COVID-19: Briefing materials

Global health and crisis response

Updated: June 1, 2020
COVID-19 is, first and foremost, a global humanitarian challenge.

Thousands of health professionals are heroically battling the virus, putting their own lives at risk. Governments and industry are working together to understand and address the challenge, support victims and their families and communities, and search for treatments and a vaccine.

Companies around the world need to act promptly.

This document is meant to help senior leaders understand the COVID-19 situation and how it may unfold, and take steps to protect their employees, customers, supply chains, and financial results.
Executive summary

The situation now

At the time of writing, COVID-19 cases have exceeded 6.2 million and are continuing to increase worldwide.

As spring turned to summer, many US regions started to reopen, as did others in Europe, Latin America, and Asia. Despite ongoing public-health concerns, the desire to spend and shop is palpable. Some Asian countries, such as China, have kept incremental cases low, and are restarting economies. Others, such as India, have experienced a steady rise in new cases since reopening.

In the past month, another group of countries such as Japan, South Korea and Germany have lifted and then reinstated public health measures due to a virus resurgence.

How the situation may evolve

As different geographies reopen, uncertainties around case reduction might persist. Both the WHO and CDC indicate the possibility of a COVID-19 resurgence in the fall, coinciding with flu season.

For the private sector, there are 4 key trends that may continue to shift for the next 18-24 months that need to be considered: 1. customer sentiments and preferences have shifted online due to the pandemic, and may continue to shift; 2. workplace norms have temporarily become remote, with several tech giants entertaining a permanent shift to an altered workforce; 3. the deployment of massive government stimulus packages and the rise of trade tensions contributes to regulatory uncertainty that could persist for a few years 4. our knowledge of how to test, trace, and treat the virus across different public health realities is changing each day with no silver bullet.

Actions that institutions can take

Given the constantly shifting landscape and uncertainty ahead, thinking about return as a static plan could be ineffective. What’s needed is a return “muscle”: an enterprise-wide ability to absorb uncertainty and incorporate lessons into the operating model quickly.

Companies and governments looking to adapt should develop lasting capabilities that comprise this muscle: harnessing the speed and discipline exhibited during the crisis, building capabilities for the ‘next normal’ at scale within your organization, and monitoring / learning from the environment to bound-uncertainty faster than ever before.
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COVID-19: The situation now

02

Transitioning to next-normal

03

Planning ahead across multiple horizons

04

Appendix: Scenarios and Return deep-dives
COVID-19 status as of May 31, 2020

1. Johns Hopkins data used for U.S., 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
5. Increasing: > 5% increase in incremental cases over last 7 days, compared to incremental cases over last 8-14 days; stabilizing: -5% ~ 5%; decreasing: < -5%

Source: World Health Organization, Johns Hopkins University, McKinsey analysis
In the US, Northeastern states tend to have the highest prevalence and total case counts

As of May 28, 2020

Source: Johns Hopkins University as of May 26, 2020
The disease progression appears to be following 4 phases across geographies

<table>
<thead>
<tr>
<th>Description</th>
<th>I. Localized clusters</th>
<th>II. Uncontrolled acceleration</th>
<th>III. Spread deceleration</th>
<th>IV. Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small number of new cases</td>
<td>Increasingly large number of incremental cases</td>
<td>Decreasingly large number of incremental cases</td>
<td>Number of incremental cases reduced to low levels</td>
<td></td>
</tr>
</tbody>
</table>

**Example geographies**

1. **Asia**
   - Bhutan (33)
   - Laos (19)
   - Fiji (18)

2. **Africa**
   - Burundi (42)
   - Namibia (21)

3. **Oceania**
   - New Caledonia (19)

4. **North and Central America**
   - Belize (18)
   - Saint Lucia (18)

5. **Middle East**
   - Saudi Arabia (83,384)
   - Qatar (55,262)

6. **North and Central America**
   - Mexico (84,627)

7. **South America**
   - Brazil (465,166)
   - Peru (148,285)
   - Chile (94,858)

8. **Europe**
   - Spain (239,600)
   - Italy (232,664)
   - Germany (181,482)
   - France (148,436)
   - Austria (16,638)
   - Czech Republic (9,230)
   - Norway (8,411)
   - Israel (17,012)
   - United States (1,716,078)
   - Canada (89,741)

9. **Asia**
   - Mainland China (84,570)
   - South Korea (11,468)
   - Thailand (3,081)
   - Hong Kong (1,088)
   - Taiwan (443)
   - Vietnam (328)

10. **Europe**
    - Iceland (1,806)

11. **Oceania**
    - New Zealand (1,154)

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1. Subject to change as data accumulates and more countries move through disease progression phases; dependent on volume of tests completed per capita.
2. Overall, the U.S. is in Phase III, but the reality varies by state.


Johns Hopkins: [https://coronavirus.jhu.edu/](https://coronavirus.jhu.edu/)
The top 10 countries in reported COVID-19 deaths per capita are all in Europe and North America but all have stable or declining case growth

Countries with the highest reported COVID-19 deaths per capita\(^1\), Average case growth as percent, total # of deaths per 1M people

<table>
<thead>
<tr>
<th>Country</th>
<th>Deaths per capita</th>
<th>Case growth rate (%)(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>804</td>
<td>49</td>
</tr>
<tr>
<td>UK</td>
<td>615</td>
<td>47</td>
</tr>
<tr>
<td>Italy</td>
<td>541</td>
<td>42</td>
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<tr>
<td>France</td>
<td>398</td>
<td>39</td>
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<tr>
<td>Sweden</td>
<td>329</td>
<td>37</td>
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<tr>
<td>Netherlands</td>
<td>298</td>
<td>35</td>
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<tr>
<td>Belgium</td>
<td>191</td>
<td>27</td>
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<tr>
<td>South Korea</td>
<td>171</td>
<td>19</td>
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<tr>
<td>Spain</td>
<td>179</td>
<td>9</td>
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<tr>
<td>Italy</td>
<td>179</td>
<td>9</td>
</tr>
</tbody>
</table>

\(^1\) Excluding countries with fewer than 250 deaths; \(^2\) Case growth is negative if not shown. It is calculated as the percent difference in the seven-day average of new cases from one week ago to today; countries with case growth of 10% or more are considered "uncontrolled acceleration"; growth rates of 0-10% are considered stable

Source: World Health Organization, Johns Hopkins University, Our World in Data, World Bank
COVID-19 disease progression

- Reopening in the short-term
- Controlling the spread in the long-term
While reopening strategies vary, there are some clear trends across countries

<table>
<thead>
<tr>
<th>Example countries</th>
<th>Outdoor activity</th>
<th>Construction/ manufacturing</th>
<th>Small shops</th>
<th>Schools</th>
<th>1:1 services (e.g., salons)</th>
<th>Hospitality (restaurants, bars, hotels)</th>
<th>Office buildings</th>
<th>Travel – domestic</th>
<th>Travel – international</th>
<th>Mass gatherings (1000+ people)</th>
</tr>
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<tbody>
<tr>
<td>Austria</td>
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<td>Czechia</td>
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<td>Greece</td>
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</tbody>
</table>

1. Restaurants and bars with outdoor areas can open first, followed by indoor seating areas a few weeks later.
2. The UK has an indefinite ban on crowds for sporting events.
3. Italy is not planning on reopening schools until September.
4. Greece has announced a date for international travel, June 15, with most flights resuming July 1.
5. Austria will slowly reopen its border with Germany, Switzerland, and Liechtenstein mid-May and fully reopen mid-June.
6. Finance and tech sectors allowed to return to work first; no plans released for other sectors.
7. Employees still encouraged to work remotely if possible; businesses that cannot telework are encouraged to stagger shifts.
8. Discussions of introducing travel bubble with Germany, Switzerland, and Austria in mid-June; TBC.


McKinsey & Company
Different geographies have chosen to reopen with varying numbers of cases and Rt values

Reopening strategy | Daily incremental cases for example countries | Other example countries
--- | --- | ---
Open when cases are near zero | Lockdown begins\(^1\) | Hubei, China
| Reopened 1st wave of businesses (agriculture) | S. Korea
| Reopened 2nd and 3rd waves of businesses (e.g., medical, utilities, groceries) | Germany
| Allowed for all businesses to reopen\(^2\) | Spain
| Removed full community lockdown\(^3\) | Italy
| Resumed domestic flights and outbound highway and railway travel\(^4\) |

Open when Rt<1 for an extended period of time | Lockdown began Feb 23\(^1\) | Italy
| Outdoor exercise, takeaway from restaurants, funerals allowed | Germany
| Shops and cultural sites reopened | Spain
| Bars, restaurants and hairdressers allowed |

Open when Rt>1 driven by economic factors | Lockdown begins\(^1\) | India
| Reopened 1st wave of businesses (agriculture) | Nigeria
| Small rural shops open | Pakistan
| Liquor stores open |

1. Lockdown date is determined as the date at which both stay-at-home orders and workplace closures were enforced; 2. Upon individual assessment, as of April 7; 3. However, people encouraged to stay home as much as possible and schools remain closed; 4. Domestic flights resumed excluding Beijing and outbound highway and railway travel resumed after presenting a phone app that indicates whether they are contagion risks; 5. Public events canceled; restrictions on gatherings limited to no more than 1000. 6. Stay-at-home orders, workplace closures, and restrictions on domestic travel were strengthened

For US states, there is minimal correlation between Rt and reopening timing

There is no clear correlation between R(t) values and time before reopening within the U.S. States seem to apply their own guidelines and perspectives to reopen.

R(t) values for U.S. states and their respective reopening dates

- R(t) is widely used as a crucial threshold for the rate of COVID-19 transmission; r(t) = 1 implies no exponential growth of cases and is often used as a proxy for reopening.

Note: States which never had stay at home orders, or have not yet announced the end of their stay at home orders, are not included in analysis.

Source: NYT, CNN, Coalition of Northeastern Governors, California Governor’s Office, Politico, World Economic Forum

As of May 28, 2020
Denmark and Austria show initial success in re-openings; however, more time is needed to draw long-term conclusions

Both Denmark and Austria see a consistent decrease in numbers of new cases per day, even after beginning to loosen restrictions.

Austria and Denmark have followed a similar path for reopening:

- Ensuring a gradual opening process, with public places at highest risk of violating social distancing (e.g., restaurants, cafes) to open last.
- Leaving a 1-2 week period after every opening to monitor its impact and pivot if necessary (i.e., return to harsher restrictions if there is a steep increase).
- Encouraging citizens to use digital tools to track the virus (allowing population to self-monitor).

Some other factors that might have led to Austria’s and Denmark’s success are:

- Both countries have relatively small economies, with a relatively smaller movement across borders (relative to e.g., Germany, France).
- Both countries implemented social distancing measures at earlier stages than their neighbors.
- Both countries have an advanced and universally-accessible healthcare system.

Source: reuters.com, John Hopkins University, WHO, BBC, Vienna official

1. With restrictions - cinemas can only fill up to 100 people at once
Initial reopening has not always been smooth – in some geographies, resurgence has required reinstitution of public health measures.
Localized responses may reduce the need for nation-wide measures

In China, several provinces like Jilin (e.g., Heilongjiang, Hubei) appear to have successfully responded to outbreaks with localized measures.

Throughout the pandemic, specific regions/cities in China had to be placed under a lockdown to contain the virus within the whole country.

In Germany, 3 non-adjacent districts with emerging local outbreaks, including Schleswig-Holstein, had extended their lockdown by a week in comparison to the rest of Germany.
COVID-19 disease progression

Reopening in the short-term

Controlling the spread in the long-term
Significant uncertainty remains around medium- and long-term epidemiology trajectory of the virus spread.
Global leaders are exploring various potential paths for the spread of COVID-19 over the next 1-2 years

### Paths forward

<table>
<thead>
<tr>
<th>Description</th>
<th>Assumptions</th>
<th>Geographies that seem to follow these paths</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Near-zero virus</strong></td>
<td>Lifting lockdown while implementing a collection of effective measures that eliminate transmission quickly and keep the number of cases near zero</td>
<td>- Governments consistently implement and enforce control measures that able to eliminate transmission across their entire geography - Governments seek to eliminate transmission quickly as opposed to achieving herd immunity</td>
</tr>
<tr>
<td><strong>Balancing act: gradual or cycles</strong></td>
<td>Lifting lockdown gradually while implementing measures that keep the number of cases at a moderate level (well within the capacity of healthcare systems) but do not completely eliminate transmission</td>
<td>- Measures that eliminate transmission are too costly to be implemented over time, so governments relax the measures to support social and economic activity - The magnitude of oscillations depend upon the speed of response to upsurge in cases</td>
</tr>
<tr>
<td><strong>Limited response</strong></td>
<td>Lifting lockdown without effectively implementing measures that control or eliminate transmission, leading to a large resurgence and healthcare system overload</td>
<td>- The measures employed by governments are not able to control transmission - For instance, measures that control or eliminate transmission are too costly or unfeasible to be implemented over time and/or are not socially or politically acceptable, so governments relax the measures</td>
</tr>
</tbody>
</table>

Geographies may transition from the balancing act paths to the near-zero virus path as they are developing their capabilities to implement effective transmission elimination measures (e.g., expanding testing capabilities, building PPE stocks).

Source: McKinsey analysis

As of May 21, 2020
Key uncertainties that will likely drive medium-term scenarios

Focus of the document – 5 potential uncertainties

1. **True number of cases to date**
   The true number of cases is only partly unknown due to asymptomatic or otherwise undetected cases. High quality seroprevalence studies are forthcoming, which will help answer this question.

2. **Pathways to herd immunity**
   Uncertainty remains regarding whether antibody presence equates to immunity, and how long this immunity to COVID-19 lasts.

3. **Seasonality of transmission**
   While some studies show a modest decrease in transmissibility of COVID-19 during warmer, more humid months\(^1\), seasonality does not currently appear to significantly contribute to stopping the spread.

4. **Effectiveness and implementation of public health interventions over the medium-term**
   The medium-term effect of public health measures, as well as the ability to implement and maintain these measures in specific geographies, are not yet fully understood.

5. **Adherence to public health measures**
   We are still learning how people’s adherence to public health interventions changes over time, which can affect the effectiveness of these interventions.

Other uncertainties

- Severity of illness
- Fatality rate and drivers of mortality
- Long term or secondary complications
- Mutagenicity
- Transmissibility in sub-population, especially children
- Infection intervals such as latent and infectious periods
- Asymptomatic / pre-symptomatic impact on overall spread
- Medium of transmission (e.g., air, surfaces)
- Exposure risk factors (e.g., age, occupation)
- Mobility and movement patterns during outbreaks and mitigation periods
- Population density characteristics

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1. National Academies of Sciences, Engineering, and Medicine, “Rapid Expert Consultation on SARS-CoV-2 Survival in Relation to Temperature and Humidity and Potential for Seasonality for the COVID-19 Pandemic”, April 7
1. Official case and death counts are only capturing a portion of the true totals

Sample-based testing suggests that official confirmed cases are only a small fraction of the total

- **New York State**
  - Antibody testing of ~15,000 residents
  - Reported prevalence (confirmed cases / population): 1.6%
  - Excerpted prevalence sample-based testing: 12.3%

- **New York City**
  - Antibody testing of the NYC residents among the broader ~15,000 NY State residents
  - Reported prevalence (confirmed cases / population): 2.3%
  - Excerpted prevalence sample-based testing: 19.9%

- **Gangelt, Germany**
  - Antibody testing of ~1,000 residents
  - Reported prevalence (confirmed cases / population): 0.2%
  - Excerpted prevalence sample-based testing: 14%

- **Stockholm**
  - Antibody testing of ~1,100 residents
  - Reported prevalence (confirmed cases / population): 0.3%
  - Excerpted prevalence sample-based testing: 7.3%

- **Geneva**
  - Antibody testing of ~760 residents
  - Reported prevalence (confirmed cases / population): 1.0%
  - Excerpted prevalence sample-based testing: 5.5%

- **Los Angeles, CA**
  - Antibody testing of ~800 residents
  - Reported prevalence (confirmed cases / population): 0.7%
  - Excerpted prevalence sample-based testing: 2.8 – 5.6%

- **Santa Clara, CA**
  - Antibody testing of ~3,000 residents
  - Reported prevalence (confirmed cases / population): 0.1%
  - Excerpted prevalence sample-based testing: 2.5 – 4.2%

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Excess mortality exceeds reported COVID-19 deaths and likely includes both missed COVID-19 cases and incremental non-COVID mortality

- **U.K.**
  - Mar. 14 - May 1
  - Reported COVID deaths: 37k
  - Unaccounted death above average: 17k

- **Spain**
  - Mar. 16 - May 3
  - Reported COVID deaths: 25k
  - Unaccounted death above average: 6k

- **Italy**
  - Mar. 1 – Mar. 31
  - Reported COVID deaths: 14k
  - Unaccounted death above average: 11k

- **New York City**
  - Mar. 11 - May 9
  - Reported COVID deaths: 20k
  - Unaccounted death above average: 4k

- **Netherlands**
  - Mar. 16 - Apr. 26
  - Reported COVID deaths: 4k
  - Unaccounted death above average: 4k

- **Jakarta**
  - Mar. 1 – Apr. 30
  - Reported COVID deaths: 3k
  - Unaccounted death above average: 0k

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While some testing surveys have methodological and accuracy challenges, far more people appear to have been infected with COVID-19 than official case counts imply.

This means that the infection fatality ratio may be lower than previously thought.

However, most geographies still appear to be far from the herd immunity threshold.

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1. Results not corrected for test accuracy
2. North Rhine-Westphalia’s reported prevalence data used

2. Immunity to COVID-19 is key to return to the next normal, yet its prevalence and duration remain only partly understood

<table>
<thead>
<tr>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerated transition is possible based on accurate serological testing providing criteria for economic re-openings</td>
</tr>
<tr>
<td>Transition to “next normal” is contingent upon vaccine development</td>
</tr>
<tr>
<td>Vaccines may not work or require frequent booster-shots</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SARS-CoV2 evidence</strong></td>
</tr>
<tr>
<td>A Chinese study reports immune response to S-protein in 100% patients (n=16) &gt; 14 days post-symptom onset</td>
</tr>
<tr>
<td>South Korea CDC confirmed neutralizing antibody in 100% of initial cohort of patients (n=25)</td>
</tr>
<tr>
<td>Helper T cells, which aid in targeted antibody responses against SARS-CoV-2, were found in 15/18 and 10/10 patient blood samples in a German study and a Californian study, respectively</td>
</tr>
<tr>
<td>These helper T cells were also found in 34% of blood samples from uninfected patients suggesting cross-immunity between other human coronaviruses and SARS-CoV-2</td>
</tr>
<tr>
<td>A Chinese study reports 30% of patients (n=175) with mild symptoms developed low or no detectable antibody response</td>
</tr>
<tr>
<td>48% of 25 recovered patients with neutralizing antibody also tested positive for viral RNA in South Korea</td>
</tr>
<tr>
<td>At least ~200 South Korean recovered patients tested positive again for COVID-19</td>
</tr>
<tr>
<td>– However, experts at the Seoul National University Hospital suggest that tests were false positives for active disease, picking up non-infectious, dead virus fragments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indirect evidence</th>
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<tbody>
<tr>
<td>Immunity to SARS-COV-1, which shares 79% genetic identity, persists for 1-3 years in recovered patients</td>
</tr>
<tr>
<td>Immunity to seasonal coronaviruses (e.g., common colds) starts declining a few weeks after infection</td>
</tr>
</tbody>
</table>


**Implications**

The nature of immunity remains one of the biggest unknowns about COVID-19

Serologic testing will be an impactful lever if immunity is of significant duration

Durable immunity following exposure or immunization is a pre-requisite for herd immunity
3. While summer conditions may have some influence on COVID-19 transmission, other factors have a bigger impact

<table>
<thead>
<tr>
<th>Transmission and temperature</th>
<th>Temperature threshold</th>
<th>Past influenza panemtic seasonality</th>
<th>Case study: countries with year-round warm climate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.8% the decrease in transmission rate (R factor), for every 1°C increase above 25°C</td>
<td>56°C the temperature at which the spread COVID-19 can be eliminated</td>
<td>50% of influenza pandemics started in warm months – 30% in the spring, 20% in the summer</td>
<td>2.88 average R(t) factor for selected countries with warm weather year-round</td>
</tr>
</tbody>
</table>

Some studies show a decrease in COVID-19 transmission due to heat above a certain threshold

A very high temperature is able to hamper the spread of COVID-19

But that temperature is never consistently present on Earth’s surface

There is no clear correlation between influenza outbreaks and temperature (although there is for seasonal flu)

Seasonality does not play a role in influenza pandemics

Despite warm weather, many regions still have a high R factor (high rate of transmission)

Warm weather is not by itself enough to stop COVID-19

Variations in climate between regions do not appear to significantly contribute to stopping the spread of COVID-19, in comparison to other factors (e.g., implementing physical distancing measures)

“The biggest driver of disease transmission is our behavior – temperature and humidity really didn’t mean much for disease transmission, but our implementation of physical distancing did,”

— Brian Labus, PhD, MPH, assistant professor at the School of Public Health at the University of Nevada in Las Vegas

1. Selected countries only for March 9th – March 31st – max r(t): Singapore 1.95, Indonesia 3.62, Brazil 3.0, Florida (US) 2.9
Source: WHO, John Hopkins University Center for Communicable seasonal dynamics, Center for Infectious Disease Research and Policy, Harvard University, NYTimes
3. Analysis of selected countries does not show clear correlation between warm weather and COVID-19 transmission

Relationship between COVID-19 rate of transmission and weather in selected countries (March 9th-31st)

<table>
<thead>
<tr>
<th>Average temperature (Degrees Celsius, March 9th – March 31st 2020)</th>
<th>R(t) value (Maximum value, March 9th – March 31st)</th>
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</thead>
<tbody>
<tr>
<td>Indonesia, Brazil, US-Florida</td>
<td>2.87</td>
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<tr>
<td>Poland, France, Japan, Denmark</td>
<td>2.58</td>
</tr>
</tbody>
</table>

Source: John Hopkins University, WHO

Implications

There is no clear correlation between temperatures and COVID-19 rate of transmission (shown by R(t) value):

- Indonesia, Brazil and Florida had some of the highest R(t) values, despite warm weather
- Japan had the lowest R(t) values, despite cold weather

While warm temperatures might be a secondary factor for COVID-19 rate of transmission, other factors (e.g., physical distancing measures, population density) have a much bigger impact.
4. The medium-term effect of more moderate public health measures is not yet fully understood

<table>
<thead>
<tr>
<th>A</th>
<th>Physical distancing</th>
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<tbody>
<tr>
<td>Lockdowns have proven effective to reduce rate of transmission Rt (e.g., 1.6 reduction for Austria, 2.0 for New Zealand)¹</td>
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<tr>
<th>B</th>
<th>Travel restrictions</th>
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<tr>
<td>A vast majority of countries have imposed international and domestic travel restrictions as addition to other measures to limit imported cases and reduce spread</td>
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<thead>
<tr>
<th>C</th>
<th>Testing, tracking, and targeted quarantine</th>
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<tr>
<td>Examples of countries that have successfully employed heavy testing, tracking / tracing, and targeted quarantining include Taiwan and South Korea</td>
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<tr>
<th>D</th>
<th>PPE &amp; cleaning</th>
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<tbody>
<tr>
<td>PPE and cleaning measures (e.g., widespread use of masks) have been used in addition to other measures in most countries</td>
<td></td>
</tr>
</tbody>
</table>

Some countries have implemented more moderate measures (e.g., distancing guidelines, closure of schools, banning public events) to curb the spread of COVID-19 (e.g., reduction in Rt of 0.9 for Iceland, 1.0 for Germany)³

These measures were part of broader bundles of measures taken at the same time, which makes it difficult to accurately predict how individual measures or incremental steps toward restarting the economy may affect transmission

Efficacy of these measures will also depend on government’s ability to implement them in specific their specific geographies

---

1. Impact of full shut-down includes the impact of all the restrictive physical distancing measures put in place prior to shut-down
2. Moderate mitigation measures are often followed by more stringent measures if they fail to lower Rt below 1
3. Both Germany and Iceland have been aggressively ramping up testing, contact tracing and quarantine prior to school closure

Source: John Hopkins University, WHO, McKinsey Analysis
4. Available tests have varying levels of speed, accuracy and sensitivity

<table>
<thead>
<tr>
<th>Description of methodology</th>
<th>Site of testing</th>
<th>Accuracy and sensitivity of testing</th>
<th>Additional considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Antigen</strong></td>
<td><strong>Laboratory</strong></td>
<td><strong>Point of care / beside</strong></td>
<td><strong>Clinical diagnosis</strong></td>
</tr>
<tr>
<td>Detection of antigen from SARS-CoV-2 in nasal swab specimens</td>
<td>Provides results in about 15 minutes, however cannot tell the difference between the two different SARS-CoV under consideration</td>
<td>Test demonstrated 80% clinical sensitivity compared to an EUA molecular device and clinical specificity of 100%</td>
<td>Low effectiveness within 7 days with 11% detection rate, and significantly increased over time</td>
</tr>
<tr>
<td><strong>Rapid PCR</strong></td>
<td><strong>Laboratory</strong></td>
<td><strong>Point of care / beside</strong></td>
<td><strong>Clinical diagnosis</strong></td>
</tr>
<tr>
<td>Specialized solution breaks down RNA and replicates genetic material for detection</td>
<td>Quick turnaround including 5-45 minutes at the bedside and require swab utilization</td>
<td>96-99% based on targeted publications but likely closer to RT-PCR rates of 70% given collection errors</td>
<td>In addition to symptoms, require positive viral CT scan and evidence of lymphopenia</td>
</tr>
<tr>
<td><strong>RT-PCR</strong></td>
<td><strong>Laboratory</strong></td>
<td><strong>Point of care / beside</strong></td>
<td><strong>Clinical diagnosis</strong></td>
</tr>
<tr>
<td>RT-PCR transcribes RNA with enzymes to match against markers</td>
<td>Require swab / aspirate collection methodology and longer turnaround of 48+ hours typically</td>
<td>Up to 100% for RT-PCR methodology with &quot;air swab&quot; collection issues resulting in evidence of 70% accuracy in some studies</td>
<td>Overall process can be turned around in ~1 hr including incubation periods for isothermal amplification and detection</td>
</tr>
<tr>
<td><strong>CRISPR</strong></td>
<td><strong>Laboratory</strong></td>
<td><strong>Point of care / beside</strong></td>
<td><strong>Clinical diagnosis</strong></td>
</tr>
<tr>
<td>Special molecules detect the presence of SARS-CoV-2 genetic signature</td>
<td>Overall process can be turned around in ~1 hr including incubation periods for isothermal amplification and detection</td>
<td>Up to 100% specificity and sensitivity however likely closer to RT-PCR rates of 70% given collection errors</td>
<td>As low as 11% detection rate within the first 7 days with up to 93-97% based on appropriate time of testing</td>
</tr>
<tr>
<td><strong>Serology</strong></td>
<td><strong>Laboratory</strong></td>
<td><strong>Point of care / beside</strong></td>
<td><strong>Clinical diagnosis</strong></td>
</tr>
<tr>
<td>Detection antibodies in serum sample</td>
<td>Low effectiveness within 7 days with 11% detection rate, and significantly increased over time</td>
<td>As low as 11% detection rate within the first 7 days with up to 93-97% based on appropriate time of testing</td>
<td>63% of patients with COVID-19 also saw lymphopenia and 55% with dyspnea</td>
</tr>
<tr>
<td><strong>Mix of symptom, CT scan and blood test to assess for COVID-19</strong></td>
<td><strong>Laboratory</strong></td>
<td><strong>Point of care / beside</strong></td>
<td><strong>Clinical diagnosis</strong></td>
</tr>
</tbody>
</table>

**FDA approved**

<table>
<thead>
<tr>
<th>FDA approved</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antigen</td>
<td><strong>Laboratory</strong></td>
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<tr>
<td>Rapid PCR</td>
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<tr>
<td>RT-PCR</td>
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<td><strong>Clinical diagnosis</strong></td>
<td><strong>Point of care / beside</strong></td>
</tr>
</tbody>
</table>

Source: FDA, expert interviews


As of May 25, 2020

Systems and states will need to quickly develop guidelines on which tests should be administered with which patients and in which care setting
4. Most countries are gradually increasing their testing capabilities

Some countries have drastically increased the number of daily tests performed (e.g., ~350k tests in the U.S. currently compared to <1k in beginning of March)

Scientists are debating testing capabilities required to safely reopen (e.g., scientists are suggesting 500k to 20M tests a day needed in the U.S.)

Testing random samples of populations can help overcome uncertainty around current prevalence (e.g., bias introduced by self-referrals) to better understand future hospital needs and when and how to relax restrictions on economic activity

Daily tests conducted by country
Number of daily tests per 1K population

1. 7-day averages; where no daily data available, number of tests for previous day has been used.

Source: Worldometer, Covidtracking, NYTimes, Ourworldindata

As of May 27, 2020
4. Contact tracing seems to be one of the few tools with high effectiveness and low economic cost

Testing combined with contact tracing has lower economic cost, but equal or higher effectiveness

- Contact tracing allows for a precision approach – requiring only those at higher risk to isolate from society (vs. population-wide approaches)
- Several scientific studies suggest that contact tracing is still likely to be helpful even when a large fraction of cases are asymptomatic because those most likely to transmit the disease are isolated
- Evidence suggests that tracing is likely to have maximum impact when used in combination with widespread testing and can be combined with other measures

Source: Nejm, Medrxiv, Journal of Hospital Infection
4. Recent studies suggest that wastewater surveillance could serve as an early warning tool

Wastewater and sewage surveillance could potentially be better predictors of COVID-19 transmission compared to standard testing, which is biased towards symptomatic transmission

1. COVID-19 viral particles have been found to be shed in stool in asymptomatic and pre-symptomatic patients\(^1,2\) and in raw wastewater\(^3\)

2. A recent study in CT found that viral RNA levels in sewage sludge were strongly correlated with new cases 7 days later and hospital admissions 3 days later \((R^2=0.99)^4\)

   COVID-19 viral RNA concentrations with (A) daily new COVID-19 cases and (B) hospital admissions\(^4\)

R\(^2\) is a measure of correlation between two variables ranging from 0 to 1. The closer R\(^2\) is to 1, the more strongly correlated two variables are to each other

4. Meanwhile, the development of a COVID-19 vaccine still faces significant uncertainties

**Implications**

Although developing a vaccine for COVID-19 is a global priority and some progress has been achieved, its success is based on multiple factors – many of which are highly variable.

Maintenance of other health measures, in the near term, may be important to mitigate transmission of COVID-19 before a vaccine is developed.

**Uncertainties**

- **Success rate**: less than 10% of drug trials are ultimately approved – COVID-19 vaccines may be even more prone to failure due to sped up research process

- **Time to market**: The shortest timeline for phase II and phase III vaccine trials was 21 months (Ebola)\(^1\) – it is unclear to what extent the timeline can be shortened for COVID-19

- **Distribution**: A vaccine factory usually takes ~5 years to built and costs 3x standard pharma factories due to high customization – factories for COVID-19 need to be built now, despite not knowing whether the factory will eventually be used

- **Public uptake**: 25% of Americans have no or little interest in taking a COVID-19 vaccine, which might influence whether the vaccine reaches the public sufficiently to establish herd immunity

---

**Select vaccines by start date and phase of clinical trial**

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Phase I/II</th>
<th>Phase II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 2020</td>
<td>Mar 2020</td>
<td>Apr 2020</td>
</tr>
<tr>
<td>CanSino and the A.M.M.S.</td>
<td>Moderna</td>
<td>BioNTech and Pfizer</td>
</tr>
<tr>
<td>Inovio Pharmaceuticals</td>
<td>Sinovac</td>
<td>Wuhan Institute and Sinopharm</td>
</tr>
<tr>
<td>University of Oxford</td>
<td>Imperial College</td>
<td>Novavax</td>
</tr>
<tr>
<td>CureVac</td>
<td>Sanofi and GSK</td>
<td>Vaxart</td>
</tr>
<tr>
<td>Altimmune</td>
<td>Janssen</td>
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<td>Imperial College</td>
<td>University of Oxford</td>
</tr>
</tbody>
</table>

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1. Excluding the timeline for H1N1 2009 due to facilitated conditions and already-established infrastructure (H1N1 is a strain of a basic flu vaccine)
2. The rVSV-ZEBOV vaccine; phase II and III trials started in March 2015 and ended in December 2016

**Source:** Reuters, Time, Clinicaltrials.gov, NYTimes

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**Only one COVID-19 vaccine, out of 100+, is truly in phase II of clinical trials**

- CanSino and the A.M.M.S.
- Moderna
- BioNTech and Pfizer
- Inovio Pharmaceuticals
- Sinovac
- Wuhan Institute and Sinopharm
- University of Oxford
- Imperial College
- Novavax
- CureVac
- Sanofi and GSK
- Vaxart
- Altimmune
- Janssen
To achieve significant declines in mobility, it appears most countries had to implement stringent measures.

Impact on mobility (%) due to stringency measures implemented on transit stations, and retail/recreation facilities.

Average difference from baseline mobility (transit stations, retail/recreation facilities).

There is a clear relationship between the increase of stringency and a decrease in mobility:

- An exception is the US, where after a ~65 stringency index, the mobility reduction seems to plateau (potentially due to varying levels of worry about COVID-19).
- An opposite exception would be the UK, where despite lack of strict measures initially, the public has decreased its mobility (probably due to the awareness of COVID-19 in Europe).

This indicates that, in addition to stringency imposed by the governments, various sociological factors are at play in reducing mobility.

Source: Google mobility report, Oxford stringency index
5. Adherence to physical distancing measures appears to decrease over time

Social distancing index over time in states where lockdown orders are still in place

- **New York**
  - Social distancing index: -25%
  - Daily incremental cases: 5,000

- **Illinois**
  - Social distancing index: -39%
  - Daily incremental cases: 4,000

- **Washington**
  - Social distancing index: -27%
  - Daily incremental cases: 1,500

Starting in mid-March, when most stay-at-home orders were announced across the U.S., people began physical distancing, going out less and making fewer trips. By mid April, people in several states seemed to develop “quarantine fatigue” and began to increasingly go out, despite the extension of lockdown orders.

“It just seems that people are getting a little tired collectively of staying at home after we passed that one-month mark,”

- Lei Zhang, director of the Maryland Transportation Institute at the University of Maryland, College Park

Source: University of Maryland, NYTimes
## Changes since COVID

1. **Digitization**
   - Stickiness of digital: >55% consumers more likely to buy groceries online, leading RE firm used “virtual showrooms” with in-house salesforce
   - Even traditionally physical-dominant sectors were forced to go digital: e.g. direct-to-streaming film distribution bypassing cinemas

2. **Decoupling of the connected world**
   - Localization: Japan has earmarked US$2.2B to help manufacturers shift production out of China; similar calls in US and Australia
   - Accelerated retreats: Samsung announced moving manufacturing out of China

3. **Widening performance gap**
   - Resourceful players who use digital are growing: ByteDance (TikTok) hiring 10,000 new employees in anticyclical fashion
   - People unable to embrace remote working trend face a downturn: ~2.3mn people claimed unemployment insurance in Jan and Feb

4. **Consumers growing up**
   - Selectiveness in spending: overall spending lowered (consumer confidence index decreased ~7% in March YoY, but consumers over-index on healthy products (e.g. ~75% consumers with strong preference to exercise and healthy eating post crisis; e.g. ZhongAn PHI premium grew 60%+)

5. **Stakeholder capitalism**
   - Private sector becoming significant force to accelerate country agenda: e.g., “Health Code” by Alibaba; Taikang owned hospital leading virus fight

### China “reopening”

- **Chinese consumers are gradually regaining their confidence**
  - Consumers optimistic that the economy may recover soon after the end of the outbreak

- **Sectors recovering at different rates, with large industrial firms recovering at a faster pace than SMEs and services**
  - Work resumption rate for large enterprises outside Hubei as of March 28: 99%
  - Work resumption rate for all government-owned firms as of early March: 92%
  - Work resumption rate for small and medium enterprises outside Hubei as of March 29: 77%
  - Restaurants reopened, but only 40% of workers returned as of mid-March
  - Consumers optimistic that the economy may recover soon after the end of the outbreak

### Source
Press releases, McKinsey practice surveys

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Current as of May 27, 2020
The Four Forces that are shaping the Next Normal

Metamorphosis of demand
Increased online sales is not a new phenomenon, but the speed with which new generations of consumers have gone online (20-60% more consumers are now digital1) has led to a metamorphosis of demand that is unlikely to reverse quickly. It is also generating entirely new patterns of behavior. Switching for instance has accelerated. In a world of lower overall consumption, access to the digital consumer dollar is shaping the new resilients

An altered workforce
Remote work is the new norm. Some are thrilled about productivity and flexibility, and the time reclaimed from commutes. Others cannot wait to get back to the office. Up to one-third of jobs in US~ 86% of them low income - may be vulnerable2. Strangely, with so many sidelined, some industries are experiencing shortages. Many people cannot return to their jobs because of health-related issues, and newly needed skill sets are in short supply

Regulatory uncertainty
Before COVID-19, the world was facing growing statist sentiments as well as declining support in the free-market’s ability to distribute wealth. As governments around the world sign up huge COVID-19 stimulus packages (~3x compared to 2008 financial crisis among G20 countries3), new regulations favoring local economies are increasingly likely. This uncertainty can lead to new complexities in government relationships, supply chain, pricing economics and consumer behaviors.

Understanding of the virus
Around the globe, communities are reopening amidst different public health realities (e.g., stage of crisis, level of virus containment, levels of testing and tracing). On top of that, our understanding of the virus continues to shift, with new studies on testing, transmission and treatment arising each day (e.g., ~171 vaccine candidates in development4). This changing landscape with idiosyncratic considerations by region results in a constantly changing set of safety interventions to protect customers, employees, and citizens at large.

3. 2019 GDP taken into account for values related to COVID-19 crisis; 2008 financial crisis data based on data published by IMF in March 2009; G20 here excludes Turkey and EU (no data available).
Metamorphosis of demand – B2B and B2C
Lockdowns have accelerated digital adoption, which is driving entirely new patterns of consumption

The new consumer shops online far more...

...is more willing to switch across brands...

...and is refocusing towards domestic & local activities

This change is not just restricted to B2C; B2B customers are also similarly changing their patterns (e.g., X% of physicians now prefer remote sales from pharmaceutical reps)

Workforce demands are shifting, with new hybrid-remote work models emerging

Traditional jobs are likely at risk – with one-third of current jobs estimated as being vulnerable\(^1\) due to physical distancing

~44-57M jobs are vulnerable\(^1\) in the short term, of which 86% are low-income

<table>
<thead>
<tr>
<th>Vulnerable jobs,(^1) by industry, net of jobs created, millions</th>
<th>Lower range</th>
<th>Upper range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation and food services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthcare and social assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative, support, and waste services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others(^2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale trade</td>
<td></td>
<td></td>
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<tr>
<td>Real estate and rental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational services</td>
<td></td>
<td></td>
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<tr>
<td>Personal services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td></td>
<td></td>
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<tr>
<td>Religious services</td>
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</tr>
</tbody>
</table>

At the same time, new ways of working are taking precedence e.g., near-shoring supply chains, remote working

- 83% of employees are willing to work remotely after the emergency (vs. 37% pre-COVID-19)
- >50% of respondents recommend improvement of tech tools and a review of company welfare policies to enable Virtual Working “at scale”
- 33% of respondents with a client-facing role report and increase in client satisfaction vs. only 14% reporting a decrease
- 6% Increase in efficiency through Virtual Working, reported by respondents

Simultaneously, there are under-matched demand pulls as: a) few sectors are facing surging demand (e.g., 2-3 million new jobs in groceries, pharmacies and delivery services) and b) new skills are required (e.g., physical retail moving to online sales)

These forces may require the adaptation of workforces to new industry realities and relevant reskilling

1. Vulnerable jobs are subject to furloughs, layoffs, or being rendered unproductive (for e.g., workers on payroll but not working) during periods of high physical distancing; 2 – Others include utilities, repair and maintenance, finance and insurance, information, mining, quarrying and oil & gas, agriculture, forestry and fishing

Government stimulus packages on top of growing statist sentiments and free-market backlash may lead to regulatory shifts

Regulatory uncertainty may require corporate adaptability to manage this complexity

Declining confidence in free market mechanisms & rising statism

Moves ignoring free markets and favoring onshoring are likely to accelerate in the post-pandemic world -

- Japan sanctioned incentives worth $2.2B (Apr 2020) to push local firms to move back manufacturing of high-value-added products from China
- With output constant, US imports of manufacturing goods from 14 Asian LCCs decreased by 7% from 2018 to 2019 (first decrease in 5 years)

Governments worldwide are providing stimulus packages to alleviate COVID-19 impacts

3X greater response from G-20 governments compare to 2008 financial crisis (11.4% vs 3.5%)

New relationship with government – with depth of change unclear

No global playbook given highly varied approaches and competencies by country

Likely new regulations affecting manufacturing locations and supplier economics

Disruption to global supply chains (for e.g., move to near-shore, heavily controlled vs global, decentralized partners)

2nd order implications on pricing, competition and consumer behavior

1 Source: Bloomberg, Forbes;
2 Source: Kearney ‘US Reshoring Index 2019’ report, LCC – low cost countries;
3 2019 GDP taken into account for values related to COVID-19 crisis; 2008 financial crisis data based on data published by IMF in March 2009, includes discretionary measures announced for 2008-2010; 4 - Excludes Turkey and EU (no data available);
The evolving understanding of the virus and the shifting impacts of the crisis may require a changing set of responses

Shifting perspectives and uncertainty on 3 key topics requires adaptability on implementing safety measures

1. **Shifting public health reality across different geographies globally**

   Public health situation such as hospital capacity, reopening guidelines/timing, testing and tracing vary widely across regions.

   For instance, many countries had to re-institute lockdown measures after resurgence events post re-opening.

   **Japan**

   - Mar 19: Lifted state of emergency mandates in Hokkaido
   - Mar 25: Daily case rate began to increase
   - Apr 7: State of emergency declared
   - May 4: State of emergency extended

   **South Korea**

   - Apr 20: Workplaces, shopping malls, and parks gradually reopened
   - May 6: Reopened bars and restaurants
   - May 7-9: Identified >50 new cases
   - May 9-10: Re-instituted social distancing

   **Germany**

   - May: Reopened shops, allowed family visits
   - May 6-9: Focal resurgence based on Rt monitoring
   - May 9-10: Post May 10: Select districts to postpone exit from lockdown

2. **New information on virus testing efficacy and transmission patterns**

   New transmission incidents indicate emerging ways of virus transmission (for e.g., droplet transmission due to air-conditioning).

3. **Emerging solutions on how the virus will be treated**

   Nearly 171 vaccine candidates (13 in clinical trials, 28 entering trials in 2020, others unknown) and over 210 therapeutics candidates are currently in consideration.

---


Return is a muscle, not a plan

The four forces may continue to shift for the next 2 years, implying that thinking about return as a static plan could be ineffective.

Adapting to the changing landscape likely requires a muscle comprised of 3 separate capabilities:

1. Strengthen the speed and execution discipline used for the last 60 days
2. Increase pace & quality of skill-building and of scaling new working models
3. Develop ability to handle uncertainty through real-time microdata monitoring and iteratively-testing operating plans
## Return is a muscle, not a plan

How can we rewire the organization for speed and embed in our long-term DNA?

<table>
<thead>
<tr>
<th>Strengthen the “fast-twitch” muscle you have been using for the past 60 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faster decision making “out of necessity” involving only critical decision makers</td>
</tr>
<tr>
<td>Basing decisions on minimum and essential information</td>
</tr>
<tr>
<td>Leaders’ time freed up from non-priority activities</td>
</tr>
<tr>
<td>Ubiquitous license to act at all levels</td>
</tr>
<tr>
<td>Stepping up individual performance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increase pace &amp; quality of skill building at scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process-based capabilities: can we execute well?</td>
</tr>
<tr>
<td>Relationship-based capabilities: do we know our counter parties well?</td>
</tr>
<tr>
<td>Knowledge-based capabilities: do we have unique insights?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learn from the environment and bound-uncertainty faster than ever before</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop an enterprise-wide ability to absorb uncertainty and incorporate learnings into the operating model quickly</td>
</tr>
<tr>
<td>Modify plans and base decisions on updated projections —supported by continually refreshed microdata about what’s happening</td>
</tr>
</tbody>
</table>
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01 COVID-19: The situation now
02 Transitioning to next-normal
03 Planning ahead across multiple horizons
04 Appendix: Scenarios and Return deep-dives
Leaders need to think and act across 5 horizons
From Resolve to Resilience and Reimagination to Reform

Resolve

Address the immediate challenges that COVID-19 represents to the institution’s workforce, customers and business partners.

Resilience

Address near-term cash management challenges, and broader resiliency issues during virus-related shutdowns and economic knock-on effects.

Return

Create a detailed plan to return the business back to scale quickly, as the virus evolves and knock on effects become clearer.

Reimagination

Re-imagine the “new normal” – what a discontinuous shift looks like, and implications for how the institution should reinvent.

Reform

Be clear about how the regulatory and competitive environment in your industry may shift.
Leading insights across the 5 horizons of crisis response
Read the latest thinking from across our practices

Resolve
Tuning in, turning outward: Cultivating compassionate leadership in a crisis – By tuning inward to cultivate awareness, vulnerability, empathy, and compassion, and then turning outward to comfort and address the concerns of stakeholders, leaders can exhibit individual care, build resilience, and position their organizations to positively reimagine a post-crisis future.

Resilience
Safeguarding our lives and our livelihoods: The imperative of our time – A discussion on how to deal with and bound the uncertainties surrounding COVID-19 and how the future could unfold
A global view of how consumer behavior is changing amid COVID-19 – Insights into consumer behavior from our global survey series that track consumer sentiment across 41 countries through the crisis

Return
Return: A new muscle, not just a plan Return is not a phase; it’s a way of operating. A nerve center can help build the capabilities that businesses need in the “next normal.”
Reopening safely: Sample practices from essential businesses - The safety protocols of hospitals, grocery stores, and other establishments that stayed open during the COVID-19 pandemic can offer ideas for businesses preparing to welcome employees and customers back.

Reimagine & reform
The future is not what it used to be: Thoughts on the shape of the next normal – Seven elements for business leaders to consider as they plan for the next normal.
From surviving to thriving: Reimagining the post-COVID-19 return – Four strategic areas to focus on when reimagining the business model: recovering revenue, rebuilding operations, rethinking the organization, and accelerating the adoption of digital solutions
Lives and livelihoods: Assessing the near-term impact of COVID-19 on US workers - Up to one-third of US jobs may be vulnerable and more than 80% are held by low income workers
Getting ahead of the next stage of the coronavirus crisis – How to launch a “plan ahead team” that works across multiple time horizons, using five frames
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04 Appendix: Scenarios and Return deep-dives
The Four Forces that are shaping the Next Normal

- Metamorphosis of demand
- An altered workforce
- Regulatory uncertainty
- Understanding of the virus

Macro-economic scenarios
Return as a muscle
The Imperative of our Time
“Timeboxing” the Virus and the Economic Shock

1

Safeguard our lives
1a. Suppress the virus as fast as possible
1b. Expand testing, quarantining and treatment capacity
1c. Find “cures”; treatment, drugs, vaccines

2

Safeguard our livelihoods
2a. Support people and businesses affected by lockdowns
2b. Prepare to get back to work safely when the virus abates
2c. Prepare to scale the recovery away from a -8 to -13% trough

Source: McKinsey analysis, in partnership with Oxford Economics

Current as of May 20, 2020
Scenarios for the Economic Impact of the COVID-19 Crisis

**Virus Spread & Public Health Response**

- **Rapid and effective control of virus spread**
  - Strong public health response succeeds in controlling spread in each country within 2-3 months

- **Effective response, but (regional) virus recurrence**
  - Initial response succeeds but is insufficient to prevent localized recurrences; local social distancing restrictions are periodically reintroduced

- **Broad failure of public health interventions**
  - Public health response fails to control the spread of the virus for an extended period of time (e.g., until vaccines are available)

**Effectiveness of the public health response in controlling the spread and human impact of COVID-19**

- **Ineffective interventions**
  - Self-reinforcing recession dynamics kick-in; widespread bankruptcies and credit defaults; potential banking crisis

- **Partially effective interventions**
  - Policy responses partially offset economic damage; banking crisis is avoided; recovery levels muted

- **Highly effective interventions**
  - Strong policy responses prevent structural damage; recovery to pre-crisis fundamentals and momentum

**Knock-on Effects & Economic Policy Response**

- **Speed and strength of recovery depends on whether policy moves can mitigate self-reinforcing recessionary dynamics (e.g., corporate defaults, credit crunch)**

- **B1**
  - Virus contained, but sector damage; lower long-term trend growth

- **B2**
  - Virus recurrence; slow long-term growth insufficient to deliver full recovery

- **B3**
  - Pandemic escalation; prolonged downturn without economic recovery

- **B4**
  - Pandemic escalation; slow progression towards economic recovery

- **B5**
  - Pandemic escalation; delayed but full economic recovery

- **A1**
  - Virus recurrence; slow long-term growth with muted world recovery

- **A2**
  - Virus recurrence; return to trend growth with strong world rebound

- **A3**
  - Virus contained; growth returns

- **A4**
  - Virus contained; strong growth rebound


Current as of May 20, 2020
Shape of the COVID-19 impact: the view from global executives

“Thinking globally, please rank the following scenarios in order of how likely you think they are to occur over the course of the next year”; % of total respondents¹

<table>
<thead>
<tr>
<th>Virus spread and public health response</th>
<th>Most likely scenario, World</th>
<th>Knock-on effects and economic policy response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapid and effective control of virus spread</td>
<td>B1 15 → 13%</td>
<td>Ineffective interventions</td>
</tr>
<tr>
<td>Effective response, but (regional) virus resurgence</td>
<td>B2 11 → 14%</td>
<td>Partially effective interventions</td>
</tr>
<tr>
<td>Broad failure of public health interventions</td>
<td>B3 3 → 2%</td>
<td>Highly effective interventions</td>
</tr>
<tr>
<td></td>
<td>A3 16 → 17%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A1 31 → 36%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A4 6 → 4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A2 6 → 5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A5 2 → 1%</td>
<td></td>
</tr>
</tbody>
</table>

¹ Monthly surveys: April 2–April 10, 2020, N=2,079; May 4–May 8, 2020, N=2,452

Scenarios B2, A1, A2, and A3 have varying profiles of effectiveness of public health and economic interventions

**Ineffective economic interventions, effective public health response**

Slow long-term growth insufficient to deliver full recovery of world output to 2019Q4 levels until 2026

- Economic policy is ineffective spurring self-reinforcing recession dynamics and meager growth results that cause long-term structural damage to the economy
- Long-term capacity of the economy to deliver output is reduced as
  - Widespread business closures lead to a reduction in the physical capital stock
  - Employment levels and participation rates drop as individuals drop out of the labor force
  - Productivity growth to near-zero as investment in innovation and human and physical capital stagnates

**Partially effective economic interventions, effective public health response**

Slow long-term growth with muted world recovery returning output to 2019Q4 levels in late 2022

- Economic policy responses are effective in stopping the rapid decline of the economy in 2020, but are insufficient to raise confidence and restart growth
- Insufficient government stimulus in the face of recurrent regional lockdowns result in
  - Significant business closures and lack of confidence lead businesses to pull back on investment and fragmentation of supply chains
  - Widespread job losses and continued weakness in consumer spending as as household focus on necessities
  - Steep drop in tourism, and other service related industries persist

**Highly effective economic interventions, effective public health response**

Return to trend growth with strong world rebound returning output to 2019Q4 levels in late 2021

- Economic policy responses deliver robust relief packages that not-only back-stop activity in 2020 but also deliver sufficient stimulus to raise confidence and drive growth in 2021
- Fiscal and monetary authorities take measures to boost effectiveness and speed of policy impact
  - Fewer bankruptcies and layoffs support stronger business investment and release pent-up demand driving more spending
  - Increase in business and consumer confidence is boosted by more effective public health responses that successfully contain the regional virus occurrences and fewer periodic restrictions

**Partially effective economic interventions, rapid and effective control of virus spread**

Return to trend growth with world rebound returning output to 2019Q4 levels in late 2020

- Economic policy responses are effective in stopping the rapid decline of the economy in 2020 and return the economy to pre-crisis levels after the virus is quickly contained in Q2
- Fiscal and monetary authorities mitigate economic damage with only some delays in transmission
  - Fewer bankruptcies and layoffs support stronger business investment and release pent-up demand driving more spending
  - Business and consumer confidence is quickly restored by effective public health responses

**Virus recurrence; slow long-term growth insufficient to deliver full recovery**

- Widespread business closures lead to a reduction in the physical capital stock
- Employment levels and participation rates drop as individuals drop out of the labor force
- Productivity growth to near-zero as investment in innovation and human and physical capital stagnates

**Virus recurrence; slow long-term growth with muted world recovery**

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**Virus recurrence; return to trend growth with strong world rebound**

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  - Fewer bankruptcies and layoffs support stronger business investment and release pent-up demand driving more spending
  - Increase in business and consumer confidence is boosted by more effective public health responses that successfully contain the regional virus occurrences and fewer periodic restrictions

**Virus contained; growth return**

- Widespread business closures lead to a reduction in the physical capital stock
- Employment levels and participation rates drop as individuals drop out of the labor force
- Productivity growth to near-zero as investment in innovation and human and physical capital stagnates
Scenario A1: virus recurrence, with muted recovery

Large economies

Real GDP, indexed
Local Currency Units, 2019 Q4=100

<table>
<thead>
<tr>
<th>Country</th>
<th>Real GDP Drop 2019Q4-2020Q2</th>
<th>2020 GDP Growth</th>
<th>Return to Pre-Crisis Level Quarter (+/- 1Q)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>-5.7%</td>
<td>-4.4%</td>
<td>2021 Q4</td>
</tr>
<tr>
<td>United States</td>
<td>-11.2%</td>
<td>-8.1%</td>
<td>2023 Q1</td>
</tr>
<tr>
<td>Eurozone</td>
<td>-14.6%</td>
<td>-11.1%</td>
<td>2023 Q3</td>
</tr>
<tr>
<td>World</td>
<td>-8.4%</td>
<td>-6.5%</td>
<td>2022 Q3</td>
</tr>
</tbody>
</table>

1. Seasonally adjusted by Oxford Economics

Source: McKinsey analysis, in partnership with Oxford Economics
Scenario A2: virus recurrence, with strong world rebound

Large economies

<table>
<thead>
<tr>
<th>Real GDP, indexed</th>
<th>China¹</th>
<th>United States</th>
<th>Eurozone</th>
<th>World</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Currency Units, 2019 Q4=100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2019 Q4</th>
<th>2020 Q1</th>
<th>2020 Q2</th>
<th>2020 Q3</th>
<th>2020 Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>90</td>
<td>85</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

1. Seasonally adjusted by Oxford Economics

Source: McKinsey analysis, in partnership with Oxford Economics

### Real GDP Drop 2019Q4-2020Q2 % Change

<table>
<thead>
<tr>
<th>Country</th>
<th>2020 GDP Growth % Change</th>
<th>Return to Pre-Crisis Level Quarter (+/- 1Q)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>-3.0%</td>
<td>2020 Q4</td>
</tr>
<tr>
<td>United States</td>
<td>-11.2%</td>
<td>2021 Q4</td>
</tr>
<tr>
<td>Eurozone</td>
<td>-14.5%</td>
<td>2022 Q1</td>
</tr>
<tr>
<td>World</td>
<td>-7.9%</td>
<td>2021 Q4</td>
</tr>
</tbody>
</table>

Current as of May 20, 2020
Scenario A3: virus contained, growth returns
Large economies

Real GDP, indexed
Local Currency Units, 2019 Q4=100

<table>
<thead>
<tr>
<th></th>
<th>2019Q4-2020Q2 % Change</th>
<th>2020 GDP Growth % Change</th>
<th>Return to Pre-Crisis Level Quarter (+/- 1Q)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>-4.9%</td>
<td>-2.0%</td>
<td>2020 Q4</td>
</tr>
<tr>
<td>United States</td>
<td>-8.1%</td>
<td>-2.5%</td>
<td>2020 Q4</td>
</tr>
<tr>
<td>Eurozone</td>
<td>-11.0%</td>
<td>-5.2%</td>
<td>2021 Q1</td>
</tr>
<tr>
<td>World</td>
<td>-6.5%</td>
<td>-2.7%</td>
<td>2021 Q1</td>
</tr>
</tbody>
</table>

1. Seasonally adjusted by Oxford Economics
Source: McKinsey analysis, in partnership with Oxford Economics

Current as of May 20, 2020
Scenario B2: virus recurrence, with slow long-term growth

Large economies

<table>
<thead>
<tr>
<th>Country</th>
<th>Real GDP Drop 2019Q4-2020Q2 % Change</th>
<th>2020 GDP Growth % Change</th>
<th>Return to Pre-Crisis Level Quarter (+/- 1Q)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>-6.4%</td>
<td>-5.4%</td>
<td>2022 Q2</td>
</tr>
<tr>
<td>United States</td>
<td>-13.5%</td>
<td>-10.4%</td>
<td>2025+</td>
</tr>
<tr>
<td>Eurozone</td>
<td>-16.7%</td>
<td>-13.3%</td>
<td>2025+</td>
</tr>
<tr>
<td>World</td>
<td>-9.8%</td>
<td>-8.0%</td>
<td>2023 Q3</td>
</tr>
</tbody>
</table>

Source: McKinsey analysis, in partnership with Oxford Economics

1. Seasonally adjusted by Oxford Economics
The Four Forces that are shaping the Next Normal

- Macro-economic scenarios
- Metamorphosis of demand
- An altered workforce
- Regulatory uncertainty
- Understanding of the virus
- Return as a muscle
Return is a muscle, not a plan
How can we rewire the organization for speed and embed in our long-term DNA?

Strengthen the “fast-twitch” muscle you have been using for the past 60 days
- Faster decision making “out of necessity” involving only critical decision makers
- Basing decisions on minimum and essential information
- Leaders’ time freed up from non-priority activities
- Ubiquitous license to act at all levels
- Stepping up individual performance

Increase pace & quality of skill building at scale
- Process-based capabilities: can we execute well?
- Relationship-based capabilities: do we know our counter parties well?
- Knowledge-based capabilities: do we have unique insights?

Learn from the environment and bound-uncertainty faster than ever before
- Develop an enterprise-wide ability to absorb uncertainty and incorporate learnings into the operating model quickly
- Modify plans and base decisions on updated projections —supported by continually refreshed microdata about what’s happening
What organizations need now
Pyramidical orgs were never built to handle the situation they face today

What typical pyramidical organizations are good at

- Topic expertise and pattern recognition ("do a few things, but do them well")
- Fact-based decision-making. Leaders that can drive action based on well-tested sets of facts promoted
- Commitment to a path forward based on consensus from a large swathe of leaders
- Self-selecting organization based on a specific world-view

VS.

What orgs need now

- Generalized problem solving across a wide array of topics
- Hypothesis-based decision-making ("By the time the facts are available, it is too late to respond")
- Speed of action at a higher premium over consensus about the action
- Multiple world views that provide constructive, purposeful conflict

Source: Prof. Leonard Dutch; Harvard Business School; Kennedy School of Government
From war rooms to Nerve Centers

<table>
<thead>
<tr>
<th>War rooms…</th>
<th>Nerve Centers…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Act on the basis of historical data and facts</td>
<td>Act on the basis of senior judgement, and an informed hypothesis about the future</td>
</tr>
<tr>
<td>Focus on solving problems that have cropped up before (sometimes even in the same company)</td>
<td>Focus on solving problems that have no precedent within the company, sector or broadly</td>
</tr>
<tr>
<td>Rely on the use of a clear, rigid process facilitated by experts to address the problem</td>
<td>Need rigid processes and experts, but also creative, first-principles problem solving to address the issue</td>
</tr>
<tr>
<td>Have a clearly defined goal that is well understood (e.g., improve profitability by X%)</td>
<td>Have goals that are tough to define clearly (e.g., “help the company emerge from the crisis”)</td>
</tr>
<tr>
<td>Achieve measurable impact that is usually publicized broadly</td>
<td>Achieve impact that can be hard to measure, and is usually confined to close observers</td>
</tr>
<tr>
<td>Achieve measurable impact</td>
<td>Achieve impact that can be hard to measure, but is widely acknowledged by those participating</td>
</tr>
</tbody>
</table>
Nerve Center design is based on military command principles

Core concept: Create an organization that can Observe, Orient, Decide and Act faster than the environment.

John Boyd was a Colonel in the U.S. Air Force, whose ideas on the art of war revolutionized U.S. military thinking, especially after the Vietnam War.

Boyd's key concept: The OODA loop.

The key to victory is to be able to make appropriate decisions faster than the rate at which the environment evolves.

Increasing the pace and quality of skill building at scale (1/2)

Define the reskilling strategy – identify critical employee groups, no-regrets critical skills and tailored learning journeys

<table>
<thead>
<tr>
<th>Rapidly identify the skills your recovery business model depends on</th>
</tr>
</thead>
<tbody>
<tr>
<td>For example, when moving from in-store sales to predominately home deliveries, the tech team and logistics coordinators will play a critical role in the new strategy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Build critical employee skills including a no-regrets skill set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build a tool kit that will be useful no matter how an employee’s specific role may evolve. Focus investments on four kinds of skills: digital, higher cognitive, social and emotional, and adaptability and resilience</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Launch tailored learning journeys to close critical skill gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>For example, when its regular face-to-face sales model faced disruption, an international bank began a tailored upskilling for its sales reps to develop the skills for virtual selling</td>
</tr>
</tbody>
</table>

Focus investments on four kinds of critical, no-regret skills

- **Digital**
  Expand the ability to operate in a fully digital environment

- **Higher cognitive**
  Develop cognitive skills to ensure that critical players can respond to the need for redesign and innovation

- **Social/emotional**
  Strengthen social and emotional skills to ensure effective collaboration

- **Adaptability/resilience**
  Build adaptability and resilience skills to thrive during an evolving business situation

Source: “To emerge stronger from the COVID-19 crisis, companies should start reskilling their workforces now”, McKinsey.com
Increasing the pace and quality of skill building at scale (2/2)

Enable business to reskill by learning from rapid iterations, adopting the principles of smaller companies and protecting learning budgets

<table>
<thead>
<tr>
<th>Start now, test rapidly, and iterate</th>
<th>Build institutional learning by capturing what works now and what doesn’t. Apply these lessons to future disruptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Act like a small company to have a big impact</td>
<td>Emulate smaller companies that are more agile, find it easier to change and are often more willing to take risks. They have a clear view of their deficiencies to help prioritize reskilling</td>
</tr>
<tr>
<td>Protect learning budgets</td>
<td>Invest in skill building to adapt to the next normal. Cutting learning budgets only delays the investment in learning to a later day. E.g., a drop in training expenditures in 2009 and 2010 was followed by a surge in 2011¹</td>
</tr>
</tbody>
</table>

Organizations that had already tried reskilling felt more prepared to take on future skill gaps than those that hadn’t.

Assessment of previous reskilling, % of companies that said there were unprepared to address the potential role of disruptions due to market and/or technology trends

<table>
<thead>
<tr>
<th>Successful</th>
<th>Neutral</th>
<th>Unsuccessful</th>
<th>Waiting to start reskilling</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>21</td>
<td>30</td>
<td>47</td>
</tr>
</tbody>
</table>

¹ According to the Training Industry Report, US data during and after the Great Recession

Source: "To emerge stronger from the COVID-19 crisis, companies should start reskilling their workforces now", McKinsey.com
Resilience: Speed + discipline is key

“The Resilients”
Teams seeking to boost resilience during COVID-19 need to learn lessons from the companies that survived and thrived in the last recession.

Sector-specific power curves show dramatic differences in performance during the recession

Mean TRS for automotive sector, 2007–11

The top 20% of companies that emerged from the recession are called the Resilients.

These Resilients didn’t have any particular starting advantage (e.g., existing portfolio). Instead, they managed to achieve a small lead, which they then extended over the next 10 years.

Two words that define their success: Speed + discipline.

Speed + discipline—how the Resilients stood apart

<table>
<thead>
<tr>
<th>Speed</th>
<th>Discipline</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDA outperformance</td>
<td>Resilients companies sustained(^1) organic revenue growth early and throughout the recession and on revenue in recovery</td>
</tr>
<tr>
<td>Early and hard moves</td>
<td>Resilients moved faster, harder on productivity; preserved growth capacity</td>
</tr>
<tr>
<td>M&amp;A activities outperformance</td>
<td>Resilients divested more during the downturn and acquired more in the recovery</td>
</tr>
<tr>
<td>De-leveraging outperformance</td>
<td>Resilients cleaned-up their balance sheets ahead of the downturn</td>
</tr>
</tbody>
</table>

How Resilients performed relative to Non-Resilients:

- **30%**
  - Increase in revenue
- **3x**
  - Reduction in operating costs; they also moved 12–24 months earlier
- **1.5x**
  - Divestiture in the downturn
- **~5% pts.**
  - Deleveraged before trough

\(^1\) Resilients only lost 1% of organic revenue vs. 2007 level during 2009

Develop ability to absorb uncertainty & incorporate learnings fast

1. Capture the full scope of the uncertainty through issue maps that emphasize future evolution, not just facts about the past.

2. Bound the uncertainty through tangible scenarios that include 2nd order effects.

3. Stress-test the portfolio across multiple scenarios & ensure delivery teams have appropriate planning assumptions.

4. Build basis for rapid yet thoughtful actions by building a leading indicator dashboard & portfolio of strategic actions.

Fast moving epidemiological & shelter-at-home provisions

Evolving changes in economic outlook

Shifts in customer preferences & consumption patterns

Issue maps w/ evolution

Stress-test across scenarios

Leading indicator dashboard

Cross-team plan assumptions

Portfolio of strategic actions

Capture the full scope of the uncertainty through issue maps that emphasize future evolution, not just facts about the past.

Bound the uncertainty through tangible scenarios that include 2nd order effects.

Stress-test the portfolio across multiple scenarios & ensure delivery teams have appropriate planning assumptions.

Build basis for rapid yet thoughtful actions by building a leading indicator dashboard & portfolio of strategic actions.
Continuously monitor microdata and iteratively take actions to inform future-state hypothesis, and consequently, current strategy

A leading indicator dashboard and rapidly, iteratively taking actions allows companies to navigate uncertainty

**Real-time, curated micro-data**

Monitor local public health conditions, consumer behavior, government interventions to understand the evolving local circumstances in regions of interest / relevance

**Current strategy driven by ongoing hypothesis about future evolution**

Tailor marketing approach, workforce and salesforce timeline to return onsite, and project spikes in consumer demand (e.g., if consumers returning to workplace, they will return to retail stores)

**Rapid actions & learnings from successes & failures**

Update consumer messaging, change policies / strategies to target consumers effectively - and track success of actions to improve future hypothesis
How to get started: Focus on few key capabilities
Gather the information and initial assessments needed to guide companies through the return journey

Strengthen the “fast-twitch” muscle
Set up a nerve center

Increase pace & quality of skill building

Learn from the environment and bound-uncertainty

Asses remote work readiness

Monitor leading indicators

Build a return plan

Establish a sustainable nerve center with both strategical planning oriented and tactical implementation oriented teams

Evaluate the net benefit of remote work to your organization and the readiness of your workforce to go remote

Monitor industry and regional recovery signals to assess the timing of return

Leverage monitoring dashboards, industry best practices and outside-in risk assessments to build an initial return plan
Separating responsibilities through a new Nerve Center structure helps develop and sustain the 3 return muscle capabilities

**Executive Committee**

- Expert Advisory Panel
  - Public health
  - Economic/business projections
  - Region specific health advisory
  - New capability building

**COVID-19 Operations**
- Create safe workforce
- Return plans (journey of safety interventions)
- Lead org-wide perspective on public health situation
- Develop training modules
- Lead workforce communications

**Workforce Readiness**
- Plan supply-demand matching requirements
- Determine necessary skill-building and develop process to scale
- Lead changes in workforce models (e.g., remote work)

**Plan Ahead Team**
- Absorb uncertainty
- Determine / sharpen future-state hypothesis
- Create portfolio of strategic actions (leveraging insights)
- Monitor leading indicators (and additional tech resources / platform)

**Business units & Functions**
- BU1
- BU2
- BU3

**BU-specific strategic actions, including:**
- Digital sales
- Contactless operations

Dedicated muscle teams within BUs interact with broader Plan Ahead, WF Readiness, and COVID-19 teams.
This org structure enables a continuous-feedback operating model between fast-twitch and slow-twitch teams

Iterative feedback between the Plan Ahead and execution teams helps absorb the uncertainty of the crisis

<table>
<thead>
<tr>
<th>Information passed between teams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Actions taken and their results</td>
</tr>
<tr>
<td>2. Real-time external indicator monitoring</td>
</tr>
<tr>
<td>3. Strategic shift and current strategy</td>
</tr>
<tr>
<td>4. Strategic workforce priorities (reskilling)</td>
</tr>
</tbody>
</table>

How teams use the information

From the future-state hypothesis, determine what workforce readiness investments are needed now to help equip the org for long-term success

Refines future-state hypothesis based on external and internal listening and develops perspective on current-state strategy

Take in strategic priorities and rapidly iteratively make customer & product decisions (fail fast), reskill workforce, and test other hypotheses to manage uncertainty

Ops/tactical teams: black
Strategic teams: blue
Enabler teams: cyan

Plan Ahead Team
Tech resources and platform
Business Unit/Function delivery teams
COVID-19 Operations
Workforce Readiness

McKinsey & Company

The 8-to-12-month journey to developing the Return muscle follows a three-phase journey

**Phase 1: Focus on developing muscle (2-3 mo.)**
- Create dedicated COVID-ops team for rapid execution
- Establish ‘decision-making’ process involving only key stakeholders
- Create safe workforce return plan

**Phase 2: Scale capabilities at all levels (2-3 mo.)**
- Extend autonomy from nerve center to business unit leads
- Dedicate Return-specific “muscle” teams within BUs
- Continue stress testing / improving return plan with new information

**Phase 3: Use outcomes to learn and set future direction (4-6 mo.)**
- Strengthen ability to rapidly make decisions emerging from the crisis
- Continuously adapt leading indicators to new data to tap into emerging realities
- Extend ‘fast twitch’ capabilities to all teams beyond “muscle” teams

### Strengthen ‘fast twitch’ muscle

- **Accelerate/ scale skill-building**
  - Identify few key capabilities to get right (e.g., remote work, digital sales)
  - Determine workforce segments and supply / demand relationship

- **Learn from environment and bound uncertainty**
  - Create leading indicator and internal intervention monitoring capabilities
  - Leverage experts to stay ahead of local health guidelines, regulation, etc

### Accelerate/ scale skill-building

- Create feedback loops with BUs / PA team to identify emerging skill gaps and create relevant trainings
- Reduce time to develop new skills

### Learn from environment and bound uncertainty

- Continuously adapt 1-2 month future-state hypothesis based on real-time feedback from actions & monitoring dashboards
- Build tech platform to support muscle

### Institute processes for continuous capability building

- Identify policies to incentivize skill building in areas relevant for future

- Establish org-wide processes to enable ability to handle uncertainty
- Improve hypotheses and take actions based on past prediction results
The Four Forces that are shaping the Next Normal

- Macro-economic scenarios
- Return as a muscle
- Metamorphosis of demand
- An altered workforce
- Regulatory uncertainty
- Understanding of the virus
Adoption of digital sales channels is ‘on the rise’

Consumers are accelerating adoption of digital channels

Most first-time customers (~86%) are satisfied/ very satisfied with digital adoption and majority (~75%) plan to continue using digital post-COVID

% of respondents

<table>
<thead>
<tr>
<th>Industry</th>
<th>Regular users</th>
<th>First time users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (All industries)</td>
<td>33%</td>
<td>17%</td>
</tr>
<tr>
<td>Banking</td>
<td>51%</td>
<td>21%</td>
</tr>
<tr>
<td>Grocery</td>
<td>30%</td>
<td>31%</td>
</tr>
<tr>
<td>Apparel</td>
<td>45%</td>
<td>13%</td>
</tr>
<tr>
<td>Travel</td>
<td>37%</td>
<td>6%</td>
</tr>
</tbody>
</table>

...and so are B2B decision makers

B2B decision makers believe digital sales interactions will be ~2X more important than traditional interactions in the next few weeks (vs equally important pre-COVID)

% of respondents

<table>
<thead>
<tr>
<th>Interaction Type</th>
<th>Regular users</th>
<th>First time users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional sales interactions</td>
<td>34</td>
<td>66</td>
</tr>
<tr>
<td>Digital-enabled sales interactions</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>

Source:
1 - Q: Which of the following industries have you used/visited digitally (mobile app/ website) over the past 6 months? Which of this services have you started to use digitally during COVID-19? McKinsey & Company COVID-19 Digital sentiment insights: survey results for the U.S. market; April 25-28, 2020
2 - McKinsey B2B Decision Maker Pulse Survey, April 2020 (N=3,619 for Global. Respondents from France, Spain, Italy, UK, Germany, South Korea, Japan, China, India, US, and Brazil)
Rapidly iterating on redesigning the end-to-end customer journey will be critical

Travel example: designing a ‘contactless’ experience

Understand the risks across key journeys to fuel the design of relevant solutions that can best address and mitigate those risks. Rapid development of solutions by a cross-functional team enables the team to create a “table-top” future experience to rapidly test and validate with users and stakeholders.

Vision development, ideation, prototyping

Increase the level of fidelity to prototype a winning subset of ideas

Testing with customers and stakeholders & refinement

Validate and refine concepts with relevant user groups

Prioritization

Balance investments over time to accelerate re-start and recovery

Idea solving for risks identified in the E2E traveler journey

(ILLUSTRATIVE)

Touch free E2E journey

Fully digital hotels

Medical services linked to hotel

Safe-o-meter to plan options

Visible security tray sanitization

Staff resilience training

Safer train/bus interior zoning

Safer luggage storage on trains

Seclusion pods in airport

UV cleaning robot for transport

Air vents in transport headrest

Health check-up prior to trip

Vision development, ideation, prototyping

Increase the level of fidelity to prototype a winning subset of ideas

Testing with customers and stakeholders & refinement

Validate and refine concepts with relevant user groups

Prioritization

Balance investments over time to accelerate re-start and recovery

Current as of May 6, 2020
The Four Forces that are shaping the Next Normal

- Macro-economic scenarios
- Metamorphosis of demand
- An altered workforce
- Return as a muscle
- Regulatory uncertainty
- Understanding of the virus
Remote working can generate substantial value for organizations...

<table>
<thead>
<tr>
<th>Lever</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing resilience</td>
<td>Equipping organizations to react more flexibly and efficiently to events that are beyond their influence by decoupling location and business outcomes</td>
</tr>
<tr>
<td>Improving talent access</td>
<td>Increasing the size of the addressable talent pool as (especially high potential) individuals are less willing to move for work</td>
</tr>
<tr>
<td>Increasing operational</td>
<td>Improving employee efficiency</td>
</tr>
<tr>
<td>efficiency</td>
<td>Improving efficiency through required redesign of work (e.g., automation, new tools, improved process times, reduced paper flow and # reports)</td>
</tr>
<tr>
<td>Improving cost position</td>
<td>Reducing demand for expensive real estate space and business travel</td>
</tr>
<tr>
<td>Driving employee satisfaction</td>
<td>Offering employees flexibility to reduce attrition and unscheduled absences</td>
</tr>
</tbody>
</table>

### Example Impact

<table>
<thead>
<tr>
<th>Impact</th>
<th>Percentage</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the typical TRS outperformance resilient organizations (companies with the ability to adapt faster during and after a crisis) achieve post-crisis compared to less resilient peers</td>
<td>150%</td>
<td>1. <a href="https://www.mckinsey.com/business-functions/operations/our-insights/building-resilient-operations">https://www.mckinsey.com/business-functions/operations/our-insights/building-resilient-operations</a></td>
</tr>
<tr>
<td>of employees report that the ability telecommute plays a role in the choice for their next job</td>
<td>70%</td>
<td>2. <a href="https://globalworkplaceanalytics.com/">https://globalworkplaceanalytics.com/</a></td>
</tr>
<tr>
<td>performance improvement of remote workers was shown in a Stanford study on the Chinese travel agency Ctrip</td>
<td>13%</td>
<td>3. <a href="https://www.gsb.stanford.edu/insights/why-working-home-future-looking-technology">https://www.gsb.stanford.edu/insights/why-working-home-future-looking-technology</a></td>
</tr>
<tr>
<td>efficiency improvements can be realized by GCCs through remote work (incl. full program cost)</td>
<td>15-20%</td>
<td>4. McKinsey survey across 46 GCCs and 248,000 employees) 4. McKinsey survey across 46 GCCs and 248,000 employees)</td>
</tr>
<tr>
<td>average reduction of unscheduled absences for organizations that implemented a telework program</td>
<td>63%</td>
<td>5. American Management Association 5. American Management Association</td>
</tr>
</tbody>
</table>

---

4. McKinsey survey across 46 GCCs and 248,000 employees)
5. American Management Association
Although it is unlikely to be a panacea – certain tasks will still benefit from in-person connection

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negotiations</strong></td>
</tr>
<tr>
<td><strong>Relationship building</strong></td>
</tr>
<tr>
<td><strong>Onboarding and job training</strong></td>
</tr>
<tr>
<td><strong>Critical decision meetings</strong></td>
</tr>
<tr>
<td><strong>Critical conversations</strong></td>
</tr>
</tbody>
</table>

Examples

An experiment done by researchers at the University of Chicago and Harvard found that negotiators who shook hands were more open and honest, and reached better outcomes

8 out of 10 executives surveyed preferred face to face meetings, with three main reasons:
- Build stronger, more meaningful business relationships (85%)
- Ability to read body language and facial expressions (77%)
- More social interaction, ability to bond with co-workers/clients

Gitlab the world’s largest only remote company does not hire junior roles and so far only has a pilot for interns

According to research the degree of liking conveyed by facial expressions will dominate and determine the impact of the total message which might deteriorate in video calls

2. Forbes Insights: The case for Face-to-face
3. www.gitlab.com
4. Silent messages Paperback – 1971 by Albert Mehrabia
The shift to hybrid-virtual model requires considering the needs of employee segments, teams and organization as a whole

### What are the virtual work archetypes at an employee segment level?

<table>
<thead>
<tr>
<th>Virtual work archetypes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully virtual</td>
<td>+90% of work is in the virtual workplace</td>
</tr>
<tr>
<td>Hybrid - Regularized</td>
<td>On-site work occurs at regular intervals largely at individual discretion</td>
</tr>
<tr>
<td>Hybrid – On-demand</td>
<td>Split on-site versus virtual fluctuates depending on work demands</td>
</tr>
<tr>
<td>Onsite Primary</td>
<td>Majority of work occurs on-site while some activities are done virtually</td>
</tr>
<tr>
<td>Onsite Critical</td>
<td>100% of work activities must be completed on site</td>
</tr>
</tbody>
</table>

### What do businesses solve for at a team level?

- The need for teams to sustain and improve productivity
- The need for teams to frequently re-organize as opportunities arise and dissipate
- Ability to tap into greater skill pools to assemble winning teams

### What do businesses solve for at organization level?

- Ability to attract and retain top talent
- Ability to flexibly dial talent supply up and down by greater reliance on virtual contractors
- Improved location strategy and cost optimization
- Ability to close the gaps in critical skill pools
There are a number of core principles that can enable a successful virtual transition

| Develop hybrid-virtual leaders | Ensure leaders are equipped to **lead in a world where inspirational leadership is more effective** to build trust that hierarchical leadership  
Define **new leadership “observable behaviors”** to ensure leaders are spending their time on appropriate activities (e.g., creating informal interactions with employees) |
|---|---|
| Be deliberate about your culture | Create a culture where **remote working employees do not feel like second class employees** (e.g., fear for disadvantages in career development due to remote work)  
**Leaders should role model** by working remotely for a significant share of their time  
**Acknowledge the benefits of F2F communication** and create periodic in person interactions (1 - 2 times/ yr min) |
| Ensure productivity of onsite and virtual employees | Ensure virtual employees can stay on the pulse by establishing **clear guidelines and working norms for documentation** and creating transparency for all meetings and decisions, that also apply for co-located employees (e.g., be on own laptop in VC even in meeting that is partly in person)  
**Overcompensate with managerial attention** for virtual employees to remove in-person bias  
**Increase efforts in performance management**, clearly define outcomes, regularly document KPIs, and evaluate employees purely on transparent outcomes / metrics in order to remove in-person bias |
| Actively manage engagement and org effectiveness | **Actively engage with employees** on organizational health  
Continuously **monitor organizational health** and take action if required  
**Be intentional about everything**, especially interpersonal connections (or they may not occur)  
Conduct **social networking analysis** to understand social cohesion and intervene as appropriate |
| Foster a sense of purpose for employees | **Emphasize and communicate purpose** for each and every employee through clear communication strategy and channels |
The Four Forces that are shaping the Next Normal

- Macro-economic scenarios
- Metamorphosis of demand
- An altered workforce
- Regulatory uncertainty
- Understanding of the virus
- Return as a muscle
Nerve center teams should be modular and reorient their focus around “Return to work” priorities

Return focused nerve center squads build on existing priorities of the core nerve center to focus on strategic return priorities

1. Focus on short term strategic priorities, long-term workforce strategy to be prioritized (in collaboration with core nerve center) as return ramps up
Success of a return plan can benefit from adequate data and scenario-based response readiness (1/2)

**Outputs of a Return Plan**

<table>
<thead>
<tr>
<th>Immediate business strategy¹</th>
<th>Immediate post-return business strategy map (e.g., stop a business model, focus on a product/customer segment, re-orient mfg. focus)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business priority list for execution (e.g., restart mfg., prioritize resilient business partners)</td>
</tr>
<tr>
<td></td>
<td>Digital-first scenarios/roadmap for short-term pivots</td>
</tr>
<tr>
<td>Return strategy &amp; phase-wise roadmap</td>
<td>Leading-indicator monitoring dashboard</td>
</tr>
<tr>
<td></td>
<td>End-to-end return strategy, timeline and checklist² including phases of return and organizational focus by phase</td>
</tr>
<tr>
<td></td>
<td>List of clear triggers for return phases and communication plans</td>
</tr>
<tr>
<td></td>
<td>Weekly cadence to monitor return phases/issues and re-focus</td>
</tr>
<tr>
<td>Workforce segmentation</td>
<td>Current workforce segmentation based on remote vs in-person and risk levels of infection</td>
</tr>
<tr>
<td></td>
<td>Operating model by workforce segments for each return phase</td>
</tr>
<tr>
<td></td>
<td>Plan for larger remote enablement</td>
</tr>
<tr>
<td>Workforce training and engagement</td>
<td>Implementation plan including workforce trainings on norms, interventions, two-way communication modes, health response manuals</td>
</tr>
<tr>
<td>Health &amp; safety interventions</td>
<td>End-to-end Intervention plans with detailed illustrative posters, videos, manuals, safety protocols to enable safety measures for workforce return</td>
</tr>
<tr>
<td></td>
<td>Goals and milestones to monitor each intervention</td>
</tr>
</tbody>
</table>

**What does good look like?**

- Short term ‘business priorities’ are in alignment with capital position, ecosystem readiness (suppliers), and focused on customer retention
- Strategic highlights focus on ‘continuous iteration’ – strong willingness for reversal as required
- Includes focus on resiliency in business partners
- Return strategy is grounded in macro-economic scenarios
- Leading indicators are customized to adequately reflect local conditions specific to your industry sector, geographical presence
- Return phases in accordance with regional guidelines and regulations
- Participation in industry associations and collaborative groups
- Priority considerations around digital and remote-first return
- Mindful return without ‘follow-the-crowd’ mentality
- Workforce transitions through cycle of return, reimagine and reform supported by cost-benefit analyses
- Pre-emptive, consistent and transparent communication on upcoming phases and ‘what to expect’ for all employees
- Consideration of end-to-end employee journey in different environments (e.g., office, manufacturing, retail)
- Interventions stress-tested against growing repository of known failures
- Interventions address physical safety as well as mental health

---

1. Core nerve center builds out long term business strategy scenarios; near-term strategy in ‘Return’ feeds into the long term strategy
2. Detailed return checklist in page 9

---

McKinsey & Company
Success of a return plan can benefit from adequate data and scenario-based response readiness (2/2)

### Outputs of a Return Plan

<table>
<thead>
<tr>
<th>Intervention Monitoring</th>
<th>Monitoring dashboards for intervention performance through measures such as safety levels, infections (if any), barrier gaps, workforce sentiments, productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cadence with the Return planning and ops teams</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Return Policy</th>
<th>Guiding policies on workforce priorities (e.g., for vulnerable populations/ high risk regions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Policies to oversee specific scenarios (e.g., on-site infection at point of entry)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Return Operating Model</th>
<th>Operating model of return squads including roles, governance, decision flows and cadence of delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cadence of checkpoints with core nerve center</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risk Management</th>
<th>Risk readiness scenarios with a focus on legal, compliance and HR risks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manuals for risk reviews of interventions and workforce processes</td>
</tr>
</tbody>
</table>

### What does good look like?

- **Adequate two-way communication modes** for feedback loop with employees/customers/suppliers
- **Ability to be agile in responding to barrier leaks** in interventions
  - Policies in line with emerging **local and national guidelines**
  - **Policies prioritize workforce safety** while protecting against potential liabilities
  - Operating model ensures **agile ways of working** with flexibility to pivot quickly
  - Roles and responsibilities **clearly articulate dependencies** and focus on decisioning speed
  - **Holistic approach** to risk management considering brand, legal, compliance risks
  - Liability protection readiness for **preventative and mitigative scenarios**
### Potential phased approach for organization’s return to work

#### Phase: Preparation for return

**Define near-term roadmap for sustainable workplace operations**

<table>
<thead>
<tr>
<th>Adapt</th>
<th>Accelerate</th>
<th>Craft</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Understand likely shifts in stakeholder priorities/behaviors and resulting business impact</td>
<td>• Segment the workforce and build timetable for return onsite for each segment</td>
<td>• Establish/reassess the role, structure and mindset of a nerve center</td>
<td>• Define trigger points and leading indicators for workforce return and setup monitoring dashboards</td>
</tr>
<tr>
<td>• Leverage macroeconomic scenarios for development of financial models and business risks</td>
<td>• Re-assess legacy initiatives (e.g., scaling workforce up or down) and net new aspirations</td>
<td>• Map employee end to end journey to use as a framework to plan interventions</td>
<td></td>
</tr>
</tbody>
</table>

#### Phase: Initial return stages

**Decide plans and moves:**

<table>
<thead>
<tr>
<th>Adapt</th>
<th>Accelerate</th>
<th>Craft</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Build and iterate on financial scenarios and issue maps to guide rapid decision making</td>
<td>• Prioritize initiatives with immediate relevance and key enablers</td>
<td>• Establish/reassess the role, structure and mindset of a nerve center</td>
<td>• Define trigger points and leading indicators for workforce return and setup monitoring dashboards</td>
</tr>
<tr>
<td>• Evaluate and invest in move to ‘digital-first’, as customers reorient their buying preferences</td>
<td>• Consider remote enablement and workforce retraining for groups not immediately returning</td>
<td>• Map employee end to end journey to use as a framework to plan interventions</td>
<td></td>
</tr>
<tr>
<td>• Pre-empt customer and business partner safety and resilience needs</td>
<td>• Reallocate and retrain resources for high-priority divisions opening first</td>
<td>• Engage in two-way communication around expectations for return to work</td>
<td></td>
</tr>
</tbody>
</table>

#### Phase: Full scale return

**Execute phase-wise return to drive to post-COVID strategic objectives**

<table>
<thead>
<tr>
<th>Adapt</th>
<th>Accelerate</th>
<th>Craft</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Begin workforce return for critical onsite employees</td>
<td>• Develop and implement workplace safety interventions based on industry best practices and local govt. guidelines</td>
<td>• Identify and empower change champions to help sustain organizational culture</td>
<td>• Continuously align practices based on updated data from relevant health agencies</td>
</tr>
<tr>
<td>• Implement agile principles to rapidly develop and test new ways of working</td>
<td>• Build in time for training on changing work practices, norms</td>
<td>• Monitor effectiveness of interventions (e.g., adherence, transmission) and continuously update and redeploy initiatives to improve employee outcomes</td>
<td></td>
</tr>
<tr>
<td>• Reiterate on financial and business scenarios based on initial feedback</td>
<td>• Implement structures, such as checklists and templates to support management</td>
<td>• Identify and empower change champions to help sustain organizational culture</td>
<td></td>
</tr>
<tr>
<td>• Transition to Reimagine Plan Ahead team</td>
<td>• Identify red-flags and levers that can be pulled to mitigate problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Drive readiness for possible outbreak resurgence</td>
<td>• Continue monitoring indicators for transitioning from high to low restriction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Revisit workforce segments converted to fully virtual operations to assess additional opportunities for remote working</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Four Forces that are shaping the Next Normal

- Macro-economic scenarios
- Return as a muscle
- Metamorphosis of demand
- An altered workforce
- Regulatory uncertainty
- Understanding of the virus
Sample transmission case: Outbreak at a restaurant in China during lunch

Outbreak scale
- # of customers at restaurant: 83 (across 5 floors)
- # of infections: 10 (A, B, C families)

Transmission event

Index case
First patient A1 had been to Wuhan but was asymptomatic at the time of the lunch. No other source of exposure was detected for other families.

Environment: Neighborhood tables at a 5-floor restaurant without windows
Location: Guangzhou, China
Timeline: Jan 26 - Feb 10, 2020

Potential considerations for return
- Rethink air-conditioning inlet / outlet to minimize droplet transmission (e.g., ventilation perpendicular to workstations)
- Increase distance between tables/ work stations (> ~2 m)
- Separate tables using plexiglass and disinfect them frequently
- Screen customers/visitors/ workers for temperature at points of entry

Authors conclusions
1. Strong airflow from air-conditioning assisted droplet transmission >1m
2. Pre-symptomatic patient A1 was not screened for temp.


Disclaimer: Early release articles are not considered as final versions. Any changes will be reflected in the online version in the month the article is officially released.
Example: A customer journey view across the CDC pyramid

An end to end customer journey, with interventions tied to the CDC pyramid, allows for upgrades over time

Hierarchy of hazard controls

1. Elimination
2. Substitution
3. Engineering controls
4. Administrative controls
5. PPE

Pre-entry
- Policy and education
- Workforce communication

Travel to work
- Manufacturing environment
- Office environment
- Retail environment
- Field environment
- Entrance controls

At work
- Public, employer-sponsored and individual transport

Common spaces
- Meeting rooms
- Break rooms
- Hallways
- Restrooms
- Other

Post-infection
- Isolation
- Tracing & isolation
- Facility response
- Insurance
- Liability

Hierarchy of hazard controls

Least effective

Most effective

Companies are increasingly mapping new interventions across the workforce journey – Sample Manufacturing journey

**Travel to work and pre-entry**
- Use of masks required during employee commutes
- Temperature checks

**At Work**
- Modularized spaces, with limited interaction across spaces
- Masks and other appropriate PPE required at all times
- High-frequency cleaning of high-touch surfaces and spaces
- Improved air filtration/ventilation
- Clear posters on safety guidance and sickness protocols

**Common space use**
- Separated lunch seating with dividers on dining tables
- Use of non-reusable dishes at cafeterias

Source: Industry expert interviews, government/public health websites (including, but not limited to, sources available at CDC.gov, WHO.int), and press research (including, but not limited to, sources available at NYT, WSJ, and specific Fortune 1000 or equivalently large international company websites)

*Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client*
Sample journey: Office environment

Travel to work and pre-entry

- Masks required and provided for employees
- Limited entrance for non-employees

At Work

- Reorganized seating (6 feet apart)
- Headcount limited below fire code limit (e.g., limiting number of entries by shifts)
- Masks required at all times (Except when working individually more than 6 feet apart)
- Increased frequency of cleaning of high-touch surfaces

Common space use

- Separated lunch seating
- Increased frequency cleaning with visibly monitored cleaning schedules

Source: Industry expert interviews, government/public health websites (including, but not limited to, sources available at CDC.gov, WHO.int), and press research (including, but not limited to, sources available at NYT, WSJ, and specific Fortune 1000 or equivalently large international company websites)

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client
Sample journey: Retail environment

Travel to work and pre-entry

- Staggered entry and work shifts
- Upgraded PPE encouraged, required and/or provided

At Work

- Guidance on no-questions-asked sick leave
- Plexiglass shields installed at cash registers

Common space use

- Increased cleaning of high-touch surfaces and spaces (e.g., Bathrooms)

Source: Industry expert interviews, government/public health websites (including, but not limited to, sources available at CDC.gov, WHO.int), and press research (including, but not limited to, sources available at NYT, WSJ, and specific Fortune 1000 or equivalently large international company websites)

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client
Sample journey: Field environment

Travel to work and pre-entry

- Allow use of personal vehicles to minimize contact
- Contactless temperature checks prior to entry

At Work

- Modularized spaces, with limited interaction across spaces
- Discuss safety practices at tailboard meetings
- Masks and other appropriate PPE required at all times

Common space use

- Stagger and distance pick up of supplies at the yard
- Minimize number of people in trailers
- Clear posters on safety guidance and sickness protocols

Source: Industry expert interviews, government/public health websites (including, but not limited to, sources available at CDC.gov, WHO.int), and press research (including, but not limited to, sources available at NYT, WSJ, and specific Fortune 1000 or equivalently large international company websites)

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client
Improve air filtration / ventilation to remove aerial antigens

Improved air filtration and ventilation systems

HEPA (high-efficiency particulate air)-rated filter

Ensure airflow does not aid transmission through droplets

Description of potential intervention

Install high-efficiency air filters and increase ventilation rates in the work environment

Avoid using central air conditioning and heating systems where possible

Where this has been done

Multinational automotive manufacturer in S. Korea heightened ventilation requirements beyond government guidelines

American multinational automotive manufacturer

Global commercial real estate company

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client

Source: Industry expert interviews, government/public health websites (including, but not limited to, sources available at CDC.gov, WHO.int), and press research (including, but not limited to, sources available at NYT, WSJ, and specific Fortune 1000 or equivalently large international company websites)
Identify high risk areas based on a walkthrough assessment

Drive safe behavior norms

Office | Manufacturing | Retail | Field

Description of potential intervention

Have an employee, employee team or third-party perform a walkthrough assessment to identify high-risk, high-touch areas

Use this assessment to inform new safety measures

Where this has been done

American multinational aerospace and defense manufacturer

Global commercial real estate company

American multinational technology conglomerate

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client

Source: Industry expert interviews, government/public health websites (including, but not limited to, sources available at CDC.gov, WHO.int), and press research (including, but not limited to, sources available at NYT, WSJ, and specific Fortune 1000 or equivalently large international company websites)
COVID-19 impacts on behavioral health may change the role of employers

Financial crises can incite behavioral health crises. Following the 2007-2008 global financial crisis:

Rates of depression, anxiety, and alcohol and drug use increased

Worldwide, suicides attributable to unemployment increased 13%, leading to over 46,000 lives lost 1, 2, 3

COVID-19 presents behavioral health challenges. In a recent survey of American adults

59% of respondents reported feeling depressed or anxious, or both

1 out of 4 reported binge drinking and 1 out of 5 misused prescription drugs 4

Employers can have a critical role to play in promoting resilience and mitigating the impact for their employees

In the Return phase, employers likely need to attend to the behavioral health needs of the workforce, including those returning to physical plants (e.g., fear of contagion) as well as those working remotely indefinitely (e.g., social isolation)

Employers can foster health and resilience, through their benefits and supports, communications, and culture

Framework of employer behavioral health actions to consider

**Strategic themes**

**Prioritize behavioral health**
- Appoint a behavioral health (BH) ambassador/leader, to coordinate efforts and demonstrate commitment

**Communicate resources**
- Develop a clear overview of behavioral health resources (e.g., EAP, telehealth,) and disseminate widely (e.g., internal websites, HR, team leaders)
- Convey senior leadership commitment to BH, acknowledgement of distress, and support for addressing behavioral health needs, including substance use

**Make treatment accessible**
- Examine BH policies and benefits to ensure that they have capacity to meet current demand; consider adding enhanced supports
- Ensure easy to access BH treatment resources, (e.g., telehealth, scheduling flexibility, on-site care) accounting for employee needs and physical distancing guidelines

**Cultivate inclusive culture**
- Educate the organization in behavioral health literacy, ways to reduce stigma, and how to support colleagues
- Institute formal and informal programming to provide social support and promote wellbeing (e.g., leadership check-ins, counseling webinars, social connectivity)

**Measure and hold accountable**
- Use analytics to understand BH needs (e.g., pulse surveys, people analytics, program utilization, culture surveys) and tailor supports and communications for key segments (e.g., on-site vs. remote roles; teams working directly on COVID-19 response)
- Hold the organization accountable and take action based upon metrics

**Tactical initiatives**

- Strategic themes
Identifying and sourcing critical protective supplies is likely a key enabler to facilitating safe return to work

Detailed fact packs and supplier lists are available across a number of critical supply categories

<table>
<thead>
<tr>
<th>Critical supply category</th>
<th>Examples</th>
<th>Usage observed in case studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Respiratory protection (e.g., PAPR, N95, surgical mask)</td>
<td><img src="image1" alt="Examples" /></td>
<td>Widespread</td>
</tr>
<tr>
<td>2 Eye/Face protection (e.g., face shield, goggles)</td>
<td><img src="image2" alt="Examples" /></td>
<td>Limited to select applications or cases</td>
</tr>
<tr>
<td>3 Body protection (e.g., isolation gowns, lab coats, coveralls)</td>
<td><img src="image3" alt="Examples" /></td>
<td>Limited to select applications or cases</td>
</tr>
<tr>
<td>4 Hand protection (e.g., gloves)</td>
<td><img src="image4" alt="Examples" /></td>
<td>Multiple applications observed</td>
</tr>
<tr>
<td>5 Sanitizers and disinfectants (e.g., alcohol-based hand rub)</td>
<td><img src="image5" alt="Examples" /></td>
<td>Widespread</td>
</tr>
<tr>
<td>6 Diagnostic tests</td>
<td><img src="image6" alt="Examples" /></td>
<td>Limited to select applications or cases</td>
</tr>
<tr>
<td>7 HVAC / Air purification</td>
<td><img src="image7" alt="Examples" /></td>
<td>Limited to select applications or cases</td>
</tr>
<tr>
<td>8 Thermal measurement</td>
<td><img src="image8" alt="Examples" /></td>
<td>Multiple applications observed</td>
</tr>
</tbody>
</table>

Image source: 3M, Home Depot, Amazon, Grainger

DOCUMENT INTENDED TO PROVIDE INSIGHT BASED ON CURRENTLY AVAILABLE INFORMATION FOR CONSIDERATION AND NOT SPECIFIC ADVICE

Current as of May 28, 2020

McKinsey & Company