…these drugs are HIGHLY ADDICTIVE and LETHAL and yet no one tells the consumer! "May cause drowsiness" and "Take only as suggested" doesn't quite paint a clear picture…"this drug suppresses the respiratory system and can be fatal" is a little more to the point.

5 – a REAL TIME in-office online system for ALL script writers and pharmacists is a MUST. If we are going to allow these drugs to be used (and I am NOT convinced we should), then we need to make those giving them out are RESPONSIBLE. The prescribing doctor should be required to check an ACCURATE, up to the minute system that will show all scripts, or at least all narcotic scripts, filled by the patient within the past 2 years up to the past 2 hours. And the patient should be required to SHOW ID.
IF a doctor writes a script that shouldn't be given, or the pharmacists fills a script that shouldn't be filled, then they should be held legally accountable like any other drug dealer selling illicit drugs because it's the same thing.

6 – Require, fund, or otherwise encourage research in non-addictive, non-harmful pain medications. Opiates, synthetic or otherwise, are not healthy substances to be putting into our bodies. They are intoxicants…they have no valuable contribution to our health other than to trick us into thinking we are better by intoxicating us while damaging our liver and depriving us of oxygen and tissue regenerating sleep.

7 – Take the money that pharmaceutical companies should no longer be able to spend on direct or industry promotion of drugs and FUND long term residential rehab facilities and other treatment centers and educational programs.

8 – Decriminalize marijuana and take the money being wasted on chasing down weeds and use it to chase the Hell's Angels and other dealers of diverted pharmaceutical and other illegal drugs….AND on treatment centers and real time script tracking systems.

9 – Ease privacy laws so that more stats can be collected for education, treatment, and enforcement purposes and so that doctors can communicate with families and other facilities more easily to avoid possible abuse and drug seeking behaviors.

10 – Restrict the quantity of opiates that can be given out at once and consider requiring physical and emotion therapy with "necessary" scripts.

11 – MANDATE REHAB (or some counseling program) and drug level TESTING for any patient given opiates as a treatment, especially with long term use. We have to recognize and acknowledge the incredible addictive power these substance have and treat it as the danger it is. The physical effects are so strong it can change the reality of users into one where they literally believe they need more to survive. You cannot get people hooked on a substance like this and then take it away without help…isn't that how the drug pushers work on the streets?? It's wrong!

12 – Stop or seriously restrict the use of Methadone clinics for treatment of addiction and NEVER allow take home doses. You are trading one highly addictive substance for an even more physically addictive substance. …for heaven's sake, these people are known addicts! The spirit may be willing but the flesh is weak.

13 – Make it illegal to drive while on these substances regardless of whether there is a legal script or not. Your legal right to be on these drugs does not make you capable of operating a vehicle safely while on them. My brother had at least 4 accidents while under the influence of Opiates and/or Benzoates. Someone easily could have been killed but by the grace of God they were not.

14 – Train ALL law enforcement officers to recognize and be able to field test for drug use (like alcohol use). I've been told there are only a certain few officers in the area or state that are certified to do a field sobriety test for substances other than alcohol. Who wants to hold a person who may or may not be under the influence of drugs while they wait to call in the special test worthy officer? I am sure there would be lawsuits and professional ridicule if a well meaning officer were wrong although he had not been trained to recognize the signs of drug affect. Not to mention that the visible effects of many opiates is short lived so even if they were visibly intoxicated when stopped, by the time the certified tester arrived on the scene an hour or so later the visible effects may well be gone. The ability to show just cause for a test may have been lost during the wait.

Thank you for taking the time to read this.

I know it is long but the problems we are faced with are huge and the consequences of letting this continue are unacceptable.

I know my words may seem very angry and biased but I think given the way the medical industry treated my brother and my family that I have some right. It is wrong that medicine is destroying, rather than saving lives. Their callous disregard for the destructive power of these drugs is more wrong than the street dealers' actions. A street drug dealer does not sell himself as a "health" professional, but doctors do, and are supposed to be concerned with our health. Patients trust them and think if their doctor not only recommends it to them, but gives it to them, than it must be safe. It is the worst betrayal I can imagine outside the family unit.

I also know that it is not just the medical industry, it is myself, and each of us in society. People are crying out everyday for help and there is little to be found. We have to help. We have to stop this madness.

Please don't let more families go through the agony mine has endured without doing all that is possible to affect change.

STATE OF MAINE

Maine Drug-Related Mortality Patterns: 1997-2002

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Executive Summary

Drug deaths have been increasing in Maine. Reports on this increase by the media and the police have raised public concern. The Office of Chief Medical Examiner, Office of Attorney General, and Office of Substance Abuse have responded by launching a review and analysis of drug deaths that occurred during the past five years. This report summarizes the findings of that study, which focuses on medical examiner cases from 1997 through June 2002. The analysis includes both suicidal and accidental overdoses. In particular, it addresses a rising problem with prescription drug abuse.

Both the rate and number of drug deaths have increased substantially in the past five years, rising from 34 in 1997 to 90 in 2001. The projected number for 2002 is 161, over four times the 1997 number (Figure 1). The rise in drug deaths is due primarily to a rise in accidental, not suicidal, overdoses. The increased incidence of drug deaths is part of a national trend now affecting rural states.

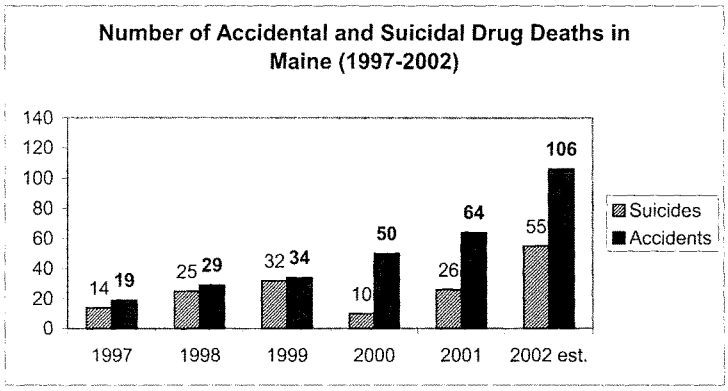

Figure 1. Number of accidental and suicidal drug deaths in Maine, 1997-2002 (2002 is projected)

In general, the number of deaths in each county mirrors the geographical distribution of the Maine population, with most cases occurring in the southern part of the state. However, all counties are affected (Table 1).

This study includes all medical examiner cases in which a drug or toxic substance caused the death. Each of these cases was investigated by the Office of Chief Medical Examiner. Overdose cases routinely receive an autopsy and a complete toxicology test. About 26% of victims die in the hospital and 62% at home; 12% die in other locations. When the death occurs outside the hospital, the police routinely conduct a scene investigation.

Table 1. Number and percent of confirmed drug deaths by county, 1997-2002

Number	*(Percent)*	*County*
19	(5.1%)	Androscoggin
12	(3.2%)	Aroostook
126	(33.7%)	Cumberland
12	(3.2%)	Franklin
10	(2.7%)	Hancock
37	(9.9%)	Kennebec
17	(4.5%)	Knox
4	(1.1%)	Lincoln
10	(2.7%)	Oxford
46	(12.3%)	Penobscot
3	(0.8%)	Piscataquis
2	(0.5%)	Sagadahoc
12	(3.2%)	Somerset
5	(1.3%)	Waldo
8	(2.1%)	Washington
51	(13.6%)	York
374	(100.0%)	TOTAL

The increase in drug deaths is largely a problem with prescription drugs, particularly those frequently prescribed for pain, anxiety, and depression. Prescription drugs cause 63% of accidental deaths and 94% of suicidal deaths. Table 2 lists the most common drugs implicated in Maine's drug deaths. An overwhelming majority involve narcotics (opiates and opioids) prescribed for pain, including methadone, oxycodone, fentanyl, and others. In 53% of all drug deaths, narcotics are mentioned as a cause of death. Prescription narcotics, including methadone, comprise 65% of the narcotic deaths. Heroin, an illicit narcotic opiate, is mentioned as a cause of death in 37% of the narcotic related deaths. The narcotic drugs are frequently taken in combination with each other and with other prescription medications, such as antidepressants and antianxiety medications. Death results from a range of factors, including self-medication for opiate dependence, "recreational abuse," intentional overdose, and unforeseen drug interactions.

Detailed examination of the 2001 case files reveals information about the prescription status of the drugs causing the deaths. Information was available for 96% of the 26 suicides, but for only 52% of the 64 accidents. Of those with prescription information, 88% of suicide victims and 52% of accident victims had a prescription for at least one drug that was listed in the cause of death.

Methadone and heroin are the individual drugs most frequently identified in toxicology tests, each present in about a quarter of all cases. For the year 2001, fewer than half of the deaths involving methadone had a documented prescription. Prescriptions include those from a methadone maintenance clinic, a pain clinic, or a private physician. Wide variance in individual tolerance makes methadone abuse risky. Doses that are safe in one person can be fatal in another with reduced tolerance due to abstinence or individual characteristics. The risks for both liquid methadone and heroin use are increased because the user may not know for sure the potency of the drug.

Table 2. Drugs most commonly identified as the cause of death, 1997-2002

*Drug or drug class **	*Percent of 374 Cases*	*Common names*	*Drug class*
Polydrug combinations	23%	N/A	
Morphine/heroin	20%	Morphine/heroin	Narcotic analgesic
Methadone**	18%	Methadone	Narcotic analgesic
Prescription narcotic analgesics* (except methadone)	17%	N/A	
Ethanol	15%	Alcohol	Depressant
Amitriptyline	6%	Elavil	Antidepressant
Cocaine	5%	Cocaine	Stimulant
Diazepam	3%	Valium	Anti-anxiety agent
Fluoxetine	2%	Prozac	Antidepressant
Prescription narcotic analgesics* (except methadone)			
-Oxycodone	7%	OxyContin, Percocet, Tylox	Narcotic analgesic
-Propoxyphene	4%	Darvon	Narcotic analgesic
-Fentanyl	5%	Duragesic	Narcotic analgesic
-Hydrocodone	3%	Vicodin, Lorcet	Narcotic analgesic
-Codeine	1%	Codeine	Narcotic analgesic

** Percentages add to more than 100%, because more than one drug may be identified as causative in a single death. The percentage for the prescription narcotic category is calculated on an unduplicated count of all deaths caused by any prescription narcotic, except methadone. Polydrug is the term used for cause of death when no one drug is identified individually on the death certificate.*
*** Methadone is a prescription narcotic analgesic used to treat pain in some patients and addiction in others.*

Drug death victims, both for accidents and for suicides, have a broad range of ages. About two-thirds of decedents are between 30 and 50, with a mean age of 40. Sixty-eight percent of accidental overdoses and 49% of suicides are male.

Selected demographic comparisons between overdose victims and the general (Maine 2000 Census) population include the following notable statistics. Compared to the general population, among victims, there are 14% more males, 9% fewer Maine natives, and 34% fewer who are married. About 6% fewer victims have earned at least a high school diploma. (Table 3):

Table 3. Highlighted demographic characteristics for all drug related deaths, 1997-2002, compared to the Maine 2000 Census population

	Drug Overdose Victims	*Maine 2000 Census*
Males	62%	48%
Born in Maine	58%	67%
Married	24%	58%
Single/Divorced	71%	36%
Education high school or greater	79%	85%

Those who die of overdose are likely to have other medical problems, as documented in the autopsy and by medical history. About 55% have a history of mental illness, including depression. More mental illness is reported among suicides (72%) than accidents (42%). About 50% of overdose victims have a history of drug abuse. This proportion is much higher among accidental overdoses (73%) than suicides (16%). Many decedents have other physical conditions, such as cardiovascular disease, lung disease, obesity, or chronic pain. These underlying conditions may increase vulnerability to fatal drug overdose, either due to reduced capacity (for example, of lungs or heart) or because medications prescribed for the conditions may interact dangerously with drugs of abuse.

Death certificates and narrative information gathered during the death investigation reveal details about the death event. Statistically, females are more likely (31%) than males (22%) to die in a hospital. Conversely, males are more likely (14%) than females (7%) to die away from a residence and outside the hospital. A commonly repeated description of the circumstances surrounding deaths includes comments about the person "sleeping" and snoring heavily just prior to death, likely an unrecognized sign of respiratory distress. Other investigative information shows that the location of death may be "sanitized" (by removing illegal drugs) before calling for help, or victims may be moved by companions to a neutral location from which to call 911, or placed where the body will be readily discovered by others.

In summary, the dramatic rise in overdose deaths in Maine is due mainly to a rise in accidental overdoses, primarily involving illicit and prescription narcotics in combination with other prescription drugs and alcohol. The most common drugs seen are narcotic pain medications (including methadone) and heroin. Medications prescribed for pain, depression, and anxiety all appear frequently as causes of death, often co-occurring. These overdose trends parallel those seen nationally. The picture of this population that emerges suggests that increased risk of death may be associated with a history of substance abuse, underlying natural disease, and use or abuse of multiple prescription medications. Legitimate prescriptions and diverted prescription medications are both important factors in drug fatalities and should be addressed, along with attention to illicit drug use.

Background

Substance abuse is a critical problem facing Maine state and local government and the communities they serve. It is associated with many types of crime, increased accidents, lost time at work, serious health problems, social dysfunction, and death. Within the last several years, problems related to drug abuse in Maine have received increased attention from the media, law enforcement, the justice system, and local communities.

Rates of substance abuse, particularly associated with heroin, methadone, and other synthetic opiates are increasing dramatically, as reflected in emergency medical care encounters, substance abuse treatment admissions, drug-related arrests, and drug-related deaths. Problems with OxyContin in Washington County have received national media attention. There is continuing public debate regarding the opening of methadone clinics. Recently, media attention has been focused on Cumberland County as overdose deaths increase.

The ability of Maine state government to generate effective and appropriate public policy responses to drug-related problems depends on having valid and reliable data. With this need in mind, the Office of Chief Medical Examiner sought funding from the Maine Justice Assistance Council to analyze medical examiner data concerning drug-related deaths.[1] The goal of the Maine Drug-Related Mortality Patterns project is to provide an immediate, comprehensive review and analysis of the drug-induced and drug-related deaths in the State of Maine from 1997 through the first two quarters of 2002. The data are compared with published national data on drug deaths, data from the 2000 U.S. Census, as well as available analyses from other states.

The project represents a collaborative effort between the Office of Chief Medical Examiner (OCME) and its project partners, the Office of Attorney General (OAG), the Office of Substance Abuse (OSA), and the Margaret Chase Smith Center for Public Policy at the University of Maine (MCSC). Funding for the project was provided by the Maine Justice Assistance Council (Edward Byrne Memorial Grant) and the OSA. Direct project support was provided by the Office of Chief Medical Examiner, the Office of Attorney General, and the University of Maine.

Methods

Study Population and Data Sources

All drug-related deaths are medical examiner cases.[2] Investigation of these cases includes medical examination and toxicological testing, and frequently also involves law enforcement investigation of the circumstances surrounding the death. Medical examiner files provide the primary source of data for this study. These records are the most complete and systematic source of information about victims of drug overdose.

The study population includes all closed cases of drug-related deaths from January of 1997 through June 2002. All cases in which drug toxicity appeared as a cause or contributing factor on the death certificate are included. All drug-related cases from 1997 through 2001 have been closed; but, at the time of this report, the first six months of 2002 still had open cases, where the cause and manner of death were pending.

The primary data sources are the death certificate, toxicology report, autopsy report, and medical examiner report. The death certificate includes:

- Demographic information about the decedent (age, marital status, occupation, race, ethnicity, place of residence, birthplace, military status)
- Information about the death event (time and place)
- Information about whether an autopsy was performed
- A determination of medical cause and the manner of death (natural, accident, suicide, homicide, undetermined)

The medical examiner report and the autopsy report were used to reconstruct details about decedent history, when such information was available, for 2001 cases, including: (1) history of substance abuse; (2) history of mental illness; (3) whether there was evidence the decedent had a prescription for drugs listed on the death certificate as causing the death, including therapeutic methadone for pain or opiate addiction.

Defining Drug-Related Deaths

Drug-related deaths include any deaths where the drug is either a direct cause of the death or a significant underlying factor. They may involve illicit drugs, such as heroin or cocaine. They may involve *drug abuse*, for example, when prescription drugs have been (1) diverted from legitimate prescription holders to other individuals, or (2) intentionally taken in a manner other than as prescribed. A drug-related death may also be an unintended consequence of *drug use,* for example, (1) prescription interactions, including cases where multiple medical providers have been prescribing for one individual, or (2) adverse individual responses to particular drugs or particular doses.

In some drug-related deaths, the immediate cause of death may not be the drug itself, but may be a consequence of the drug's presence. For example, the immediate cause of death may be noted as lack of oxygen to the brain (brain anoxia), but this may be due to methadone toxicity. Methadone would then be an underlying cause. In other cases, multiple drugs may have caused the death. In multiple drug cases, each drug may be identified on the death certificate. However, the roles of mixed drugs may be too complex to reconstruct. In these cases the medical examiner may list "polydrug" or "mixed drug" toxicity as the cause, and not specify a drug name. Some deaths occur as a direct consequence of disease, but drug use or abuse may be a significant factor

in the victim's inability to survive the disease. For example, in certain dosages or circumstances, a tricyclic antidepressant may increase the potential for a cardiac arrhythmia. Death may be due to underlying heart disease, but the drug adds to the cardiac malfunction. In such cases, cardiac disease is the cause of death, but that specific drug may be listed as a significant factor on the death certificate.

In this study we include all cases in which the use/abuse of a substance was a primary or underlying cause of death, or in which the use/abuse of a substance was noted as a significant factor contributing to the death. Cases in which alcohol, but not drugs, caused the death are not included here. However, we do include deaths where alcohol was implicated in combination with drugs. Although inhalation of carbon monoxide is sometimes grouped with other poisoning deaths, we have excluded those cases from this study.

Determining Manner of Death

The Maine Office of Chief Medical Examiner classifies as accidents drug deaths directly due to the unintended or unexpected, acute (sudden or short-term), toxic effects of a drug or poison. These include natural disorders if caused by an acute exposure to a drug, such as a stroke that results from acute cocaine intoxication. This designation is consistent with guidelines recently published by the National Association of Medical Examiners (Hanzlick et al. 2002) for determining the manner of death when drugs are involved. Jurisdictions outside Maine may use different criteria.

Deaths resulting from the known toxic effects of accepted medical treatment, such as digitalis toxicity from treatment of congestive heart failure, are ruled natural. When death is a consequence of chronic (long-term) substance abuse, such as withdrawal seizures from chronic alcoholism, or cardiac inflammation (endocarditis) due to chronic intravenous drug abuse, the manner is ruled natural as well.

Deaths may be classified as a suicide in Maine only if there is a "preponderance of evidence" that the person intended to cause their own death. An example of intent would be a suicide note or previous suicide attempts. Although drug abuse in and of itself carries an inherent risk of overdose and death, engaging in risky or reckless behavior is not generally considered sufficient evidence of suicidal intent.

In this report we often combine accidents and suicides statistically, as is done in much of the published literature about drug deaths. However, when the characteristics being discussed differ between suicides and accidents, we report them separately.

Toxicology Testing

All drug deaths routinely include toxicology testing. The resulting report includes all drugs identified in a person's system at the time of death. The interpretation of toxicology findings is often complex and includes details about the victim's autopsy, medical history, and the circumstances surrounding the death. In some cases, the drug chemicals break down in the body and only their less specific metabolites can be found. For example, heroin metabolizes quickly to morphine in the body. Once that occurs, prescription morphine and heroin cannot be differentiated. With certain drugs, breakdown of chemicals may be more extensive if there is a delay in discovering the death.

The relationship between drug levels in the toxicology report and the cause of death is not always straightforward. Toxic drug levels sometimes overlap with therapeutic levels, as they do for methadone. Multiple drugs may interact with each other in dangerous ways. It is possible for an otherwise benign drug at therapeutic levels to be toxic in combination with other drugs.

Not all drugs identified in the toxicology report are related to the cause of death. For example, a person may be on methadone maintenance, but die due to an insulin overdose. Methadone would appear in the toxicology findings, but not be connected to the death. In such a case, although the toxicology report identifies methadone, it is not included in the cause of death. The toxicology report may include prescription medications the victim was taking or medications administered by emergency medical providers for resuscitation.

"Mixed Drug" and "Polydrug" Cases

In some cases with multiple drugs present, the possibilities for drug interaction are too numerous and complex to implicate specific drugs, and the cause listed is "mixed drug" or "polydrug" toxicity. In these cases, we refer to the toxicology report for details regarding the presence of specific drugs, focusing on the major drugs of abuse. We have counted all instances where morphine/heroin, for example, was found in the toxicology screen of polydrug cases. However, it is important to point out that not all drugs identified in a "polydrug" toxicology screen may have actually caused the death. For example, acetaminophen and cannabis are frequently identified by toxicology, yet these drugs would normally not be implicated in the death.

Two Sources of Data about Drug Involvement: Death Certificate and Toxicology

We use two approaches to analyze which drugs are involved with these deaths. Data from the death certificate and data from the toxicology report reflect different aspects of drug morbidity and mortality. The death certificate specifies which drugs are implicated as causing or significantly contributing to the death. Those drugs are physiologically the most important with regard to mortality patterns and risk. However, in the many cases that have "polydrug" causes, the death certificate does not specify which particular substances are toxic.

Accordingly, we also examine drug involvement by analyzing all toxicology reports, including those of the polydrug cases. This approach has the advantage of revealing comprehensive drug involvement for every case. However, it draws analytical attention to all drugs present, including those that may be used or abused, but may not necessarily have caused death. This method reveals more about the overall available supply of drugs, both legitimate and illicit, than it does about risk. That is, it demonstrates which drugs are commonly used in the community, in both therapeutic situations and on the street.

Autopsy

An autopsy is a postmortem examination performed to determine cause of death. If a death seems to be drug-related, an autopsy is routinely done. A microscopic examination of the major organs may be necessary to diagnose or exclude diseases. Once all the results of the autopsy are available, an autopsy report is generated, which lists all of the findings.

Vulnerability to drug toxicity may be increased due to the presence of underlying disease. Conversely, vulnerability to underlying disease may be enhanced by drug toxicity. Knowing more about typical patterns of underlying disease in drug fatality victims may be useful in designing public health programs for risk reduction. We report the frequencies for associated disease found at autopsy and noted on the death certificate for the entire study population.

Projection for 2002

This study includes all cases received in the Office of Chief Medical Examiner through June, 2002 and confirmed as of September 15th. Some suspected drug cases from January through June of 2002 still remained open. In order to project the total deaths for 2002, the number of confirmed cases for the first six months was doubled: (70 x 2 =140). This is a minimum estimate, since cases were still pending.

To project a maximum number, the number of cases still open (21) was doubled (42) and added to the minimum (140 + 42 = 182) to calculate a maximum figure. Since not all open cases will be confirmed as drug deaths, the midpoint between the minimum and maximum range has been used as a projected mid-range total (161).

The five-year average of 34% suicides and 66% accidents has been used to project the suicide/accident estimates for 2002. Thus, projected total deaths are estimated at 140-182. Of these, 48-62 are likely to be suicides and 92-120 are likely to be accidental overdoses.

Results

Increase in Maine Drug-Related Deaths

The annual rate of all drug deaths in Maine has more than quadrupled since 1997 (Table 4; Figure 1); but accidental drug deaths have risen six-fold. In the five-year span between 1997 and June 2002 there have been 374 confirmed drug deaths, about one-third (123) suicides and two-thirds (248) accidental overdoses. Drugs played a contributing role in two cases ruled as natural deaths and one ruled as undetermined manner.

In the first year of the series, 1997, there were 34 total drug related deaths; in 2001 that number had risen to 90. During the first six months of 2002, 70 drug deaths have already been confirmed, with 21 more possible drug deaths awaiting final determination of cause and manner. Of these 70 deaths, 52 are accidental overdoses and 16 are suicides.

The number of suicidal drug deaths in Maine has varied during the last five years between a low of 10 deaths in 2000 and a high of 32 in 1999. The fluctuation is not unexpected given the small numbers. Suicide totals have not risen steadily as have the accidental deaths. The current year's projected number of suicides is 48-62.

Accidental drug deaths have risen every year of the five-year study period, beginning at only 19 in 1997. The projected number of accidental drug deaths for 2002 is 92-120. It is the accidental overdose deaths, not suicides, which have fueled the dramatic increase in overall drug deaths.

Table 4. Number of drug deaths by manner of death, 1997-2002

	1997	1998	1999	2000	2001	2002 Jan-June*	Total Confirmed No. (%)	Projected Totals for 2002
Accidents	19	29	34	50	64	52	248 (66.3%)	92-120
Suicides	14	25	32	10	26	16	123 (33.9%)	48-62
Natural	0	0	0	0	0	2	2 (0.5%)	0
Undetermined	1	0	0	0	0	0	1 (0.3%)	0
TOTAL	34	54	66	60	90	70	374 (100.0%)	140-182

**Totals for the period January – June 2002 are incomplete, due to pending cases.*

Drug Deaths by County

Overall, the number of deaths in each county mirrors the geographic distribution of the Maine population, with most cases occurring in the southern part of the state. Nevertheless, all counties are affected (Table 5). (See Appendix A for a breakdown by county of specific drugs identified in toxicology tests. Appendix B summarizes the frequency by year for the three counties with the highest proportion of drug deaths: Cumberland, York, and Penobscot.)

Media reports have focused public attention on the incidence of overdose deaths in the southern, more urban part of the state, Cumberland and York Counties. Cumberland County has 21% of Maine's population and 34% of all drug deaths (35% of the accidents and 30% of the

suicides). Together, Cumberland and York Counties have 36% of Maine's population and 47% of the drug deaths.

Washington County has received significant media attention regarding problems with opiate addiction, specifically OxyContin (oxycodone). However, the Washington county drug deaths do not show drug death numbers out of proportion with the population. Washington County has 3% of the Maine population and 2% of the drug deaths. Five Washington County deaths involve oxycodone: 3 in 1999, 1 each in 2001 and 2002.

Table 5. Frequency of drug deaths by county, 1997-2002, compared with Maine 2000 Census population

County	Accidents	Suicides	Natural	Undetermined	All Drug Deaths	Maine 2000 Census Population
Androscoggin	16 (6.5%)	3 (2.4%)			19 (5.1%)	103,793 (8%)
Aroostook	3 (1.2%)	9 (7.3%)			12 (3.2%)	73,938 (6%)
Cumberland	87 (35.1%)	37 (30.1%)	2 (100.0%)		126 (33.7%)	265,612 (21%)
Franklin	11 (4.4%)	1 (0.8%)			12 (3.2%)	29,467 (2%)
Hancock	6 (2.4%)	4 (3.3%)			10 (2.7%)	51,791 (4%)
Kennebec	19 (7.7%)	18 (14.6%)			37 (9.9%)	117,114 (9%)
Knox	10 (4.0%)	7 (5.7%)			17 (4.5%)	39,618 (3%)
Lincoln	3 (1.2%)	1 (0.8%)			4 (1.1%)	22,616 (3%)
Oxford	7 (2.8%)	3 (2.4%)			10 (2.7%)	54,755 (4%)
Penobscot	33 (13.3%)	13 (10.6%)			46 (12.3%)	144,919 (11%)
Piscataquis	3 (1.2%)	0 (0%)			3 (0.8%)	17,235 (1%)
Sagadahoc	2 (0.8%)	0 (0%)			2 (0.5%)	35,214 (3%)
Somerset	6 (2.4%)	6 (4.9%)			12 (3.2%)	50,888 (4%)
Waldo	3 (1.3%)	1 (0.9%)		1 (100.0%)	5 (1.4%)	36,280 (3%)
Washington	6 (2.4%)	2 (1.6%)			8 (2.1%)	33,931 (3%)
York	33 (13.3%)	18 (14.6%)			51 (13.6%)	186,742 (15%)
TOTAL	248 (100.0%)	125 (100.0%)	2 (100.0%)	1 (100.0%)	374 (100.0%)	1,274,923 (100%)

Where Deaths Occur

The death certificate records the location of death, as Tables 6 and 7 summarize. About 26% of victims die in the hospital and 62% at a residence; 12% die in other locations. Death locations for accident and suicide victim deaths are very similar, differing by only a few percentage points. There are, however, differences between males and females. More females die in the hospital than males (31% compared to 22%). Conversely, more males are than females die in a place other than the hospital or a residence, such as a motor vehicle or in the open (14% compared to 7%).

Table 6. Location of death by manner of death

	Accidents	Suicides	Undetermined And Natural	All
Hospital	67 (27.0%)	27 (22.0%)	2 (67.0%)	96 (25.7%)
Residence	151 (60.9%)	81 (65.9%)	1 (33.0%)	233 (62.3%)
In open	6 (2.4%)	3 (2.4%)	0 (0.0%)	9 (2.4%)
Motor vehicle	2 (0.8%)	0 (0.0%)	0 (0.0%)	2 (0.5%)
Nursing home	3 (1.2%)	0 (0.0%)	0 (0.0%)	3 (0.8%)
Other	19 (7.7%)	12 (9.8%)	0 (0.0%)	31 (8.3%)
TOTAL	248 (100.0%)	123 (100.0%)	3 (100.0%)	374 (100.0%)

Table 7. Location of death by sex

	Males	Females	All
Hospital	51 (22.2%)	45 (31.3%)	96 (25.7%)
Residence	144 (62.6%)	89 (61.8%)	233 (62.3%)
In open	7 (3.0%)	2 (1.4%)	9 (2.4%)
Motor vehicle	2 (0.9%)	0 (0.0%)	2 (0.5%)
Nursing home	2 (0.9%)	1 (0.7%)	3 (0.8%)
Other	24 (10.5%)	7 (4.9%)	31 (8.3%)
TOTAL	230 (100.0%)	144 (100.0%)	374 (100.0%)

Drugs Involved in the Deaths

A total of 80 different drugs appear as a cause or contributing factor in the 374 death certificates in this study. Three drug classes predominate: narcotics, antidepressants, and anti-anxiety agents. Most of these drugs are available by prescription and most deaths involve two or more drugs in combination. About a quarter of the deaths list "polydrug" or "mixed drug" toxicity as a cause, rather than indicating a specific drug. We use two data sources to analyze the array of drugs involved in the deaths, (1) drugs appearing in the toxicology findings, and (2) drugs specifically mentioned in the death certificate.

Drugs Found by Toxicology

As discussed, all drugs found in the toxicology screen may not contribute equally to the cause of death. However, they are an indication of the underlying medication "load," and the overall supply of drugs. Table 8 presents the drugs that appear most frequently in the toxicology findings over the entire study period, ranked by number of occurrences. Table 9 provides the common name and drug class of the drugs listed in Table 8. The toxicology test does not identify the different forms of methadone (liquid, tablets) or, in most cases, distinguish morphine (the pain medication) from heroin (the illicit drug), or OxyContin from other forms of oxycodone.

Other than alcohol, the most common drugs found in the toxicology screens on the accidental deaths are narcotic analgesics (methadone, morphine/heroin, oxycodone, hydrocodone), anti-anxiety drugs (diazepam, alprazolam) antidepressants (most frequently amitriptyline) and cocaine. Methadone and heroin occur most frequently in toxicology results

overall, and are much more likely to be found in accidental, rather than suicidal cases. Methadone and heroin each occur in about a quarter of all drug deaths and in about a third of all accidental deaths (Table 8). They may occur together.

Toxicology screens from suicidal overdoses tend most frequently to include alcohol, antidepressants (most frequently amitriptyline, fluoxetine), anti-anxiety medications (diazepam), some narcotic analgesics (oxycodone, propoxyphene) and one antihistimine (diphenhydramine). Methadone and heroin are much less frequent in suicides, occurring in about 5% of cases.

Table 8. Top five-ranked drugs found in toxicology screen 1997-2002 and frequency of occurrences*

ACCIDENTS		SUICIDES		ALL DRUG DEATHS	
Rank	**Frequency (n=248)**	**Rank**	**Frequency (n=123)**	**Rank**	**Frequency (n=374)**
1. Methadone	81 (32.7%)	1. Ethanol	29 (23.5%)	1. Methadone	88 (23.5%)
2. Morphine/heroin	79 (31.9%)	2. Amitriptyline	19 (15.4%)	2. Morphine/heroin	85 (22.7%)
3. Diazepam	58 (23.4%)	2. Propoxyphene	19 (15.4%)	3. Ethanol	83 (22.2%)
4. Ethanol	53 (21.4%)	3. Oxycodone	18 (14.6%)	4. Diazepam	75 (20.1%)
5. Oxycodone	45 (18.1%)	3. Diphenhydramine	18 (14.6%)	5. Oxycodone	63 (16.8%)
		4. Diazepam	17 (13.8%)		
		5. Fluoxetine	15 (12.2%)		

**Note that some drugs share a rank*

Table 9. Common name and drug class for frequently occurring drugs

Drug	Common/Brand Name	Drug Class
Amitriptyline	Elavil	Antidepressant
Diazepam	Valium	Anti-anxiety agent
Diphenhydramine	Benadryl	Antihistamine
Ethanol	Alcohol	Depressant
Fentanyl	Duragesic	Narcotic analgesic
Fluoxetine	Prozac	Antidepressant
Hydrocodone	Vicodin	Narcotic analgesic
Methadone	Methadone	Narcotic analgesic
Morphine/heroin	Morphine/heroin	Narcotic analgesic
Nortriptyline	Aventyl	Antidepressant
Oxycodone	OxyContin	Narcotic analgesic
Propoxyphene	Darvon	Narcotic analgesic

Drugs Mentioned on the Death Certificate

Tables 2, 10, and 11 report the drugs most frequently mentioned on death certificates as a cause or contributing factor. Table 10 displays the variation between suicides and accidents, and Table 11 shows the changes over time. The medical examiner's determination of the cause of death is based on an interpretation of the toxicology findings, in association with the other autopsy findings and the circumstances of death. Thus the cause of death findings reflect the toxicology findings, but focus only on key drugs causing the fatality. Mortality Data from the Drug Abuse Warning Network (DAWN) for the year 2000 indicate that, for urban areas in their sample, the three drugs most frequently mentioned were heroin, cocaine, and alcohol, accounting for about two-thirds of the drugs mentioned. In Maine the pattern is slightly different, with more

emphasis on opiates: the top three drugs mentioned were methadone, alcohol, and morphine/heroin. Cocaine is prevalent, but does not rank among the top five in Maine.

Table 10. Drugs most frequently mentioned on the death certificates as a cause or contributing factor 1997-2002*

Drug Mentioned	All Drug Deaths No. (% of 374 cases)	Accidents No. (% of 248 cases)	Suicides No. (% of 123 cases)
Polydrug **	87 (23.3%)	53 (21.4%)	34 (27.6%)
Methadone	66 (17.6%)	64 (25.8%)	2 (1.6%)
Ethanol	57 (15.2%)	38 (15.3%)	19 (15.4%)
Morphine/heroin	73 (19.5%)	69 (27.8%)	4 (3.3%)
Oxycodone	26 (7.0%)	17 (6.9%)	9 (7.3%)
Amitriptyline	24 (6.4%)	14 (5.6%)	10 (8.1%)
Cocaine	20 (5.3%)	19 (7.7%)	0 (0.0%)
Propoxyphene	16 (4.3%)	7 (2.8%)	9 (7.3%)
Fentanyl	18 (4.8%)	16 (6.5%)	2 (1.6%)
Diazepam	12 (3.2%)	9 (3.6%)	3 (2.4%)
Hydrocodone	11 (2.9%)	7 (2.8%)	4 (3.3%)

**Note that more than one drug may be mentioned in a single case.*
***One polydrug case is undetermined manner and one cocaine case is a natural death.*

Table 11. Top ten substances listed as cause of death by year, 1997-2002

Drug	1997	1998	1999	2000	2001	2002*	TOTAL
Polydrug	7 (8.0%)	22 (25.2%)	19 (21.8%)	12 (13.8%)	17 (19.5%)	10 (11.5%)	87 (99.8%)**
Methadone	4 (6.1%)	4 (6.1%)	7 (10.6%)	19 (28.8%)	14 (21.2%)	18 (27.3%)	66 (100.1%)**
Ethanol	7 (12.3%)	7 (12.3%)	11 (19.3%)	6 (10.5%)	15 (26.3%)	11 (19.3%)	57 (100.0%)
Morphine/ Heroin	6 (8.2%)	12 (16.4%)	9 (12.3%)	10 (13.7%)	23 (31.5%)	13 (17.8%)	73 (99.9%)**
Oxycodone	0 (0.0%)	3 (11.5%)	7 (26.9%)	2 (7.7%)	5 (19.2%)	9 (34.6%)	26 (99.9%)**
Amitriptyline	5 (20.8%)	4 (16.7%)	5 (20.8%)	2 (8.3%)	5 (20.8%)	3 (12.5%)	24 (99.9%)**
Cocaine	3 (15.0%)	6 (30.0%)	2 (10.0%)	2 (10.0%)	5 (25.0%)	2 (10.0%)	20 (100.0%)
Propoxyphene	3 (18.8%)	5 (31.3%)	2 (12.5%)	1 (6.3%)	4 (25.0%)	1 (6.3%)	16 (100.2%)**
Fentanyl	1 (5.6%)	1 (5.6%)	4 (22.2%)	3 (16.7%)	6 (33.3%)	3 (16.7%)	18 (100.1%)**
Diazepam	6 (50.0%)	3 (25.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (25.0%)	12 (100.0%)
Hydrocodone	1 (9.1%)	3 (27.3%)	0 (0.0%)	3 (27.3%)	3 (27.3%)	1 (9.1%)	11 (100.1%)**

**The numbers for 2002 in this table are confirmed deaths for first 6 months, not a projection for entire year.*
***Rounding error.*

Multiple Drug Involvement: "Polydrug" Cases and Their Toxicology Findings

Most deaths involve more than one drug. However, the proportion of deaths where only one drug is implicated in the cause of death has more than doubled from 24% in 1997 to 46% in 2001, and 59% for the partial 2002 year.

As is seen across U.S. medical examiner jurisdictions, drugs typically co-occur in many combinations, making it difficult to isolate a single drug as the cause of death. The "polydrug" cause is one of the most frequent causes mentioned (87 cases, 23%). The drugs identified in the polydrug case toxicology tests mirror the frequency distribution found overall. For example, methadone and heroin are the most prevalent.

Table 12 displays the toxicology findings for the polydrug cases, focusing on the frequency of major drugs of abuse in these toxicology test results. We have placed the drugs

most frequently mentioned in the cause of death into the same table with the polydrug toxicology results. Although these outcomes (cause of death and toxicology finding) are not the same, they are related. The right-most column adds these instances together in order to estimate the proportional importance of major drugs in this study.

Table 12. Frequency distribution of drugs mentioned in the death certificate combined with drugs found in toxicology of "polydrug" cases*

Drug	Drugs Mentioned in Cause of Death No. (%) Of 374 Cases With Specific Drug Mentioned in Cause of Death	Drugs Identified in Toxicology of Polydrug Cases No. (%) Of 87 Polydrug Cases With Specific Drugs in Toxicology Findings	Drugs Mentioned in Cause of Death or Present in Polydrug Case Toxicology No. (%) Of 374 Cases
Polydrug	87 (23.3%)	******	******
Methadone	66 (17.6%)	20 (23.0%)	86 (23.0%)
Ethanol	57 (15.2%)	20 (23.0%)	77 (20.6%)
Morphine/heroin	73 (19.5%)	13 (14.9%)	86 (23.0%)
Oxycodone	26 (7.0%)	16 (18.4%)	42 (11.2%)
Amitriptyline	24 (6.4%)	12 (13.8%)	36 (9.6%)
Cocaine	20 (5.3%)	8 (9.2%)	28 (7.5%)
Propoxyphene	16 (4.3%)	15 (17.2%)	31 (8.3%)
Fentanyl	18 (4.8%)	5 (5.7%)	23 (6.1%)
Fluoxetine	12 (3.2%)	17 (19.5%)	29 (7.8%)
Hydrocodone	11 (2.9%)	11 (12.6%)	22 (5.9%)

**Categories of drugs are not mutually exclusive and only the major drug causes are included in this table, thus the columns do not sum to 100%.*

Prescription Drug Involvement

Drug-related deaths are very often due to prescription drugs, whether suicides or accidental overdoses. The prescription drugs are primarily from the categories of narcotic pain analgesics, antidepressants, and anti-anxiety medications. The deaths may be due to misuse of prescriptions, unforeseen interactions, intentional overdose, or a combination of these factors.

In order to clarify the relationship of prescription drugs to drug deaths, all 2001 case files were examined for investigative information about prescription involvement. Such information is frequently found in the narrative portions of police or medical examiner reports. In some cases the prescription drugs were specifically inventoried by law enforcement officers at the location of death or by the OCME staff at the time of autopsy. We coded all these cases according to whether or not there was any evidence that the drug (or drugs) causing the death had been prescribed for the decedent (see Table 13). There was evidence of prescription information for 96% of the 26 suicides, but for only 52% of the 64 accidents. Of those cases for which we had prescription information, 88% of the suicide and 52% of the accident victims had a prescription for at least one drug identified as the cause of death.

Table 13. Prescription status for drugs implicated in cause of death, 2001, among cases with prescription evidence

	Suicides	Accidents
Decedents with prescription for at least one drug implicated in the cause of death	22 (88%)	17 (52%)
Decedents with no prescription for any drugs that caused death	3 (12%)	16 (48%)
Total cases with prescription information	25 (100%)	33 (100%)

Frequently Abused Narcotic Analgesics

The narcotic analgesic class of drugs includes the naturally occurring opiates (morphine, heroin, and codeine), and the synthetic opiates ("opioids," including oxycodone, hydrocodone, fentanyl, and propoxyphene). Except for heroin, which is illicit, these drugs are frequently prescribed for pain relief (analgesia). Narcotic analgesics are prevalent in Maine drug deaths. Toxicology tests reveal that 267 (71%) of the 374 victims in this case series have one or more narcotics present in their system. Similarly, one or more narcotic drugs are identified as a cause of death for 198 (53%) drug death cases.

Both death certificate and toxicology analyses conclude that the top two drugs involved in Maine drug deaths are methadone and heroin (Figure 2). The third most involved drug in both distributions is alcohol (classed as a depressant, not a narcotic), frequently associated with both narcotic and non-narcotic deaths.

Of the 267 victims with narcotics, 81% involve a combination of drugs. Twenty-six percent (69 cases) include two or more narcotics. The most frequently occurring narcotic-narcotic combinations are heroin-codeine (10 cases, 14% of combination cases), methadone-oxycodone (10 cases, 14%), and heroin-methadone (7 cases, 10%).

Of the narcotic-related deaths, 80% (213 cases) are accidental overdoses and 20% (54 cases) are suicides. Drug distributions for accidental and intentional deaths are markedly dissimilar. Toxicology screens reveal that methadone and morphine/heroin, the drugs ranked first and second in frequency among the accidental deaths, are not among the top five drugs in suicides (see Table 8). However, two other narcotics are identified among the top five drugs in suicides: oxycodone and propoxyphene. (See Appendix A for a breakdown of toxicology findings by county and Appendix B for a breakdown by year for three counties.)

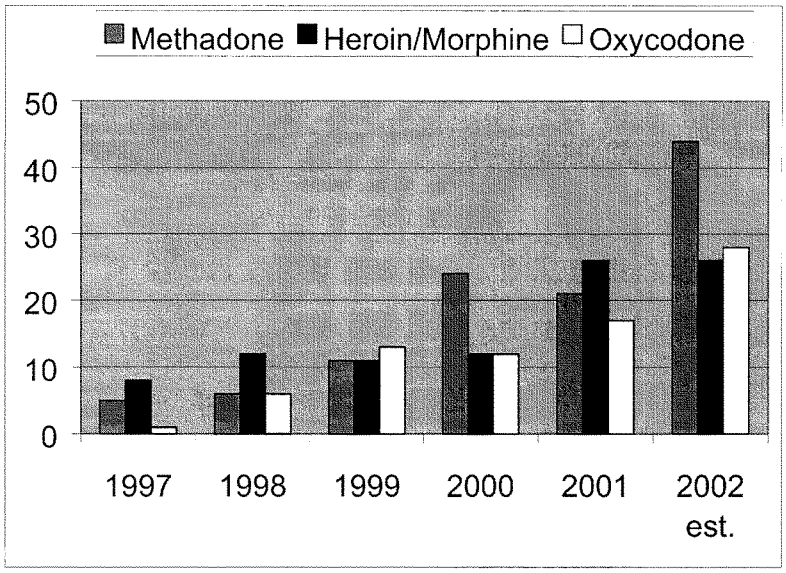

Figure 2. Number of cases in which key drugs were identified, based on toxicology, 1997-2002

Methadone

Methadone is a synthetic opiate prescribed for pain and for treatment of heroin addiction. It is long acting, with a sedative effect and does not produce the same "euphoric high" as heroin. In Maine it is prescribed by methadone maintenance clinics in liquid, powder, or wafer form, or in tablet form by pain clinics and private physicians. Toxicology screening cannot discriminate between these various forms of the drug. Based on our analysis of toxicology results, methadone is identified in 88 (24%) of the total 374 cases (or 33% of the 267 cases with narcotics in the toxicology findings). Methadone ranks first in frequency among accidental death victims, but is infrequent in suicide toxicology findings.

Methadone toxicology is complex. The range of blood levels for therapeutic effect overlaps with the toxic range. That fatalities occur with fairly low blood levels has been repeatedly noted in the medical literature. This is thought to be due primarily to widely varying individual tolerance and to interaction with other drugs and alcohol. Use or abuse of other drugs in combination with methadone may increase its toxicity or alter its metabolic effect. The most common and potentially fatal adverse effect of all opiate or opioid drugs, including methadone and heroin, is respiratory depression. Alcohol and benzodiazepines, commonly taken along with methadone, can increase the likelihood of respiratory depression.

Tolerance can change within one individual depending on circumstances. Persons who have been abstinent, such as those in substance abuse treatment programs or in prison, experience a reduction in tolerance. Persons with reduced tolerance are at greater risk for fatal overdoses when they attempt to take dosages to which they were previously tolerant. The slow onset of effects of methadone may lead abusers to take more methadone or use additional drugs in potentially dangerous combinations.

Most people who died from methadone toxicity were not involved in methadone maintenance programs. In a preliminary analysis of 23 methadone-related deaths from Cumberland County in 2001 and 2002, only 3 (13%) decedents were documented in methadone maintenance clinics; 2 others (9%) had prescriptions for methadone for pain.

Similarly, in 14 methadone-related cases statewide in 2001 (where methadone was a cause of death or contributing factor), 3 (21%) were being treated at a methadone maintenance clinic and 3 (21%) others were found to have a prescription for methadone from a pain clinic. It should be noted that more victims may have had prescriptions from a pain clinic than our records reflect. The medical examiners contact all methadone maintenance clinics and whatever physicians they can find. They may not find all physicians or pain clinics. Further, some victims may have seen practitioners in other states, increasing the difficulty of tracking down their medication histories.

Deaths in which methadone is identified on the death certificate (66 cases) or found in the toxicology results (88 cases) have increased in frequency (see Table 11 for death certificate data. See Table 8 and Appendix A for toxicology data). Table 11 reveals only four deaths in 1997, rising to 19 in 2000 and 14 in 2001. In the first six months of 2002, 18 cases have already been confirmed. For most of the 66 confirmed methadone deaths in the past five years, methadone is the primary or secondary causal factor noted on the death certificate (58 of 66 deaths); in eight of the cases, methadone is listed as a significant contributing factor. In 20 additional cases, methadone is one of multiple drugs implicated in the cause of death (polydrug deaths). In 2 other cases, methadone appears in the toxicology findings, but is not identified as a cause of death or a contributing factor.

Based on toxicology, the projected minimum number of deaths in which methadone will be identified for 2002 is 34-44, calculated by assuming they will comprise about 24% of the projected 140-182 total drug deaths.

Deaths with methadone toxicology findings have affected nearly all counties since 1997. (Exceptions are Piscataquis, Sagadahoc, and Washington.) Cumberland, Penobscot, and York Counties have had the most cases in which methadone is identified: 44, 10, and 12 respectively (Appendix B). These three counties have had 66 (75%) of the cases with methadone toxicology findings. In comparing the distribution of deaths to the population distribution, most counties are within plus or minus 5% of their expected share of the methadone toxicology findings, based on their population numbers. The only county with an excess of such deaths (more than 5% above census percentage) is Cumberland, which has 28% of the state's methadone toxicology findings compared with 21% of Maine's population.

Cumberland County, with a total of 44 cases in which methadone is identified by toxicology over the five-year period, had only a few deaths per year until 2000, when the number rose to 10, and stayed at 10 in 2001. The projected number for Cumberland County in 2002, however, is about 30.

Penobscot County, with 10 deaths in which methadone is identified over the five-year period based on toxicology findings, experienced a spike (5 deaths) in 2000, and subsequent decline. Only 2 deaths in which methadone is identified are projected for Penobscot County for 2002.

York County, with only 12 deaths in which methadone is identified for the five-year period based on toxicology findings, increased by one death each year, reaching 4 in 2001. In 2002, 4 deaths in which methadone is identified are projected for York County.

In terms of statewide patterns, deaths identifying methadone in toxicology doubled between 1999 and 2000, and then leveled off through 2001. The rate has recently increased significantly. Based on projections, the total for 2002 is likely to be more than double that of 2001.

Heroin/Morphine

Heroin and morphine are narcotics, nearly indistinguishable in the autopsy. However, evidence of intravenous injection strongly suggests heroin use. Heroin is the illicit form and morphine sulfate is the prescription form. Heroin/morphine-related deaths in Maine have increased along with methadone, although with a slightly different pattern. Based on the death certificate determinations, the number per year has fluctuated between 1 and 11 cases. Based on toxicology findings, however, heroin identified in the overdose deaths has gradually increased from 8 to 26 cases. There was an initial increase from 8 to 12 in 1997-98, little change through 2000, and another increase from 12 to 26 between 2000 and 2001. The total projected for 2002 is about 26.

Heroin rapidly metabolizes to morphine in the body. Once that occurs, it cannot be distinguished in toxicology tests from morphine given as a prescription pain medication. Hence, in those tables summarizing toxicology results, it is referred to as "heroin/morphine." Heroin/morphine ranks second in frequency among accidental death victims, but is infrequent in suicide toxicology findings.

There is substantial variation in deaths with heroin toxicology by county. Aroostook, Lincoln, Sagadahoc, and Washington Counties have had no such deaths. Cumberland County has had 37% of these deaths, disproportionately more than its 21% of the population. Other counties with a larger than expected share based on population distribution are Franklin (with 8 deaths --10% of all drug deaths, compared to 2% of Maine's population), and Penobscot (with 12 deaths --15% of all drug deaths, compared to 11% of Maine's population).

Oxycodone

Oxycodone is a synthetic opiate, a narcotic prescribed for pain. Marketed since 1995 in a long-acting form, OxyContin, this drug is taken orally, and sometimes injected. Oxycodone is implicated as the cause of death on 7% (26 cases) of death certificates over the five-year study period. It is identified in 17% (63 cases) of drug death toxicology tests overall, 15% of suicides and 18% of accidents.

Based on toxicology results, oxycodone-related cases began in 1997 with only 1, increased to 6 in 1998, to 13 in 1999, and to 17 in 2001 (Figure 2). So far, there are 14 confirmed cases in the first half of 2002. Of these, 8 deaths with oxycodone toxicology have occurred in Cumberland and 1 in Washington County.

Washington County has been thought to have a high prevalence of oxycodone abuse. There have been a total of 5 deaths with oxycodone toxicology findings in Washington County, 3 in 1999, 1 in 2001, and 1 in the first half of 2002. These comprise 8% of Maine oxycodone toxicology findings, compared with Washington County's 3% share of Maine's population.

Cumberland County has had 18 oxycodone toxicology deaths, or 29% of all Maine oxycodone toxicology findings, compared with 21% of Maine's population. There was 1 death in 1997, 0 in 1998, then 3 in each year 1999-2001. There have been 8 deaths in which there was oxycodone confirmed in the first half of 2002.

All counties in Maine except Piscataquis County have had deaths with oxycodone toxicology findings. Most counties have the same or fewer of these deaths than expected by population. Two counties besides Washington and Cumberland have more; Aroostook has 5 (8%) of deaths and 6% of population, and Penobscot has had 9 (14%) of deaths and has 11% of population.

Demographic Characteristics

All Manners of Death Combined

Demographically, Maine overdose victims are more often male (62%), single (71%), middle-aged (57% aged 35-55), Caucasian (96%), born in Maine (58%) and have at least a high school education (79%). However, victims range widely in all characteristics but race. They have an average age of 40 (range 15-92), with women (average age 43) older than men (average age 38). In terms of ethnicity, about 15% of drug-related death victims were reported to be of French descent, 0.3% African, and 1% Hispanic. Fewer overdose victims are married than in the general (Maine 2000 Census) population (Table 3). In the general population only 36% are never married or divorced; among decedents in this study, the percentage is 71%. The education of decedents in this study generally mirrors the Maine general population. About 79% of decedents above the age of 25 have had 12 or more years of school, compared with 85% in the general population. In the Maine general population 67% of those 15 and older are born in Maine, whereas 58% of decedents were born in Maine.

Accidental overdose and suicidal overdose victims differ demographically and are considered separately in the discussion that follows (see Table 14).

Accidental Overdose Victims

Compared to suicide victims, accident victims are more often male, younger, less educated, born in Maine, and unmarried. About two-thirds (68%) of accidental overdose victims are male. The average age of accidental overdose victims is 38, with only three 65 or older. Male accidental overdose victims are younger than women (average age 36 and 40 respectively) with about twice as many males as females under the age of 25. Conversely, about twice as many female as male accident decedents are between the ages of 35 to 39. About 76% of victims have a high school education or greater. Accidental deaths included 95% Caucasian decedents, slightly less than the census population. Among all accident victims, 60% were born in Maine, with females more orten Maine natives than males (65% compared to 59%).

Table 14. Demographic characteristics of drug death victims, comparing suicides and accidents

Demographic Characteristic	All Victims	Accident Victims	Suicide Victims
Age			
Mean (range)	40 (15-92)	38 (15-92)	45 (16-91)
Sex			
Male	62%	68%	49%
Female	38%	32%	51%
Race			
Caucasian	96%	95%	98%
Marital Status			
Married	24%	20%	33%
Never Married	39%	31%	32%
Divorced	32%	44%	29%
Education (ages 15+)			
High School	50%	51%	50%
Beyond High School	29%	25%	37%
Nativity			
Born in Maine	58%	60%	54%

Suicidal Overdose Victims

The mean age of suicidal overdose victims is 45, averaging slightly less for males (44) than for females (46). The age range for all suicides is 16-91, and 11 (9%) of the 123 decedents are 65 and over. The sex distribution in suicidal overdoses is 49% male and 51% female, mirroring the Maine general population. The racial composition of victims of suicidal deaths also reflects that of the state, 98% Caucasian. In terms of marital status, 33% of suicide victims are married, 32% divorced, and 29% never married. The proportion of those that are divorced or never married (61%) is higher than in the general population (36%). The educational status of suicide victims is generally higher than for accident victims, with 87% having at least a high school education. Among all suicide victims, 54% were born in Maine; females are slightly less often Maine natives than males (52% compared to 57%).

Medical Characteristics

As mentioned earlier, the autopsy and medical history of decedents reveals a number of underlying conditions, both physical and mental, that may have increased their risk of overdose fatality (Table 15). We coded information about existing history of mental illness (including depression) and substance abuse for all of the 2001 cases. About 55% have a known history of mental illness, more among suicides (72%) than among accidents (42%). About half (50%) of overdose victims have a history of drug abuse, with more among accidents (73%) than among suicides (16%).

Many decedents have chronic physical conditions that played a role in their death, including heart, lung, and liver disease, as well as obesity. These conditions may reduce physical capacity. For example, chronic obstructive pulmonary disease (COPD) reduces lung capacity, which can interact dangerously with the respiratory depression produced by high levels of opiates. Obesity can obstruct the airway, particularly in some body positions, increasing the risk from respiratory depression caused by opiates. Liver disease, such as hepatitis, or cirrhosis

from chronic alcoholism, can reduce the ability of the liver to detoxify the blood, thus keeping blood drug levels dangerously high. Cardiovascular disease can reduce the capacity of the heart and lungs to process oxygen, again increasing risk from respiratory depression.

Victims may have been taking medications prescribed legitimately for pain, depression, anxiety, or other conditions. These may have dangerous side effects if taken at high doses. They may interact with each other, or with drugs of abuse. For example, tricyclic antidepressants prescribed for depression can interfere with the electrical function of the heart in some individuals and at some doses. Other medications prescribed for anxiety or depression and taken with methadone (prescribed for treatment of pain or opiate dependency) can boost the blood levels (and toxic effects) of both drugs.

Table 15 presents the frequency of chronic conditions mentioned in the death certificates of the study population, either as a cause of death or contributing factor. A total of 62 cases (16.6%) identified a chronic condition, usually listed as a contributing factor. Contributing factors include a range of conditions, such as respiratory conditions, liver conditions, heart conditions, seizure disorders, substance abuse, and obesity. Heart disease is the most frequently mentioned as a primary or secondary cause (3.5%).

Table 15. Frequency of associated chronic conditions identified as a cause or contributing factor on the death certificate, with percent of 374 total drug death cases*

Condition	Primary or Secondary Cause	Contributing Factor
Respiratory disease	2 (0.5%)	7 (1.9%)
Liver disease	0 (0.0%)	5 (1.3%)
Heart disease	13 (3.5%)	9 (2.4%)
Brain disease (seizure disorder)	1 (0.8%)	7 (1.9%)
Substance abuse history	0 (0.0%)	9 (2.4%)
Obesity	0 (0.0%)	9 (2.4%)
Total cases	16 (4.3%)*	46 (12.3%)

** Column percent does not total due to rounding*

Comparing Maine's Drug Death Rate to Other Populations

The number of drug deaths in Maine is high. More important, the rate of increase in drug deaths from year to year is very high, starting in 1997-98 when the number increased by 59%. The increase between 2001 and 2002 (using projected totals) may be as high as 102%.

Comparisons can be drawn between Maine and other populations through the use of the crude death rate (CDR), that is, the number of deaths per 100,000 people due to intentional and unintentional overdose. The most recent rate published by the U.S. National Vital Statistics System (Minino et al., 2002) for drug-induced deaths among non-Hispanic whites covers the years 1999 (CDR = 6.9) and 2000 (CDR = 7.4). In Table 16 the Maine CDR 1997-2002 for intentional and unintentional poisoning in this study is compared to the U.S. rate and the rate for North Carolina (a rural state). Whereas the Maine rate began at 40% of the national rate in 1997, the rate in 1998-2000 was 60-70% of the national rate. By 2001 the Maine rate had risen to 95% of the 2000 national rate. But by 2002, the Maine rate is projected to be 159% of the 2000

national rate. North Carolina, another rural state, shows a similar, steady climb, beginning at 72% the national rate in 1997, and in 2001 at 104% of the national 2000 rate (Sanford, 2002).

Table 16. Crude Death Rate (CDR) for intentional and unintentional poisonings in the U.S., in Maine, and in North Carolina 1997-2002

	1997	1998	1999	2000	2001	Projected 2002
U.S. CDR	6.61	6.81	7.24	7.40	******	******
Maine CDR	2.66	4.22	5.16	4.69	7.04	11.77
N. Carolina CDR	4.77	5.51	5.44	6.96	7.73	******

Comparable data to contrast with Maine comes from Connecticut, a primarily urban population of 3.406 million. Using toxicology findings from medical examiner cases and focusing on opiate deaths alone, Heimer et al. (2002) have shown that the death rate from opiates in Connecticut 1998-2001 is lower than Maine and has remained stable while Maine's rate has risen (Figure 3). Analysis reveals that Connecticut's rate is about a third that of Maine in 2001.

The two populations are very different. Maine is less densely populated and is removed from the northeast megalopolis. Maine's poor are mostly rural, whereas Connecticut's poor are mostly urban. Connecticut has a long history of opiate use and treatment. Heroin use and methadone maintenance treatment has been common in that state for about 30 years. Maine opiate abuse began to emerge in the 1990's and methadone treatment programs opened first in 1995. Connecticut opiate drug abusers are primarily injecting heroin, Maine opiate abuse is primarily (oral) ingestion of prescription medications. The victims of opiate overdose are about the same age on average, but Connecticut decedents are 77% male, compared to 65% in Maine.

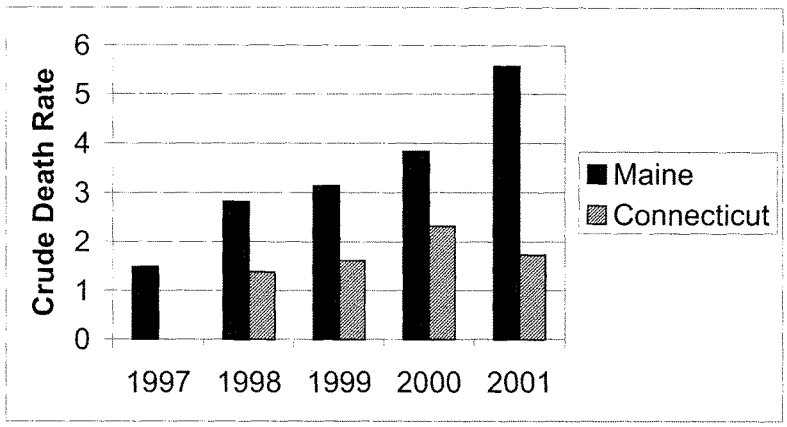

Figure 3. Crude death rate of opiate toxicology in drug related deaths (deaths per 100,000) in Connecticut and Maine, 1997-2001 (courtesy R. Heimer)

CONCLUSION

The annual rate of drug deaths in Maine has been rising rapidly, particularly in the last year. These deaths are caused by a mix of drugs, both prescription and illicit. Opiate drugs are the most prevalent, primarily prescription narcotic analgesics (including methadone) and heroin, but the most frequent pattern involves combinations of drugs. Narcotic analgesics are often combined with antidepressants and anti-anxiety agents. Alcohol is frequently present.

Mortality patterns are the tip of a very large iceberg that includes drug trafficking, addiction treatment, and related societal problems. The pattern of toxicology findings in decedents is an indicator of the supply of drugs, legally prescribed, illicit or diverted. The population at risk for mortality and morbidity from drug abuse is diverse, but most persons dying from drugs are middle aged and, in many ways, representative of the general population.

Solutions to the drug mortality problem are complex. Systematic attention to prescription drug availability and refinements to drug death investigation protocols are important components. Further research on the medical history of decedents as it involves emergency medical encounters and patterns of prescription availability would benefit decision makers engaged in treatment, law enforcement, and the legislative process, and ultimately benefit persons at risk.

Notes

[1] The term drug-related is used as an umbrella to include all instances in which drugs were listed on the death certificate as a cause (drug-induced) or a significant contributing factor. This type of case, often referred to in epidemiology as intentional and unintentional poisonings, generally includes inhalation deaths due to substance abuse (e.g., butane) as well as carbon monoxide poisoning. However, we excluded carbon monoxide cases from consideration in this series.

[2] The Office of Chief Medical Examiner in Maine has statutory authority to investigate all suspicious, accidental, and unattended deaths in order to certify both the cause and the manner of death. The medical examiner produces a Certificate of Death, a document that ultimately provides data for vital statistics. The death certificate specifies the cause and manner of death. It also includes the time, date, and place of death, as well as demographic information about the decedent.

The cause of death section in the death certificate follows guidelines recommended by the World Health Association. The medical cause of death is defined as "the disease or injury that initiated the train of morbid events leading directly to death." The section dealing with cause of death has two parts. Part 1 itemizes a sequence of up to four events leading to the death; Part 2 allows the medical examiner to note the other significant factors contributing to the death.

The manner of death is determined from among the following: natural, accident, suicide, homicide, pending, or undetermined.

In nearly all drug-related deaths, the body is brought in for autopsy and toxicology testing. Autopsies are performed at the Office of Chief Medical Examiner morgue. Toxicology samples are sent to a private laboratory for analysis. Microscopic study is done internally. Current staffing includes two forensic pathologists, one histology technician, and an increasing caseload. Most drug deaths require several months before a death certificate can be issued.

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Appendices

Appendix A. Number and percent of deaths by county and by drug, based on toxicology findings

	AND	ARO	CUM	FRA	HAN	KEN	KNO	LIN	OXF	PEN	PIS	SAG	SOM	WAL	WAS	YOR	TOT
METHADONE	4	2	44	1	2	4	4	0	3	10	0	0	1	2	0	12	89
HEROIN/MORPHINE	5	0	30	8	3	6	3	0	1	12	1	0	1	1	0	11	82
ETHANOL	4	2	25	2	5	6	6	1	0	12	0	0	2	1	2	13	81
DIAZEPAM	2	3	19	3	4	5	6	2	2	10	0	0	5	0	2	9	72
OXYCODONE	2	5	18	1	1	4	2	2	2	9	0	1	2	2	5	7	63
AMITRIPTYLINE	1	0	12	1	2	9	2	0	1	4	0	0	3	1	0	8	44
ALPRAZOLAM	2	1	16	1	1	3	2	1	2	3	1	1	1	1	0	7	43
PROPOXYPHENE	2	1	13	1	1	7	2	1	1	5	0	1	2	0	2	2	41
DIPHENHYDRAMINE	3	2	8	0	0	4	1	3	1	5	0	0	0	0	1	7	35
FLUOXETINE	1	0	5	1	1	6	4	2	0	6	0	0	2	1	0	4	33
COCAINE	4	0	11	1	2	2	1	1	2	3	0	0	1	0	0	4	32
HYDROCODONE	1	2	9	2	0	2	2	1	1	5	1	1	1	1	0	3	32
PAROXETINE	0	3	11	1	1	1	0	2	1	4	1	1	0	2	0	3	31
TEMAZEPAM	0	1	7	0	1	2	2	1	1	3	0	0	3	0	2	3	26
FENTANYL	1	1	7	0	1	4	1	1	2	4	0	0	0	0	1	2	25
CODEINE	2	0	7	3	0	2	2	0	0	3	0	0	1	0	0	3	23
MIRTAZEPINE	3	5	2	0	0	2	3	0	2	4	0	0	0	0	0	2	23
VENLAFAXINE	1	1	6	1	0	2	1	0	3	4	0	1	0	1	0	2	23
TRAZODONE	3	0	6	0	0	1	3	0	0	3	0	0	0	0	1	4	21

	AND	ARO	CUM	FRA	HAN	KEN	KNO	LIN	OXF	PEN	PIS	SAG	SOM	WAL	WAS	YOR	TOT
PERCENT OF MAINE POPULATION	8%	6%	21%	2%	4%	9%	3%	3%	4%	11%	1%	3%	4%	3%	3%	15%	100%
METHADONE	4%	2%	28%	2%	6%	7%	7%	1%	0%	13%	0%	0%	2%	1%	2%	15%	100%
HEROIN/MORPHINE	6%	0%	37%	10%	4%	7%	4%	0%	1%	15%	1%	0%	1%	1%	0%	13%	100%
ETHANOL	5%	2%	31%	2%	6%	7%	7%	1%	0%	15%	0%	0%	2%	1%	2%	16%	100%
DIAZEPAM	3%	4%	26%	4%	6%	7%	8%	3%	3%	14%	0%	0%	7%	0%	3%	13%	100%
OXYCODONE	3%	8%	29%	2%	2%	6%	3%	3%	3%	14%	0%	2%	3%	3%	8%	11%	100%
AMITRIPTYLINE	2%	0%	27%	2%	5%	20%	5%	0%	2%	9%	0%	0%	7%	2%	0%	18%	100%
ALPRAZOLAM	5%	2%	37%	2%	2%	7%	5%	2%	5%	7%	2%	2%	2%	2%	0%	16%	100%
PROPOXYPHENE	5%	2%	32%	2%	2%	17%	5%	2%	2%	12%	0%	2%	5%	0%	5%	5%	100%
DIPHENHYDRAMINE	9%	6%	23%	0%	0%	11%	3%	9%	3%	14%	0%	0%	0%	0%	3%	20%	100%
FLUOXETINE	3%	0%	15%	3%	3%	18%	12%	6%	0%	18%	0%	0%	6%	3%	0%	12%	100%
COCAINE	13%	0%	34%	3%	6%	6%	3%	3%	6%	9%	0%	0%	3%	0%	0%	13%	100%
HYDROCODONE	3%	6%	28%	6%	0%	6%	6%	3%	3%	16%	3%	3%	3%	3%	0%	9%	100%
PAROXETINE	0%	10%	35%	3%	3%	3%	0%	6%	3%	13%	3%	3%	0%	6%	0%	10%	100%
TEMAZEPAM	0%	4%	27%	0%	4%	8%	8%	4%	4%	12%	0%	0%	12%	0%	8%	12%	100%
FENTANYL	4%	4%	28%	0%	4%	16%	4%	4%	8%	16%	0%	0%	0%	0%	4%	8%	100%
CODEINE	9%	0%	30%	13%	0%	9%	9%	0%	0%	13%	0%	0%	4%	0%	0%	13%	100%
MIRTAZEPINE	13%	22%	9%	0%	0%	9%	13%	0%	9%	17%	0%	0%	0%	0%	0%	9%	100%
VENLAFAXINE	4%	4%	26%	4%	0%	9%	4%	0%	13%	17%	0%	4%	0%	4%	0%	9%	100%
TRAZODONE	14%	0%	29%	0%	0%	5%	14%	0%	0%	14%	0%	0%	0%	0%	5%	19%	100%

Appendix B. Frequency of drug deaths by year and by drug for highest frequency counties

	1997	1998	1999	2000	2001	2002	TOTAL
CUMBERLAND							
METHADONE	3	2	4	10	10	15	44
HEROIN/MORPHINE	4	3	4	6	10	3	30
ETHANOL	2	2	5	3	6	7	25
DIAZEPAM	3	4	4	1	5	2	19
OXYCODONE	1	0	3	3	3	8	18
PENOBSCOT							
METHADONE	1	1	2	5	0	1	10
HEROIN/MORPHINE	0	1	3	3	4	0	12
ETHANOL	1	2	3	2	3	1	12
DIAZEPAM	0	1	4	1	3	1	10
OXYCODONE	0	1	3	2	2	1	9
YORK							
METHADONE	0	1	2	3	4	2	12
HEROIN/MORPHINE	1	1	1	2	5	1	11
ETHANOL	1	2	4	1	3	1	13
DIAZEPAM	1	2	2	2	1	1	9
OXYCODONE	0	1	2	2	1	1	7