

# H1N1 Prevention & Response



Department of Public Health  
Commonwealth of Massachusetts



# Why This Matters

## Estimated Impact of Flu Pandemics

### 1918-19 Spanish Flu (H1N1)

20-100 million estimated deaths worldwide

>600,000 U.S. deaths

Case fatality  $\approx$  2%

### 1957-58 Asian Flu (H2N2)

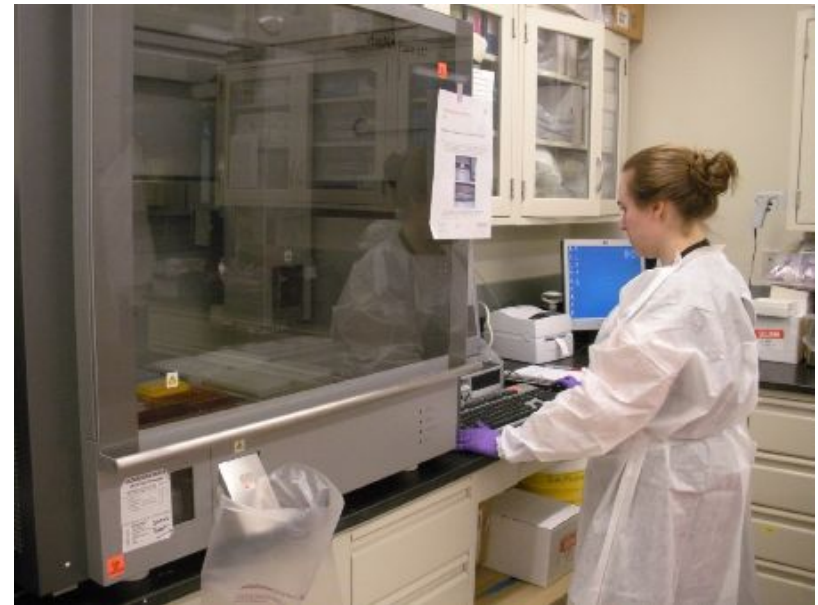
70,000-plus U.S. deaths

### 1968-69 Hong Kong Flu (H3N2)

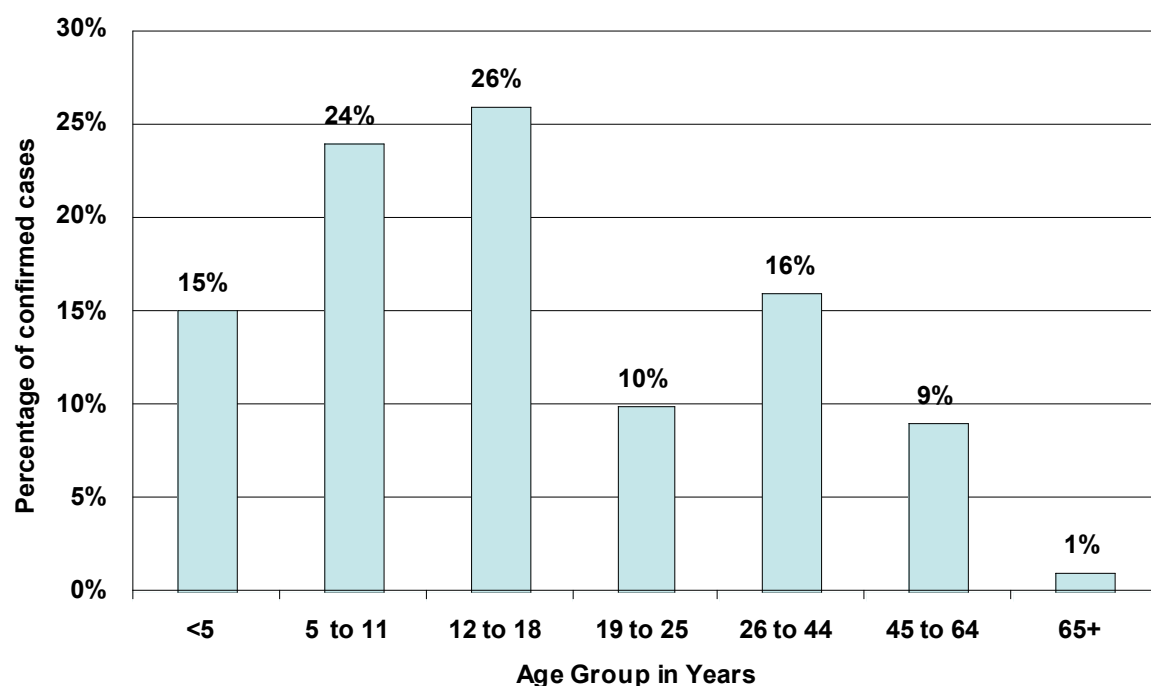
34,000-plus U.S. deaths



# The Initial Outbreak and Response

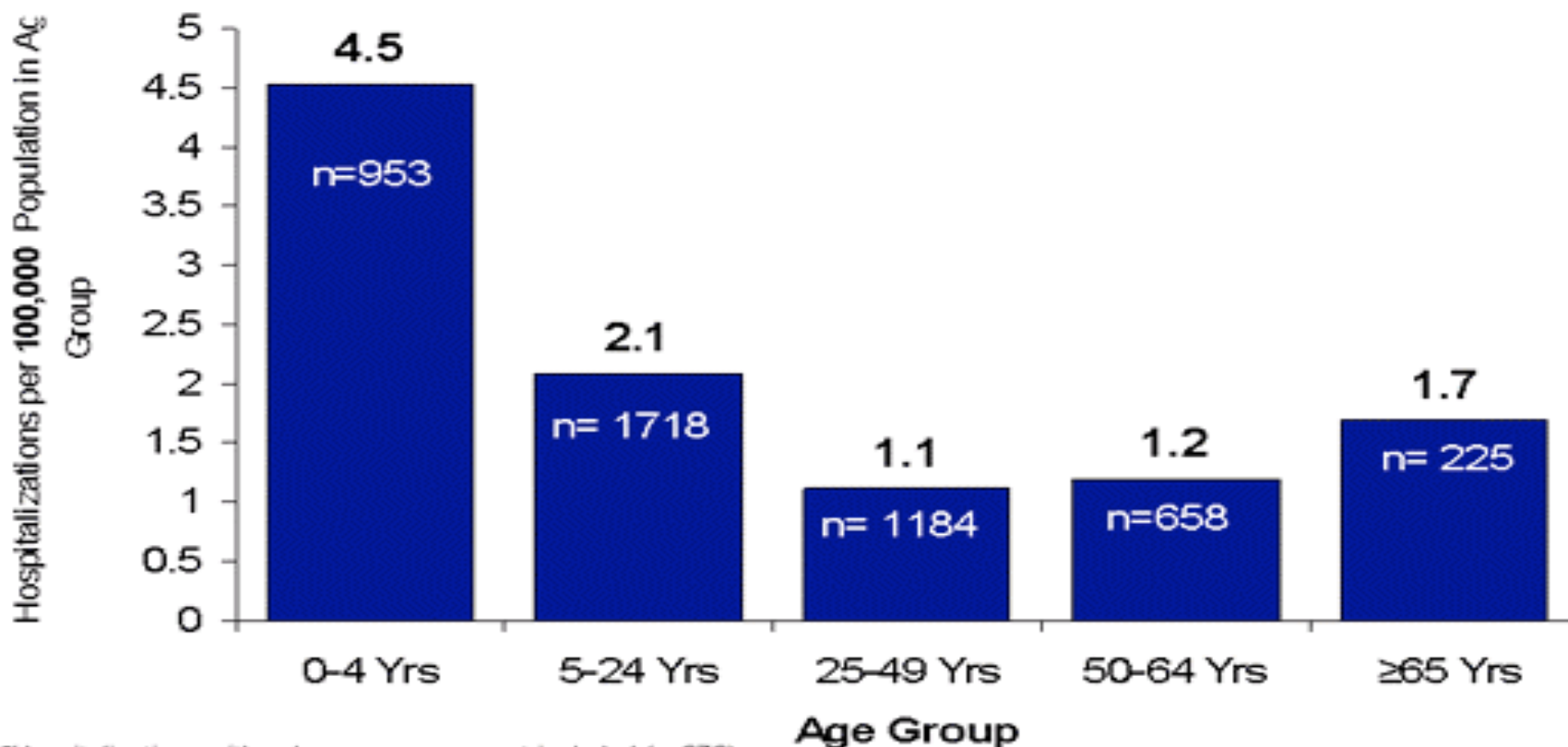


# Confirmed Cases of H1N1 Influenza in MA, as of 6/25/09



- 1335 confirmed cases but 20,000 cases were likely
- Median age 14 yrs
- 64% of confirmed cases  $\leq$  18 years
- 12% hospitalized
- 11 H1N1 attributable deaths

# Novel H1N1 U.S. Hospitalization Rate per 100,000 Population, By Age Group



\*Hospitalizations with unknown ages are not included (n=273)

\*Rate / 100,000 by Single Year Age Groups: Denominator source: 2008 Census Estimates, U.S. Census Bureau at:

<http://www.census.gov/popest/national/asrh/files/NC-EST2007-ALLDATA-R-File24.csv>

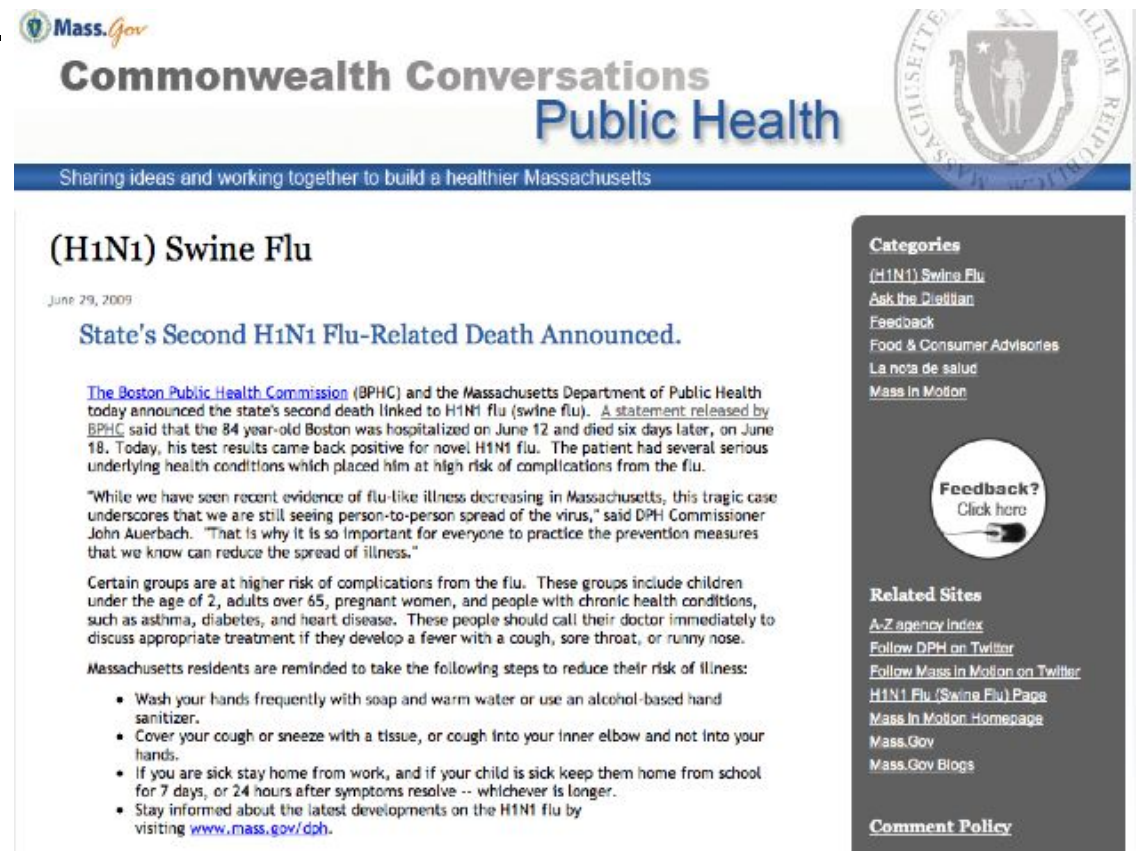
# Materials Developed for Multiple Audiences

- General Public – 15 languages
- Parents and Families
- Specific populations: e.g., pregnant women
- Clinicians and health care providers
- Schools and child care professionals
- Colleges and universities
- Employers
- Shelters and congregate facilities
- Summer camps

The screenshot shows the EOHHS website page for H1N1 Influenza (Swine Flu). The page features a navigation bar with tabs for 'EOHHS Home', 'For Consumers', 'For Providers', 'For Researchers', and 'For Government'. The breadcrumb trail is: Home > Provider > Guidelines and Resources > Guidelines for Services & Planning > Diseases and Conditions > Influenza >. The main heading is 'H1N1 Influenza (Swine Flu)'. Below the heading, there is a 'Friendly URL for this page' and a note about the most updated information on swine flu in MA, with links to the 'H1N1 blog' and 'DPH home page'. The page is divided into sections: 'Message from the Commissioner' with a link to a letter from Commissioner Auerbach (4/27/09); 'Updated Case Count' with a link to the updated weekly case count (as of 6/25/09); and 'General Information' with a link to an updated fact sheet (5/05) and a list of 15 languages: Amharic, Arabic, Chinese, French, Haitian Creole, Khmer, Korean, Portuguese, Somali, Spanish, Swahili, and Russian. On the right side, there is a 'SEARCH' box with a dropdown menu set to 'Health & Human Services' and a 'SEARCH' button. Below the search box is a 'RELATED LINKS' section with links to 'Consumer Info', 'Local Government Info', 'Flu: What You Can Do', 'FluFacts: What You Need to Know', 'Faces of Influenza', and 'More...'. A 'FileMaker' logo is visible in the bottom right corner.

# Blog Stats

- Total Views 4/26 – 6/25:
  - 128,900
- Average per day prior to 4/26/09:
  - 184
- Average per day from 4/26/09:
  - 2148



The screenshot shows a blog post from Mass.gov. At the top, it says "Commonwealth Conversations Public Health" with the Mass.gov logo and the state seal. Below that is the tagline "Sharing ideas and working together to build a healthier Massachusetts". The main title of the post is "(H1N1) Swine Flu" dated "June 29, 2009". The headline is "State's Second H1N1 Flu-Related Death Announced." The text of the post discusses a death linked to H1N1 flu, mentioning the Boston Public Health Commission and the Department of Public Health. It includes a quote from DPH Commissioner John Auerbach and lists groups at higher risk of complications. At the bottom, it provides steps for residents to reduce their risk of illness, such as washing hands, covering coughs, and staying home if sick. On the right side of the page, there is a sidebar with "Categories" (including H1N1 Swine Flu, Ask the Doctor, Feedback, Food & Consumer Advisories, La nota de salud, and Mass in Motion), a "Feedback?" button with a mouse cursor, "Related Sites" (including A-Z agency index, Follow DPH on Twitter, Follow Mass in Motion on Twitter, H1N1 Flu (Swine Flu) Page, Mass in Motion Homepage, Mass.Gov, and Mass.Gov Blogs), and a "Comment Policy" link.

# SNS Distribution: Antivirals and Personal Protective Equipment

<b>Antiviral Medication</b>	<b>Courses</b>
Tamiflu 75mg	34,020
Tamiflu 45mg	1,529
Tamiflu 30mg	4,344
Tamiflu Oral Suspension	1,314
Relenza	10,314
<b>PPE Product</b>	<b>Number</b>
N95, Kimberly Clark, Small	48,217
N95, Kimberly Clark, Medium	152,037
N95, Moldex-Metrics, Large	2,540
Surgical Masks	90,675

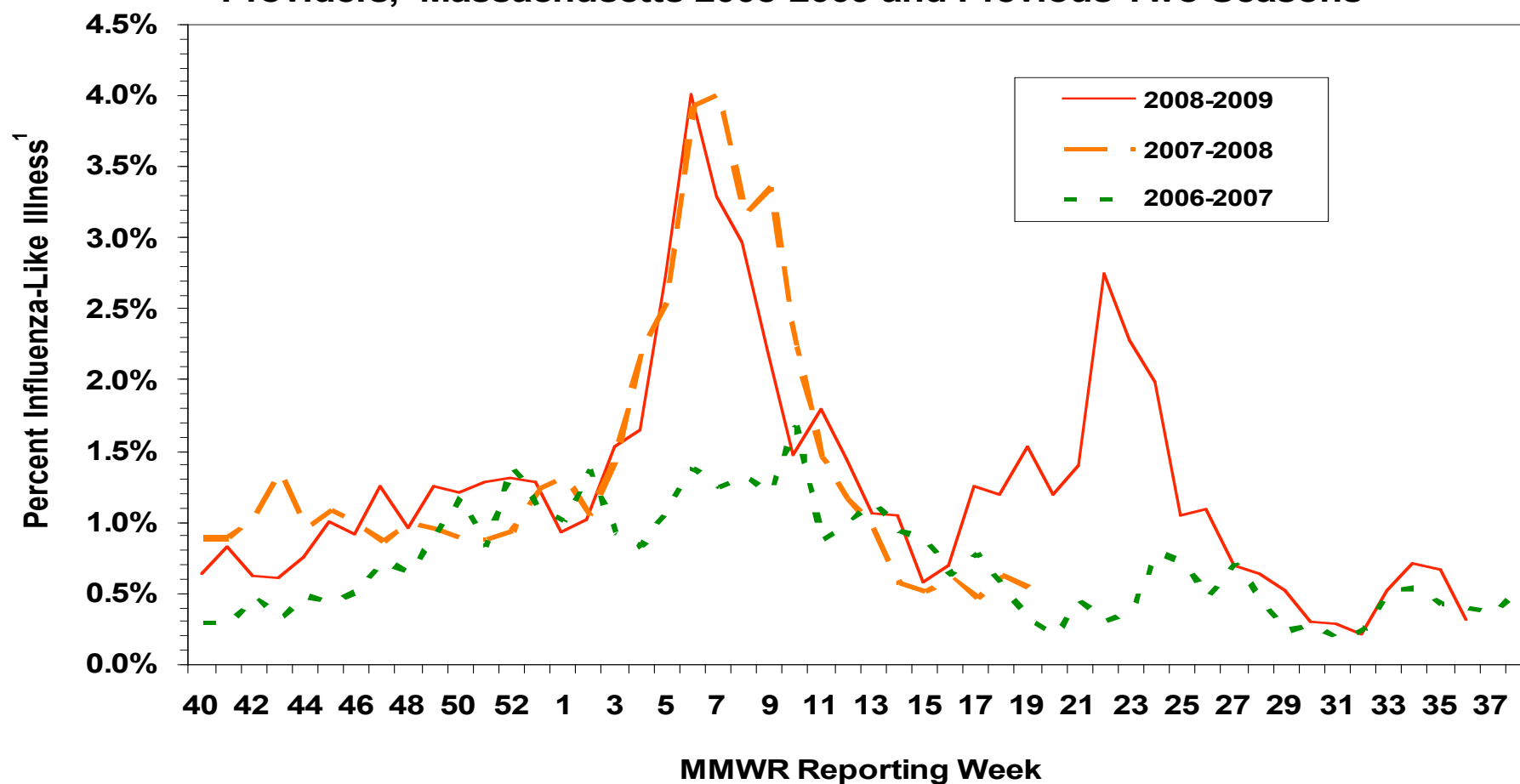
# It Never Went Away



- **50 summer camps** across the U.S. had outbreaks
- **In the Southern Hemisphere:**
  - The virus did not appear to mutate
  - There was substantial disease with strain on the health care system in some areas
  - There was co-circulation with seasonal flu although H1N1 was the dominant strain

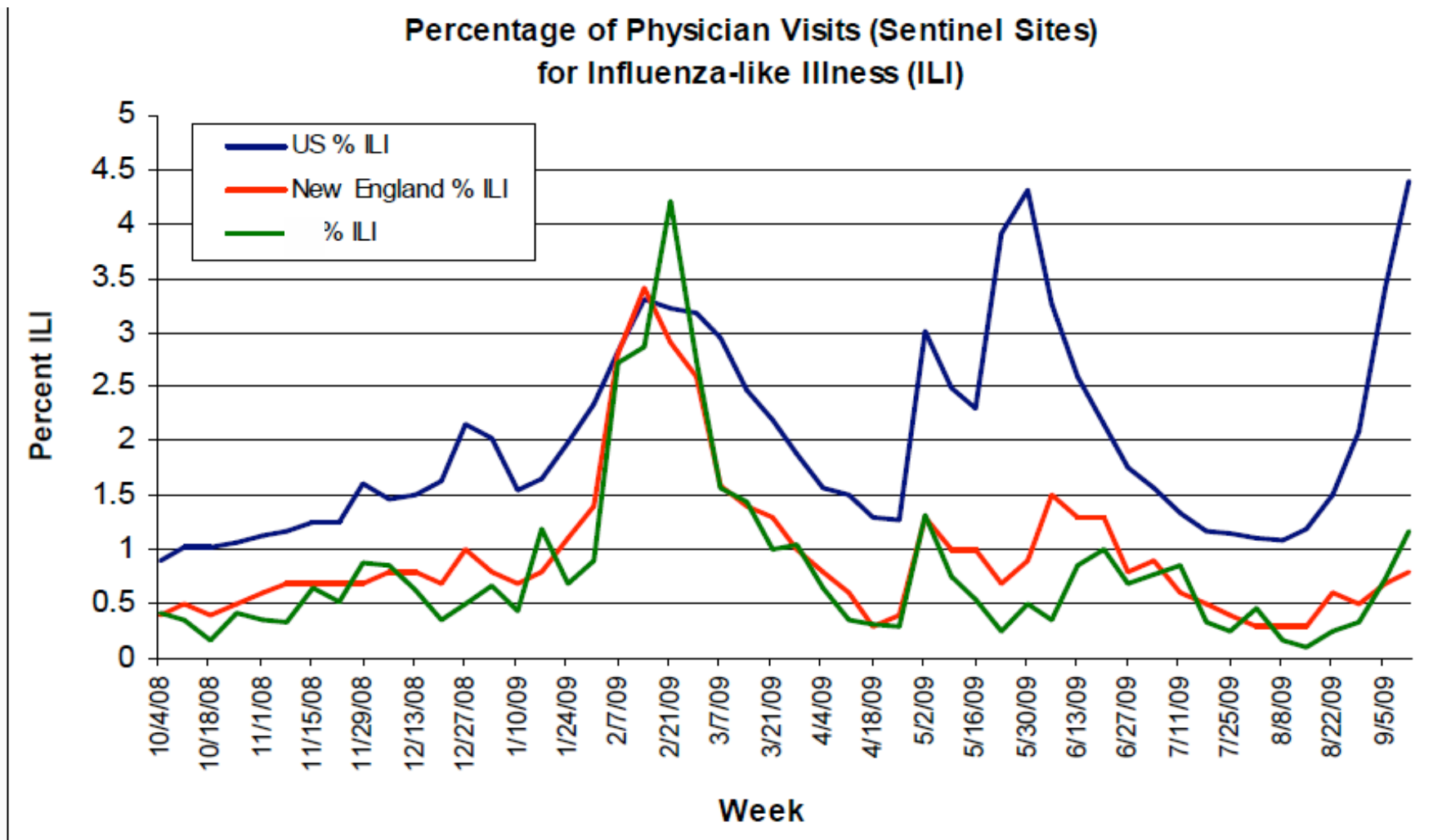
# But so far we haven't seen large numbers of cases this fall

Percentage of Visits for Influenza-Like Illness <sup>1</sup> Reported by Sentinel Providers, Massachusetts 2008-2009 and Previous Two Seasons



<sup>1</sup>Influenza-like illness (ILI, defined as fever >100°F and cough and/or sore throat), as reported by Massachusetts sentinel surveillance sites by CDC week date.

But we're likely to soon see what is occurring in other parts of the country



Regional data includes % ILI from CT, ME, MA, NH, RI, VT;  
Source: U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)

# Colleges and Universities are beginning to report ILI

## The flu returns to Wellesley College after summer break

By Staff reports

**GateHouse News Service**

*Posted Sep 18, 2009 @ 03:27 PM*

Last update Sep 18, 2009 @ 03:35 PM

Wellesley —

The flu is rearing its head again at Wellesley College.

Since the start of school, around 60 students at Wellesley College have reported having flu-like symptoms, with one case confirmed as H1N1, said college spokeswoman Arlie Corday. Currently, there are 25 students sick, she said. Bab has also seen a "small number" with a flu-like illness, said [a staff member](#) [the school's Web site](#). At both cases are being presumed to be

## Brandeis Health Center identifies 12 cases of influenza-like illness on campus

By: Miranda Neubauer

Posted: 9/15/09

The University Health Center has identified 12 cases of influenza-like illness on campus as of Friday, Director of the Brandeis Health Center Dr. Debra Poaster said, as universities across the country take precautions against the spread of H1N1 flu.

"There are no confirmed cases of swine flu," Dean of Student Life Rick Sawyer said in an interview with the Justice.

ained that "there's usually not a case in September, so if we see an illness, we assume that it's



# Current Activities



# Collaborative Planning Process

- Creation of Advisory Group with representatives from many sectors
- Collaboration with local health officials
- Discussion with legislative leaders
- Partnership of different state agencies – e.g. EOPS, MEMA, DESE
- Involvement of health care providers
- Involvement of school officials
- Guidance from federal officials



# Vaccination Planning



## Influenza Vaccination of Health-Care Personnel

Recommendations of the Healthcare Infection Control Practices Advisory Committee (HICPAC) and the Advisory Committee on Immunization Practices (ACIP)



# 2009 – 2010 Seasonal Flu Vaccine



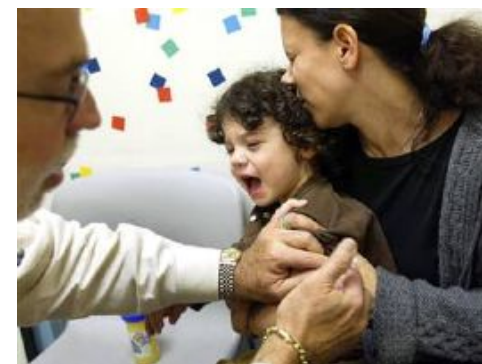
- National supply earlier than usual but arriving in stages—full amount by Nov.
- MDPH has distributed 70% of its 885,000 doses (10% more than last season)-remaining amount due in November
- Unprecedented demand has led to shortages in seasonal vaccine.
- Emphasis on traditional risk groups

# H1N1 Vaccine: What We Expect

- H1N1 vaccine began to arrive in early October – small quantities at first with very targeted distribution to hundreds of clinical sites throughout the state
- Unexpected production delays have resulted in slower timetable for distribution
- 1.2 million doses expected by end of November

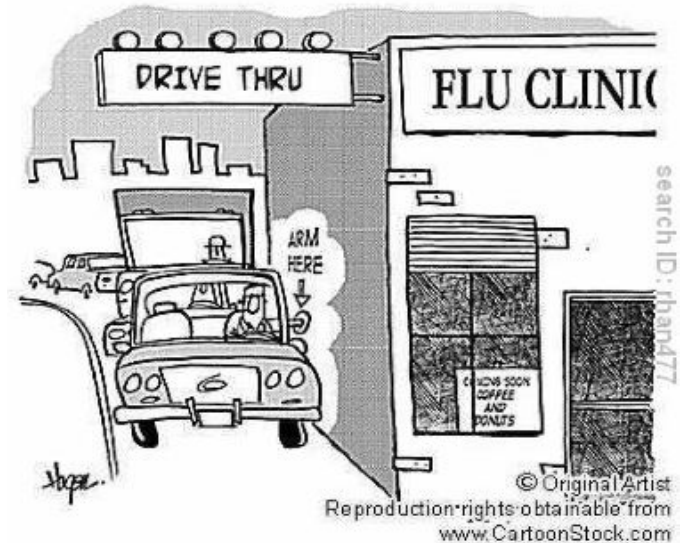
# Target Groups for H1N1 Vaccine (per ACIP)

- Pregnant women
- Household and caregiver contacts of children <6 months of age
- Health care and emergency medical services personnel
- Children from 6 months through 18 years
- Persons aged 19-24 – 2<sup>nd</sup> tier
- Persons aged 25 through 64 years who have specified medical conditions – 2<sup>nd</sup> tier



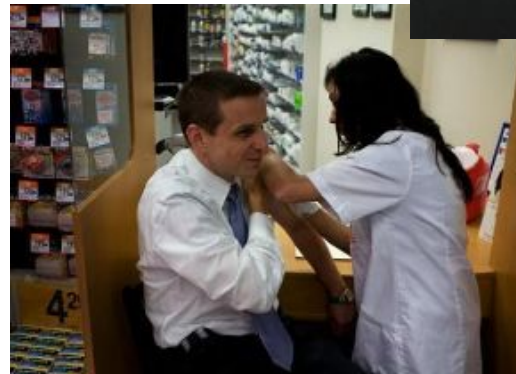
# Federal Government Funds Vaccination Efforts

- Local/regional health coalitions have begun to receive more than \$15 million in direct funding to support H1N1 efforts
- Schools likely sites for some vaccination efforts
- None of these clinics can charge for vaccine
- General public clinics likely only beginning in December



# Expanding the Ranks of the Vaccinators

- The Massachusetts Public Health Council passed emergency regulations allowing the following to vaccinate (if properly trained/overseen):
  - Paramedics
  - Pharmacists (for those 12 years above)
  - Dentists
  - Nursing students
  - Medical students



# Community Mitigation

(reducing transmission in the home, school, work and other public locations)



# Key Activities - Schools

- Working with schools around key actions:
  - Health hygiene
  - Screening of ill students
  - Communicating with parents
  - Remaining open
  - Understanding and complying with guidance
- Partnering with DESE – hiring a specialized staff person



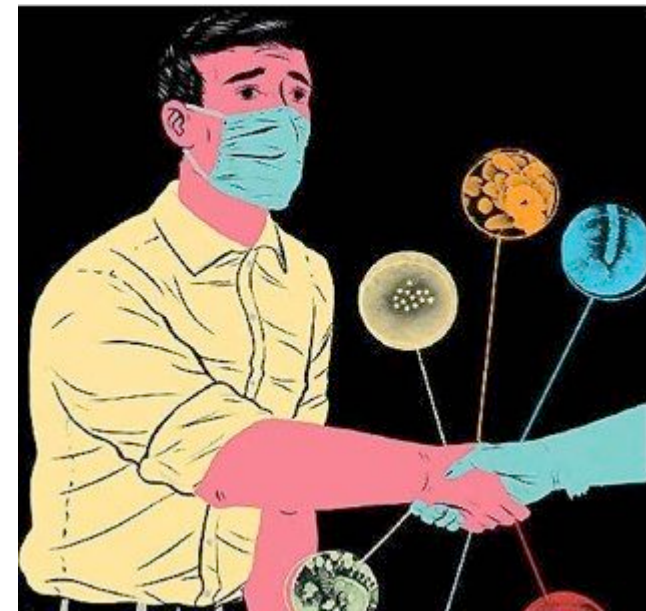
# Access to Medical Care



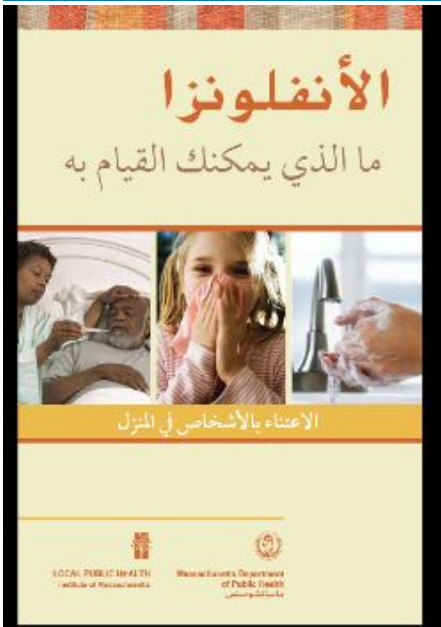
# Guaranteeing Appropriate Care

- Stockpiling anti-virals and protective equipment (\$2.4 million of additional supplies available)
- Planning to insure that medications & supplies are available where needed
- Supporting hospitals to prepare for surge of patients
- Encouraging flu care at home for most/avoidance of unneeded MD visits

# Communication Planning



# Statewide Communication Effort



HOJA DE INFORMACIÓN DE SALUD PÚBLICA	Influenza H1N1 (Gripe porcina)
Massachusetts Department of Public Health, 250 Washington Street, Boston, MA 02108	
<b>¿Qué es la influenza H1N1?</b> La influenza H1N1, también conocida como "gripe porcina", es una enfermedad respiratoria de los cerdos causada por un tipo de virus de la influenza. Los brotes de gripe porcina ocurren con regularidad entre los cerdos. Las personas normalmente no contraen la gripe porcina, pero las infecciones humanas son posibles y ocurren. Lo más común es que los casos humanos de gripe porcina ocurran en personas que están en contacto con cerdos, pero los virus de la gripe porcina también pueden propagarse de una persona a otra. Desde marzo de 2009, ha habido muchos casos de este nuevo tipo de gripe H1N1 en los Estados Unidos y en todo el mundo.	
<b>¿Cuáles son los síntomas de la nueva gripe H1N1 en las personas?</b> La gripe porcina causa síntomas muy parecidos a los de la gripe estacional (o humana). Los síntomas más comunes de la gripe porcina, al igual que la gripe estacional, son fiebre, tos, dolor de garganta y pueden incluir dolores corporales, de cabeza, escalofríos y fatiga. Algunas personas también tienen diarrea y vómitos. Ha habido casos de personas con enfermedad más grave e incluso de muerte.	
<b>¿Cómo puedo saber si tengo la nueva gripe H1N1?</b> Si tiene síntomas de influenza como los que se describen más arriba, y especialmente si ha viajado recientemente a un lugar donde ha habido casos humanos de gripe porcina, póngase en contacto con su proveedor de servicios de salud quien decidirá qué tipo de pruebas y tratamiento son indicados para usted. Para diagnosticar cualquier clase de virus de la gripe, un médico tiene que obtener una muestra de tejido del interior de su nariz con un hisopo de algodón. Para identificar el virus de la gripe porcina son necesarios análisis especiales de laboratorio.	
Si cree que podría tener gripe porcina y necesita ver a su proveedor de atención médica, debe llamarlo antes para informarle que quizás tenga esta gripe. De esta manera, podrá tomar precauciones para evitar el contagio de la gripe a otros.	
<b>¿Cómo se trata la nueva gripe H1N1?</b> Las personas enfermas con cualquier tipo de gripe deben asegurarse de beber suficientes líquidos, descansar bastante, comer alimentos saludables, lavarse las manos con frecuencia y quedarse en casa para evitar contagiar a otros. Los tipos de medicamentos que se usan para tratar la gripe estacional, llamados antivirales, también pueden usarse para tratar la gripe porcina. Ha habido algunos virus de la gripe, entre ellos los de la más reciente gripe porcina, que son resistentes a algunos pero no a todos estos medicamentos. Los proveedores de servicios de salud pueden recomendar a las personas enfermas con gripe porcina o que parezcan tener esta enfermedad, que reciban un medicamento antiviral.	
<b>¿Qué pasa si viajé recientemente a una región donde ha habido casos de la nueva gripe H1N1 en humanos?</b> Si ha viajado recientemente a un área afectada por la gripe porcina, esté atento(a) a cualquier síntoma de tipo gripal. Si tiene cualquiera de estos síntomas, quédese en casa para evitar exponer a otros y comuníquese con su proveedor de servicios de salud quien decidirá qué tipo de pruebas y tratamiento son los indicados para usted. Para diagnosticar cualquier clase de virus de la gripe, un médico tiene que obtener una muestra de tejido del	

- Use public information campaign on vaccination, prevention and mitigation
- Tailor messages to key, at risk populations
- Insure multi-lingual effort
- Create "ReadyCam" capacity
- Use web site, blog and twitter
- Prioritize media relations

# Flu Facts Campaign

For more information, please visit:

[www.mass.gov/flu](http://www.mass.gov/flu)



Massachusetts Department of Public Health

## FluFacts

What you need to know



The flu spreads easily from person to person and should be taken seriously. But there are simple things you can do to protect yourself and your family from any kind of flu.

### Lower your chances of getting or spreading the flu:



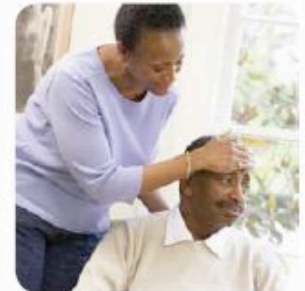
Get both a **seasonal flu shot** and an **H1N1 flu shot**.



**Cover your mouth** when you cough or sneeze. Use a tissue or your inner elbow, not your hands



**Wash your hands often** with soap and warm water, or use an alcohol-based hand gel.



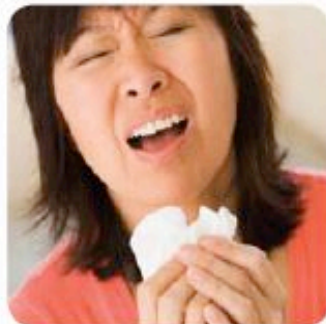
**Stay home** if you are sick.

# In Multiple Languages

**Reduzca sus probablidades de contagiarse o propagar la gripe:**



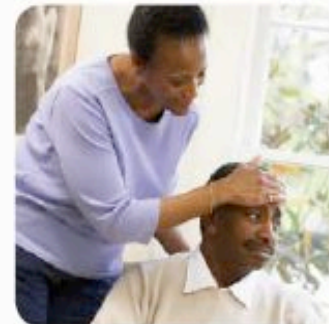
Póngase ambas vacunas: **la vacuna de la gripe estacional y la vacuna de la gripe H1N1**



**Cúbrase la boca** al toser o estornudar. Use un pañuelo desechable o la parte interna



**Lávese las manos a menudo** con agua tibia y jabón, o use un gel para manos a



Si está enfermo **quédese en su casa.**



A gripe passa facilmente de uma pessoa a outra e deve se considerar algo sério. Porém, há coisas simples que você pode fazer **para se proteger e proteger sua família** de qualquer tipo de gripe.

Para mais informações, confira:

[www.mass.gov/flu](http://www.mass.gov/flu)



Massachusetts Department of Public Health

## Flu Facts

O que você precisa saber

# Federal Materials Available

*with focus on particular target groups*



**Flu can harm you and your baby.**

## Vaccination can protect you both!

Pregnant women are at risk for serious flu complications. If you're pregnant, CDC recommends that you get vaccinated against seasonal flu and 2009 H1N1 influenza (sometimes called "swine flu").

**Have you talked to your doctor about flu vaccination yet?**

For more information call 1(800)-CDC-INFO or visit [www.flu.gov](http://www.flu.gov)




**2009 H1N1 FLU**

You're part of a first response team, you're a firefighter. You're a mom. You're a dad. You're a grandparent. You're a teacher. You're a coach. You're a volunteer. You're a community leader. You're a role model. You're a hero.

Did you know you're recommended to get 2009 H1N1 flu vaccine? Sometimes called "swine flu" and "pandemic flu"?

**Protect Me from Flu Virus VACCINATE ME**

For information, visit [www.flu.gov](http://www.flu.gov), or call 1-800-CDC-INFO.



Even if you're healthy, if you live with or care for people at high risk for severe complications from influenza, including seasonal flu and 2009 H1N1 flu (sometimes called "swine flu") you should get vaccinated. Groups at high risk include infants and pregnant women.

## I'll protect my baby.

I'll get my flu vaccines.

Babies younger than 6 months can't be vaccinated against the flu, but they are at high risk for severe complications from seasonal flu and 2009 H1N1 influenza (sometimes called "swine flu"). They rely on you to protect them. Get vaccinated.



FOR MORE INFORMATION  
800-CDC-INFO  
[WWW.FLU.GOV](http://WWW.FLU.GOV)



If you live with or care for people at high risk for severe complications from seasonal influenza, you should get vaccinated. Groups at high risk include kids and adults with chronic medical conditions like asthma or diabetes.

## My Little Boy Has Asthma.

We'll BOTH Get Our Flu Vaccines.

This flu season, kids also need to be vaccinated to protect them from 2009 H1N1 influenza (sometimes called "swine flu").



FOR MORE INFORMATION  
800-CDC-INFO  
[WWW.FLU.GOV](http://WWW.FLU.GOV)

# Key Tasks at the Local Community Level

- Vaccinate those at greatest risk and expand to all populations as supply allows – *community clinics to be held by local health and schools starting late Nov./Dec.*
- Actively promote health hygiene for the healthy and the sick – *educational efforts in schools/communities (led by local health and school nurses)*
- Isolate the sick from work, schools and community settings – *efforts to assist schools in keeping sick kids at home and staying open*
- Promote flu care at home for those with mild flu –*local health/local clinicians*
- Encourage notification of clinicians for those at particular risk or with severe symptoms/guarantee access to appropriate care as needed – *local health and clinicians*

# Other Suggestions

- Confer with and support your school superintendents
  - Keeping healthy kids in school and sick kids at home
  - Encourage school/local health linkage
  - Ensure support for school nurses
- Consider a public media event

# Key Suggestion

**Confer with and support  
your local health officer  
and local board of health**