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SARS: IS MINNESOTA PREPARED?

HEARING

BEFORE THE

PERMANENT SUBCOMMITTEE ON INVESTIGATIONS

OF THE

COMMITTEE ON
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

FIELD HEARING IN MINNEAPOLIS, MINNESOTA

OCTOBER 8, 2003

Printed for the use of the Committee on Governmental Affairs

U.S. GOVERNMENT PRINTING OFFICE

90–241 PDF WASHINGTON : 2004

For sale by the Superintendent of Documents, U.S. Government Printing Office
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SARS: IS MINNESOTA PREPARED?

WEDNESDAY, OCTOBER 8, 2003

U.S. SENATE,
PERMANENT SUBCOMMITTEE ON INVESTIGATIONS,
OF THE COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:08 a.m., in room C350, St. Louis Park High School, Minneapolis, Minnesota, Hon. Norm Coleman, Chairman of the Subcommittee, presiding.

Present: Senator Coleman.

OPENING STATEMENT OF SENATOR COLEMAN

Senator COLEMAN. This hearing of the Permanent Subcommittee on Investigations is called to order. It is a great pleasure to be at St. Louis Park High School this morning; one of the great high schools in the State of Minnesota and in America. Superintendent Pulliam, I believe, will say a few things, but I do want to say thank you to the district and to the school for affording us this opportunity to have a hearing on an issue that is very important to all Minnesotans throughout the State. And certainly today we will talk a little bit about the impact of the potential of a disease like SARS on schools and beyond.

But as I said, it is a great pleasure to be here. And Superintendent, I would like to turn it over to you for a couple comments, first.

Mr. PULLIAM. Thank you very much, Senator. Good morning to all of you, and especially to you, Senator Coleman. Welcome to St. Louis Park School District.

This is a children-first community, a school district that today has 16 national merit scholars, and one we consider to be the best-kept secret in the Metro Area.

We are very proud and pleased to host your hearing today. SARS certainly is a virus that we all need to heighten our awareness level of, and the fact that you are going to hold a hearing today in our community to discuss how prepared we might be, should an outbreak occur, certainly does do us a great credit as a State, and especially as a community.

I would also like to welcome the members of the health community that are here. Welcome to St. Louis Park, but welcome to this particular hearing. Again, I want to thank you for taking the time to visit with our children, especially. Our students are very proud to have you here, and to be able to interact with you. It is a great credit to your support of public education.

Senator COLEMAN. Thank you, Superintendent. Let me tout the St. Louis Park schools—16 national merit scholars, four of them semi-finalists, one of four blue ribbon schools, recently recognized by the U.S. Department of Education and the State of Minnesota. I think last year you had perfect ACT and SAT scores. Very rare. The year before, two perfect SAT scores. So an outstanding program. And we are working very hard. St. Louis Park has an asset-builders program that we are working with, and I know our office is involved and looking for support for that program. It is really a wonderful model. So you have a great school here, great kids. And this is the future of Minnesota, and I am thrilled to be here.

Mr. PULLIAM. Thank you very much.

Senator COLEMAN. Thank you. Today's hearing will focus on how Minnesota officials are preparing for a possible outbreak of SARS in the upcoming flu season.

In the first outbreak of SARS, there were 8,098 cases in 28 countries. The United States experienced 29 total probable cases of SARS—with the median age being 33—and thankfully no fatalities. Throughout the world, however, 916 people died of SARS-related complications.

We are here today to discuss what we can do to ensure that the next outbreak of SARS isn't summarized with statistics of who got sick and died—but rather a case study that illustrates how lives can be saved when government and the health care communities—at every level—work together, not just hoping for the best, but being prepared for the worst.

Today's hearing gives us an excellent opportunity to assess our preparedness. We will hear from two of Minnesota's leaders in the area of public health and infectious disease. We will also hear from local officials, and, in particular school, officials who represent the front line of our effort to contain any future outbreak.

In a way, we're here to see what kind of grade we can give ourselves in Minnesota for our level of preparedness and our access to resources.

In the end, our resolve ought to be to improve the grade in those areas where effort is being made, but greater results need to be seen. We should grade ourselves in a number of areas: Preparation, communication, resources, logistics, and, of course, understanding and knowledge of the disease.

We will discuss the particular vulnerability of school children and workers, where students and adults spend the majority of their time in close contact. Any parent knows how one child's cold can spread throughout an entire classroom—and throughout the homes of those students—within a matter of days. And, as a parent, I can attest to that.

Since failure to detect early cases of SARS can lead to rapid transmission, and also the great stress on resources to track down transmission, school officials must have a clear plan for treating individuals with symptoms of severe influenza or pneumonia.

Since there is no reliable test for identifying SARS at the time of initial diagnosis, school and health officials must operate amidst a great deal of uncertainty. It is important that this uncertainty not create panic among schoolmates and their parents. The fact is, every sniffle and every cold in schools and homes across America

this fall and winter will be met with suspicion. With that in mind, we need to recognize that it is possible that we will have many false alerts before the first cases of SARS appear anywhere in the world.

Since false alarms can overwhelm a public health system, and with it reduce our capacity to react with precision and accuracy to those true incidents of the disease, we must be ready for that, understand that.

For this reason, the public needs to be aware of SARS; to know what it is, to know what it isn't, to know what our officials have done to prepare for the flu season. Knowing that public health officials and others are undertaking these precautions, I believe, will instill a greater degree of trust during times of illness.

The Permanent Subcommittee on Investigations has already conducted two hearings on SARS. In its first hearing on May 21, 2003, a large panel of experts testified that SARS is likely to reemerge, possibly in conjunction with the typical flu season. Dr. Osterholm was a key witness at that hearing. As a result of that hearing, I requested that the General Accounting Office conduct a study of best practices to identify, treat, and control SARS.

The GAO reported its finding on June 30, 2003, at our second hearing. The GAO testified that a new outbreak of SARS would quickly strain local health care resources. It also emphasized that many of the best practices for dealing with SARS were already known to health care workers: Wash hands frequently—that is one of the things I found reassuring—the advice that our mothers all told us, wash our hands, is very good advice—listen to your mom. Isolate patients who show symptoms of frequent coughing and/or sneezing. And move quickly to trace known contacts.

Knowing what to do and actually doing it are two different things. I organized today's hearing to focus on the concrete steps necessary to ensure that we are prepared for a new case of SARS. Many of these same steps will also improve our response to other cases of the flu, as well as other emerging diseases.

I have asked each of today's witnesses to address three questions: First, what have they done so far to prepare for a possible outbreak of SARS? Second, what do they still need to do? In this connection, I also want to know what help the Federal Government should be providing. Third, if a suspected SARS case occurs within a school or workplace, how should people react?

The last question is especially important, because it will take us some time to verify whether a suspected case is actually SARS. SARS is dangerous. First it is highly contagious. One person roaming untreated can infect dozens, even hundreds of other individuals. Second, it has a high mortality rate. Roughly 15 percent of the individuals who contracted SARS died from it. For individuals over 60 years old, the morality rate was 50 percent.

Most individuals with serious symptoms are likely to have something else, less infectious and less lethal. Because SARS is such a danger, we must remain vigilant and aware of the risks that SARS poses. Toronto's experience shows us what one or two unrecognized cases can lead to. At the same time, we must avoid a sense of panic. Our society depends on continued interaction at a variety of

levels. SARS threatens this. As a result, the indirect economic and social effects of SARS far outweigh the direct cost of the illness.

Our goal, in the end, is not to give rise to unrealistic expectations of what we can, and cannot do, to prevent an outbreak of SARS. It is a foregone conclusion that we will see more cases of SARS in our country and across the world.

In the end, we must be prepared with more than hope and prayers to confront this disease. We must have knowledge, coordination, communication, resources, and partnership to prevent SARS from wreaking havoc on people throughout the world.

And with that, I would now like to welcome today's first panel of witnesses: Dianne Mandernach, the Commissioner of the Minnesota Department of Health in St. Paul, and Dr. Michael T. Osterholm, the Director of the Center for Infectious Disease Research and Policy at the University of Minnesota in Minneapolis. I thank both of you for your attendance at today's important hearing, and look forward to hearing your perspective on the three questions that I identified before. What has Minnesota done to prepare for a possible outbreak of SARS this year? What would we still need to do, and how can the Federal Government help? And how should schools, businesses and communities respond when someone they know develops a possible case of SARS?

Before we begin, pursuant to Rule 6, all witnesses who testify before the Subcommittee are required to be sworn. At this time I would ask you to please stand and raise your right hand.

[Witness sworn.]

Senator COLEMAN. While your written testimony will be presented in the record in its entirety, we ask that you limit oral testimony to no more than 5 minutes. Commissioner Mandernach, we will have you go first with your testimony. You may proceed.

TESTIMONY OF DIANNE MANDERNACH,[1] COMMISSIONER, MINNESOTA DEPARTMENT OF HEALTH, ST. PAUL, MINNESOTA

Ms. MANDERNACH. Good morning, Mr. Chairman. Thank you for the opportunity to discuss what Minnesota has done in preparation for SARS, or potential return of the SARS issue.

In many respects, Minnesota got off easy during last year's SARS outbreak. Using the CDC's definition, we had only 11 possible cases of SARS, and none of them were actually or eventually confirmed in the laboratory. Still, we recommended isolation for a number of people with possible SARS, and we placed many of the health care workers who cared for these people under close observation for symptoms of SARS.

Next time, the impact of SARS in our State could be much greater. The Minnesota Department of Health, local public health agencies, and hospitals are preparing for it in a number of ways. I would like to address four of those initiatives.

First, we are working to maintain and strengthen our disease surveillance system, which is already recognized as one of the best in the country. Our State public health lab is prepared to provide diagnostic testing of SARS. The lab will play a key role in providing coordination and technical support for public health and

[1] The prepared statement of Ms. Mandernach appears in the Appendix on page 32.

medical laboratories throughout the State as they respond to the threat of SARS.

We are also working to strengthen the disease surveillance role of infection control professionals in our hospitals throughout the State. This group of professionals is in a unique position to identify the possible cases of SARS, both in patients and in health care workers.

Second, we recognize that in the absence of an effective vaccine or treatment, isolation and quarantine will continue to be our primary tools for containing SARS. Minnesota State law currently provides a legal framework for isolation and quarantine. This law is due to sunset in 2004. We are working with our legislative partners to ensure that we retain the right and the authority after the law sunsets for quarantine and isolation.

The protection of rights that this law provides for people who are subject to quarantine is vitally important. We need clear procedures for implementing the law, and we are working out the details with the State attorney general, county attorneys, judges and the law enforcement officials. We also need adequate resources if we are to deal with a large number of SARS cases out in the community, rather than just a limited number in a health care setting.

Next time around, we may need to isolate or quarantine large numbers of people, both in the hospital and at home. We are working with a challenge of providing food and other vital services to those individuals who would be quarantined in their home.

Third, we need effective procedures to prevent the spread of SARS in hospitals and clinics. We are working with the infection control professionals to develop procedures for controlling the spread of SARS to patients, staff, and visitors in the hospital setting. We are also working on upgrading protocols for clinics and ambulatory care settings with an emphasis on controlling the airborne spread of respiratory illness.

Fourth, we must be prepared to communicate effectively with the public about SARS. What is happening, what are we doing about it, and why are we doing it? That is essential if we want people to cooperate and accept the measures associated with isolation and quarantine. Those communication methods are being developed as we speak.

That is some of what Minnesota has done in terms of being prepared, anticipating this. But we also need help at the Federal level. Adequate Federal support will be critically important in responding to a possible outbreak of SARS, and that support can come in a number of ways. I have five specific recommendations.

No. 1, a successful response must be coordinated at the national and the international level. We have a global community. We need rapid reporting, investigation and sharing of information by the CDC. That coordination is best achieved at the Federal level.

No. 2, we need a stockpile of the personal protective equipment and other supplies required for isolating large numbers of people, including items like masks, gowns, gloves, and goggles, separate from the existing national stockpile of medical supplies. For example, we have learned from the Canadian experience that you need 5,000 N–95 masks to care for each SARS patient. These items are needed for the protection of both the patients and the health care

workers. Health care workers may be unwilling to care for others if they are fearful of becoming infected themselves.

No. 3, we need help in developing the surge capacity for handling a large outbreak; hospital beds, hospital workers, and the resources needed for large-scale quarantine. We will need just-in-time training that is similar across the country. Hospitals are likely to be overwhelmed during a large-scale outbreak, which would drastically increase the staffing needs, while reducing the staff available. When hospital workers could become ill, this would increase the workforce shortage issue. Non-SARS cases may need to be diverted to other sources of care.

No. 4, the financial impact of SARS could also be significant and burdensome; escalating costs for hospitals, the financial risk for physicians and hospital workers, and lost income for people placed in isolation or quarantine. An emergency fund similar to natural disaster insurance could help compensate for those costs.

And finally, No. 5, we need to begin aggressive research on vaccine, treatment and a better test for SARS. That will require leadership at the Federal level. I want to emphasize that preparedness for SARS and other public health emergencies is a long-term commitment. We need to sustain the generous funding that the Federal Government has given us in terms of providing opportunities and for preparedness. At the same time, we need to make very certain that these resources do not come at the risk of cutting our other programs. This occurred in the 1980's, where critical public health issues and initiatives were cut, and it led to the resurgence of diseases like TB and measles. We cannot repeat that experience.

Thank you for your time and your support in looking to be prepared for the issue that may emerge again this season. Thank you.

Senator COLEMAN. Thank you, Commissioner Mandernach for your testimony.

Before Dr. Osterholm I would like to note the presence of the State epidemiologist, Dr. Harry Hull. Pleased to have you here. And certainly, Dr. Osterholm, you are familiar with that position. So it is great to have you here. And with that, I will turn it over to Dr. Osterholm.

TESTIMONY OF MICHAEL T. OSTERHOLM, Ph.D., MPH,[1] DIRECTOR, CENTER OF INFECTIOUS DISEASE RESEARCH AND POLICY, AND PROFESSOR, SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF MINNESOTA, MINNEAPOLIS, MINNESOTA

Mr. OSTERHOLM. Thank you, Mr. Chairman. My name is Michael Osterholm. I am the Director for The Center of Infectious Disease Research and Policy at the University of Minnesota, and also a professor at the School of Public Health at the University. And I serve as a special advisor to Secretary Tommy Thompson and the Department of Health and Human Services. I had a chance to talk to both of them last night, and they wanted me to share my warm regards for you.

As you are aware, I had the opportunity to testify at your first hearing on SARS regarding State and local preparedness. Mr. Chairman, I continue to applaud your efforts, and those of the

[1] The prepared statement of Mr. Osterholm appears in the Appendix on page 36.

members of staff of the Subcommittee to address this very critical issue, the effectiveness of our Nation's response to Severe Acute Respiratory Syndrome, SARS.

As I indicated in my testimony last May, I believe that this international public health crisis is here to stay. It will impose an ever-increasing risk to the citizens of the United States. As you may recall, in the first hearing, Senator Lautenberg asked Drs. Gerberding, Fauci, and me if we believe the SARS virus will return. We all answered in the affirmative, and even commented that though it appeared to be eliminated from the Toronto area, it may have been a prematurely declared victory.

Two days later, the second wave of SARS hit the Toronto area, and it would be another 6 weeks before that outbreak could be brought under control. I also suggested at that time that the reduction of new cases of SARS throughout the world was due in part to the heroic efforts of public health and nursing communities, and the likely waning of cases with the oncoming summer months. I still believe that conclusion to be true.

I am convinced that with the advent of winter in the northern hemisphere just a few months away, we may very well see a resurgence of SARS that could far exceed the experience of last year. We have every reason to believe that this disease may show up in multiple U.S. cities as we continue to travel around the world in unprecedented numbers and speed. With this backdrop, let me provide a few comments on State and local preparedness.

First of all, I want to compliment Commissioner Mandernach and the staff of the Minnesota Department of Health for what I believe is an outstanding response to the possibility of SARS here in Minnesota, both in terms of their activities this last spring and the ongoing efforts to prepare us for the possibility of SARS this next winter. I think the Commissioner has provided a very thoughtful outline of issues that confront us as a State in terms of preparedness as we move into this winter season. I think it is extremely comprehensive, and one that I believe with every point.

I, too, believe that Minnesota got off very easy in the last SARS outbreak. Make no mistake, we were just lucky. We have all had an opportunity to witness the SARS outbreaks in Asia and Toronto by the extensive news media coverage. However, unless you were there, it is very difficult to get a true sense of the impact of this disease on the community. To better understand that impact, I would urge all of you to review the testimony of the hearings conducted last week by the Canadian SARS Commission.

Three days of chilling and frightful testimony from elected officials, health care workers, patient contacts, and citizens can be found on the SARS Commission website, WWW.SARScommission.CA. In addition, I urge all of you to read the 234-page report released this week by the SARS Commission. It is highly critical of Canada's level of preparedness last spring, and its preparedness now to deal with the resurgence.

After reading these firsthand accounts of the many issues facing officials charged with stopping the epidemic, health care administrators, and workers responsible for patient care, you will get a sense of the complexity of the SARS preparedness and response issue.

Very shortly, the Centers for Disease Control and Prevention will issue a document, Public Health Guidance for Community Level Preparedness in Response to SARS. I have a draft copy of it here that is currently going through the Department of Health and Human Services' final approval.

The CDC has undertaken an extensive review of the outbreak investigation data from Asia and Canada, and together with representatives of professional organizations and State and local health partners, have developed this very extensive guidance document. It contains a comprehensive overview of SARS, preparedness and response, a review of necessary command and control structure, required for response, the rationale and goals, as well as plans for SARS surveillance, necessary preparedness and response in health care facilities, the rationale and goals as well as methods for community containment, the management for international travel-related risk, laboratory diagnosis, and finally, a review of the need for comprehensive communication and education.

Our great challenge will be to translate this information into meaningful State and local preparedness plans, and identify the necessary resources for comprehensive implementation, should SARS cases return. Unfortunately, I am not optimistic that we are prepared at the State or local level to do this at this time. And that is any State or local level within this country.

SARS preparedness goes well beyond State and local public health systems. It also includes our health care delivery system of hospitals, nursing homes and medical clinics. Today, we are all too well aware of the lack of any substantial surge capacity in our health care delivery system for public health emergencies due to serious financial limitations and an aging and vanishing work force.

Mr. Chairman, I don't expect, nor do I believe, anyone in this room expects that your Subcommittee can take on all of these critical issues and solve them overnight. If you did, we would be one very grateful Nation. Thus, we must be honest with the citizens of this country in establishing the expectations that should a problem like SARS occur in any of our communities, the health care delivery system, just like in Toronto, has every potential to be overrun. This will not be solved by a simple discussion about what do we do to respond to SARS, but will require a much larger government and citizen-based examination of how we address health care financing and our expectations of medical care delivery here in this country.

For example, in this country, there is an estimated 43.6 million Americans without health care insurance. It is difficult for public health authorities to urge citizens who might be in the earliest stages of the disease such as SARS to seek effective medical care if they can't pay for it. Yet, infectious disease containment requires that these patients are quickly identified and isolated.

There are many other barriers to providing a comprehensive and effective response to a potential SARS problem. For example, Commissioner Mandernach mentioned the important need for using historically time-tested tools of quarantine and isolation. I remind you, quarantine is the following or surveillance of individuals who

may have been exposed to an infectious agent, but have not yet developed symptoms.

With the SARS epidemic in Canada, the quarantine approach largely was a voluntary effort where individuals were notified of their possible exposure, and asked to stay home and report to health officials at the earliest signs or symptoms, should they become ill. While in practice this makes great sense and can be extremely effective, there are issues regarding the reimbursement of these individuals who stay away from work and do subsequently lose their wages, even their jobs, as happened in Toronto.

Senator COLEMAN. I would ask that you summarize, if you can. And for the record, your entire statement will be submitted.

Mr. OSTERHOLM. For the public good, we must find every possible way we can to financially and socially support these individuals. We will need to apply with such action as to contain the SARS epidemic. We have none at this time.

Mr. Chairman, I would suggest that while there are numerous competing priorities for homeland security and public health preparedness, we can't expect a wish list to be our top priority. Having said that, we are not honest as public health, health care and health delivery system professionals and elected leaders if we take consolation in cosmetic answers. We will be held accountable one day, just as is happening now in Canada, to explain why we weren't prepared to handle this or similar infectious disease problems.

We look forward to working very closely with your Subcommittee to set the agenda for determining what and how the Federal Government can help us at the State and local level to prepare for this potentially difficult situation.

Thank you, Mr. Chairman, for this opportunity to appear before you today.

Senator COLEMAN. Thank you very much, Dr. Osterholm. Let me throw out the first question. We haven't heard much about SARS for a while—whether it is fabulous outside—the cold and flu season isn't upon us yet. It has been pretty quiet. Both Dr. Osterholm and Commissioner Mandernach, are you surprised at the lack of activity? As we sit here today, how likely is it that we will see cases of SARS in Minnesota in the coming months?

Mr. OSTERHOLM. Well, first of all, it has been relatively quiet, as you may know. We actually had a confirmed case of SARS that occurred approximately 3 weeks ago in Singapore. A laboratory worker that we believe actually was associated with ongoing contamination within that laboratory from SARS isolates that were obtained last spring. This always is a reminder to us that that virus is still out there, even in laboratories. And for no other reason, somebody who may want to potentially initiate a situation can do so without Mother Nature being involved. That was not the case here, but is a reminder of that.

As far as the potential for this to come back, I think that we believe it is very high. Once you have a virus like this in a reservoir or a location of animals that are wild in the population or confiscated and used for a food source, that is a constant source of that virus being reintroduced into the population, much like influenza or other seasonal viruses like that. So I think it is possible. Will

it come to Minnesota? That is the million-dollar question. And frankly, it is a crapshoot. I hope not, but I think we have to be prepared for that event.

Senator COLEMAN. Dr. Mandernach, anything you have to add to that?

Ms. MANDERNACH. I would agree with those comments. I think one of the issues that when we look at the global nature of our economy, even in Minnesota, and the fact that we have daily transport in and out of the major metropolitan airport, that leads to issues in one part of the world coming to Minnesota, too.

Senator COLEMAN. OK. Dr. Osterholm, you have continued to raise concerns about the level of preparation at the State and local level. From the course of hearings I have had, I get a sense the CDC has done a pretty good job, I think a very good job, of getting information out. That even in the most rural areas, that their health care professionals are aware of the information that is out there. Help me understand the nature of your concern, and talk to me about how we address it.

Mr. OSTERHOLM. Mr. Chairman, again, as I laid out in my testimony, this is a response that is going to require a number of different arms in our local and State partners. The health care delivery system, which you are going to hear more about today in the next panel, is going to be a very key partner. And today we don't have the surge capacity to basically allow us to quickly respond in a way that is going to effectively shut this down.

Senator COLEMAN. Can you explain surge capacity, please?

Mr. OSTERHOLM. Surge capacity is where suddenly if hundreds, thousands of individuals need to be seen, and health care provided. And in many instances, these individuals may be actually put into certain kinds of rooms, called protective isolation rooms, where their air that they are sharing with all of us will not go and affect others. That is exactly what happened in Toronto. We had a number of examples where patients who were infected with the SARS virus were in open rooms like this, and infected a number of other individuals, and it became an epidemic. In this State, we have a very limited number of those beds available. They are expensive to maintain, require certain ventilation characteristics, and require other very specified types of equipment. And on any one given day, most of those beds are already being used for transplant patients, cancer patients, etc., so we just don't have that ability. And the same thing is true that as Commissioner Mandernach mentioned about masks, we have a just-in-time delivery system today for so much of our economy. There are only a very few companies in this world that actually produce N–95 masks for a high level of protection. And one of them is right here in the Twin Cities, the 3M Company. I can tell you that last year, at the height of the SARS epidemic, 3M Company was backlogged by years for orders of N–95 masks without much capacity to expand their production. So the point is that if we get into this next season, and because of the way we run our economy, the just-in-time delivery phenomenon, we will run out of N–95 masks, I think Commissioner Mandernach said very clearly, are we going to have health care workers who refuse even to come to work, because now they're concerned that basically coming to work is putting their life on the line. And I think those

issues are much larger than this Subcommittee can directly deal with, but we have got to have that discussion, or we won't be able to contain that here in this community.

Senator COLEMAN. Commissioner, you gave a figure as to the number of masks per patient. I thought I misheard the figure. Could you give that figure again?

Ms. MANDERNACH. Five thousand per patient.

Senator COLEMAN. Per patient. Pretty stunning. You also raised, Commissioner, an issue that I haven't heard a lot of discussion about. And that is the economic consequences of dealing with isolation and quarantine. I presume someone has still got to pay a mortgage, pay rent for their family, if we have isolation and quarantine.

Can you give us a better sense of what we have done to address that, and what are the possibilities, and where do we have to go to deal with that issue?

Ms. MANDERNACH. I think, Mr. Chairman, that is one of the things as we begin to look at the ramifications of quarantine and isolation, there is so much that we have not thought through completely, but we have individuals that we can begin to talk with, and that is the Toronto people. I had an opportunity to hear my counterpart talk about the Toronto experience. And when you look at individuals who were in their home that needed food, and yet they couldn't go to the grocery store, there's that whole aspect.

There is also the issue of yes, they can't have employment during that time, so how do you make them whole? Or do you make them whole on their wages? And yet at the same time, they have their bills that they have to pay for the economy of their household. How do you do that? The ramifications that Toronto individuals talked about are huge. How they begin to prepare for that aspect, and look at all of those ramifications, I think that really needs to be done at the national level, whether that is a FEMA type model, I am not certain. But it is going to take a much wider source of funding than any one State.

I think there is also the aspect of what happens to the institutions, the physician practices. If the physician is one of the people who gets sick, what happens to his source of income? What happens to his patients? What happens to his practice? What happens to the clinics and the hospitals that care for these people, and maybe have to divert their elective procedures, which tend to be revenue-producing, to take care of these other individuals. The ramifications of this really need to be examined seriously.

Senator COLEMAN. You have mentioned the issue of physicians perhaps being sick. And either Commissioner Mandernach or Dr. Osterholm, tell me a little bit about the incidents of SARS among health care professionals, and as the Toronto and Chinese examples went on, how much better did we get at dealing with that? And it has multiple questions, but they all kind of fit together. How would you assess that risk today?

Mr. OSTERHOLM. Well, there are several, almost what I would call perfect storm factors, that come together to make this really a very difficult issue. First of all, we do not have a good laboratory test that will identify a SARS patient when they walk into the office or into the health care facility. So in a sense, we are going to

have to treat a lot of people who may have similar symptoms to early SARS as possible SARS cases. That by itself creates a very major economic disincentive for an institution to want to see SARS patients.

Senator COLEMAN. If I could interrupt you there, if you call your doctor and you have a bad cold—I have had bad colds. What is the difference today when I go see my doctor versus pre-SARS in terms of the way that they are going to respond? I am just calling and saying, "Doc, I have got a cold that is just killing me." Can you help us practically understand what it is that we are looking for here?

Mr. OSTERHOLM. Well, first of all, you have to put it in the sense of time and place. If you wake up in a sweat in Minneapolis and hear hoof beats, it is probably not SARS. But if you wake up in Kenya, it might be. So one of the things is if we don't have SARS already here in this country or evidence of anywhere in the world, it is not likely that any physician today is going to immediately consider that respiratory illness that you have is SARS. But we have to have a very tight interface to know that in some parts of the world we are going to have to be extra vigilant, and that will be the first alarm that gets sounded.

So today I think anyone who comes with a respiratory illness in this country would not be automatically thought of SARS. But in the presence of SARS, that is going to be complicated, because by the time someone becomes infectious with the SARS virus, they may not have much more than a cough, some cases are going to be difficult to distinguish from other respiratory illnesses, and that was exactly the experience in Toronto.

Some of the patients we had up there we had transmitted—we had one woman, for example, who was the spouse of a severe case who developed a mild cough herself and some fever, and literally walked into an emergency room, talked to some emergency room admitting clerks, two other people in a period of 20 minutes, and transmitted SARS to everybody that she had contact with. And she was mildly ill at the time. So we are going to have a problem with that and there is no easy answer. So I think that is part of it right there. That we have got a problem of diagnosing these patients, and that is going to be a key one.

I think the second piece of it is, you asked about how can we—what can we do with doctors and so forth? We provide literally no support in this country for the concept of infection control. It is a nonrevenue generating activity in a hospital. Medicare or Medicaid, nobody is going to sit there and cover infection control practices. So when health care delivery systems get into tougher economic times, what is the first thing you look at as nonrevenue generating activities? Well, I think most health care administrators understand the importance of infection control. Today we have gnawed that down to the bone. And we, as a Nation, need to reinvest in the concept of a nonrevenue generating infection control as a classic first line of public health. Just those things would make a big difference for health care facilities attacking this problem.

Senator COLEMAN. Do you want to add to that, Commissioner?

Ms. MANDERNACH. I think another aspect of this, as the first cases begin to emerge, I would go back to the CDC as the clearing

house for information. To have very quick, communicated information when a situation presents itself that can be dispersed throughout the country, so that the heightened recognition is on everyone's radar screen. Just as Dr. Osterholm was talking, by the time the person comes in today in Minnesota, it wouldn't be the first thing on your mind. But if there is a case, and then that is communicated, the recognition does come on to the radar screen. And so I think that is the role of the CDC, that real-time communication that can then move throughout the country.

Senator COLEMAN. I got a sense in listening to the GAO and the CDC in my two hearings that there certainly is the capacity today with technology to get the information to smaller communities. I was a little more confident with that. But yet I would ask for your assessments, Commissioner and Doctor, as to how small communities are doing in terms of the resources to identify and treat possible cases of SARS.

Ms. MANDERNACH. Mr. Chairman, certainly once—and I can speak from the small community that I was in. The health alert network is huge. When that information comes, and you get it to the people who are going to be treating individuals, the front line people, they have the information, so that they can then look for the symptoms, they can look for the recognition. Information is key, because that is going to raise the level of awareness.

As far as resources, I think that is an ongoing issue, and that is going to be as particular as the community you are in.

Senator COLEMAN. Dr. Osterholm.

Mr. OSTERHOLM. Yes. First of all, public health has appropriately been accused of being a two-footed driver. On one foot, we really hit the accelerator and try to get people to take action and understand the importance of the situations. The other foot was simply putting on the brakes and saying, "Wait, wait, wait, you don't need to panic." And this is something that many of us in public health have to live with. It is just one of our birthrights, I guess. But being for the public, that two-footed driving is a very important activity, so we make sure we don't create panic and fear where none should be. And at the same time, make sure that we get that information out. None of us have that answer down. But I would say that in the experience of last spring, I thought that as a whole, the news media handled the story quite responsibly. Some of the very best reporting I have seen on public health issues came out during that time in terms of trying to cover it. And so one of the other areas the CDC is working closely with is national news media sources to be sure, should something else happen, that there is access to accurate and very thoughtful, comprehensive information.

Senator COLEMAN. OK. Commissioner, maybe I would ask you to grade yourself here, but we are in a school setting. What kind of grade would you give Minnesota and communities in terms of their level of preparedness today to deal with potential cases of SARS?

Ms. MANDERNACH. Mr. Chairman, I would give them a B. I would give them a B at this point, because I believe that there has been a great deal of work that has been done. There has been planning with partnerships that are new partnerships. And that is how this is going to be handled. We are going to work together on this, and with nontraditional partners, so that public health and the

acute care system are working closer than they ever have. That is good. We begin to look at our first responders, we begin to look at our law enforcement. They all have a role to play in this. And I would definitely feel that we are in a much better place than what we were. There is a great deal of concentration on SARS; that is the immediate issue. But what we have learned, and are learning as we go through, prepares us for the next infectious disease or public health issue, whatever it happens to be. And so we are well on the track. We are not at an A, but we are moving down the path.

Senator COLEMAN. Dr. Osterholm, I would like you to respond. I will give you another aspect; on the national level. The Commissioner talked about things like stockpiling supplies and things. I don't believe we are at the state of readiness that we should be. Can you give me your assessment and grade on the national level in terms of helping those at the local level, and also your assessment of Minnesota as you see it.

Mr. OSTERHOLM. Mr. Chairman, let me just start by saying in Minnesota, I am glad my family lives here. That gives you my idea of a grade. I think that Minnesota Department of Health and the partners involved with this have done as good a job as any place in the country. And that gives me consolation. But having said that, I feel like sometimes public health is the medical officer on a big sinking ship, and everybody comes running to the medical officer and saying, "Keep this ship from sinking." Well, what can the medical officer do about it? And I think part of what we have to recognize is that if we run out of masks in this country because we don't have capacity to produce masks, or we don't have any number of other things that we just talked about in place, such as the uninsured not going in early and making it more difficult—in Canada, that wasn't a problem. They didn't have an issue with uninsured people being turned away or not going in. Because, in fact, that was a big piece. The same thing is true when we talked about quarantine. If we can't get people to comply because they look and say I have to make a choice here, do I lose my house or family or do I for the good of society stay home for 2 weeks? Those are issues well beyond what the Department of Health can do anything about. And so I think in that sense, nationally we have real issues here. We can stockpile some things, but we can't stockpile masks. Those are the kinds of things we have to deal with.

You are going to hear from Administrator Spartz, who is going to give you, I think, a very good view of one of the very best health care facilities in this country and their ability to expand quickly to take care of lots of patients. If that is not there, again, public health can only do so much. And so I think that we just have to recognize, these are the realities of where we sit today. And it is going to take a lot more than just preparing for SARS to be able to better prepare us for many of these oncoming potential catastrophes in our communities.

Senator COLEMAN. I want to thank both of the witnesses. It has been very helpful, and this is a discussion that will continue. So thank you very much.

Mr. OSTERHOLM. Thank you.

Ms. MANDERNACH. Thank you.

Senator COLEMAN. I would now like to welcome our second panel of witnesses at today's hearing. Our second panel of witnesses consists of Jeff Spartz, Administrator of Hennepin County Medical Center. Mary Quinn Crow, the Vice President of Patient Care Services at Northfield Hospital. Ann Hoxie, the Student Wellness Administrator of St. Paul Public Schools. And I would note Superintendent Pat Harvey is here with us today. Superintendent Harvey, thank you for being with us today. Debra Herrmann, District Lead Nurse of the Marshall School District. And Rob Benson, the Superintendent of the Floodwood School District.

I welcome all of you to today's hearing and look forward to hearing your perspective on three questions. What has Minnesota done to prepare for a possible outbreak of SARS this year? What do we still need to do, and how can the Federal Government help? And how should schools, businesses and communities respond when someone they know develops a possible case of SARS?

As I noted, we have a panel. Before we begin, pursuant to Rule 6, all witnesses who testify before this Subcommittee are required to be sworn. At this time I would ask you to please stand and raise your right hand.

[Witnesses sworn.]

Senator COLEMAN. All of your written testimony will be presented in its entirety in the record. I would ask that you limit your oral testimony to 5 minutes. Again, your written testimony will be entered into the record. And with that, we will start with Mr. Spartz.

TESTIMONY OF JEFF SPARTZ,[1] ADMINISTRATOR, HENNEPIN COUNTY MEDICAL CENTER, MINNEAPOLIS, MINNESOTA

Mr. SPARTZ. Mr. Chairman, briefly, I will respond to your questions. The first one is what has Minnesota done to prepare for a possible outbreak of SARS this year. We start with Hennepin County Medical Center being the Center for Disease Control Global Migration and Quarantine facility for the State of Minnesota. We got the honor of handling the first case of a suspected infectious disease. Second, through the Minnesota Hospital Association, which has 130 or so hospital members in this State, we have put together what is called the Minneapolis-St. Paul Metropolitan Hospital Compact. That is a group of 27 hospitals. One of the few nationally that has been put together having a preexisting regional plan for dealing with infectious disease emergencies. The hospital compact is also working with local public health and emergency management agencies to explore other possible options, such as using facilities like the Minneapolis Convention Center, if you had a large number of infected individuals. We have also done a number of tabletop and functional exercises over the past several years, including one last December, Operation Snowball, which looked at a biological scenario called "Very Bad Disease." We have learned a great deal from that with 350 individuals involved from around the State and region, and we are learning what issues have to be dealt with and how they handle these kinds of problems.

[1] The prepared statement of Mr. Spartz appears in the Appendix on page 43.

And the Minnesota Department of Health is also using something called the Electronic Health Network to immediately inform the public and hospital contacts about critically important public health issues. MDH is also applying for a grant to conduct surveillance that basically goes on the model of preparing the home line. It is designed to follow health care workers who are suspected of being infected to make sure that they do not end up spreading the disease.

Representatives from around the area have also been indoctrinated in the use of the Hospital Incident Command System, which is a way of handling major emergencies. Individual hospitals have also had the opportunity to test their infection control systems to look for areas of vulnerability. We have also identified those hospitals, as has been mentioned previously, that have negative air flow rooms so we can successfully isolate individuals who have SARS, or are suspected of having SARS. Twenty-three hospitals in the metropolitan area have such facilities, and they will be available.

One of the critical areas that will fail in the event of a massive outbreak is our laboratory facilities, like our ICU units. They will be overwhelmed, and we as yet do not have a good answer of how to handle that.

Second, the question is, what do we need to do and how can the Federal Government help? One of the problems we face in Minnesota is that one-third of the hospitals operated in the red last year. We don't have a lot of financial reserves or stockpile capacity to prepare for events that may or may not happen. In the event of a massive SARS outbreak, because people will be told to stay home, people would avoid elective procedures. Many hospitals can go insolvent in a short period of time. The current Stafford Act provides for reimbursement in times of tragedies, or disasters, but it would be impossible to accommodate the needs of hospitals which are in desperate financial condition. Most of the clinics and hospitals in the State that provide patient care for SARS patients would be private entities, and thus, their responsibilities during a public health emergency would be voluntary. We need better mechanisms that involve all hospitals in planning for and responding to public health needs and emergencies.

Hospital responsibilities and liabilities regarding quarantine are not well-defined and vary widely from State to State. We need more uniform Federal guidance in this area.

Attention has been focused both by Commissioner Mandernach and Dr. Osterholm on surge capacity. We don't have much surge capacity available in this metropolitan area, probably not in any metropolitan area in the country. The cost of having an ICU room available is very large, and it is impossible for hospitals to sustain if it is not used. Stockpiling ICU units somewhere, even if they are portable, is not the answer either, because the other component that we need is highly skilled people to manage those ICU units for patients.

We have to have a Federal dialogue regarding how you best triage people in the event of a massive outbreak of a disease. Neither the public or the government at that point can expect the nor-

mal standard of care that we expect at times of nonviolent disasters.

We also need better public health plans to manage public health care workers. Cases can cross city, county and State jurisdictions. We need to understand these plans have to go beyond the walls of any given health care facility, and we need to better coordinate with State and county public health systems.

We should learn from the Toronto experience to determine the most appropriate way to monitor and manage exposed health care workers, when to quarantine them, and how else to handle them. We are pretty vulnerable in this area, and not much formal work has been done.

The third question is how should schools, businesses, and communities respond when someone they know develops a possible case of SARS. We have to have better education of the public and professionals, and that needs to come from local media and our public health entities. We have to have appropriate guidelines and guidance of who should seek medical care and evaluation, and we should educate the public in advance, because they will cooperate better and respond better in the event of an outbreak.

Senator COLEMAN. I would ask if you could sum up your testimony, and the entire testimony will be on the record.

Mr. SPARTZ. OK. In summary, Mr. Chairman, I see this is really a three-legged stool. You have hospitals and their ability to respond for acute care. You have public health demanding to control the outbreak. And ultimately, though it is going to depend upon the response of individual citizens; do they follow the advice given to them by public health authorities, do they respond appropriately, and do they avoid panic? If we avoid that, we may have outbreaks, but we will not have massive outbreaks. Thank you for the opportunity to testify, Mr. Chairman.

Senator COLEMAN. Thank you very much. Ms. Crow.

TESTIMONY OF MARY QUINN CROW,[1] VICE PRESIDENT OF PATIENT CARE SERVICES, NORTHFIELD HOSPITAL, NORTHFIELD, MINNESOTA

Ms. CROW. Thank you for inviting me to speak today. I think that I am here more to tell a story that I hope will address the questions that you have asked.

I am from Northfield, Minnesota, which is a community of about 18,000, about 40 miles south of the metro area. Our community is the home of two prestigious colleges in the State—St. Olaf and Carlton.

And in March of this past year, as we were beginning to train our physician staff and our medical staff about SARS and the emerging infection and what things that the Department of Health was telling us we needed to know, we started to pay close attention to this. Simultaneously, our respiratory staff at the hospital began a fairly time-consuming process of testing our staff with N–95 masks, which we have heard about today. These are filtered masks that protect health care workers. We had to stop the training, because we ran out of masks and because they were back ordered,

[1] The prepared statement of Ms. Crow appears in the Appendix on page 48.

and 3M was our only supplier at that time. I am happy that we didn't know that they were back ordered for years. We thought we were looking at about 9 weeks.

However, in mid April, we received a call from the Wellness Center at one of the colleges that told us that 30 students who were traveling in China were being returned to campus because of the SARS outbreak in China, and that they were being returned because they had been visiting several areas where SARS was fairly epidemic. The college Wellness Center went to the hospital, requesting assistance for the management of these students. We were given approximately 5 days to develop a plan before the students would be back home in Northfield. Well, many meetings took place, as you can imagine, and we involved hospital leadership, hospital staff, ambulance staff, Wellness Centers and nurse practitioners and public health. And planning discussions included many, many issues. But I will give you the top of those. We looked at protocols, what we were going to teach these students when they returned in terms of how they needed to monitor themselves and protect the public. The Wellness Center was very concerned about their lack of ability to actually assess these patients, and the safety issues around bringing them into a small health center that did not have negative pressure. Hospital and triage and treatment of the ill students was also addressed. At that time, we were in a building that had no negative pressure availability, no ventilator availability, and we immediately needed to complete the N–95 fit testing for our emergency department staff or essential staff and get a supply of N–95 masks, so that we could at least triage these patients, should they come to the hospital. There was also a need to provide 24-hour medical direction to the college during that time, and that was done through the hospital emergency staff.

There were transport issues we needed to consider. If one of these students did become ill and needed to be transported to the Metro, how were we going to protect our ambulance staff who would be in very close quarters with a potentially very infectious patient. And then we needed to develop a network with HCMC so that we understood what patients they would take, and how they would coordinate that transport to safely bring the patient into the exam system. Finally, we talked about isolation and quarantine. And this was perhaps our stickiest issue, surprisingly perhaps, but understand that in these colleges, we have to have some of the best thinkers in the State, and they clearly addressed the human rights issues of students to return to campus and to be able to come fully back into the community that they lived in. At that time, the only guidance from the CDC and the Department of Health was that unless you were symptomatic, you did not need to be isolated. However, we did realize we were bringing a high-risk group back to our community. So in the last week of April, ten students actually returned. Twenty students chose to return to their own communities, which I am uncertain as to how those communities dealt with that issue. They returned to the college campus from Beijing. The college had decided not to isolate these students. However, they did cohort them for sleeping and eating. But they were allowed to be completely involved in campus and community activities. They were also told, actually, at the airport where they were met by one

of their deans, they were all given thermometers and told they needed to daily monitor their temperatures for 10 days, that they needed to report those daily temperatures to the Wellness Center by phone, and that they needed to report upper respiratory symptoms immediately, should they occur. Within about 48 hours, the first student reported a fever of 101 and upper respiratory symptoms. This was a patient that you asked about earlier—how do we know this isn't a cold. This is the Kennedy person. They had been there. We really did have to consider that these were high-risk SARS patients.

We decided that we would not bring the patient to health care. We did not have negative pressure in our hospital. The Wellness Center also did not have negative pressure available, and we felt that the safest thing to do was to assess this patient in his home. So our ambulance staff, which had been well-trained and now having protective equipment, was sent to the home of the patient where they did assess the patient to be indeed feverish with a upper respiratory infection, but not in respiratory distress. At that time, they communicated with our emergency department physician, who communicated with HCMC. And the decision was made to take the patient directly to HCMC to be evaluated for the potential of carrying SARS. The patient was kept at HCMC for about 12 hours, and determined to be a suspect SARS case, and at that point discharged back to the community. He was at that time isolated for 2 weeks, and kept apart from everyone. Food was delivered to his door, where he picked it up and brought it in. And the only visitors he had were actually from the County Public Health Department to assess him.

Senator COLEMAN. Could you summarize?

Ms. CROW. Sure. I will. There were a number of issues, as I have talked about; supplies and equipment, training, the protective equipment for medical staff and ambulance staff, contingency planning, and then I guess high-level discussions that I believe need to occur around the ethics of isolation and quarantine. These are things I think we will face in the future.

Senator COLEMAN. Thank you very much. Ms. Hoxie.

TESTIMONY OF ANN HOXIE,[1] STUDENT WELLNESS ADMINISTRATOR, ST. PAUL PUBLIC SCHOOLS, ST. PAUL, MINNESOTA

Ms. HOXIE. Thank you, Senator Coleman. Our story in St. Paul is quite opposite. We did have a staff member whose child was hospitalized with a probable case of SARS following the child's trip to Toronto. And so for us, it was really just a practice run, but we saw the issues that will arise. We looked at, what is our responsibility to 44,000 students and 600 staff, while continuing to run our business? How not to overreact, or what is the appropriate reaction in this sort of case? And then all of the worry and concern of the coworkers of the father and the need to protect the privacy of this family. We went into it with some baseline knowledge, because of all of the CDC communication we had. And we checked the Toronto school's website to give us some other baseline information. Our superintendent, Dr. Patricia Harvey, spoke with Dr. Harry Hull, the

[1] The prepared statement of Ms. Hoxie appears in the Appendix on page 51.

State epidemiologist, to get information specific for a St. Paul response. And what we really felt is that we had information needs at that point. So we included a notice to all our administrators in the superintendents' weekly bulletin that laid out what SARS is, what the symptoms are, and what's appropriate attendance criteria for staff and students. But still, we got lots of questions. Despite giving lots of resources, putting a page on our website, with links to all of the right people. And then we did mention hand washing. We continued to stress that.

So that situation was quickly resolved, but it does leave us better prepared to come here today and talk of what the future might hold. So I am trying to continue to stay informed, so that I can support our administrative decisions. We are going to offer flu shots to all our staff this fall, hoping that will help in the differential diagnosis kinds of things. We are continuing to stress the hand washing. But mainly, we are just educating our students. So, we look at what might be a specific response that we might need to do with students' quarantine. And that was kind of one of our first things, how do you provide education to quarantined students. We know technology provides the potential and the opportunity to help us do that, but we are not ready for that at all. That is a possibility, but we have not developed that. What is our surge capacity in the schools to respond to educating kids at home? We can educate a few kids that are homebound, but we don't have surge capacity to do that, either. We know that our parents have a pretty good degree of access to the internet, but much of that for our parents in St. Paul will be at the work place or in libraries, not at home. So that is not a good resource for us.

The Federal Government can help us by continuing to support local public health. That is who we turn to for infectious disease help. We need strong leadership at the local level to help us respond to what occurs in our communities. And that professional health leadership is also going to need support from public safety officials. And then we need the Federal laws, rules, or policies in the State in support of the activities that need to be done.

We also need real clear guidelines for schools. Isolation in a school setting is very difficult. I tried to picture exactly how we are going to do that, and we are quite a bit different than Carlton or St. Olaf in that we have much younger children, and we have lots of different languages, so that presents us with space issues. I don't know exactly—and we have no supplies. Clearly, no surge capacity there for isolation.

We need accurate messages in the media. That will be highly important to us. Accurate messages which are simple and consistent—in a way that our many second language households can understand. And you know, for a school district such as St. Paul, an urban district, where many of our families live in crowded homes, the disease can spread quite rapidly. Forty-one percent of our students come from homes where English is a second language, so the communication challenges are enormous. And while we have good interpreter support for education, we would be highly challenged to get our educational interpreters to understand these health issues, and to convey them.

Many of our students—at times we estimate up to 20 percent of our students in some buildings do not have health coverage. So that issue we heard about earlier, about early access, is a real concern for us. Where do they get the medication, and where do they get diagnosis. And we know that will result in a burden on emergency rooms and neighborhood clinics.

But directly, many of our families use the school nurse as the front line health care provider. We provide safety net services to meet the gaps in the health care delivery system, and we would anticipate that SARS would be a situation where many parents might call us, but many others might send their child to school to see the school nurse. And then we are going to sort out which of these are a cold and which are SARS. It is a huge challenge, when I begin to think about it.

I think the Federal Government could help by recognizing the amount of front line health care that is provided, and not funded in schools. Take a look at that, and help us be available to provide those safety net services to kids. Schools are accountable to the educational standards in Leave No Child Behind, and we don't have resources to put into health care and health education. And that is something we need. We need a comprehensive and coordinated school health program that can be ready to respond and can teach the kids about concepts of health prevention.

Many of our students are from cultures that don't have experience with Western medicine. We can't give them thermometers and say, "Take your temperature twice a day." There is no experience with that.

In St. Paul, 67 percent of our students are eligible for free or reduced meals. That means that many of them rely on the two meals they receive at school. So feeding these kids at home when quarantined or in isolation situations is a challenge for the community.

I think we have got to think about the data privacy issues, and certainly there are ways around that, but that is always an issue between systems.

I might be remiss coming from schools if I didn't mention that Leave No Child Behind has very high standards for us. If we went through a winter of a lot of absenteeism, quarantine, isolation, problems like these, what would happen to our accountability to that system?

The question of how we respond, I think we do——

Senator COLEMAN. I would ask you if you could summarize.

Ms. HOXIE. OK. We would respond by sending people home so they could be assessed. But that would be real challenging for us. We would be worried about kids being at home and not having anyone supervising them. Thank you.

Senator COLEMAN. Thank you very much. Ms. Herrmann.

TESTIMONY OF DEBRA HERRMANN, RN, PHN, LSN,[1] DISTRICT LEAD NURSE, MARSHALL SCHOOL DISTRICT, MARSHALL, MINNESOTA

Ms. HERRMANN. Thank you for allowing me to be here and inviting us from Greater Minnesota. I represent the southwest portion of the State.

For what has Minnesota done to prepare for the possible outbreak of SARS this year, for us in our area of the State, we have received a lot of the information from the Department of Health, and the CDC websites. There is also lots of information and classes available. Many of the resources have been very medically-oriented for the hospitals, health care settings. So there has been limited information available to the schools and the procedures that we would actually have to follow, should there be an outbreak.

In November this year, the School Nurses of Minnesota (SNOM) is holding a workshop, and SARS is one of the topics. So hopefully that will relate to some of the school issues. Many of the information educational opportunities are held in the metro area, and the time and the travel for those types of workshops at some times are very difficult. Although with a lot of technology, we are able to tap in and get a lot of those resources.

In seeking out information regarding this prior to coming here, many of the things that I was told from our county emergency system, our public health system and our hospital and health care systems is they are still awaiting more information. They would be getting that to me, or to the schools. We do have a very good rapport with all of those agencies within our community and within the area communities.

What do we still need to do, and how can the Federal Government help? We really need to be better prepared for identification and education to the public. Education and communication to our public is going to be a major problem, as you have seen here. We do have English language learners in our area, also. Our school district has—even just with the issues of pertussis—the education and the scare factor of many of the people in the community was huge with that. So the safety and the needs for that—the communication of correct and legitimate information is going to be of great need.

We do have, like I say, the language and communication barriers in the school and the community. We also have many students that have no insurance. They also use the school nurses—the families will send their children to school and say, "I am going to the school nurse," and they say, "if she thinks you need to go home, they will make that availability to them." So we often times are a good health care resource for these kids who are seeking care or information—or families are sending them to us. We are the resources that these families use, due to the financial burden on them at other clinics.

Another concern is the possible quarantine issue, while still providing the educational services. The reimbursement of the facility—the faculty and the staff—that need to be under quarantine is a major question. Or should a larger outbreak occur, how would we

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

even educate the students that we have in the schools, let alone the students that might be put on tutoring at home. And, again, with the No Child Left Behind law, the added burdens of that would be to the districts; that we would be able to adequately reach the students not in school.

Again, we do have some of the technology and computer availability in our area, but the lower income population—as you know, many of these people do not have access to that at home, so it would be a burden on our areas.

There are many unanswered questions at this time. We have limited financial resources. There has been additional funding cuts to the schools, so this does not allow a vast amount of time or manpower for us to be committed to the procedural development and research that needs to take place. So we are awaiting further information and recommendations from the Department of Health, the Department of Education, and CDC regarding policies that we could possibly adopt and use within our area. So additional funding or procedures that we could easily merge into our area would be of great advantage. The dollars for the proper medical equipment—and speaking of the hospital—we have two rooms in Marshall that would have the proper air exchange, and three in Willmar, Minnesota. So you are talking about the southwest portion of the State—five rooms that would have the equipment necessary. They are also having trouble getting the proper air flow masks that need to be available for them to use. And that is just for the county emergency management and the hospitals. That does not include covering the schools.

How should schools, businesses, communities respond when someone they know develops a possible case of SARS? Really, a comprehensive plan needs to be developed and available to all of the agencies. It needs to address the health care facilities, as well as the schools, the businesses, and all agencies within the community. We do have a population that travels extensively, and so these types of outbreaks could be expected at any time.

The Marshall Public School District, our health program is working in conjunction with the other local emergency management agencies, community health, and other local health care facilities to be a part of a workable plan on how to identify and educate our community regarding SARS if there were an outbreak. All of the agencies that I have listed are currently discussing policy and procedural development, but I cannot at this time find one agency that had a fully operational procedure that they could follow at this time, if there were to be a case of SARS. Again, we are awaiting further information.

We, as a school, have no actual procedure or plan in place with a SARS outbreak. We would handle this under our communicable disease protocol and policy, as we handle any communicable disease, and we would be contacting and using our local public health agency tremendously, as well as our hospital, clinic and emergency management services to try to help get us through. Thank you very much.

Senator COLEMAN. Thank you. It was very helpful. Mr. Benson.

TESTIMONY OF ROB BENSON,[1] SUPERINTENDENT, FLOODWOOD SCHOOL DISTRICT, FLOODWATER, MINNESOTA

Mr. BENSON. I would like to thank Senator Coleman for inviting me to be a part of this panel. It is indeed an honor.

I would like to start my presentation with some of my personal background and information on disease control. My earliest memory of disease control was when my older sister came home from school in Deer River with a case of the measles. So the disease would not spread to the little two-room school that my middle sister and I attended, we were quarantined. We could not go out in the public, so for 2 weeks, I helped my father in the logging operation. When I became sick with the measles, the disease had to run its course before I was allowed back in school.

The second incident I would like to relate is my mother's 1928 teaching contract. My mother, like many young girls of the day, went to 8 weeks of summer school after high school graduation. That qualified her to teach in a rural elementary school. About 10 years ago, while cleaning out the attic, I found her 1928 teaching contract. The thing that interested me in the contract was that it stated, "If said teacher married before or during the school year, it would void the contract." I told my mother what a different world she lived in in 1928, than we live in today. I told her that if I put that into a teacher's contract today, it would be discrimination, and would be taken out of the contract. To my surprise, my mother told me that that was not discrimination. She explained that in 1928, when people got married, they usually started a family. There was a fear that young, married women would be exposed to German measles, and the results would be children with birth defects. According to my mother, the reason that women of child-bearing age could not be in that environment, was to protect the unborn children from birth defects.

The last incident I would like to relate is when I was a student at the University of Minnesota. Senator Humphrey gave a presentation at Coffman Memorial Union. Senator Humphrey's presentation was on the advances in medicine, and what we could expect in the future. He talked about how smallpox would be eradicated worldwide. It was new at that time—polio vaccine, and how polio would soon be a thing of the past. He stated that by the year 2000, viruses would be no more. The common cold would be a thing of the past. Having a friend that had died from polio, and having several friends that were permanently paralyzed from polio, Senator Humphrey's talk had an impact on them. I also remember that in 1946, Minnesota cancelled the State Fair, for fear of spreading polio.

The reason that we are here today is that school is a place where young people come together, and spread disease.

We are here today addressing SARS, because disease is not a thing of the past. We realize that disease will never be a thing of the past. I represent a small school, 431 students. That is our kindergarten through 12 population. The town of Floodwood has a population of 502 people. Floodwood is virtually 40 miles away from services; be it Duluth, Grand Rapids, Hibbing, Cloquet or

[1] The prepared statement of Mr. Benson appears in the Appendix on page 58.

Moose Lake. Floodwood is 40 miles away from a hospital. Floodwood has a medical clinic in town that is staffed by a doctor and a nurse practitioner. The doctor is the first full-time doctor that has practiced in Floodwood for nearly 50 years. The school has a licensed public health nurse that is on staff 12 hours a week. This is an increased time from last year, when the nurse was on duty just 7½ hours a week, and that is thanks to a grant from the Northland Foundation.

What are our plans in case of a SARS outbreak? Well, we depend on our school nurse. The problem is, like many other small, rural schools, or larger schools that assign a nurse to several buildings, the funding is not available to employ a full-time nurse to each building. Since ours is a part-time position, we have a difficult time keeping that position filled, and this puts our students at an additional risk on many days the nurse is not in the building.

I have handed out an article that our nurse is publishing in our Bear Facts, our monthly school newspaper. She gleaned this information from the internet at WWW.CDC.GOV.[1]

Senator COLEMAN. I will have that article placed into the record.

Mr. BENSON. It is the Centers for Disease Control. Every month she writes that article for the school newspaper.

I was asked to address how the government could help with disease control in schools. In our situation, the government could help by assuring funding so the communities could have a full-time public health nurse in all school buildings. SARS is not the only concern that schools face today. We have children that are diabetic, children that are allergic to foods, children that are on various medication, and a list that goes on and on. A full-time nurse is an essential addition to our schools. We now live in a global economy. Schools now need a full-time person in each building that can address the health problems of students in that building, as they arise. The problems are not diminishing, as Senator Humphrey said they would. Even with the advances in medicine, the medical problems that schools must address are growing and becoming more complex.

The U.S. Senate can help by assuring funding for a full-time school nurse in each and every building.

Thank you, Senator Coleman.

Senator COLEMAN. Thank you, Superintendent Benson. And thank you all, by the way. This has been very helpful to me and I hope, by the way, to the other health care professionals, Dr. Hull and Commissioner Mandernach's operation. We have certainly had a wide perspective, here—Hennepin County and St. Paul Public Schools to the rural communities.

I have passed along—I am raising my family here. I think we do a great job in Minnesota; we pride ourselves on a great job. But by virtue of what I have listened to today, the challenges still are enormous. It is the nature of the world in which we live.

One of the issues you raised, Commissioner Spartz, you talked about three things we need to focus on, in large part ties into the reaction of individual citizens. There are different experiences with

[1] Article by Lisa K. Carsrud, RN, BSN, PHN, School Nurse, entitled "What You Need To Know About Severe Acute Respiratory Syndrome (SARS)," appears in the Appendix on page 60.

that and different challenges. One of the challenges is to get information to the citizens by virtue of language or location. But I would like an assessment of where we are today, and if SARS were to hit our communities, do you think people would be prepared? And if not, on the communication side, can you help me get a sense of what else it is we have to do, other than school nurses checking with CDC bulletins? I will open it up to the entire panel. I am really interested in your assessment of your universes, the kind of reaction you think if cold season hits this week, all of a sudden there is a case of SARS somewhere in your communities. I want to touch on Mr. Spartz's point, because he said the reaction of citizens is going to play a key role in how we are able to respond. Ms. Hoxie.

Ms. HOXIE. I think that we really need the media to provide consistent messages. And that starts with what the CDC can do, and what the health department can do, but I will go to the communications people in my district—that CDC guidance for schools last year was very helpful—a one-page guidance that said these people should stay home and these people can come to school. And that kind of very clear and consistent message can be conveyed in the media, as well as what we can do and more direct.

Senator COLEMAN. I can assure you that I will ask my staff to go through the record to make sure we communicate that to the CDC, that they get the message that comes out of this hearing.

Addressing other responses to the question. Mr. Spartz, you raised the issue, your assessment for us today. Where do you think things are at?

Mr. SPARTZ. At this point, Mr. Chairman, I fear we would have a panic set in if we had a moderate to major outbreak. Ms. Hoxie is right. We need to do education, we need to do it now, in advance, so that people have some of the fundamental concepts in mind before an event happens. And then you need the messages to be gotten out, in the event that happens which reinforces the education that was done in advance. I think that is the most valuable thing we can do, because if we get a sense of panic in the community, public health in the hospitals will not be able to control the problem.

Senator COLEMAN. I would like to note the presence of Jim Rhodes, a State Representative in this area. And I am sure as we go back and look at this record, I know he is very concerned about these issues. Certainly the State needs to be a full part of the legislature. Ms. Crow.

Ms. CROW. I would just like to comment with regard to the mindset of health care workers around this subject. We are at least a full generation away from an outbreak of polio or measles, and really having to look at that. Health care workers today won't have some of the same altruism that perhaps was there 25 years ago. And as we look at this in Northfield, I can tell you that people looked at themselves and said, "I don't want to risk my health or my family's health to take care of what may be a major incident here." We do have to take care of our health care workers. We do have to give them the protection they need to be able to do the work. If that doesn't happen, I can tell you that we won't get the health care workers to come to work. And that would be a very big issue.

Senator COLEMAN. And I would anticipate then, the same holds true for teachers and school settings, who are probably less familiar with some of these things, than the health care workers. So I would suspect that concern would be amplified in a school setting.

Ms. HERRMANN. I think very much so, as well as the school teachers. We wouldn't have any protection. I can just tell you now from preliminarily putting out information on influenza, that I have had a much larger response this year already than we have in past years. And should there be a SARS case anywhere in the area, it is going to be huge as to whether they will be coming to school or not. Because many of our kids do come to school sick. They don't have any place to stay home and be watched, so they are at school spreading everything.

Senator COLEMAN. Ms. Crow, I was interested in your discussion of the students, 10 were kept together and 20 went somewhere else?

Ms. CROW. Right.

Senator COLEMAN. So in spite of whatever we do with 10, there were 20 others that we presumably had no knowledge of. The other thing that you have—the issue that you mentioned was the philosophical discussion of the rights of individuals. If the same situation were to come about today, how would your response be different?

Ms. CROW. I would look for more guidance from the Department of Health and CDC. We are not sure at what point of an infectious process this disease is spread. Is it prior to when you become really symptomatic? Can you actually spread prior to that? We looked for that guidance last spring, and clearly the faculty, the deans, the leadership at the college said we don't need to isolate these students. We were looking at the health of the community and saying, you don't want to have to isolate your campus—and that could happen. And certainly you don't want to have to isolate this whole community—and that could happen. How that would be handled differently, I think we are not there yet. We still need to have these discussions, to say, "let's think about how we can do some simple things to protect the common good." In that case, my idea would have been to take the 10 students and simply take them camping for 10 days or do something with them, where they were really truly isolated and yet not be punished. But those discussions seem to occur. We need to get creative about that.

Senator COLEMAN. Was legal counsel involved in these discussions?

Ms. CROW. We did seek legal counsel, and legal counsel went back to the guidelines of CDC and Minnesota Department of Health and said, there is no legal stand to isolate these students at this point.

Senator COLEMAN. I believe Commissioner Mandernach talked about State quarantine which sunsets in 2004. So I would suspect that issue will be reviewed in the next session to make sure that we have the place where it is needed to adequately deal with these situations.

Ms. CROW. I think that would be helpful. I think also we do need to think about the logistics of that. And I know the Commissioner referred to that, as well as Dr. Osterholm. But the logistics of quar-

antine. And that was one of these kinds of—understand what you are asking. To logistically isolate 10 students for 10 days. And first of all, I have to deal with the parents of these students who are going to look to me to say why. And second, there is just the logistics of making this—so that is only 10.

Senator COLEMAN. Turning to the school personnel, what I am listening to is mostly a look into the health care professionals and having a school nurse as someone who is in contact with CDC. Is there benefit in training school personnel to identify symptoms, or would that simply be too costly, and take away from the main focus on education? How far do we go in training staff as to what to look for in issues like SARS? I am interested in a response. You all represent different perspectives. Dr. Benson.

Mr. BENSON. I think there are teachers that are just overwhelmed right now with the No Child Left Behind, and all of those things. I think they look towards the school nurse as the professional person to do this.

Senator COLEMAN. Ms. Herrmann.

Ms. HERRMANN. I would say also that our teachers are so ingrained in meeting the guidelines of the No Child Left Behind, and all of the other issues, that they do come to the school nurses as a what am I going to do here, this child is coughing, what could this be. We, a lot of times, are the medical help or information area, they are coming to us. And it is a matter, a lot of times, taking time to be able to deal with all of that information and give them accurate data.

Senator COLEMAN. Ms. Hoxie.

Ms. HOXIE. I would agree. We have undertaken a big effort to educate our teachers about asthma. And they have so much else to be thinking about. They really need our expertise. Clearly, I think we would need to reinforce the information to them, mainly so they won't have to panic about these kind of things. And part of the information is saying these are the symptoms. But, again, I don't know how I am going to educate my nurses to sort out the symptoms.

Senator COLEMAN. That is my next question. I would be very interested in your assessment of how do you educate your nurses, who has that responsibility, what role does the CDC play, and what role does the State play?

Ms. HOXIE. Well, I think that would be my responsibility to start with. And what I have done so far is to try to keep them apprised. I don't know how we are going to sort out what's SARS. There is no good way to do it. A child comes in and says, my mom says to see if my ankle is broken. I have a response. No one can tell without an X-ray, and I don't have an X-ray at school. But we don't have a good response like that for SARS. An X-ray maybe yes, but what we really need is a quick test or something, and so they are going to have to leave school and get some kind of evaluation, or going to need some time to see how the symptoms happen. None of that can be done easily, quickly, or efficiently in schools. Because it won't be one child, it will be 15, 30, or 50. Often in the winter, health offices in the St. Paul schools, have 75 or 80 kids in a day. We have to sort out how we are going to sort that out.

Senator COLEMAN. Ms. Herrmann.

Ms. HERRMANN. It is going to be a challenge, because even just to identify, is it influenza, is it just a cold, or is it another type of respiratory infection? As soon as we get the information, we spread it out to the other nurses. Our infection control nurse at the hospital is excellent about getting out any new information that she receives, so we can keep on top of that. But it is difficult to keep everybody trained on the same page. And not everyone is full-time. So we don't always have somebody there to deal with it. So then we are trying to educate secretaries and staff on what to recognize, and who is important to be seen or sent home.

Senator COLEMAN. This has been a fascinating discussion. In many ways, we are asking folks to think the unthinkable. Hopefully it doesn't happen. And even after thinking, if it does happen, what I am hearing is that there are some very practical, logistical time-issues like Ms. Hoxie talked about. Supplies, capacity, that even under the best of circumstances, if SARS were to break out, we would be challenged to respond effectively. I was tempted in the school setting to ask about grades. But I think under the best of circumstances, we are clearly going to be challenged.

I will certainly go back and carry the message about the resource issue, the information issue, and certainly about some longer-term issues. I do know that Dr. Osterholm wanted to go through short-term and long-term. Long-term is access to health care. Short-term is how many masks do you have, what's the surge capacity? And I think we have to be thinking in those terms, break that up. Clearly, the burden is on folks at the local level. We can discuss this in Washington. I am impressed with CDC, with the work that they are doing in regard to folks at the local level, the information that has been made available. They had a checklist that they put together at my last hearing that they kind of laid out, and I would hope that checklist—and I presume it is going to the health care professionals, probably not going to the schools, but should be going to the mayors and others for each community, a list of those things that you need to do. Certainly when I get back, I will do my best to see that the checklist of what needs to be done is circulated more extensively. I think we all need to kind of measure where we are right now.

I do want to thank St. Louis Park High School for hosting this hearing. It has been really an extraordinary session. Very helpful. I am an optimist. If bad things happen, I think we have folks in this community who are certainly geared to do the best they can. Hopefully that will be enough, and hopefully we will get smarter as time goes on. So I want to thank you all.

The record of this hearing is open for an additional 10 days, if there are others here who wish to submit statements or other information for the record, I will make sure that that takes place. So with that, this hearing is now adjourned.

[Whereupon, at 11:40 a.m., the Subcommittee was adjourned.]

APPENDIX

CLOSING STATEMENT OF SENATOR NORM COLEMAN

I want to thank all of today's witnesses for participating in today's hearing. I know that all of us are working for the same thing, to protect the health of Minnesotans, especially our children. We cannot control when or where SARS will emerge, but we can make sure that we are prepared to recognize it when it does and respond appropriately. I know that several international and Federal agencies, led by the World Health Organization and the Center for Disease Control and Prevention have already done a great deal to get information and resources to State and local officials so that they can do their jobs. I will work to ensure that these resources continue to be delivered in an effective and useful manner. I hope that all of you will feel free to notify my office of any needs or concerns you have.

The main burden of protecting local health will always fall upon the local health care officials who are on the scene treating individuals. As the first point of contact, it is important that they receive the information and resources needed to prevent an outbreak from occurring. We must also make sure that they receive adequate protection when they treat patients.

This is an area that I intend to remain involved in. I have requested that the General Accounting Office conduct a study of national and international surveillance systems for spotting the emergence of an infectious disease. GAO is likely to complete this study at the end of the year, and I will make sure that the results are acted upon.

I also want to thank St. Louis Park High School for hosting this event. Given today's focus on protecting our children, it is very fitting that we held this hearing in a school.

Civilization is possible because human institutions are capable of learning from past experiences. I am confident that the lessons from last spring will make us better prepared to deal with the continued threat of SARS and other highly infectious diseases.

Thank you.

Written Testimony of Minnesota Commissioner of Health
Dianne Mandernach
Presented to the U.S. Senate Permanent Subcommittee on Investigations
Chaired by Senator Norm Coleman

SARS: Is Minnesota Prepared?

October 8, 2003

In many respects, Minnesota got off easy during last year's SARS outbreak – although SARS still presented us with significant challenges:

- Based on the case definition used by CDC at the time, we had only three probably and eight suspect cases of SARS. None of these cases was confirmed as SARS in the laboratory.
- Nonetheless, my agency had responsibility for providing clinical consultation for health care providers regarding the diagnosis, management and isolation of potential SARS cases. We recommended isolation for a number of people with possible SARS, and many health care workers had to be placed under close observation for symptoms of SARS, after providing care for these patients.

If SARS makes a return appearance this year, the impact on our state could be much greater. The Minnesota Dept of Health, local public health agencies and hospitals are preparing for that possibility in a number of ways:

- We are working to maintain and strengthen our state's disease surveillance system. Effective disease surveillance provides us with an essential early warning system, allowing us to quickly detect and identify possible outbreaks of SARS and other infectious diseases. Our disease surveillance system is already recognized as one of the best in the country, and is considered a national model.
- We need to maintain and strengthen our state's public health and clinical laboratory system, which is a key part of our surveillance system for SARS, bioterrorism and other emergency infectious disease threats. Our state Public Health Laboratory is prepared to provide diagnostic testing for SARS, as well as providing critical coordination and technical support for public health and medical laboratories throughout the state, as they respond to the threat of SARS. The role of the state laboratory includes:
    - Providing reference testing, to ensure the accuracy and reliability of findings from laboratories throughout the state.
    - Linking and coordinating the efforts of the state's public health and medical laboratories, through the Minnesota Laboratory System (MLS).
    - Providing laboratories in the MLS network with laboratory alerts, CDC advisories, technical consultation, and other critical information.
    - Identifying laboratories within the MLS network that can provide critical extra laboratory capacity, when and if a large SARS outbreak occurs.

  - Working to assure that private sector laboratories are only using critical resources to test for SARS when those tests are clinically appropriate and necessary, based on available clinical and epidemiological information.
  - Confirming presumptively positive SARS test results from private sector laboratories, using tests developed and validated by CDC.
  - Collaborating with CDC to develop guidelines for the proper interpretation of SARS test results.
  - Providing information for the medical community and the general public regarding the use and limitations of current laboratory tests for SARS.

- We are also working to strengthen the disease surveillance role of infection control professionals in our state's hospital system. We maintain a strong working relationship with this important group of professionals. They are in a unique position to identify possible cases of SARS – both in patients and in health care workers – and they are an essential part of our state's disease surveillance system.
- We recognize that – without effective vaccines or treatments – isolation and quarantine will continue to be our primary tools for containing SARS. We need both the appropriate legal framework and adequate resources if we are to use these tools effectively.
  - The Minnesota Emergency Health Powers Act provides a modern legal framework that gives us the authority to use quarantine as a public health measure. It spells out procedures for making use of this authority, while also providing safeguards for the rights of individuals who may be placed under quarantine. However, this law sunsets in 2004, and will require reauthorization by the Minnesota Legislature.
  - We also need clear procedures for implementing the Emergency Health Powers law. Our attorneys at the state health department are working with the state attorney general and county attorneys to develop detailed quarantine procedures, and draft model quarantine orders. We will also be working with judges and law enforcement officials, to ensure that they are prepared to handle quarantine orders if the need arises.
  - Our health system has the resources to provide for isolation of a small number of SARS cases, and quarantine of individuals who might have been exposed to those cases. However, we need to develop systems for handling the much larger number of cases that may occur if transmission of SARS begins to occur in the broader community, rather than just in the health care setting. We are working with hospitals and local public health agencies to develop those systems.
  - Those systems need to include effective disease surveillance, early recognition of possible cases, and possible isolation and quarantine of large numbers of people, both in the hospital and at home. We need adequate support systems for people who are in isolation or quarantine, including systems for providing food, and meeting other social service needs.

  - We need effective procedures to prevent the spread of SARS in hospitals and clinics. We are working with infection control professionals to ensure that they have the most current guidelines for controlling the spread of SARS to patients, staff and visitors, in the hospital setting. We're also working on upgraded infection control protocols for clinics and ambulatory care settings, with an emphasis on controlling the airborne spread of respiratory illnesses.

- We recognize that critical health care staffing shortages could develop during a SARS outbreak. For that reason, we are working to develop the Minnesota Responds! Health Professional Registry, an online tool for assembling a volunteer health care workforce in the event of a health emergency.
- We recognize that we must be prepared to communicate effectively with the public about SARS – what's happening, what we're doing about it, and why we're doing it. The messages and information we provide must be timely, accurate and credible. The Canadian experience, during the Toronto outbreak, has shown that people will accept measures like isolation and quarantine – if they know why those measures are being taken. This needs to be coordinated across the country so the public is hearing similar messages from federal, state and local public health authorities.

Adequate federal support will be critically important in responding to a possible outbreak of SARS – and that help can take a number of forms:

- A successful response must be coordinated at the national and international level – including coordination with the World Health Organization – and we need rapid reporting, investigation, and sharing of information by the CDC. That coordination is best achieved at the federal level.
- We recommend that the federal government create a national stockpile of the personal protective equipment and other supplies required for isolating large numbers of people – including items like masks, gowns and gloves – separate from the existing Strategic National Stockpile of medical supplies. These supplies are critical if we are to protect health care workers who are caring for SARS patients. Health care workers are at high risk during a SARS outbreak – they accounted for 43% of the reported SARS cases in Toronto. Without adequate protection, health care workers may refuse to work, compromising the care of SARS patients, as well as other patients who have been hospitalized with serious illnesses.

  Preventing the transmission of SARS to health care workers is an essential part of stopping any outbreak. Hospitals do not typically stock sufficient isolation supplies to handle a large volume of SARS patients, and they could run out if an outbreak occurs. A stockpile of these supplies will help us ensure that they are available when they are most needed.
- The financial impact of SARS or other emerging infectious diseases could also be significant and burdensome – resulting in escalating costs for hospitals, financial risks for physicians and hospital workers, and lost income

for people placed in isolation or quarantine. Physicians and other health care workers may be reluctant to care for SARS patients without a financial safety net to compensate them for potential losses resulting from personal illness – or from being placed in isolation or quarantine. People placed under quarantine need to know that they will be compensated for lost income and other potential losses, so they will be willing to comply with quarantine orders. Overtime costs for law enforcement personnel may also be a significant expense.

Hospitals rely on elective procedures as a significant source of revenue. During a wide-scale SARS outbreak, elective procedures will be postponed, placing additional burdens on a stressed health care system.

An emergency fund – similar to natural disaster insurance programs administered by FEMA – could help compensate for these costs.

- We need help in developing the "surge capacity" for handling a large outbreak – including hospital beds, hospital workers, and the resources needed for large-scale quarantine. Hospitals are likely to be overwhelmed during a large-scale SARS outbreak – which would drastically increase staffing needs, while reducing the number of staff available. Many hospital workers could become ill – or would need to be placed in quarantine. Non-SARS cases may need to be diverted to other sources of care.
- We need to look at the potential for using military resources, including the National Guard, to handle unmet needs when and if a potential SARS emergency begins to escalate.
- We need to consider how the availability of health insurance coverage may affect our response to a SARS outbreak. People without coverage could delay seeking medical attention – and as a result, they could expose additional people to the illness.
- We need to examine legal barriers to the use of non-hospital personnel, in the hospital setting, to perform some essential tasks.
- We need to begin doing research on vaccines, treatments, and a better test for SARS. That will require leadership at the federal level.

In conclusion, I want to emphasize that preparedness – for SARS and other public health emergencies – is a long-term commitment. We need to sustain the generous funding that the federal government is already providing for that purpose.

At the same time, we need to make sure that we do not pay for these resources by cutting other vital public health programs – in areas like immunization, tuberculosis, and sexually transmitted diseases.

We did cut critical public health prevention programs in the early eighties. The result was a resurgence of diseases like TB and measles. We cannot afford to repeat that experience.

SARS: A Perspective on State and Local Preparedness

Testimony of
Michael T. Osterholm, PhD, MPH
Director, Center for Infectious Disease Research and Policy
and
Professor, School of Public Health
University of Minnesota
Minneapolis, Minnesota

Permanent Subcommittee on Investigations
Committee on Government Affairs
United States Senate
October 8, 2003

Mr. Chairman, my name is Michael T. Osterholm, PhD, MPH. I am the Director of the Center for Infectious Disease Research and Policy (CIDRAP) at the University of Minnesota. I am also a professor in the School of Public Health at the University of Minnesota. As you are aware, last May I had the opportunity to testify at this Sub Committee's first hearing on SARS Response Preparedness.

Mr. Chairman, I continue to applaud your efforts and those of the members of the Sub-Committee to address this very critical issue of the effectiveness of our Nation's response to Severe Acute Respiratory Syndrome (SARS). As I indicated in my testimony last May, I believe that this international public health crisis is here to stay and will pose an ever increasing risk to the citizens of the United States. As you may recall from the first hearing, Senator Lautenberg asked Drs. Gerberding and Fauci and me if we believe that the SARS virus would return. We all answered in the affirmative and even commented that, although it appeared it had been eliminated from the Toronto area, it may have been a prematurely declared "victory." Two days later, the second wave of the SARS epidemic hit Toronto and it would be another six weeks before that wave of the outbreak would be brought under control. I also suggested at that time that the reduction in new cases in SARS throughout the world was due in part to the heroic efforts of the public health, medical and nursing communities and the likely waning of cases with the oncoming summer months. I still believe this conclusion to be true. I am convinced that with the advent of winter in the northern hemisphere, just a few months away, we very well may see a resurgence of SARS that could far exceed the experience of last year. We have every reason to believe that this disease may show up in multiple U.S. cities as we

continue to travel around the world in unprecedented numbers and speed. With this backdrop, let me provide a few comments on state and local preparedness.

First of all, I want to compliment Commissioner Mandernach and the staff of the Minnesota Department of Health for their outstanding response to the possibility of SARS here in Minnesota; both in terms of their activities last spring and their ongoing effort to prepare us for the possibility of SARS this next winter. The Commissioner has provided a very thoughtful outline of the issues that confront us as a state in terms of preparedness as we move into this winter season. I too believe that Minnesota got off easy in the last SARS outbreak. We were just lucky!

We all have had an opportunity to witness the SARS outbreaks in Asia and Toronto via the extensive news media coverage. However, unless you were there, it is very difficult to get a true sense of the impact of this disease on these communities. To better understand that impact I would urge all of you to review the testimony from the hearings conducted last week by the Canadian SARS Commission. Three days of chilling and frightful testimony from elected officials, healthcare workers, patients, contacts and citizens can be found on the SARS Commission website (www.sarscommission.ca). In addition, I urge you to read the 234 page report released this week by the SARS Commission; it is highly critical of Canada's level of preparedness last spring. After reading these first hand accounts of the many issues facing officials charged with stopping the epidemic, and healthcare administrators and workers responsible for patient

care, you will get a sense of the complexity of the SARS preparedness and response issue.

Very shortly, the Centers for Disease Control and Prevention will issue a document "Public Health Guidance for Community Level Preparedness and Response to SARS." The CDC has undertaken an extensive review of the outbreak investigation data from Asia and Canada and, together with representatives of professional organizations and state and local public health partners, have developed this extensive guidance document. It contains a comprehensive overview of SARS preparedness and response; a review of the necessary command and control structure required for response; the rationale and goals, as well as plans for SARS surveillance; necessary preparedness and response in healthcare facilities; the rationale and goals as well as methods for community containment; the management for international travel-related risks; laboratory diagnosis; and finally, a review of the need for comprehensive communication and education. Our great challenge will be to translate this information into meaningful state and local preparedness plans and identify the necessary resources for comprehensive implementation should SARS cases return. Unfortunately, I'm not optimistic that we are prepared at the state or local level to do this at this time.

SARS preparedness goes far beyond state and local public health systems; it also includes our healthcare delivery system of hospitals, nursing homes and medical clinics. Today we are all well aware of the lack of any substantial surge capacity in our healthcare

delivery system for public health emergencies due to serious financial limitations and an aging and vanishing workforce.

Mr. Chairman, I don't expect, nor do I believe anyone in this room expects, that your Committee can take on all of these critical issues and solve them overnight. If you did, we'd be one very grateful nation. Thus, we must be honest with the citizens of this country in establishing the expectation that should a problem like SARS occur in any of our communities, the healthcare delivery system, just like in Toronto, has every potential to be overrun. This will not be solved by a simple discussion about what do we do to respond to SARS, but will require a much larger government and citizen-based examination of how we address healthcare financing and our expectations of our medical care delivery system in this country. For example, in this country there is an estimated 43.6 million Americans without healthcare insurance. It's difficult for public health authorities to urge citizens who might be in the earliest stages of a disease such as SARS to seek effective medical care, if they can't pay for it. Yet infectious disease containment requires that these patients are quickly identified and isolated.

There are many other barriers to providing a comprehensive and effective response to a potential SARS problem. For example, Commissioner Mandernach mentioned the important need for using the historically time-tested tools of quarantine and isolation. I remind you that quarantine is the following or surveillance of individuals who may have been exposed to an infectious agent, but have not yet developed symptoms. For the SARS epidemic in Canada, the quarantine approach practiced was largely a voluntary

effort, where individuals were notified of their possible exposure status and asked to stay home and report to health officials at the earliest sign of symptoms should they become ill. While in practice, this makes great sense and can be extremely effective. However, there are issues regarding the reimbursement of these individuals who stay away from work and subsequently lose their wages, and even their jobs. For the public good, we must find every possible way we can financially and socially support those individuals who willingly comply with such acts as quarantine to contain a SARS epidemic. We have none at this time.

Mr. Chairman, I realize that you are here today to determine what we need to do and how the federal government can help us. This is a laudable goal and one that we must pursue given the likelihood of the return of SARS in future days. But, we must be realistic. Many of the issues that keep us from reaching that goal of even a moderate level preparedness are much larger than anything Commissioner Mandernach or her staff, or the CEO of a single hospital, can be held accountable. I share this perspective with you as I believe one of the single greatest contributions that you and your Committee can make is to establish a forum by which we can determine those actions or activities which will, in the short term, improve our preparedness, and those actions or activities which will be required over the long haul to assure our necessary level of preparedness. Unfortunately, resources and rhetoric very rarely match the actual needs at the state and local level.

While in this day of numerous competing priorities for homeland security and public health preparedness, we can't expect a wish list to be our top priority. Having said that, we are not honest as public health, healthcare professionals and elected leaders if we take consolation in cosmetic answers. We will be held accountable one day, just as is happening currently in Canada, to explain why we weren't prepared to handle this or similar infectious disease problems.

I look forward to working closely with your Committee to help set the agenda for determining what and how the federal government can help us at the state and local level to prepare for this potentially difficult situation. Thank you, Mr. Chairman, for this opportunity to appear before you today.

Jeff Spartz, HCMC Administrator

Specific questions asked to be addressed by Senator Norm Coleman during the field hearing of the Permanent Subcommittee on Investigations

October 8, 2003 at 10:00 AM

St. Louis Park High School, St. Louis Park, MN

1. What has Minnesota done to prepare for a possible outbreak of SARS this year?

- Hennepin County Medical Center (HCMC) is the only Center for Disease Control (CDC) Global Migration and Quarantine facility in the state and surrounding region
- The Minneapolis/St. Paul Metropolitan Hospital Compact is a 27 hospital group that is one of the only ones nationally to have a pre-existing regional plan for infectious disease emergencies
- The Hospital Compact is working with local public health and emergency management agencies to explore out-of-hospital care facilities that might be required if a large number of persons is affected.
- Tabletop and functional exercises over the past several years have included biological scenarios, Operation Snowball in December 2002 involved over 350 persons from multiple agencies and jurisdictions around the region and at the state level.
- MDH is using the electronic Health Alert Network (HAN) to immediately inform the public health and hospital contacts about critically important public health issues. (i.e. monkey pox on 6/10/03).

- The Minnesota Department of Health (MDH) through Kathy LeDell, Infection Control Professional (under Harry Hull and Rich Danilla) has been regularly sending information about web casts, available posters, and other timely updates to hospital and community public health contacts.

- All professionals have access to PROMED and MMWR reporting that provides the most current unusual biological events; plus they are directed to MDH and CDC web sites to access the most current recommendations for transmission, screening, diagnosis, treatment, and personal protection for any new syndrome.

- MDH is applying for a grant to conduct surveillance to identify first cases of health care workers admitted to hospitals with pneumonia (Canary-in-the-Coal-Mine concept). Hospitals would be required to check admissions daily for adults with pneumonia and determine if any were health care professionals. Providers for cases meeting the definition would be offered a battery of SARS specific tests to be performed at MDH while not interfering with the clinician's assessment of the most likely cause of pneumonia for a given case. (pending notification)

- MDH conducting a pneumonia study at a key hospital (HCMC under Dr. Dean Tsukayama)

- Representatives in all regions have been introduced to the Hospital Incident Command System (HEICS) Infrastructure to use for all events including SARS. The metro region did a tabletop exercise on "very bad bug disease" during December of 2002. Hospitals have done drills individually on biologicals. Another week long biological exercise is being planned for _____ using seats on_____.

- Individual hospitals have had unique experiences where they have tested their traditional infection control plans to look for areas of vulnerability. Each has evaluated how best to disseminate information for just-in-time education.

- The University of Minnesota applied for a grant to introduce emergency preparedness into all of its schools for health professionals. SARS would be included in the biological module. U of Minnesota professors asked for help from the Minnesota Chapter of Association of Professionals in Infection Control and Epidemiology, Inc. (APIC MN) to write the curriculum for the biological modules. (pending notification)

- APIC MN Biological Agents Task Force has been meeting with metro region clinic representatives to identify issues in ambulatory care settings such as early identification, isolation, screening, personal protective equipment needed for personnel and for waiting rooms where clusters of coughing patients may be waiting to be seen.

- Hospitals with negative airflow rooms exhausted to the outside have been identified. For instance 23 metro hospitals have these rooms and are prepared to admit their first 1-6 cases of SARS.

- 200 APIC MN professionals were surveyed by show of hands at the annual state conference 9/11/03 to determine how many were also responsible for ambulatory care clinics, urgent cares and emergency rooms. Approximately 75 had this responsibility. About 8 have plans in place to ask patients to cover coughs as a matter of routine when waiting in lobbies. All respondents think that we need to consider this as a statewide and national effort to prevent the spread of many respiratory conditions including SARS, influenza pandemics etc. Parents would be instructed to assist their children with this prevention activity.

- Minnesota Laboratories Professionals have testified before regarding their overall professional shortages for various reasons. They recognize that the laboratories would be overwhelmed should we have a large SARS event.

2. What do we still need to do and how can the federal government help?

- The financial fragility of hospitals (over 1/3 of Minnesota hospitals are in the red) means that any SARS event, and particularly a prolonged event could force many hospitals into insolvency within weeks due to increased staff payroll/overtime/sick time compensation and decreased revenues from elective procedures and other usual business. The current Stafford Act reimbursement timeline for disasters is simply impossible for hospitals to accommodate, and a more immediate response will be needed.
- The vast majority of hospitals and clinics, which will provide the patient care to SARS patients, are private entities and thus their responsibilities during a public health emergency are voluntary. Better mechanisms to involve hospitals in planning for and responding to public health emergencies are required.
- Hospital responsibilities and liabilities regarding quarantine are poorly defined, and vary widely state-to-state. More uniform federal guidance is needed.
- Attention has been focused on 'surge capacity' of the hospital system. In truth, the capacity for critical care within the health system has minimal flexibility, and the current HRSA grants, while appropriately funding contingency planning, will not rectify this problem (HCMC, for example, will receive a generous grant from the HRSA funds this year, but those dollars would not purchase the equipment present in a single standard Intensive Care Room (ICU) room). No federal program can be expected to incorporate the funds necessary to change this situation. In any disaster, a high potential exists for critical care resources to be rapidly overwhelmed. A federal level dialogue regarding mechanisms and best practices of triage in situations where demand exceeds supply is desperately needed. Neither the public nor the government can expect 'standard of care' during a disaster, and all involved need to have an understanding of hospital resources and limitations before, and not during, a crisis.

- All hospitals, clinics, public health professionals need more money to purchase a generous supply of personal protective equipment that could be employed now during respiratory season. (e.g. surgical masks for patients and staff, better facial protection, and disposable/ reusable gowns to protect clothing. Traditionally hospitals have used these items for the health professionals but currently supplies run out during busy times. As a general rule ambulatory primary care sites have not asked patients to cover their cough during flu and respiratory disease season where it is not possible to move each coughing patient expeditiously into an exam room.

- Support education of new health care professionals to care for patients (nurses, medical technologists, etc.)

- Determine precisely how each facility could surge to accommodate cases after the first 1-6 occur

- Support the planning for surge capacity for patients beyond what each facility can handle

- Support preparation of a core of recently retired professionals to identify those who are maintaining licenses, identify skill sets that could be performed by a given group during a time of crisis to assist the current professionals, determine competencies for this group and validate them on some regular basis. Ideas: Toronto has data about the number of hours required to phone the homes of those persons on quarantine. They also knew they needed extra help to make sure clinicians donned and doffed their garb correctly. This group of volunteers might be trained to assist with both of those functions.

- Support adequate training, staffing and compensation for infection control practitioners who are considered by MDH to be the backbone of the state Public Health system. The increased demands for surveillance for these syndromes are competing with time that practitioners need for surveillance, control and prevention of hospital acquired infections within acute care facilities. The Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) has also identified prevention of hospital infections as a Patient Safety Standard in its new standards.

- Hospitals need help now with public health issues that arise when the first case of SARS is recognized. Without immediate plans to educate, limit access, manage or quarantine the visitors, we will be at risk for the same scenario that we saw in other countries.

- We also need better public health plans to manage exposed health care workers. One case may cross city, county and state jurisdictions. We know these plans need to go beyond the wall of a given health care facility. We need to be coordinating with state and county public health systems.

- We can learn from Toronto to determine the most reasonable approach to monitor the exposed health care worker to determine when to monitor them at work and when to quarantine them at home etc. We are very vulnerable in this area and little formal preparation has been done.

- We <u>need leadership at the state level to pull groups together</u> and we need support internally to conduct critical business of the day while we work to solve the anticipated public health problems. The bottom line is: We need to know when the first suspected case is identified at 3 PM on the Friday afternoon of Thanksgiving weekend; what community standard can be used to control the

public while staff is working with the logistics of educating the patient /family present, patient care, reporting the case to public health and working with the medical staff to make sure the correct specimens are collected. Infection Control staff have beepers at most hospitals in the state but are not staffed for 24/7. We know how to use the laws to manage a TB patient but TB transmission is on a much lower efficacy as compared to SARS, smallpox and pandemic influenza. We need a plan in place for staff to initiate in the absence of infectious disease specialists.

- We need standardized templates translated into several languages that we can use to teach patients. They may have to be adjusted for individual differences but the basic message should be the same.

- ICP should be paid to produce standardized materials that can be used for the education modules and teaching material. This has largely been a volunteer effort so far.

How should schools, businesses, and communities respond when someone they know develops a possible case of SARS?

- Better pre-event education of the public and professionals via CDC and state and local public health is required if we are going to effectively identify initial cases and provide appropriate guidance on who should seek medical care/evaluation.
- Educate the public now so that they will know how to cooperate should a case occur.

- What can the public expect first case vs. community outbreak

- Cooperate with public health to post signs that direct the public to follow basic procedures

- Restrict the symptomatic employee. Have a plan supervised by local public health for those who have been exposed.

- Consider hand hygiene resources in critical places where the public is likely to access for basic needs such as food. Perhaps individual packets of alcohol hand rubs can be made available.

- Explain how quarantine might be used in this state if we should see a case in order to prevent extensive outbreaks.

- Explain how we might cancel public events when several cases are clustered in a given area.

- It has been demonstrated that the public will accept voluntary quarantine if they understand the goals, objectives and their role in it.

Prepared for the Permanent Subcommittee on Investigations
Senator Norm Coleman
October 8, 2003

Testimony of Mary Quinn Crow

"SARS: Is Minnesota Prepared?"

In March of 2003 Northfield Hospital began physician and staff education regarding SARS as an emerging infection. Simultaneously the respiratory staff at the hospital began the time consuming process of fit testing essential staff for N95 masks, a critical barrier to protect healthcare workers while treating SARS victims. This process needed to be halted due to a shortage of N95 masks, whose manufacturer, 3M, stated were back ordered approximately 8 weeks.

In mid April of 2003, the hospital was notified that up to 30 college students traveling in Beijing were being returned to campus because of the raging SARS epidemic in areas of their visit to China. The college Wellness Center requested assistance from the hospital in the management of these students. We were given approximately 5 days notice to develop a plan.

Many meetings took place involving college deans, hospital leadership, medical staff, EMS staff, Wellness Center nurse practitioners, and Rice County public health nursing. Planning discussions included several issues:

a. Protocols for returning students
b. Wellness Center involvement and readiness to assess for SARS
c. Hospital triage and treatment of ill students:
    - No negative pressure availability
    - No ventilator availability
    - Immediate need to complete N95 fit testing and supply N95 masks
    - 24 hour medical direction to campus officials
d. Transport issues:
    - PPE for ambulance crews
    - Network with HCMC
e. Isolation and quarantine:
    - Rights of the individual versus the common good (an ethical dilemma)
    - Logistics

In the last week of April, 10 students returned to the college campus from Beijing. The college had decided not to isolate these students from campus activities but did cohort them for sleeping and meals in a house off campus. These students were given thermometers and instructed to monitor their own temps daily and report to the Wellness Center by phone if they developed a fever greater than 100.3 and upper respiratory symptoms. This monitoring was to occur for 10 days.

About 48 hours after their return one male student reported a fever of 101° accompanied by a congested cough. Instead of bringing the student to healthcare, an ambulance was dispatched to bring the care to him. In full protective equipment paramedics confirmed the patient to be febrile with congested lungs but not in respiratory distress. The Emergency Department physician, in consultation with HCMC's ED, determined that the student should go directly to HCMC for a SARS work-up.

The student was determined to be a "suspect SARS" case and was discharged back to campus where he would be isolated for a two-week period and medically monitored at home. This was accomplished through a cooperative effort of the college Wellness Center staff, public health nursing, and the college's medical director, a Northfield Hospital ED physician.

There are some things that Minnesota has done to prepare for a SARS outbreak that are of benefit to us in out-state Minnesota. These include:

- Establishing HCMC as a SARS treatment center for the state and expanding the available beds there.
- Testing MDH's Health Alert Network and making available critical information and updates regarding SARS.

There is much that still needs to be done to prepare for a real outbreak:

- Supplies and equipment to triage suspected patients wherever they present for care.
- Training of medical personnel needs to continue and be regularly updated. This includes very thorough practice of the application of PPE.
- Public education re: symptoms to dispel anxiety, increase appropriate reporting and avoid panic.
- PPE for healthcare workers including adequate numbers of N95 masks, PAPR's, Tychem suits, exhalation filters for intubation, specialty nebs, goggles (non-ported), and abundance of handwashing supplies.
- Contingency planning for metro ring hospitals who may have to accept patients should metro hospitals become saturated.
- All EMS vehicles should be supplied with PAPR's (hoods) and Tychem suits (one for each caregiver on board).
- Communities must network and pool their resources as they develop plans for a possible SARS outbreak.
- High level discussions regarding the ethics and logistics of isolation and quarantine need to occur with specific "how to"s and "when"s being described. Government and law enforcement as well as healthcare leadership and healthcare consumers must be involved in these conversations before an incident occurs.

When someone develops a case of SARS, appropriate treatment needs to be available to them. It should be anticipated that these patients will go to their primary clinics for care and these clinics will need protocols in place to protect other patients and healthcare workers from possible spread. Where and how these patients should receive treatment will be determined by the severity of their symptoms.

Schools and businesses have a responsibility to their student bodies and employees as well as to the individual who is ill. Again, conversations regarding individual rights and the common good should be occurring now with guidance to organizations as an outcome. Businesses, schools, shopping centers, airports, and all places where people congregate in groups should establish protocols with this guidance that will respect the individual and reduce the risk of the spread of SARS.

In Northfield we were fortunate to have some warning that students who may have been exposed to SARS were returning to the community. This gave us an opportunity to plan our approach. It is more likely, however, that communities, large and small, may experience a SARS outbreak without anticipation. This is why preparedness is key.

Thank you for the opportunity to share this experience and these views.

Written Testimony
Ann Hoxie, Administrator Saint Paul Public Schools, Saint Paul, Minnesota

Field Hearing of the Permanent Subcommittee on Investigations.
Senator Norm Coleman, Chair

October 8, 2003

Written Response to three questions posed by Senator Coleman.

1. **What has Minnesota Done to Prepare for a Possible Outbreak of SARS this Year?**

If a suspected case of SARS is identified in a Saint Paul Public School, school health professionals and our administration are prepared to follow the Centers for Disease Control (CDC) Prevention Guidelines for Schools and to work closely with Saint Paul/Ramsey County Department of Public Health and the Minnesota Department of Health.

We expect that we would need to be creative about how we serve people and reach families and we know we would rely on both our own staff and the public health system here in Minnesota.

We do know that our focus on rigorous learning commands our resources and our attention.

Our experience to date: Last April we did have some experience with the response required of a school district to a possible case of SARS.

A staff member's child was hospitalized with "probable" SARS. The child was described as a probable case of SARS because of recent travel to Toronto and evidence of pneumonia on chest x-ray.

The Issues we grappled with:

- The need to protect the safety of our 44,000 students and 6600 staff while limiting disruption to the educational process.
- The expressed worry and concerns of co-workers of the child's parent.
- The need to maintain the privacy of the worker and his family.
- The appropriate level of response to this situation of a "probable" case.

Saint Paul Public School Response to "probable" case:

Knowledge Base

- School Nurses had baseline knowledge about SARS and appropriate school response because we had been following the information released by the CDC. Next, we went to information on the Toronto Schools web site to see the response of a school district in a city that had current cases.

- We consulted the CDC guidance for schools and for the workplace and our Superintendent, Dr. Patricia Harvey spoke with Dr. Harry Hull, State Epidemiologist to gather information about a specific St. Paul response.

Information dissemination:

- We included a notice to all administrators in the Superintendent's Weekly Bulletin. The article described SARS disease, SARS symptoms, and the risk for SARS. We addressed school attendance criteria for staff and students. We also included resources for more information. We relied on information from the CDC and the health department.
- We developed a page on the school district web site with SARS information and included links to the CDC and Minnesota Health Department.

Prevention

- We encouraged staff and students to practice good hand washing as an effective tool against all infectious diseases.

The situation was quickly resolved, the child did not have SARS and we moved on to other concerns. However, we did have several days when staff had many questions and concerns. This experience taught us that an actual case will require a great deal of accurate information and reassurance for staff and parents alike.

2. What Do We Still Need To Do and How Can the Federal Government Help?

Currently:

- School nurses are staying informed about SARS. The communication from CDC via websites and web broadcasts are valuable.
- Flu shots are being offered to all staff at the work location. This will reduce respiratory illness and possible confusion about SARS diagnosis.
- School Nurses continue to promote hand washing to decrease the spread of all communicable diseases.
- But primarily we are going about our business of educating 44,000 students.

Possibilities of what we might need to develop in response to a true outbreak of SARS in the Twin Cities:

Information dissemination could include

- Our efforts are based on our reliance upon public health with whom we would coordinate messages to local media: Radio, TV, newspapers. Reliable information in the media would be extremely important.
- Printed materials for staff and families. It would be very helpful to have prepared materials – translated – available.
- Utilizing calling trees that we have in place to reach staff.
- Utilizing district email to reach staff.

Educational Responses could include:

- Technology provides us with the opportunity for on-line education and communication however we do not have the resources to take full advantage of this possibility at this time.
- We have 3 surveys that indicate 70-80 % of our parents have access to the internet. However much of this access may be at work or the library and may not be effective during a quarantine or isolation situation.
- Cable TV could present an effective means of reaching many families.

How Can the Federal Government Help?

- First and foremost by funding the public health system at the national, state and local level to ensure response capability. Schools will need strong leadership at the local level in order to respond to what is occurring in the community.
- Health emergencies will need professional health leadership with support from public safety officials.
- Federal laws, rules and procedures should support public health leadership.

We need:

- Clear guidelines from the CDC – for identification, transmission, incubation period, period of communicability, methods of control and timelines for returning to school. We need information about isolation, quarantine.
- Accurate messages in the media that reflect the culture and language of the urban population.
- Copies of materials (translated) to distribute provided to us – our budgets do not include funds for this information.
- Close collaboration with local and state public health with an awareness of school issues.
- Consistent funding for public health for efforts such as Saint Paul/Ramsey County Department of Public Health's plan for communicating with non-English speaking people in the event of an emergency (ECHO).

In an urban school district such as St. Paul we could expect challenges:

- Many families live in crowded homes so we could expect increased transmission of the disease.
- 41% of our students come from families where English is a Second Language. This provides challenges in communicating information about the disease. We would need effective, simple and consistent messages to give to our families. Interpreters and translation services are going to be essential – resources are limited.
- Many students - we estimate 20% - do not have health coverage. We are concerned about how these families could access care and obtain medications and we are concerned about the burden on our emergency rooms and neighborhood clinics.
- Many families use the school nurse as the front line health provider. We provide safety net services to meet the gaps in the health care delivery system. We would anticipate that SARS would be a situation where having sick children come to school "to see the school nurse" would be a concern. We know that situations of quarantine and isolation would result in some children not having adequate assessment of their health or adequate supervision of their health regime.

- The federal government could help by recognizing the amount of front line health care that is provided and unfunded in schools and by developing a funding system.
- Schools are accountable to the standards in "Leave No Child Behind" and do not have adequate resources for health services and health education. We need to be able to offer a comprehensive and coordinated school health program that would provide health education to equip our students to face the health challenges presented by our society. Funding needs to be dedicated to this work.
- Many students are from cultures that do not have experience with western medicine. For instance, instructions to take your child's temperature 2 times daily are unrealistic. Many families do not have a thermometer at home.
- In St. Paul, where 67% of our students are eligible for free or reduced meals, many of our students rely on the 2 meals/ day provided at school – who will feed these children if they are quarantined at home?
- In order to communicate between systems, a public health emergency would need to be declared otherwise data privacy laws will prevent efficient communication.
- One question to consider – how would our schools be evaluated by the Department of Education in regard to Leave No Child Behind if we had extensive absences?

3. How Should Schools Respond When Someone Develops a Possible Case of SARS?

Based on current guidelines our response should be:

- Notify local public health and coordinate our efforts.
- Send the ill person home to arrange health-care evaluation.
- Identify who has been exposed.
- Communicate with the public health and medical professionals to determine if the case is defined as a "probable" SARS case.
- Provide information about communicability of SARS to concerned persons while we wait for the diagnosis.
- Once the diagnosis is confirmed, instruct exposed persons to be vigilant for symptoms. Until symptomatic, the exposed students and staff would continue to come to school.

However the challenges begin when we identify a student with a respiratory condition that could be SARS. We know parents send children to school everyday who are sick – we may be the first to identify the symptoms.

- A typical scenario would be that the student has no health insurance and no medical home and his parents do not speak English.
- We are not able to reach a family member who can come to school to get the child.
- The student rode the bus, ate breakfast at school and exposed the class before coming to see the nurse.

Putting the steps listed above into action in the real life situation becomes more complicated.

- Depending on the degree of illness, we would care for the child at school while continuing to attempt to reach parents or guardians. This could expose the school health staff.
- We would need to determine appropriate isolation of the sick child; we do not have supplies for isolation procedures.

- If the child was acutely ill we might need to access the 911 system in order to obtain care for the child. This would then expose additional health care workers to the virus.

Depending on the number of children in the family, the number of different schools the children in the family attend, the number of other cases in the community the demands placed on a school system will grow exponentially.

Suggestions for further questions:
In what ways do families rely on the school system to provide health care and health information?

How would the schools provide instructional services to children who are quarantined?

What support does the public health system provide to schools?

Debra Herrmann RN PHN LSN
Marshall Public Schools

1. **What has Minnesota done to prepare for a possible outbreak of SARS this year?**

Minnesota has information available for use on MDH & CDC websites; there have also been workshops and informational classes available. Most resources, however, are very medically oriented and have limited information regarding school procedures. In November School Nurses of Minnesota (SNOM) has a workshop and SARS is one of the topics listed at the conference.

Many of the information and educational opportunities have been in the Metro area; time and travel do not always allow for attending those updates. When I have been seeking additional information pertaining to schools, I am repeatedly told, "We are awaiting more information and will be getting that out to you."

2. **What do we still need to do and how can the federal government help?**

Our area of the state needs to be prepared for identification and education of the public; education will be a major portion of the plan. Our school district experienced pertussis cases recently, and the public misperception was a great factor in the education process and handling of the cases. We also have some language and communication barriers with school and community persons. We see many students with no insurance who use the school health office as a resource due to the possible financial burden.

Another concern is the possible quarantine issue while still providing educational services. Reimbursement of faculty and staff that may need to be under quarantine should a larger outbreak be an issue in the area is of importance. With the No Child Left Behind law there will be added burden on the districts to find adequate ways to reach the students not in school. Although the technology and computer access will be of assistance to some, our lower income population may not have that availability.

There are many unanswered questions at this time. We have limited financial resources with the additional funding cuts to schools, which does not allow vast amounts of time or manpower to be committed to this procedure development and research. This is why we are awaiting further recommendations from the Department of Health, Department of Education and CDC regarding possible policies for adoption. Additional funding and procedures that can easily be adopted for local use would be a great advantage.

3. **How should schools, businesses, and communities respond when someone they know develops a possible case of SARS?**

A comprehensive plan needs to be available for all agencies to use, and it needs to address health care facilities, schools, businesses, and all agencies. With a population that travels extensively, these types of outbreaks can be expected at any given time.

The Marshall Public School District Health Program is working in conjunction with the local emergency management agency and the local health care facilities to be a part of a workable plan to help identify and educate regarding Severe Acute Respiratory Syndrome (SARS). All agencies are currently discussing policy and procedure development, but I could not find one agency that had a full operational procedure to follow at this time. We are awaiting further information and recommendation from the Department of Health and CDC.

Marshall Public Schools currently has no actual procedure or plan in place should an outbreak of SARS occur. We would handle this under our communicable disease protocol and seek direction from our local Public Health Agency, Hospital, Clinic and County Emergency Management System.

STATEMENT
OF

ROB BENSEN

Superintendent, Floodwood School District
Floodwood, Minnesota

Before The
Senate Permanent Subcommittee on Investigations
Hearing On
SARS: IS MINNESOTA PREPARED?
October 8, 2003

I would like to thank Chairman Senator Coleman, and the others members of the Subcommittee for inviting me to be a part of this panel. It is indeed an honor.

I would like to start my presentation with some of my personal background and information on disease control.

My earliest memory of disease control was when my older sister came home from the big high school in Deer River with a case of the measles. So the disease would not spread to the little two room school that I and my middle sister attended, we were quarantined. We could not go out in public. For two weeks I helped my father in our logging operation. When I became sick with the measles, the disease had to run its course before I was allowed back into school.

The second incident that I would like to relate is my mothers 1928 teaching contract. My mother, like many other young girls of the day went to eight weeks of summer school after high school graduation, that qualified them to teach in rural elementary schools. About ten years ago, while cleaning out the attic, I found her 1928 teaching contract. The thing that interested me in that contract was it stated that "if said teacher married before or during the school year it would void the contract." I told my mother what a different world that she lived in in 1928 than we live in today. I told her that if I put that into a teacher's contract today it would be discrimination and would have to be taken out of the contract. To my surprise, mother told me that was not discrimination. She explained that when people got married in1928, they usually started a family. There was a fear that young married women would be exposed to German measles and the results would be children with birth defects. The reason that we are here today is that schools are the place where young people come together and thus spread disease. So, according to my mother, the reason that women of child bearing age could not be in that environment in 1928 was to protect unborn children from birth defects.

The last incident that I would like to relate happened when I was a student here at the University, I came to this very building to listen to a speech by Senator Humphrey. Senator Humphrey's speech was on the advances in medicine:

- He talked about how small pox was being eradicated world wide.

- The new oral Salk Polio vaccine and how polio would soon be a thing of the past.
- He stated that by the year 2000 viruses would be no more - the common cold would be a thing of the past.

Having had a friend that had died from polio as well as having several friends that were permanently paralyzed from polio Senator Humphrey's talk had an impact on me.

I also remembered that in 1946, Minnesota canceled the state fair for fear of spreading polio.

Here we are today addressing SARS because disease is not a thing of the past. We realize today that disease will never be a thing of the past.

I represent a small school of 431 students. That is our Kindergarten through 12th grade population. The town of Floodwood has a population of 502 people. Floodwood is virtually 40 miles away from most services. Be it Duluth, Grand Rapids, Hibbing, Cloquet or Moose Lake, Floodwood is 40 miles away from a hospital. Floodwood has a medical clinic in town that is staffed by a doctor and a nurse practitioner. The Doctor is the first full time doctor that has practiced in Floodwood in fifty years. The school has a licensed public health nurse that is on staff 12 hours a week. This is an increase in time from last year when the nurse was on duty just 71/2 hours a week, thanks to a Northland Foundation Grant.

What is our plan in case of a SARS outbreak? Well, we depend on our school nurse. The problem is that, like many other small rural schools, we do not have the means to employ a full time nurse. Since it is a part time position we have a difficult time keeping that position filled and that puts our small schools students at an additional risk on any day the nurse in not in the building. Here is the article that our school nurse is publishing in the "Bear Facts" our monthly School News Paper. She gleaned this information from the Internet at www.cdc.gov the Center for Disease Control. Every month she writes an article for the School News Paper.

I was asked to address how the government could help with Disease Control in the schools. In our situation, the government could help by assuring funding so that communities could have a full time Public Health Nurse in all school buildings. SARS is not the only concern that our schools face today. We have children that are diabetic, children that are allergic to legumes, children that are on various medications and the list goes on and on. A full time nurse is an essential addition to our school.

We now live in a global community. Schools now need a full time person in each building that can address the health problems of the students in that building as they arise. These problems are not diminishing as Senator Humphrey said they would. Even with the advances in medicine, the medical problems that schools must address are growing and becoming more complex.

The United State Senate can help by assuring funding for a full time school nurse in each and every school building.

Thank you

WHAT YOU NEED TO KNOW ABOUT SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

By Lisa K. Carsrud, RN, BSN, PHN
School Nurse

Severe acute respiratory syndrome (SARS) is a viral respiratory illness caused by a coronavirus. SARS was first reported in Asia in February 2003, in the following months it spread to more than two dozen countries in North America, South America, Europe, and Asia. The SARS outbreak of 2003 was contained; however, it is possible that the disease could re-emerge.

There are several symptoms associated with SARS. In general, it begins with a high fever (temperature greater than 100 degrees Fahrenheit). Other symptoms include headache, feeling of discomfort, body aches, and mild respiratory symptoms at the outset. SARS patients may develop a dry cough and most will develop pneumonia.

SARS is spread by close person-to-person contact. This means that you have to have direct contact with respiratory secretions or body fluids of a person with SARS. Examples of close contact include kissing, hugging, sharing eating or drinking utensils, talking to someone within 3 feet, and touching someone directly. It does not include activities like walking by a person or sitting across a waiting room or office for a brief time. The SARS virus is transmitted by respiratory droplets produced when an infected person coughs or sneezes. It can also be spread when a person touches a surface or object contaminated with infectious droplets and then touches his or her mouth, nose, or eyes.

Typically most patients with SARS were exposed through foreign travel. Currently the Center for Disease Control considers the SARS outbreak to be contained. However, they are preparing for a possible re-emergence of SARS. The Center for Disease Control recommends taking the following measures if a student has been exposed to the SARS virus.

1. Exposed students should notify school officials and their health-care provider immediately if fever or respiratory symptoms develop.

2. Students who have been exposed should monitor their temperature twice a day, and respiratory symptoms over the 10 days following exposure. If, during this time no fever and respiratory symptoms are present the student does not need to limit their activities outside the home. If the student is asymptomatic during the 10 days following exposure they should not be excluded from school or other public areas. However, the exposure should still be reported to school officials and health authorities.

3. Students who have a fever and respiratory symptoms should be tested for the SARS infection.

4. In a situation where a student has been exposed to SARS, is symptomatic and has been in school during the 10 days following exposure, the school will monitor potentially exposed students and educate staff, students, and parents regarding symptoms. This will be done in consultation with the local health department.

5. Symptomatic students exposed to SARS should follow infection control precautions.

Infection control measures are very important if someone is symptomatic of SARS. Some basic infection control measures to follow include staying out of public areas, the members of the household should follow proper hand hygiene recommendations, use disposable gloves for direct contact with body fluids or a SARS patient, wear a surgical mask during close contact, and do not share linens or utensils. It is also important to clean and disinfect areas of the home that may be contaminated by infectious droplets. Infection control precautions should be continued until 10 days after the resolution of fever and respiratory symptoms.

Fortunately, there have not been any recent outbreak of SARS. However, it is always important to be informed. The Center for Disease Control has a web site that will tell you the countries on alert for SARS. If you plan to travel to a foreign country it may be wise to check the web site.

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MEMO

To: Senator Norm Coleman, Chairman
United States Senate Permanent Subcommittee on Investigations
Committee on Governmental Affairs

From: Donna J. Spannaus-Martin, Ph.D., CLS (NCA)
Director and Associate Professor, Division of Medical Technology,
University of Minnesota

Subject: Testimony on Minnesota Preparedness for SARS Outbreak

Date: October 8, 2003

Chairman Coleman, I appreciate this opportunity to share my concerns about Minnesota's preparedness for a possible SARS outbreak. I am the Director of the Division of Medical Technology at the University of Minnesota. The University of Minnesota's Medical Technology program is the largest source of baccalaureate medical technologists/clinical laboratory scientists (MT/CLS) in the State of Minnesota and one of only two MT/CLS programs remaining in the state. The University of Minnesota graduates 28-32 new medical technologists each year and Hennepin County Medical Center graduates 6 new medical technologists each year. These professionals are responsible for providing between 70 to 80 percent of the information utilized by physicians to clinical decisions about patient care, including diagnoses and treatments.

Currently, the United States is experiencing a severe shortage of clinical laboratory professionals. The United States Bureau of Labor and Statistics has estimated that new jobs in the laboratory and net replacement (retirements, etc.) of current laboratory

personnel will result in a total demand for 122,000 new clinical laboratory professionals from 2000 to 2010. This translates into roughly 12,200 full-time clinical laboratory professionals needed each year. However, in the United States, we currently graduate only 4,110 laboratory professionals each year. To compound the problem, over half of the accredited training programs in the United States for these professionals have closed in the last 25 years, mostly due to the expense of training laboratory programs. According to the National Accrediting Agency for Clinical Laboratory Science (NAACLS), the number of accredited baccalaureate MT/CLS programs in the United States has decreased by 20% in the last five years (294 in 1988 to 240 in 2002), and the number of two-year associate degree programs has decreased by 10.5% in the same amount of time (255 in 1988 to 228 n 2002). The State of Minnesota has gone from 12 accredited MT/CLS programs in 1977, to 9 programs in 1988, and is now down to two remaining programs, which graduate a total of 38 new clinical laboratory scientists each year.

The advent of biological bioterrorism events and newly emerging infectious diseases, such as SARS has increased the recognition and importance of laboratory capabilities to detect and identify different infectious disease agents. SARS and other newly recognized disease entities such as monkey pox can cause worldwide epidemics. Clinical laboratory scientists are trained to work with all types of clinical samples in an efficient, timely, and productive manner. When symptoms of these diseases occur, the first call for how and what type of specimen to collect is usually to the laboratory. Laboratory testing is necessary to rule out normal disease processes from potentially contagious diseases where the patient must be isolated and kept away from other patients and staff. They must know and understand the biosafety levels at which to operate in

order to protect themselves from the disease agent. Clinical laboratory scientists work in large and small hospitals, clinics, research facilities, other medically related fields, and industry. They search for the ways to isolate, identify, and treat these agents.

In addition to being essential for the diagnosis of SARS cases, the clinical laboratory will also play a key role in monitoring patients as they are hospitalized for their illness. In the event of an infectious disease outbreak, laboratory professionals will be needed in all aspects of the clinical laboratory, not just in the microbiology, virology, and public health laboratories. Clinical chemistry, hematology, and blood bank laboratories all play a role in monitoring the progress of the disease and treatment of the affected patients.

Bioterrorism and emerging new diseases are unlikely to go away. It will take a dedicated laboratorian to be ready to respond in the event of a disease outbreak. The skills they use are not ones that can be learned by just anyone. With the world now a global community, our laboratories must have adequate numbers of highly skilled professionals. Only then will the general public have confidence that their laboratory test results are accurate, these results can be obtained in a timely manner, and only then will the State of Minnesota be adequately prepared to handle an outbreak of SARS or other newly emerging infectious diseases.