

Health System 100 Coronavirus Task Force Executive Summary

March 16, 2020

Health System 100 conducted the first in a recurring weekly series of Task Force conference calls on the topic of the global coronavirus pandemic and its implications for U.S. healthcare providers.

The following summary consolidates the findings of four separate task force calls conducted March 16 to 19 among executives from skilled nursing; home health, personal care, hospice; senior living (IL/AL/CCRC/MC); and large regional health systems.

■ Part I: Coronavirus - Basic Math & The Likelihood of Spread

The short- and long-term math associated with the potential spread of COVID 19 is startling. The following findings were presented by Health System 100 President David Ellis:

- Epidemiologists from Harvard, Yale and Johns Hopkins estimated at the Senior Living 100 Conference (March 4), that 15% of the U.S. population (or 45MM people) could contract COVID 19 within 12 to 18 months, with a case mortality rate of 1%, or 450K deaths. This is 10X the rate of flu deaths per year.
 - *Note:* These are considered relatively CONSERVATIVE estimates. James Lawler, of the University of Nebraska, as well as Marc Lipsitch of Harvard, project anywhere from 20% to 70% will contract COVID 19.
- The math is exponential. The current rate of contamination – void of vaccine or therapeutic - doubles about every six days. If there are 200 contaminated at the end of a given week, that will double to 400 in six days; 800 in 12 days; 1600 in 18 days; and so on.
- Intervening early really matters. It is critical to break the infection chain near the beginning of the outbreak. As an illustration, if China had delayed its shutdown of the Wuhan province by one day, it would have resulted in 20K additional infections (85K vs 65K). In the 1918 Flu Pandemic, the city of St. Louis intervened early, while Philadelphia intervened late. The peak mortality rate in St. Louis was just 1/8th of what it was in Philadelphia – (and this was per capita).
- Intervening aggressively is also important. If the window of time to do widespread testing and tracing of infected patients' contacts passes unfulfilled (like now in the US), something approaching a total lockdown is required to effectively halt a pandemic.
- A highly stressed healthcare system will lead to a higher rate of death, perhaps several multiples higher.

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Takeaways:

- Expect for the acute care system to be overwhelmed starting in about two weeks (NYC, perhaps Seattle and San Francisco) and up to eight weeks elsewhere, depending on geography.
- Act now. Healthcare providers should plan to overprepare, not underprepare!
- Expect very serious public health measures coming soon, approaching total lockdowns.

Read In Full: [Coronavirus: Math and the Likely Spread](#)

■ Part II: Case Study – Learnings & Recommendations from First U.S. Outbreak in PNW

Monique Gablehouse, COO of Post Acute Care at EvergreenHealth (Kirkland, WA) recounted her experience from the front lines of the nation's first outbreak in late February. Monique was the incident commander on call when the first two cases presented on February 26. These cases originated from a skilled nursing facility called Life Care Center, also in Kirkland, WA.

General Statistics:

- Of the initial 10 positive cases at Evergreen, eight came from the Life Care Center facility
- As of March 17, Evergreen had conducted 552 tests, of which 119 were positive
- On March 13, there were 11 local SNFs that had sent positive COVID 19 patients to the Evergreen system
- By March 19, there were 19 facilities (SNF and AL) that had sent positive CV19 patients to the Evergreen system
- As of March 19, Evergreen had 37 positive CV19 patients; 28 deaths; and 14 discharged to community

Learnings & Best Practices:

Conservation: Be very judicious with the use of PPE (personal protective equipment). Standard-use protocols will quickly lead to depletion of stock.

- N95 masks should not be used by caregivers as a precautionary measure, but rather reserved for interactions between caregivers and confirmed CV19 patient.

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- “Double mask” – meaning, the positive COVID-19 patient and caregiver each wear a single mask (does not mean caregivers wear two masks).

Communication: Communication to staff on an early, regular and frequent basis is vital. Evergreen adopted full-transparency whereby they sent multiple daily emails (up to 5X per day in the beginning).

Communication between acute and post acute administrators is another critical element. SNF and ALF administrators should pro-actively approach local health systems to understand – in advance – what their expectations are relative to protocols for PPE, communication and visitation.

Testing: There was at the outset – and still is – a significant short supply of testing kits. Testing should be reserved for those with symptoms (staff or patient).

Stringent Droplet Protocols: This includes eye coverage, double masking, gown and gloves and strict adherence by staff to avoid touching one’s “T-Zone” (eyes, nose, mouth).

Documentation: Take meticulous notes. Upon the presentation of a confirmed case, create an organized, detailed list of each clinical record. It should include basic patient demographics; information on the event (date admitted, event ID, event date, event type, and event location). It should follow CDC “Line List” standards. This documentation will be requested by many stakeholders, including the CDC, FEMA, local health systems, payers, etc.

Advance Care Planning: Advance care planning can mitigate potentially unnecessary care, and may be the difference between making a critical ICU bed available to another patient.

Lean On and Organize Your Emergency Preparedness Teams: Talk now about role assignment around logistics and communication. Proactive communication now around decision-making authority will avoid confusion later.

■ Part III: Further Reading:

The following articles were either cited by presenters during the Task Force calls or were used in preparation for the discussions:

[Coronavirus: Why You Must Act Now](#)

By Tomas Pueyo, Medium

[Coronavirus: Math and the Likely Spread](#)

By David Ellis, President, Health System 100

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[You're Likely to Get the Coronavirus](#)

By James Hamblin, The Atlantic

[Impact of Non-Pharmaceutical Interventions to Reduce COVID19 Mortality & Healthcare Demand](#)

By Neil Ferguson, Imperial College

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