

Public Health Views... and News

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Dr. Jeff Phillips

**Medical Director for the
Branch-Hillsdale-St. Joseph
Community Health Agency**

Human Influenza occurs seasonally usually in the late fall or winter. In healthy adults it is a self limited illness that causes temporary debility, but is rarely fatal. Young children (<2yrs), pregnant women, individuals with underlying chronic illness (diabetes) and the elderly suffer from increased morbidity and mortality during the “flu season”. Prior exposure to the influenza virus and immunization with influenza vaccine can lessen the effect of acute influenza.

Pandemic influenza occurs rarely and is a worldwide epidemic with a “novel” strain of influenza to which the human population has had no prior immunity. A “novel” strain can arise when human influenza viral RNA combines with non-human influenza viral RNA (usually from birds). If the new virus is highly pathogenic and transmits between humans as effectively as the ordinary flu virus, a devastating worldwide epidemic can occur. At present, the “novel” H5N1 avian flu strain is

highly pathogenic and has caused severe disease in humans (50% mortality). Thus far the “re-assortment” with human influenza viral RNA has not occurred allowing rapid spread. The majority of human cases have occurred in individuals directly exposed to birds (often chickens or ducks).

The WHO along with the U.S. HHS department (CDC) has been very concerned with the threat posed by H5N1 influenza. All past influenza pandemics (three in the 20th century) have occurred without warning. The most deadly epidemic of any disease in recorded history was due to the “Spanish Flu” or H1N1 virus. The pandemic caused 40 million deaths worldwide. The exact origin of that virus is unknown, but it is thought to have been an avian virus that *gradually* mutated into a highly contagious and pathogenic human virus. All current human influenza A types are related to this 1918 virus.

The possibility of an initial less contagious interval with a new pathogenic human virus may argue for public health interventions during an initial outbreak (isolation, social

distancing, and limiting non-essential domestic travel). Treatment with vaccine and antiviral medications of those ill and their contacts would be possibly helpful in slowing the progression of the outbreak. Curtailment of public gathering, school closures, and other restrictions on association and travel may be impractical, difficult to enforce and may not slow the outbreak in urban areas.

Current surveillance efforts to identify human cases of “novel” influenza include monitoring illness in foreign travelers with potential exposures and testing for influenza virus from individuals dying from unusual respiratory illnesses as well as culturing during outbreaks of influenza-like illness. The CDC is now able to perform a rapid assay to detect H5N1 in respiratory secretions.

The mainstay of managing a pandemic is vaccination. Unfortunately, the production of flu vaccine is a time consuming process at present. It takes 8 -10 months to manufacture in bulk a new vaccine type. The United States (NIH) has begun phase I clinical trials of an inactivated H5N1 flu vaccine produced by Sanofi Pasteur. Chiron has produced 40,000 doses of H9N2 flu vaccine. The U.S. (HHS) has contracted to have a large supply of H5N1 vaccine produced, but supply is currently very limited. Antiviral medications are expected to be effective in pandemic flu (especially Tamiflu™-oseltamivir) and provide some protection to those exposed. Treatment of contacts would be an element of controlling a localized outbreak. Unfortunately the cheaper adamantanes (amantadine / rimantadine) have not been effective against H5N1 and rapidly induce resistance. The

CDC currently recommends against their use. The nasal antiviral Relenza™-(zanamivir) would be minimally effective in treating the CNS and neurotoxic symptoms of H5N1 infection, but would probably be effective in preventive treatment. Roche Laboratories has recently given a supply of Tamiflu™ to the WHO for use in case of an outbreak in an underdeveloped country. The U.S. has a limited stockpile of Tamiflu™-only enough for approximately 5 million people with orders for enough to treat 15 to 45 million more. Shortages of Tamiflu™ would initially require restriction of use to high risk individuals and those already ill.

The 1957 pandemic illness appeared first in schools, army units and in other groups where crowding was close. There was reduced incidence in rural areas. During the 1918 epidemic, however, closing of schools, churches and theatres in large urban areas was not demonstrated to be effective. As opposed to the SARS epidemic which was controlled by early isolation of patients and quarantine of contacts, pandemic influenza would be much more difficult to control with these measures. Influenza infections have higher and earlier infectivity, shorter incubation times and possible transmission without symptoms.

Mask wearing in public during the 1918 flu epidemic did not seem to lessen the outbreak in several towns studied (e.g., Alberta, Canada). The WHO recommendation for non-pharmaceutical interventions for pandemic flu are subject to revision and should be based on the phase of the outbreak, the severity of the disease and the extent of the transmission in the community. During the phase of

increased transmission in the general population, ill persons should be advised to remain at home and caregivers advised to wear masks and use other appropriate hygienic and protective measures. Measures should be undertaken to increase social distance. Handwashing and cough etiquette should be strongly promoted for all – urging that hand-hygiene facilities be made available in schools, workplaces and other crowded areas. Mask use by the public should be based on risk and be allowed but not required (e.g. mask use in crowded settings such as public transportation). Limited disinfection of household surfaces likely to be contaminated probably would be worthwhile, but universal home disinfection is not supported by evidence. Any public health interventions should respect cultural differences and human rights and be based on appropriate consideration of legal authority.

Many scientific questions about the risk of a pandemic from H5N1 avian influenza remain unanswered and much speculation and fear have been engendered, often by the press. The best course at present is to stay informed about what is currently known about the risks and options to prevent and control a pandemic. Federal, State and Local Governmental Agencies are formulating pandemic influenza plans. Individuals can prepare by staying informed as they would for any other possible emergency.

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For further information visit:

www.pandemicflu.gov,
www.cdc.gov/flu/avian/,
[www.who.int/csr/don/Handbook
influenza_pandemic_dec05.pdf](http://www.who.int/csr/don/Handbook_influenza_pandemic_dec05.pdf)

Local Public Health: Planning for a Pandemic?

So what is the Branch-Hillsdale-St. Joseph Community Health Agency doing about planning for the flu? Here in Michigan we are preparing for the next pandemic by organizing and collaborating with partners in both the public and private sectors to mitigate the effects of the disease when it appears. The key to minimizing the effects of any predictable event is constant surveillance and analysis of that data into useable material for the front line physicians and medical staff. To this end everyone can and should be willing to lend assistance. In terms of State readiness, Our state health laboratory – one of the finest public health laboratories in the country – will be able to rule out avian flu within 24 hours of receiving a human sample from our local public health partners.

We are pleased the federal government recently released a national strategy to address the threat of pandemic influenza. The debut of this national plan creates an excellent opportunity to ensure that state, regional, and local public health officials meld plans seamlessly with national responses in the event of a crisis.

The Michigan Department of Community Health, our Parent Company if you will, continues to work with us at the local level, regional medical control partners, and state agency partners on preparedness activities, including pandemic influenza. Any state level response to a potential pandemic will require the

cooperation of several agencies, including the MDA, DNR, and the Department of Environmental Quality, and most importantly Local Public Health.

As health experts across the world believe, avian flu would more than likely appear first in the wild bird population and in commercial poultry, meaning that DNR and MDA will also be on the front lines defending against threats to the public health during any potential crisis.

The Michigan Department of Community Health (MDCH) Bureau of Epidemiology has put out a call for Sentinel Physicians to report information to the Bureau on a regular basis so that they may get a clear picture of Influenza activity in Michigan. As more physicians join this important program much better information can be gathered to give emergency planners a head's up as the situations may develop here. Now who said you can't be a vital part of the Homeland Security?

To be a Sentinel Provider you may enter the MDCH web site at: http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_22779-121722--,00.html or call the Michigan Department of Community Health Bureau of Epidemiology at 313-870-2736.

Heart Health Month



According to the American Heart Association, cardiovascular diseases, including stroke, are the leading cause of death in Michigan. In 2004 Statewide, they caused 30, 086 deaths (35.3% of all deaths). Locally during the same year, cardiovascular disease (including

stroke) caused 29.8% of deaths in Branch County, 37.9% of deaths in Hillsdale County and 38.4% of deaths in St. Joseph County. In comparing ourselves nationally, Michigan ranks 42nd out 50 (50 being the *worst*) in cardiovascular deaths. In our region, 2 of our 3 counties have rates higher than the State rate (Hillsdale and St. Joseph). This ranking will not be helped with the upturn in smoking that was reported for Michigan for 2004. 1 in 4 Michiganders now report smoking, again moving us down in the rankings from 33rd to 44th in state rankings of citizens who smoke. There will need to be a reinvigoration in efforts of all healthcare providers to educate our populace on the dangers of inactivity (obesity), smoking, and poor diet and its detrimental effect on our heart health.

What is the County Health Plan?

In the past several months, the Community Health Agency has, with extensive help from your State Legislators been able to establish, develop and commence health services through a County Health Plan system of health benefits for adults. These services are specifically targeted to adults at or below 35% of the poverty level. With the strong support of our State legislative team, the Branch Hillsdale St. Joseph Health Plan (Plan A) became a reality on December 1, 2005 by the enrollment of over 700 very low-income adults across our three counties. An extension of the Health Plan (Plan B) has most recently occurred beginning on February 1, 2006 with the potential of over 600 adults between 50% and 150% of poverty level being enrolled in a limited health benefit of doctor office visits, outpatient testing, and drug

coverage. The following questions and answers are for your benefit in understanding this new and exciting venture being undertaken in our tri-county area.

What is the Branch Hillsdale St. Joseph Health Plan, Plan B?

Branch Hillsdale St. Joseph Health Plan (BHSJHP), Plan B is a community-sponsored program that helps uninsured people get health care services.

Q: Who is Branch Hillsdale St. Joseph Health Plan for, and is it insurance?

Uninsured residents of Branch, Hillsdale, or St. Joseph County with low-income who cannot get Medicare or other programs are eligible for Plan B. BHSJHP, Plan B is NOT insurance. Services must be provided by BHSJHP doctors. Funds must be available to pay for services. If funds run short, some care will be limited.

Q: What services are covered by Branch Hillsdale St. Joseph Health Plan, Plan B?

Coverage	Copay
Office Visits	\$5
Specialist Services	\$5
Outpatient Lab Tests	\$0
Outpatient X-rays	\$0
Prescription Medications	\$5 Generic/ \$10 Brand
Walk-In/Urgent Care	\$5

Q: How does the program work?

Branch Hillsdale St. Joseph Health Plan (BHSJHP) Plan B

members will receive a white card from BHSJHP. Members must get all care at the doctor's office they are assigned to. Other care must be ordered by the BHSJHP doctor at that office.

Prescriptions must be written for medications on an approved list. Members must get medications at one of the participating pharmacies. Also, if you go to a non-participating doctor you may get a bill.

What is NOT covered?

Services NOT covered include inpatient hospitalization, organ transplants, transfusions, chiropractic care, experimental treatment, speech, physical or occupational therapy, hearing aids and related services, durable medical equipment, prosthetics and orthotics.

Also NOT covered are weight loss programs, cosmetic surgery, home health services, services related to sex change, vision screening, eyeglasses, contact lenses, and dental care of any kind. Also not covered is any condition that can be paid for under another public or private health care program or insurance, hospice care, any service not authorized by a Branch Hillsdale St. Joseph Health Plan (BHSJHP) provider, travel shots, and sports physicals.

In addition, services NOT covered for Plan B members include outpatient hospital care, visits to an emergency room, mental health and substance abuse services, dialysis, and medications not on the BHSJHP list of covered medications.

For an on-line copy of the Member guidebook or a copy of this Q & A, visit our web site at

www.bhsj.org and follow the link.

**Immunization Strategies
Nag, Nag, Nag... it really works!!**

A recently published study offers strong support for provider reminders about the child's next immunization visit at the time of the immunization visit. The study compared 4:3:1:3:3



(4+ of diphtheria and tetanus toxoids and pertussis vaccine, 3+ doses of

poliovirus vaccine, 1+ doses of measles-containing vaccine, 3+ doses of Haemophilus influenzae type b vaccine, and 3+ doses of hepatitis B vaccine) coverage among children 19-35 months whose caregivers learned by different methods when their child's most recent immunization was needed. Methods included provider reminders during an immunization visit (of the next scheduled immunization visit); use of a shot card/record; use of reminder/recall systems; and informal methods such as reminders from relatives, friends, or daycare providers. Of all methods, provider reminders during an immunization visit (of the next scheduled immunization visit) were found to be the most effective. To access the complete article, published in BMC [BioMed Central] Pediatrics, please visit:

<http://www.biomedcentral.com/1471-2431/5/44>

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www.bhsj.org