


Public Health Humor




Goal 1: Contain Virus

1. Rapid identification of cases
 2. Isolation of cases
 3. Identification of close contacts
 4. Quarantine of contacts for 14 days
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Goal 2: Slow Community Spread

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1. Canceling or limiting large public gatherings
 2. Social distancing
 - Encouraging work from home
 - Encouraging other steps to limit face-to-face interaction
 3. Protection of vulnerable people
 - Limiting visitors in nursing homes and other congregate settings
 - Infection control in settings with vulnerable people

ATTENTION

IF YOU ARE FEELING SICK WITH



FEVER



COUGH



SHORTNESS OF BREATH

» DO NOT ENTER «

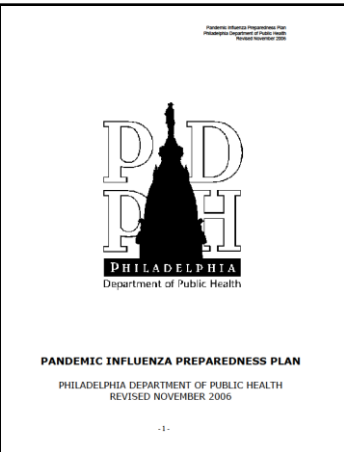
PLEASE CALL YOUR HEALTHCARE PROVIDER

Wuhan City January 2020

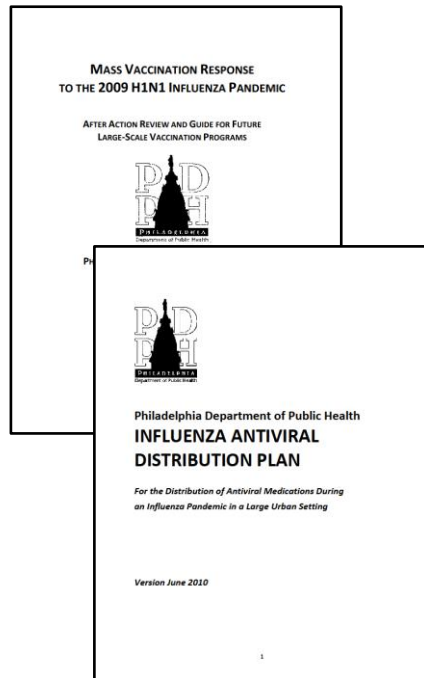


Pandemic Influenza Planning in Philadelphia 2006 - 2019

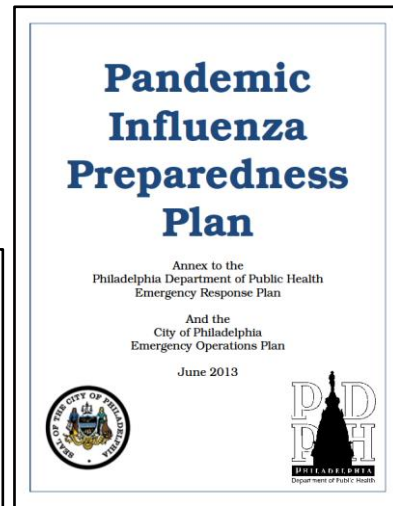
2006:
Response to H5N1 bird flu threat and 2004-2005 seasonal influenza vaccine shortage



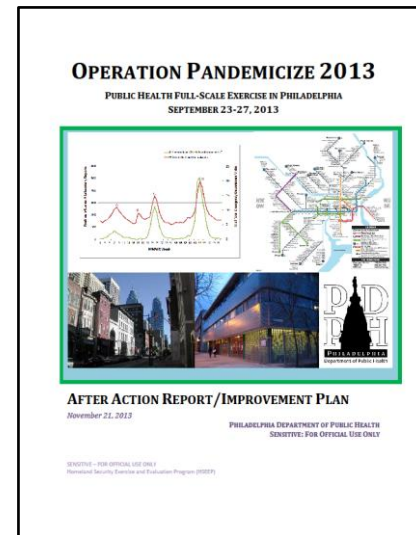
2009/2010:
H1N1 Pandemic, Mass vaccination response, After Action Report, Antiviral Distribution Plan



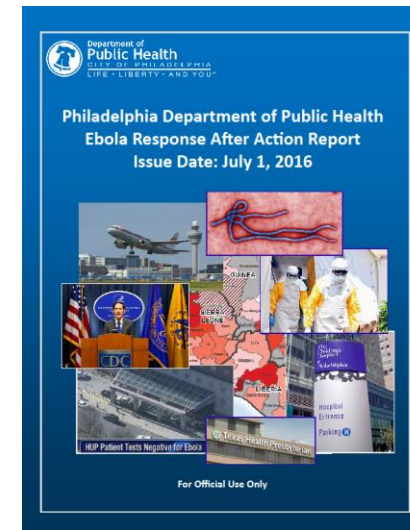
2012:
Updated PDPH Plan based on lessons learned from H1N1 pandemic and MERS-CoV risk



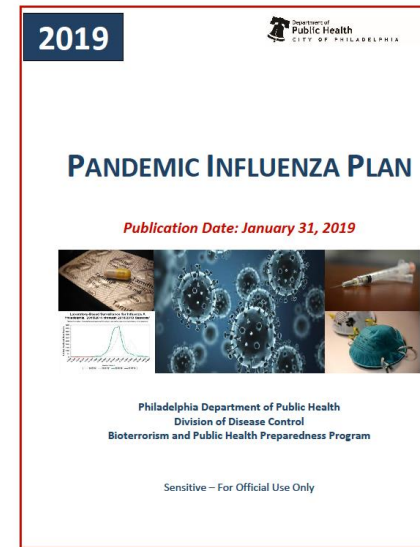
2013:
PDPH coordinated pandemic full scale exercise that tested: Communication and coordination, case and contact management, infection control for public transportation, EOC coordination, isolation and quarantine



2016:
Ebola After Action Report, updated Response plan based on lessons



2019: Updated Pandemic Influenza Plan



Slowing Community Spread

- Series of disease control interventions that in combination can have an impact
- Goal is to delay outbreak peak, conserve healthcare resources, and minimize overall disease
- Should be risk-based and well timed
- Keeping awareness of disease burden and community transmission to guide interventions and timing
 - Surveillance through case reports and investigations
 - Enhanced surveillance
 - Suburban county and regional awareness
- Call center volume and concerns

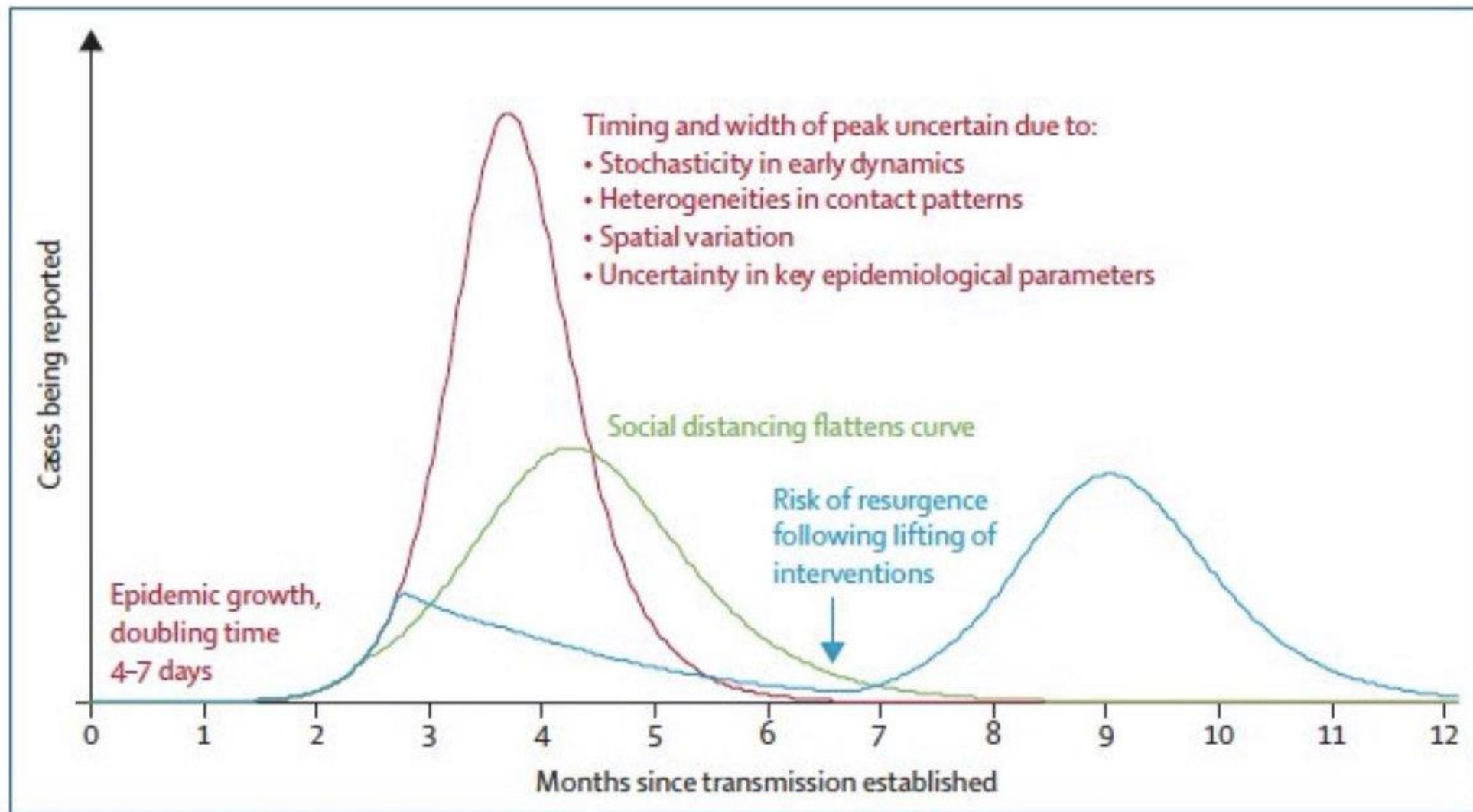


Figure: Illustrative simulations of a transmission model of COVID-19

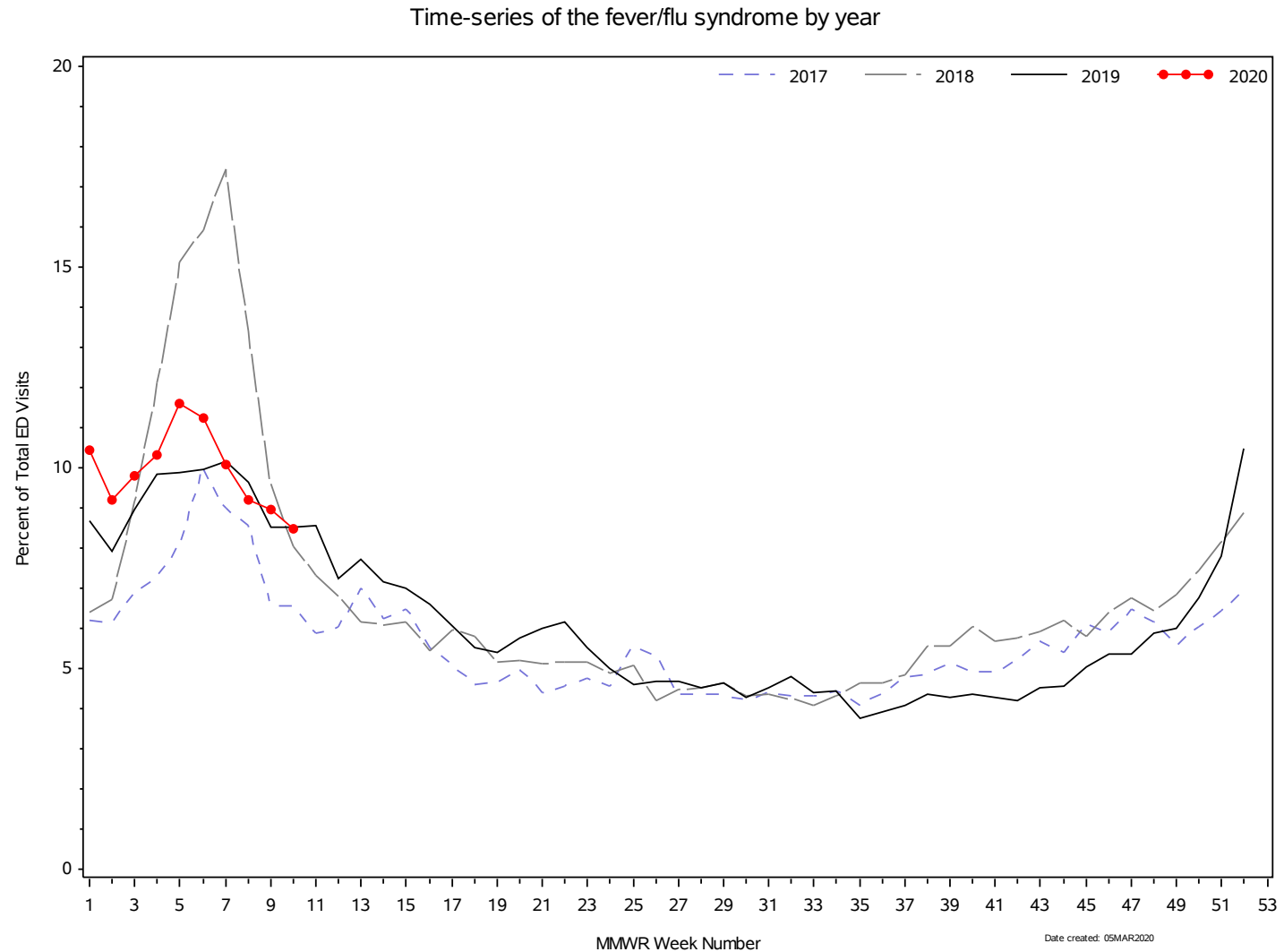
A baseline simulation with case isolation only (red); a simulation with social distancing in place throughout the epidemic, flattening the curve (green), and a simulation with more effective social distancing in place for a limited period only, typically followed by a resurgent epidemic when social distancing is halted (blue). These are not quantitative predictions but robust qualitative illustrations for a range of model choices.

COVID-19 Surveillance in Philadelphia: March 11, 2020: 8:00AM

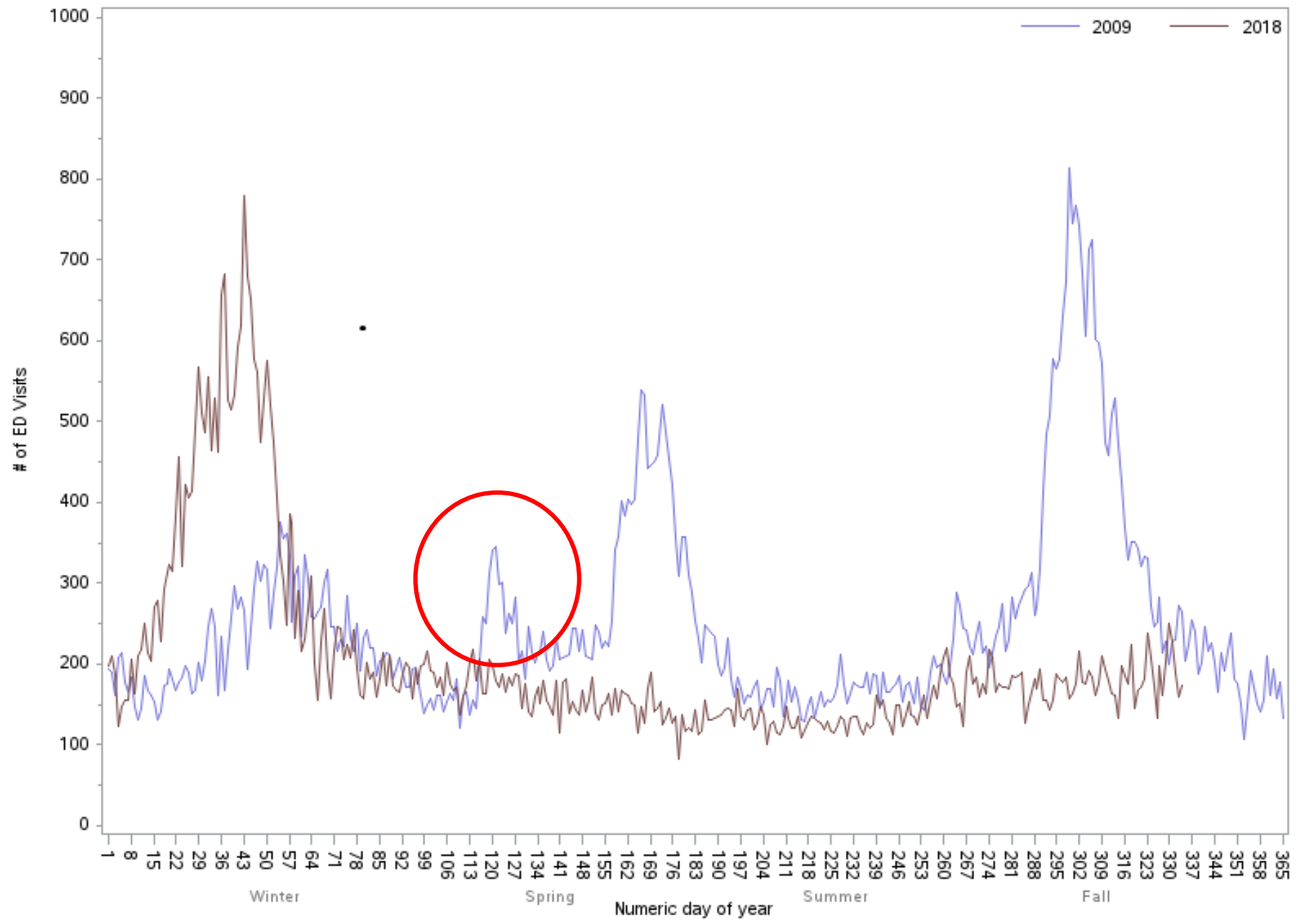
- One confirmed case of COVID-19 in Philadelphia
 - Travel to Germany during incubation period
 - Contact tracing is ongoing
- Persons Under Investigation (PUI)
 - 20 previous PUI's have tested negative
 - 17 current PUI's are pending testing
 - These numbers do not include persons tested through LabCorp
- Cases expanding in Montgomery County
 - Additional contact tracing and testing occurring

Emergency Department Influenza Like Illness (ILI)

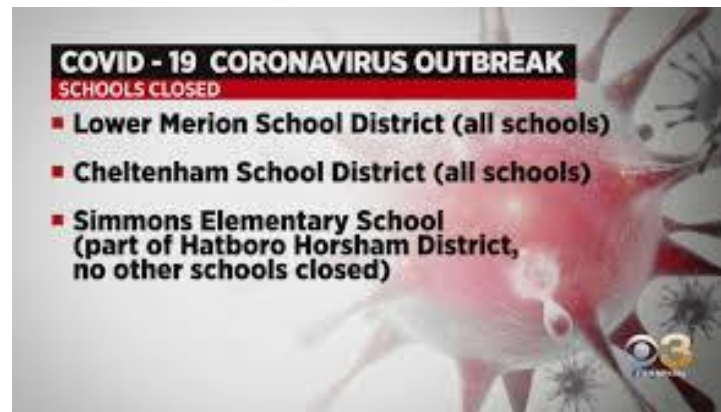
- Chief complaints from all hospital ED visits in Philadelphia coded into infectious syndromes
- Tracks ED volume at hospitals
 - 3,000 patient visits per day
- Next day analysis
- Chief complaints mentioning fever, flu, myalgias code into ILI syndrome
- 2% increase over 7 days equals 420 additional patient visits
- 12% increase over 7 days equals 2,520 additional patient visits



Time-series of the number of fever/flu-like ED visits, 2009 vs 2018



Closing Schools: Will this have an impact that we want?



- If children were at greater risk for contracting the disease leading to poor outcomes
- If transmission were associated with a school
- Consideration if children spread the virus to other people
- If closing recommended:
 - What duration
 - Could virus be reintroduced afterwards
- Environmental cleaning
- Ongoing meetings with schools to coordinate
- Balance this measure

Limiting Gatherings/Cancelling Public Events

- Reasonable to expect that respiratory viruses spread more easily between people in large crowds
- Type of crowd and activity should be considered
 - Celebration with shouting, singing, cheering
 - Alcohol and other substances involved
 - Populations in attendance
 - Seniors, people with medical conditions
 - Visitors from other parts of the country, world
 - Duration of activity
 - Hours, days
 - Spatial separation between people

Mass Gathering Events: Recommendations

- *People who are ill with fever, cough, sore throat, and other symptoms of upper respiratory tract infection should stay home from all public gatherings and events.*
- *If you choose to attend an event, wash your hands often with soap and water, or use hand sanitizer. Avoid touching your eyes, nose, or mouth if you haven't washed your hands.*
- *Seniors and persons with chronic lung disease, heart disease, cancer, diabetes, or a weakened immune system should avoid attending unnecessary events and gatherings*
- *Consider not attending public gatherings with more than 5,000 expected attendees. This recommendation is particularly important for people who have chronic health conditions or are elderly*

Other Measures: Scaled and Timed as Appropriate

- Initial measures might include:
 - Limiting travel
 - Work from home
 - Transition to on-line learning for students
 - Avoiding high risk activities
- Curtail/cancel large events
 - Exclude high risk people
 - No audience at sporting events/parades
 - Postpone events until after outbreak is over



Public Transportation

- Meetings with SEPTA leadership to plan strategy ongoing
- Mechanisms to increase public messaging for
 - Exclusion of ill passengers
 - Hand washing/respiratory etiquette
 - Avoidance of using mass transit for high risk people
- Maintain services as able



Public Cooperation and Education

- So much of these strategies depend upon public acceptance and cooperation
- Huge public messaging and educational lift
- Learning from this outbreak, role of each of us in protecting ourselves and the community