MEMORANDUM

TO: MASSACHUSETTS COMMISSIONER OF PUBLIC HEALTH

FROM: SENIOR ANALYST, MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

SUBJECT: RESOURCE ALLOCATION GUIDELINES FOR FLU PANDEMIC PREPAREDNESS

DATE: 5/1/2009

In the wake of the current outbreak of H1N1 influenza, the Massachusetts Department of Public Health recognizes an urgent need to assess, allocate, and enhance limited resources in three key areas: surveillance, personnel, and communication. Current policy and resources reveal a lack of institutional capacity and a dearth of the human capital required for an effective pandemic response. Moreover, these strategic areas also need development to support state-level response to non-influenza pandemics.

By the next flu season, in November 2010, MDPH must:

1) Widen the surveillance system to detect an outbreak.
2) Train all personnel involved in controlling a pandemic.
3) Strengthen communication among all relevant public and private agencies.

These recommendations prioritize developing local resources in stages over the next nine months, from the most immediate need of surveillance to the longer-term goals of training and communication.

LOGICAL TIMELINE FOR IMMEDIATE PRIORITIES

Preventing and controlling a pandemic requires an emergency response plan that is grounded in local priorities, resources, and capabilities over the near- and long-term.

Near-Term Priorities:

a) **Local supplies:** Investments that must be local cannot be "borrowed" from other states or the federal government. Vaccines, drugs, and ventilators, for example, can be stockpiled in relatively small quantities and then borrowed from surrounding states. Thus, they are not exclusively local investments and can be enhanced on short notice in partnership with other states. There will be calls for investing in vaccine development or stockpiling antivirals. But research in vaccine development is already being funded by the National Institute of Health and other countries, and many experts doubt that *oseltamivir*, currently the most effective treatment, can control a pandemic.

b) **Mutual Aid Plan.** Our state must work with neighboring states to develop a "mutual aid" plan in which states agree to transfer stockpiled equipment and supplies to where the pandemic first breaks out. This plan not only allows MDPH to build up necessary supplies on short notice but helps to prevent the spread of the disease and protect other states from an outbreak.

c) **Local personnel**: The transfer of capable and fully trained medical staff and public officials is not easily exchanged across state lines. Medical staff must have not only the expertise to deal with the immediate symptoms of an outbreak but understand how and from where to obtain supplies and resources, know the facilities available for housing and treating patients, and be familiar with the state guidelines that dictate such issues as quarantine procedures. MDPH must devise and implement local training programs for our own personnel now.

Longer-term Investment:

d) **Emergency response plan**: While supplies and equipment can be built up relatively quickly, having an emergency response plan that is understood and frequently practiced by all agencies and the public takes longer to implement. Because we do not yet have an all-strain vaccine, we must have an effective response system in place well ahead of an outbreak. A survey of state agencies and personnel indicates that they believe that the state's Influenza Pandemic Preparedness Plan does not adequately advise or train them for their duties.

e) **Applicability to non-influenza pandemics**: An institutional capacity to respond to an influenza pandemic can also be used in a bioterrorist attack or any other pandemic. The state can thus rightly justify its investments and gain the support of the public, even if an influenza pandemic does not occur in the next few years.

MAJOR PRIORITIES

Based on the above findings and timeline, the major priorities are:

1) **Widen the surveillance system:** Successful containment of an outbreak requires timely diagnosis, isolation, and contact tracing. The syndromic surveillance system, currently implemented only by Harvard Vanguard and Boston Children's Hospital, must be expanded to medical centers throughout the state. Because influenza manifests over a long period between initial infection and symptoms, quarantine is not fully successful in containing an outbreak. Thus, MDPH must develop contact tracing to identify high-risk groups and administer prophylactic antiviral treatment.

2) **Train public health staff, state agencies, and the public:** Improving our medical care surge capacity is the most urgent component, but the focus should be on staffing and training, not just the number of beds—our state already has 8,000 surge beds, surpassing the DHHS recommendation of 3,250 beds. The state must accelerate the development of the Emergency System for Advance Registration of Volunteer Health Personnel, prioritize funding to essential services, and train local communities to ensure their self-sufficiency. Priority funding to police, fire, and other essential services allows them to develop contingency personnel plans that will accommodate likely absenteeism in a pandemic. Training for local communities acknowledges the importance of home care, educating the public in basic treatment.

3) **Strengthen communication among state agencies and across state lines:** All key stakeholders must be connected and coordinated. Although the Influenza Pandemic Preparedness Plan already lays out communication responsibilities among various centers within MDPH, an influenza pandemic response requires coordination across agencies and between the public and private sectors. The state must lay down ground rules and protocols for all parties to exercise regular communication and coordination drills and it must open lines of communication among intra-state agencies.

Invest in the People and Systems to Counter a Potential Pandemic

While the state should not neglect such technical solutions as stockpiling seasonal flu vaccines and antivirals, it must prioritize adaptive solutions that enhance institutional capacity in responding to an influenza pandemic. Investing in the people working at the frontline and in the systems that operate across agencies and sectors is the most important step in countering a devastating pandemic or any large-scale crisis.