

## Agenda

- The Context of the Pandemic Life in 1918
- The Pandemic
  - Epidemiology
  - Disease Characteristics
  - Medical Care and Countermeasures
  - Non-pharmaceutical Interventions
- Pandemic Sequela
- Pandemic Preparedness Today
  - Continuing risks
  - Preparedness and Response Capabilities

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## U.S. Joins War Effort April 6, 1917

■ Lack of planning ——

confusion and inefficiency in first 12 months

- Army Increases
  - 378,000 in April 1917  $\longrightarrow$  4.1 million by war's end $^1$
  - Draft age
    - Originally 21-30
    - Expanded to 18-45 in May, 1918
    - Monthly call-ups cancelled Sep/Oct <sup>2</sup>
- Men, food, ammunition, and money were needed for war effort



## The Effect of Wartime Conditions





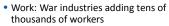


# **Crowding - Military**

- Army camps built for 35,000 men quickly housed 45,000
- 1917-1918 winter had been coldest on record east of Rockies
- Efforts to reduce number of men in tents
- Crowding assessed at Camp Humphreys (VA)
  - regiment with 78.5 feet<sup>2</sup>/soldier experienced 2.5% disease rate
  - regiment with 45 feet<sup>2</sup> /soldier experienced 26.7% disease rate<sup>1</sup>
  - 10X risk of disease in more crowded regiments
  - 5X risk of disease with complications



## Crowding - Civilian





Home:

- Up to four families in one apartment
- Rooming house boarders sharing beds (working and sleeping in shifts)
- Tenement outhouses used by dozens of families
- School: Growing public school system
- Entertainment:
  - Amusement parks
  - Nickelodeons
  - Dance halls

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## Movement

- Massive troop movement
- Troop movement allowed infection to move from camp to camp
- 10,000 men shipped to France every day in the summer of 1918<sup>1</sup>
- Civilian movement as well
  - To cities for jobs
  - On burgeoning mass transit systems to and from work



U.S. Military History: U.S. Army in WWI Era

<sup>1</sup> https://archive.org/details/historyoftranspo00gl

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## "Modern" Medicine and Public Health System

- 1912 Federal Food and Drug Act
- Many vaccines available
  - US soldiers vaccinated for typhoid<sup>1</sup> and smallpox <sup>2</sup>
- PH Service over 100 years old
  - Established in 1789
  - Widespread legitimacy of
    - SurveillanceQuarantine
    - Isolation





https://www.defensemedianetwork.com/stories/pul service-commissioned-corps/