

Part C. MEDICAL COUNTERMEASURES: VACCINE PREPAREDNESS AND RESPONSE

NC Department of Health and Human Services, Division of Public Health

Vaccination is the primary control measure to prevent influenza, although it is assumed that vaccine against a pandemic strain of influenza will not be available for four to six months after the start of a pandemic. When vaccine does become available, the demand may exceed the supply for some time. The purpose of Part C is to outline the key steps in the process of vaccine acquisition and distribution during an influenza pandemic.

The Advisory Committee on Immunization Practices (ACIP) and the National Vaccine Advisory Committee (NVAC) have drafted vaccine priority group recommendations, outlined in the US HHS Pandemic Influenza Plan (November 2005). Priority groups recommended in the US HHS plan include personnel essential to the pandemic response (e.g., healthcare workers, first responders, public safety officers), as well as those individuals at high risk for influenza complications as defined by the ACIP. The rank order of these priority groups is subject to change. Project areas will have some flexibility in defining priority groups and sub-prioritizing within them. As the novel virus is characterized, priority groups may be added or changed as new knowledge is acquired.

Personnel in the Immunization Branch (IB) of the North Carolina Division of Public Health (NC DPH) will act as subject matter experts and provide technical assistance, as needed, on acquisition and distribution of vaccine in the event of a pandemic. IB activities for the interpandemic, pandemic alert, pandemic, and post-pandemic periods follow.

A. Investigation Interval

(Characterized by surveillance for novel virus and human-to-human spread of previous animal influenza)

1. Provide technical assistance, as needed, to local health departments for vaccine-related program planning and policy development, including:
 - Assess vaccine storage capacity within the county.
 - Review vaccine storage and handling procedures.
 - Estimate number of people in each priority group.
 - Discuss security provisions for vaccine supply.
 - Provide information and tools for mass vaccination.
 - Review adverse-event reporting procedure.
 - Clarify responsibilities of community partners in vaccination (e.g., hospitals, nursing homes).
 - Provide instruction in the use of the North Carolina Immunization Registry (NCIR) to record all doses of flu vaccine given regardless of source (public or private), and for reminder/recall for second doses of vaccine.
 - Provide information and/or vaccination to high-risk or vulnerable populations.
2. Monitor pandemic influenza vaccine information provided by CDC.
3. Communicate CDC pandemic vaccine updates to local health departments.
4. Encourage seasonal influenza vaccination, particularly of healthcare workers and high-risk populations through support of campaigns such as Senior Vaccination Sunday and North Carolina Nurses Association Regional Flu Vaccination contest.
5. Encourage pneumococcal vaccination of high-risk populations.
6. Work with DPH management to identify potential funding sources to support vaccine-related activities during pandemic.

B. Recognition Interval

(Characterized by the identification of clusters of novel influenza cases and the confirmation of sustained and efficient human-to-human transmission)

1. Continue activities of investigation interval.
2. Provide technical assistance, as needed, to local health departments and other agencies for continued program planning and policy development as well as for exercising pandemic response plans, with particular emphasis on mass-vaccination clinics.
3. Work with other stakeholders to develop pandemic-related educational programs for local health departments, such as the online pandemic influenza course available through the NC DPH and the NC Center for Public Health Preparedness: <http://cphp.sph.unc.edu/panflu/index.htm>.
4. Continue to research and communicate new pandemic developments, modifying existing plans as needed to reflect new recommendations.
5. Assist local health departments in identifying sources of additional vaccinators if needed for surge (e.g., retired nurses and doctors, EMS personnel, nursing students).
6. Continue to assist local health departments following the guidelines contained in the *Pandemic Influenza Vaccine Estimations for Priority Groups* (Appendices C-1 and C-2) to assess vaccine quantities needed based on priority levels. Assist local health departments (LHDs) with estimating number of individuals who may need to receive pre-pandemic vaccine, based on national guidance.

C. Initiation, Acceleration, and Peak Intervals

(The initiation interval is characterized by a lab-confirmed case of defined novel influenza A in the county, region or state, the acceleration interval by an increasing number of cases of pandemic influenza, and the peak interval by sustained and extensive transmission of the influenza virus in the community.)

Prior to Vaccine Availability

1. Continue to research and communicate new pandemic developments. Modify existing internal plans as needed to reflect new recommendations.
2. Work with CDC and other federal partners, vaccine manufacturers, and public health organizations (e.g., AIM, NACCHO, ASTHO) to establish plan for acquisition and distribution of initial vaccine supplies. (It is likely that strategies utilized for acquisition and distribution will change as vaccine supplies increase in availability during the pandemic period.) The following planning assumptions can be made regarding vaccine acquisition and distribution per the CDC document "Pandemic Influenza Vaccination: A Guide for State, Local, Territorial and Tribal Planners" (December 11, 2006): http://www.mi.gov/documents/mdch/PandemicVaccinationPlanningGuide121106_180928_7.pdf.
 - a. Pre-pandemic vaccine, if available, will be purchased by the federal government.
 - b. Pandemic vaccine will be purchased by the federal government through the first year.
 - c. Most pre-pandemic vaccine will be allocated in proportion to population, although exceptions will be made for critical infrastructure personnel who are not evenly distributed across the nation.
 - d. Pandemic vaccine will be allocated to project areas in proportion to their total population.
3. Determine timeline for vaccine distribution.
4. Keep healthcare providers and other stakeholders apprised of timeline for vaccine distribution through use of conference calls, established listservs (e.g., public health leaders and local health directors listservs), blast faxing, NCIR announcement page, websites of state government and professional

5. Work with DHHS Public Affairs Office to keep citizens informed about vaccine development and begin to craft messages about where, when, and who will be vaccinated.
6. Provide technical assistance for training of additional vaccinators, as needed, utilizing existing CDC resources.
7. Increase data storage capacity and number of support staff for NCIR.
8. If private providers are utilized for vaccine administration, those not registered on NCIR will report vaccine doses administered/wasted by submitting monthly vaccine administration logs (VALs) to the Immunization Branch. Copies of these forms will also be utilized for reminder/recall. (See Appendices C-3 and C-4 for template forms and instructions.)
9. Update Public Affairs Office frequently on vaccine availability and dosing schedule.

Vaccine Available for Distribution

1. Assist in vaccine distribution according to established federal plan.
2. Assist in the redistribution of vaccine to provide an equitable geographic distribution of supplies.
3. Maintain existing Vaccine Adverse Event Reporting System (VAERS) reporting procedures during pandemic. Immunization Branch will conduct follow-up on adverse events with medical support from General Communicable Disease Branch.
4. Work with Public Affairs Office to continue providing accurate public messages regarding vaccine availability and location of vaccine administration sites.

E. Deceleration and Resolution Intervals

(The Deceleration Interval is characterized by declining rates of pandemic influenza cases. The Resolution Interval is characterized by influenza cases that are sporadic and decreasing in occurrence, nearing pre-pandemic levels.)

1. Determine total amounts of vaccine distributed, administered, and wasted from data contained in Vaccine Management System (VACMAN), NC Immunization Registry (NCIR), and Vaccine Administration Logs (VALs).
2. Evaluate internal agency plan.
3. Solicit feedback from local partners and stakeholders regarding evaluation of plan.
4. Revise plan based on evaluation findings.