ASTHO
Association of State and Territorial Health Officials

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Crossing Borders: Improving U.S.-Canadian Public Health Preparedness

Executive Summary

State health agencies along the Canadian border face many challenges in partnering with neighboring jurisdictions which may not share the same priorities, laws, resources or even language. Differences in epidemiological case definitions, communication systems and personnel licensure are among the issues that must be resolved in order for states to develop effective cross-border public health preparedness plans. ASTHO sponsored a May 2005 meeting of public health preparedness directors and other key staff to discuss activities occurring in states, identify common challenges and suggest potential solutions.

The work group focused on the following challenges:

- Coordinating surveillance and epidemiology activities across borders
- Sharing laboratory data and samples
- Communicating with each other as well as risk communication with the public
- Providing common education and training of staff
- Working with tribal nations
- Tackling legal and other issues surrounding the development of cross-border mutual aid agreements

Based on these discussions, the group made four recommendations:

1. Explore the development of a U.S. – Canadian border public health commission.
2. Ensure comprehensive coordination of federal cross-border public health preparedness.
3. Sustain consistent federal support of all-hazards cross-border planning.
4. Continue collaboration with tribal nations on preparedness.

A key priority of the states along the border of the United States and Canada is the development of a mechanism to address the public health preparedness needs of the entire border. The establishment of a U.S.-Canada border health commission or similar organizational structure could allow states to more effectively collaborate to address common challenges, share resources, and identify strengths and weaknesses.

State health agencies also see a need for comprehensive coordination of the various federal programs related to cross-border public health preparedness. Greater coordination at the federal level could achieve consistency across the border region and eliminate duplication of effort. Federal coordination is also needed to address areas of international law that are beyond the authority of the states.

Consistent federal support is also needed for all-hazards cross-border preparedness planning. Recognition of the costs of ensuring cross-border public health preparedness, as well as greater flexibility in understanding justifications for state health agency spending priorities, could be helpful.

The challenges associated with coordinating activities with tribal nations extend far

beyond those related to cross-border public health preparedness. Due to issues related to tribal sovereignty and cultural differences, a meeting between the tribal nations and state health agencies may be an effective way to address some of these challenges.

Introduction

On May 16, 2005, public health representatives from states along the United States-Canadian border gathered in Detroit to discuss issues related to cross-border public health preparedness. Attendees were primarily state public health preparedness directors and other state health agency staff with responsibility for cross-border issues. They were joined by a number of guests who led discussions in such areas as public health surveillance, sharing of laboratory samples, legal hurdles associated with mutual aid agreements, the organization of the Canadian healthcare system, and federal resources available to support cross-border public health activities. This gathering provided an opportunity for attendees to identify common challenges, share experiences and work plans, and develop recommendations for further action and consideration.

Background

It is commonly stated that disease transmission knows no borders. In today's global economy, an infectious disease can be carried anywhere in the world in a matter of hours. Unlike other acts of terrorism and natural disasters, infectious disease outbreaks and bioterrorist attacks tend to be invisible and their effects are likely to spread among the population before they are identified. The first detection of disease may not occur until an individual presents with symptoms several days after infection. It is essential to the safety and security of the United States that public health agencies have the capability to rapidly detect and track outbreaks in order to stop them and reduce their impact.

Public health agencies also need to be able to work together and share information with neighboring jurisdictions as a means to identify trends in the spread of disease, raise awareness of potential threats and assist each other in responding to emergencies. The recent public health response to Hurricanes Katrina and Rita demonstrated the importance of sharing assets. Nearly every state was involved, either by deploying personnel and resources or by meeting the needs of internally displaced persons who were evacuated out of the affected region. Existing mutual aid agreements enabled resource sharing among the states and widespread training in the incident command system helped in coordination of the public health response.

Within the United States, a number of other tools and resources have been developed to improve communications capacity, establish common protocols and standards, and ensure a basic level of preparedness in all areas of the country. For example, the Laboratory Response Network (LRN)[1] is an integrated network of laboratories that has the capacity to respond to chemical and biological terrorism, infectious diseases, and other public health emergencies anywhere in the United States. Similarly, resources such as the Health Alert Network (HAN) [2] and the Epidemic Information Exchange (Epi-X)[3] allow distribution of important information to key public health and other response personnel.

States along the international borders face unique challenges in working with neighboring jurisdictions which do not necessarily share the same operating procedures, resources, laws, and priorities. The U.S.-Canadian border is the longest non-militarized border in the world, with more than 3,100 miles on land and nearly 2,400 miles by water.[4] About 90 percent of Canada's population lives within 100 miles of this border[5] and crossings are frequent – more than 200 million two-way border crossings occur each year between the countries[6]. The openness of the border

allows the potential for easy spread of disease between the two countries. A natural disaster such as an earthquake or flood along the border would not be limited to one country.

There could also be serious consequences for state and provincial emergency response should the border be closed. In Michigan alone, it is estimated that 4,000 health care workers cross the border in the Detroit area each day to work. The capacity of Michigan hospitals to respond to a mass casualty event could be diminished if these Canadian workers were unable or unwilling to report to work.

While this report focuses on U.S.-Canadian preparedness, the U.S.-Mexico border region faces similar issues. A language barrier and a high volume of illegal Mexico border crossings further complicate the effort to improve public health preparedness and are beyond the scope of what has been discussed among the Canadian border states. However, the southern border states have been involved in activities similar to those of their colleagues to the north. They encounter many of the same challenges in carrying out effective cross-border public health preparedness efforts.

The U.S. Federal Role

Recognizing that states with international borders face additional challenges in identifying and controlling infectious disease outbreaks, the Centers for Disease Control and Prevention (CDC) began providing funds for surveillance activities to states along the borders with Canada and Mexico.[7] These Early Warning for Infectious Disease Surveillance (EWIDS) funds totaled $4 million in fiscal year 2003 and increased to $5.44 million for fiscal years 2004 and 2005.[8] Each of the 20 U.S. border states receives base funding of $15,000 plus an allocation based on the number of legal border crossings in that state. Additionally, $5.4 million has been provided to the U.S.-Mexico Border Health Commission to fund activities in the six Mexican states bordering the United States.[9]

EWIDS funds may be used to increase public health surveillance and detection capacity, enhance epidemiological investigation and response capacity, upgrade laboratory capacity, improve surveillance-related communications and technology, and develop surveillance-related education and training in the border states. Activities funded by EWIDS are intended to improve overall surveillance capabilities, enable sharing of data and assure that public health personnel are appropriately trained to carry out surveillance activities. Beginning with the 2005 CDC Cooperative Agreement for Public Health Emergency Preparedness, states receiving EWIDS funds are allowed to leverage their resources by engaging in regional planning efforts.

Another federal resource is the CDC's Division of Global Migration and Quarantine (DGMQ). One of the primary missions of DGMQ is to prevent the spread of infectious diseases into the United States.[10] In addition to their historic inspection function, public health and medical officers at the quarantine stations prepare for and respond to ill passengers, work with community partners, and provide health and disease information. As part of their efforts to improve isolation capacity, the CDC DGMQ has entered into agreements with hospitals near the quarantine stations to ensure that beds are available if necessary.

At the beginning of 2005, there were eleven quarantine stations; seven more have opened or are planned to open by the end of the year.[11] Plans call for this expansion to continue to several additional cities in the coming years. Cities chosen for expansion will have greater than one million airport travelers, more than 100,000 seaport entries, or at least five million land border crossings per year.

Among its other activities, the U.S. Department of Health and Human Services (DHHS) Office of Public Health Emergency Preparedness and Response represents the interests of public health in international partnerships. One of these, the Security and Prosperity Partnership of North America, is a trilateral initiative to improve the common security and economic interests of the United States, Canada, and Mexico.[12] Initiated during a March 2005 meeting of the three countries' leaders, the Partnership issued a report[13] in late June 2005 outlining its progress and a timeline[14] for achieving additional mile-stones. Several of the Partnership's goals are related to implementing an overall strategy to address intentional and naturally-occurring public health threats in the three nations.

Many other federal agencies also engage in activities that impact cross-border public health preparedness efforts. For example, U.S. Customs and Border Protection has responsibility for protecting the U.S. borders and may be called upon to halt travel between the United States and its neighbors in the event of an emergency. The Indian Health Service (IHS) provides federal health services and advocacy on behalf of the 1.5 million members of federally-recognized tribes, many of whom live on lands bordering Canada and Mexico. Among other functions, the Department of State coordinates the foreign activities of other agencies, such as DHHS.

Each of these and other federal agencies has unique and specific roles. While the scope of these roles often overlaps, there is seldom coordination among the agencies to craft a common approach to issues related to cross-border public health preparedness or to assure that their activities complement rather than conflict with each other. Additionally, public health is frequently an afterthought for many of the federal agencies most often involved in international collaborations. Often, states do not know which federal agency to turn to for assistance, particularly among those agencies with which public health has traditionally had limited involvement.

The Role of Canada

Public health agencies in states and provinces along the U.S.-Canadian border have a long tradition of working together informally on issues impacting public health. The increased attention to public health preparedness in recent years has raised awareness of areas in need of greater discussion and collaboration and, perhaps, more formal procedures. As states continue to work with the Canadian national government and the provinces, they are in need of a greater understanding of how the Canadian government, and particularly its health system, works.

While there are many significant differences in the structures of the health systems in the United States and Canada, there are also some parallels. Like DHHS in the United States, Health Canada has a national focus. Similarly, the Public Health Agency of Canada, which was established following the SARS outbreak, serves functions comparable to the CDC. The National Health Emergency Management Framework is an agreement among all of the Canadian provinces about how to respond to major incidents. This strategic plan is similar to the National Response Plan (NRP) in the United States and is intended to provide consistency across the country. Canada is also developing a National Health Emergency Management System. Although this system is focused on health, it has similarities to the National Incident Management System (NIMS) in the United States.

These federal agencies and plans provide an overall structure for the Canadian health system, but, as in the United States, there is considerable variation from province to province. Ongoing cooperation at the federal level between the two countries has resulted in a number of formal agreements, such as the inclusion of two Canadian laboratories in

the United States' LRN – the National Microbiological Laboratory in Winnipeg and the Defence Research and Development Canada Laboratory in Suffield. However, much of the interaction between the United States and Canada happens at the state to province, health agency to health agency, and individual to individual level. State health agencies could benefit from clearer guidance from the U.S. federal government about their authority to do business with Canadian partners.

What States Are Doing

Each state has its own plan for organizing its international border preparedness activities. These plans are based on the public health priorities in each state and the resources available to carry them out. However, during the May 16, 2005 discussion of current and planned state activities, a number of common focus areas were identified:

- Regional collaborations.
- Interoperability of surveillance systems and epidemiological investigations.
- Sharing of laboratory samples and data.
- Communications.
- Education and training.
- Reviewing and developing cross-border public health preparedness agreements.
- Coordination with tribal nations.

Each of these areas is described in detail below.

Regional Collaborations

Lacking a single planning entity to address issues along the entire U.S.-Canadian border, states and provinces are in various stages of organizing with neighboring jurisdictions. State and provincial public health leaders have taken the initiative in planning meetings that provide an opportunity for colleagues on both sides of the border to gather face-to-face and begin to tackle some of their common challenges. These meetings have allowed state and provincial public health staff to identify and establish relationships with their counterparts in other jurisdictions, collaborate on tabletop and other public health emergency response exercises, share information and best practices, and prioritize areas in need of greater coordination.

In the northwest, the Washington State Department of Health and the British Columbia Ministry of Health Services organized a pair of workshops in August 2004 and April 2005 addressing emerging public health threats. More than 200 public health representatives from Alaska, Alberta, Idaho, Montana, North Dakota, Oregon, and the Yukon, as well as several tribal nations, participated in these meetings which dealt with pandemic influenza preparedness and tracking infectious disease across borders. Both meetings featured a tabletop exercise and breakout sessions targeted to key issues such as risk communication, surge capacity, public health law, and border quarantine. While these meetings focused on the public health aspects of cross-border preparedness, it is anticipated that representatives from law enforcement, municipalities, the news media, the acute and outpatient care systems, medical examiners, U.S. Customs and Border Protection, and the U.S. Coast Guard could be invited to future meetings.

The Michigan Department of Community Health and the Ontario Ministry of Health and Long-Term Care formed a Great Lakes Border Health Initiative. The two jurisdictions met during a Border Health Conference in September 2004. A border health assessment identified key challenges, such as the significant differences between the public health structures of Michigan and Ontario, communications, surge capacity, and the need for a cross-border mutual aid agreement. The Initiative established a steering committee with five work groups: direct care, laboratories, legal issues, emergency response, and public health communications. Minnesota, New York, and Wisconsin have also joined the Great Lakes Border Health Initiative, and the

Pennsylvania and Ohio departments of health have expressed interest in becoming members. A conference in September 2005, provided a forum for the work groups to update the 130 participants on their activities and included a tabletop exercise on pandemic influenza to bring to light areas in need of further coordination within the region.

Maine, New Hampshire New York, and Vermont, are working with New Brunswick, Nova Scotia, and Quebec, on a Northeast Border Infectious Disease Surveillance Initiative. In addition to the state public health agencies and provincial ministries of health, the offices of public or homeland security, border local health agencies, border law enforcement authorities, and border tribal nations are partners. Similar to the Great Lakes Border Health Initiative, the Northeast group is forming a steering committee and three work groups focused on communication infrastructure, epi-demiology and investigation coordination, and public information and risk communication.

These three regional collaborations have played an essential role in getting key people together to begin the process of developing an inter-operable system for tracking and preventing the spread of outbreaks between the United States and Canada. However, these regional meetings, as well as meetings between individual states and provinces, are not a substitute for a single entity which addresses cross-border public health preparedness issues common to the entire border. Under the current approach, there is duplication of effort as states and provinces lack an effective mechanism for sharing information about what has and has not worked in their various jurisdictions.

Additionally, the regional boundaries are not fixed. For example, the state of New York is involved in efforts with both the New England and Great Lakes states. Similarly, Alberta, Montana, and North Dakota , which are part of the northwest group, held a meeting in August 2005, along with Saskatchewan, that focused on laboratory and surveillance issues. While the states and provinces may reap many benefits from collaborating with multiple groups, significant time and effort is expended by staff who participate in these regional efforts.

Not all of the border states have aligned themselves with one of the three regional groups. These states may not have the resources or interest in collaborating with other states. State health agencies may find that only working with the one or more provinces they directly border is the best use of their limited resources. It is also possible that they are not aware of all of the regional activities taking place.

There is also wide variance in the resources that each state is able to bring to the table. Differences in staffing levels, financial support, and agency priorities among the states result in an uneven playing field within the regions. Those states with greater resources are forced to play a larger role in activities such as planning and hosting meetings in order for the regional collaborations to be successful. The ability to use EWIDS funds on regional activities during the next year will be helpful in some cases, but only for preparedness activities related to infectious disease surveillance, not all-hazards.

Inter-operable Surveillance Systems and Epidemiological Investigations

One of the primary cross-border preparedness activities between the states and provinces on the U.S.-Canadian border is the coordination of epidemiological and surveillance functions. The keys to controlling any infectious disease, whether it be pandemic influenza or smallpox, are to identify it early, track its progress and rapidly put in place measures to contain it.

This is also important in monitoring health effects in populations that neighbor a jurisdiction where an unintentional or terrorist event takes place. For example, a chemical explosion in one of the states may result in harmful substances being carried in a plume into one of the provinces. Similarly, a foodborne outbreak will not be stopped by geographic boundaries.

Health agencies along the U.S.-Canadian border have traditionally collaborated in surveillance and epidemiology activities on an informal basis when outbreaks and other events have occurred. Over the years, public health agency staff have established relationships with some of their counterparts in neighboring jurisdictions and have done whatever is considered necessary to enable an effective public health response to emergencies. While it is important that these informal channels remain, there is growing concern that more formal procedures need to be developed. This could ensure that the appropriate personnel are involved in the response, data standards and case definitions are consistent on both sides of the border, and privacy and other legal issues are considered.

Health agencies in the northwestern states and their neighboring provinces have exchanged contact lists of staff involved in surveillance activities on a round-the-clock basis. They intend to test these contact lists as well as a mock exchange of surveillance data. Additionally, the states and provinces are working on public health agreements that will ease the exchange of surveillance information among them.

The initiatives in the Northeast and the Great Lakes regions are similarly working on public health agreements. One major effort of the Great Lakes Border Health Initiative is to improve surveillance compatibility and connectivity in the region. Participants in the Northeast Border Infectious Disease Surveillance Initiative are working to develop uniform case definitions, data collection tools, and joint investigation protocols; clarify legal issues related to privacy; and electronically integrate the data systems used by the various jurisdictions.

The federal provision of EWIDS funding since fiscal year 2003 has been an important financial resource for the states as they have begun to formalize their cross-border surveillance activities. While state health agencies appreciate this additional funding stream and are using EWIDS funds to support a wide variety of activities, the amount of funding available is not commensurate with the costs associated with building and maintaining a coordinated approach to cross-border public health surveillance.

There is wide variation in the funding amounts to individual states because funding is based on the number of legal border crossings in each state. For instance, a state such as Michigan, which has a high volume of legal border crossings in urban areas like Detroit, receives significantly more funding than a state like North Dakota which likely has many undocumented border crossings in remote areas. Crossings which take place on tribal lands along the border may also not be documented.

Another limitation of EWIDS funding is its restriction to infectious disease surveillance. There is a great deal of concern among the state health agencies that the focus on infectious disease is hampering efforts to partner with other agencies that want to take an all-hazards approach to preparedness. Funding restrictions do not allow for all-hazards planning, preventing public health agencies and their partners from considering infectious disease surveillance in the context of the overall effort to improve cross-border preparedness.

As the states continue these activities, they have sought guidance from the CDC about electronic reporting and the need to assure that standards are the same along the entire border. CDC guidelines could result in an inter-operable surveillance system that

would aid states and provinces in quickly responding to events and reducing their potential impact on the public.

The states have also requested greater flexibility regarding how EWIDS funds are spent. Variation exists in what is considered to be an acceptable activity under EWIDS. Providing greater latitude in justifications for proposed cross-border activities could be beneficial to the state health agencies.

Sharing Laboratory Samples and Data

Public health laboratories play a critical role in disease detection and control. Within the United States, much work has been done to improve laboratory capacity. The LRN was established to expand surge capacity throughout the country. Laboratories within the network are designated to handle different types of biological and chemical testing, resulting in quicker responses throughout the network.

State health agencies along the border would like to see these capacities expanded to include Canadian laboratories beyond the two that are currently LRN-accredited. The health agencies in Montana, Washington, and other states are working to have additional Canadian laboratories added to the LRN to ease the sharing of information across the network. It is in the interests of both state and provincial health agencies to share in the effort to quickly identify pathogens that could easily cross borders.

Expanding the network to more Canadian laboratories would improve capacity overall. Anecdotal evidence suggests that laboratories in every state received white powder that needed to be tested following the fall 2001 anthrax attack. A similar event in the future would again stress the ability of public health laboratories to rapidly test and detect potentially harmful substances. The Great Lakes Border Health Initiative plans to conduct a survey of laboratory capacity in the region, collecting information about laboratory personnel and facility locations, reagent caches, and types of testing performed. Knowing what types of resources are available ahead of time will speed up efforts to deal with surge issues following an event.

The transport of laboratory specimens and personnel across the U.S.-Canadian border is a challenge. Various national and international regulations dictate which substances can be moved across borders and how. The Select Agent Rule in the United States requires facilities to meet certain registration requirements in order to have high-threat biological agents and toxins in their possession.[15] Under the Rule, extensive paperwork is required regarding issues such as who can handle the sample, where it is stored and tracking the chain of custody.

There is considerable variation in the credentialing of laboratory personnel. In Canada, individual laboratory workers are licensed. Laboratory directors are licensed by the New York State Department of Health. The Michigan Department of Community Health licenses laboratories rather than workers. Given these differences in credentialing, it is unclear whether personnel could perform laboratory testing in neighboring jurisdictions without first addressing legal concerns.

State and provincial health agencies are also working on issues related to laboratory communications. The Great Lakes Border Health Initiative is working on protocols for exchanging data and sharing laboratory results. The Montana Department of Public Health and Human Services added several Canadian laboratories to an email list that is distributed weekly to hospital labs in Montana. The health agencies in Montana and Michigan are independently working to identify differences in laboratory methods, measurement systems and test result interpretations. Differences between states and provinces in health privacy laws and

regulations further complicate the exchange of information.

Many questions still exist for state health agencies about what laboratory data can be shared across the Canadian border, who it can be shared with, and how it can be used. Issues such as the involvement of law enforcement in cases where the laboratory sample may be related to a terrorist act also need to be resolved. The federal government may be able to provide guidance on some of these issues as well as working with the states and the Canadian provincial and national governments in areas such as expanding the LRN and possibly making it easier for laboratories to share samples during a crisis.

Communications

Fast, efficient and accurate communication is necessary for planning a successful response to emergencies. The first step to develop an effective communications strategy is to be able to identify counterparts. The states and provinces in the Northeast Border Infectious Disease Surveillance Initiative have created a resource directory with round-the-clock contact information for key health agency staff. They have also shared organizational charts to aid in the identification of counterparts. Similarly, Ontario and the states involved with the Great Lakes Border Health Initiative have exchanged contact lists.

State health agencies have also developed methods to identify the most appropriate contact person and to determine when information should be shared. The Great Lakes and Northeast Initiatives have both created communication protocols for use by the state and provincial health agencies in their regions. Other activities of the Great Lakes Border Health Initiative include development of a decision tree and a table comparing reportable diseases in various jurisdictions. They are also working on templates for HAN distribution within hospitals. Putting all of these practices into place will save valuable time as state and provincial health agencies share needed information in the wake of an emergency.

Ongoing, consistent communications are also necessary. The Washington State Department of Health holds monthly conference calls and plans to add the British Columbia Ministry of Health Services to its Washington Secure Electronic Communication and Urgent Response System (WaSECURES).[16] This system allows rapid communication through telephones, pagers and email during emergencies. Other states conduct similar activities to maintain ties with their counterparts in neighboring jurisdictions. Regular communications during non-crisis times will lead to better coordination in the event of an emergency.

Communications are important not only among state, provincial and tribal nation health agencies, but also between public health agencies and the public. No public health message will be successful if the public is unable to hear it, cannot understand it, or does not follow it. Knowing ahead of time why borders may need to be shut down or why quarantine is sometimes necessary will result in greater acceptance if those measures must be put into place. Ongoing risk communication will prepare the public for emergencies and increase the likelihood that they will safely and appropriately respond to public health messages during an emergency situation.

Risk communication activities are being targeted to first responders, the healthcare community and the media. First responders need to be aware of the health effects of various events. Consistency of information provided to the public and healthcare workers will improve the health and medical response to an emergency. The media play a critical role in linking health agencies to the public. Assuring that the media receive accurate information will improve the chances that the public will hear necessary

information. The reach of multiple television, radio and print media overlaps various jurisdictional boundaries and audiences. Health agencies are working to coordinate their messages so the same information is provided anywhere in the region, regardless of which media source the public uses.

Consistency and accuracy of information is needed before, during and after an event takes place. By continuing to improve interagency communication and to share important risk communication, state health agencies are strengthening their day-to-day relationships with their Canadian partners and raising the level of trust in and acceptability of preparedness messages and the public health officials who deliver them.

Education and Training

States and provinces are also working to improve education and training, both for health agency staff and members of the public. Included in these education activities are the ongoing risk communication efforts. Focused on the all-hazards approach, health agencies are working to prepare the public for a variety of public health emergencies that may have a cross-border component.

Staff training has focused on increasing the level of knowledge about the similarities and differences in the public health preparedness activities of health agencies in the United States and Canada and identifying areas where a common knowledge can be developed. By learning more about the procedures and terminology in other jurisdictions, state and provincial health agency staff will be more likely to effectively communicate and work together in an actual crisis.

These educational opportunities are incorporated into a variety of other activities already mentioned, such as using the same case definitions in epidemiological investigations or sharing a common nomenclature for laboratory samples. There are also educational opportunities in other areas, such as developing a common system for emergency response. Using the same type of incident command system on both sides of the border, as the Northeast Border Infectious Disease Initiative is exploring, could result in a more coordinated, efficient response.

A critical component of employee education and training has been the activities enabled by the regional collaborations. Previous meetings have provided opportunities for participants to meet each other, share information about how they do things in their own health agencies, and identify projects where they can collaborate. For example, the tabletop exercises conducted at the Northwest and Great Lakes meetings have allowed participants from many jurisdictions to discover how they might jointly tackle serious cross-border public health emergencies.

Finding ways to make these opportunities available to more staff will only improve the ability of health agencies to handle cross-border events. Given the limited resources of many health agencies, it is often difficult for staff to devote adequate time to training and educational opportunities or for the health agencies to send multiple staff to conferences and other educational events. Discovering better methods to share information and best practices among all the states along the Canadian border could be of great benefit to the staff engaged in cross-border preparedness activities.

Reviewing and Developing Cross-Border Agreements

No single state or provincial health agency has all of the resources that would be needed to deal with a large-scale public health emergency. Particularly when events are wide in scope or require the dedication of

resources over an extended period of time, health agencies must rely on their counterparts in other jurisdictions to fill in gaps, provide supplies, and relieve overstressed public health staff.

Within the United States, much progress has been made in formalizing mutual aid agreements between the states. All states except Hawaii are signatories of the Emergency Management Assistance Compact (EMAC).[17] This congressionally-ratified compact allows member states to share personnel and equipment during governor-declared emergencies. States requesting aid are responsible for reimbursement while those that volunteer resources are protected from liability concerns. EMAC was the main mechanism used by states to deploy governmental public health assets following Hurricanes Katrina and Rita.

States are also addressing issues not covered by EMAC. The Mid-America Alliance is a ten state effort to provide mutual assistance in public health emergencies that have not been declared by a governor.[18] Montana and North Dakota are the border states involved with this effort. In its early stages of development, the Mid-America Alliance is focused on identifying available resources in the member states, developing a strategy for sharing data and information, planning for epidemiological and laboratory surge capacity, and drafting legal documents to ease the exchange of public health personnel and other assets.

State health agencies would like to be able to enter into arrangements similar to EMAC and the Mid-America Alliance with their Canadian neighbors. The two most significant efforts to date are in the Pacific Northwest and New England. The International Emergency Management Assistance Memorandum of Understanding, known as IEMAC, was approved in 2000[19] by Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont in the United States, and Quebec, New Brunswick, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador in Canada. Approved by the U.S. Senate in 2001, the compact is largely modeled on EMAC and, like EMAC, includes provisions addressing issues such as liability, license reciprocity and worker compensation.

The Pacific Northwest Emergency Management Arrangement (PNEMA) was signed by Alaska, Idaho, Oregon, and Washington in the United States, and British Columbia and the Yukon Territory in Canada[20]. It was approved by the U. S. Congress and President Clinton in 1998. Washington state has been leading an effort to add an annex to PNEMA which specifically addresses issues related to public health that occur in emergencies. In particular, the dissemination of health data and licensing and liability of healthcare personnel are among the topics addressed by the annex. Other states are also looking at existing emergency management agreements to determine whether they can be applied to public health components of emergencies.

Establishing these agreements ahead of time is important to identify what types of resources are available in a region and to avoid legal disagreements following an incident. Resource typing, joint training exercises and command structures could all be pre-identified under these agreements. Signatories of the agreements could also predetermine healthcare licensure requirements, a dispute resolution process, recordkeeping requirements, and reimbursement for services and supplies.

It is unclear how much authority states have in these types of agreements. The constitutional ability to enter into international agreements rests at the federal, not the state level. It is uncertain whether IEMAC will be upheld if it is ever challenged because it was only approved by the U.S. Senate and did not become law. State health agencies are conducting their cross-border preparedness activities under the direction of the federal government and

might have some latitude because their goal is to protect the public. It could be helpful for the states to receive additional guidance from the federal government about limitations to their activities.

Coordination with Tribal Nations

In addition to working with Canadian partners, the U.S. border states work with federally-recognized tribal nations within their boundaries. In some cases the tribal lands straddle the U.S.-Canada border or multiple states. Public health agencies are working to increase the involvement of the tribes and to incorporate their needs into ongoing cross-border preparedness planning.

Tribal nations do not receive funding directly from the federal government. In many cases, states fund the tribal nations like local jurisdictions for the purposes of public health preparedness. For example, all seven tribes in Montana have contracts for preparedness work, in the same manner as counties within the state. Similarly, 26 of the 29 tribes in Washington have grants of up to $100,000 for preparedness activities. By funding the tribal nations in this way, states allow greater autonomy to the tribes and flexibility in how the funds are spent. The state health agencies are able to provide the tribes with needed resources while respecting their sovereignty.

State health agencies are also working to establish trust and better working relationships with the tribes. All three of the regional collaborations have invited participation from the tribal nations. The New York State Department of Health completed onsite needs assessments to identify specific needs and priorities for tribal nations within the state. The state has made progress in integrating the tribes with local health agencies and increasing the trust level by delivering on promises to the tribal nations. Montana held cross-border terrorism preparedness conferences in May and August of 2004, which included participation from the tribes. During both conferences, the culture of Native Americans was respected and celebrated. From Native American theme dinners to a Native American Roundtable, tribal nation traditions were incorporated throughout the conferences.

As in many communities throughout the United States, one of the obstacles to engaging the tribal nations in public health preparedness activities is demonstrating to the population that such activities are relevant to their specific circumstances. One example of a tribe that has embraced the need to be prepared is the Blackfeet Nation along the Montana-Alberta border. The Blackfeet are planning an exercise focused on the roles of the tribal nations and the IHS in an emergency. Lessons learned from this exercise could help the Montana Department of Public Health and Human Services better understand how to meet the needs of the tribes within the state and may serve as a model for other states and tribal nations.

As states continue to collaborate with their tribal partners, they are working to include the appropriate tribal nation representatives in planning. In many cases, members of the tribal council are the only ones with the authority to make decisions and enter into agreements on behalf of their tribe. Having full involvement by tribal council members in all phases of cross-border preparedness planning relevant to tribal nations may help increase the likelihood of successful collaborations with the tribes.

State health agencies might not be able to overcome all of the challenges related to working with tribal nations. Because the tribal nations are sovereign entities, states lack the authority needed to negotiate agreements and to encourage the tribes to undertake important public health preparedness activities. It is unclear, for example, whether state health agencies would be able to order isolation or quarantine on tribal lands.

States need support and guidance from the federal government in dealing with funding and sovereignty issues. In many cases, the federal government is the most appropriate and the only authoritative body that can move these issues forward. Additionally, many of the difficulties that states face in collaborating with tribal nations on cross-border public health preparedness are quite different from the challenges in working with the provinces or other states. The state health agencies will continue to work with their tribal partners. A meeting focused solely on improving state-tribal collaboration on public health preparedness issues could be beneficial to both the states and the tribal nations.

Recommendations

The May 16, 2005 meeting offered an opportunity for state public health preparedness directors and other key personnel to discuss the challenges of cross-border public heath preparedness. State health agencies will continue to work with their provincial and tribal partners on a wide range of issues. Following a full day of discussion, four clear and achievable recommendations concerning public health preparedness were identified.

1. Explore Creation of a U.S.-Canadian Border Public Health Preparedness Planning Entity

A key priority of the states along the U.S.-Canadian border is the development of a mechanism to address the public health preparedness needs of the entire border. State health agencies and provincial ministries of health are engaged in various pockets of work related to EWIDS, laboratory surge capacity, risk communication and others. They have naturally formed regional collaborations with their neighboring jurisdictions to begin finding common ground on how they manage their preparedness activities and how they might assist each other. However, not all state health agencies are participating in these collaborations and the participating staff must devote considerable time and effort to remain engaged in these activities in addition to work going on between their own states and individual provinces.

Unlike the southern border which has a U.S.-Mexico Border Health Commission, there is no single entity which can assist the states and provinces along the U.S.-Canada border in efforts to coordinate their activities. The establishment of a U.S.-Canada Border Health Commission or similar organization would allow the states and provinces to take a global approach to the entire border.

Rather than the multiple cross-border public health agreements that different states and regions have developed or are considering, a border health commission may be able to draft a single agreement that involves all of the states and provinces along the U.S.-Canadian border. Such an organizational structure may also aid health agencies in working with other emergency response partners such as police and fire departments and emergency management agencies. It could also serve an advocacy role on behalf of the states and provinces as areas of collaboration are identified.

An organization of this type could allow states to more effectively collaborate to address common challenges, share resources, and identify strengths and weaknesses. It could also provide a forum for sharing best practices and encourage the development of a unified effort to ensure public health preparedness across the entire border region.

2. Support Comprehensive Coordination of the Federal Programs Related to Cross-Border Public Health Preparedness

State health agencies would like to see comprehensive coordination of the various federal programs related to cross-border public health preparedness. A number of

federal agencies with very distinct and dissimilar interests, including the CDC, the IHS, U.S. Customs and Border Protection, and the State Department, have jurisdiction over various activities that impact cross-border preparedness.

Additionally, each state is challenged to work with the Canadian federal government as well as one or more bordering provinces and states. Greater coordination at the federal level would achieve consistency across the border region and eliminate duplication of effort. Federal coordination is also needed to address international law and standards that states may not have the authority to address.

3. Communicate the Need for Consistent Federal Support for All-Hazards Cross Border Preparedness Planning

State health agencies need consistent federal support for all-hazards cross-border preparedness planning. While states receive additional funding for carrying out EWIDS activities, the amount of this funding is not commensurate with the costs of successfully planning and implementing the program's objectives. Though the activities are considered optional by the CDC, state health agencies recognize their value and believe they must carry them out in order to assure they are adequately prepared.

EWIDS funding is insufficient for the scope of identified cross-border preparedness issues. Funding, based on the number of legal border crossings in a state, results in a wide divergence in the amount of funds available to each state and does not account for illegal crossings. As states try to work together, they come to the table with very different resources.

Additionally, the restriction of EWIDS funding to surveillance activities is contrary to the goal of all-hazards preparedness. Recognition by the federal government of the costs of ensuring cross-border preparedness, as well as greater flexibility in understanding the states' justifications for spending priorities, would be beneficial.

4. Continue Coordination with Tribal Nations on Preparedness Activities

The borders between states and provinces are not the only ones of concern to the Canadian-U.S. border states. They also face the challenge of incorporating the needs and goals of the federally-recognized tribal nations into their preparedness plans. States have begun working with tribal governments with varying degrees of success, with several states providing grants to the tribes within their borders to conduct preparedness activities. They are also working to build trust between themselves and the tribes and to respect cultural traditions when planning preparedness activities that impact tribal populations.

While representatives from state health agencies have been meeting with representatives from the tribes, members of the tribal council who are empowered to make decisions on behalf of their tribe are not always present or aware of these activities. Similarly, states lack the constitutional authority to negotiate with the tribal nations. Federal guidance, for example, will be needed to determine responsibility for isolation and quarantine on tribal lands.

The challenges associated with working with tribal nations extend far beyond those related to cross-border public health preparedness due to issues related to tribal sovereignty, cultural differences and historical distrust. State health agencies will continue to work with their tribal partners to develop stronger relationships and to ensure that those living on tribal lands are adequately protected during public health emergencies. The states are also interested in pursuing a meeting designed specifically to address tribal issues and to coordinate with tribal nations and the Indian Health Service in the development of a federal border effort.

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