

Current and emerging health issues

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Michigan's Public Health System

- Michigan Department of Community Health
- 44 County or District Local Health Departments
- City of Detroit Health Department
- Michigan Association for Local Public Health (MALPH)

Constitution of the State of Michigan

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Michigan Public Health Code

- Establishes responsibility to MDCH and LHDs...

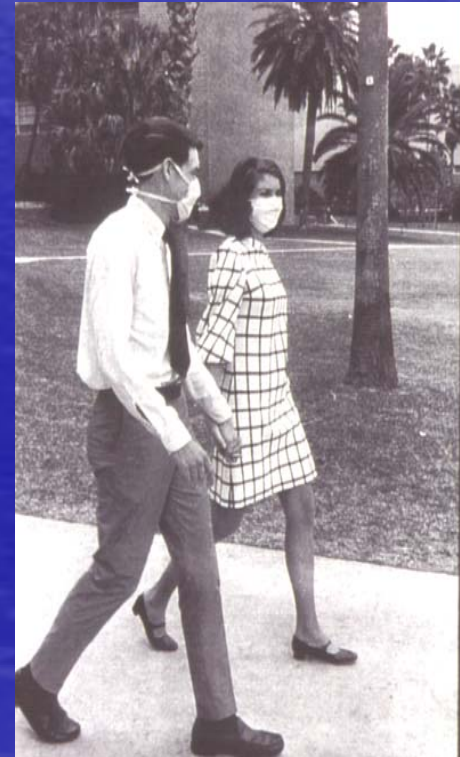
"...continually and diligently endeavor to prevent disease, prolong life, and promote the public health through organized programs, including prevention and control of environmental health hazards, disease, and health problems of particularly vulnerable population groups..."

Emergency Preparedness

- Emerging Infectious Diseases (e.g. pandemic influenza, bioterrorism, newly discovered pathogens)
- Chemical, Radiological, Explosive
- Natural threats (e.g. tornado, floods)
- Other



Pandemic Influenza Overview

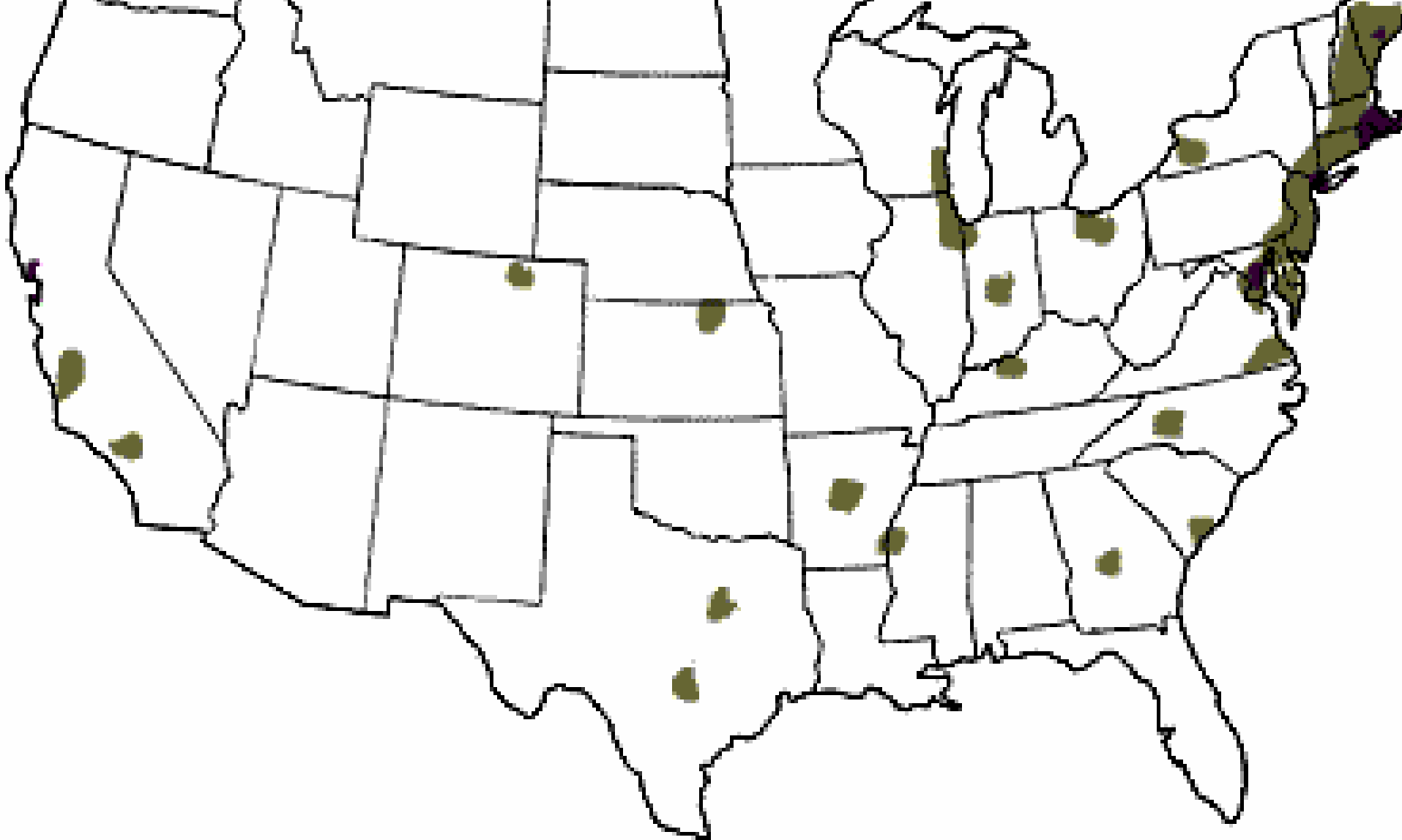


REUTERS/Nikola Solic

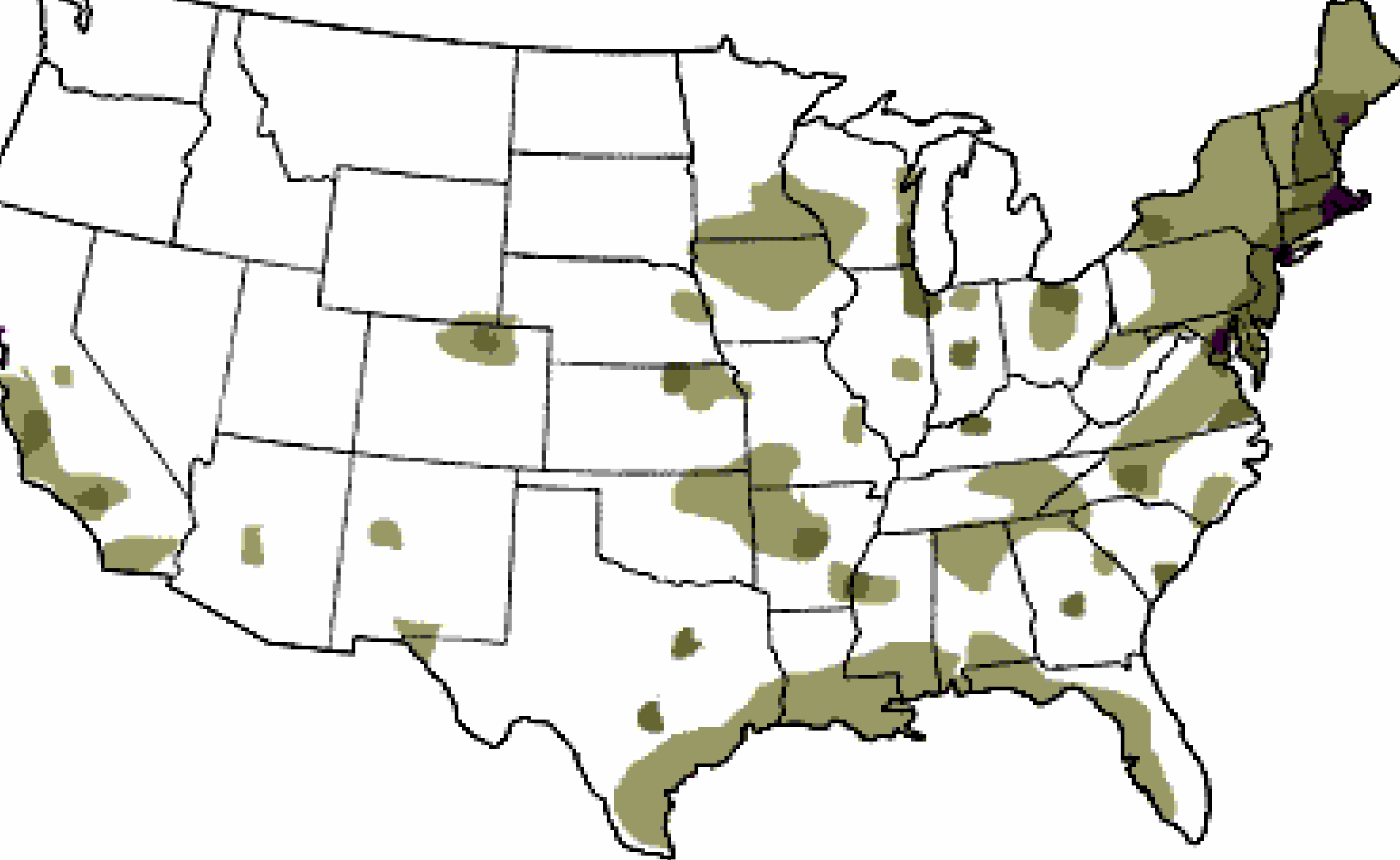
Adapted from a CDC presentation

Influenza Epidemics v. Pandemics

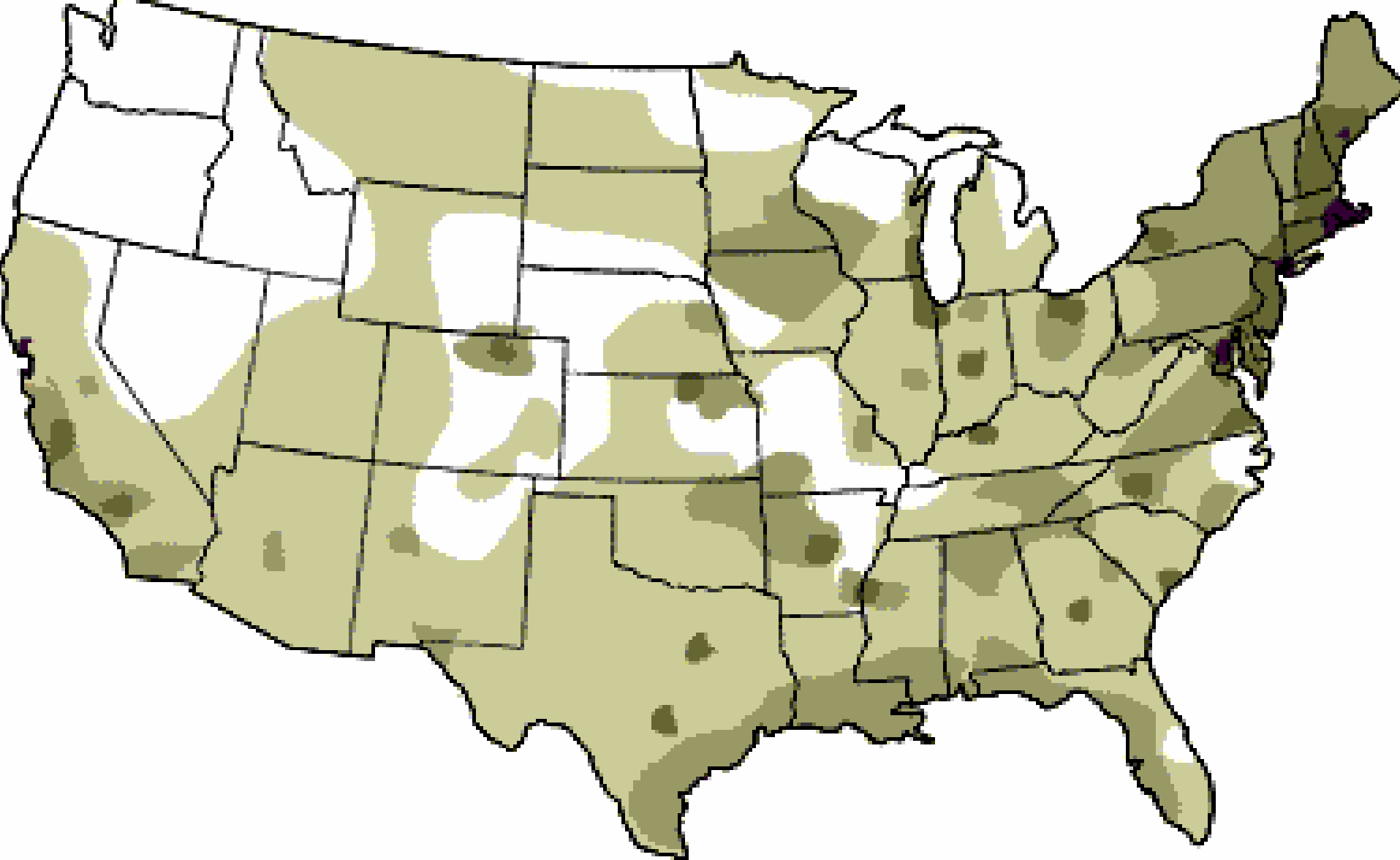
- Seasonal influenza outbreaks or “epidemics”
 - Caused by virus subtypes already circulating in humans
- Influenza pandemics occur when a new virus appears
 - Human population has no immunity
 - Simultaneous epidemics worldwide
 - Significant number of deaths and illness



before sept. 14	between sept. 14 - 21	between sept. 21 - 28	between sept. 28 - oct. 5	after oct. 5
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before sept. 14	between sept. 14 - 21	between sept. 21 - 28	between sept. 28 - oct. 5	after oct. 5
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before
sept. 14

between
sept. 14 - 21

between
sept. 21 - 28

between
sept. 28 - oct. 5

after
oct. 5

The 1918 Pandemic Experience in Michigan

- "...the first reports of this disease reached this department on the first day of October, 1918."
- "The number of reported cases increased daily until on October 23, there were 4,664 new cases reported..."
- (47th Annual Report of the Commissioner of the Michigan Department of Health, for the Fiscal Year Ending June 30, 1919. R.M. Olin, MD, State Health Commissioner)

What is the H5N1 Pandemic Risk?

- Three conditions must be met for a pandemic to start:
 - Emergence of a new influenza subtype
 - The strain infects humans causing serious illness
 - Spreads easily between humans
- Each new H5N1 human case gives the virus a chance to mutate into a highly transmissible form, increasing the risk of a pandemic

Yes

Yes

No

Next Pandemic: Potential National Impact

Attack rate estimated at 30%:

	Mild	Severe:
• Deaths:	200,000	-- 1.9 million
• Hospitalizations:	900,000	-- 10 million
• One-half seek medical care—	50 million	
• 12-18 months in duration		
• Two waves of 6-8 weeks each in affected communities		

Estimated Impact on Michigan

Estimated morbidity and mortality during an influenza pandemic,* Michigan

Clinically Ill	3.4 million
Require Outpatient Care	2 million
Hospitalization	51,000
Deaths	15,000

(*Michigan figures developed with Flu-Aid 2.0 software, CDC)

Potential impact on employers

- 10% of employees sick
- 25% of workforce out for up to 3-4 months
- Other business partners also facing high absentee rates
- Decrement in essential public and private services
- Global economic downturn

Potential Public Health Interventions

- Vaccine—Unavailable for 5-6 months after start of pandemic
- Antivirals—Long queue; Michigan ordered 2.5 million courses, 1.0 M free from Feds
- Fundamental personal and interpersonal hygiene
- Sheltering-in-place (i.e. community “snow days”)

Potential legislative actions

- Understand threat and public and private preparations
- Support public health measures, proactively and reactively
- Appropriate \$s for antivirals--\$16.7M for 1.5 million courses ('07 supplemental)
- Continue to support efforts to develop community-based emergency preparedness efforts

Chronic Diseases

- Account for 70% of all deaths
- 33% of Years of Potential Life Lost before age 65
- 125 million Americans live with chronic diseases
- Chronic diseases account for 75% of health care costs

10 Leading Causes of Death, US, 2003

1. Heart Disease
2. Cancer
3. Stroke
4. COPD
5. Unintentional injuries
6. Diabetes
7. Influenza, Pneumonia
8. Alzheimer's
9. Kidney
10. Septicemia

Michigan's Status in Chronic Diseases

- 1st in Heart Disease
- 2nd in Obesity
- 2nd in Diabetes
- 6th in Smoking

Benchmark states—AZ, CA, CO, FL, GA, IL, IN,
MD, MA, MN, NC, OH, PN, TX, VA, WA, WI

Altarum Institute, March, 2004

Leading Causes of Death, US, 2000

1. Tobacco (435,000; 18%)
2. Poor diet/inactivity (365,000; 15%)
3. Alcohol consumption (85,000; 4%)

--CDC, JAMA, March 10, 2004

Steps to a Healthier US

- Promote health and wellness in communities
- Greater emphasis on prevention in provider offices
- Enact policies that promote healthier environments
- Greater public education about prevention

--US Department of Health and Human Services

Potential legislative actions

- Create a Healthy State (e.g. Tobacco Free)
- Maintain Healthy Michigan Funds
- Invigorate K-12 Health Education (\$3M to \$1M)
- Direct Master Tobacco Settlement Bonus Funds (\$25-28 million annually for 10 years) to chronic disease prevention at state and local levels.
- Examine economic incentives and disincentives

Unintended Pregnancy

"Every child a wanted child"

--Jocelyn Elders, MD

Former US Surgeon General

40-50% of US pregnancies are unplanned or unintended

Medico-social ramifications

- Greater preterm and poorer pregnancy outcomes; higher infant mortality
- Children at greater risk of abuse
- Father is more likely to be absent
- Children are more likely to have encounters with the criminal justice system
- Higher likelihood of abortion (~50%)

Potential legislative actions

- Continue to support comprehensive reproductive health education including, but not limited to, abstinence education
- Support family planning services for women and men of reproductive age
- Embrace the Governor's Plan First initiative—constituent newsletters

Other Public Health Issues

- Alcohol misuse—Over \$100 billion/year
- Approx. 20% of MI adults binge drink
- Significant youth issue (h.s./college)
- Costs average citizen \$500/year (without buying any!)
- Insufficient treatment services to meet the demands

Other Public Health Issues

- Infant Mortality—MI high, significant racial disparity
- Lead poisoning—Too few children tested
- HIV/AIDS—Medications are great, but costly, and many unaware they're infected
- Environmental Health—Land/air/water, and safe eating establishments
- Uninsured—Over 40 million Americans

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Conclusion

- Public health affects all of our lives
- Dynamic and evolving science
- Requires sound policy making and legislative support
- A Healthy State of Public Health will save dollars, improve quality of life and foster economic growth
- We need your engagement and support!

"Prevention is the right cause, the right issue, the right time"

--Tommy G. Thompson

Former Secretary, US Department of Health and Human Services