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Wake Me Up When There's a Crisis: Progress on State Pandemic Influenza Ethics Preparedness

James C. Thomas, PhD, MPH, and Siobhan Young, MPH

We assessed the progress since 2005 of state plans for pandemic influenza and found that 7 states had recommended steps to further clarify ethical processes or decisions; 6 states had made some progress but almost exclusively in hospital preparedness. Having a high-level public health leader, such as a health department director, committed to ethics was the key determinant of progress. Some state health departments may be destined to gain an appreciation for ethics through ethical mishaps. (Am J Public Health. 2011;101:2080-2082. doi:10.2105/ AJPH.2011.300293)

In 2005, the World Health Organization exhorted countries to prepare plans for a pandemic of highly pathogenic H5N1 influenza.¹ The United States and its individual states produced plans soon thereafter.² Although a pandemic of highly pathogenic influenza will bring states and local communities to many ethical decision points, a review of the US states' plans found that few addressed ethics in any meaningful detail.³ Moreover, the review noted the need for states to develop plans for anticipated ethical decisions beyond the allocation of vaccine and antiviral medications. Approximately 3 years after the first review, we revisited the state plans and related materials, such as stand-alone reports intended to supplement the plans, to see what progress had been made toward further ethics preparedness.

METHODS

We obtained state pandemic influenza preparedness plans from the repository of links to state plans on the US pandemic influenza Web site and the Council of State and Territorial Epidemiologists Web site.^{2,4} To determine whether a state pandemic influenza plan specified an ethical framework for decision making, we visually searched the plan's headings and subheadings for "ethics" and other relevant terms (e.g., legal authority, quarantine, antiviral distribution) and the content of sections addressing topics commonly recognized as having ethical implications (e.g., antiviral distribution). If a section recommended priorities for allocating antiviral medications and vaccines, for example, but did not specify the underlying ethical values or principles for decisions, we classified the plan as not having an ethical framework.

We searched the Web site of each state health department for (1) supplemental documentation pertaining to ethics; (2) information on any state-sponsored summit on pandemic influenza and whether the summit agenda included a discussion, presentation, or workshop on ethical issues; and (3) ethics-related products (e.g., plans or recommendations) from any summit, working group, or task force.

We telephoned all states that had a recommendation for further ethics preparedness in their documents, summit products, or Web site. The person interviewed was usually listed on the state Web site or the state pandemic flu preparedness plan as the contact for pandemic flu or, in a few cases, for ethics related to pandemic flu. In a few instances, we determined the person managing the ethics agenda through referrals in phone conversations. We used a semistructured interview format to ask each respondent (1) what steps the state had taken, if any, to carry out the recommendations; (2) whether there were any plans for pursuing the recommendations further; (3) if the recommendations had not been pursued and there were no plans to do so, what prevented them from doing so; and (4) whether anyone had been identified as a point person for pandemic flu ethical issues. The interviews lasted about 30 to 60 minutes.

We transcribed our interview notes into a full account of the conversation for discussion between the investigator (J.C.T.) and research assistant (S.Y.) to achieve clarity on the answers to the 4 questions. Clarification occurred with the investigator asking the assistant for further details on the interviews and, in 1 instance, asking a respondent for additional information. In very few instances was any clarification required—the few states promoting a public health ethics agenda stood out clearly from the others, and the respondents were able to speak in detail about the ethics activities.

RESULTS

Plans for all 50 states and the District of Columbia were available in draft, summary, or final form. Ten states had only draft or summary versions available that described highlights of the plan but provided no operational specifics.

Six states (IA, IN, NM, NC, SC, and TN) had their own guidelines for ethical decision making. Three others (UT, WV, and WI) referred to the Centers for Disease Control and Prevention pandemic influenza ethics guidelines.⁵

Four states' Web sites (IA, IN, MN, and NC) provided links to presentations on ethics and pandemic flu. Idaho's site linked to North Carolina's presentation. Minnesota's Web site linked to videos and webcasts on ethics and pandemic flu on the University of Minnesota School of Public Health pandemic flu Web site.

Twenty-one states sponsored state-level summits on pandemic influenza, but only 1 of the agendas (that of NC) mentioned a discussion, presentation, or workshop on ethics. The Indiana University Center for Bioethics, the Indiana State Department of Health, and the Association of State and Territorial Health Officials convened a national meeting on pandemic flu ethics. US representatives from 31 states, 3 territories, and the District of Columbia attended. The meeting resulted in a list of key ethical issues and steps states and territories should take.

Seven states made recommendations for the further development of ethics-related policies or capacities. In its state pandemic flu plan, California listed 8 legal and ethical policies that should be developed.⁶ Six other states (IA, IN, MN, NC, NY, and SC) created a task force or committee to address anticipated ethical issues and make recommendations.⁷⁻¹² The most common recommendations pertained to hospital preparedness and allocation of scarce resources. Examples were "Establish mechanisms for identifying and tracking persons prioritized to receive scarce health-related resources"⁹: and

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The surge planning committee should develop policies on: Requesting and obtaining emergency waivers of regulatory requirements (e.g., Health Insurance Portability and Accountability Act, Emergency Medical Treatment and Active Labor Act, staffing ratios, scope of practice restrictions)...⁶

California had not taken any steps to follow through on its recommendations and had designated no one with the responsibility to do so. Minnesota's and New York's ethics task force recommendations were under review by their respective state health departments at the time of the interview. North and South Carolina were working with their respective state medical and hospital boards to implement ethics recommendations.

The Indiana State Department of Health and the University of Indiana Center for Bioethics produced 15 ethics-related recommendations to the state department. At the time of the interview, the department had nearly finished 1 of the key recommendations: the development of a protocol for altered standards of care. They had also developed a toolkit enabling health departments to enact the recommendations following the ethics summit.¹³ The toolkit has been sent to every state and local health department and hospital in Indiana.

Following the Iowa task force's articulation of an ethical framework, the state's regional epidemiologists were trained in it. They, in turn, conducted half-day public health ethics training sessions in their regions that were attended by hospital administrators and public health department representatives. The regional epidemiologists then provided follow-up assistance with tasks such as the development of action plans and establishing an ethics panel at each hospital.

The key factor for progress on ethics recommendations was unambiguous. In California, the 1 state with ethics recommendations but no progress on them, the chief barrier was a lack of appreciation for, or priority given to, public health ethics among those receiving the recommendations. By the same token, we identified a commitment to ethics among those with the authority to implement the recommendations as a key factor in each of the states in which progress had been realized. The respondent for Iowa also mentioned the state tradition of political caucuses and community involvement in state-level issues. The Minnesota respondent mentioned a strong state culture of corporate citizenship.

DISCUSSION

Ethics in pandemic influenza has been addressed narrowly and by few states. Fewer than 1 in 5 states identified an ethical framework—either their own or the Centers for Disease Control and Prevention's—in their pandemic flu plan. In most instances, the framework pertained to the narrow agenda of hospital resource allocation during a surge in cases. Other concerns, such as community engagement regarding plans for isolation and quarantine, were seldom addressed.

Following the initial development of the plans during 2005 and 2006, only 7 states made a goal of becoming more ethically prepared. Five of them (IA, IN, MN, NC, and SC) were among the 6 states that had specified their own ethics framework in their plan. Thus, for the most part those already aware of public health ethics were the ones who sought to enhance their ethics preparedness.

All but 1 of the 7 with plans to improve their ethics capabilities had made progress toward their goal. Leadership awareness of, and commitment to, ethics in public health was the most notable facilitator of progress. With awareness of ethics among public health leaders as a key factor, how can we address the fact that so few leaders demonstrate that awareness? Longterm measures include teaching public health ethics in schools of public health and incorporating ethics into criteria for accreditation of health departments.^{14,15}

The sense of urgency for pandemic influenza preparation, including ethical considerations, seems to have passed. An H5N1 pandemic has not materialized, and a less virulent H1N1 pandemic has come and gone. Meanwhile, the stalled national economy is affecting state revenues and thus resources for public health. Although the best time to address and prepare for anticipated ethical challenges is during a nonpandemic period, "out of sight, out of mind" is the reality more likely to come into play.

Unfortunately, progress in ethics is often spurred by the shame resulting from gross unethical mishaps. Such was the case with the Universal Declaration of Human Rights following the Holocaust and research ethics precautions following the Tuskegee Syphilis Study. In a pandemic of highly pathogenic influenza, there will be little time to sort out complicated issues such as the particular values or needs of minority populations. Some states may be destined to develop their ethics capacities only after unethical damage has been done. To avoid this, we encourage nationallevel institutions such as the Centers for Disease Control and Prevention and the Association of State and Territorial Health Officials to help states by (1) disseminating to all of them the best practices identified by any of them, (2) coaching state health departments on the adoption and implementation of best practices, and (3) identifying gaps in ethics practices and assisting-with funds or expert advice-university, state, and national groups to develop needed guidelines that individual states can adopt or adapt to their situation.

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Contributors

J.C. Thomas conceptualized the project, obtained funding, designed the study, collected and analyzed data, and wrote the article. S. Young collected data and reviewed the article.

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References

1. World Health Organization. WHO Global Influenza Preparedness Plan: The Role of WHO and Recommendations for National Measures Before and During Pandemics. Available at: http://www.who.int/csr/resources/

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publications/influenza/WHO_CDS_CSR_GIP_2005_5. pdf. Accessed July 19, 2011.

2. Council of State and Territorial Epidemiologists. *CSTE State Pandemic Influenza Plans*. Available at: http://www.cste.org/specialprojects/Influenzaplans/StateMap. asp. Accessed August 28, 2010.

3. Thomas JC, Dasgupta N, Martinot A. Ethics in a pandemic: a survey of the state pandemic influenza plans. *Am J Public Health.* 2007;97(suppl 1):S26–S31.

4. US Department of Health and Human Services. *State Pandemic Plans*. Available at: http://www.flu.gov/professional/states/index.html#stateplans. Accessed August 28, 2010.

5. Kinlaw K, Levine R. Ethical Guidelines in Pandemic Influenza–Recommendations of the Ethics Subcommittee of the Advisory Committee to the Director, Centers for Disease Control and Prevention; 2007. Available at: http:// www.cdc.gov/od/science/integrity/phethics/panFlu_ Ethic_Guidelines.pdf. Accessed August 28, 2010.

6. California Department of Health Services. *Pandemic Influenza Preparedness and Response Plan*; September 2006. Available at: http://www.cdph.ca.gov/HealthInfo/discond/Documents/pandemic_influenza_preparedness_response_plan_06.pdf. Accessed August 28, 2010.

7. Iowa Department of Public Health. *An Ethical Framework for Use in a Pandemic*; September 2007. Available at: http://www.idph.state.ia.us/common/pdf/publications/panflu_ehtical_guidelines_manual.pdf. Accessed August 28, 2010.

8. Meslin EM, Alyea JM, Helft PR. Pandemic Flu Preparedness: Ethical Issues and Recommendations to the Indiana State Department of Health. Indianapolis: Indiana University Center for Bioethics; August 2008. Available at: http://www.in.gov/isdh/images/Pandemic InfluenzaEthicalIssuesAndRecommendations.pdf. Accessed August 28, 2010.

9. Minnesota Center for Bioethics and Minnesota Center for Healthcare Ethics. *Minnesota Pandemic Ethics Project*. Available at: http://www.ahc.umn.edu/mnpanflu. Accessed August 28, 2010.

10. North Carolina Institute of Medicine. *Stockpiling Solutions: North Carolina's Ethical Guidelines for an In-fluenza Pandemic*, April 2007. Available at: http://www.nciom.org/projects/flu_pandemic/panflu.html. Accessed August 30, 2010.

11. NYS Workgroup on Ventilator Allocation in an Influenza Pandemic, NYS DOH/NYS Task Force on Life & the Law. NYS Document Allocation of Ventilators in an Influenza Pandemic: Planning Document; March 2007. Available at: http://www.health.state.ny.us/diseases/ communicable/influenza/pandemic/ventilators/ docs/ventilator_guidance.pdf. Accessed August 30, 2010.

12. South Carolina Department of Health and Environmental Control. *South Carolina Prepares for Pandemic Influenza: An Ethical Perspective*; September 2009. Available at: http://www.scdhec.gov/administration/ library/CR-009538.pdf. Accessed August 30, 2010.

13. Indiana University Center for Bioethics, Indiana State Department of Health. *Ethics Guide for Health Care Practitioners Working Under Conditions of an Influenza Pandemic: Plan, Prepare, Practice.* Available at: http:// hdl.handle.net/1805/2010. Accessed August 28, 2010.

14. Thomas JC. Teaching ethics in schools of public health. *Public Health Rep.* 2003;118(3):279–286.

15. Mays G, Beitsch LM, Corso L, Chang C, Brewer R. States gathering momentum: promising strategies for accreditation and assessment activities in multistate learning collaborative applicant states. *J Public Health Manag Pract.* 2007;13(4):364–373.

Hospitalization of the Elderly in the United States for Nonspecific Gastrointestinal Diseases: A Search for Etiological Clues

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The frequency of hospitalization among the elderly in the United States caused by gastrointestinal diseases between 1991 and 2004 increased dramatically, especially hospitalization of elderly individuals with nonspecific diagnoses. We analyzed 6640304 gastrointestinal disease-associated hospitalization records in this 14-year period by comparing the peak times of nonspecific gastrointestinal diseases with those of specific diseases. We found that most nonspecific gastrointestinal diseases peak concurrently with viral enteritis, suggesting a lack of diagnostic testing for viruses, which may adversely affect the efficiency of prevention, surveillance, and treatment efforts. (Am J Public Health. 2011;101:2082-2086. doi:10.2105/AJPH.2010.300096)

The successful prevention of disease is best understood through the study of well-defined populations and outcomes. The aggregation of specific diseases, such as various gastrointestinal infections without diagnostic testing for specific causes, into nonspecific syndromic disease outcomes is common. This practice degrades the capacity to choose best preventive practices and eliminates the possibility of detecting newly emerging pathogens. The consequential public health implication can be more severe in vulnerable subpopulations such as the elderly, an immunologically weaker sector growing in both size and proportion in the United States.

Infectious diseases, including gastrointestinal infections, typically demonstrate seasonal patterns, suggesting similarities in etiological properties,¹⁻³ dominant routes of transmission, and environmental determinants of these diseases.^{4,5} Comparing the seasonal patterns of nonspecific diseases with the patterns of known diseases may hint at the identity of nonspecific pathogens. We documented the seasonal patterns for hospitalizations that involved specific and nonspecific gastrointestinal conditions and compared the times at which their incidence peaked.

METHODS

We abstracted hospitalization records from 1991 through 2004 from the Centers of Medicare and Medicaid Services data set, which contains records of all Medicare recipients and includes 93% to 96% of elderly individuals residing in the United States.⁶ Variables used included date of admission, age at admission, and up to 10 diagnoses based on the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM).7 Cases were selected if any of the diagnoses fell under any of the 11 major categories and subcategories of gastrointestinal diseases: "intestinal infectious diseases" (ICD codes 001-009), "other and unspecified noninfectious gastroenteritis and colitis" (ICD 558.9), and "symptoms involving digestive system" (ICD 787).

We calculated category-specific hospitalization rates using annual population estimates obtained from the US Census Bureau as the denominator to adjust for changes in the elderly population. Hospitalization records for individuals older than 85 years were excluded from study because annual population estimates were not available for this age group.

We aggregated records into daily counts so that we could conduct seasonality analyses. The annual seasonal peak was determined with Poisson regression. Mathematical details are