Moving Beyond Stay-At-Home Orders: What’s Next? Where Do We Stand?

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Executive Director
Tri-County Health Department

April 23, 2020
Discussion at April 13 Board of Health Meeting: Moving Beyond Stay-at-Home Orders

• Current Stay-at-Home order through April 26
• When will we know we can pull back?
  • Sufficient social distancing to reduce transmission (ie, flatten the curve) to prevent surge that overwhelsms health care system
  • Hospital capacity is strengthened
• Depends upon post Stay-at-Home containment strategy
Measures of Social Distancing by Cell Phone Movement

- **Individual Movement and Social Distancing Orders**: Graph showing the movement and social distancing orders in the Seven County Metro Denver Area over the period from March 12 to April 21, 2020.

- **Percent Daily Change in Mobility (from 2019 to 2020)**: Graph illustrating the percent daily change in mobility in the Seven County Metro Denver Area from March 19 to April 17, 2020.

ICU bed peak capacity 1800 once elective surgery returns

Table 4. Projected timing and magnitude of the peak number of ICU hospitalizations for complementary interventions including high levels of social distancing by high-risk groups (scenario B), mask wearing in public (scenario C), aggressive case detection and containment (scenario D), and implemented in combination with social distancing. All scenarios are implemented on 4/27 and maintained indefinitely. Scenarios B through F assume social distancing is also implemented such that contact rates are reduced by 45%, 55% or 65% of normal levels and thus can be viewed as addition to scenario A.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Relax social distancing to 45%</th>
<th>Relax social distancing to 55%</th>
<th>Relax social distancing to 65%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Est. peak ICU need*</td>
<td>Est. date of ICU peak</td>
<td>Est. peak ICU need*</td>
</tr>
<tr>
<td>Complementary interventions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario B: Older adults maintain social distancing at current high levels</td>
<td>7,330</td>
<td>03/28/2020</td>
<td>4,630</td>
</tr>
<tr>
<td>Scenario C: Mask wearing by the public</td>
<td>12,600</td>
<td>08/20/2020</td>
<td>6,770</td>
</tr>
<tr>
<td>Scenario D: Improved case detection and isolation</td>
<td>14,700</td>
<td>08/07/2020</td>
<td>7,980</td>
</tr>
<tr>
<td>Combinations of complementary interventions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario E: Mask wearing, and improved case detection and containment</td>
<td>11,200</td>
<td>08/20/2020</td>
<td>4,650</td>
</tr>
<tr>
<td>Scenario F: Mask wearing, improved case detection and containment, and older adults maintain current high levels of social distancing</td>
<td>4,100</td>
<td>09/10/2020</td>
<td>1,420</td>
</tr>
</tbody>
</table>

* Rounded to 3 significant figures.
Cases of COVID-19 in Colorado by County

* People who tested positive for COVID-19 in Colorado while visiting are included in the county where they were identified.
** Some cases may still be under investigation and county not assigned yet.
Adams County Daily COVID Cases

Daily COVID-19 Cases by County

- Adams
- Arapahoe
- Douglas
- Location Pending

Number of Cases vs. Day of Report Date

2/22/2020 to 4/22/2020
Arapahoe County Daily COVID Cases

Daily COVID-19 Cases by County

- Arapahoe
- Adams
- Douglas
- Location Pending

Number of Cases vs. Day of Report Date

- Arapahoe County cases show a significant spike on April 8, 2020.
Douglas County Daily COVID Cases

Daily COVID-19 Cases by County

- (All)
- Adams
- Arapahoe
- Douglas
- Location Pending

Number of Cases

Day of Report Date

- 3/7/2020
- 3/12/2020
- 3/17/2020
- 3/22/2020
- 3/27/2020
- 4/1/2020
- 4/6/2020
- 4/11/2020
- 4/16/2020
- 4/21/2020
Adams County COVID Hospitalizations

Cumulative Daily Number of COVID-19 Hospitalizations and ICU Admissions
(at start of case investigation)
Does not include hospitalizations after initial case investigation

Daily Number of COVID-19 Hospitalizations and ICU Admissions
(at start of case investigation)
Does not include hospitalizations after initial case investigation
Arapahoe County COVID Hospitalizations

Cumulative Daily Number of COVID-19 Hospitalizations and ICU Admissions
(at start of case investigation)
Does not include hospitalizations after initial case investigation

Daily Number of COVID-19 Hospitalizations and ICU Admissions
(at start of case investigation)
Does not include hospitalizations after initial case investigation
Douglas County COVID Hospitalizations

Cumulative Daily Number of COVID-19 Hospitalizations and ICU Admissions
(at start of case investigation)
Does not include hospitalizations after initial case investigation

Daily Number of COVID-19 Hospitalizations and ICU Admissions
(at start of case investigation)
Does not include hospitalizations after initial case investigation
TCHD COVID Cases by Race/Ethnicity

COVID-19 Percent of Cases by Race/Ethnicity in Arapahoe County

- White: 39.93%
- Hispanic/Latino: 31.01%
- Black: 19.13%
- Asian: 9.93%

Percent of Total Number of Cases

COVID-19 Crude Rate by Race/Ethnicity per 1,000 in Arapahoe County

- White: 1.38
- Hispanic/Latino: 3.36
- Black: 3.48
- Asian: 3.00

COVID-19 Percent of Cases by Race/Ethnicity in Douglas County

- White: 80.67%
- Hispanic/Latino: 11.66%
- Black: 1.23%
- Asian: 5.44%

Percent of Total Number of Cases

COVID-19 Crude Rate by Race/Ethnicity per 1,000 in Douglas County

- White: 0.92
- Hispanic/Latino: 1.24
- Black: 0.67
- Asian: 2.49
Daily Trend of Available Medical and ICU Beds by Hospital

* This data represents only Hospitals in Adams, Arapahoe, and Douglas Counties
** This trend is updated daily. The number represented by the last data point may be incomplete.

![Graph showing Medical Beds and ICU Beds over time]

Daily Trend of Available and In Use Adult Ventilators by Hospital

* This data represents only Hospitals in Adams, Arapahoe, and Douglas Counties
** This information is updated daily.

![Graph showing Ventilators In-Use and Total over time]
# Current Available and In Use Adult Ventilators by Hospital

* This data represents only Hospitals in Adams, Arapahoe, and Douglas Counties
** This information is updated daily.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>#</th>
<th>Ventilators Total</th>
<th>Ventilators In-Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Castle Rock Adventist Hosp Centura III</td>
<td>22</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Children's Hospital Colorado^ RPTC</td>
<td>57</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Childrens Hospital Colorado South</td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Littleton Adventist Hospital Centura^ II</td>
<td>65</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Medical Center of Aurora^ II</td>
<td>102</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>North Suburban Medical Center^ II</td>
<td>38</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Parker Adventist Hospital Centura^ II</td>
<td>33</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Platte Valley Medical Center^ III</td>
<td>33</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Sky Ridge Medical Center^ II</td>
<td>20</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>St. Anthony North Health Campus^ III</td>
<td>110</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Swedish Medical Center^ I</td>
<td>69</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>UCHHealth Highlands Ranch Hospital^ III</td>
<td>25</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>UCHHealth University Hospital ^I</td>
<td>207</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>Category</td>
<td>Number</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Total COVID-19 Cases Living in a Long Term Care Facility</td>
<td>66</td>
<td>6.07%</td>
<td></td>
</tr>
<tr>
<td>Total COVID-19 Hospitalized Cases Living in a Long Term Care Facility</td>
<td>24</td>
<td>7.95%</td>
<td></td>
</tr>
<tr>
<td>Total COVID-19 ICU Cases Living in a Long Term Care Facility</td>
<td>5</td>
<td>5.00%</td>
<td></td>
</tr>
<tr>
<td>Total COVID-19 Deaths Living in a Long Term Care Facility</td>
<td>15</td>
<td>39.47%</td>
<td></td>
</tr>
</tbody>
</table>

(Updated 4/23/20)
Long term care facility case details based on current COVID-19 case data for Adams County as of 04/23/2020

Counts of Total COVID-19 Cases: 66
Counts of Total COVID-19 Related Deaths: 33

Daily Trend of COVID-19 Cases Living in a Long Term Care Facility

All
Arapahoe County COVID Cases in Long Term Care Facilities  
(Updated 4/23/20)

<table>
<thead>
<tr>
<th>Total COVID-19 Cases Living in a Long Term Care Facility</th>
<th>Total COVID-19 Hospitalized Cases Living in a Long Term Care Facility</th>
<th>Total COVID-19 ICU Cases Living in a Long Term Care Facility</th>
<th>Total COVID-19 Deaths Living in a Long Term Care Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>289</td>
<td>106</td>
<td>21</td>
<td>46</td>
</tr>
<tr>
<td>Percent of Total COVID-19 Cases Living in a Long Term Care Facility</td>
<td>Percent of Total COVID-19 Hospitalized Cases Living in a Long Term Care Facility</td>
<td>Percent of Total COVID-19 ICU Cases Living in a Long Term Care Facility</td>
<td>Percent of Total COVID-19 Deaths Living in a Long Term Care Facility</td>
</tr>
<tr>
<td>16.67%</td>
<td>18.56%</td>
<td>15.11%</td>
<td>46.46%</td>
</tr>
</tbody>
</table>
Long term care facility case details based on current COVID-19 case data for Arapahoe County as of 04/22/2020

Counts of Total COVID-19 Cases: 289
Counts of Total COVID-19 Related Deaths: 69

Daily Trend of COVID-19 Cases Living in a Long Term Care Facility

![Bar chart showing the daily trend of COVID-19 cases in long term care facilities.]
Douglas County COVID Cases in Long Term Care Facilities
(Updated 4/23/20)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total COVID-19 Cases Living in a LTCF</td>
<td>26</td>
<td>6.62%</td>
</tr>
<tr>
<td>Total COVID-19 Hospitalized Cases</td>
<td>16</td>
<td>14.04%</td>
</tr>
<tr>
<td>Total COVID-19 ICU Cases Living in a LTCF</td>
<td>5</td>
<td>11.63%</td>
</tr>
<tr>
<td>Total COVID-19 Deaths Living in a LTCF</td>
<td>5</td>
<td>26.32%</td>
</tr>
</tbody>
</table>
Long term care facility case details based on current COVID-19 case data for Douglas County as of 04/23/2020

Counts of Total COVID-19 Cases: 26
Counts of Total COVID-19 Related Deaths: 18

Daily Trend of COVID-19 Cases Living in a Long Term Care Facility

<table>
<thead>
<tr>
<th>Report Date [2020]</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 26</td>
<td>1</td>
</tr>
<tr>
<td>Mar 31</td>
<td>3</td>
</tr>
<tr>
<td>Apr 5</td>
<td>2</td>
</tr>
<tr>
<td>Apr 10</td>
<td>2</td>
</tr>
<tr>
<td>Apr 15</td>
<td>2</td>
</tr>
<tr>
<td>Apr 20</td>
<td>2</td>
</tr>
<tr>
<td>Apr 25</td>
<td>1</td>
</tr>
</tbody>
</table>
Coronavirus Disease 2019 (COVID-19)
Current epidemic curve status*,
by U.S. County, 18 April 2020

Epi curve status
- Low incidence growth
- Elevated incidence growth
- Elevated incidence plateau
- Sustained decline
- Low incidence plateau
- 1-5 cases in the past two weeks
- 0 cases in the past two weeks
- No reported cases

Purpose of this map
Provides the most detailed view into both the burden of illness and the trajectory of new illnesses

Main Findings
- There remains a large number of counties whose burden continues to grow or are in an elevated incidence plateau, including in the Great Lakes region, parts of the Southeast and around southern California
- The goal is to have all communities be represented in the lighter colors, demonstrating little to no disease burden and no increase in trajectory

*Categorized according to the slope of a spline fit to the 3 day moving average of daily incidence and the number of new cases (per 100,000) in the past 2 weeks. Elevated incidence is defined as >10 new cases per 100,000 in the past two weeks.

Sources: USAFacts, US Census
Trends in Epidemic Curve Status* of Major CBSAs in Each FEMA/HHS Region

Data through 18 April 2020, Map is at the county level.

Epi curve status
- Low incidence growth
- Elevated incidence growth
- Elevated incidence plateau
- Sustained decline
- Low incidence plateau
- 1-5 cases in the past two weeks
- 0 cases in the past two weeks
- No reported cases

*Categories account for the status of data in the 3-day moving average of daily incidence and the number of cases per 100,000 people as of April 15, 2020. Cases include residents and non-residents within 10 miles of the city.

Source: DHHS, US Census

CDC

Map of the United States with colored patches indicating different status levels of epidemic curve. Maps labeled V, VII, I, II, III, IV, X, IX, VIII, VI.
Trends in ER Visits Due to Illnesses Compatible with COVID by Syndromic Surveillance

Figure 2. TCHD COVID-19 Related Hospital Visits by Hospital Visit Types, 03/01/2020-04/22/2020*
Where Do We Stand?

- Denver Metro area remains an area of active COVID transmission
- Cases and hospitalizations appear to be flattening but haven’t yet begun to decline
- Some prevention measures (eg, support of LTCF, testing, masking) improving, others (contact investigation) not yet
- Considerations:
  - Extend optimal social distancing to improve flattening/declining, putting us in a better place to decrease a surge if/when it happens
  - Guidance from Governor has been evolving and we urgently need to understand final details
  - To reduce confusion, any new order should occur when Governor lifts Stay-at-Home order 4/27
  - Extra time should enhance testing, contact investigation, business preparation for Safer-at-Home provisions
  - Most effectively done in concert with counties with growing/plateaued epidemics
Preferred Approach

• Maintain existing Stay at Home order through May 8 for counties with high rates of transmission (Adams, Arapahoe)
  • Modify to allow curbside pick-up for non-essential retail stores
    • Parallel to what Safer at Home allows through May 1, with one week extension
  • Highly coordinated with Jefferson, Boulder, Broomfield planning
  • Consistent with Denver plans (current order to be extended through May 8)
• Work with Douglas County to finalize their county-specific plan (closer to Safer at Home, with some modification as capacity and public health parameters allow)
• Work with other Metro LPHAs and local partners to refine pending state business-specific guidance to provide greater clarity by May 8
Motion to Consider

• Authorize and direct the Executive Director of Tri-County Health Department to assess Governor Polis’ Safer at Home order, and to issue local public health orders as needed through May 8, 2020 for specific jurisdictions of the TCHD district still experiencing high rates of illness in Adams and Arapahoe Counties.
Questions?