

**Report to the State Health Commissioner
on the Findings and Recommendations of the
Pandemic Influenza Community Advisory Groups**

November 15, 2006

In September, 2006, the State Commissioner of Health decided to solicit advice from the public on four issues critical to Indiana's pandemic influenza preparedness: 1) the role of antiviral medication, 2) community containment measures, 3) altered standards of care, and 4) mental health issues.

Four Community Advisory Groups were created, with each Group meeting three times in October. Each Advisory Group: A) was requested to address specific questions, B) was provided with a subject matter expert and a bioethicist to provide both a scientific and ethical perspective to the deliberations, and C) was expected to make recommendations regarding the issues posed. These four Community Advisory Groups were chaired by Dr. Theodore Bailey from the ISDH Public Health Preparedness and Emergency Response Division in order to provide continuity to the process. After the Groups completed their deliberations, the ISDH Pandemic Influenza Planning Committee reviewed and discussed the recommendations from the Community Advisory Groups and provided several comments which have been incorporated into this report.

The report outlines the recommendations from each Community Advisory Group and provides insight into information leading to each Group's respective decisions. The recommendations from each group should be viewed in the context of the information available at the time of the deliberations. As the threat of an influenza pandemic becomes imminent and more data is available on the epidemiology of the influenza pandemic, the recommendations in this report may need to be revised.

The Appendix outlines the members of each Group and identifies ISDH resources and other resources involved in this process.

Community Advisory Group on the Role of Antiviral Medications in Pandemic Influenza

Questions

- Indiana will have limited supplies of antiviral medications. Currently we have enough to cover 10% of the state population. What priority groups will have access to use this limited stockpile? If this stockpile could cover 25% of the state population, how would this change the groups who have access to it? What about coverage of 50% of the population?
- What process should be used for the development of priority groups? Is this process transparent and perceived as just?

After background information from modeling studies on the role of antiviral medications in controlling the spread of influenza during a pandemic was presented, the current status of antiviral medication availability for the State of Indiana was reviewed:

420,000 courses: Immediately available through Strategic National Stockpile (SNS), Federal purchase
 480,000 courses: To be purchased for SNS Stockpile in 2007, Federal purchase
 650,000 courses: If funded, this Indiana/Federal purchase would be delivered in 2008 and stored in Indiana. *A course of antiviral medication is 10 doses.*

Table 1: Initial Indiana Antiviral Medication Priority Groups

The ISDH Community Advisory Group on the Role of Antiviral Medication recommends the following priority groups for the initial supply of 420,000 courses of antivirals currently in the SNS Stockpile for Indiana. The Groups are NOT LISTED IN RANK ORDER. One antiviral course has 10 doses of medication. For treatment 2 doses are taken each day for 5 days. For prophylaxis, one dose is taken daily for 10 days. With this limited supply of antivirals, the strategy of treatment of certain groups of infected people is all that can be accomplished. With further supplies of antivirals, certain population groups can be selected for prophylaxis (See Table 2).

Group (<u>ALL refer to people ill from pandemic influenza</u>)	Strategy	Courses For Group	Cumulative Courses	Rationale
Hospitalized patients with the best chance of survival	Treatment	150,000	150,000	Consistent with medical practice and ethics to treat those with serious illness to enhance survival
Health care workers (HCW) and emergency medical service (EMS) providers with direct patient contact	Treatment	48,000	198,000	HCW and EMS required for quality medical care. Limited surge capacity in healthcare sector

				personnel
Pandemic health responders (public health, public safety, critical government decision makers)	Treatment	18,000	216,000	Groups critical for an effective public health and public safety response to a pandemic
Critical infrastructure: Essential utility workers in power, water, sewage; transporters of food, water, fuel and medical supplies; public ground transportation	Treatment	25,000	241,000	Groups critical to meet basic needs of society
Pregnant women	Treatment	24,000	265,000	High risk for hospitalization and death
Children ages 1- 4 years of age	Treatment	104,000	369,000	High risk for hospitalization and death
Children 5-18 years of age with high-risk medical conditions (e.g., chronic heart or lung disease, diabetes, chronic kidney disease)	Treatment	41,000	410,000	High risk for hospitalization and death
Undetermined, or as needed for revised estimates in groups above		10,000	420,000	

The next question was how to allocate the additional 1,130,000 courses that will eventually become available in 2007 and 2008. After much discussion, the Group arrived at the following recommendations:

Table 2. Indiana Antiviral Medication Priority Groups Based on Further Supplies

This Table lists the recommendations from the ISDH Community Advisory Group on the Role of Antiviral Medication for an expected supply of antivirals to be obtained in 2007 and 2008. See Table 1 for the recommended priority groups for the initial supply of 420,000 courses of antivirals (available in 2006).

The Groups are NOT LISTED IN RANK ORDER. The additional supplies for 2007 and 2008 allow an expansion of strategies from solely treatment into certain types of prophylaxis. In 2007, 480,000 courses of antivirals will be purchased for the Indiana portion of the SNS Stockpile through federal funding. If funded through combined state and federal funding, 650,000 courses would be delivered in 2008. One course has 10 doses of medication. For treatment 2 doses are taken each day for 5 days. For prophylaxis, one dose is taken daily for 10 days.

Prophylaxis can be either: 1) Postexposure prophylaxis (PEP) – example: family members of an infected person take antiviral medication for 10 days to prevent spread of influenza virus, OR 2) Outbreak prophylaxis (OBP) – example: a nurse working in a hospital emergency department takes antiviral medication for 40 days (4 courses) to be able to work while being exposed to numerous infected people.

Group	Strategy	Courses For Group	Cumulative Courses	Rationale
Non high-risk children 5-18 years of age	Treatment	285,000	285,000	Promoting life of future generations
Immunocompromised patients	PEP = Post-exposure prophylaxis	15,000	300,000	High risk for hospitalization and death
Health care workers (HCW) with daily patient exposure	OBP = Outbreak prophylaxis	160,000 X 4 courses = 640,000	940,000	Critical to an effective health care response
Families of critical infrastructure workers (public health, public safety, critical government decision-makers, power, water, sewage, food, fuel medical supplies, public ground transportation) on a first come, first serve basis	PEP = Post-exposure prophylaxis	190,000	1,130,000	To allow workers critical for effective public health, public safety, and basic societal needs to continue to work

When decisions need to be made on allocation of scarce resources (such as antiviral medication), the following ethical considerations (when relevant) should be utilized during the decision-making process and were included in the Group’s determination of priority groups. Examples of some ethical considerations are noted below.

- **Age: In general, younger patients should be given priority over older patients.** Younger patients have more potential life to gain or lose, all other factors being equal.
- **Medical necessity: Healthcare workers, public health officials, and emergency responders** are examples of groups of workers critical to preserving the life and health of others.
- **Medical effectiveness: Clinical predictions of individual patient survival** need to be taken into consideration.

- **Social utility: Government officials and public safety workers critical to maintaining public order** are important as health care and emergency responders cannot safely do their work without public order.
- **Social utility: Workers involved with critical infrastructure** such as preserving food, water, electricity and other vital services are critical to the public good.

The Community Advisory Group on the Role of Antiviral Medication strongly recommends that the maximum number of additional antiviral courses be purchased under the Federal supplemental purchase program. With the current proposed purchase of 650,000 courses (\$9,500,000 of state funding) plus the 900,000 courses to be purchased at the Federal level earmarked for Indiana, 25% of the population of Indiana can be treated or protected with antiviral medications.

In the short term (420,000 courses in the SNS stockpile), the recommended priority groups would provide treatment for most patients hospitalized due to influenza, pregnant women and some groups of children ill with influenza, health care workers and emergency medical service workers with direct patient contact who are ill with influenza, and many workers in the state’s critical infrastructure who become ill with influenza.

**Community Advisory Group on Community Containment Measures:
Isolation, Quarantine and Social Distancing**

Questions

- The virulence of pandemic influenza cannot be known until it arrives. Under what circumstances would involuntary isolation, quarantine, or forced separation of family members be necessary and effective as a means to control or mitigate the impact of this disease?
- Under what circumstances, if any, should local officials infringe upon individual liberties such as mobility, freedom of assembly, and privacy in order to implement community containment measures to control the spread of disease?
- How will school closures be determined and what impact will they have on disease spread and family dynamics?

As background information, Dr. Tom Chester, a CDC Epidemiology Fellow, presented an overview on the history and effectiveness of quarantine, data from 1918 demonstrating the positive impact of early closure of schools, and data from mathematical models for a pandemic demonstrating the positive impact of early school closure combined with social distancing on decreasing influenza

attack rates. Social distancing is the practice of limiting human contact to prevent the spread of an infectious agent, including self-isolation and self-quarantine at home and community measures such as cancellation of public gatherings.

The Group strongly recommends that all schools statewide in Indiana be closed if there is one documented case of Pandemic Influenza in the United States. This early closure is necessary for the health and safety of Hoosier children and the community.

Discussion ensued on how local school districts were going to plan for school closure, which resulted in the following recommendation:

The Group recommends that the Indiana State Department of Health and the Indiana Department of Education (IDOE) continue their efforts to have all schools in Indiana (public and private, daycare, K through 12, colleges, universities and all special schools) plan for the eventuality that these institutions may be closed by an influenza pandemic for up to 8 weeks, understanding that closure may need to occur more than once.

The Group also recommends that the core strategy of combining social distancing and early school closure be promoted to reduce the impact of an influenza pandemic on communities. The Group concluded that quarantine is effective only in the early stages of a pandemic Influenza and should be used with caution.

The public needs to be educated about the essential elements of social distancing, including family preparation, plan for re-supply, essential drugs and medications necessary to have on hand, respiratory and hand hygiene, and the closing of public gatherings.

COMMENT: The ISDH Pandemic Influenza Planning Committee further recommends the creation of an ISDH and IDOE joint Task Force to study the numerous implications (e.g. social disruption, needs of families with young children, and ongoing educational methods) related to prolonged school closure and develop strategies and guidance to mitigate these disruptions when schools close.

The Group believes the closing of schools and/or public gatherings should be coordinated at the highest level of state government, rather than by locality. This would likely be by order of the State Health Commissioner in consultation with the Governor.

Community Advisory Group on Altered Standards of Care

Questions

- What will be the triage criteria for influenza patients seeking access to hospital medical care and mechanical ventilation? What criteria will be used to discontinue and reallocate mechanical ventilation? What criteria will be used to triage non-influenza patients with chronic conditions or with emergencies? How will standards of care be altered during a pandemic?
- What is a healthcare worker's duty to provide care during a pandemic? When do family obligations outweigh obligations to patients and employers? Does a duty to care extend to non-healthcare staff? What level of risk is unacceptable? What will hospitals and health care organization do to protect their employees and provide support if they and their family members are ill?

The group solicited input from selected physicians experienced in respiratory care to answer the following question and to review pertinent studies:

Under the circumstances of a pandemic influenza outbreak (e.g. the potential shortage of ventilators in the face of need), what are the primary physiological criteria that could be used to place a patient on a ventilator AND to discontinue ventilator use in a patient?

The selected physicians could come to no consensus on an objective physiological predictor (tool) to assist in making decisions for ventilator need as the current tools available are not designed for pandemic influenza. The Group came to the conclusion there is currently no good tool that can accurately predict which patients can best benefit from ventilator support. Until the arrival of pandemic influenza, the pathophysiology of this infection cannot be fully characterized.

The Group recommends a statewide group of medical experts be established to monitor and characterize the pathophysiology of pandemic influenza when sustainable human to human transmission occurs, and establish if a predictor of clinical signs and symptoms can be developed to assist in placing patients on ventilator support or removing them from ventilator support. The Group believes that if a predictor is identified, it should be disseminated statewide to assist in decision making in allocating this scarce resource.

Concern was expressed that liability protection be provided to those involved in the allocation of limited resources during a disaster such as a pandemic.

The Group believes that in any disaster where the allocation of limited medical resources may be needed, health care institutions and licensed health care professionals need to feel empowered to act and be indemnified for their actions except for gross negligence or willful misconduct. Two attorneys in the Group will craft a more detailed recommendation in legally appropriate language for study by ISDH.

Two questions for further study were also identified:

- *How will inventories of ventilators in Indiana be managed across geographic and health care provider boundaries?*
- *How will the safety of the medical care provider staff be maximized?*

COMMENT: The ISDH Pandemic Influenza Planning Committee recommends that this Group continue to meet and develop further recommendations on the issues of triage, work duties outside the usual scope of practice and similar issues, and to include more involvement by emergency medicine physicians and nurses who are familiar with disaster triage.

Community Advisory Group on Mental Health Issues

Questions

- What are the potential psychosocial effects of quarantine, triage, allocating scarce life-saving resources, withdrawing life-sustaining treatments on healthcare workers, responders, individuals, families, and communities?
- What ethical dilemmas will affect decision makers, healthcare workers, and first responders' mental health? How can we provide support to help these individuals confront such dilemmas and continue to serve?

As background, the Group reviewed how Indiana is currently providing for community mental health needs related to preparing for an influenza pandemic.

Indiana is leading the way nationally in its integration of a coordinated response plan to pandemic influenza by the Department of Health (ISDH), Division of Mental Health and Addiction Services (DMHA) and the Department of Homeland Security (IDHS). DMHA provides mental health services to first responders of ISDH and IDHS during disaster responses, be they limited or widespread, as in a pandemic. They have created and trained Disaster Response Teams in the Psychological First Aid model for each Homeland Security District in Indiana. Services can be provided to first responders, but capacity to service additional populations is very limited.

CMHCs provide community services to the critically mentally ill throughout Indiana. During a pandemic, CMHCs (like any other organization) expect 30% of their staff to not be able to report to work. Thus, there will only be capability to care for their current patients and staff, with no surge capacity to deal with public needs.

During a pandemic, who will provide mental health services to the general public, and to special populations such as the homeless and people in correctional facilities? Of necessity, a combination of private mental health practitioners, primary care physicians, other healthcare workers, university/college/school counselors, faith-based organizations and other organizations will need to be able to provide basic mental health support services. The psychological first aid model appears to be the best modality for providing such support. The DMHA has trained individuals in psychological first aid and has begun to reach out to the business community and faith-based institutions.

The Group strongly supports the Psychological First Aid Model used by the DMHA as the basis for an educational curriculum to train community-based mental health organizations, primary care physicians, faith-based organizations, other healthcare workers and counselors in schools and businesses. The DMHA is currently providing limited “train the trainer” education using this model. To expand this program to the larger community will require a commitment of time and funding at the state level, which needs further exploration.

During a pandemic many people (such as first responders, healthcare workers, and people in leadership roles at all levels of state and county government) will be asked to assume unfamiliar roles. Depressive symptoms and anxiety are likely in people making life-and-death decisions about resource allocation or triage. Individuals may also experience “survivor’s guilt” for not getting sick when their co-workers become ill.

The Group recognizes the need for people to be trained in these new roles and strongly recommends a 1-2 day State Summit (or several 1 day regional summits) be scheduled to bring together county leaders, county public health personnel and local Emergency Management Agency personnel to discuss the psychosocial issues that will arise during a pandemic. A further recommendation is to obtain the services of Admiral Brian Flynn to help develop and facilitate the curriculum. (Adm. Flynn has been retained previously by the state in helping train state agencies in the use of the Psychological First Aid Model.)

Communication: The Group discussed the need for well thought-out, scientifically sound communication messages to address the anxiety, feelings of loss of control and potential anger that may be expressed by community members. The State Health Commissioner will play many roles in an influenza pandemic but the role of “Chief Therapist” for the State may be a major responsibility, necessitating messages (in concert with messages from the Governor) that are appropriately coordinated and targeted to manage expected psychological reactions.

The Group believes that a well-crafted communication strategy needs to be developed for an influenza pandemic. Messages need to be developed before the event, be culturally appropriate, target a variety of audiences, and be tested prior to the pandemic. Risk communication messages developed by ISDH for crisis situations should be reviewed for message development appropriate to the psychosocial issues of a pandemic.

The Group offers this final recommendation. The mental health issues of special populations, such as the homeless, immigrants, refugees, and prisoners, need to be addressed by outreach strategies in a culturally appropriate fashion. Public health responses to a pandemic need to take into account the ability of special populations to understand and comply with infection control guidelines.

Appendix

Community Members

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Community Containment Measures: Isolation, Quarantine and Social Distancing

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Ted Bailey, MD, MPH, Medical Epidemiologist, PHPER, ISDH, was the chairman of all of the
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