

COVID-19: Briefing materials

Global health and crisis response

Updated: May 6, 2020

Current as of May 6, 2020

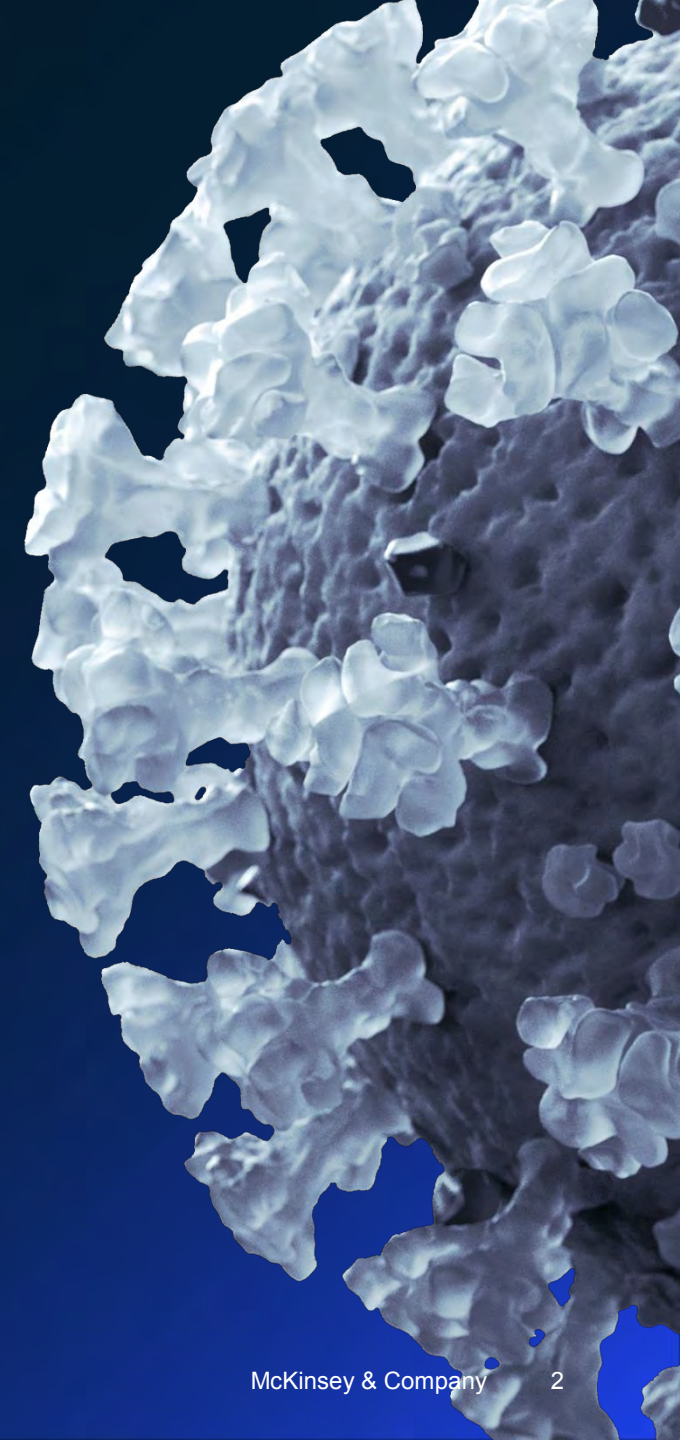
COVID-19 is, first and foremost, a global humanitarian challenge.

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.

[Read more on McKinsey.com](#) →



Executive summary

The situation now

At the time of writing, COVID-19 cases have exceeded 3.6 million and are increasing quickly around the world, with concerns that a 15% hospitalization rate could drive hospital system overload.

To reduce growth in cases, governments have moved to stricter social distancing, with “shelter in place” orders in many areas in the U.S., Europe, India, and other countries. This has driven rapid demand declines and fears of recessions, which governments are trying to meet through bailouts and other fiscal measures.

Some Asian countries, such as China, have kept incremental cases low, and are restarting economies. So far, there is little evidence of a resurgence in infections, though reinfection from travel abroad is being reported.

How the situation may evolve

There is a limited window for governments to drive adequate public-health responses and meet demand drawdowns with proportionate economic interventions. Without this, the possibility of a deeper effect on lives and livelihoods is more likely.

Scaled-up testing could clarify the extent and distribution of spread in the U.S., and Europe. There continues to be concern about the extent of spread and its consequences in countries with large populations and higher population densities.

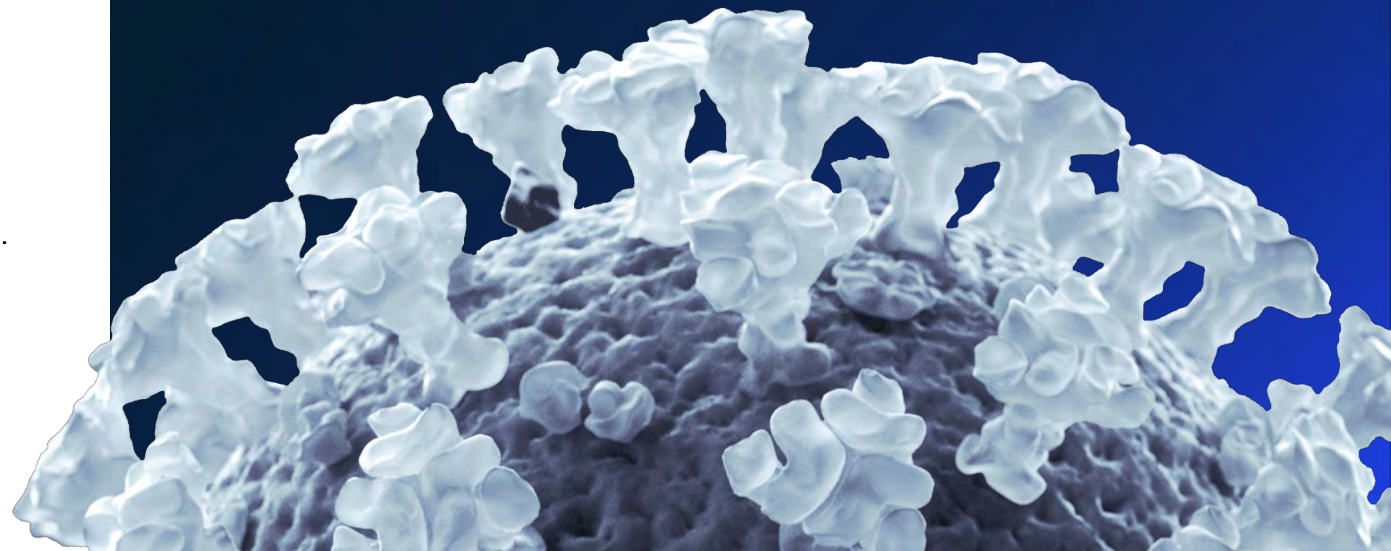
Learnings from other countries and recent innovations (strict social distancing rules, drive through testing, off-the-shelf drugs that can address mild cases, telemedicine enabled home care) could provide basis for a restart.

Actions that institutions can take

For many governments and companies, focus is now shifting to what a gradual reopening and Return to the workplace may look like with the end of shelter-in-place provisions.

Re-openings are being proposed in a wide variety of contexts, with some geographies considering opening after cases have plateaued, while others are seeking additional verifications, such as adequate hospital and testing capacity.

An effective Return depends on a number of factors – from ensuring that the local region has adequate readiness for a restart from a public health standpoint, to estimating timing for a return of demand, and other factors.



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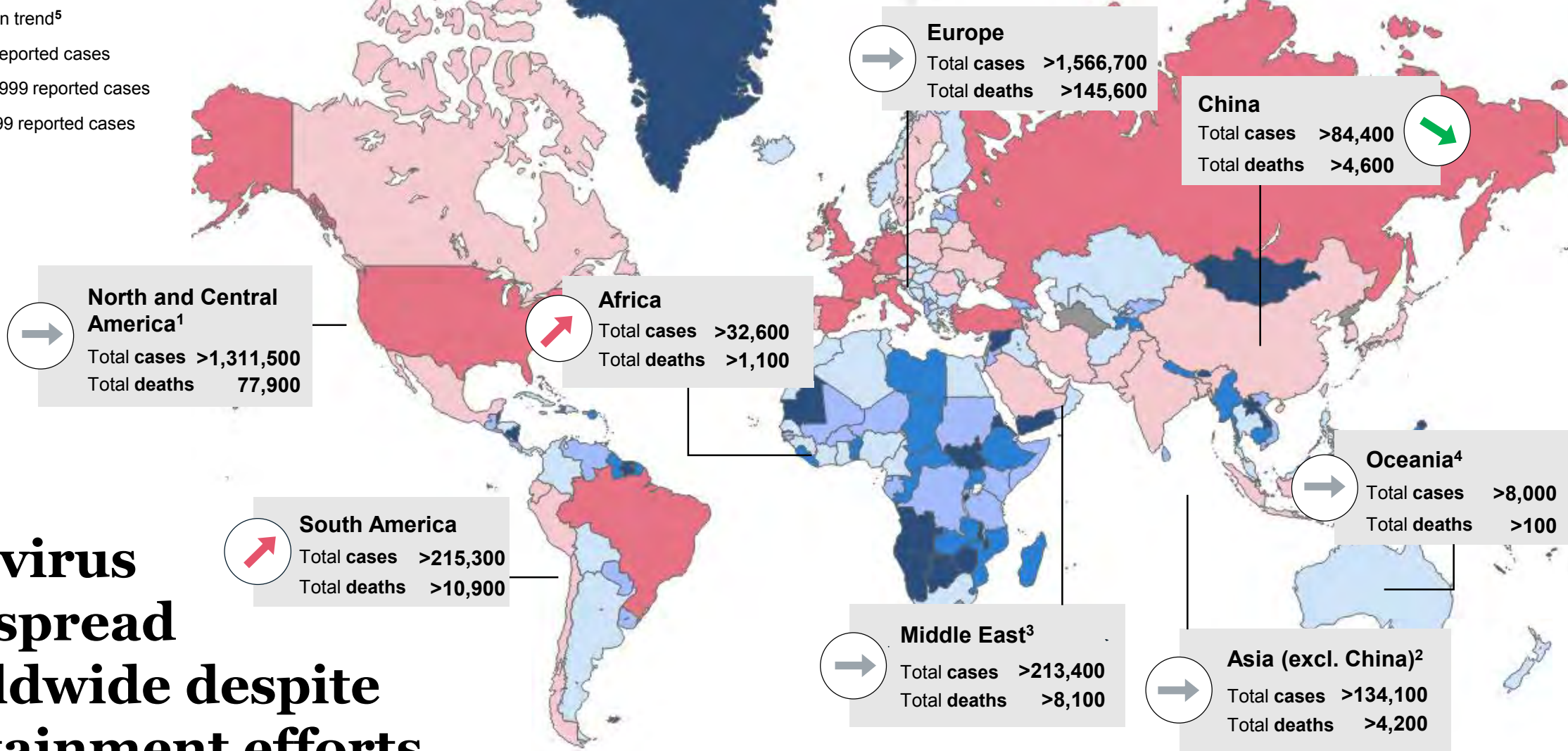
**Planning ahead
across multiple
horizons**

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**Appendix:
Transitioning to
next-normal**

↗ Propagation trend⁵

- >100,000 reported cases
- 10,000-99,999 reported cases
- 1,000-9,999 reported cases
- 250-999
- 50-250
- <50



The virus has spread worldwide despite containment efforts

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%

Official case and death counts may only be capturing a fraction of the true totals

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

■ Reported prevalence (confirmed cases / population)
■ Extrapolated prevalence sample-based testing

New York City

PCR testing of all patients who delivered infants (n=~200) at one hospital (antibody testing prevalence is likely higher)



New York State¹

Antibody testing of ~7,500 residents



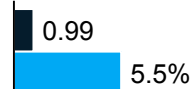
Gangelt, Germany

Antibody testing of ~1,000 residents



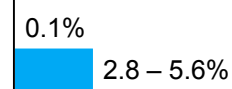
Geneva

Antibody testing of ~27,000 residents



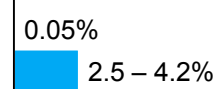
Los Angeles, CA

Antibody testing of ~800 residents



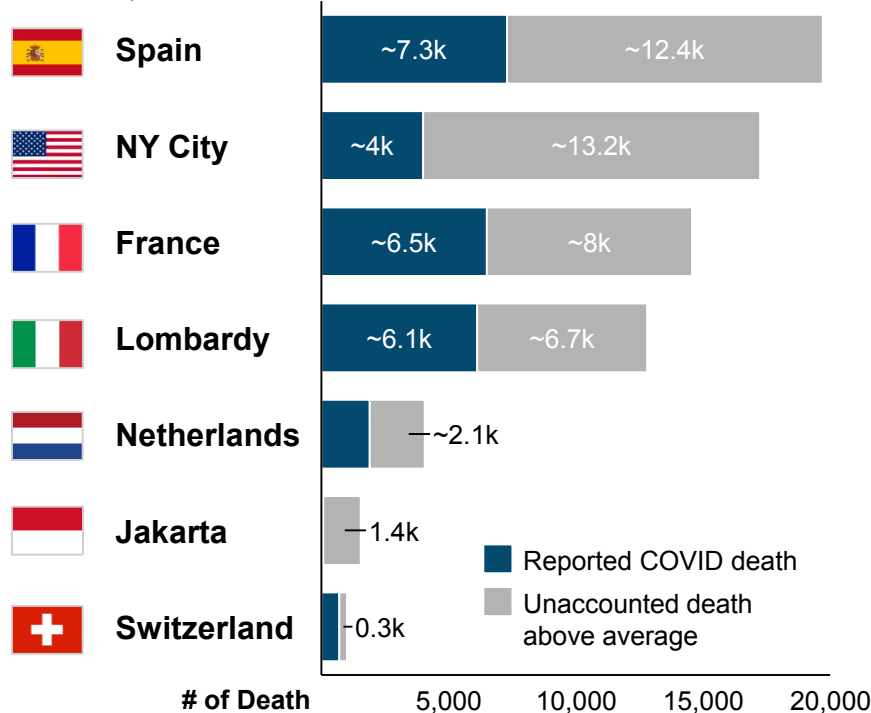
Santa Clara, CA

Antibody testing of ~3,000 residents



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

Confirmed COVID-19 deaths and unaccounted excess deaths in March-April, Compared to 2015-19 average death counts, varying dates in March / April



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 case **fatality ratio may be lower** than previously thought

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

Source: [MedRxiv](#), [NEJM](#), [LAND.NRW](#), [USC](#), [NYTimes](#), [Economist](#), [NY State](#), [Swissinfo](#), [Bloomberg](#)

1. Results not corrected for test accuracy

Toolkit for policy makers – Pillars of non-pharmaceutical public health interventions

A

Distancing

- Physical distancing measures have had a significant impact on reducing the transmission of COVID-19
- In some cases, distancing measures have proved ineffective on pockets of society (e.g., Singapore foreign workers living in dorms where measures cannot be easily implemented)

B

Travel restrictions

- Some regions are seeing resurgence of cases driven by imported cases (people traveling in)
- As focus slowly shifts to reopening economies, travel restrictions are usually maintained to avoid a second wave of infection

C

Testing, tracking, and targeted quarantine

- Broad early testing and isolation of those who test positive has enabled some regions to contain the spread of COVID-19
- Impact of contact tracing on transmission in high-prevalence settings is currently unproven
- Widespread access to accurate antibody tests faces challenges; currently unclear to what extent exposure to the virus confers long term immunity

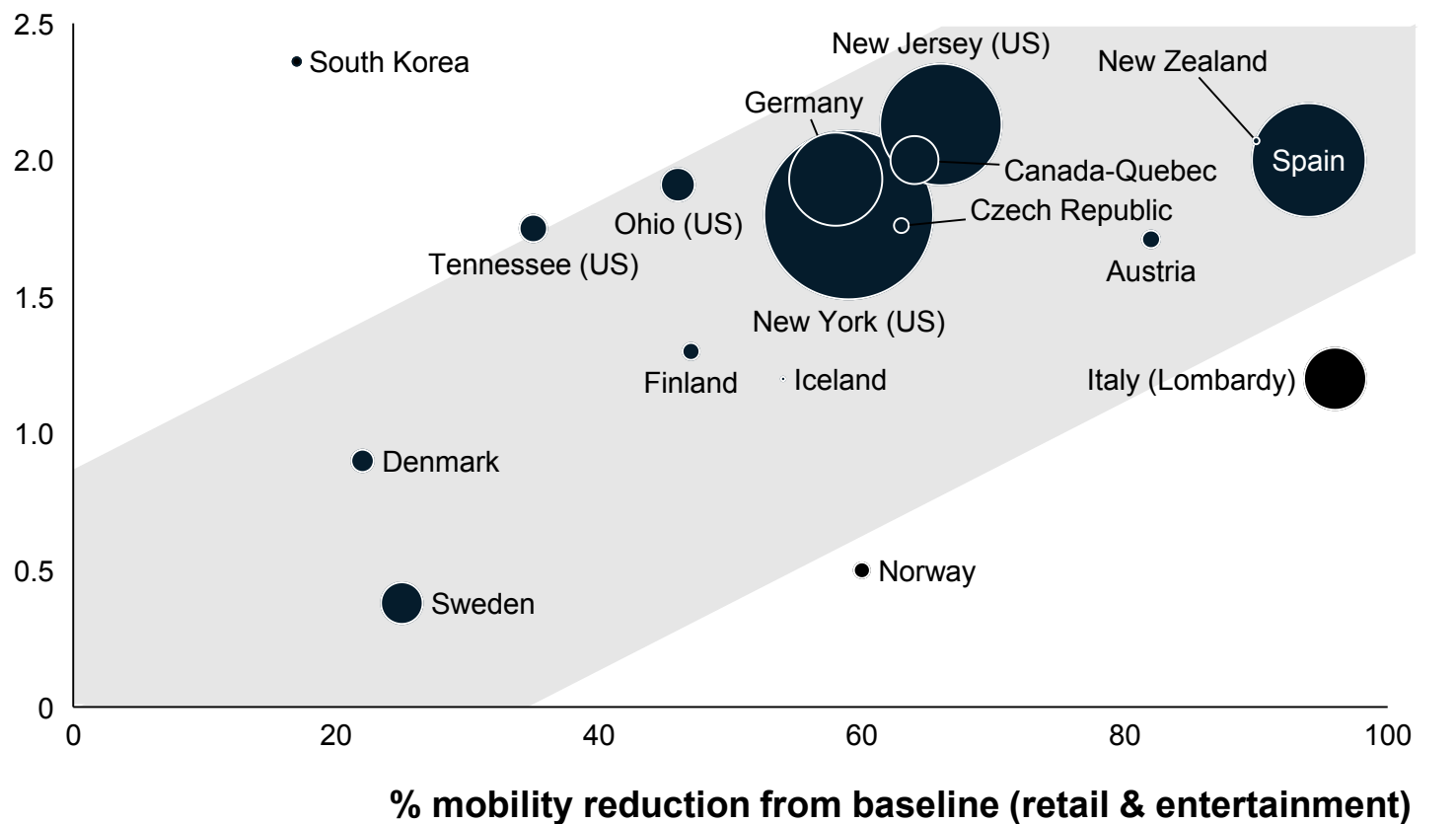
D

PPE & cleaning

- Early evidence suggests surgical masks catch both large and small droplets suggesting widespread use of masks is a worthwhile tool
- Current evidence suggests that COVID-19 may remain viable for hours to days on surfaces and hours in the air
- Cleaning of surfaces and disinfection is a best practice measure for prevention

A: Mobility reduction during lockdowns is roughly correlated with reductions in transmission

Decrease in R_t (transmission rate)¹



In general, implementation of public health measures leading to reduced mobility (e.g., closure of public spaces, lock downs, closure of schools) have successfully reduced COVID-19 transmission

In select geographies, other factors have led to higher or lower than expected changes in transmission

South Korea: Primarily relied on robust testing and tracing rather than reduction in mobility. Targeted city- and region-wide lockdowns implemented as needed

Lombardy, Italy: Large portion of population was infected before lockdown measures were enforced, making transmission more difficult to control even after lockdown

Norway: Geographical and environmental factors contribute to naturally low rates of spread, despite limited control measures. The seemingly low drop in R_t corresponds to a 40% decrease from baseline

1. Disease spread parameters are determined from confirmed case volume by fitting a simulation to the empirical data using a sum of least squares

A: Sweden has imposed fewer restrictions on business and society than other European countries

Most countries are trying to minimize new cases through packages of strict public health measures...

- Implement travel restriction to prevent resurgence
- Establish legal measures (e.g., fines) to enforce new regulations
- Plan selective/phased approach to cautiously reopen parts of economy

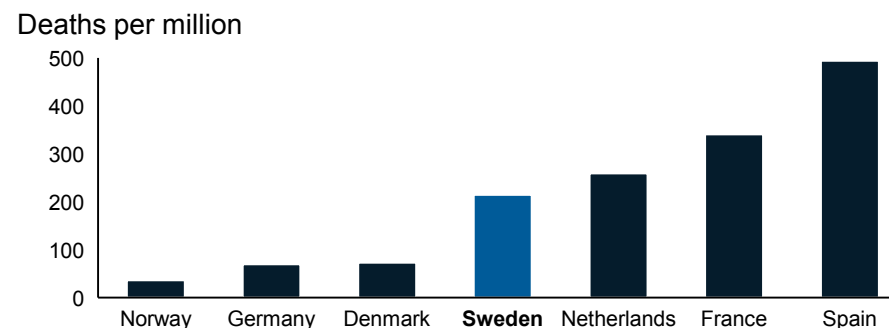
...However, Sweden took a different approach, implementing relaxed measures

- Kept businesses open, while urging individual responsibility
- Maintained surplus of medical equipment and hospital capacity
- Did not implement border control measures

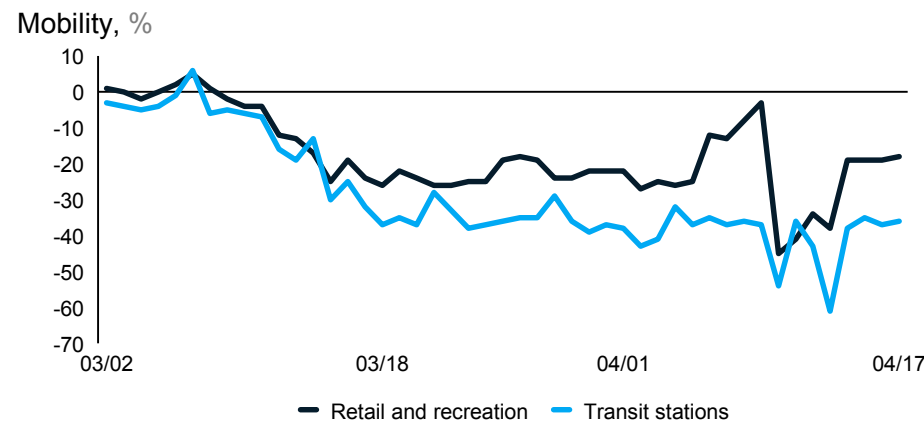


Sweden

Reported deaths per million people, as of April 27



Community Mobility, visits and lengths of stay compared to baseline¹



To date, COVID-19 deaths per million people in Sweden are mid-pack relative to other European countries and mobility in high risk areas has declined

Variance in societal adherence to public health policies may dictate the intensity with which countries mandate policies



“As a society, we are more into nudging: continuously reminding people to use measures, improving measures where we see day by day the that they need to be adjusted.”

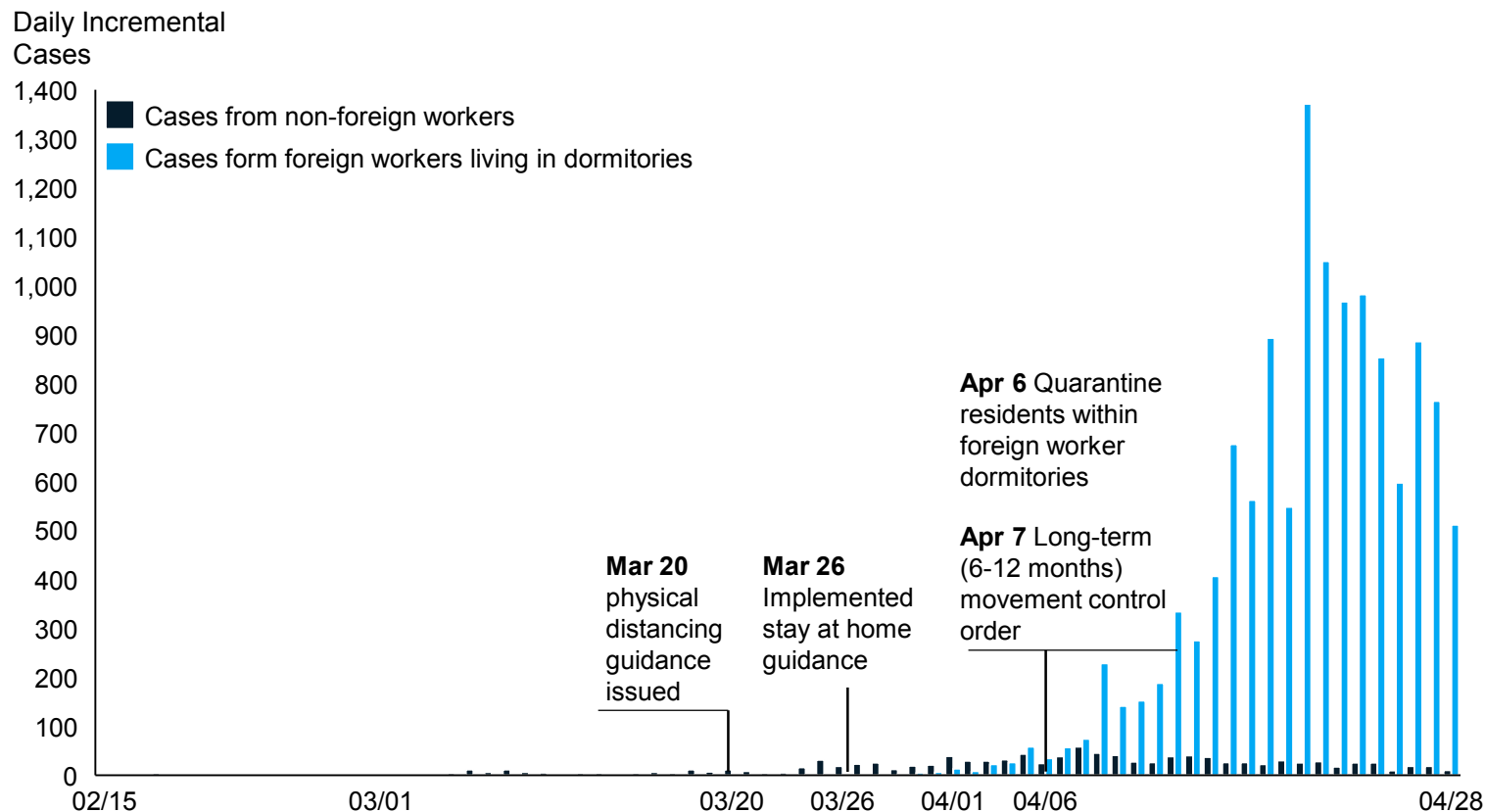
- Anders Tegnell, epidemiologist at Sweden’s Public Health Agency²

1. The baseline is the median value, for the corresponding day of the week, during the 5-week period Jan 3–Feb 6, 2020

2. An independent body whose expert recommendations the government follows

A: Subsectors of the economy may drive case resurgence during the reopening

Daily new cases in Singapore linked to non-foreign workers and foreign workers residing in dorms



Early physical distancing measures and stay at home guidance seem to contribute to the containing of **daily new cases** (mostly < 40) in most of parts of Singapore

However, **these appeared to be less effective in pockets of society** (foreign workers living in dorms) where the measures cannot be easily implemented

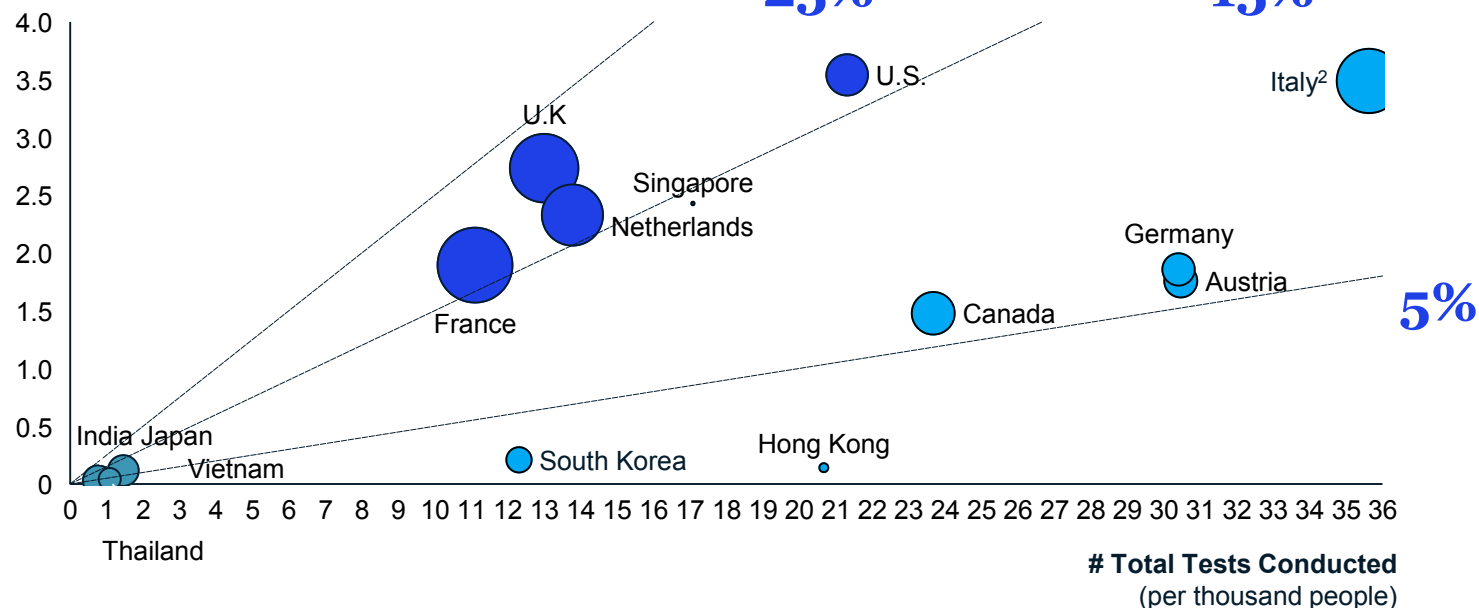
The increase in cases seems to result in **high public health tolls**, but also more **expensive and high intensity measures** such as long-term movement control

C: Countries with the widest testing tend to have the fewest cases per 1,000 people

Total confirmed COVID cases and conducted tests

--- Positivity Testing Rate
 ● % Fatality Estimate¹
 ○ 2.5% Fatality Rate

Total Cases (per thousand people)



1. Number of deaths / confirmed cases
 2. Significantly more testing recently occurred, which helped Italy to move from category 2 to category 3

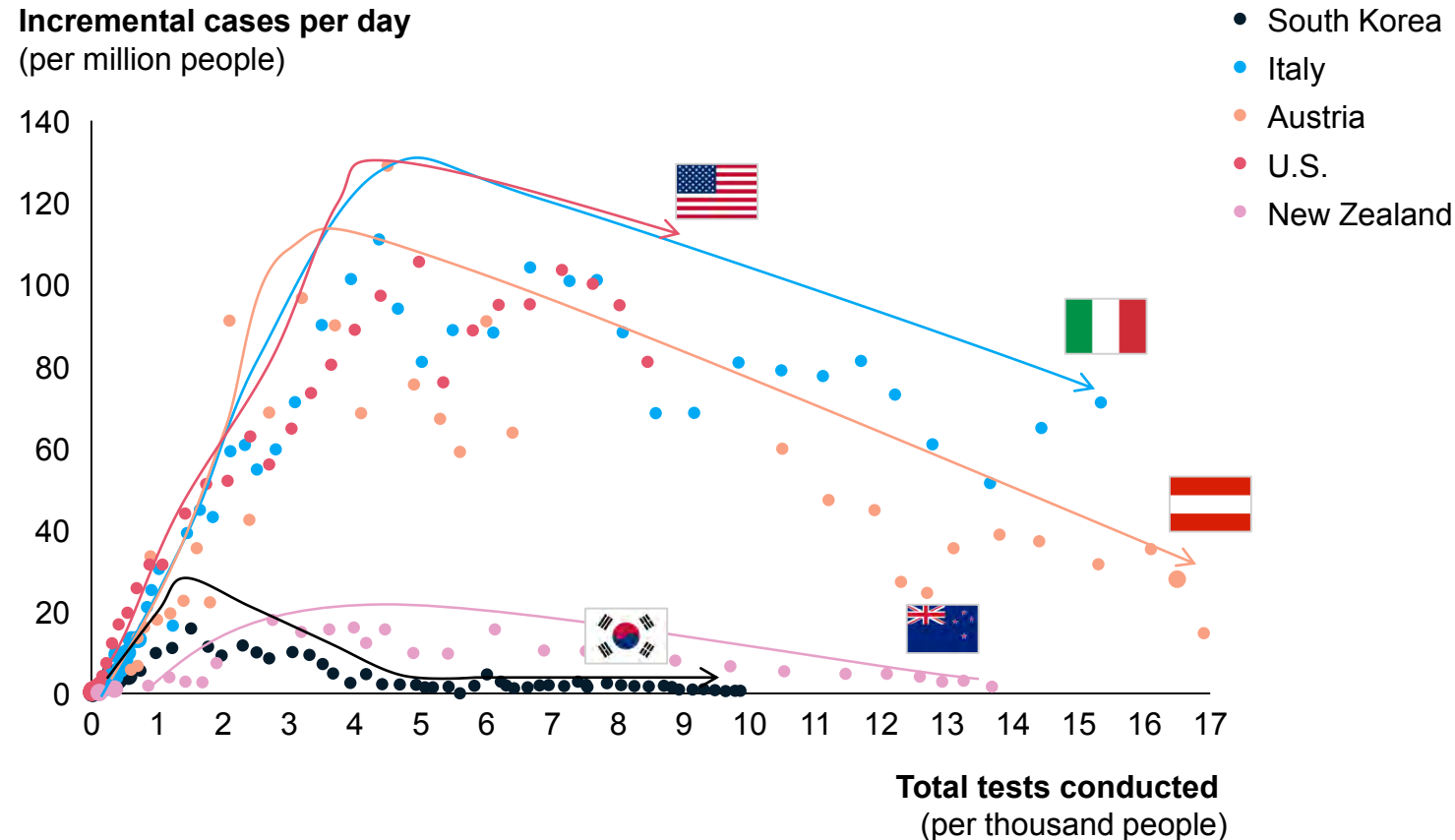
Sources: WHO situation reports, Johns Hopkins University, Our World In Data, The Government of the Hong Kong Special Administrative Region, The Singapore Government

3 levels of testing

- Countries with limited testing**
 Low volumes of testing lead to few confirmed positive cases
- Countries with moderate testing**
 Some countries test only (or predominantly) those with significant symptoms. Since milder cases are more likely to be missed, the Case Fatality Rate appears higher
- Countries with broad testing**
 Countries that have taken broad testing strategies tend to be those that have had success in limiting the number of new cases

C: Early testing and tracking capacity has enabled some countries to contain incremental cases

Incremental COVID cases and conducted tests



Observations



US & Italy

Steep rate of growth followed by plateau (then decline in the case of Italy) as countries expand testing access



Austria

Rapid shift to downward trend in incremental cases as the country expanded to a mass testing approach



South Korea & New Zealand

Aggressive early testing contained the rate of new infections; testing capacity continuously expanded as incremental cases are contained



C: Contact tracing involves the identification of individuals with potential exposure for targeted quarantining or other interventions

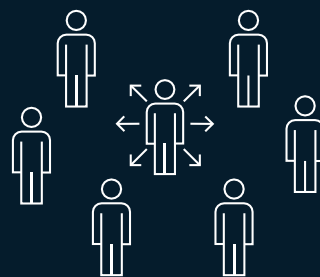
Contact identification



Once an individual is diagnosed, contacts are identified by determining the person's activities and the activities and roles of the people around them since onset of illness



Contact listing



All individuals who have been potentially exposed to the infected person are listed as contacts

Contacts are notified of their status, implications, and next steps (e.g., how to find care)

In some cases, quarantining or isolation is required for high risk contacts



Contact follow-up

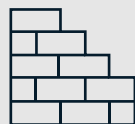


Regular follow-up conducted with all contacts to monitor for symptoms and continue to test for infection

This information is used to determine most appropriate intervention for contact (e.g., quarantining)

Although elements of contact tracing are consistent, specific approaches to contact tracing differ significantly in terms of technological sophistication (e.g., traditional contact tracing via phone and in-person contact vs. tech-based tracing through GPS or Bluetooth-enabled apps)

C: Widespread testing is generating new insights about COVID-19, but achieving the true potential of large scale serological testing faces challenges



Large-scale antibody testing faces serious challenges— including test sensitivity and accuracy— to meet its full promise of identifying people with full immunity



Long-term immunity to COVID-19 is key to return to the next normal, yet its **prevalence and duration remain largely unknown**

“ Accurate estimates of the COVID-19 death rate would help us plan properly for the next phase of the epidemic ”

– *Mark Woolhouse, Professor of Infectious Disease Epidemiology, University of Edinburgh*

C: Performing serological testing at scale has several limitations and challenges

Serological testing may have a positive impact to help return to the next normal...



“We are looking at an immunity certificate... to get back, as much as possible, to normal life”

– **Matt Hancock, U.K. Health Secretary**

“Serosurveillance is going to play a major role in a framework for getting back to normal”

“[Immunity certificates] have some merit under certain circumstances”

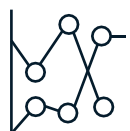
– **Anthony Fauci, Director of NIAID**

....but there are challenges associated with widespread roll-out and use of serological testing



Accuracy

- High rates of false negatives or positives could limit usefulness of testing as a tool to assess immunity and facilitate reopening
- Majority of 100+ available testing kits in the U.S. bypassed FDA review



Data management

- Significant challenge in consolidating and tracking testing results, especially with significant variation in methodology and sensitivity
- Regions need to consider data privacy issues when considering ‘immunization certificate’ via serologic tests



Immunity

- Even if above challenges are overcome, the degree to which serological testing is clinically useful depends on the long-term immunity conferral of COVID-19
- Serological tests are binary, and does not provide information on the titer of antibodies



The one thing that’s worse than no test is a bad test

– **Chris Whitty, U.K. Chief Medical Officer**

C: Immunity to COVID-19 is key to return to the next normal, yet its prevalence and duration remain largely unknown

While some early studies suggest potential longer term immunity similar to SARS-CoV1....

...Specific incidents of patients retesting positive could suggest shorter term immunity

Implications

Accelerated transition is possible based on **accurate serological testing** providing criteria for economic restarts

Transition to “next normal” is **contingent upon vaccine development**

Vaccines may not work or require frequent booster-shots

Supporting Data

SARS-CoV2 evidence

A Chinese study reports **immune response to S-protein in 100% patients** (n=16) > 14 days post-symptom onset

South Korea CDC confirmed **neutralizing antibody in 100% of initial cohort** of patients (n=25)

No reinfection observed in primate animal model

A Chinese study reports 30% of patients (n=175) with mild symptoms developed low or **no detectable antibody response**

48% of 25 recovered patients with neutralizing antibody **also tested positive for viral RNA** in South Korea

Indirect evidence

Immunity to SARS-CoV1, which shares 79% genetic identity, **persists for 1-3 years** in recovered patients

Reported reinfection may be described by **flare-up of old infection** (i.e. reactivation) that had temporarily subsided and then re-emerged

At least ~200 South Korean **patients tested positive again** for those who had been infected with COVID-19 and tested negative

Immunity to seasonal coronaviruses (e.g., common colds) **starts declining a couple of weeks after** infection

Implications

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

Durable immunity following exposure or immunization is a pre-requisite for herd immunity

The South Korean cases may offer insights into the possibility of reinfection / reactivation

D: Early evidence suggests use of masks reduce transmission



Reduced transmission

There is robust evidence to support the use of masks in healthcare settings to reduce transmission rates¹

For other respiratory viruses (e.g. H1N1) there is evidence of reduced transmission rates in enclosed setting like airplanes²

There is indirect evidence that the masks reduce transmissions in the community setting

- One meta-analysis on community based usages of masks showed reduced viral transmission³, however others cite a lack of high quality studies to draw from¹
- There are very few high quality trials and only one randomized control trial



Evidence for reduced droplets

Experimental evidence suggests surgical masks can reduce the spread of both larger droplets and small aerosols of COVID-19⁴ which are thought to be the main drivers of transmission⁵

- This evidence drives both the CDC and the WHO support the use of masks for infected individuals^{1,5}

In locations with large scale testing such as Iceland, S. Korea and the Diamond Princess have shown significant rates of asymptomatic COVID-19 cases suggesting decreasing rate of droplet production from the general public will reduce the number of infected particles in the environment capable of spreading infection

As of now, there is weak evidence masks are effective in the community setting; proper evidence is a good topic to be researched

¹ [CEBM](#), ² [Emerging Infectious Diseases](#), ³ [BMJ](#), ⁴ [Nature Medicine](#), ⁵ [CDC](#)

Key Takeaway

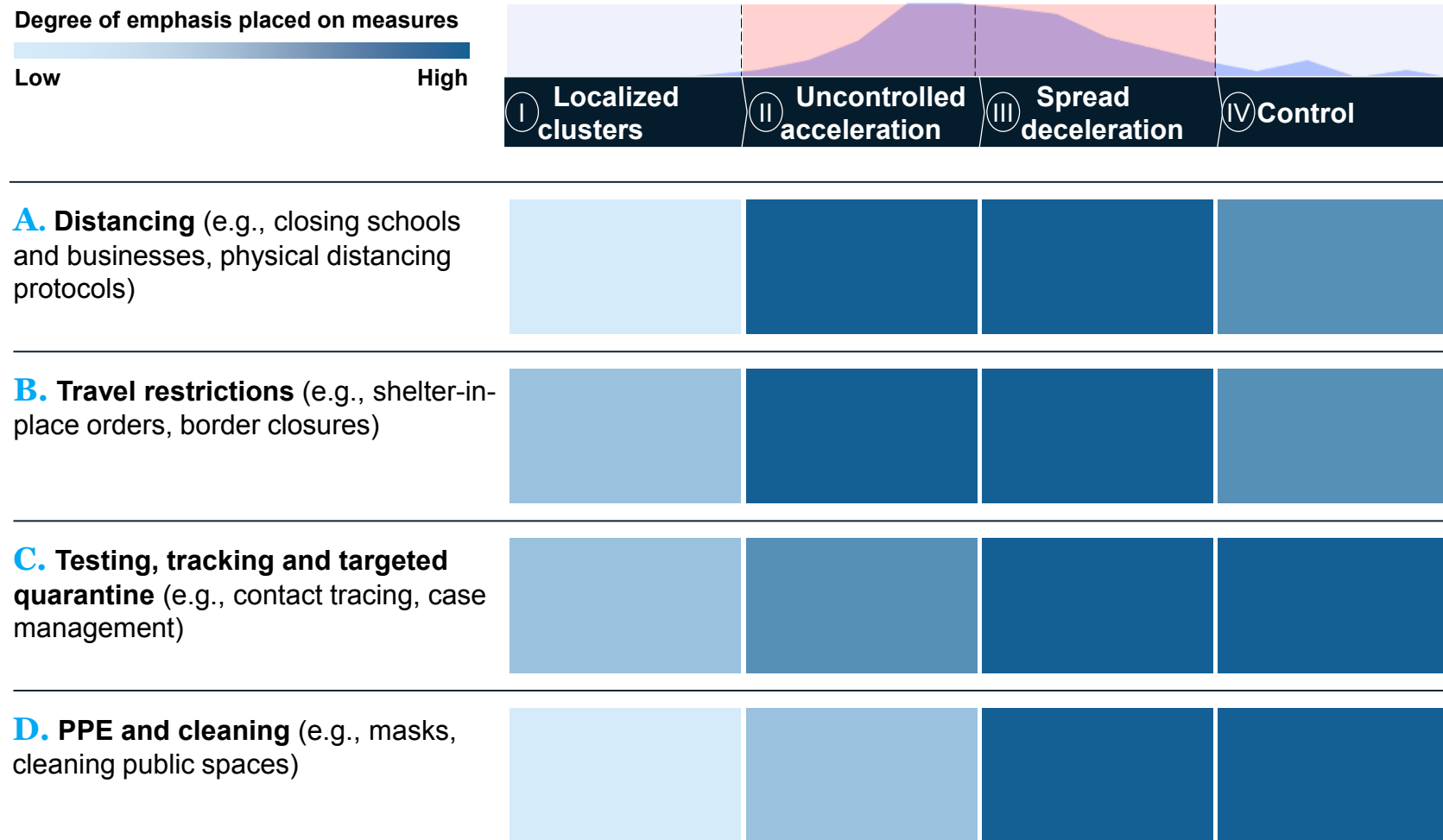
Given the evidence of reduced transmission in controlled settings for respiratory viruses and the evidence of significant rates of asymptomatic infection, general community mask wearing in combination with other measures can be an effective tool to reduce transmission



Wearing a medical mask is one of the prevention measures that can limit the spread of certain respiratory viral diseases, including COVID-19

– WHO, Apr. 6th 2020

Some countries appear to have shifted the focus of public health policies in response to the disease progression



Testing, tracking & quarantine, and PPE & cleaning seem to be increasingly important



“As we now ease the restrictions somewhat, I must emphasize as strongly as possible that this does not mean we can allow ourselves to grow more careless in other areas.”

- Erna Solberg, Prime Minister of Norway

“We cannot continue beyond this lockdown — we risk damaging the country’s socioeconomic fabric too much.”

“The reopening is allowed on condition that all companies involved strictly respect security protocols in the workplace.”

- Giuseppe Conte, Prime Minister of Italy

Several European countries have already begun, or announced plans to reopen over the next few weeks (1/2)

April

May

June

Austria¹



April 14: Open federal gardens, shops <400 sq m, hardware and garden centers irrespective of sales area²

End of April: May reopen swimming pools, fitness centers, and sports facilities

End of April: May lift restriction on leaving home (currently allowed for work, groceries, and select other situations)

May 1: All stores, shopping centers and hairdressers open

May 4: Schools begin to reopen, beginning with students in their final year, followed by six-to-14 year-olds

Mid-May: Open all hotels, restaurants, and schools²

End of June: Allow public events to resume, open cinemas and theaters

Norway



April 20: Travel to cabins and leisure properties no longer prohibited

April 20: Kindergartens open²

April 27: Primary school students and certain secondary school and university students can return (e.g., those in vocational programs or who are depending on facility use)²

April 27: Services with one on one contact open (e.g., hairdressers)²

May 1: Re-assessment of major sports and cultural events

June 15: Current end of ban on public gatherings including cultural and sporting events, but this may be changed



Austria mandates wearing masks in supermarkets and on public transit



“Testing, better detection and rapid isolation of infection are very important in the next phase before we can open up society more” - Bent Høie, Minister of Health and Care

1. All milestones are contingent on public compliance with restrictions and assuming the number of cases does not increase; 2 Only 1 customer allowed per 20 square meters; specific requirements for disinfection
2. Provided that it can be done meeting infection control guidelines

Several European countries have already begun, or announced plans to reopen over the next few weeks (2/2)

April

May

June

Czech Republic



April 14: Ease exit restrictions, allowing international travel with “reasonable grounds”¹

April 20: Crafts facilities, car dealerships and farmers’ markets can reopen

April 27: Shops up to 200 square meters that are not located in large shopping centers will be allowed to open

Early May: Schools gradually open, beginning with final year university students followed by final year high school and elementary students

May 25: Outdoor services in restaurants and cafes and various cosmetic services open (e.g., hairdressers)

June 8: Indoor restaurant spaces will be allowed to open too, as well as shopping malls over the size of 5,000 square meters and hotels²



Strict hygiene rules remain in place, including physical distancing between customers, wearing masks in public, and disinfection requirements

Italy



April 14: Bookstores, stationers and children clothing stores reopen

April 27: Some sectors, considered more strategic and export-oriented are allowed to reopen, under strict safety restrictions

May 4: ~80 sectors can reopen³

May 18: Museums and libraries reopen and sports teams can resume group training

Early June: Restaurants, bars and hairdressers reopen³



Reopening is contingent on all companies involved strictly respecting security protocols

Unlike Austria, Norway and Czech Republic, **Italy will not be reopening schools until September**

1. Anyone who leaves the country must be quarantined for two weeks upon return
2. More may be added, depending on how things develop
3. Reopening is permitted on the condition that companies respect security protocols

Countries have created varied sets of criteria to guide their paths back from Covid-19



Australia's key criteria to guide their reopening

- 1 **Testing:** a more extensive surveillance, or sentinel, testing regime, testing people who are asymptomatic
- 2 **Contact tracing:** lifted to an industrial capability, using technology, to find and isolate all the key contacts of a known infection
- 3 **Local response:** strengthened capabilities to lock down hotspots where outbreaks occur



The U.S.'s criteria for opening up America again

- 1 **Symptoms:**
 - Downward trajectory of ILI¹ reported within a 14-day period, **and**
 - Downward trajectory of Covid-like syndromic cases reported within 14 day period
- 2 **Cases:**
 - Downward trajectory of documented cases within a 14-day period, **or**
 - Downward trajectory of positive tests as a percent of total tests within a 14 day period
- 3 **Hospitals:**
 - Treat all patients without crisis care, **and**
 - Robust testing program in place for at-risk healthcare workers, including emerging antibody testing

1. Influenza-like illnesses

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The Imperative of our Time

“Timeboxing” the Virus and the Economic Shock

Imperatives

1

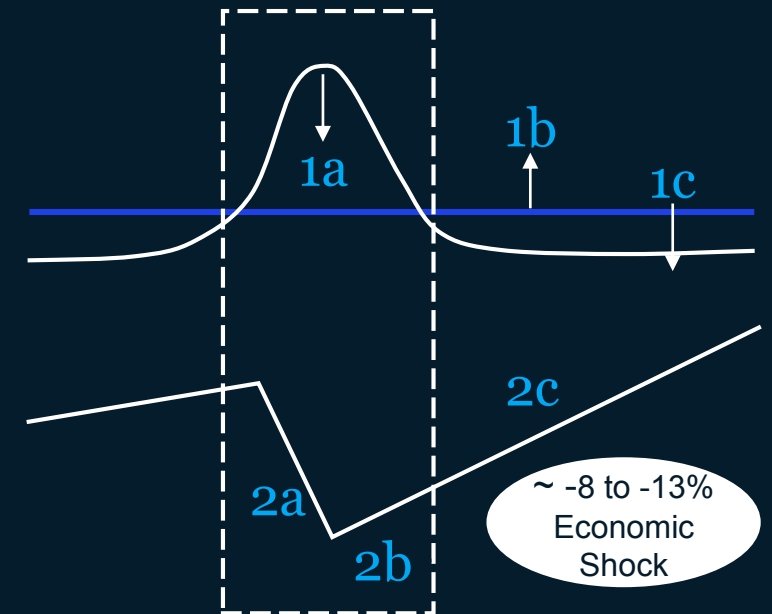
Safeguard our lives

- 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



Scenarios for the Economic Impact of the COVID-19 Crisis

GDP Impact of COVID-19 Spread, Public Health Response, and Economic Policies

Virus Spread & Public Health Response

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

Rapid and effective control of virus spread

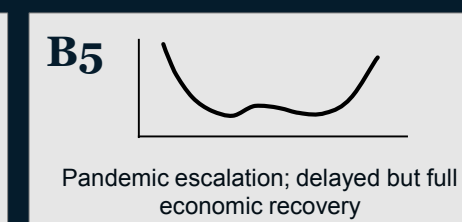
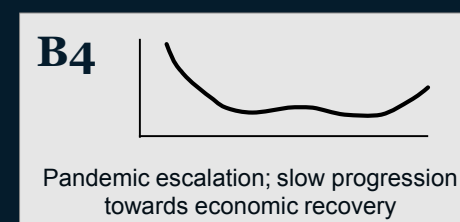
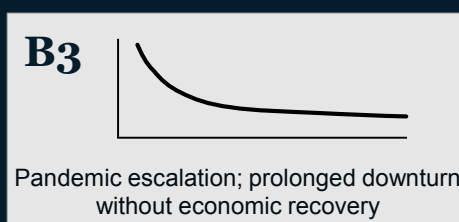
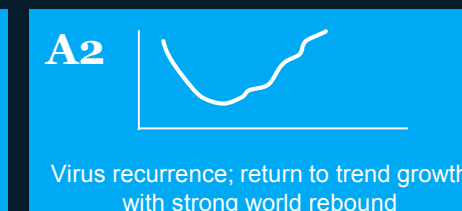
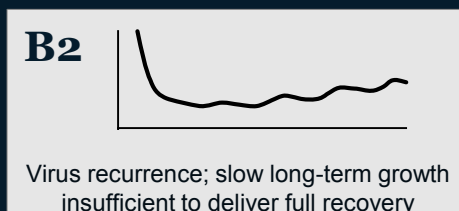
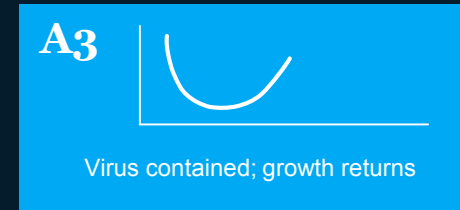
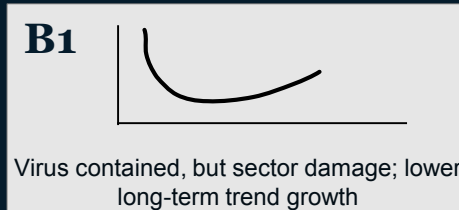
Strong public health response succeeds in controlling spread in each country within 2-3 months

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)



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)

Executive expectations about the shape of coronavirus crisis in the World

Survey of 2,079 global executives; % of respondents

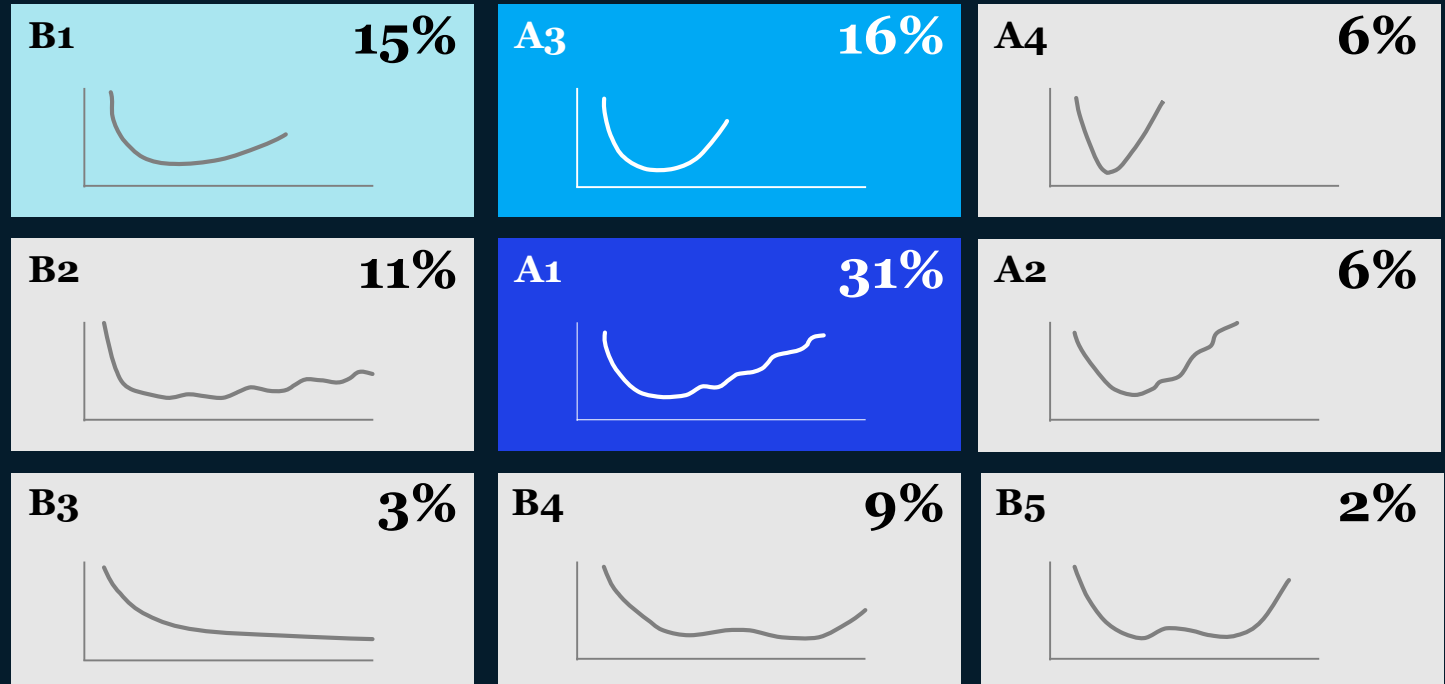
Most likely scenario

Virus spread and public health response

Rapid and effective control of virus spread

Effective response, but (regional) virus resurgence

Broad failure of public health interventions



Ineffective interventions

Partially effective interventions

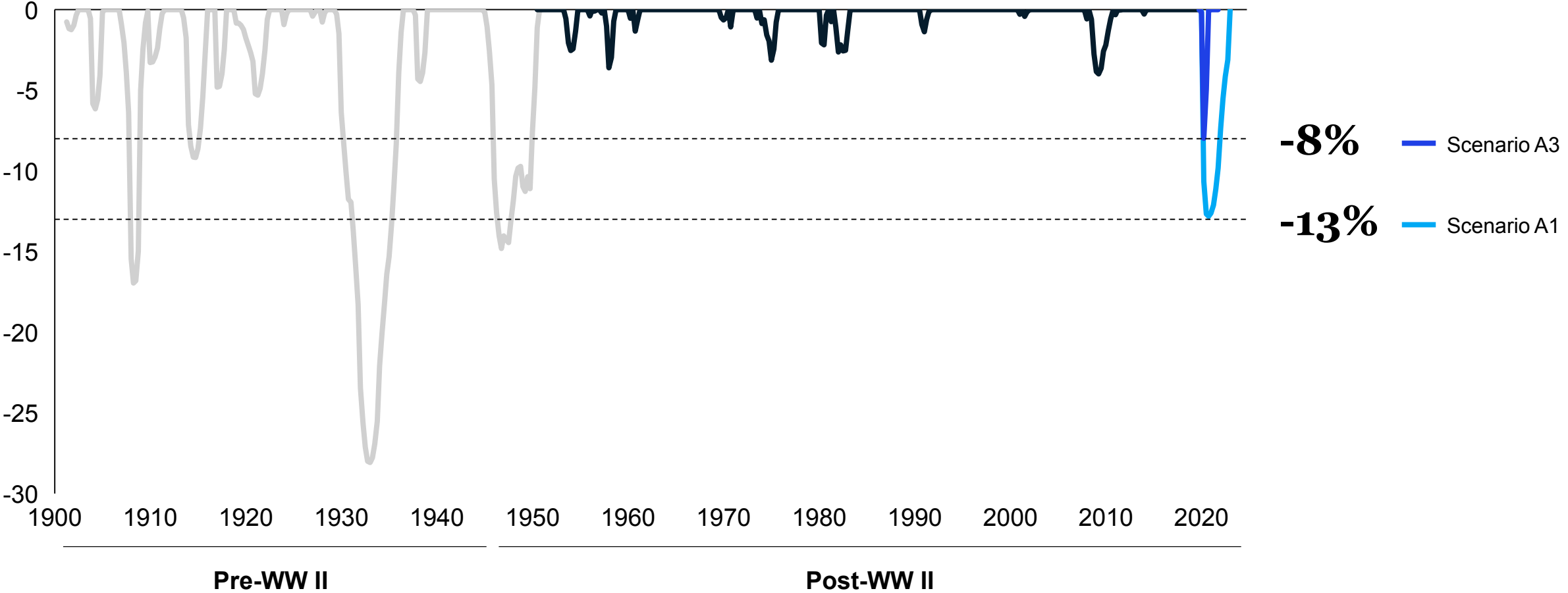
Highly effective interventions

Knock-on effects and economic policy response

COVID-19 U.S. impact could exceed anything since the end of WWII

United States real GDP

% , total draw-down from previous peak



Source: Historical Statistics of the United States Vol 3, Bureau of economic analysis; McKinsey team analysis, in partnership with Oxford Economics

Scenario A3: Virus contained

The virus continues to spread across the Middle East, Europe and the U.S. until mid Q2, when virus seasonality combined with a stronger public health response drives case load reduction



Epidemiological scenario

China and East Asian countries continue their current recovery and control the virus by early Q2 2020

Virus in Europe and the United States would be controlled effectively with between two to three months of economic shutdown; new case counts peak by end April and declines by June with stronger public health response and seasonality of virus



Economic impacts

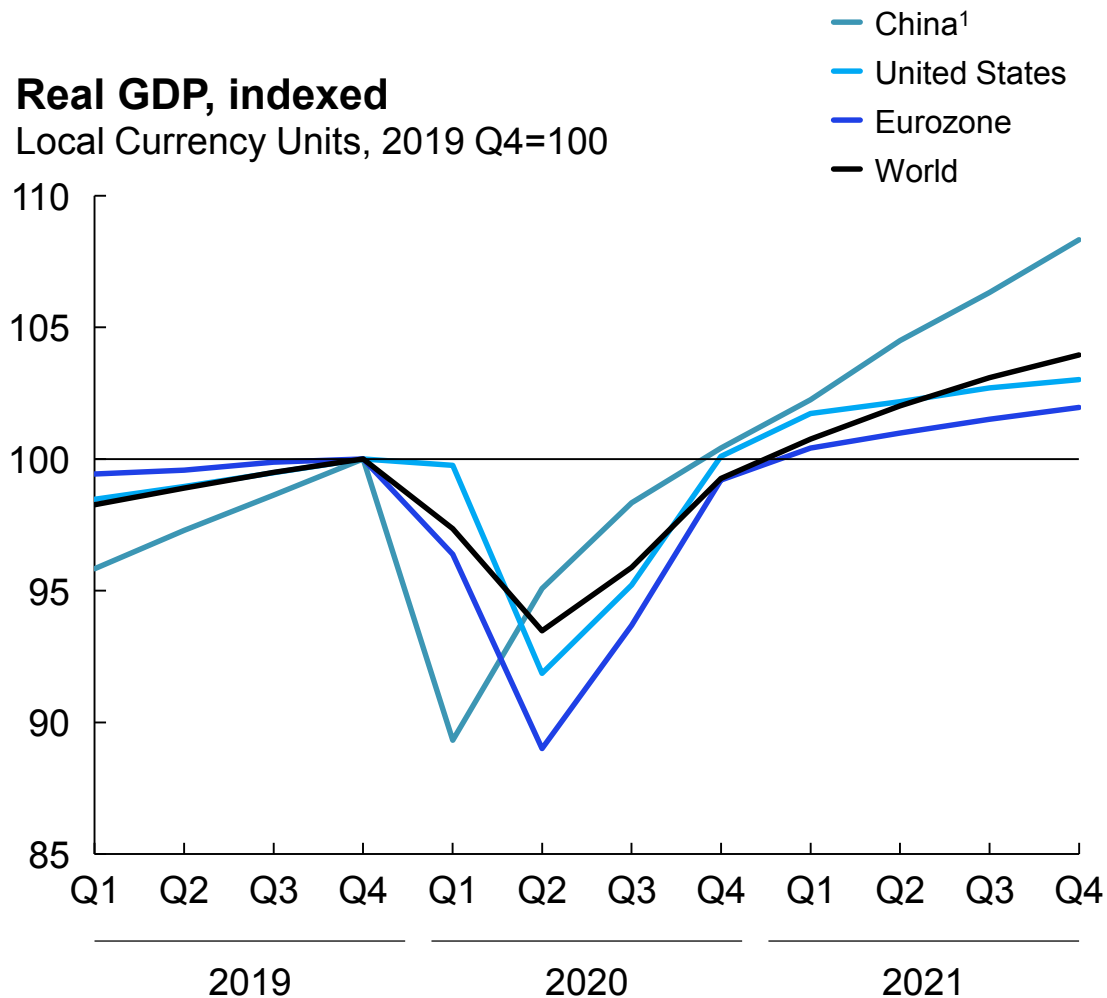
China will undergo a sharp but brief slowdown and relatively quickly rebound to pre-crisis levels of activity. China's annual GDP growth for 2020 would end up roughly flat

In Europe and the U.S., monetary and fiscal policy would mitigate some of the economic damage with some delays in transmission, so that a strong rebound could begin after the virus was contained at the end of Q2 2020

Most countries are expected to experience sharp GDP declines in Q2, which would be unprecedented in the post WWII era

Scenario A3: virus contained, growth returns

Large economies



1. Seasonally adjusted by Oxford Economics

Source: McKinsey analysis, in partnership with Oxford Economics

	Real GDP Drop 2019Q4-2020Q2 % Change	2020 GDP Growth % Change	Return to Pre- Crisis Level Quarter (+/- 1Q)
China	-4.9%	-2.0%	2020 Q4
United States	-8.1%	-2.5%	2020 Q4
Eurozone	-11.0%	-5.2%	2021 Q1
World	-6.5%	-2.7%	2021 Q1

Scenario A1: Muted world recovery

The virus spreads globally without a seasonal decline. Health systems are overwhelmed in many countries, especially the poorest, with large-scale human and economic impact



Epidemiological scenario

China would need to clamp down on regional recurrences of the virus

The United States and Europe would fail to contain the virus within one quarter and be forced to implement some form of physical distancing and quarantines throughout the summer



Economic impacts

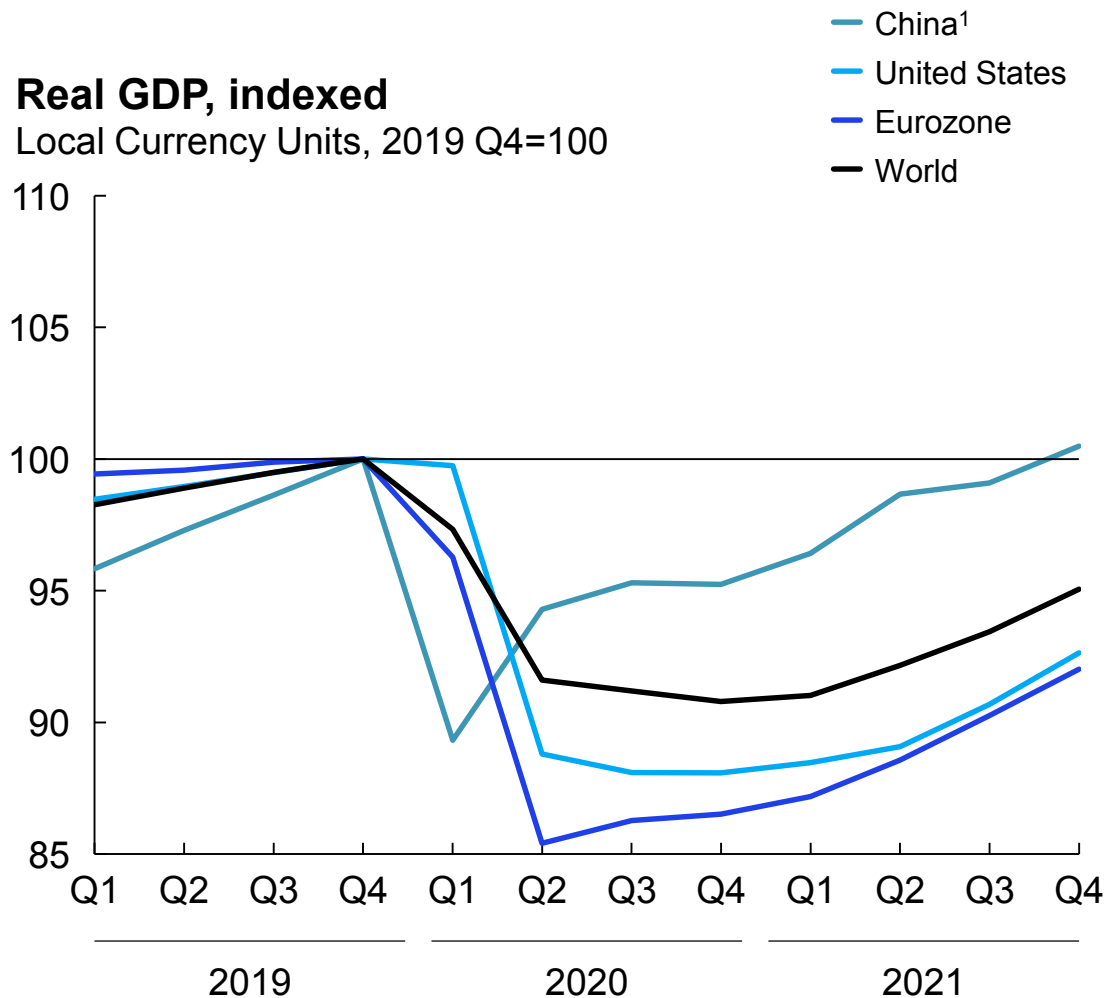
China would recover more slowly and would also be hurt by falling exports to the rest of the world. Its economy could face a potentially unprecedented contraction

The United States and Europe would face a GDP decline of 35 to 40 percent at an annualized rate in Q2, with major economies in Europe registering similar performance. Economic policy would fail to prevent a huge spike in unemployment and business closures, creating a far slower recovery even after the virus is contained

Most countries would take more than two years to recover to pre-virus levels of GDP

Scenario A1: virus recurrence, with muted recovery

Large economies



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

1. Seasonally adjusted by Oxford Economics

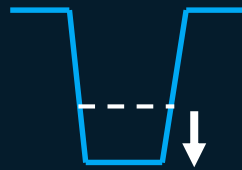
Source: McKinsey analysis, in partnership with Oxford Economics

What business leaders should look for in coming weeks

There are three questions business leaders are asking, and a small number of indicators that can give clues

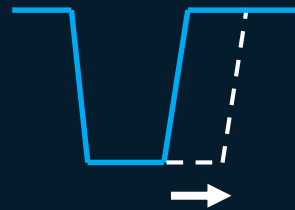
Depth of disruption

How deep are the demand reductions?



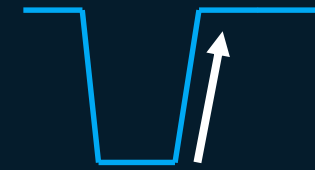
Length of disruption

How long could the disruption last?



Shape of recovery

What shape could recovery take?



Indicators

Epidemiological

- Time to implement social distancing after community transmission confirmed
- Number of cases – absolute (expect surge as testing expands)
- Geographic distribution of cases relative to economic contribution

Economic

- Cuts in spending on durable goods (e.g., cars, appliances)
- Extent of behavior shift (e.g., restaurant spend, gym activity)
- Extent of travel reduction (% flight cancellations, travel bans)

- Rate of change of cases
- Evidence of virus seasonality
- Test count per million people
- % of cases treated at home
- % utilization of hospital beds (overstretched system recovers slower)
- Availability of therapies
- Case fatality ratio vs. other countries

- Late payments/credit defaults
- Stock market & volatility indexes
- Purchasing managers index
- Initial claims for unemployment

- Effective integration of public health measures with economic activity (e.g. rapid testing as pre-requisite for flying)
- Potential for different disease characteristics over time (e.g. mutation, reinfection)

- Bounce-back in economic activity in countries that were exposed early in pandemic
- Early private and public sector actions during the pandemic to ensure economic restart

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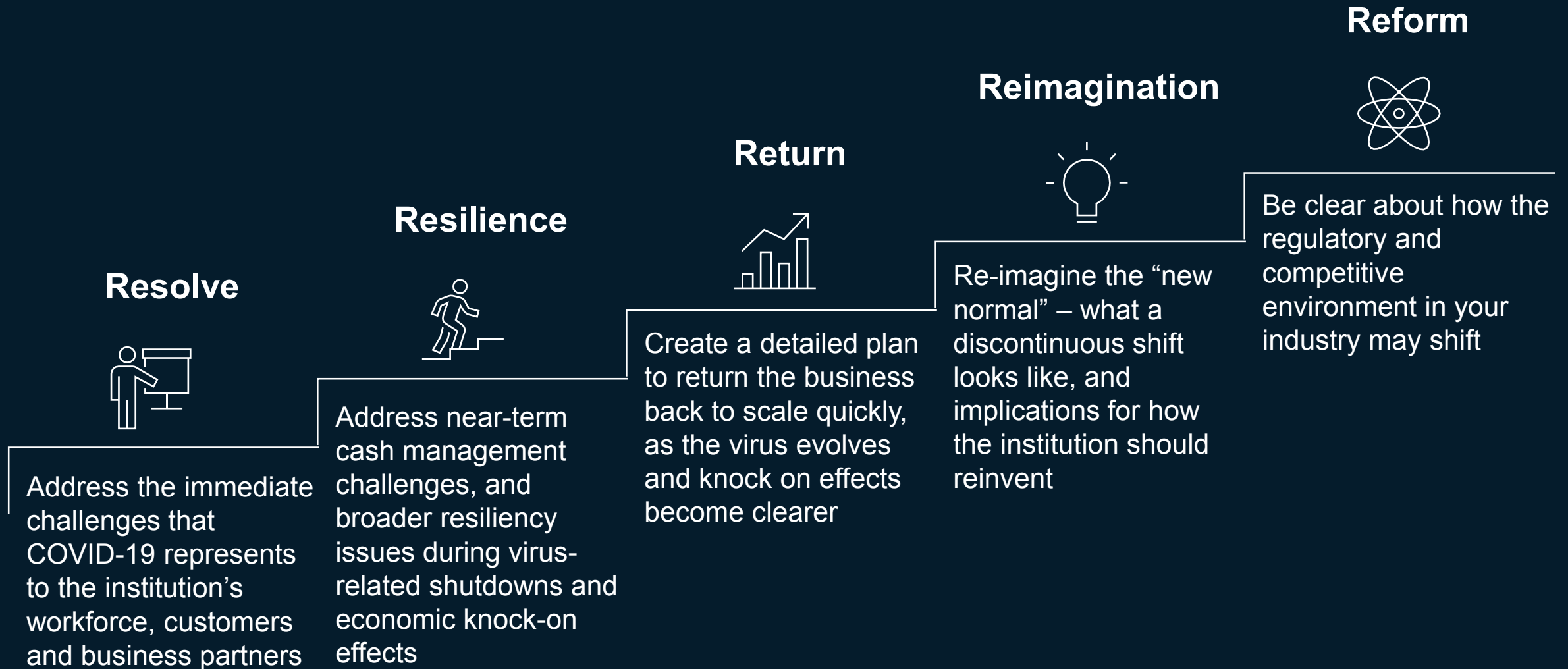
Planning ahead
across multiple
horizons

04

Appendix:
Transitioning to
next-normal

Leaders need to think and act across 5 horizons

From Resolve to Resilience and Reimagination to Reform



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.

[The CFO's role in helping companies navigate the coronavirus crisis](#) –

Critical steps CFOs and finance organizations can take across three horizons: immediate safety and survival, near-term stabilization of the business in anticipation of the next normal, and longer-term preparations for the company to make bold moves during recovery.

[Responding to coronavirus: The minimum viable nerve center](#) –

Approach and key considerations when developing the COVID-19 response structure and minimum viable nerve center



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

[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

[The Restart: Eight actions CEOs can take to ensure a safe and successful relaunch of economic activity](#) –

Actions for Return based on research and conversations with leaders of large French, European, and Asian companies from all sectors, who provided a broad view of their issues and concerns about the end of lockdown

[How to restart national economies during the coronavirus crisis](#) –

Two frameworks for restarting an economy. The first is designed to help governments, the private sector, and nonprofits think through *when* to open their economies, and the second outlines an approach for *how* to do so.



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.

[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

[Revisiting agile teams after an abrupt shift to remote](#) –

How to reinforce productivity through a purposeful approach to sustaining an agile culture and recalibrated processes to support agile objectives while working remotely.

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The phase of Return is in sight

But rapid Return comes with higher risk, and a new reality

Weeks of shelter-in-place provisions globally have caused a deep economic challenge, straining governments' ability to save lives while safeguarding livelihoods

Governments around the world are now considering options and timing for a gradual re-opening.

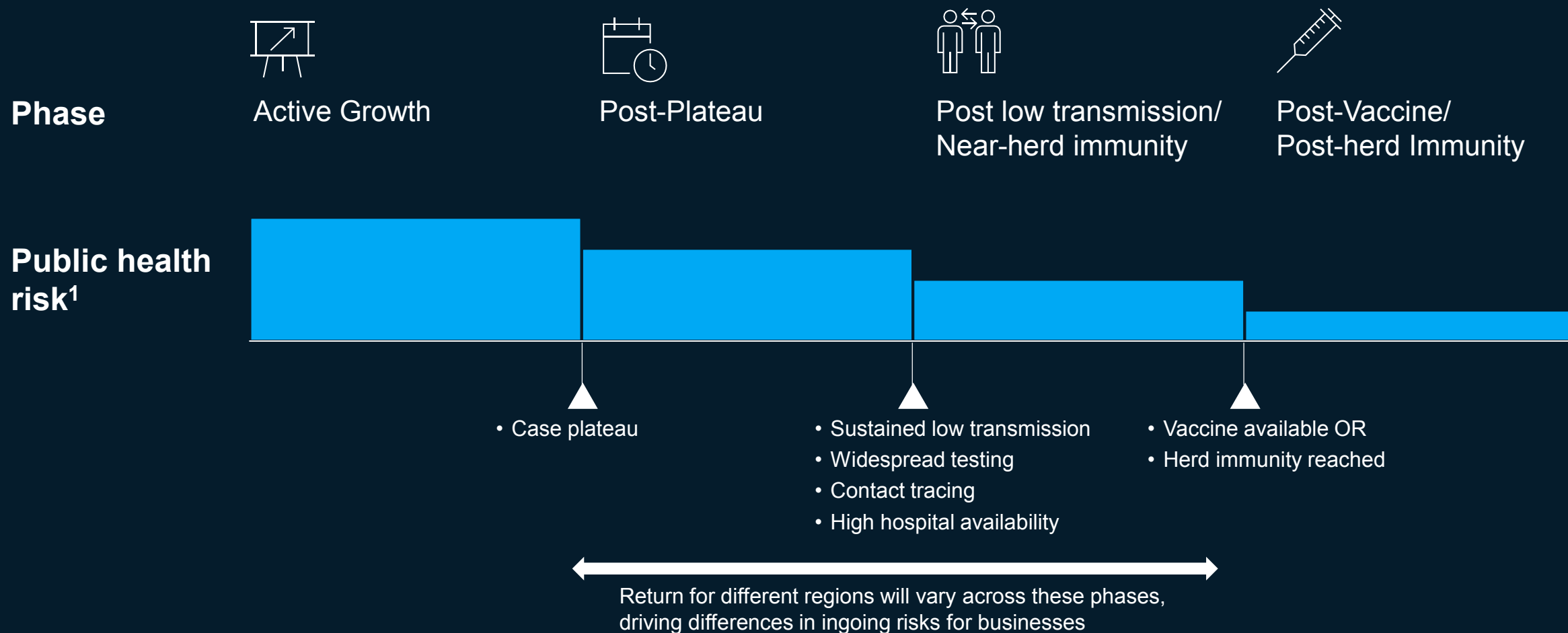
Many of these re-openings are occurring in very different environments. Some geographies are considering opening after they have plateaued, while others are seeking to return after additional verifications are complete (e.g., hospital capacity, testing capacity, other)

These variations are driving concerns within businesses around risks associated with a return-to-work, and whether these risks can be adequately managed

Additionally, COVID-19 has changed many realities for businesses. Remote first may be a goal achievable in months, consumers have structurally adopted digital channels, and the prospect of the largest economic recession since the second World War could quickly challenge the business

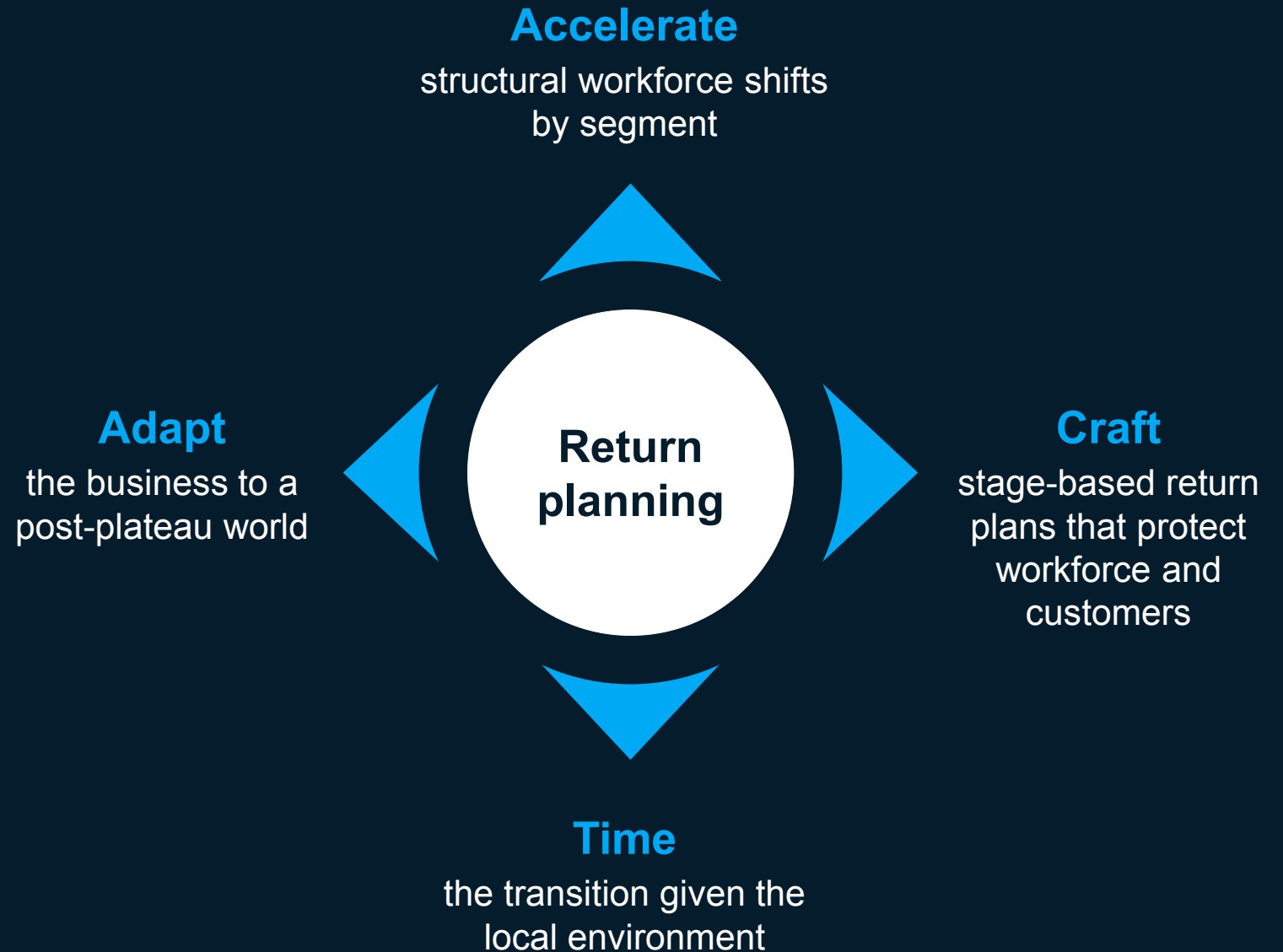
Public health and economic reality at point of restart varies widely

Some regions are considering restart early after transmission plateaus; others waited for a significant decline



1. Chances of a resurgence remain elevated until the post-Vaccine phase

AACT now: The four dimensions of Return planning



Reminder - AACT: Four dimensions of effective Return planning

<p>1 Adapt the business to a post-plateau world</p>	<p>Shift sales channels to digital</p>	<p>Stay ahead of recession impacts</p>	<p>Exceed customer & business partner safety and resilience needs</p>
<p>2 Accelerate structural workforce shifts by segment</p>	<p>Move to a more remote work model</p>	<p>Reskill-at-scale to adapt quickly to next normal</p>	<p>Move to preserve the future across scenarios</p>
<p>3 Craft operational plans for workforce safety</p>	<p>Craft stage-based plan across employee & customer journey</p>	<p>Install dedicated governance with expert panel driven 'red-team'</p>	<p>Improve safe work capabilities, role-modeling, processes, systems</p>
<p>4 Time the transition given local environment</p>	<p>Determine workforce re-entry timing based on thresholds</p>	<p>Define consumer demand recovery timing (physical, digital)</p>	<p>Determine vulnerable population re-entry timing¹</p>

1. Ensure compliance with local and federal guidelines with regards to worker safety and fair treatment



COVID-19 will leave business leaders, workers and customers uncertain about how the world will step back into normalcy in a scenario where the number of cases is not known accurately, where people across age-groups appear to be getting more severe forms of the virus, and where virus-free environments cannot reliably be created

Vaccines that can lay many of these fears to rest are unlikely to be available before 2021

Few businesses that seek to re-open in this world, especially ones that rely on discretionary spend, can't simply carry on as they did in the pre-COVID normal

Customers may defer spending, either because they are conserving finances in a recessionary environment, or because they are worried about health

Business therefore need to refresh their assumptions about what demand may look like, and define ways to boost it. In many cases, they may amount to a near-term reshaping of the business (e.g., shifting consumer interfaces to digital)

Adapt

the business to a post-plateau restart



Consider three fundamental business changes that determine prioritization of efforts in the recovery



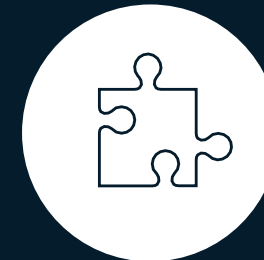
New customer behaviors and needs

Behaviors and preferred interactions have changed and will continue to shift



Unpredictable demand patterns

Demand recovery will be more unpredictable and likely different



Structural overcapacity

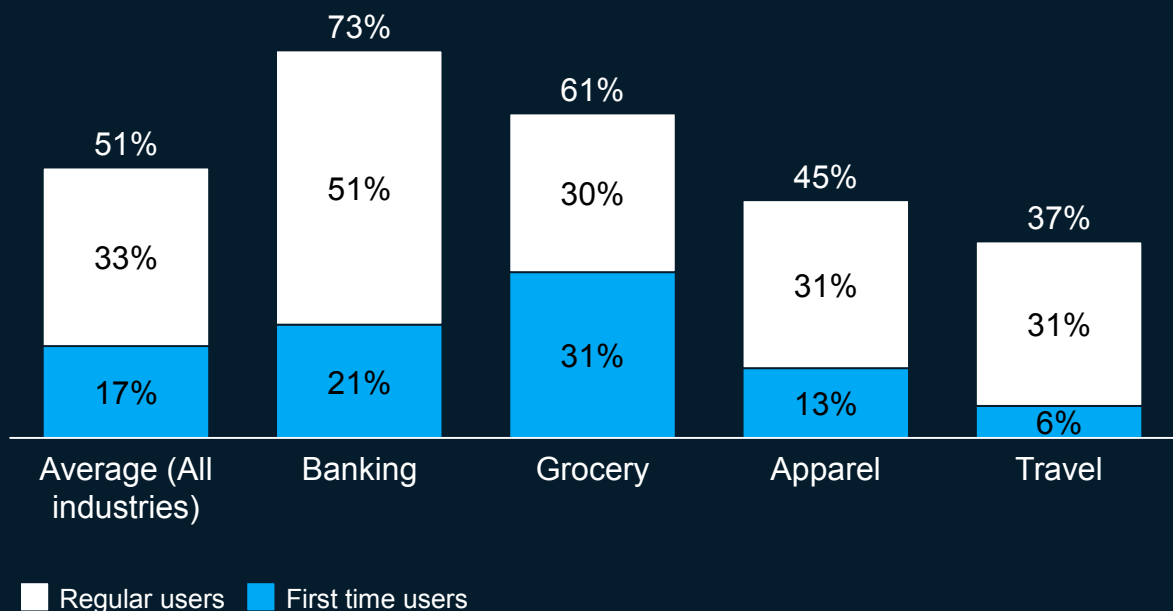
Overcapacity in many sectors, requiring to lower / variabilize operating costs

Adoption of digital sales channels is ‘on the rise’

Consumers are accelerating adoption of digital channels¹

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

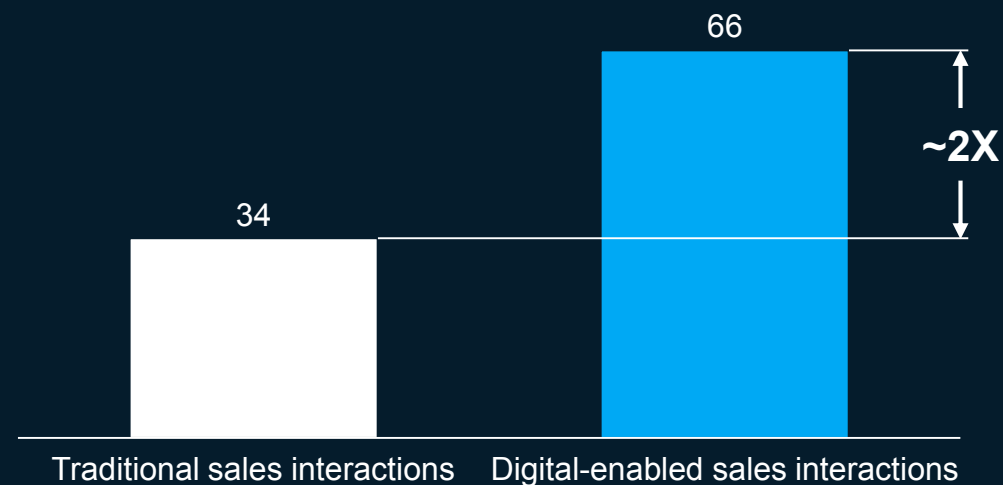
% of respondents



...and so are B2B decision makers²

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



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)

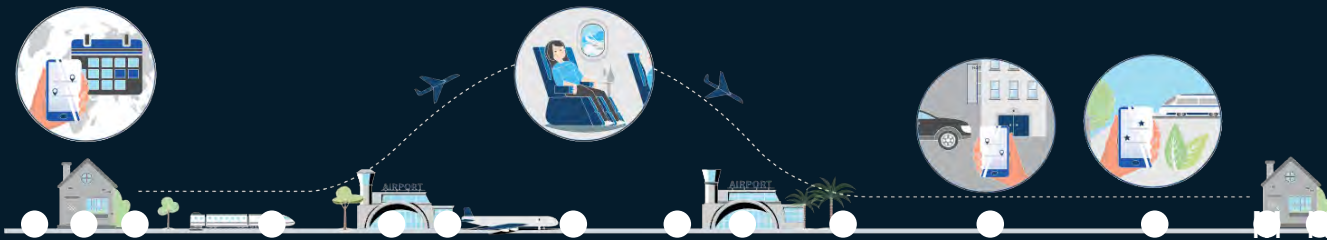
Rapidly iterating on redesigning the end-to-end customer journey will be critical

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.

Ideas solving for risks identified in the E2E traveler journey

(Illustrative)



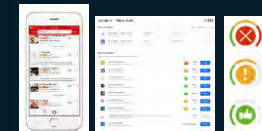
Touch free E2E journey



Fully digital hotels



Medical services linked to hotel



Safe-o-meter to plan options



Visible security tray sanitization



Safer train/bus interior zoning



Safer luggage storage on trains



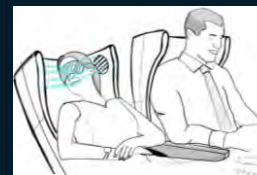
Seclusion pods in airport



UV cleaning robot for transport



Air vents in transport headrest



Health check-up prior to trip



Vision development, ideation, prototyping

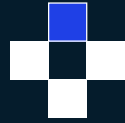
Increase the level of fidelity to prototype a winning subset of ideas

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



Accelerate

structural workforce shifts
by segment

COVID-19 related shutdowns have meant a new experience of working from home for many in the workforce who are able to, and an updated working environment for those in the workforce who are on-site critical.

Businesses have experienced that many people who are experiencing work from home are demonstrating higher productivity

Many CHROs and other executives, therefore, are asking the question whether it would make sense to continue current remote work arrangements, and whether such arrangements are compatible with the need to maintain a sense of belonging to the organization.

Another alternative being explored is whether a move to a more hybrid team model where remote work is mixed with in-person interactions could provide the most optimal balance of productivity, morale, and connectivity

Finally, companies are also exploring what the impact of a changed economic scenario means for the workforce, and the right way to provide alternative opportunities or reskilling while preserving the company's future



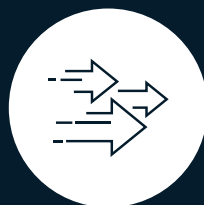
What roles to consider transitioning: Four categories of workforce for the immediate post-shelter-at-home environment



Virtual/ remote

Maintain remote work, while increasing flexibility

- Focus on remote support, productivity, connectivity, health
- Shift contracts where needed & possible towards flexible arrangements



Onsite flexible

Define plan for staged return based on local context

- Identify milestones for starting a safe return to work process (e.g., local public health system readiness, government return to work guidelines)
- Develop detailed plan for return to work based on key considerations: virus spread, guidance from public health authorities, workforce readiness to return to work, legal liability



Onsite critical

Return to work with increased work flexibility

- Define plan for return to work, including staggered shifts and slower ramp-ups
- Re-train to move to more flexible skill sets
- Shift contracts where needed & towards flexible arrangements



Other

Transparency, reskilling, preserve company's future

- Provide transparency into reality of situation facing company
- Re-train or seek opportunities to shift focus
- Other actions to preserve future of company

Remote work may have important benefits beyond resilience to COVID-19



Improved talent access

Increasing the size of the addressable talent pool as (especially high potential) individuals are less willing to move for work



Increased productivity

Improving employee efficiency (e.g., commute time)
Improving efficiency through required redesign of work (e.g., automation, new tools, improved process times, reduced paper flow and # reports)



Lower cost position

Reducing demand for expensive corporate real estate space and business travel



Higher employee satisfaction

Offering employees flexibility to reduce attrition and unscheduled absences

The situation around COVID-19 may create an opportunity to drive adoption towards remote work, and realize some of these benefits

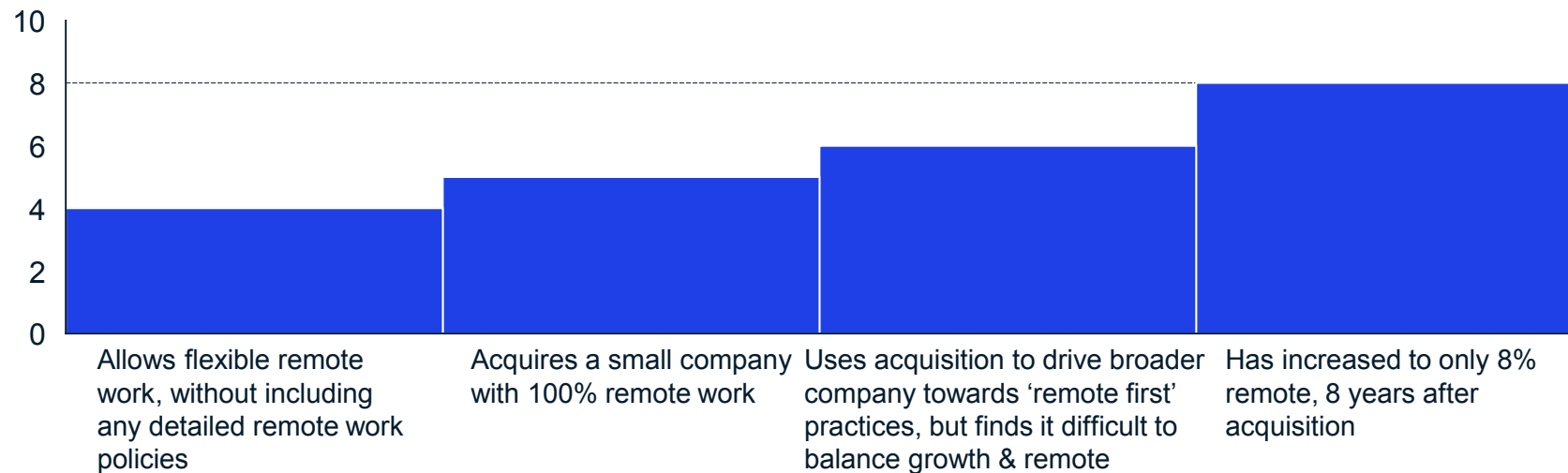
1. <https://www.mckinsey.com/business-functions/operations/our-insights/building-resilient-operations>
2. <https://globalworkplaceanalytics.com/>
3. <https://www.gsb.stanford.edu/insights/why-working-home-future-looking-technology>
4. CNN
5. American Management Association

Companies have had limited success in their transitions to remote work

Previous attempts at shifting to remote work have been slow

Case example of a multinational software company

% of company that is remote



After more than a decade of a push towards remote work, companies in Silicon Valley are only around 8-10% remote for their “core” functions (e.g., software, product development, data)

- While many companies around the world have attempted remote work practices, companies in Silicon Valley have been at the forefront of repeated attempts to increase proportion of remote work – a function of high competition for talent in the Bay area, as well as high cost of corporate real estate
- However, after decades of this push, many companies have gone remote extremely slowly, or have had to reverse previously launched remote work policies,

Isolation can be a persistent challenge in a remote environment

Different factors influence employees' sense of isolation when working remote



Physical distance

The further an employee is physically from the “center of gravity”, the more likely they are to experience isolation



Time to complete

Any complex task that requires > 1 hour to complete causes a sense of isolation



Personality

Certain personality traits (e.g., conscientiousness, agreeableness) can contribute to positive outcomes in a remote work environment



Clarity of communication

Managers that are good at communicating clear expectations have teams that are less likely to experience isolation



Expressiveness

Very few workers share how they feel regarding isolation



Employee expectations

Employees hired directly into a remote work environment are more mentally prepared than employees whose work arrangements shift after the fact



Federal governments around the world are starting to give guidance around what a return to work may look like as shelter-at-home provisions start to get lifted, with more specific guidance also coming from regulators as well as local governments

These operational plans are likely to vary significantly by region, as differences in local COVID-19 situation, pre-existing practices (e.g., use of public transportation), healthcare capacity, and other factors impact these plans

In addition to complying with such provisions, companies are trying to craft operating best practices around return to work that are informed by experiences of companies that are operating in similar environments around the world

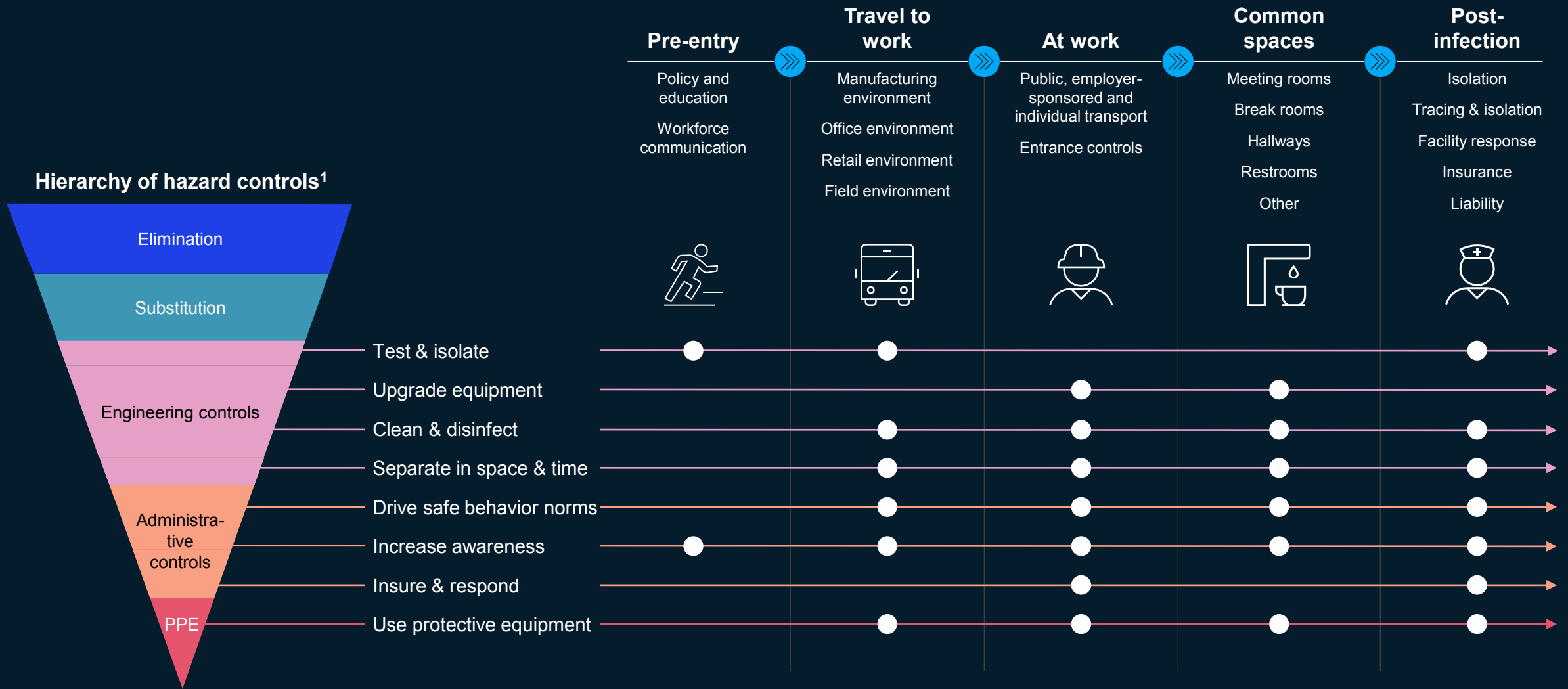
Craft

stage-based return plans
that protect workforce and
customers



How to consider transition: Ensuring protection across workforce journey

Workforce protection interventions across manufacturing, office, retail and field environments

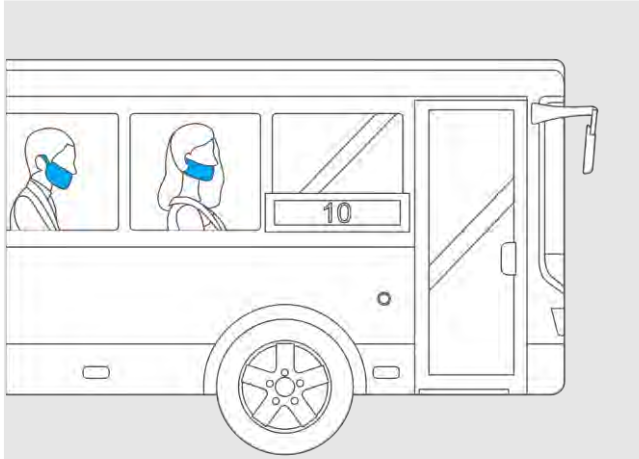


Least effective Most effective

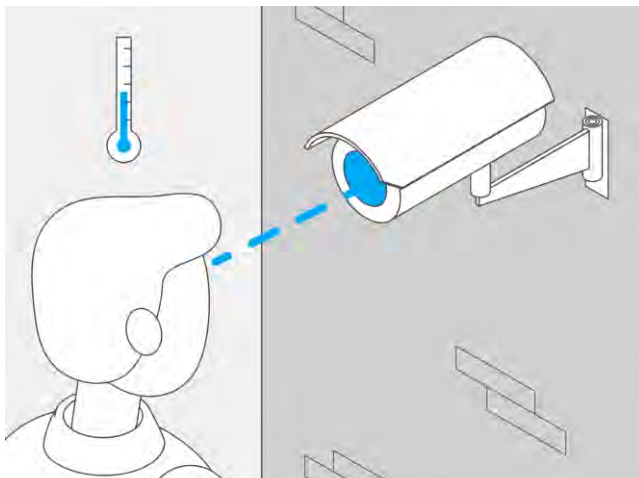
1. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html> | <https://www.osha.gov/shpguidelines/hazard-prevention.html>

Sample journey: Manufacturing environment

Travel to work and pre-entry



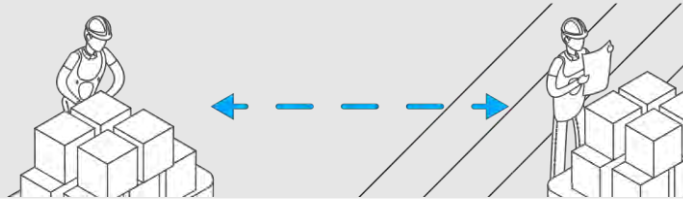
Use of masks required during employee commutes



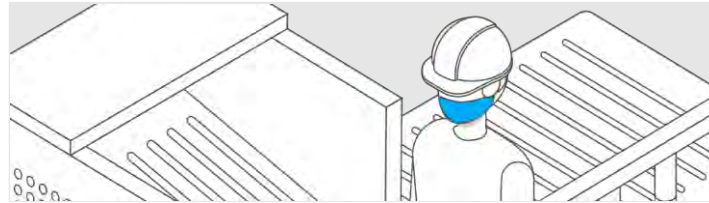
Temperature checks

At Work

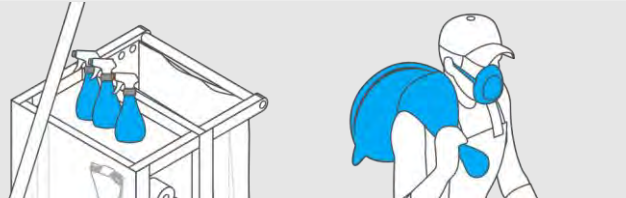
Modularized spaces, with limited interaction across spaces



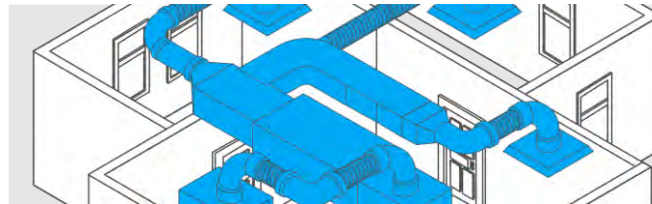
Masks and other appropriate PPE required at all times



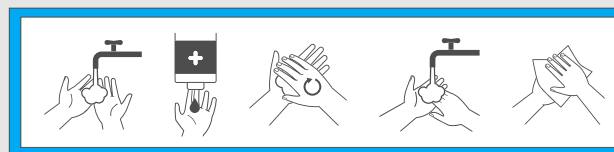
High-frequency cleaning of high-touch surfaces and spaces



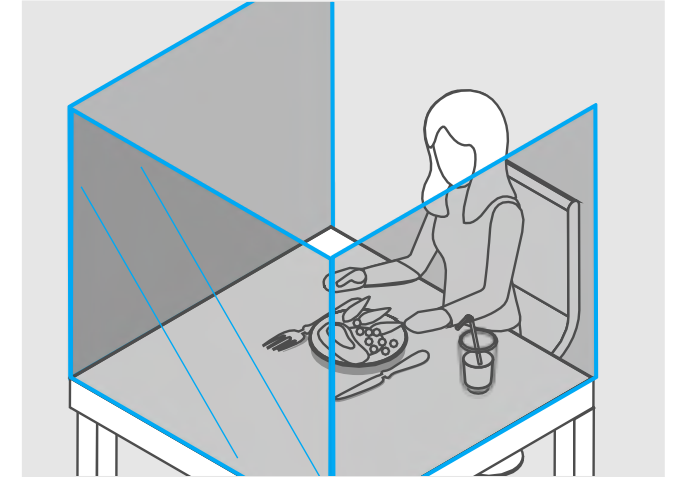
Improved air filtration/ventilation



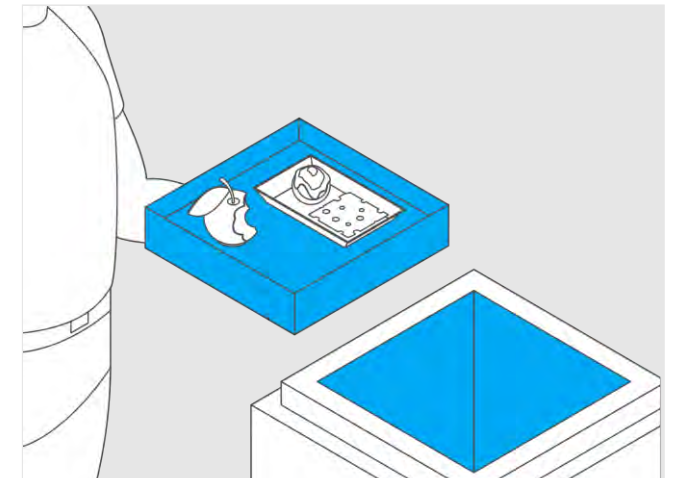
Clear posters on safety guidance and sickness protocols



Common space use



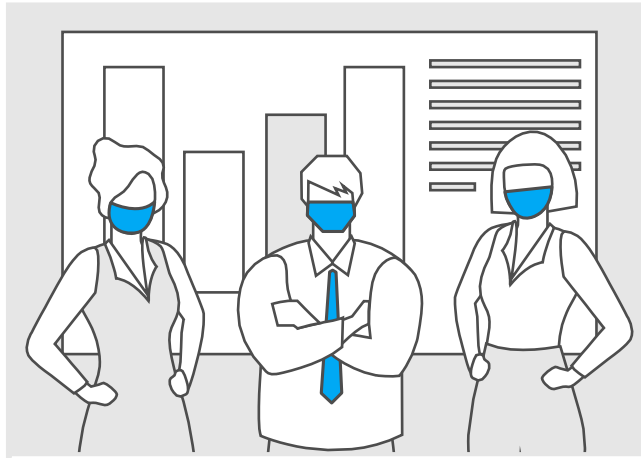
Separated lunch seating with dividers on dining tables



Use of non-reusable dishes at cafeterias

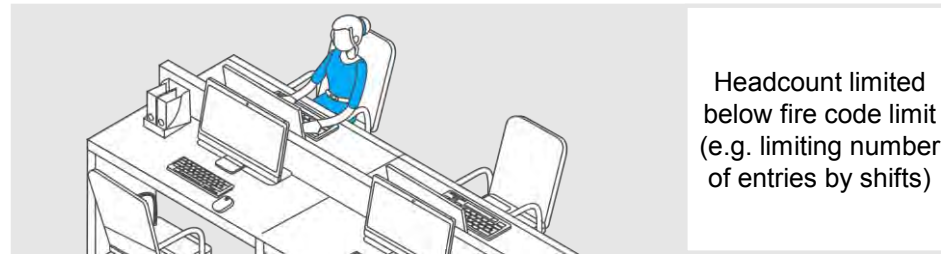
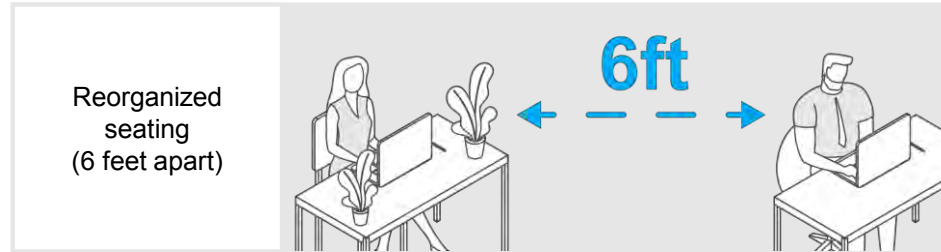
Sample journey: Office environment

Travel to work and pre-entry

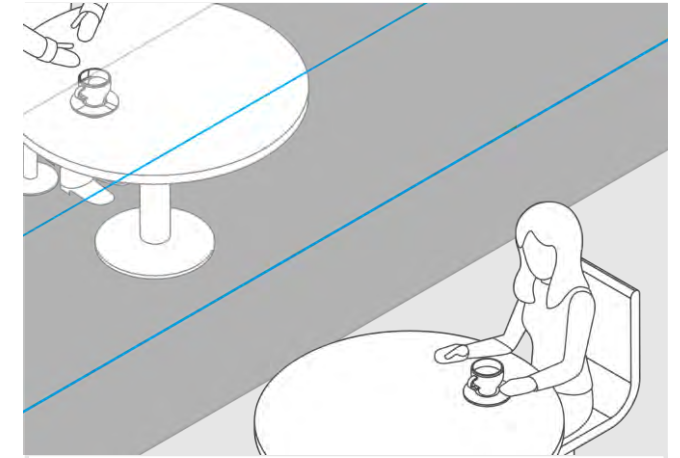


Masks required and provided for employees

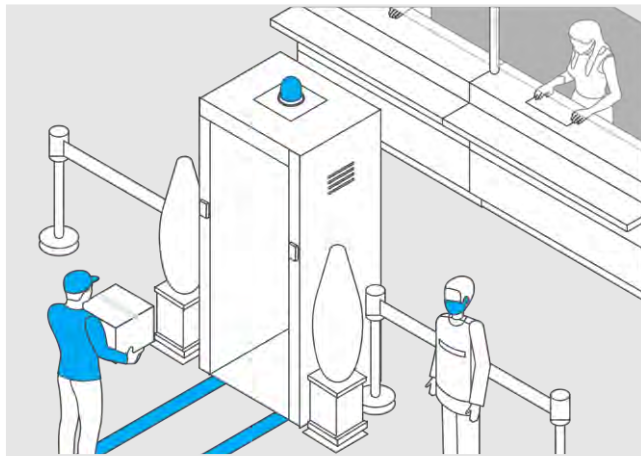
At Work



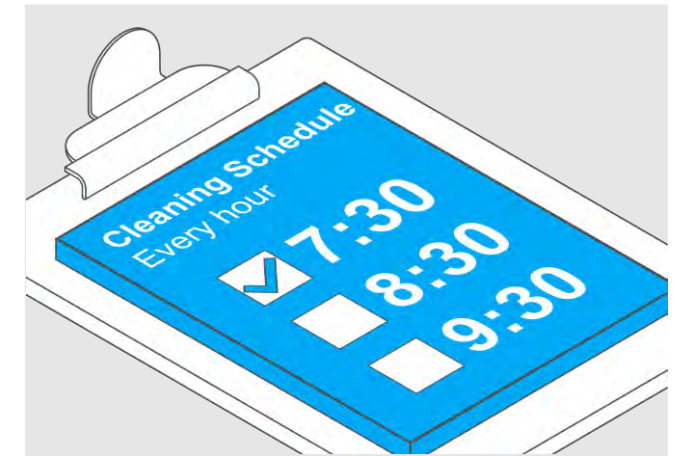
Common space use



Separated lunch seating



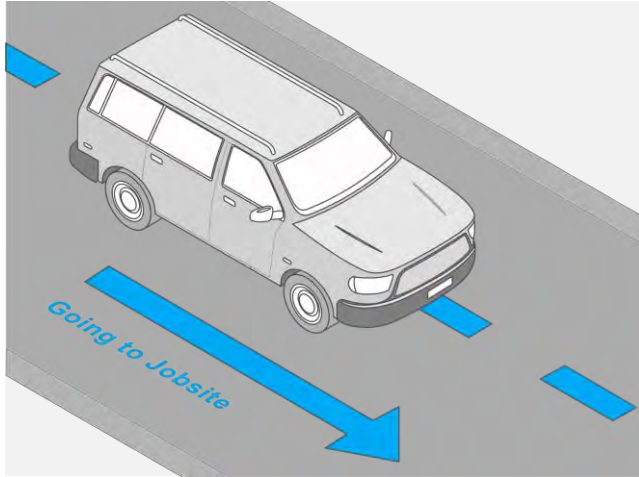
Limited entrance for non-employees



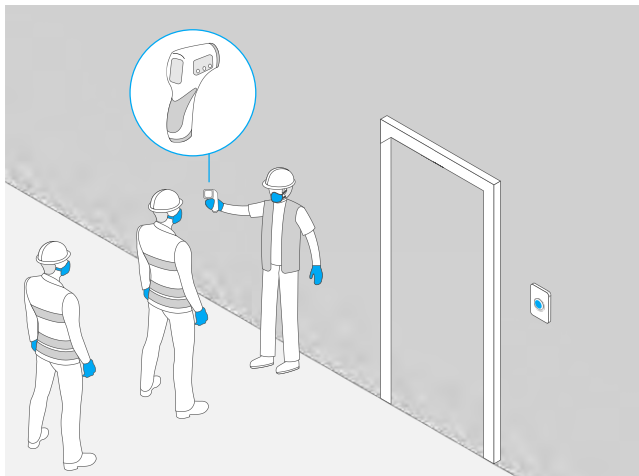
Increased frequency cleaning with visibly monitored cleaning schedules

Sample journey: Field environment

Travel to work and pre-entry

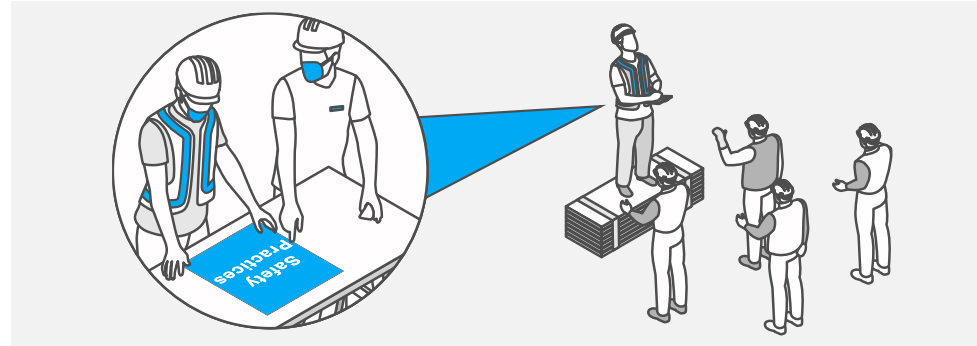


Allow use of personal vehicles to minimize contact



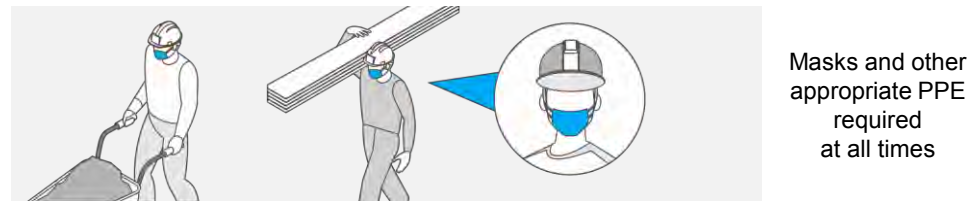
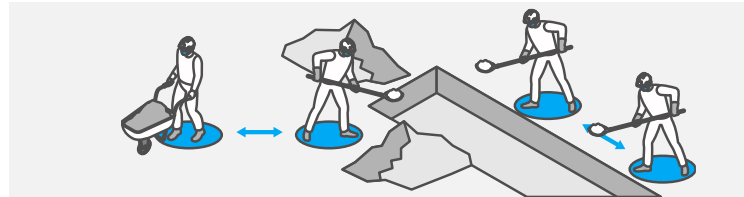
Contactless temperature checks prior to entry

At Work



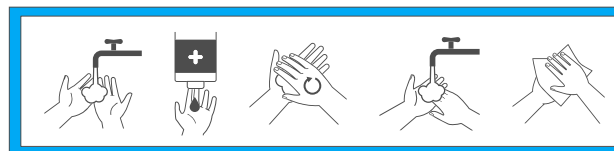
Discuss safety practices at tailboard meetings

Modularized spaces, with limited interaction across spaces

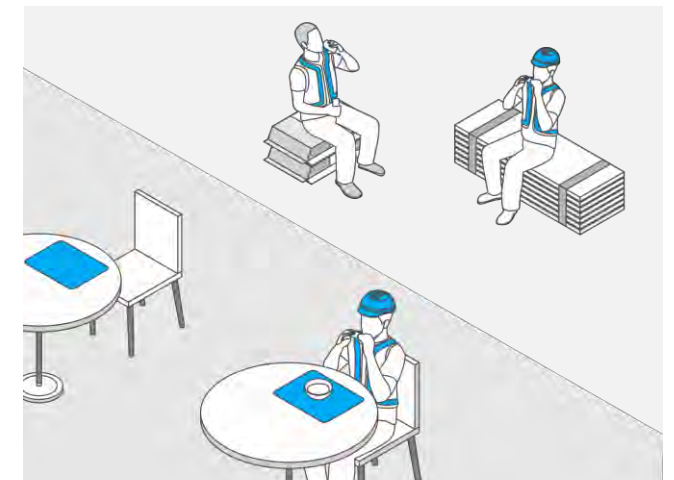


Masks and other appropriate PPE required at all times

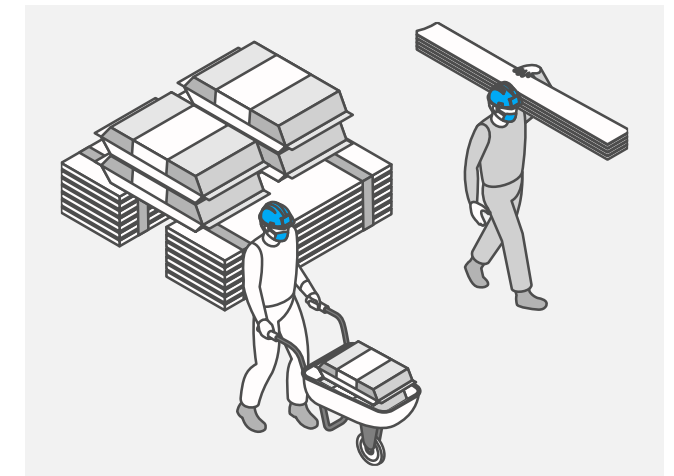
Clear posters on safety guidance and sickness protocols



Common space use



Minimize number of people in trailers



Stagger and distance pick up of supplies at the yard

Example: Identify high risk areas based on a walkthrough assessment

Pre-entry

Travel to work

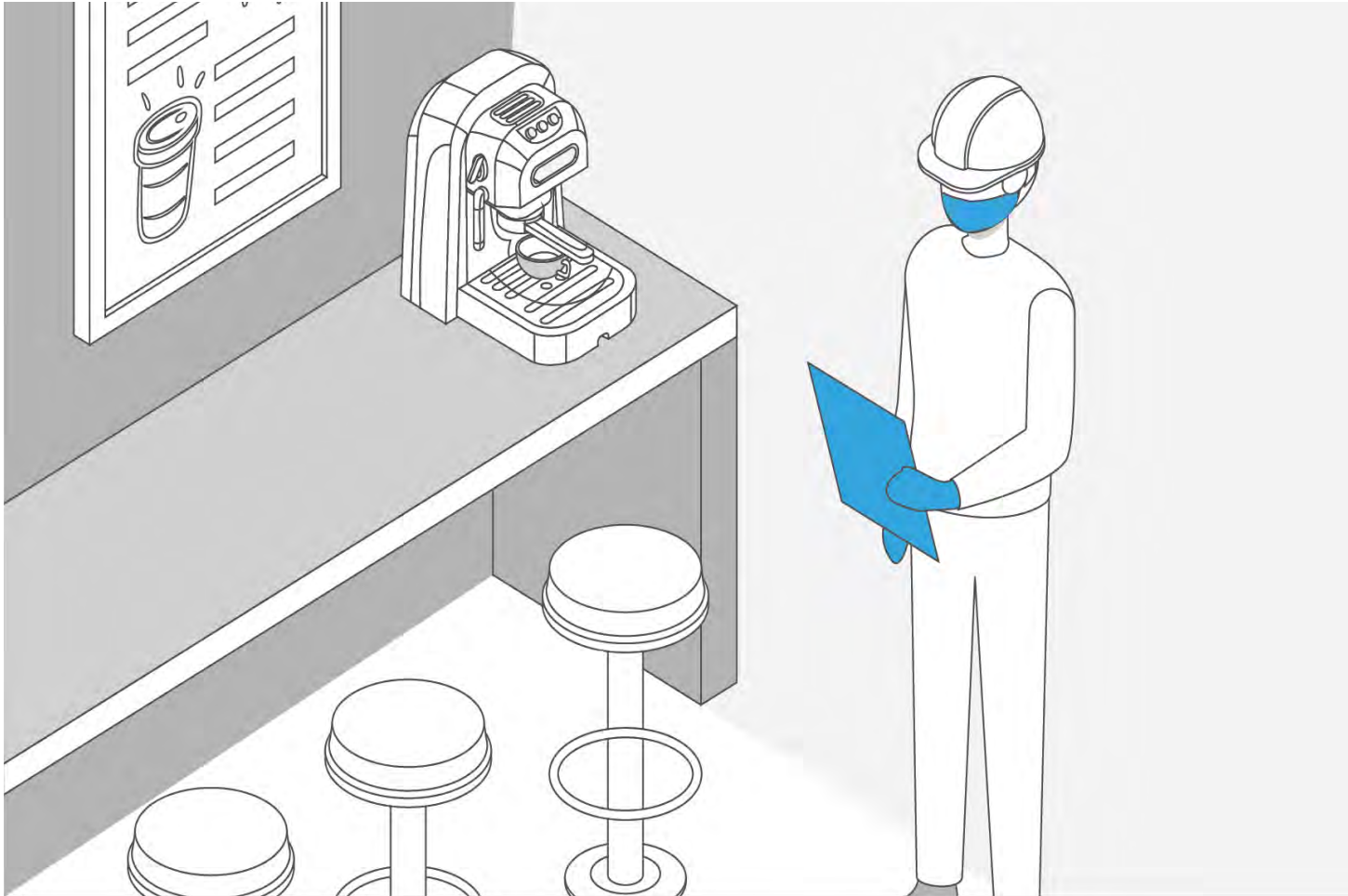
At Work

Common areas

Post-infection

Drive safe behavior norms

Office | Field



Third party walk-through

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

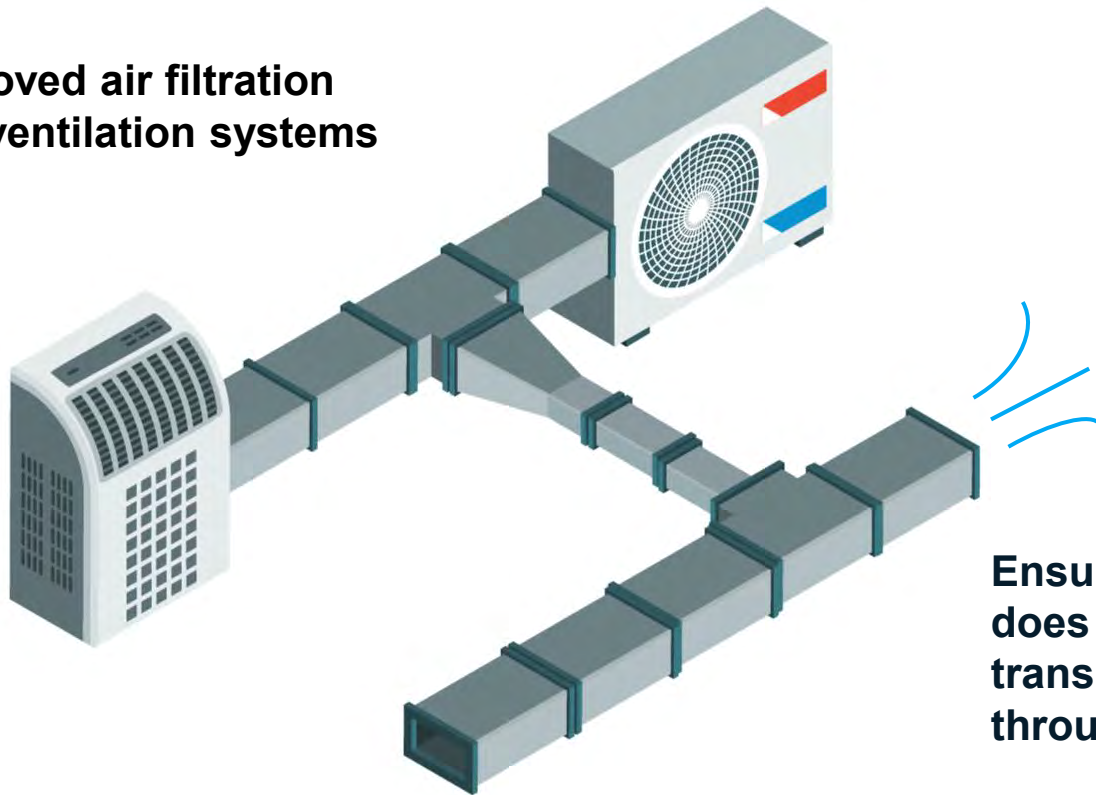
Multinational aerospace manufacturer

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: Expert interviews, press search, company surveys

Example: 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

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: Expert interviews, press search, company surveys

Pre-entry

Travel to work

At Work

Common areas

Post-infection

Upgrade equipment

Office | Field

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

Most businesses will be considering a stage-based return

Many governments, including the US, have drafted a template for what this could look like

Example staging based on US¹ plan

	Stage 1	Stage 2	Stage 3
	High Restriction Operations	Partial Restriction Operations	Next Normal Operations
Vulnerable populations	Special accommodation	Special accommodation	No restrictions
Virtual or site flexible	Encourage telework, but begin return to work	Encourage telework, but scale up return to work	
Site critical workforce	Close common areas; follow strict social distancing	Close common areas; follow moderate social distancing	
Travel	Minimize non-essential	Resume non-essential	



1. Based on the White House, Guidelines for Opening Up America Again approach

Three key considerations when implementing workforce safety interventions



Considerations

Prioritize fewer, stronger purposefully-implemented interventions

Engage a “red team” to build and evaluate the Return plan

Invest in communication and capability building

Description

Fewer, stronger interventions with purposeful, end-to-end implementation can be more effective than implementing several interventions without proper considerations

Including a “red team” that critically evaluates all Return actions can help with stress testing workforce safety interventions, reviewing processes post-implementation and providing early warnings

Authentic communication that acknowledges the uncertain nature of the situation while providing temporary guideposts for planning can help maintain employee trust and two-way communication channels

Case example

Grocery stores in several countries have minimal disease transmission while focusing on implementation of a small number of simple measures to ensure employee and customer safety

A multinational aerospace and defense manufacturer has utilized “red teams” to identify multiple gaps in their initial Return plans

A multinational fast food chain has engaged their workforce with a detailed communication plan, driving employee perception of safety / value and sense of control



As different regions enter the return phase, there will be significant differences between them. Some of them will enter the return phase with high levels of hospital capacity (ICU, Medical, Surgical), widespread testing and contact tracing sophistication, and with case count that is far below the peak. Others will enter the phase with cases plateauing, but with continued uncertainty on the extent of transmission in the local environment.

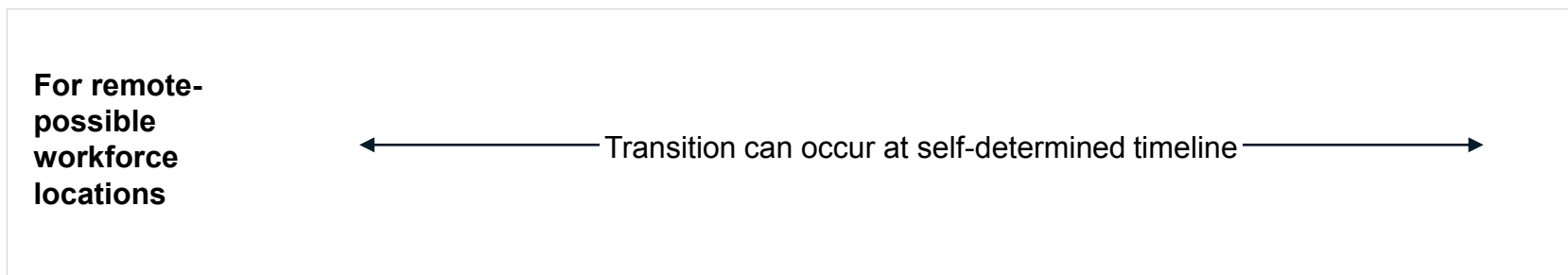
Given such uncertainties, businesses are still evaluating the right timing for a return. Specifically, they will need to balance considerations on extent of impact on the business, pace of demand rebound, workforce safety, customer safety, insurance coverage, legal liability and other considerations.

Time

the transition given the local environment



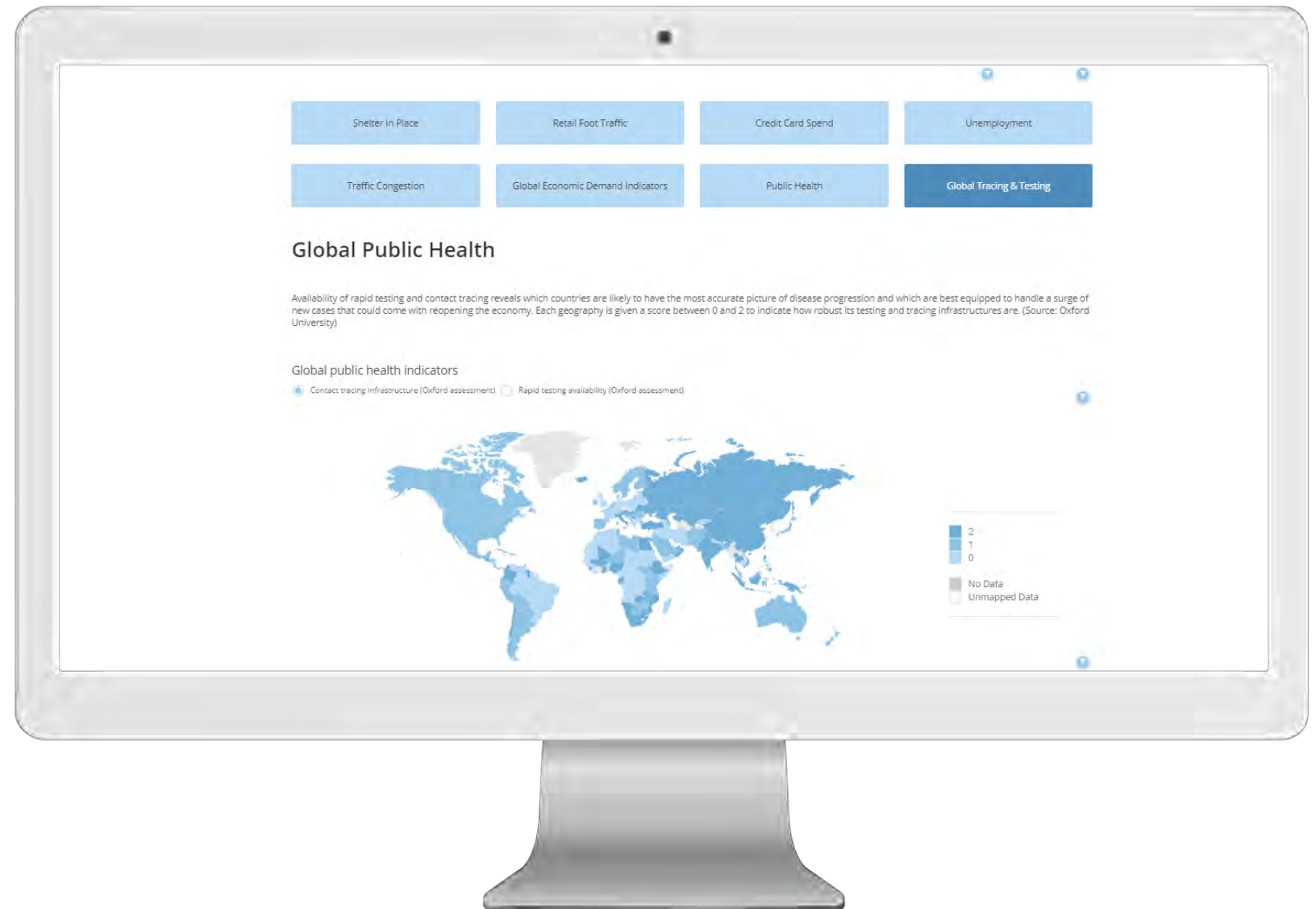
When to consider transition



Leading indicators are an important tool to ensure timing around transition is picked correctly

When to consider transition: An effective leading indicator dashboard can help determine timing of recovery

Illustrative dashboard

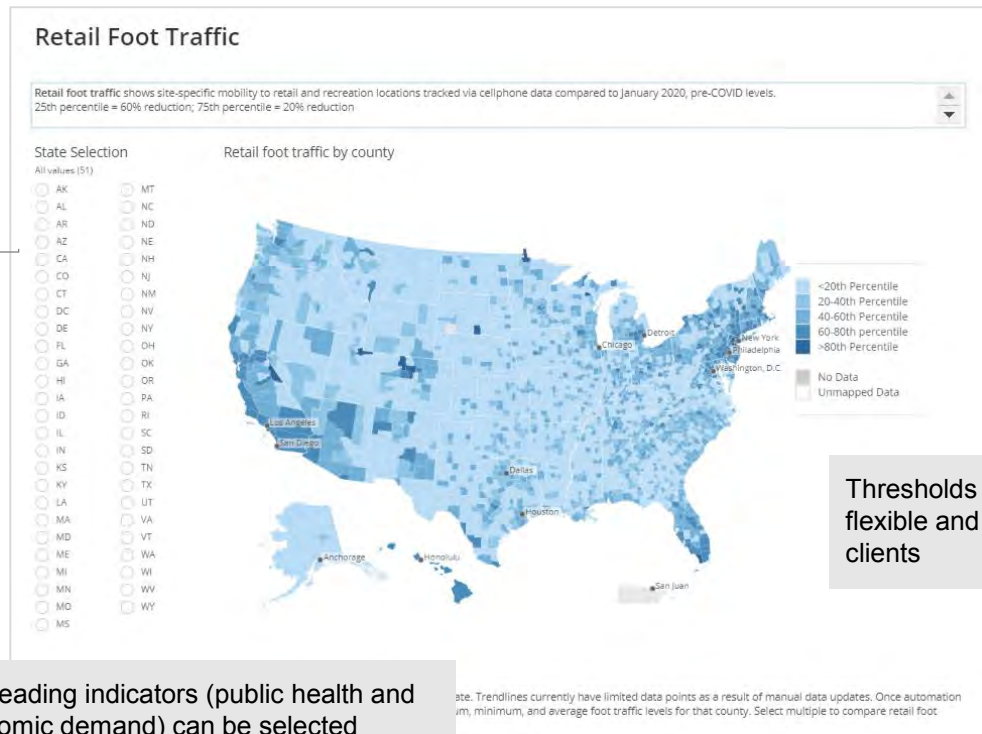


Leading Indicators Dashboard covers economic demand and public health indicators

Metrics available at country / territory, U.S. state, and U.S. county level of granularity

1. World, U.S. State and U.S. county map views

Compare a specific indicator's progress by different geographies

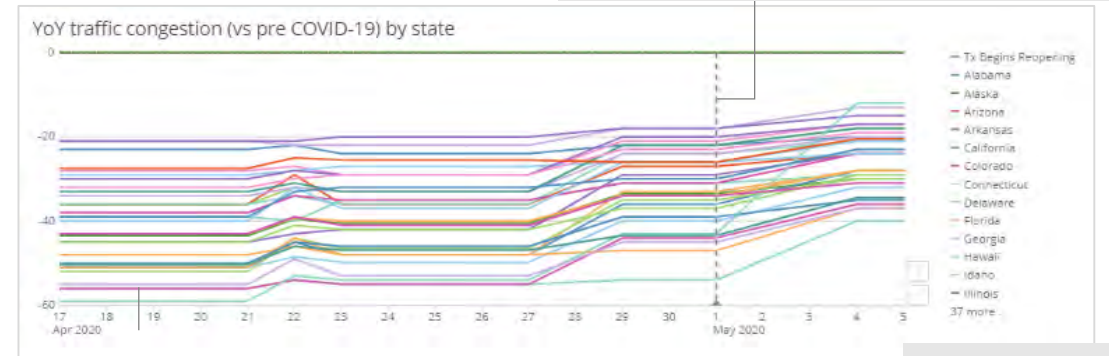


Key leading indicators (public health and economic demand) can be selected across the world, the U.S., or a U.S. state by county

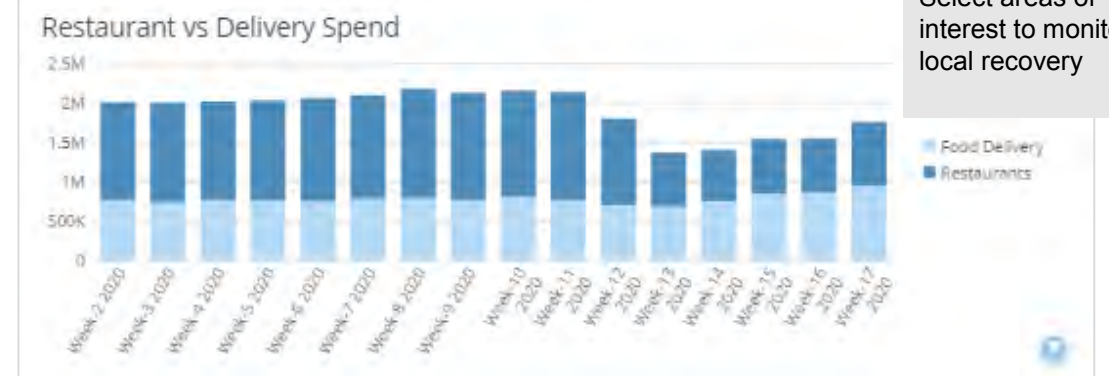
State. Trendlines currently have limited data points as a result of manual data updates. Once automation is implemented, minimum, and average foot traffic levels for that county. Select multiple to compare retail foot

2. Region trend view

Filter for a specific regions to see indicator-specific trends over a period of time



Select areas of interest to monitor local recovery



Nerve center

answers “How” to drive the transition to Return

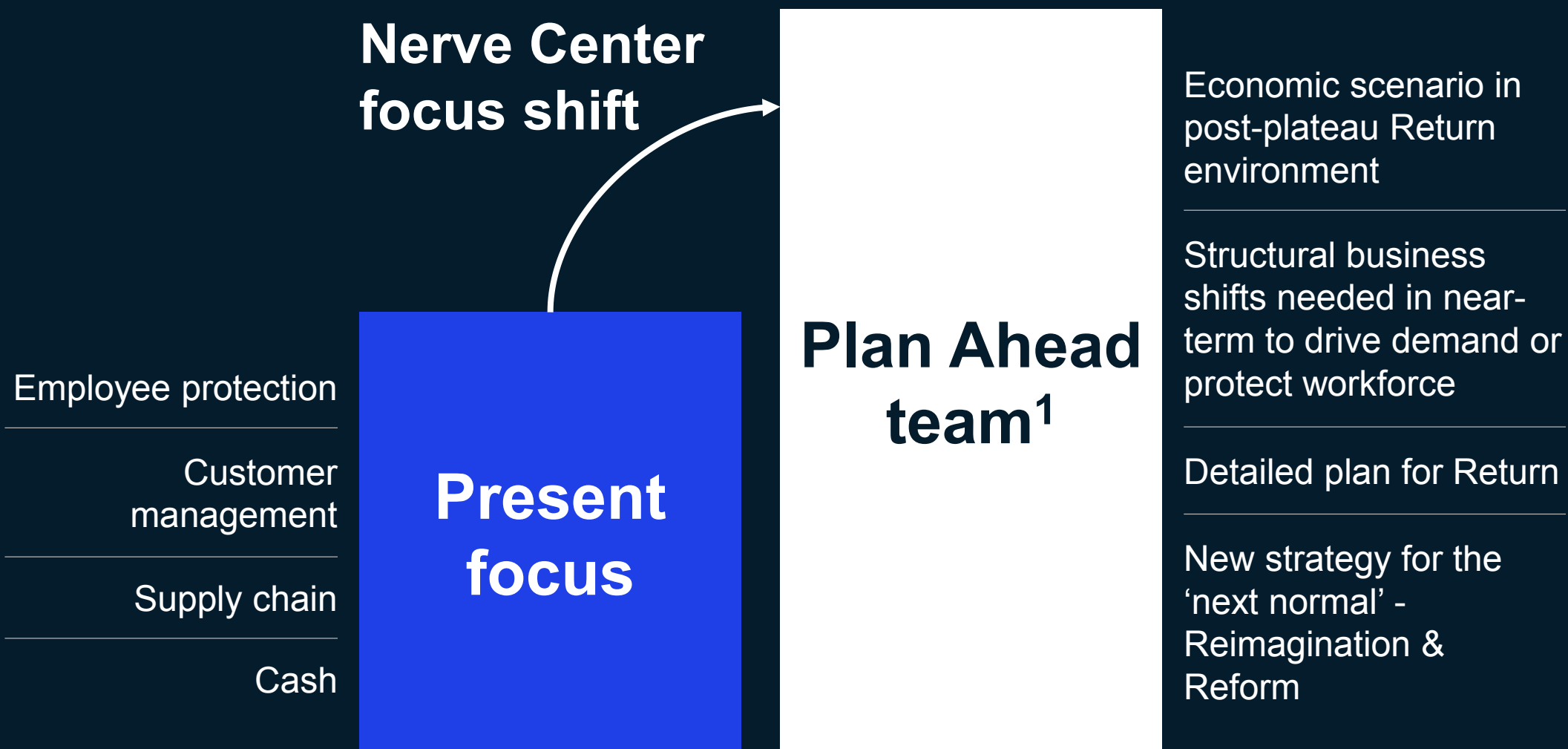
To manage the Return planning and execution priorities, the focus of your crisis organization should evolve from strategic risk management to critical Return to work imperatives – which includes identifying decision triggers to time the return, designing end-to-end intervention plans and monitoring triggers for action

The central nerve center ideally branches out to return-focused squads which take guidance from and feed into the central team’s priorities

Return nerve center squads are agile: skilled in execution and iterative in their approach. As the workforce returns to work and safety measures are tested, the nerve center relaxes its control and releases autonomy back to local leaders

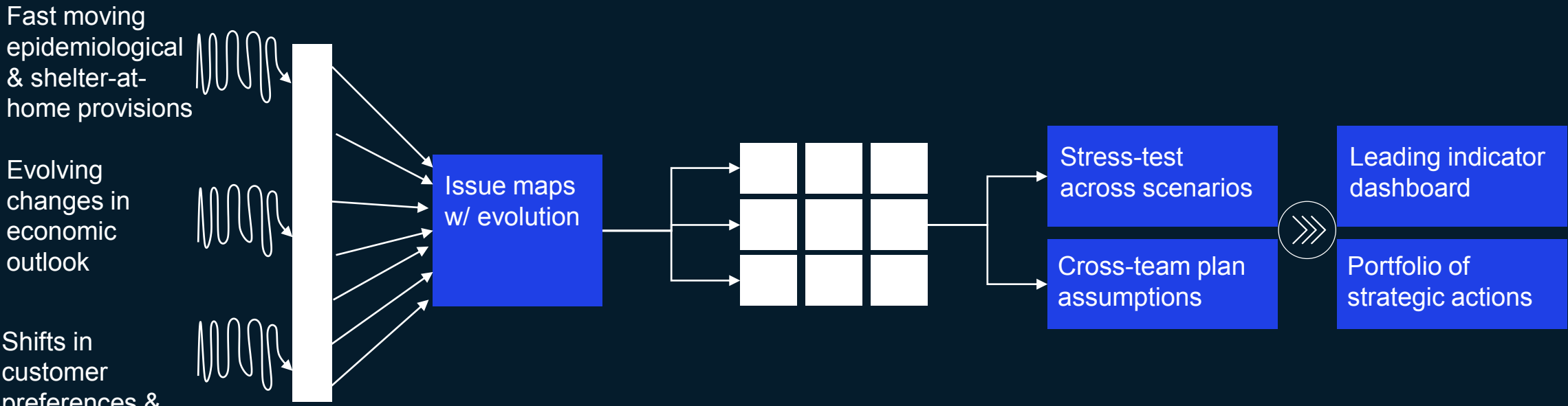


To address longer-term concerns, Nerve Centers should consider a Plan Ahead team



1. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/getting-ahead-of-the-next-stage-of-the-coronavirus-crisis>

Consider a scenario-driven approach to adapt the business to a post-plateau restart phase



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

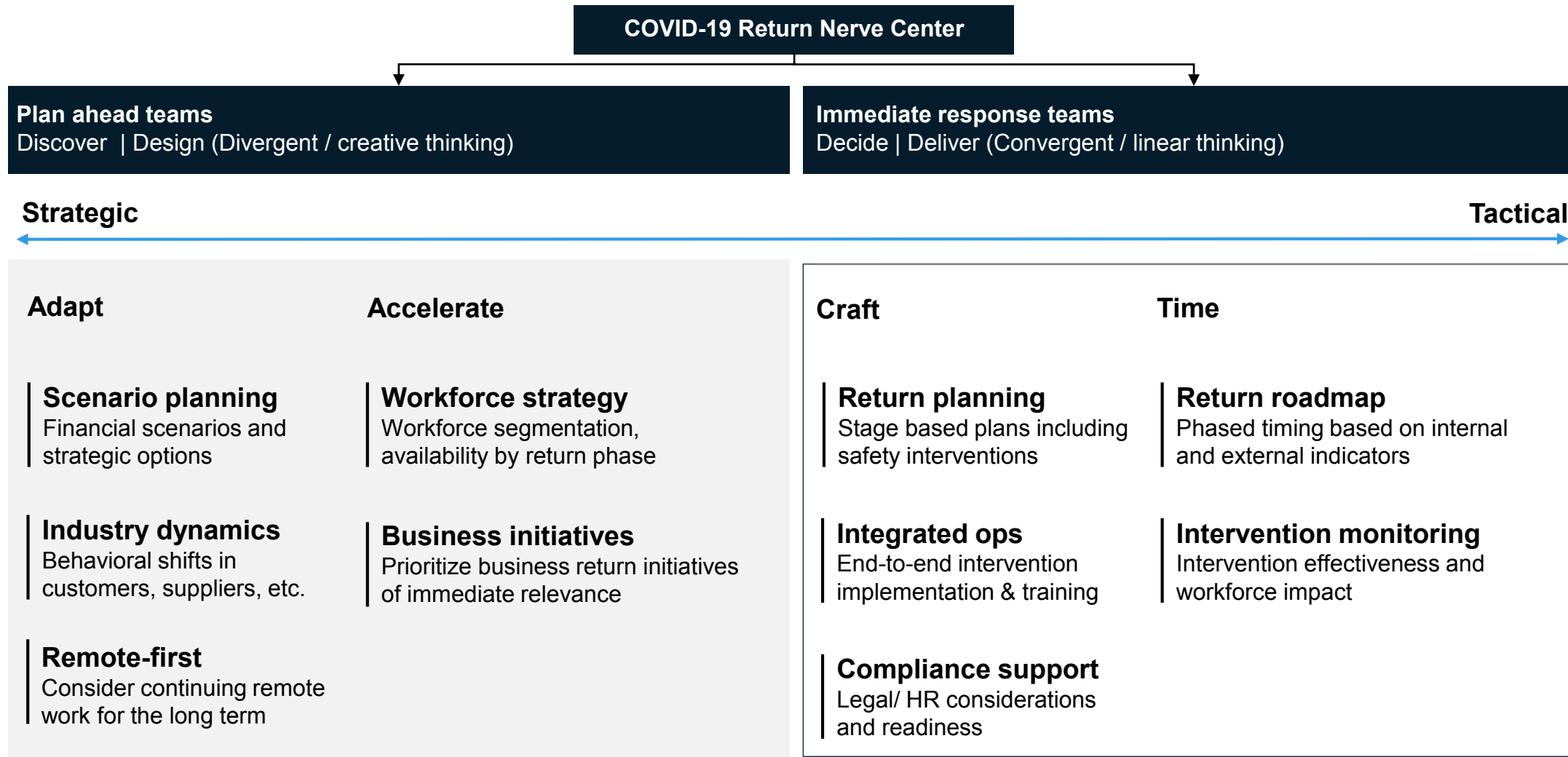
2 Bound the uncertainty through tangible scenarios that include 2nd order effects

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

Nerve center enables alignment of short term interventions with long term return planning across the AACT framework

Illustrative



Consider a crisis Return checklist

Adapt the business to a post-plateau world

- Understand likely shifts in **stakeholder priorities/ behaviors** (customers, regulators, partners, competitors, government, suppliers) and evaluate resulting business impact
- Assess the opportunity and invest in capabilities to **move to 'digital-first'**, as customers reorient their buying preferences to prioritize digital channels
- Leverage macroeconomic scenarios for development of financial models (incl. demand patterns)** and use these to understand business risks and inform decision making
- Manage uncertainty** through issue maps that emphasize 2nd order implications of ongoing/ emerging issues, including recessionary trends
- Maintain situational awareness and rapid response capabilities** by using leading indicators, issue maps and portfolio of levers to pivot and adjust through uncertainty
- Focus on pre-empting customer and business partner (vendors, suppliers, resellers) **safety and resilience needs** as you return

Accelerate structural workforce shifts by segment

- Segment the workforce** based on availability, level of vulnerability, criticality of work function, requirement for physical interaction, and risk of exposure
- Consider remote enablement and workforce retraining** as a key lever for risk mitigation
- Prioritize business return initiatives with immediate relevance and **drive readiness for possible outbreak resurgence**, to ensure improved performance
- Re-assess legacy initiatives** (e.g., scaling workforce up or down¹) and net new aspirations (e.g., growth and efficiency gain opportunities) in the context of new strategic direction
- Reallocate and retrain resources** from divisions not soon re-opening to high-priority areas that need additional capacity to adjust to new working norms
- Implement agile principles** to rapidly develop and test new ways of working

Craft operational plans for workforce safety

- Establish/ redefine the role, structure and mindset of a nerve center** to enable effective Return planning and execution coordination
- Map employee end to end journey** to use as a framework to plan holistic, workforce-safety interventions
- Engage in two-way communications** around expectations for return to work ahead of time, allowing for active feedback and making adjustments based on employee response
- Build in time **training on changing work practices, norms and expectations** to enable return for both onsite and remote workforce
- Develop and **implement workplace safety interventions** based on industry best practices and federal/ local govt. guidelines and iterate as guidelines evolve
- Identify and **empower change champions** to help drive organizational culture
- Implement checklists and policy documents to **support day-to-day personnel decisions** that are in line with organization values, legal, and reputational risks
- Monitor effectiveness of interventions** (e.g., adherence, transmission) and continuously update and redeploy initiatives to improve employee outcomes

Time the transition given the local environment

- Define trigger points and leading indicators for phase-wise workforce return** and closely monitor indicators to reset and course-correct
- Identify red-flags and levers that can be pulled to **mitigate problems** (e.g. reversing to working from home if there is a cluster of cases)

1. Not a recommendation to cut staff

McKinsey
& Company

