Modeling Overview

• Modeling developed in partnership with Minnesota Department of Health and University of Minnesota

• Two scenarios:
  1. No mitigation
  2. Significant mitigation
Modeling Background & Disclaimers

• Intended to inform our response strategies and health care resource planning

• Incorporates Minnesota-specific factors where possible
  • Demographics and population health data
  • International scientific evidence on COVID-19

• Uncertainty remains on several key factors – ongoing refinements will improve modeling in weeks ahead
Modeling Basic Assumptions

• Most cases are mild but...
  • 15% require hospitalization
  • 5% require ICU care for respiratory health
• Depending on infection rates, potential death total in Minnesota could approach 74,000
• Key objective is to reduce death rates for hospitalized patients by having resources to treat as many as possible
Scenario 1: No Mitigation

• No reduction in person-to-person contact

• Outcomes:
  • Time to peak epidemic: about 9 weeks
  • Time to reach ICU capacity (235 beds): 6 weeks
Scenario 1: No Mitigation (charts)
Scenario 2: Significant, Smart Mitigation

• Change in person-to-person contacts:
  • Significant mitigation (2 weeks), reduction by 80 percent
  • Followed by physical distancing (3 weeks), reduction by 50 percent
  • Followed by physical distancing for vulnerable, reduction 70 percent

• Outcomes:
  • Time to peak epidemic: 14 weeks
  • Time to reach ICU capacity (235): 11 weeks
Scenario 2: Significant, Smart Mitigation with ICU Bed Increase (1,000)
Modeling Conclusions

• COVID-19 pandemic will have severe impacts for Minnesota over an extended period of time

• Doing nothing is not an option

• Significant, smart mitigation can push back the peak and allow us much-needed time to:
  • Ramp up health care capacity and resources to provide care for as many hospitalized patients as possible
  • Improve existing treatments and add new ones
Stay Home Executive Order: The Minnesota Model

• Issuing Executive Order directing Minnesotans to **stay at home** and limit movements outside of their homes beyond essential needs for two weeks.
  • Effective Friday, March 27 at 11:59pm to Friday, April 10

• Closure of bars, restaurants, and other public accommodations set forth in Executive Orders 20-04 and 20-08 is extended until May 1, 2020 at 5:00 pm.

• Authorize the Commissioner of Education to implement a Distance Learning Period beginning on March 30, 2020 until May 4, 2020.
• Minnesotans may leave their residences only to perform any of the following activities and while doing so they should practice social distancing:

• Health and safety activities
• Outdoor activities
• Necessary Supplies and Services
• Essential and interstate travel
• Care of others
• Displacement
• Relocation to ensure safety
What Workers are Essential

- Workers who provide critical services to the people of Minnesota at this time are exempt. Our exemptions are based on federal guidance from the Cybersecurity and Infrastructure Security Agency (CISA) at the U.S. Department of Homeland Security with some Minnesota-specific additions. This includes, but is not limited to jobs in:
  - Healthcare and public health
  - Law enforcement, public safety, and first responders
  - Child care
  - Food and agriculture
  - News media
  - Energy
  - Water and wastewater
  - Critical manufacturing
Minnesota Stay Home Executive Order

• By staying at home, we will limit the spread of COVID-19 in our communities.

• While the virus will still be there when this order ends, this two-week period will give Minnesota time to ready for battle.
  
  • Build out hospital capacity
  • Increase access to ventilators and other life-saving equipment
  • Increase testing
  • Address shortage of personal protective equipment for health care workers
  • Plan for how to care for and protect vulnerable populations in months to come
  • Assess new data as it comes in to determine which parts of our strategy are working, and which are not
Conclusion

• The COVID-19 pandemic presents an unprecedented danger to our State.

• By staying at home, we will limit the spread of COVID-19 in our communities while we build out the capacity of our health care system.

• Together, as One Minnesota, we can save lives.
Thank you!

www.mn.gov/stayhomemn