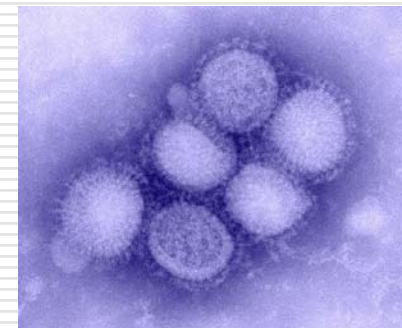


Pandemic Influenza H1N1 2009 Public Health Challenges

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BC Centre for Disease Control
AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY



Pandemic H1N1 paradox

- ❑ Majority of people have a shortlived (unpleasant) illness that resolves without need for medical care
 - ❑ Children higher rate of hospitalization but not ICU care
 - ❑ Adults (median age 40) do end up in ICU at higher rate
 - ❑ Half with underlying illness
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Signs and Symptoms

Influenza-like illness (ILI):

- Fever (94%)
- Cough (92%)
- Sore throat (66%)
- Myalgia
- Headache
- Malaise

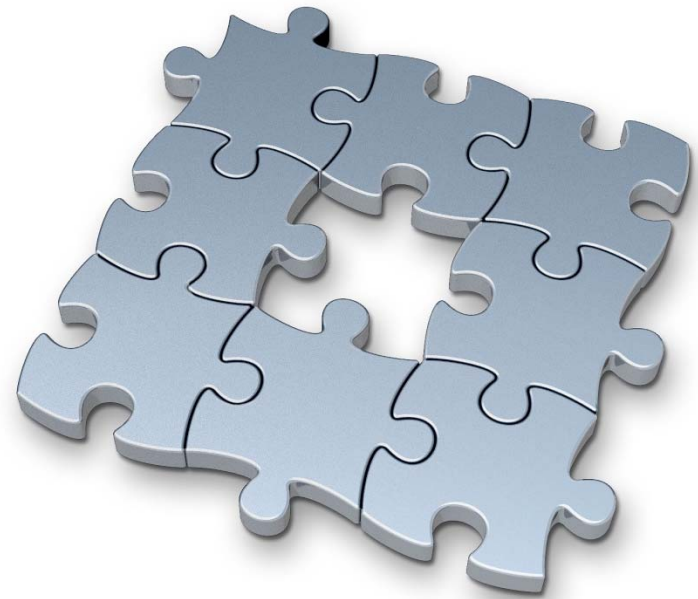
- Fever not always prominent
- GI symptoms are common, especially in children:
 - Vomiting (25%)
 - Diarrhea (25%)

Contagiousness

- ❑ Pandemic influenza H1N1 is believed to be shed for ~7days
 - Longer than seasonal influenza, consistent with the lack of preexisting immunity
- ❑ Infected people may be contagious for 1day before & up to 7 days after onset of symptoms
- ❑ Children and immunocompromised may be contagious for longer periods
- ❑ The incubation period is believed to be within 4 days (1-4 days for most but perhaps longer)

Key Questions

- Will nH1N1 return?
- Spectrum of severity?
- Are the elderly protected?
- Who is at high risk?
- Use of antivirals and emergence of resistance
- Development and rollout of vaccine



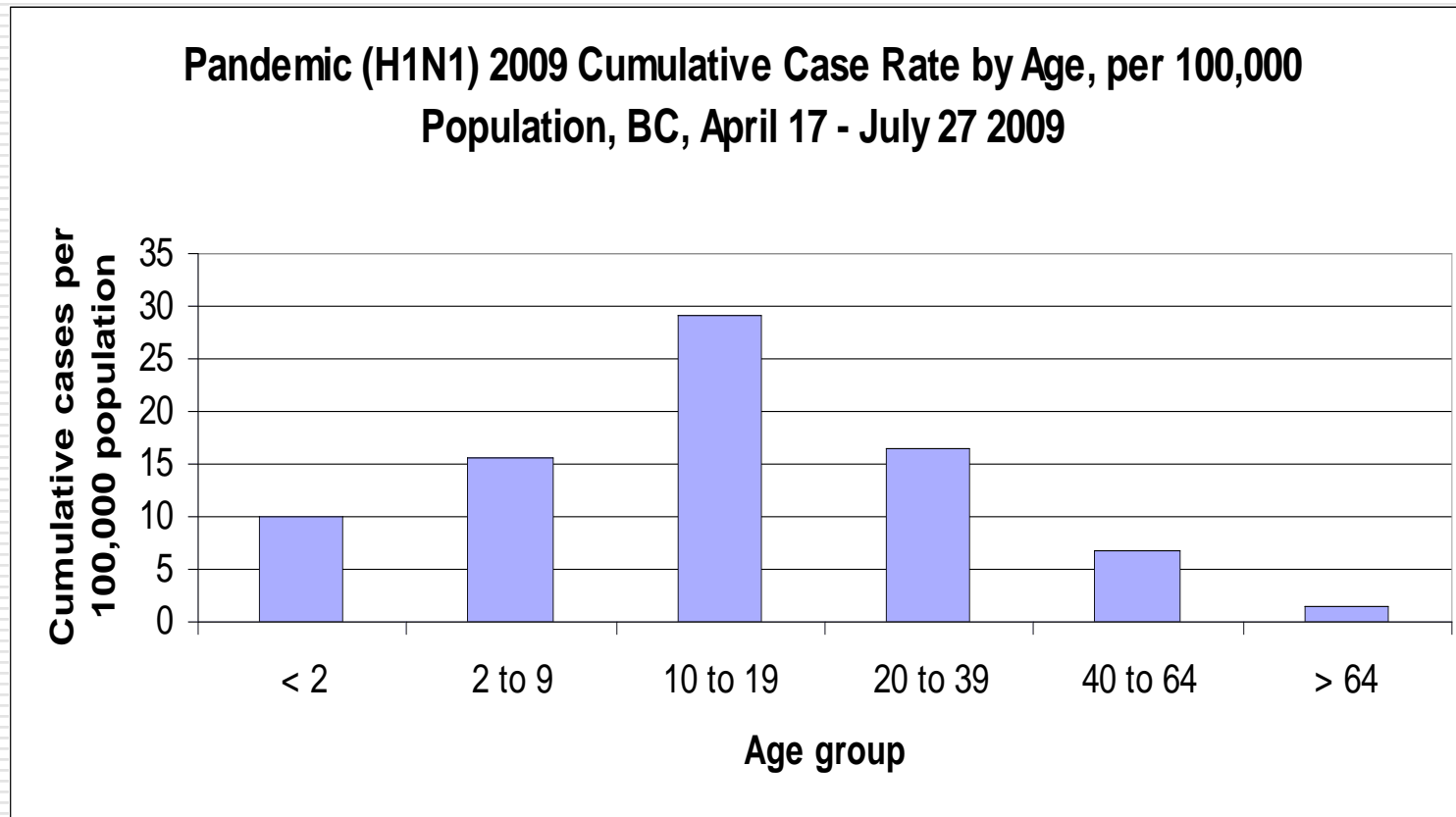
Public Health Measures in the Community

- Self isolation of ill people
 - Respiratory and hand hygiene
 - NOT widespread closures of schools, businesses, gatherings
 - NOT use of masks by well people
 - Use of masks by ill people maybe
 - Public communication
 - Enhanced environmental cleaning
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When to end isolation?

- Return to work/school issues:
 - Summer camps
 - Schools/day cares
 - Universities
 - Businesses
 - When symptoms have resolved and able to fully participate in daily activities
 - Does this apply to HCWs?
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Are the elderly protected?



Antivirals

- Human seasonal influenza
 - H1N1 (human) resistant to tamiflu
 - H3N2 resistant to amantadine
 - Pandemic H1N1
 - resistant to amantadine
 - susceptible to Oseltamivir (Tamiflu®) & Zanamivir (Relenza®)
 - evolution to resistance may be easy (12 known cases)
 - NAS: much expires in the fall
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Antiviral Questions

- How to get early treatment to those most likely to benefit
 - Influenza plans for high risk people
 - NACI risk groups (e.g. asthma, diabetes, I/C)
 - ?Children up to 4 years
 - ?Obesity and FN status (outside of remote communities)
 - What about early treatment of HCWs
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Influenza Vaccine



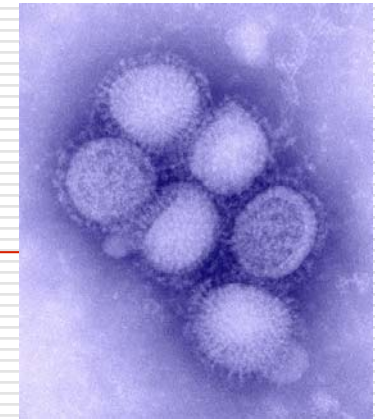
- Options for seasonal flu and / or novel H1N1 influenza vaccine:
 - For high risk patients and health care providers
 - Who is high risk?
 - Universal nH1N1 two doses plus seasonal
 - Seasonal for some and H1N1v for others
 - How well is the TIV matched to H2N3 strain?
 - What will circulate and when?
- What to recommend for pneumococcal vaccination

What happens next?

- ❑ Flu season this fall and winter will likely be driven by pandemic H1N1 activity
 - ❑ H1N1v could mutate before then to cause more severe disease
 - ❑ Ongoing clinical/laboratory surveillance needed to monitor changes in ILI, SRI and nH1N1 activity
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Questions we need to answer

- How effective are mitigation strategies in preventing serious illness?
 - Will influenza plans for those at risk mitigate the surge?
 - Triggers for ramping up response:
 - When would we close schools, stop gatherings
 - When to give antivirals to all ill
 - Is there a time for masks for all
 - What does that mean for healthcare settings
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Discussion
