COVID-19
What Businesses Need to Know
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Objectives

- Discuss the virus and how it is spread
- Global/Local perspective
- What to do/not do in seeking care
- The outlook for our area
- Tips on how to prepare as an employer
  - (travel, meeting attendance, remote work, school closings)
Definitions

• **ILI**: influenza (flu) like illness
• **SARS-CoV-2**: novel coronavirus first identified in Wuhan City, China
• **COVID-19**: disease caused by SARS-CoV-2
• **Incubation period**: period between exposure and development of symptoms
• **Super-spreader**: single individual spreads to a large-number of individuals

• **Case Fatality Rate**: number of deaths/number of confirmed cases
• **R0**: average number of people who will catch an infection from a single infected individual
  • **Influenza** 1.3
  • **SARS** 2-5
  • **MERS** – community 0.45, nosocomial 2-5
  • **SARS-CoV-2** 1.5-4
  • **Measles** 12-16
Coronaviruses

- Family of viruses
- Can cause disease in humans and animals
  - Bats are host to largest variety of genotypes
- Ubiquitous virus that can cause infection at any time of the year
- Viral respiratory tract infection ranging from common cold to severe respiratory infection/pneumonia
- Incubation period generally 2-14 days

- Common human coronavirus types 229E, NL63, OC43 and HKU1
  - Detected in Respiratory Pathogen PCR Panel used by many facilities
- Supportive care, No treatment
- No current vaccines
SARS-CoV-2

Causing Agent of COVID

- Novel coronavirus
  - No preexisting protection in humans
- Primary host thought to be bats, ? Pangolin intermediary host
- First cases in Wuhan City, China in individuals who attended “wet” market, December 2019
  - >100,000 cases
United States

• >1600 cases and counting

• North Carolina
  • 17 cases as of 3/12
  • Mecklenburg, Chatham, Wake, Cabarrus, Forsyth, Johnson, Onslow, Durham

• South Carolina
  • 12 cases as of 3/12
  • Case in Lancaster county

• Pandemic declared by WHO 3/11
• NC State of Emergency 3/10
• Closures of sporting events, public events
Clinical Characteristics

- Fever/cough/URI symptoms
  - No great distinguishing feature from other respiratory viruses
- R0 1.4-4 (average number of people each infected person infects)
- ~80% mild disease, 15% severe disease, 5% critical
- Relatively limited impact to children to date
- Case Fatality Rate 0.6%-2%
  - Majority of morbidity/mortality in elderly with comorbid conditions
Transmission SARS-CoV-2

• Mode of transmission
  • Droplet primarily
  • 3-6 feet

• Surface contamination/contact transmission
  • Touching your eyes, nose, mouth

• Close contacts clearly most at risk
  • Household contacts
  • Within six feet for prolonged period of time/in waiting room
  • Unprotected direct contact with secretions or excretions of infected individual

• ?impact viral detection in stool??
Incubation Period

- 2-14 days, average 5 days after exposure
- Subclinical/milder symptoms early make containment difficult
- Asymptomatic transmission??
  - Lower viral burden
  - Likely less common – some studies <1% of cases potential cases

Source: Li et al.  NEJM. Jan 2020. DOI: 10.1056/NEJMoa2001316
Diagnosis

• Initially test only available thru CDC
• Becoming more available but still limited testing capacity at this time
• Increased cases expected as testing is expanded
• Test is done with a swab in the back of the nose and back of the throat
Treatment of COVID

- Primarily supportive
- Many do NOT need to seek care
- Avoid corticosteroids
- Treatment trials ongoing
- Vaccine trials
  - Underway
  - Fast tracked but realistically minimum of 12-18 months before ready plus longer for production time
Why is COVID-19 difficult to contain?

• Lack of preexisting immunity/protection
• Unable to contain in isolated regions as with prior Highly Infectious Diseases (Ebola, MERS, SARS)
• Transmission prior to symptom onset or when patient has very mild symptoms
Avoid Overcrowding of Healthcare

- Probably biggest risk is overcrowding of healthcare systems
  - Truly sick
  - Worried well
  - Demands for testing
- Potential Exposure to other sick individuals in waiting rooms, long wait times, limited capacity to test in many settings
  - Masking of individuals with flu like symptoms at points of entry
  - Separate waiting areas in some places
- Virtual/e-visits preferred
  - Virtual Visit: https://atriumhealth.org/virtualvisit
  - eVisit: https://atriumhealth.org/evisit
  - Can help guide care to other sites if appropriate!
Absenteeism

- Employee illness
- Child/Elder care needs
- Operational priorities
Workplace Illness Management

• Actively encourage employees to say home if they are sick
  • Messaging
    • Stay home until no fever without fever lowering medications x at least 24 hours
  • Sick leave policy
  • If sick when they arrive at work, send them home
Workplace Hygiene

- Hand Hygiene
- Respiratory etiquette
- Environmental cleaning of high touch surfaces (break rooms, conference rooms, personal desk space, shared workstations, doorknobs, etc.)
  - No additional cleaning recommended by the CDC
Workplace Travel

• Minimize unnecessary travel at this point

• Many locations are cancelling business travel internationally and some even domestically

• Consider limiting large group meetings (even locally)

• Personal travel at discretion of individual
  • Current 14-day federal quarantine mandated only for travel to China
Planning Ahead

• Workplace absenteeism
  • Monitor trends
  • Plans for business continuity
  • Cross training
• Impact on susceptible employees (>65, other medical problems)
• Logistics of Tele-commuting, flexible work sites, flexible hours
• Transition meetings to virtual where possible
Importance of Communication
Questions?
Thank you.