We are excited to be here with you today

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Solving the COVID-19 humanitarian challenge is the top priority. Much remains to be done globally to prepare, respond, and recover, from protecting populations at risk, to supporting affected patients/families/communities, to developing a vaccine. To address this crisis, countries including the US will need to respond in an evidence-informed manner, leveraging public health infrastructure and proactive leadership.

This document is meant to help with a narrower goal: provide a summarized fact base on the disease to date, insights on potential scenarios for the US healthcare workforce, and potential actions stakeholders may consider as it could relate to needs posed by COVID-19.

In addition, we have developed a broader perspective on implications for businesses across sectors that can be found here: https://www.mckinsey.com/business-functions/risk/our-insights/COVID-19-implications-for-business. This supplemental material discusses implications for the wider economy, businesses, and employment; and sets out some of those challenges and how organizations can respond in order to protect their people and navigate through an uncertain situation.

For all formal guidance, you can find up-to-date information at CDC’s COVID-19 website, with a section specific to healthcare professionals or healthcare organizations: https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/index.html
The global spread is accelerating with more reports of local transmission

Latest as of April 12, 2020

<table>
<thead>
<tr>
<th>Impact to date</th>
<th>&gt;1.91M</th>
<th>&gt;119,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported confirmed cases</td>
<td>Deaths</td>
<td></td>
</tr>
</tbody>
</table>

| >212 | >180 | 70 |
| Countries or territories with reported cases\(^1\) | Countries or territories with evidence of local transmission\(^2\) | Countries or territories with more than 1000 reported cases\(^1\) |

\(\approx 0.1\%\)
China share of new reported cases April 7 – April 13

\(\approx 38\%\)
US share of new reported cases April 7 – April 13

\(\approx 46\%\)
Europe share of new reported cases April 7 – April 13

3
New countries or territories with cases April 7 – April 13

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1. Previously counted only countries; now aligned with WHO reports to include territories and dependencies; excluding cruise ships.
2. Previously noted as community transmission in McKinsey documents; now aligned with WHO definition.

Sources: World Health Organization, John Hopkins University (Observed at 2100 ET), CDC, news reports
The virus has spread worldwide despite containment efforts

- Europe: Total cases >913,300, Total deaths >77,400
- South America: Total cases >48,100, Total deaths >1,900
- Africa: Total cases >619,000, Total deaths >24,900
- Asia (excl. China): Total cases >47,200, Total deaths >1,400
- Oceania: Total cases >7,400, Total deaths >60
- China: Total cases >83,500, Total deaths >3,300
- Middle East: Total cases >99,700, Total deaths >5,100
- North America: Total cases >10,200, Total deaths >460

Current as of April 13, 2020

Source: World Health Organization, Johns Hopkins University, McKinsey analysis

1. Johns Hopkins data used for U.S. (observed at 2100ET), all other North America countries reporting from WHO
2. Includes Western Pacific and South–East Asia WHO regions; excludes China; note that South Korea incremental cases are declining, however other countries are increasing
3. Eastern-Mediterranean WHO region
4. Includes Australia, New Zealand, Fiji, French Polynesia, New Caledonia, Papua New Guinea

Propagation trend:
- >1,900
- 50-250
- 250-999
- 1,000-9,999 reported cases
- >10,000 reported cases
- <50
Washington DC metro population—scenarios of COVID-19 disease burden

Estimate of total COVID-19 cases based on other country benchmarks over 50 days, (log scale)

- Actual Cases
- Wuhan Epidemic Curve
- Lombardy, Italy Epidemic Curve
- Daegu, South Korea Epidemic Curve

Day 30

36,549
26,917
15,632
9,189

1 Cumulative - line indicates the estimated number of COVID-19 cases
2 Includes the following counties: Washington, Calvert (MD), Charles (MD), Prince George's (MD), Alexandria (VA), Arlington (VA), Clarke (VA), Culpeper (VA), Fairfax (VA), Falls Church (VA), Fauquier (VA), Fredericksburg (VA), Loudoun (VA), Manassas (VA), Prince William (VA), Rappahannock (VA), Spotsylvania (VA), Stafford (VA), Warren (VA), Jefferson (WV), Montgomery (MD); St. Mary's (MD)
3 The epidemic start date is determined by finding the first 3 consecutive days of growth in new cases, and then the first of those 3 days is the epidemic growth start date; Used same date for VA as general population

Source: JAMA Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China; Johns Hopkins COVID-19 data; Coronavirus in the United States: Mapping the spread of the outbreak; Census data; USAfacts.org
Analysis as of 04/13/2020

Overview of COVID cases for key US markets

Total reported COVID cases, log scale

Cases as of 4/13/20

New York City: 236,238
Detroit: 20,139
Southern CA: 16,247
New Orleans: 13,302
Washington DC: 9,189

1. Includes the following counties: Kings, Queens, New York, Bronx, Richmond, Westchester, Bergen, Hudson, Passaic, Putnam, Rockland, Suffolk, Nassau, Essex (NJ), Morris, Union, Middlesex (NJ), Somerset, Fairfield
2. Includes the following counties: Macomb, Oakland, Wayne
3. Includes the following counties: Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, San Luis Obispo, Ventura
4. Includes the following counties: Orleans, Jefferson, Plaquemines, Saint Bernard, Saint Charles, Saint James, Saint John the Baptist, Saint Tammany
5. Includes the following counties: Washington, Calvert (MD), Charles (MD), Prince George’s (MD), Alexandria (VA), Arlington (VA), Clarke (VA), Culpeper (VA), Fairfax (VA), Falls Church (VA), Fauquier (VA), Fredericksburg (VA), Loudoun (VA), Manassas (VA), Prince William (VA), Rappahannock (VA), Spotsylvania (VA), Stafford (VA), Warren (VA), Jefferson (WV); Montgomery (MD); St. Mary’s (MD)

Source: Johns Hopkins University COVID data
Providers will need to think and act across each horizon of the COVID-19 crisis

**At onset of crisis**
- Resolve immediate challenges of COVID-19
  - Stand up a COVID-19 “Nerve Center” response team to address patient care needs

**Directly after onset of crisis**
- Resilience through the crisis
  - Stand up Cash War Room and Spend Control Tower to address near-term cash management challenges

**As crisis starts to ramp down**
- Return to clinical norms
  - Initiate plan to address economic impact and get back on track, whilst building a more resilient, sustainable position

**As core business operations stabilize**
- Reimagine the “new normal” and Reform in the new realm
  - Reimagine the “new normal” for delivering care

Current as of April 1st, 2020
Across these levels, there are 9 key considerations for health systems:

- Establishing tracking mechanisms / a “Nerve Center”
- Managing bed capacity
- Preparing the workforce
- Fortifying supply chain and address critical shortages / gaps
- Adapting care delivery and clinical model
- Communicating to patients, employees, and communities
- Shoring-up IT infrastructure to accommodate surge
- Ensuring financial resilience
- Engaging with government and other health systems
Illustrative impact of COVID-19 epidemic on a health system’s income statement for 2020

Illustrative EBITDA impact of COVID-19 crisis for a health system (scenario assuming robust mitigation measures remain through summer\(^1\))

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Volume decline prior to COVID-19 volume ramp-up</td>
</tr>
<tr>
<td>B</td>
<td>COVID-19 volume ramp-up, with sustained loss of other patient volume</td>
</tr>
<tr>
<td>C</td>
<td>Volume recovery as communities manage COVID-19 epidemic</td>
</tr>
<tr>
<td>D</td>
<td>Volume stabilization following period of pent-up demand</td>
</tr>
</tbody>
</table>

Key sensitivities by phase

- **A** Volume decline
  - Extent of operational disruption due to pandemic preparedness and public health responses (e.g., shelter-at-home, closure of non-acute sites of care)
  - Service and payor mix changes (e.g., disproportionate impact of loss of margin-accretive procedures)

- **B** COVID-19 volume ramp-up
  - COVID-19 attack rate in service areas
  - Payor mix and LOS for COVID-19 admissions and observation cases, as well as appropriate documentation
  - Degree of PPE and labor shortages (and associated cost inflation, as well as limitations on other care delivery)
  - Extent of financial relief via government intervention

- **C** Volume recovery
  - Timeline and scope of government interventions, e.g., terms of loosening physical distancing measures
  - Ability to maintain, or even increase, clinician capacity to meet pent-up demand from deferred, scheduled cases
  - Consumer confidence and willingness to re-engage in care, especially at hospitals

- **D** Volume stabilization
  - Impact of potential economic downturn on payor mix (e.g., shift to Medicaid) and patient yield
  - Longer-term shifts in utilization away from hospitals (i.e., ESI Level 4-5 cases do not return to ED in the future)

Health systems’ EBITDA trajectory will vary across geographies based on their experience of the COVID-19 epidemic, especially given significant uncertainty on future reemergence of COVID-19 volumes. Above depicts one of many potential scenarios; several important sensitivities can alter the length and depth of each part of the curve (detailed on right). The ability to model the impact of changes in the progression of this epidemic and its impact on health systems will be crucial to develop and adapt return strategies, as well as health systems’ long-term sustainability plans.

\(^1\) Assumes a geography where epidemic take-off has occurred and that robust measures are successfully deployed through at least mid-summer (e.g., lockdown until healthcare capacity is built, or substantial testing, extensive contact tracing, and rapid, high-compliance isolation)

Source: McKinsey Provider Economic Impact Model
Consumers who have canceled largely intend to reschedule their care, although drop-off exists

Cancellations or intent to cancel upcoming healthcare appointments and plans to reschedule
% of respondents reporting at least one canceled medical appointment

<table>
<thead>
<tr>
<th>Appointment Type</th>
<th>Respondents reporting canceled appointments</th>
<th>Respondents reporting intent to reschedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine care, besides wellness</td>
<td>38%</td>
<td>94%</td>
</tr>
<tr>
<td>Dental visit</td>
<td>31%</td>
<td>85%</td>
</tr>
<tr>
<td>Periodic wellness visit</td>
<td>34%</td>
<td>89%</td>
</tr>
<tr>
<td>Mental health appointment</td>
<td>32%</td>
<td>81%</td>
</tr>
<tr>
<td>Elective medical procedure</td>
<td>28%</td>
<td>81%</td>
</tr>
<tr>
<td>Physical therapy session</td>
<td>24%</td>
<td>77%</td>
</tr>
<tr>
<td>Annual medical check-in</td>
<td>17%</td>
<td>70%</td>
</tr>
<tr>
<td>Chiropractic appointment</td>
<td>15%</td>
<td>67%</td>
</tr>
<tr>
<td>Elective medical procedure</td>
<td>7%</td>
<td>69%</td>
</tr>
<tr>
<td>In-home medical check-in</td>
<td>8%</td>
<td>43%</td>
</tr>
<tr>
<td>Gynecological appointment</td>
<td>6%</td>
<td>43%</td>
</tr>
<tr>
<td>Elective surgical procedure</td>
<td>3%</td>
<td>43%</td>
</tr>
<tr>
<td>N=410</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percent of respondents reporting canceled appointments who also intend to reschedule:
- Routine care, besides wellness: 81%
- Dental visit: 94%
- Periodic wellness visit: 85%
- Mental health appointment: 89%
- Elective medical procedure: 81%
- Physical therapy session: 77%
- Annual medical check-in: 70%
- Chiropractic appointment: 67%
- Elective surgical procedure: 69%
- In-home medical check-in: 43%

Routine care, such as checkups, and dental visits were the most likely to be reported canceled by both respondents and their providers; however, this may be due to routine care and dental visits comprising a larger proportion of total upcoming appointments.

Across most types of care, a majority of respondents who reported canceled healthcare appointments also reported planning to reschedule them.

Key themes Providers can embrace to accelerate much-needed change and create a “new normal”

COVID-19 as a catalyst

**Telehealth adoption**

Defaulting to in-person outpatient visits could be a fixture of the past as the COVID-19 crisis has pushed patients and physicians to widespread adoption.

**Nuanced workforce management**

The crisis has forced health systems to bring the full scope of clinician capabilities to bear. While some measures should be reserved for disaster situation, others should be become routine.

**Safer and more efficient approaches to physical patient care**

COVID-19 sparked models such as drive-through testing which was widely and quickly implemented and could be extended to increase convenience, reduce infection transmission and improve productivity of existing assets.

**Faster and more effective organizational decision-making**

As a result of the crisis, decision-making shifted as executives designated and empowered teams with decision-making power, funding, and a clear, prioritized end-goal. Maintenance of such agility could force-multiply the effectiveness of health system leadership.

The operating ecosystem for Providers has fundamentally changed

**Macro-economic environment:**

COVID-19 crisis will have long-lasting impacts on unit reimbursement and changes in utilization as the shape of an economic recovery, and resulting duration of these impacts, remain unclear.

**Consumer sentiment leading to service redistribution and changes in value pool:**

Consumer confidence in health systems has been impacted and combined with greater exposure to telehealth, the long-standing move from inpatient to outpatient (OP) settings could be accelerated, and extend to virtual and home settings. This service redistribution could fundamentally alter traditional value pools for Providers.
Thank you!

https://healthcare.mckinsey.com/covid19
https://www.mckinsey.com/coronavirus

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