

# PANDEMIC INFLUENZA PREPAREDNESS AND RESPONSE PLAN

## Review and Response to Annexes Jonathan L. Temte, MD/PhD

### Annex 2:

This annex provides an overview of extensive needs presented for the healthcare system to tackle in preparation for an influenza pandemic. It documents estimated health care system burden imposed by a pandemic and the responses needed for health care facilities, planning for distribution of antiviral medications and vaccine, infection control practices, outbreak control, and non-traditional facilities for provision of healthcare.

#### Recommendations are as follow:

- (1) small rural hospitals are often staffed by the same physicians that provide emergency services and provide routine outpatient care in ambulatory settings. Hence, special consideration must be made in rural settings to ensure that healthcare needs in these potentially competing spheres can be met [page 5].
- (2) The triage process will often start with a telephone call to an ambulatory primary care clinic and be fielded by a triage nurse, medical assistant, or receptionist. Planning needs to be made to provide sound advise and phone triage to minimize patients arriving to clinical settings to those that need to be seen [page 6].
- (3) Plans to provide segregated seating, waiting and possible entry at ambulatory centers need to be considered. The bulk of pandemic patients will be seen, evaluated and (possible) treated in outpatient, primary care centers, where usually medical care provision will still need to occur [page 7].
- (4) The is significant concern regarding the role of medical trainees (e.g., resident physicians) that provide a bulk of inpatient care in academic settings. The legal ramifications of required work duties in highly dangerous settings must be established during a pre-pandemic period [page 9]
- (5) Functional lists for equipment and supplies for out-patient settings and mechanisms to maintain some active supply is needed [page 10].
- (6) Many ambulatory settings are eliminating pharmaceutical samples, thus eliminating a potentially important “stockpile” of broad spectrum antibiotics, which may be useful for secondary infections. Outpatient facilities may wish to modify their policies [page10].
- (7) Patient education material should be written at a 4<sup>th</sup> or 5<sup>th</sup> grade level and be available in appropriate languages for usual patient populations [page 18]

### Annex 4:

This annex discusses the issues surrounding surveillance in the inter-pandemic and pandemic periods. It provides excellent background on the existing surveillance mechanisms, challenges, and needed enhancements. The role of veterinary surveillance is also discussed.

#### Recommendations are as follow:

- (1) Despite being readily available via the internet and comprehensive, the “Weekly Influenza Surveillance Report” is vastly underutilized by practicing clinicians because it not provided in a clinically-relevant format. Efforts to create state level, brief clinician influenza updates could serve as an excellent vehicle to connect practicing clinicians with their public health agencies [page 5].
- (2) To facilitate better buy-in of professional organizations, CDC should form cooperative agreements with professional societies to better populate the U.S. Influenza Sentinel Provider Surveillance Network, especially in under-represented states. Options could include accessing practice-based research networks to facilitate recruitment and dissemination of feedback to clinicians [page 7].
- (3) A need exists to create credible clinician liaisons on a state-by-state basis to work with the state’s influenza coordinator to better present clinically-relevant information to clinicians during inter-pandemic periods [page 13].

**Annex 6:**

This annex discusses issues around influenza vaccine supply, population susceptibility and risk, and the current system of vaccine distribution. It reviews the likely vaccine status and strategies during a pandemic, identifying goals and priorities. Vaccine safety issues are discussed as well as the role of pneumococcal vaccine use in inter-pandemic periods.

**Recommendations are as follow:**

- (1) A great deal of work is needed to develop plans for efficient and equitable vaccine distribution during periods of limited supply (either during a pandemic or during inter-pandemic periods when there is a failure in manufacturing/distribution). Efforts should be made to bring together stakeholders to discuss lessons learned (e.g., after the 2004 vaccine shortage) and to formulate action plans that can be taken back to their constituencies [page 6].
- (2) The likelihood of significant regional differences in priority populations for vaccine should be acknowledged and endorsed (e.g., snowplough and fuel oil truck drivers in the Midwest), along with the role and responsibility of setting these priority populations by state pandemic planners [page 8].

**Annex 7:**

This annex provides a reasonable overview of antiviral chemistry, clinical use, efficacy, adverse effects, known resistance patterns, and issues around production and supply. Section II describes the goals of antiviral therapy and is well-balanced. Section IV—in providing strategies for antiviral use—leaves much open ground for states and local jurisdictions to attempt to fill without sufficient guidance.

**Recommendations are as follow:**

- (1) Provide an exhaustive list of examples for priority populations for antiviral therapy and prophylaxis. [page 9]
- (2) Provide guidance on [and perhaps legislative sanction/protection for] individuals who should be designating the “high priority” groups. [page 9]
- (3) Set standards for appropriate distribution of antiviral medications on a national scale. Provide regulatory oversight for distribution. [page 9]
- (4) Suggest that states and other jurisdiction enumerate estimated levels of priority age groups, high risk medical groups, and other “high priority” groups from which to better gage the relative emphasis on prophylaxis and treatment. [page 10]
- (5) For point-of-care distribution strategies, the role of community-based clinics and clinicians must be considered. A plan that uses only hospitals and emergency department seriously skews point-of-care services to urban centers. [page 11]
- (6) Professional organizations should be designated [and funded] to develop and make available appropriate fact sheets (in conjunction with CDC). [page 12]
- (7) Rank priority population in case antivirals become in short supply.

**Annex 8:**

This annex provides background and guidance on strategies to limit transmission. Appropriate information is provided on the routes of transmission. Such efforts are significantly hindered by the nature of influenza infection in humans and the plethora of clinical manifestations noted across ages, virus strains, and immune system status.

**Recommendations are as follow:**

- (1) There will be a need to rapidly assess a broad spectrum of illness presentation across age groups [and potentially other demographic parameters] and to rapidly disseminate this information to healthcare providers. [page 2]
- (2) “High risk” clinical/medical procedures should be clearly identified and could be informed by studies of SARS (e.g., use of nebulizers, tracheal intubation). [page 5]
- (3) Closure of daycare centers should be explicitly identified as one other method of community-based transmission prevention. [page 5]

- (4) A tool for health care settings should be developed and disseminated to provide guidance on appropriate supplies, such as surgical masks, to have on hand, based on historic levels of acute respiratory infections, number of patients per year, and number of healthcare providers. [page 6]
- (5) There needs to be in place a widespread system that can be rapidly activated to collect material for virological studies. One such system would be to engage primary care practice-based research networks. [page 8]
- (6) Professional organizations should be designated [and funded] to develop (in conjunction with CDC) and make available appropriate handout materials to distribute to patients on home isolation. This would need to provide basic information and strategies for home isolation, written at a 5<sup>th</sup> grade reading level. [page 9]
- (7) Information material should be created and made available to air travelers with destinations in novel strain endemic areas along with material designed for passengers returning from such areas. [page 10]

### **Annex 9:**

This annex provides an overview of the goals of communication and education. Guidance is informed by recent events related to the SARS emergence. The role of a well-planned communication response forms the bulk of the narrative.

- (1) Efforts to create and continuously update both “just-in-case” and “just-in-time” educational materials for healthcare workers is a priority [page 3].
- (2) There exists an unmet need for clinician liaisons from representative healthcare professional societies [and perhaps from each state] to inform the creation of messages to healthcare providers and to serve as potential “clinician colleague experts” at times of need for clinical competence and credibility, working closely with public health colleagues [page 4].
- (3) Efforts should be made to partner with professional societies to (a) get clinically-oriented education to regular CME meetings and (b) establish a cadre of discipline-specific “experts” to help get messages across to the wider membership [page 9].

### **Annex 10:**

This annex provides an overview of research goals and priority actions as they apply to basic virology, animal surveillance, human surveillance and epidemiology, diagnostic tools, antiviral agents, vaccine development, research support and training, and communication strategies. The narrative provides a good description of current research mechanisms.

#### **Recommendations are as follow:**

- (1) There is insufficient attention provided in most of the research endeavors to include the primary care arena wherein most people with influenza present. Also, there is heavy emphasis on hospitalized patients as opposed to non-hospitalized patients. Consequently, primary care researchers have been excluded from funding because of their lack of expertise and/or training and/or hospital-based venues. Efforts to enhance translational aspects of influenza research must include the clinicians that actually deal with most medical of influenza in the United States. [general comment]
- (2) Efforts to develop new technologies for pandemic influenza prevention and control must also be coupled with some economic and cost-effectiveness analyses to assess the effect of technology creep into routine practice. [page 4]
- (3) The role of feedback of surveillance information to practicing clinicians should be examined in terms of enhancing clinician awareness and reactivity to annual influenza outbreaks and/or pandemic influenza. [pages 8 and 16]
- (4) Efforts to develop new vaccine production methods.
- (5) Model effects of annual universal immunization recommendation.