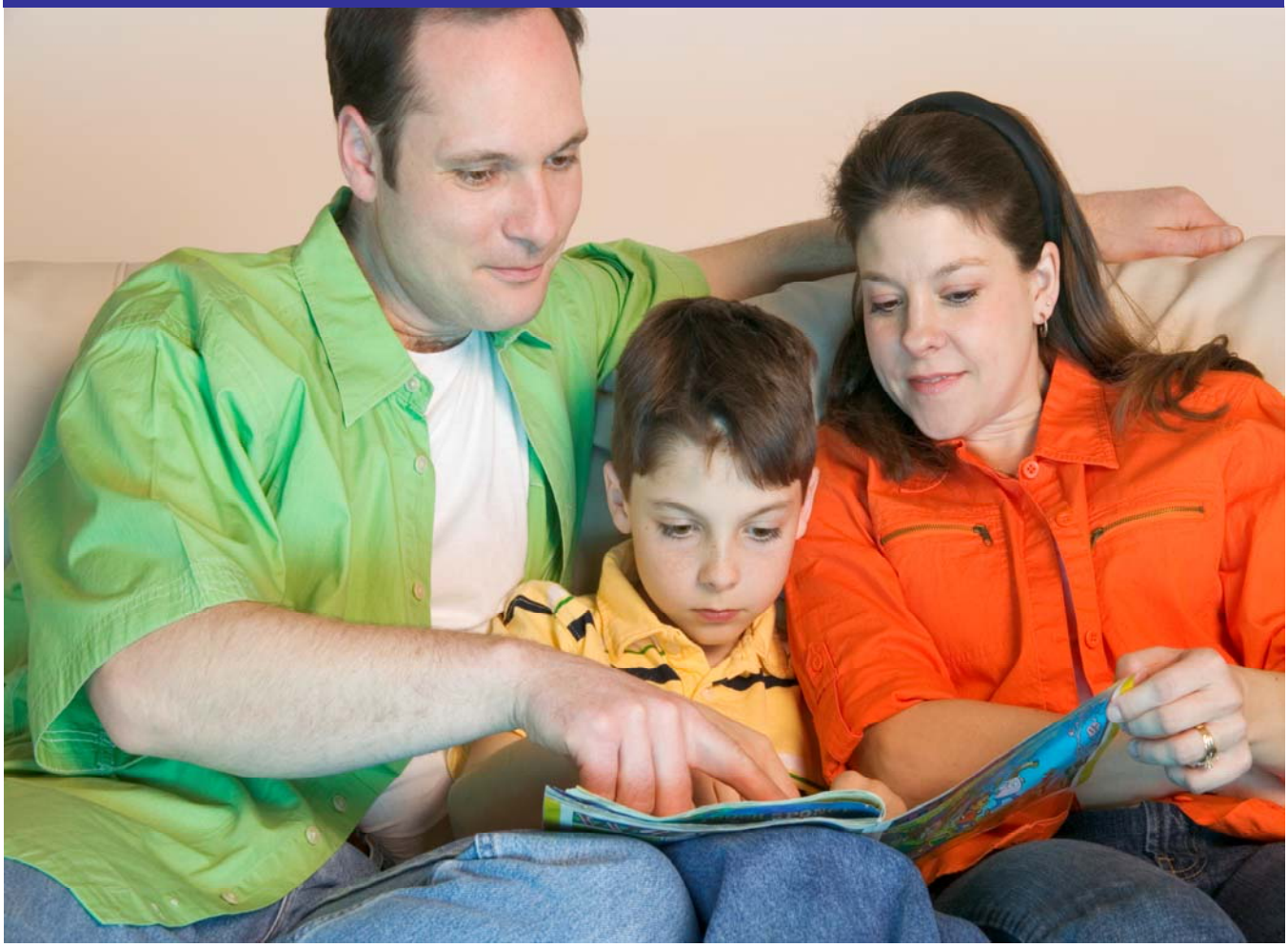
How You Can

Be Prepared for a Flu Pandemic

March 2007 (Updated Sept. 2009)

North Dakota
Planning and Preparedness Packet



NORTH DAKOTA
DEPARTMENT *of* HEALTH

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John Hoeven
Governor

On June 11, 2009, the World Health Organization declared that a global pandemic was underway caused by the novel H1N1 flu virus. The appearance of this new strain of influenza reminds us all that pandemics can occur at any time. The fact is, nobody knows for sure how severe a pandemic may be, but we do know that being prepared is vital. Pandemic influenza may be a global challenge, but it will have local consequences for every sector of our society.

Local, state, tribal and federal officials are all working on plans to prepare for and respond to an influenza pandemic. All of us share a common goal: to save lives. But the government cannot do it alone. Businesses, communities, schools and health-care organizations need to prepare and exercise their own plans so that we as a state can meet the challenge.

John Hoeven
Governor

NORTH DAKOTA
DEPARTMENT *of* HEALTH

Terry Dwelle, M.D.
State Health Officer

The appearance of novel H1N1 influenza (swine flu) in 2009 reminded us all of the need to be prepared for a worldwide influenza epidemic, called a pandemic.

Influenza pandemics can circle the globe rapidly and cause millions to become ill, seriously straining our health-care systems and affecting the ability of government and the private sector to provide essential services. In a severe pandemic, businesses will lose a big portion of their workforce as one in four employees will become ill and other workers will have to stay home to care for sick family members, or to stay home with their children if schools are closed.

The North Dakota Department of Health and local public health units across the state are developing and exercising plans to deal with pandemic situations. I encourage every North Dakotan to do the same. The tools in this kit should help you understand more about pandemic influenza and what you need to do to prepare. I strongly urge you to use them, because preparing for a pandemic is not something the federal government, or the state government, or your local elected leaders can do alone. Everyone needs to be aware and prepare!

Terry Dwelle, M.D.
State Health Officer

Seasonal Flu, Bird Flu, H1N1 Flu and Pandemic Flu
They are not the same!

It is important to understand that seasonal flu, bird flu, H1N1 (swine) flu and pandemic flu are not the same.

Seasonal Flu – Refers to influenza that occurs every year. It is a respiratory illness that can be spread from person to person. Most people have some immunity and a vaccine is available. The single best way to protect yourself and others against seasonal influenza is to get a flu shot each year.

Flu symptoms:

- Are more severe than those of colds.
- Come on abruptly.
- Include high fever, cough, and body and muscle aches.

Avian Influenza (Bird Flu) – Bird flu is an infection caused by avian (bird) flu viruses. There are many different flu viruses that occur naturally among birds. Wild birds worldwide carry the viruses in their intestines but may not get sick from them. However, bird flu is spread easily among birds and can make some domesticated birds – including chickens, ducks and turkeys – very sick and may even kill them.

H1N1 Influenza (Swine Flu) – H1N1 (swine flu) is a type of influenza virus that causes respiratory disease that can spread among people. Most people infected with this virus in the United States have had mild disease, but some have had more severe illness. The symptoms of swine flu are similar to the symptoms of regular flu: fever, cough, sore throat, body aches, headache, chills and fatigue. Some people also have diarrhea and vomiting. H1N1 was declared a pandemic strain in June 2009.

Pandemic Flu – In order for influenza "outbreaks" or epidemics to reach a pandemic status, the outbreak must be occurring worldwide, not just in a single country or continent.

A pandemic can start when three conditions have been met:

- A new influenza virus emerges for which there is little or no immunity in the human population.
- It infects people and begins to cause serious illness.
- It spreads easily from person to person.

Neither the timing nor the severity of the next pandemic can be predicted.

History and Background

Pandemic Flu History

A pandemic is a global disease outbreak. An influenza pandemic occurs when:

1) A new influenza virus emerges for which there is little or no immunity in the human population.
2) It infects people and begins to cause serious illness.
3) It spreads easily from person to person.

Pandemics Death Toll Since 1900 (Numbers are estimates)	
1918-1919	
North Dakota	5,100+
U.S.	500,000+
Worldwide	40,000,000+
1957-1958	
U.S.	70,000+
Worldwide	1,000,000 to 2,000,000
1968-1969	
U.S.	34,000+
Worldwide	700,000+

Historically, the 20th century saw three pandemics of influenza:

- 1918 influenza pandemic caused at least 5,100 deaths in North Dakota; 500,000 deaths in the United States; and up to 40 million deaths worldwide.
- 1957 influenza pandemic caused at least 70,000 U.S. deaths and 1 million to 2 million deaths worldwide.
- 1968 influenza pandemic caused about 34,000 U.S. deaths and 700,000 deaths worldwide.

The novel H1N1 virus which emerged in 2009 was declared a pandemic strain. If history continues to repeat itself, the United States will eventually experience another influenza pandemic. A pandemic may come and go in waves, each of which can last for six to eight weeks.

Emergency hospital during 1918 influenza epidemic, Camp Funston, Kansas.

Courtesy of the National Museum of Health and Medicine, Armed Forces Institute of Pathology, Washington, D.C. #NCP 1603

Characteristics and Challenges of a Large-Scale Pandemic

(1) Rapid worldwide spread of the virus

- When a pandemic influenza virus emerges, its global spread is considered inevitable.
- Preparedness activities should assume that the entire world population would be susceptible.
- Countries might, through measures such as border closures and travel restrictions, delay arrival of the virus, but cannot stop it.

(2) Public and private health-care systems challenged

- Most people have little or no immunity to a pandemic virus. Infection and illness rates soar. A substantial percentage of the world's population will require some form of medical care.
- Nations will be unlikely to have the staff, facilities, equipment and hospital beds needed to cope with large numbers of people who suddenly fall ill.
- Inadequate supplies of vaccine or antiviral drugs, the two most important medical interventions for reducing illness and deaths, are of particular concern.
- Death rates may be high, largely determined by four factors: the number of people who become infected, the virulence of the virus, the underlying characteristics and vulnerability of affected populations and the effectiveness of preventive measures.
- Past pandemics have spread globally in two and sometimes three waves.

(3) Medical supplies inadequate

- The need for vaccine is likely to outstrip supply.
- The supply of antiviral drugs is also likely to be inadequate early in a pandemic.
- A pandemic can create a shortage of hospital beds, ventilators and other supplies. Surge capacity at non-traditional sites such as schools may be created to cope with demand.
- Difficult decisions will need to be made regarding who receives antiviral drugs, vaccines and advanced medical care.

U.S. Army Camp Hospital No. 45, Aix-Les-Bains, France, Influenza Ward No. 1.

Courtesy of the National Museum of Health and Medicine, Armed Forces Institute of Pathology, Washington, D.C. #Reeve 14682

(4) Economic and social disruption

- Travel bans, closings of schools and businesses, and cancellations of events could have major impact on communities and citizens.
- Care for sick family members and fear of exposure can result in significant worker absenteeism.

Pandemics are a cause for concern. For instance:

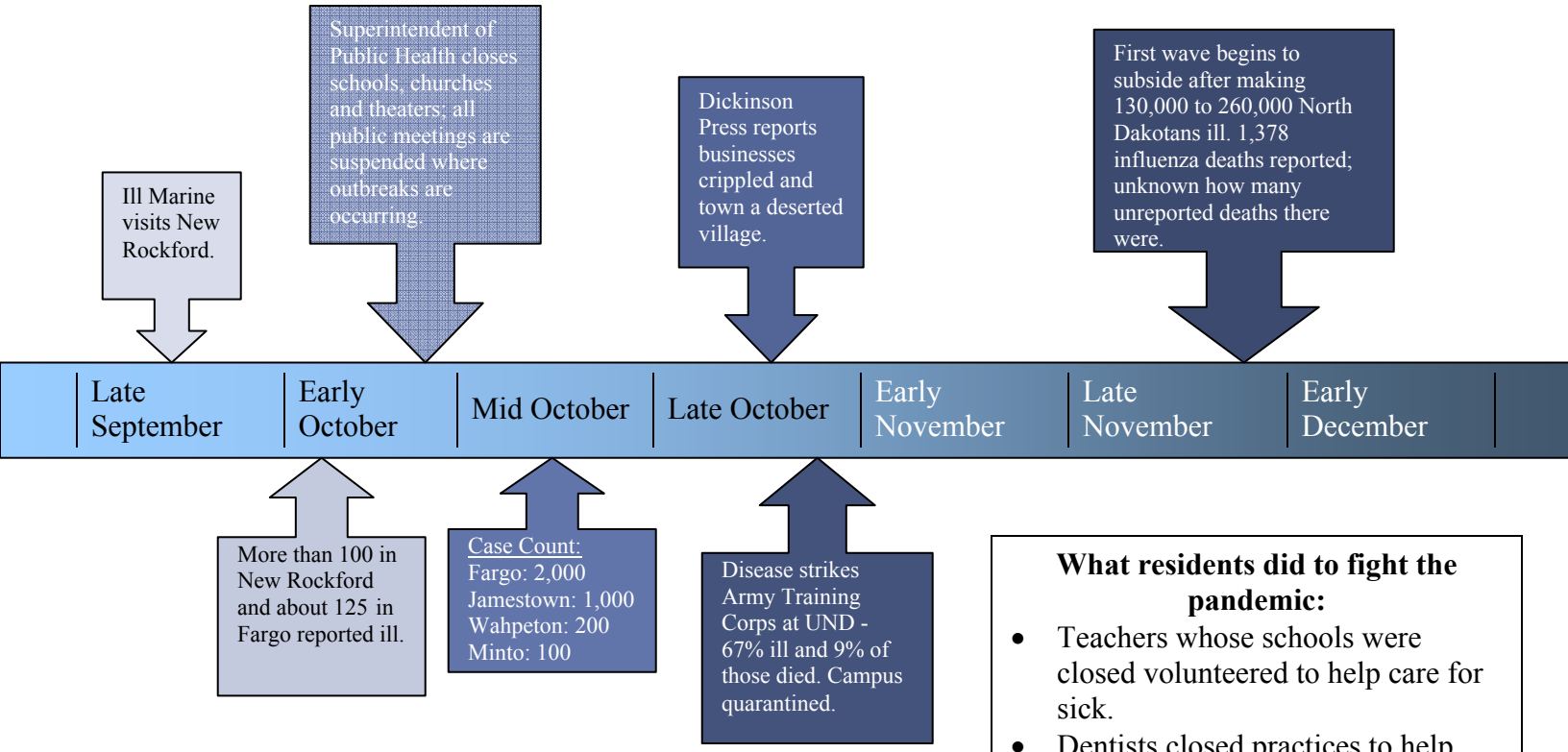
- Have you thought about what would happen if businesses lose up to half of their workforce?
- Does your workplace have policies that support sick employees who stay home? (You wouldn't want someone with pandemic flu spreading their germs to co-workers!) Can you or your employees work from home?
- Have you made provisions for alternate child care if schools and day cares close?
- Do you have adequate supplies in your home if you need to isolate yourself and your family? *(A list of recommended supplies can be found on page 14)*

There are many things you can do, and it's important to start **RIGHT NOW.** Review the contents of this Pandemic Flu Planning Kit to see how you can prepare and safeguard your home, your family, your workplace and yourself.

North Dakota Pandemic History

Timeline of 1918 Spanish Flu in North Dakota

(The following information was taken from remarks make by State Health Officer Terry Dwelle during a statewide summit on March 9, 2006. Credit for much of the historical information goes to Dr. Stephen McDonough, author of The Golden Ounce, a book chronicling the history of public health in North Dakota.)



What residents did to fight the pandemic:

- Teachers whose schools were closed volunteered to help care for sick.
- Dentists closed practices to help physicians provide medical care.
- In Stutsman County alone, more than 150 women volunteered to be nurses.
- Children with ill parents were cared for by neighbors.
- Farmers donated milk and food to families in need.

Probably the most important lesson learned from the 1918 pandemic is the need to be prepared. An editorial in the UND Quarterly Journal following the pandemic illustrated this point by saying:

"We errored [sic] thru ignorance, not knowing in advance how the epidemic might operate, and not realizing the seriousness of the situation. It came upon in a rush and caught us unprepared."

What YOU Should Do Now and During a Pandemic

1. Be informed
2. Practice healthy hygiene
3. Plan ahead
4. Build a kit

1. Be Informed

In the event of a pandemic, getting up-to-date and accurate information will be a top priority.

- Follow advice from the North Dakota Department of Health (www.ndhealth.gov), your local public health unit or the U.S. Centers for Disease Control and Prevention (www.cdc.gov).

- Always be informed. Listen to local radio and TV stations for information updates and keep a weather alert radio with fresh batteries.

- A severe pandemic may prompt the North Dakota Department of Health and your local public health unit to enforce disease containment methods such as **social distancing, community containment, isolation or quarantine** to slow the spread of illness. Authority to do so is granted to these entities through North Dakota Century Code Chapter 23-07.6.

Social Distancing – Closing buildings, cancelling events or restricting access to certain buildings. It is important to follow the advice of health officials and STAY HOME if an event is cancelled.

Community Containment – Closure of office buildings, stores, schools and public transportation systems.

Isolation – Separating sick people from well people.

Quarantine – Separating people who have been exposed to sick people or people "presumed" exposed from people who are not sick.

2. Practice Healthy Hygiene

Don't wait until a pandemic to develop healthy habits! Encourage friends and family members to do the same.

Follow these simple steps:

- Stay home from work, school and errands when you are sick, and don't send your children to day care or school if they are sick.
- Wash your hands frequently for at least 20 seconds with warm water and soap or use a waterless hand sanitizer. (Twenty seconds is about the time it takes to sing the ABCs or the song listed below twice through.)
- Cover your mouth and nose when coughing or sneezing with tissues or the inside of your elbow.

- Avoid close contact with people who are sick. If caring for individuals who are sick, take appropriate precautions. Don't share utensils, dishes, glasses, etc. Clean and sanitize common-use items, such as handrails, telephones, door knobs, table surfaces, etc.
- Avoid being near others when you are sick. If this is not possible, remain at least three feet from others if you're sick.

The Hand Washing Song

Wet, wet, wet your hands
Use a squirt of soap
Scrub, scrub, scrub, scrub
Rinse and dry them both

*Sing twice through to the tune of **Row Row Row Your Boat** to wash your hands properly.*
(Courtesy of the Red Cross)

3. Plan Ahead

It is estimated that 30 percent of Americans may become ill from the next pandemic. In a pandemic we **may** experience:

- Workplace, school and day care closures.
  1. Talk to your employer about alternative company procedures and when such steps might be taken in a pandemic.
  2. Ask your employer if you can work from home during a flu pandemic.
  3. Check with your employer about leave and closure policies and prepare yourself for reductions or loss of income.
  4. Make alternate arrangements with friends or family members to care for children in the event of school or day care closures.
  5. Plan learning and recreational activities that your children can do at home in place of going to malls or video stores or visiting friends.

- Worship service and community event cancellations.
- Food shortages at supermarkets.
- Outages of electricity and water.
- Services disrupted from banks, government offices, post offices and telephone companies.
- Possible delays in medical treatment at hospitals and clinics.
- Medical facilities may be overwhelmed, resulting in the need for in-home care for family members or loved ones for extended periods of time.

The following guidelines will help you care for someone who is ill:

- **Rest in bed.** Rest helps restore energy and strengthens the immune system, helping fight the illness and speed recovery.

- **Drink plenty of fluids.** Preventing dehydration is one of the most important things you can do to treat influenza. To prevent dehydration you can buy electrolyte drinks (sports drinks) at the pharmacy or grocery store or make your own.
- **Control fever.** Stock a generous supply of medications such as acetaminophen or ibuprofen. Keeping a fever low helps a loved one feel better and reduces the risk of dehydration.
- **Keep a record of vital signs.** A record of temperature, blood pressure and pulse, along with general observations regarding breathing difficulties, bathroom trips and fluid intake, can be helpful as you care for a loved one.

4. Build a Kit

Included below is a short list of supplies to consider having on hand in the event you could not leave home for a period of days or weeks. It's important to have these items not only for a pandemic, but for any kind of emergency such as a tornado or blizzard.

Water – Enough for one gallon per person per day stored in plastic containers. To ensure safety, empty and refill water containers every six months.

Food – Ready-to-eat canned meat, fruits and vegetables; canned juices; high-energy food; vitamins; comfort foods; and infant formula (if needed).

Hygiene and Sanitation – Moist towelettes, toothpaste and toothbrush, toilet paper and paper towels, feminine hygiene supplies, garbage bags, heavy duty ties.

Medication – Aspirin or non-aspirin pain reliever, anti-diarrhea medicine, antacid, laxative. *Consider having at least a month's worth of all prescription medication on hand in the event you are unable to obtain refills for an extended period of time.* **Check with your pharmacy to determine whether your prescriptions may be mailed or delivered.**

Additional Items – Cash and coins, contact lenses, copies of credit cards, bank numbers, food supplies for pets, infant supplies, recreational materials. **For more information, visit the American Red Cross website at www.redcross.org.**

North Dakota's Pandemic Influenza Response Plan

NORTH DAKOTA
DEPARTMENT *of* HEALTH

Introduction

Since September 11, 2001, North Dakota public health and medical communities have been preparing for large-scale emergencies and disasters from both intentional hazards and unintentional hazards, such as communicable disease outbreaks. This all-hazards approach has resulted in high levels of preparedness for a wide range of threats, including pandemic influenza.

Planning and Preparation

The North Dakota Department of Health (NDDoH) has coordinated the development of state, regional and local public health and medical preparedness plans that would be used in response to an influenza pandemic: (1) **an all-hazards state public health emergency operations plan; (**2) **a strategic national stockpile plan;** and (3) **a hospital and emergency medical services surge-capacity plan.**

Special attention has been paid to pandemic influenza preparedness by including pandemic influenza as one of the specific diseases detailed in the all-hazards plan.

The following topics are included in the all-hazards public health emergency plan and are relevant to a pandemic influenza outbreak.

I. <u>Disease Surveillance, Detection and Investigation</u>

The NDDoH Division of Disease Control conducts influenza surveillance and detection activities such as monitoring school absenteeism rates to identify outbreaks of influenza so that early public health interventions may be started.

During an influenza pandemic, surveillance measures will be enhanced. When necessary, the Division of Disease Control also may implement additional measures to identify and control the spread of influenza, including enhanced laboratory testing, traditional disease control measures such as school and business closing, and review of deaths caused by influenza, pneumonia or other respiratory infections.

II. <u>Other NDDoH Response</u>

If the NDDoH detects or is notified by federal health officials that an influenza pandemic is occurring, the NDDoH would activate its emergency operations center and notify the state emergency operations center.

Communications
Public health and medical communications are carried out through the Health Alert Network (HAN), a dedicated, secure, video conferencing system. The video conferencing system does not rely on normal public communication systems such as telephones and the Internet. Local public health units, hospitals, the NDDoH, the North Dakota Healthcare Association and the University of North Dakota School of Medicine and Health Sciences are connected to the HAN system.

The HAN also can send messages through email, faxes, telephone and video streaming on the Internet.

Regional and Local Planning
Eight local public health regions for emergency preparedness and response have been established. Each region has an emergency preparedness and response coordinator and an all-hazards public health emergency operations plan that identifies the operational detail and locations of emergency vaccination and oral medication clinics and the management of large numbers of deceased. Local health officers also have the authority to issue isolation and quarantine orders, and their plans include provisions for the care of isolated and quarantined patients.

Distribution of Pharmaceuticals (Medications)
The North Dakota public health system has developed a plan for the large-scale distribution of oral medications and vaccines in a short period of time. If sufficient quantities of oral medications and vaccine become available, the emergency points of dispensing (PODs) would be activated through local public health emergency clinics.

Vendor-Managed Inventories of Pharmaceuticals and Medical Supplies
The NDDoH has contracted with a supplier to stockpile certain medications and medical supplies for emergency use.

Pre-placement of Certain Medical Equipment
The NDDoH has purchased and placed hospital equipment that would be useful during an influenza pandemic, such as ventilators and air filtration machines.

Isolation and Quarantine
Local public health officers and the state health officer have the authority to isolate and quarantine people. If needed, isolation and quarantine will be implemented in an effort to control the transmission of influenza in a community and will be conducted in the least restrictive manner.

Public Information Communication Plan
The NDDoH Office of Public Information has coordinated development of statewide, regional and local communication plans to ensure that North Dakota residents receive timely, accurate information during public health emergencies, including an influenza pandemic. A public health emergency hotline also has been developed. In addition, each of the eight regions has a public information officer who coordinates communication efforts with the NDDoH.

Laboratory
Laboratory capacity has been increased. During a pandemic, plans will be used to ensure that lab tests, staff and supplies are being used in the most vital areas first. A backup lab also has been identified in case it is needed during a large public health emergency.

Hospital Surge Capacity
The NDDoH has worked with the North Dakota Healthcare Association and the hospital community to create regional plans for hospital surge capacity (an influx of large numbers of patients).

Public Health and Medical Volunteers
During an influenza pandemic, it will be necessary to rely on public health and medical volunteers for some health-care delivery.

- Local public health units have recruited public health and medical volunteers through the Public Health Emergency Volunteer Reserve and Medical Reserve Corp (PHEVR/MRC) program. They have successfully recruited more than 2,000 volunteers.
- The NDDoH has contracted with various health and medical licensure boards to provide contact information for health-care professionals in the state.
- The NDDoH has resources available to recruit health and medical personnel when they are needed during an influenza pandemic.

EMS Surge Capacity
The NDDoH contracted with the North Dakota Emergency Medical Services Association to develop EMS plans including personnel training, mutual aid agreements, identification of alternative transportation methods, creation of regional equipment supplies, and development of regional response teams.

A more complete summary of the Public Health and Medical Pandemic Influenza Plan is available on the Department of Health website at www.ndhealth.gov/epr. For more information, contact the North Dakota Department of Health's Emergency Preparedness and Response Section at 701.328.2270.

We Need Your Help!!

What is PHEVR/MRC?

The Public Health Emergency Volunteer Reserve/Medical Reserve Corps (PHEVR/MRC) is composed of North Dakotans who volunteer to help provide medical and non-medical assistance during a public health emergency.

PHEVR/MRC volunteers:

- Will receive training as needed.
- May participate in disaster drills that test readiness for public health emergencies.
- Will assist with public health response during an emergency.

Why volunteer?

In an emergency, public health agencies may need volunteers to help deliver important, life-saving emergency services.

As a PHEVR/MRC volunteer, you will be helping your friends, neighbors, family members, community and state through a difficult time. PHEVR/MRC volunteers also may be asked to help during a national emergency.

What can I do?

- Distribute information.
- Help people complete paperwork.
- Provide child care.
- Direct traffic.
- Staff an informational hotline.
- Load and unload supplies.
- Prepare meals.
- Provide security.
- Distribute medications.
- Provide medical care, nursing care and other medical services.
- Provide emotional support or counseling.

As North Dakotans, we have a rich tradition of caring for our friends and neighbors during emergencies. Please join the Public Health Emergency Volunteer Reserve. Your work will assist us in safeguarding the health of every North Dakotan.

Dr. Terry Dwelle
State Health Officer

Who can volunteer?

To join the Public Health Emergency Volunteer Reserve, you must be at least 18 years old and live, work or attend school in North Dakota.

How do I volunteer?

Visit www.ndhealth.gov/han or contact a planner in your region *(contact information is listed on page 33).*

How Does Seasonal Flu Differ From Pandemic Flu?

SEASONAL FLU	PANDEMIC FLU
Occurs annually, usually in winter.	Occurs occasionally (last pandemic in 1968).
Usually some immunity from previous exposure.	No previous exposure; little or no immunity.
Healthy younger adults usually not at risk for serious complications (the very young, the elderly and those with certain underlying health conditions at increased risk for serious complications).	Everyone may be at increased risk.
Health systems usually can meet public and patient needs.	Public and patient needs may exceed the capacity of health systems to provide care.
Vaccine developed based on known virus strains and available for annual flu season.	Vaccine probably would not be available in the early stages of a pandemic.
Adequate supplies of antivirals are usually available.	Effective antivirals may be in limited supply.
Average U.S. deaths approximately 36,000/yr.	Number of deaths could be quite high (e.g., U.S. 1918 death toll about 500,000).
Symptoms: fever, cough, runny nose, muscle pain. Deaths often caused by complications, such as pneumonia.	Symptoms may be more severe and complications more frequent.
Generally causes modest impact on society (e.g., some school closing, encouragement of people who are sick to stay home).	May cause major impact on society (e.g., widespread restrictions on travel, closings of schools and businesses, cancellation of large public gatherings).
Manageable impact on domestic and world economy.	Potential for severe impact on domestic and world economy.

Pandemic Influenza

A pandemic is a global disease outbreak. An influenza pandemic occurs when a new influenza virus emerges for which there is little or no immunity in the human population, begins to cause serious illness and then spreads easily person to person worldwide.

Historically, the 20th century saw three pandemics of influenza:

- 1918 influenza pandemic caused at least 500,000 U.S. deaths and up to 40 million deaths worldwide.
- 1957 influenza pandemic caused at least 70,000 U.S. deaths and 1 to 2 million deaths worldwide.
- 1968 influenza pandemic caused about 34,000 U.S. deaths and 700,000 deaths worldwide.

Characteristics and Challenges of a Pandemic

(1) Rapid worldwide spread

- When a pandemic influenza virus emerges, its global spread is considered inevitable.
- Preparedness activities should assume that the entire world population would be susceptible.
- Countries might, through measures such as border closures and travel restrictions, delay arrival of the virus, but cannot stop it.

(2) Public and private health-care systems challenged

- Most people have little or no immunity to a pandemic virus. Infection and illness rates soar. A substantial percentage of the world's population will require some form of medical care.
- Nations are unlikely to have the staff, facilities, equipment and hospital beds needed to cope with large numbers of people who suddenly fall ill.
- Inadequate supplies of vaccine or antiviral drugs, the two most important medical interventions for reducing illness and deaths, are of particular concern.
- Death rates are high, largely determined by four factors: the number of people who become infected, the virulence of the virus, the underlying characteristics and vulnerability of affected populations and the effectiveness of preventive measures.
- Past pandemics have spread globally in two and sometimes three waves.

(3) Medical supplies inadequate

- The need for vaccine is likely to outstrip supply.
- The amount of antiviral drugs is also likely to be inadequate early in a pandemic.

- A pandemic can create a shortage of hospital beds, ventilators and other supplies. Surge capacity at nontraditional sites such as schools may be created to cope with demand.
- Difficult decisions will need to be made regarding who receives antiviral drugs and vaccines.

(4) Economic and social disruption

- Travel bans, closings of schools and businesses and cancellations of events could have major impact on communities and citizens.
- Care for sick family members and fear of exposure can result in significant worker absenteeism.

Good Respiratory Etiquette Important

Respiratory etiquette is essential to help stop the spread of any respiratory illness, including pandemic influenza.

- Wash hands often with soap and water, or use a hand sanitizer.
- Cover coughs and sneezes with tissues or inside of your elbow.
- Stay home if you are sick.

Avian Influenza (Bird Flu)

What You Need To Know

Note: This information current as of March 2007

What is avian influenza (bird flu)?
Bird flu is an infection caused by avian (bird) flu viruses. There are many different flu viruses that occur naturally among birds. Wild birds worldwide carry the viruses in their intestines but may not get sick from them. However, bird flu is easily spread among birds and can make some domesticated birds – including chickens, ducks and turkeys – very sick and may even kill them.

Can people get the bird flu?
Bird flu viruses do not usually infect humans, but cases of human infection with bird flu viruses have occurred since 1997. The risk to humans for becoming ill with bird flu is generally low. However, during an outbreak of bird flu among poultry (domesticated chickens, ducks, turkeys), there may be a risk to people who have close contact with infected birds or surfaces that have been contaminated with excretions from infected birds.

What is the H5N1 virus we keep hearing about?
H5N1 is the type of bird flu occurring in countries in the world right now.

What are the symptoms of bird flu in humans?
Symptoms of bird flu in humans have ranged from typical flu-like symptoms (fever, cough, sore throat and muscle aches) to eye infections, severe respiratory diseases (such as acute respiratory distress), and other severe and life-threatening complications. The symptoms of bird flu may depend on which virus caused the infection.

How is bird flu in humans treated?
Studies suggest that the prescription medicines (antivirals) approved for human flu viruses work in preventing bird flu in humans. However, flu viruses can become resistant to these drugs, so these medications may not always work.

Is there a vaccine to protect me from the bird flu?
There currently is no vaccine to protect humans against bird flu viruses. However, vaccine development efforts are underway. Researchers are working on two vaccines to protect humans against H5N1 and H9N2 bird flu viruses.

We keep hearing that the bird flu could start a pandemic. What is pandemic flu?
In order for influenza "outbreaks" or epidemics to reach a pandemic status, influenza must be occurring worldwide, not just in a single country or continent. A pandemic can start when three conditions have been met:

- A new influenza virus emerges for which there is little or no immunity in the human population.
- It infects people and begins to cause serious illness.
- It spreads easily from person to person.

The H5N1 virus meets the first two conditions, but so far it has not been spread easily from person to person. If the third condition occurs, the virus could spread worldwide, causing an influenza pandemic.

The risk of pandemic influenza is serious. With continued cases of H5N1in birds, the risk to humans will persist. Each additional human case gives the virus a chance to change. These changes could mean that the virus can spread from human to human more easily. The recent spread of the virus to poultry and wild birds in new areas further broadens opportunities for human cases to occur.

While neither the timing nor the severity of the next pandemic can be predicted, concern that a pandemic will occur has increased.

What can I do to protect myself and my family from avian flu or any kind of flu?
You can take simple steps to help prevent the spread of any type of influenza and other illnesses. Follow these simple steps:

- Avoid close contact with people who are sick.
- Keep your distance from others if you're sick.
- Stay home from work, school and errands when you are sick, and don't send your children to day care or school if they are sick.
- Cover your mouth and nose when coughing or sneezing.
- Wash your hands often or use waterless hand sanitizers.

Novel H1N1 Flu (Swine Flu)

General Information

Note: This information current as of September 2009

H1N1 (swine flu) is a type of influenza that causes respiratory disease that can spread among people. Most people infected with this virus in the United States have had mild cases, but some have had more severe illness.

The symptoms of swine flu are similar to the symptoms of regular flu: fever, cough, sore throat, body aches, headache, chills and fatigue. Some people also have diarrhea and vomiting.

Currently, there is no vaccine to protect from the swine flu virus. Vaccine is expected in October 2009. Check www.ndflu.com or www.cdc.gov for updated information.

Spread of this new influenza virus is thought to happen in the same way that seasonal flu spreads. Flu viruses are spread mainly from person to person when someone who is infected coughs or sneezes. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

Infected people may be able to infect others from one day before they show any symptoms to seven or more days after they become sick. That means you may be able to pass the flu to someone else before you know you are sick, as well as when you are sick.

To protect yourself, your family members and others around you, follow these flu prevention tips:

- Get vaccinated against influenza when the vaccine becomes available.
- As always, if you are sick you should say home from work or school to avoid spreading the infection to others. Stay home until 24 hours after fever subsides without the use of fever-reducing medication.
- Cover your mouth and nose with a tissue when coughing or sneezing. It may prevent those around you from getting sick.
- Avoid close contact with people who are coughing or otherwise appear ill.
- Avoid touching your eyes, nose and mouth. Germs often are spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose, or mouth.
- Wash your hands frequently.

Contact your doctor if you are experiencing cough, fever and fatigue, possibly along with diarrhea and vomiting.

For more information, visit www.ndflu.com.

Commonly Used "Pandemic Planning" Terms

Pandemic: A worldwide influenza (flu) epidemic.

Antiviral medications: Medicines that can help lessen the symptoms of disease that are caused by viruses, such as influenza.

H5N1: A severe strain of avian influenza (bird flu) that has killed millions of birds, especially poultry, in dozens of countries and has resulted in some human illness and death. Right now (2007), almost everyone who became ill with H5N1 avian influenza has had close contact with infected birds, but experts are worried that the virus could change so that it spreads more easily from person to person, producing a pandemic.

HPAI: Highly pathogenic avian influenza – bird flu that causes severe infection and has a high death rate in birds.

Isolation: Keeping people who are sick with influenza or who have influenza symptoms separate from healthy people.

Quarantine: Keeping people who are not yet ill but have been exposed to influenza virus separate from people who have not been exposed.

Novel influenza: A brand new type of influenza virus to which few or no people are immune.

Personal protective equipment (PPE): Gear such as masks and gloves used by health-care workers to avoid infection when treating patients who have a contagious disease.

Points of dispensing (PODs): Locations at which mass vaccinations or mass distribution of medicine would be carried out **if vaccine and/or antivirals became available.**

Snow days: In the context of an influenza pandemic, days when schools and other public places will be closed to limit person-to-person contact and reduce the spread of germs.

Social distancing: In the context of an influenza pandemic, the strategy of limiting person-to-person contact to reduce the spread of germs — for instance, by staying home or avoiding public places such as stores.

Surge capacity: The ability to handle a much greater than usual amount of work in a very short period of time — for example, if a large number of patients go to a hospital or many laboratory specimens are submitted for testing, all at the same time.

Worried well: Individuals who may be experiencing non-specific symptoms (e.g., headache, muscle aches, etc.) because they are anxious or stressed.

This checklist and many more can be found at www.pandemicflu.gov.

Pandemic Flu Planning Checklist for Individuals & Families

You can prepare for an influenza pandemic now. You should know both the magnitude of what can happen during a pandemic outbreak and what actions you can take to help lessen the impact of an influenza pandemic on you and your family. This checklist will help you gather the information and resources you may need in case of a flu pandemic.

1. To plan for a pandemic:

- ❑ Store a two week supply of water and food. During a pandemic, if you cannot get to a store, or if stores are out of supplies, it will be important for you to have extra supplies on hand. This can be useful in other types of emergencies, such as power outages and disasters.
- ❑ Periodically check your regular prescription drugs to ensure a continuous supply in your home.
- ❑ Have nonprescription drugs and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, and vitamins.
- ❑ Talk with family members and loved ones about how they would be cared for if they got sick, or what will be needed to care for them in your home.
- ❑ Volunteer with local groups to prepare and assist with emergency response.
- ❑ Get involved in your community as it works to prepare for an influenza pandemic.

2. To limit the spread of germs and prevent infection:

- ❑ Teach your children to wash hands frequently with soap and water, and model the current behavior.
- ❑ Teach your children to cover coughs and sneezes with tissues, and be sure to model that behavior.
- ❑ Teach your children to stay away from others as much as possible of they are sick. Stay home from work and school if sick.

www.pandemicflu.gov

3. Items to have on hand for an extended stay at home:

Examples of food and non-perishables	Examples of medical, health, and emergency supplies
❑ Ready-to-eat canned meats, fish, fruits, vegetables, beans, and soups	❑ Prescribed medical supplies such as glucose and blood-pressure monitoring equipment
❑ Protein or fruit bars	❑ Soap and water, or alcohol-based (60-95%) hand wash
❑ Dry cereal or granola	❑ Medicines for fever, such as acetaminophen or ibuprofen
❑ Peanut butter or nuts	❑ Thermometer
❑ Dried Fruit	❑ Anti-diarrheal medication
❑ Crackers	❑ Vitamins
❑ Canned juices	❑ Fluids with electrolytes
❑ Bottled water	❑ Cleansing agent/soap
❑ Canned or jarred baby food and formula	❑ Flashlight
❑ Pet food	❑ Batteries
❑ Other nonperishable foods	❑ Portable radio
	❑ Manual can opener
	❑ Garbage bags
	❑ Tissues, toilet paper, disposable diapers

PandemicFlu.gov AvianFlu.gov

A Guide for Individuals and Families

Family Emergency Health Information Sheet

It is important to think about health issues that could arise if an influenza pandemic occurs, and how they could affect you and your loved ones. For example, if a mass vaccination clinic is set up in your community, you may need to provide as much information as you can about your medical history when you go, especially if you have a serious health condition or allergy.

Create a family emergency health plan using this information. Fill in information for each family member in the space provided. Like much of the planning for a pandemic, this can also help prepare for other emergencies.

1. Family Member Information:

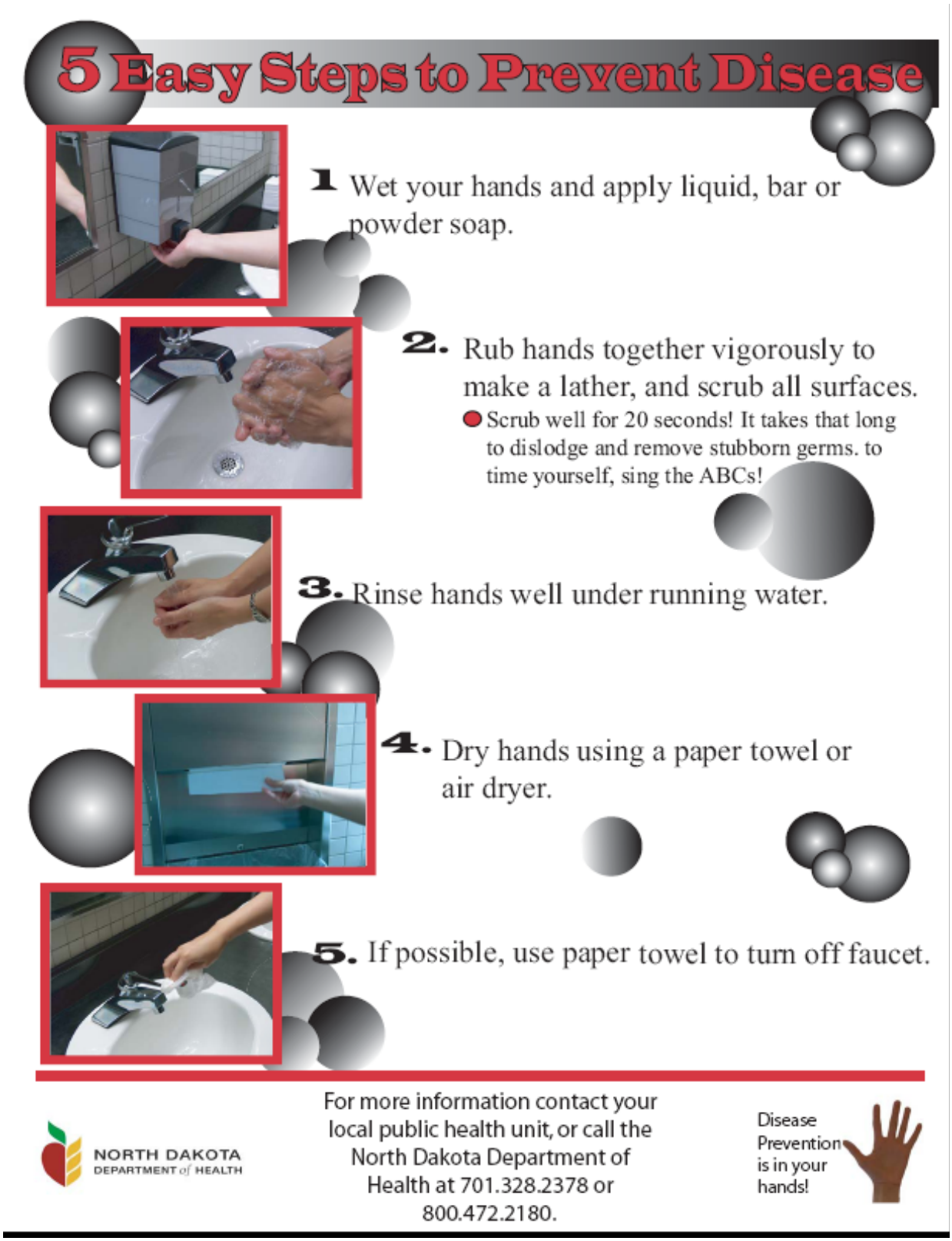
Family Member	Blood Type	Allergies	Past/Current Medical Conditions	Current Medications/ Dosages

www.pandemicflu.gov

2. Emergency Contacts:

Contacts		Name/Phone Number
Local personal emergency contact		
Out-of-town personal emergency contact		
Hospitals near:	Work	
	School	
	Home	
Family physician(s)		
State public health department (See list on www.pandemicflu.gov/state/statecontacts.html)		
Pharmacy		
Employer contact and emergency information		
School contact and emergency information		
Religious/spiritual organization		
Veterinarian		

The following posters and more can be found at www.ndflu.com. Click on "fact sheets and education."



DON'T Spread the FLU!

If you are about to cough or sneeze, cover it up with a tissue or a sleeve.

Put your tissue into the trash.

Don't forget to wash your hands or use a hand sanitizer!

Remember: Stay at home if you are sick.

800.472.2180 NORTH DAKOTA DEPARTMENT of HEALTH **www.ndflu.com**

Adapted with permission from the Vermont Department of Health

Revised 11/04

Make your school a
Germ-Free Zone
SOAP
Don't spread germs.
Cover your cough.
Wash your hands often.
NORTH DAKOTA
DEPARTMENT of HEALTH
Adapted with permission from the California Department of Health Services

The Hand Washing Song

Wet, wet, wet your hands
Use a squirt of soap
Scrub, scrub, scrub, scrub
Rinse and dry them both

Sing twice through to the tune of ***Row Row Row Your Boat***
to wash your hands properly.
(Courtesy of the Red Cross)

Regional Public Health Emergency Planners

Contact emergency preparedness staff in your region to start planning:

Northwest:
Upper Missouri District Health Unit
701.774.6400

Northwest Central:
First District Health Unit
701.852.1376

Northeast Central:
Lake Region District Health Unit
701.662.7035

Northeast:
Grand Forks Public Health Department
701.787.8100

Southwest:
Southwestern District Health Unit
701.483.3792

Southwest Central:
Bismarck-Burleigh Public Health
701.222.6525

Southeast Central:
Central Valley Health District
701.252.8130

Southeast:
Fargo Cass Public Health
701.241.1360

NORTH DAKOTA
DEPARTMENT of HEALTH

North Dakota Department of Health – www.ndhealth.gov
Emergency Preparedness and Response Section – 701.328.2270