



# Briefing on COVID-19

**Minnesota Department of Health**

**PROTECTING, MAINTAINING AND IMPROVING THE HEALTH OF ALL MINNESOTANS**

# Situation to Date

## Spread of Coronavirus:

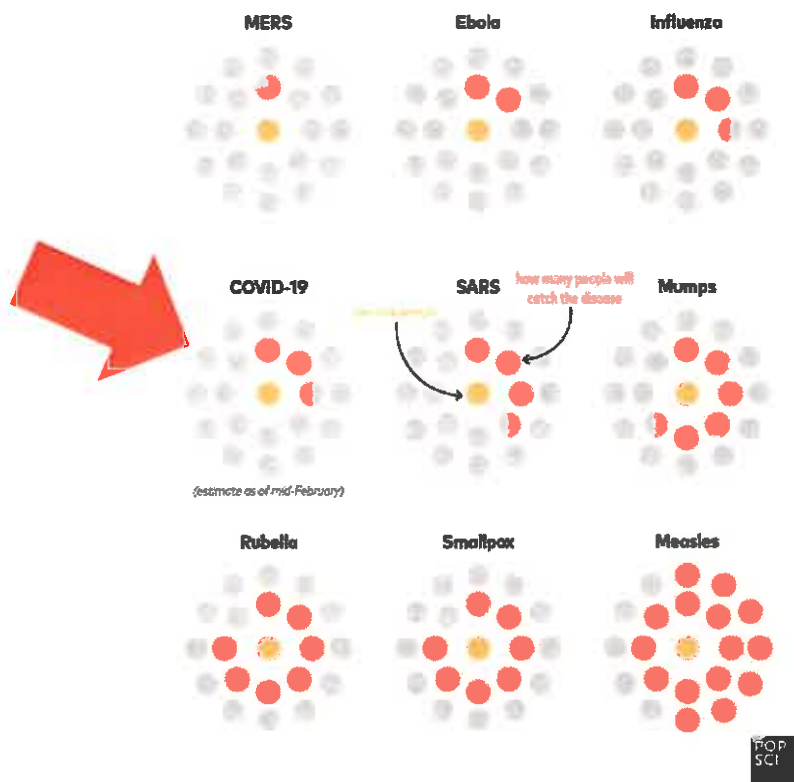
- Overall >116,000 cases globally; >4,000 deaths, 86 countries plus China (March 10)
- COVID-19 Confirmed Cases in US:  
756 US; 26 deaths (22 WA, 2 CA, 2 FL)

## Locations with Confirmed COVID-19 Cases As of February 29, 2020



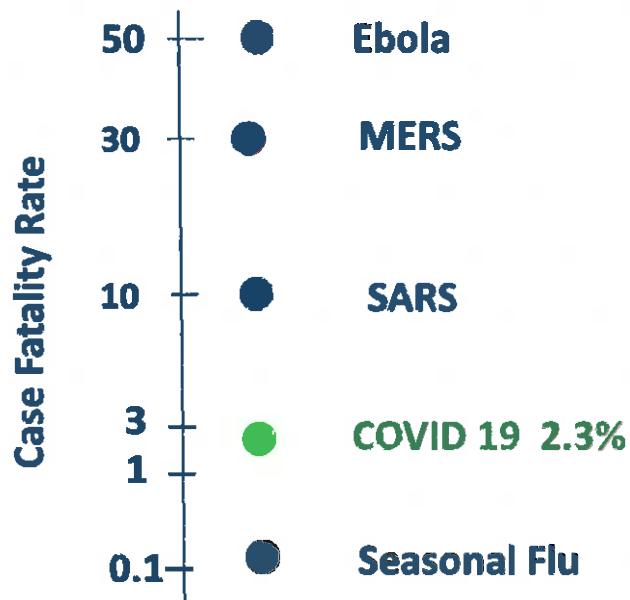
- Hotline Summary for Monday, March 9th:  
Public Hotline Calls = 389  
Provider Hotline Calls = 221
- Lab testing  
By the end of Tuesday:  
Over 250 persons tested

# How infectious is COVID compared to other diseases?



- We use "basic reproduction number," known as  $R_0$ , to measure how a disease spreads in a population
- This number tells us how many people each infected person will in turn infect.
- $R_0$  is a measure of how infectious a disease is
  - If  $R_0$  is less than 1, disease typically dies out.
  - $R_0$  larger than 1 means each sick person infects at least one other person on average, who then can infect others, until disease spreads through a population.
- The  $R_0$  for COVID-19 is between 2-3

## How lethal is COVID 19 compared to other diseases?



- Estimated case fatality for COVID-19 is 2.3% \*
- Seasonal flu 0.1%
- SARS 10%
- MERS 30%
- Ebola 50%

# COVID 19 Characteristics-China CDC Summary

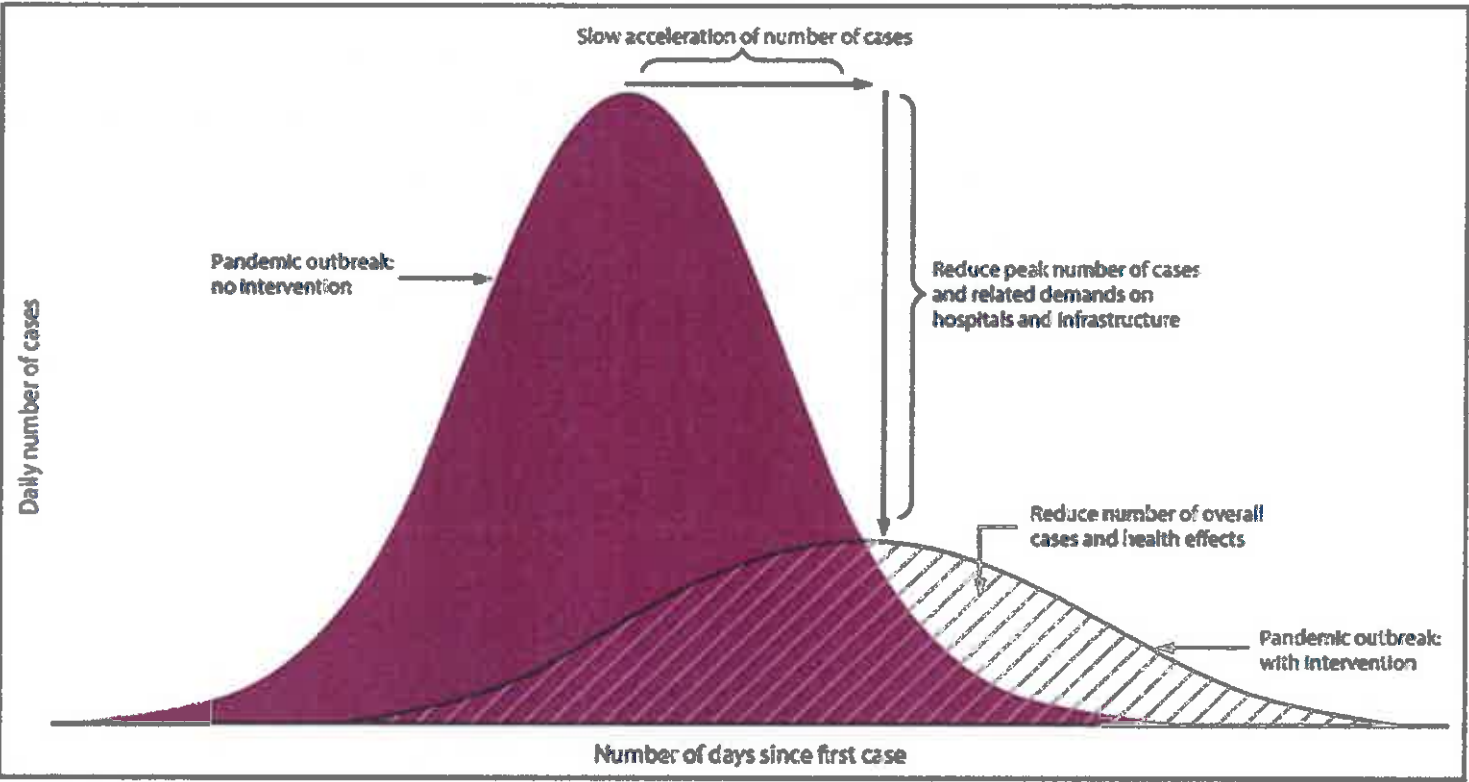
- Spectrum of illness:
  - 81% of cases Mild (non-pneumonia and mild pneumonia)
  - 14% of cases Severe (difficulty breathing, rapid respirations, lower oxygenation saturation levels, and rapidly developing lung infiltrates)
  - 5% of patients admitted to ICU
  - Overall 2.3% mortality rate\*
  - Higher mortality in elderly and those with underlying health conditions



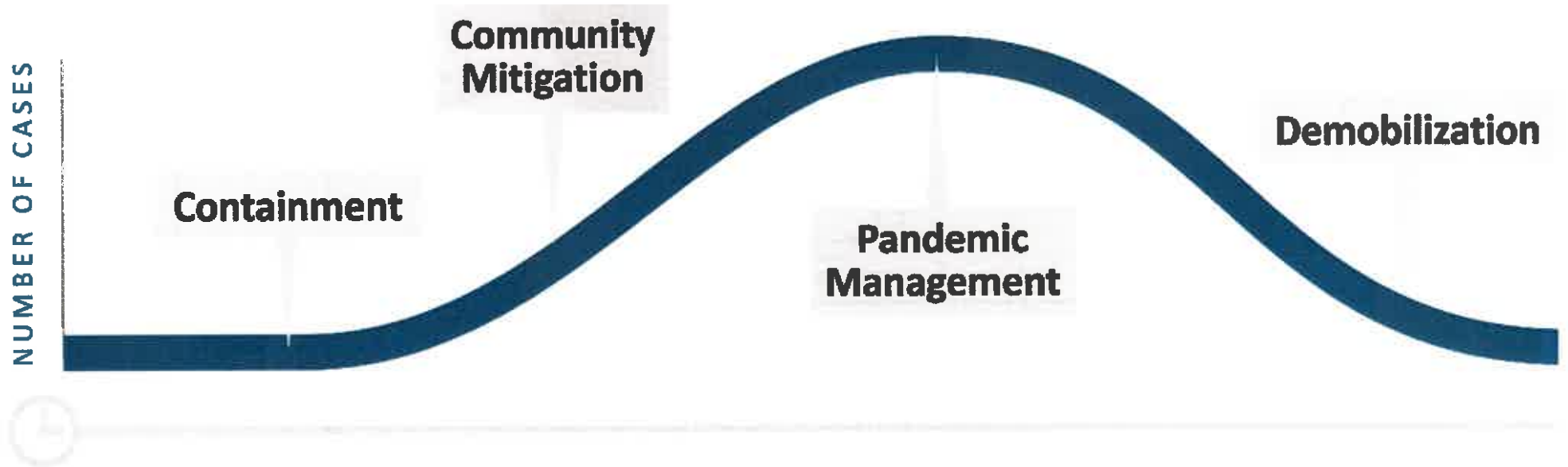
中国疾病预防控制中心  
CHINESE CENTER FOR DISEASE CONTROL AND PREVENTION



# Purpose of Pandemic Intervention



# Phases of Pandemic Mitigation





# Phases of Pandemic Mitigation

- **Containment** (handful of cases)
  - When a first case is identified in MN, we will focus on isolation, contact identification, and quarantine.
- **Community mitigation** (multiple cases from different areas/exposures)
  - Consider temporary school closings, postpone large community events, promote virtual/video faith services, etc.
- **Pandemic management** (widespread transmission – hundreds to thousands of cases from across the state)
  - Provide oversight and management of scarce resources, continue to encourage self-isolation





## Minnesota Responds

- MDH working on containment and expanding to mitigation
  - Working with clinicians to identify/evaluate patients who may have COVID-19 based on clinical and epidemiological data
  - Public Health Laboratory testing now online
  - Working closely with Minnesota Hospital Association, clinicians, Long Term Care, Local Public Health, K-12 and Higher Ed
  - Community mitigation planning has started and will provide recommendations about public gatherings

