Anatomy of an Outbreak: Part 8
The grand experiment in reopening economies and hospitals has begun

May 7, 2020

Presented by
Health Care Advisory Board
Today’s Research Experts

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Coronavirus cases in the United States
Current as of May 6, 2020

- At least 1,210,700 cases
- 326,659 cases in New York
- At least 71,077 deaths

Original estimates of possible effects
- 96 million cases
- 4.8 million hospitalizations
- 480,000 deaths

Worldwide daily death tolls (slowly) coming down?

Daily coronavirus deaths (rolling 3-day average), by number of days since 3 daily deaths first recorded

<table>
<thead>
<tr>
<th>Country</th>
<th>Total deaths per million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>546</td>
</tr>
<tr>
<td>Italy</td>
<td>486</td>
</tr>
<tr>
<td>U.K.</td>
<td>441</td>
</tr>
<tr>
<td>France</td>
<td>381</td>
</tr>
<tr>
<td>U.S.</td>
<td>217</td>
</tr>
<tr>
<td>Germany</td>
<td>84</td>
</tr>
<tr>
<td>South Korea</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Current as of 05/06/2020.

Most states not yet seeing a sustained decrease in deaths
Though New York shows the clearest signs of turning the corner

Daily coronavirus deaths (rolling 3-day average), by number of days since 10 total deaths first recorded

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Total deaths per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detroit</td>
<td>510</td>
</tr>
<tr>
<td>Boston</td>
<td>449</td>
</tr>
<tr>
<td>New York City</td>
<td>380</td>
</tr>
<tr>
<td>New Orleans</td>
<td>288</td>
</tr>
<tr>
<td>Miami</td>
<td>176</td>
</tr>
<tr>
<td>Chicago</td>
<td>101</td>
</tr>
<tr>
<td>Seattle</td>
<td>85</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>34</td>
</tr>
</tbody>
</table>


1. Current as of 05/06/2020.
Bed capacity not the limiting factor
Months into the pandemic we’ve now shifted our attention to other factors

Projected ICU bed shortage and dates of peak resource use by state
Updated April 27, 2020

DATA SPOTLIGHT

New York City hospital bed data

- Total hospital beds from private and public organizations: 20,000
- Total Covid-19 hospitalizations from March 1 to May 6: 43,676
- Highest daily Covid-19 hospital admissions on April 6: 1,684

Weighing the tradeoffs of economic reopening
Lifting social distancing will likely create a spike in Covid mortality

States taking actions to re-open and distance from daily testing target
Current as of May 5th

DATA SPOTLIGHT

IHME\(^1\) readjusts death projections

<table>
<thead>
<tr>
<th>Change</th>
<th>Total deaths in the U.S. by August 4(^{th}), as of April 29(^{th})</th>
<th>Total deaths in the U.S. by August 4(^{th}), as of May 4(^{th})</th>
</tr>
</thead>
<tbody>
<tr>
<td>+72,433</td>
<td>72,433</td>
<td>134,475</td>
</tr>
</tbody>
</table>


1. Institute for Health Metrics Evaluation.
Testing and positivity rates show largely promising trends

Trends in Covid-19 positivity and testing rates

<table>
<thead>
<tr>
<th>State</th>
<th>Change in Pos. rate (%)</th>
<th>Change in testing rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>1.6 ▼ -35%</td>
<td></td>
</tr>
<tr>
<td>AL</td>
<td>7.8 ▼ -8%</td>
<td></td>
</tr>
<tr>
<td>AR</td>
<td>6.0 ▼ -14%</td>
<td></td>
</tr>
<tr>
<td>AZ</td>
<td>10.6 ▼ 88%</td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>7.3 ▼ 49%</td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>20.2 ▼ -20%*</td>
<td></td>
</tr>
<tr>
<td>CT</td>
<td>27.8 ▼ -33%*</td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>21.9 ▼ 54%*</td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>21.8 ▼ -1%*</td>
<td></td>
</tr>
<tr>
<td>FL</td>
<td>7.9 ▼ 26%</td>
<td></td>
</tr>
<tr>
<td>GA</td>
<td>15.0 ▼ 21%</td>
<td></td>
</tr>
<tr>
<td>HI</td>
<td>1.8 ▼ 31%*</td>
<td></td>
</tr>
<tr>
<td>IA</td>
<td>16.5 ▼ 67%*</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>7.0 ▼ -**</td>
<td></td>
</tr>
<tr>
<td>IL</td>
<td>18.9 ▼ 13%</td>
<td></td>
</tr>
<tr>
<td>IN</td>
<td>18.1 ▼ 31%*</td>
<td></td>
</tr>
<tr>
<td>KS</td>
<td>13.6 ▼ 37%</td>
<td></td>
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<tr>
<td>KY</td>
<td>9.5 ▼ -55%*</td>
<td></td>
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<tr>
<td>LA</td>
<td>15.6 ▼ 177%</td>
<td></td>
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<tr>
<td>MA</td>
<td>21.2 ▼ -13%</td>
<td></td>
</tr>
<tr>
<td>MD</td>
<td>19.6 ▼ -4%</td>
<td></td>
</tr>
<tr>
<td>ME</td>
<td>5.4 ▼ -6%</td>
<td></td>
</tr>
<tr>
<td>MI</td>
<td>19.3 ▼ 12%</td>
<td></td>
</tr>
<tr>
<td>MN</td>
<td>9.2 ▼ 52%*</td>
<td></td>
</tr>
<tr>
<td>MO</td>
<td>9.0 ▼ 24%</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>10.5 ▼ 18%*</td>
<td></td>
</tr>
<tr>
<td>MT</td>
<td>2.3 ▼ 218%</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>7.8 ▼ 64%</td>
<td></td>
</tr>
<tr>
<td>ND</td>
<td>3.4 ▼ 32%</td>
<td></td>
</tr>
<tr>
<td>NE</td>
<td>17.8 ▼ 80%*</td>
<td></td>
</tr>
<tr>
<td>NH</td>
<td>9.5 ▼ 22%*</td>
<td></td>
</tr>
<tr>
<td>NJ</td>
<td>45.6 ▼ -4%</td>
<td></td>
</tr>
<tr>
<td>NM</td>
<td>5.0 ▼ 3%*</td>
<td></td>
</tr>
<tr>
<td>NV</td>
<td>11.5 ▼ 16%</td>
<td></td>
</tr>
<tr>
<td>NY</td>
<td>31.2 ▼ -23%</td>
<td></td>
</tr>
<tr>
<td>OH</td>
<td>12.8 ▼ 29%</td>
<td></td>
</tr>
<tr>
<td>OK</td>
<td>5.1 ▼ 41%</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>4.3 ▼ 2%</td>
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<tr>
<td>PA</td>
<td>20.2 ▼ -5%</td>
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<tr>
<td>RI</td>
<td>12.9 ▼ 4%</td>
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<tr>
<td>SC</td>
<td>9.0 ▼ 109%</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>14.3 ▼ -24%</td>
<td></td>
</tr>
<tr>
<td>TN</td>
<td>6.1 ▼ 9%</td>
<td></td>
</tr>
<tr>
<td>TX</td>
<td>7.8 ▼ 27%</td>
<td></td>
</tr>
<tr>
<td>UT</td>
<td>4.3 ▼ -14%</td>
<td></td>
</tr>
<tr>
<td>VA</td>
<td>17.8 ▼ --**</td>
<td></td>
</tr>
<tr>
<td>VT</td>
<td>5.1 ▼ 24%</td>
<td></td>
</tr>
<tr>
<td>WA</td>
<td>7.1 ▼ -1%*</td>
<td></td>
</tr>
<tr>
<td>WI</td>
<td>9.2 ▼ 25%</td>
<td></td>
</tr>
<tr>
<td>WV</td>
<td>2.2 ▼ -26%</td>
<td></td>
</tr>
<tr>
<td>WV</td>
<td>5.0 ▼ 75%*</td>
<td></td>
</tr>
</tbody>
</table>

United States: 15.7 positivity rate (▼), 14% increase in testing rate from last week

- Arrows indicate directionality change from last week; change in testing rate compares new tests run last week versus this week
- *Indicates that the state last reported data on 5/5; **Indicates that the state last reported data on 5/4 and therefore we cannot compare week-to-week testing rates

Criteria to open:
- <10% positivity rate
- Declining positivity rate
- Steady/increasing testing

Long-term care residents, staff prioritized for testing
- New CDC guidance prioritizes symptomatic residents and workers
- Many states vow to test all residents and staff

Have SNFs finally gotten the federal support they need?
New measures for oversight and PPE announced, systemic challenges remain

1. White House forms the Coronavirus Commission for Safety and Quality in Nursing Homes
   - **Timeframe:** Meetings to begin at the end of May
   - **Initiatives:** The commission will focus on three areas:
     - Protecting residents from Covid-19
     - Improving authorities ability to identify and mitigate the spread of the virus in long-term care
     - Improving compliance with infection control protocols

2. FEMA announces new shipments of PPE to all nursing homes across the country
   - **Timeframe:** All deliveries complete by July 4th
   - **Initiatives:** FEMA will provide two shipments of seven-day supply of PPE directly to 15,000 nursing homes.
     - Shipments include masks, gowns, eye protection, and gloves; N-95s are not included

**American Health Care Association calls for significant increase in funding and support for nations nursing homes**

- **$10B** In funding for an emergency response fund specifically for SNFs
- **$120K** In additional dedicated funding for each facility with Covid-19 patients

Wide range of opening policies across states

- **Shut-down in place**
  - Stay-at-home order ongoing
  - Retail, beauty, entertainment closed
  - In-person dining closed
  - Michigan, Washington D.C., Wisconsin

- **Re-opening with strict guidelines**
  - Stay-at-home order lifted with social distancing recommendations
  - Retail, beauty open with occupancy limitations
  - Offices open at 50% capacity
  - Colorado, Texas, Florida

- **Rapidly lifting lockdown**
  - Stay-at-home order lifted with social distancing recommendations
  - Retail, beauty, gyms, fitness centers open
  - In-person dining open with capacity limitations
  - Houses of worship open
  - Georgia, Oklahoma

- **Never implemented stay-at-home orders**
  - Recommendations of social distancing, but never mandated
  - Businesses (Workplaces, in-person dining, retail, beauty) remained open with some capacity constraints
  - South Dakota, North Dakota

Advisory Board interviews and analysis.
Vulnerable populations protected in reopening measures
Efforts underway to shield at-risk individuals from Covid-19

**Georgia**

- Medically fragile and elderly Georgians required to shelter in place through June 12
- Long-term care facilities—including nursing homes, personal care homes, assisted living facilities, and similar community living homes required to utilize enhanced infection control protocols

75%

Of Covid-19 deaths in Georgia are individuals over the age of 65

**Colorado**

- National Guard testing for Covid-19 in largest nursing home facilities
- Nursing homes required to submit plans for isolated residents with symptoms
- All employees of all businesses are required to wear masks in places of work

50%

Of Covid-19 deaths in Colorado occurred in long-term care facilities

A new kind of regional purchasing consortium
New York teams with six other states to aggregate pandemic-related purchasing

The Consortium
• Includes public and private hospitals in seven northeastern states (NY, NJ, CT, MA, RI, DE, PA)
• Represents $5B in purchasing power
• Focused on PPE, ventilators, medical equipment, and testing supplies
• Will pool information on supplier quality and integrity
• Will also explore manufacturing alternatives (e.g., 3D printing, sterile reprocessing)

Benefits
• More purchasing clout and competitive pricing
• Fewer opportunities lost to Feds and other countries
• More visibility into individual and collective needs, supplier quality
• Encourages local manufacturing

Outstanding questions
• Does this further disintermediate GPOs?
• Will the purview extend beyond pandemic-related products?
• Will this open more doors to cross-system collaboration?
• What does this say about the potential scale and scope of efforts toward systemness?

Initial insights from industry leaders

Health system virtual leadership roundtables

- Pharmacy leaders
- Chief financial officers
- Chief nursing officers
- Post-acute leaders
- Independent physician leaders
- Chief strategy officers

Sample of discussion questions from leadership roundtables

- What are the challenges to reopening and how did you overcome these challenges?
- What initiatives in your team prioritizing during Covid-19 and why?
- If you could repeat your organization’s response to Covid-19, what would you change?
- How is Covid-19 shaping long-term goals and initiatives at your organization?
Pharmacy leaders discuss Covid-19 impact and top priorities

Pharmacy executives from health systems such as Northwell, Stanford, and the University of Pennsylvania gathered virtually to discuss challenges and successes around their Covid-19 response as well as their thoughts on future implications for pharmacy.

Surge preparation priorities for pharmacy leaders

1. Create a system-wide drug shortage plan
   Use solid caseload projections, centralize inventory tracking, and incorporate alternative meds into EHR treatment protocols to ensure care continuity.

2. Tailor pharmacy education and communication strategies
   Work closely with providers and plan ahead to ensure appropriate medication management for complex patients—effective provider education strategies vary by surge status.

3. Mitigate staffing challenges during the surge
   Implement telework and distancing strategies early on—especially for managers—to ensure sufficient healthy and available staff for a prolonged crisis.

Longer-term Covid-19 impacts on pharmacy

Upending the drug supply chain
The pandemic exposed supply chain cracks which may result in larger changes. In response, health systems are exploring new models of bulk purchasing and centralization at the system level.

Expanding telehealth and home care options
Pharmacists can provide and bill for medication management telehealth visits for chronic disease patients, reducing the need for in-person visits. Pharmacy staff can also support growth in margin-generating home infusion services.
The impact of Covid-19 on hospital post-acute strategy
Key takeaways from the Covid-19 Hospital Post-Acute Leader Virtual Roundtables

VIRUTAL ROUNDTABLES IN BRIEF
On March 31st and April 14th, the Post-Acute Care Collaborative hosted virtual roundtable sessions for hospital-based post-acute and population health leaders. Topics discussed:

- Discharge and throughput strategy
- How to support post-acute partners in their Covid-19 efforts

Insight from the conversation

Providers are expanding traditional ideas about discharge destination

Why?
- SNFs are unable or unwilling to admit new patients
- Inpatient capacity is strained

How?
- Discharge traditional SNF patients directly home with enhanced support
- Treat overflow med-surg patients in converted IRFs and LTACHs

Hospitals are taking a more hands-on approach with post-acute partners

Why?
- SNFs have been experiencing significant outbreaks nationwide
- Home health, IRFs, and LTACHs are treating new patient types to help with hospital throughput

How?
- Offer infection control support to SNFs
- Provide advanced clinical and rehabilitation support to partner home health, IRF, and LTACH providers
### Non-negotiables for the nursing enterprise before re-opening

**Starter list of non-negotiables**

1. **Transition staff back to priority service areas without unraveling Covid care**
   - Identify priority areas using a systematic and evidence-based approach
   - Determine the staff needed for continued Covid care and a potential second surge

2. **Provide and actively promote resources for emotional recovery**
   - Assess emotional health of *all* staff and match recovery resources to needs
   - Communicate early and often about available resources
   - Remain transparent about future uncertainty

3. **Standardize testing and PPE processes for employees**
   - Ensure employee standards align with the CDC, regulatory agencies, and system policies
   - Communicate processes clearly to employees

4. **Adjust peri-operative processes to accommodate for Covid, as needed**
   - Integrate advancements in virtual care into pre- and post-op care
   - Clarify testing, PPE protocols for patients
   - Update patient communication with new safety measures and policies
Takeaways from Independent Physician Group Executives

Many practices are well-equipped to reopen safely and must turn their attention to messaging their safety. Groups realize that ensuring safe access to care and testing is a prerequisite for continuing operations in the short- and medium-term and have implemented measures to do that. But it is as important to make sure staff and patients feel safe returning to in-person care so that volumes rebound.

Telehealth is here to stay, and groups should devise their long-term strategy now. There is clear consensus that patients and providers have accepted telehealth. Focus is shifting from stopgap measures to longer-term considerations, such as more permanent vendor solutions, the balance between in-person and virtual visits, and telehealth’s impact on physical clinic space.

Agile staffing and operations will be key to weathering Covid-19 surges. Practices recognize that surges and temporary reductions in volumes remain likely in the future. Those who design approaches to staffing and operations that can flex according to social distancing requirements and number of Covid-19 patients will be better prepared to manage future surges and protect their business.

Some Covid-19-related changes should be more permanent. As telehealth, flex work, and new practice models become more engrained in patients and staff, groups are thinking ahead to future strategy—and modifying their spaces and operations with these longer-term goals in mind. Those who capitalize on these opportunities to reform their practice models will have a stronger competitive advantage going forward.
Chief Financial Officer Roundtable: “The Covid Cash Crunch”

Themes from CFO Roundtable

- Participants report their liquidity situation as of April 24 much improved since early weeks of pandemic.
- Revenues down massively, but immediate insolvency no longer a major concern—as long as volumes begin to return soon.
- All participants credited Medicare advanced payments for stabilizing short-run outlook. Most participants have taken the full amount of advanced payment available, even those without cash flow challenges.
- Repayment obligations loom, but long-run outlook far more favorable if repayment terms eventually relaxed.
- Participants taking particular care to understand technical aspects of all sources of relief funding and to document extensively in anticipation of possible audits.
- Those with prior disaster experience (e.g. floods, hurricanes) grateful for familiarity with FEMA terms and conditions.
- Limited success in securing extra funding from commercial payers.
- Commonly cited cost control measures include C-suite compensation reductions, targeted furloughs.
- Majority of CFO discussion interest was on revenue side, not cost.

SESSION OVERVIEW

April 24, 2020: “The Covid Cash Crunch”

- Virtual roundtable of health system CFOs convened and moderated by Advisory Board Expert Partner Ben Umansky.
- Participants represented a range of health system constituencies, including:
  - For-profit and not-for-profit systems.
  - Systems of local, regional, and national scale.
  - Urban and rural footprints.

**Key Takeaways from CSO Networking Sessions**

**Topic: Restarting scheduled procedures**

**It’s a dimmer switch, not an on/off switch.**
Organizations are taking a phased approach to restarting scheduled procedures, prioritizing procedures that are clinically time-sensitive, same-day or short LOS, financially beneficial, and have lower PPE requirements.

**Engage surgeons and referring physicians.**
To keep surgeons and referrers from switching facilities, organizations should explain their restart plan and rationale, address concerns proactively, evaluate surgeons’ willingness to flex schedules, and provide patient talking points.

**ASCs have new advantages and challenges.**
Ambulatory surgery centers may have an opportunity to expand their set of services but may struggle to maintain sufficient PPE and OR turnover rates.

**The fear factor is CSOs’ biggest fear factor.**
CSOs are concerned that patient anxiety will limit volumes. Organizations are reshaping every aspect of the care pathway to help patients feel comfortable coming in for care, and communicating via one-on-one conversations.

**Testing used to screen out positives, not guarantee negatives.**
Most organizations plan to test every patient and only perform procedures on those testing negative. Given the possibility of false negatives, staff will wear PPE.

**Restart plans may include service rationalization.**
Some organizations do not plan to restart all services at all sites, but rather use this opportunity to press forward with pre-planned rationalization efforts.
Hospitals pivot to planning for reopening
Checklist of considerations for resuming elective procedures

Confirm that you can safely manage elective procedures
- Assess position on disease curve
- Understand supply and demand of Covid-19 testing supplies, PPE, staff, and other critical supplies

Determine how to prioritize procedural volumes
- Estimate demand of procedures by service line and procedural type
- Define prioritization schema (clinical acuity, strategic plan alignment, contribution margin, competitive advantage)

Implement new policies and procedures
- Establish Covid-19 safety protocols
- Revise policies for patient processes (i.e. scheduling, registration, patient visitation)

Re-engage staff and attend to needs
- Solidify communication channels to staff
- Expand staff support channels for emotional and logistical needs (i.e. availability of housing options and access to meals)

Establish external communication plan
- Designate processes for public-facing communications
- Provide answers to frequently asked questions

To access a full checklist for resuming elective procedures, visit advisory.com/covid19
When do you know if you can safely do procedures?

Region past top of Covid-19 curve
- New Covid-19 cases on rolling 3-day average
- New confirmed deaths on rolling 3-day average

State, county, local government approval
- Guidelines for region allow for elective procedures
- Follow social distancing guidelines

Sufficient supply of beds and staff
- Covid-19 cases not close to max
- Staff and ORs should not be redeployed to Covid-19 cases

Sufficient supply of PPE
- PPE to handle Covid-19 related volumes, new surgery volumes, and ambulatory volumes

Capability to do pre-procedure testing
- Screen patients and staff for Covid-19 symptoms
- Use laboratory testing when available

Common procedures for initial reopening phase
- Inpatient joint replacement
- Elective EP and angioplasty
- GI surgery for stable patients
- Outpatient ortho procedures

Advisory Board interviews and analysis.
States require a variety of contingencies
Select state restart guidelines

Delay order for non-urgent procedures lifted May 1. Hospitals must continue to report PPE supply levels daily to the Oregon Health Authority. Hospitals must also demonstrate adequate Covid-19 testing capacity, including the ability to screen patients before non-urgent procedures.

Hospitals, dental offices, and other health facilities can resume conducting elective surgeries on May 1 if they demonstrate greater than a 14 day supply of PPE; ensure adequate staffing and beds; test patients prior to surgery and all at-risk health care workers. Facilities that meet the specified standards will need to receive approval from the Arizona Department of Health Services before resuming elective surgeries.

On April 27, elective surgeries will be allowed in clinics and hospitals, but they have to be simple procedures that don’t require an overnight stay. The patient also must be tested for exposure to Covid-19 before the procedure and cannot have any underlying health conditions.

From April 21 to May 8, restricting procedures not medically necessary to “diagnose or correct a serious medical condition of, or to preserve the life of, a patient.” Two notable exceptions: 1) any procedure that would not deplete the hospital capacity or the PPE needed to cope with Covid-19, or 2) any surgery or procedure performed in a licensed health care facility that both (1) reserves at least 25% of its hospital capacity for treatment of Covid-19 patients and (2) does not request any PPE from any public source for the duration of the Covid-19 public health emergency.
Recent survey highlights priority procedure categories

Restart priorities coalesce around a few big service lines

Elective/semi-elective procedural categories health systems plan to prioritize for restarting

Survey conducted by LEK Consulting from April 21-28

n=100

<table>
<thead>
<tr>
<th>Procedure Category</th>
<th>High (51)</th>
<th>Medium (26)</th>
<th>Low (20)</th>
</tr>
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<tbody>
<tr>
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<td>51</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>Vascular</td>
<td>51</td>
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<td>Cardiac</td>
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<td>37</td>
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<tr>
<td>Endoscopy</td>
<td>43</td>
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</tr>
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<td>GI</td>
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<td>Neuro</td>
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<td>ENT</td>
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<tr>
<td>Bariatrics</td>
<td>3</td>
<td>23</td>
<td>74</td>
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</tbody>
</table>


Advisory Board interviews and analysis.
Organizations prioritizing inpatient services

Percentage of health system respondents conducting elective/semi-elective procedures

Survey conducted by LEK Consulting from April 21-28

n=100

Inpatient

<table>
<thead>
<tr>
<th></th>
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<th>Week of 4/7</th>
<th>Week of 4/21</th>
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<tbody>
<tr>
<td>Conducted at normal</td>
<td>74</td>
<td>68</td>
<td>47</td>
</tr>
<tr>
<td>levels</td>
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</tr>
<tr>
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<td>29</td>
<td>47</td>
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<tr>
<td>volumes</td>
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<td></td>
</tr>
<tr>
<td>Not being conducted</td>
<td>0%</td>
<td>20%</td>
<td>40%</td>
</tr>
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</table>

Outpatient

<table>
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<th>Week of 3/23</th>
<th>Week of 4/7</th>
<th>Week of 4/21</th>
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<tr>
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<td>17</td>
<td>81</td>
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<tr>
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<td>81</td>
<td>92</td>
<td>71</td>
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<td>volumes</td>
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<td></td>
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</tr>
<tr>
<td>Not being conducted</td>
<td>0%</td>
<td>20%</td>
<td>40%</td>
</tr>
</tbody>
</table>


Advisory Board interviews and analysis.
How will you prioritize volumes?

1. Clinical urgency
   - Critical for system goals
   - Margin per case
   - Pre-crisis market share
   - Competitive advantage from earlier restart

2. Strategic importance
   - Volumes
   - Average length of stay
   - OR time
   - Surgeon / proceduralist and anesthesiologist availability
   - Nurses available for post-op care
   - PPE available

3. Feasibility

CMS tiers of clinical urgency

**Tier 1: Low acuity treatment or service**
- Consider postponing service or follow-up with virtual care
- Routine primary care and preventive visit or annual wellness visits

**Tier 2: Intermediate acuity treatment or service**
- Not providing service has potential for increasing morbidity and mortality
- Evaluation of new symptoms or follow-up care in established patient

**Tier 3: High acuity treatment or service**
- Lack of in-person treatment or service would result in patient harm
- Symptoms consistent with Covid-19 or other emergency conditions

Source: Non-Emergent, Elective Medical Services, and Treatment Recommendations, CMS, April 7, 2020.
Many consumers will delay care after restrictions lift

Q1: Once COVID-19 Restrictions are lifted, I would be comfortable entering my local hospital for a medical procedure…

ReviveHealth “COVID-19 Consumer Survey Report Part 3”

n=700 respondents

- Immediately: 20%
- Within 1 month: 15%
- After 1-3 months have passed: 20%
- After 3-6 months have passed: 29%
- After 6 months have passed: 16%

Q2: In the months after COVID-19 restrictions are lifted, which statement best describes the way you will seek care?

ReviveHealth “COVID-19 Consumer Survey Report Part 3”

n=700 respondents

- I will seek care for very serious conditions or chronic condition management: 31%
- I will only seek care if I have a very serious condition: 38%
- I will not seek care: 26%
- I will seek care normally: 5%

Addressing the Fear Factor
Patient experience must feel meaningfully different to build trust

Operations and Safety Workgroups
Focused on redesigning the entire care pathway to control infection and ensure patient and staff safety

Areas of Focus:
- Patient flow for patient arrival and registration
- Social distancing for waiting rooms, parking lots, lobbies, corridors
- Segments of care episode that can be done remotely
- When and how to communicate safety procedures with patients
- Testing process for scheduled services

Select Safety-Focused Operational Changes
- Schedule fewer procedures to space patients out
- Test patients in advance and requesting self-quarantine in interim
- Complete registration and payment collection online or via phone
- Adopt universal masking among staff
- Provide temperature screenings, masks, and hand sanitizer at the door
- Sanitize spaces continuously (in view of patients)
- Limit waiting room use with cell phone lots and pagers
- Use furniture arrangement and floor decals to create one-way flow and 6-ft spacing
- Conver pre- and post-op appointments to telehealth visits, when possible
Tactics for communicating to your communities

Create compelling statements about the negative impact delays have on health outcomes

- List the actions you are taking to mitigate infection risk
- Include supporting data regarding the drop in essential medical services observed at your organization

Focus specifically on how and when non-Covid patients should seek care

- When possible, direct patients to nurse hot lines to help patients decide if they need to come in.
- Provide FAQs and fliers on websites to outline the services that are open and to help consumers determine the necessity of coming in for treatment.

Disseminate information through as many channels as possible

- Includes press coverage, social media, and public health officials
- Consider direct messages to patients and community through text and email, personalized from senior leaders
- Feature images or videos of the safety precautions your organization has put in place.

Advisory Board interviews and analysis.
Engage Your Surgeons and Referring Physicians

Communicate Your Plan
Explain your rationale for prioritization of services during the restart period; provide projected timelines for what procedures will be allowed and when

Gauge Surgeon Flexibility
Understand whether surgeons are willing to flex to create capacity, including extending OR time blocks, working with unfamiliar teams, using alternative ORs within the system, or doing cases on nights and weekends

Help Physicians Reassure Patients
Provide physicians with talking points to reassure patients that procedures are safe; include information on new policies and procedures for patient arrival, registration, waiting rooms, screenings, testing, parking, and visitation.

Monitor the Competition
Use physician relationship managers and business development teams to gather intel on competitor plans for resuming services; track market availability of services you continue to delay.
## Service line considerations for opening

<table>
<thead>
<tr>
<th>Service Line</th>
<th>Limiting Factors for Clearing Backlog</th>
<th>Changes to Future Demand</th>
</tr>
</thead>
</table>
| Cardiovascular | • Added time per case due to increased complexity  
• Complex cases will reduce bed availability  
• Ancillary service availability a further limitation as needed anesthesiologists and pulmonology providers tasked with ongoing Covid-19 response | - Shift from acute care settings: outpatient interventions, remote monitoring/telehealth, and increased use of medical management  
+ Increased demand from CV complications among Covid-19 patients  
- CV patients more complex due to delays in care |
| Orthopedics | • Working through backlog will require expanded OR hours, including weekends  
• Willingness of surgeons and other staff to flex capacity beyond standard operating hours | - Sports medicine demand decreased in the short term amid sporting event cancellations  
- Orthopedic trauma suppressed during stay-at-home period  
- ASCs may attract more elective, commercially insured orthopedic patients |
| OB/GYN | • Backlog for gynecology office visits and gynecologic surgeries dependent on physicians’ willingness to extend hours  
• Restart date for screenings will lag more urgent services | - Continued shift to virtual visits for gynecology and prenatal visits  
- Shift to ASCs for gynecologic surgeries  
- Minor shift to out-of-hospital births |
| General Surgery | • Anesthesiologist and ventilator requirements for all major procedures | - Availability of upstream lab, imaging, and PCP services will limit ramp up  
+ Potential increase in emergent, complex cases as delayed care and later diagnoses worsen conditions |
Service line considerations for opening (continued)

<table>
<thead>
<tr>
<th>Service Line</th>
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</tr>
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</table>
| GI           | • More complex surgeries dependent on upstream screening services/referrals and ventilator availability  
               • Restart date for outpatient screenings like EGD and colonoscopies will lag behind surgical services | - Colonoscopy/EGD demand may decrease as patients delay tests in the immediate future and potentially use at-home stool tests over the next few years |
| Imaging      | • Added time per case due to new cleaning and distancing protocols will limit scanner productivity  
               • Working through backlog will require expanded hours | - Decline in medium term screening outlook due to fewer “self-referred” exams (namely screening mammography and lung screening) as people have lingering fear  
               - If unemployment remains high across next year and/or HDHPs for patients who remain employed either remain at current levels or increase, imaging volumes will drop |
| Oncology     | • Most cancer programs maintained treatment services during COVID surge  
               • Some low-risk cancer surgeries were delayed. Those procedures will need to integrate with ongoing schedule  
               • Delayed pre-treatment consults should be able to resume without major barriers | - Potential increase in more complex diagnoses due to delayed screenings  
               - Shift to virtual for select patient management services  
               - Ramp up of screening services and PCP visits required for treatment volumes to return to pre-COVID levels |
The top 16 open questions we’re looking at now
Executive discussion presentation available to all health care organizations

How will Covid-19 impact…

…the demographic makeup of the US—and future demand?
…the purchaser landscape and the nation’s payer mix?
…the competitive landscape efforts to “disrupt” the industry?
…expectations about U.S. health care capacity?

…site-of-care shifts, including to virtual channels?
…perception of government’s role in health care?
…public perception of industry stakeholders?
…the structure of the U.S. health care supply chain?

…demand for behavioral health services?
…employers’ health benefits strategies?
…future fundraising and philanthropy efforts?
…the future of the clinical workforce?

…the U.S.’ approach to post-acute and long-term care?
…the future of value-based care and risk-based payment?
…perceptions of the value of systemness and scale?
…the pharma, device, and tech innovation pipelines?
Your top resources for COVID-19 readiness

CDC and WHO Guidelines
Compiles evidence-based information on hospital and personnel preparedness, COVID-19 infection control recommendations, clinical guidelines, and case trackers

Coronavirus scenario planning
Explores twelve situations hospital leaders should prepare for and helps hospital leadership teams pressure test the comprehensiveness of their preparedness planning efforts and check for blind spots

Managing clinical capacity
Examines best practices for creating flexible nursing capacity, maximizing hospital throughput in times of high demand, increasing access channels, deploying telehealth capabilities, and engaging clinicians as they deal with intense workloads

How COVID-19 is transforming telehealth—now and in the future
Explores how telehealth is being deployed against COVID-19 and essential next steps for telehealth implementation

To access the top COVID-19 resources, visit advisory.com/covid-19
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