Antiviral Medication Estimations Worksheet

County_____ Date_____

Person Completing_____ phone_____

Antiviral Priority Group	Population in the county*	# of courses needed
Group 1 (Treatment)		
Patients admitted to the hospital		
Group 2 (Treatment)		
Healthcare workers with direct patient contact		
EMS workers		
Group 3 (Treatment)		
Immunocompromised persons		
Pregnant women		
Group 4 (Treatment)		
Pandemic health responders		
Public safety workers		
Key government decision makers		
Group 5 (Treatment)		
Young children 12 – 23 months		
Persons 65 and older		
Persons with underlying medical conditions		
Group 6 (Post exposure prophylaxis)		
Outbreak response in nursing homes	N/A	N/A
Group 7 (Prophylaxis)		**Note: Prophylaxis course is equivalent to 4 treatment courses**
Healthcare workers in EDs		**X4**
Healthcare workers in ICUs		**X4**
Healthcare workers in dialysis centers		**X4**
EMS providers		**X4**
Group 8 (Treatment)		
Pandemic societal responders		
Healthcare workers without direct patient contact		
TOTALS		

*** Population in county = the total number of persons in each category should be estimated.**

Additional Guidance for Estimating Antiviral Priority Groups

Assumptions

- The primary source of antivirals for a pandemic response will be the supply of antiviral drugs already stockpiled.
- Currently, oseltamivir (Tamiflu) is the preferred antiviral to stockpile, although it is recommended that some zanamivir (Relenza) be stockpiled as well.
- Antiviral resistance to the adamantanes (amantidine and rimantidine) may limit their use during a pandemic. No additional adamantanes should be stockpiled.
- Treatment is defined as one course (10 capsules). Post-exposure prophylaxis also equals one course (10 capsules). Prophylaxis is assumed to require four courses (40 capsules), though more may be required if pandemic activity lasts for a longer period in the community.
- The National Vaccine Advisory Committee (NVAC) made recommendations for antiviral priority groups; these recommendations as well as further definitions of and rationales for specific priority groups can be found in the US DHHS Pandemic Influenza Plan, November 2005, Part 1, Appendix D, pages D-19 through D-29.
- The NVAC has recommended that the national stockpile contain a minimum of 40 million courses which would cover the top 7 priority groups.
- It has been recognized that local circumstances may vary and result in adjustments to these recommended priority groups.

The NVAC prioritized 11 groups for antiviral treatment or prophylaxis. This worksheet can be used by health departments to estimate the number of people in all groups prioritized for antiviral **treatment** (Groups 1 -5 and Group 8). It also can be used for estimating number of healthcare personnel in specific units / departments who would be prioritized to receive antiviral **prophylaxis** (Group 7).

Comments on Specific Antiviral Priority Groups

Group 1

- The number of patients admitted to the hospital can be estimated using the Flu Aid software (see *Determining County-level Impact of Pandemic Influenza* in the LHD Toolkit).
- There are no data on the effectiveness of treatment at hospitalization. If antiviral drug supplies are limited, the priority of this group could be reconsidered.

Group 2

- Persons providing direct medical services, in inpatient and outpatient care settings, includes doctors, nurses, technicians, therapists, EMS providers, laboratory workers, and other care workers who come **within 3 feet** of patients with influenza, **AND** persons performing technical support functions essential to quality medical care.
- See suggestions in Appendix C-2 for obtaining estimates of healthcare personnel.

Group 3

- Immunocompromised persons includes transplant recipients, those with severe immunosuppression due to cancer therapy or hematologic malignancy, persons receiving immunosuppressant therapy for other illnesses, persons with HIV infection and a CD4 count < 200, and persons on dialysis.
- Pregnant women for the purpose of prioritization refers to women who are in the **second or third trimester** of pregnancy. This number can be approximated by dividing the county's annual birth cohort by 10 (see US DHHS Pandemic Influenza Plan, Part 1, Appendix D, page D-24 for further details).

Group 4

- Pandemic health responders includes vaccinators, vaccine and antiviral manufacturers, persons working at health departments who are not already included in Group 1, and other personnel essential to implementing pandemic response components.
- Public safety workers include police, fire and corrections personnel.
- Key government decision makers include chief executives at federal, state, and local levels.

Group 5

- Estimates of the number of children between 12 – 23 months can be obtained from the NC State Demographics website http://demog.state.nc.us/frame_start.html.
- Antivirals for influenza are currently not recommended in children less than 12 months of age.
- Estimates of the number of persons 65 and older can be obtained from the NC State Demographics website.
- Estimates of the number of persons with underlying medical conditions can be obtained from the State Center for Health Statistics. Underlying medical conditions are the same for antiviral priority groups as they are for vaccine priority / tier groups.

Group 6

- Antivirals can be used as post-exposure prophylaxis (once daily antiviral medication for 10 days) for outbreak response in nursing homes.

Group 7

- All staff in EDs, ICUs and dialysis centers that are essential for effective functioning of these healthcare units should be considered. These healthcare personnel have already been estimated for Group 1; however, to calculate the number of courses needed for prophylaxis, multiply the number of persons by 4.
- EMS providers have already been estimated for Group 1; however, to calculate the number of courses needed for prophylaxis, multiply the number of persons by 4.

Group 8

- Pandemic societal responders include persons who provide services that must be sustained during a pandemic to maintain public well-being, health, and safety. See estimates of essential community service personnel in Appendix C-1.
- Healthcare workers without direct patient contact include those individuals who are important for the operation of the healthcare facility (utility, waste management, mortuary, and some transport workers).