Deloitte.
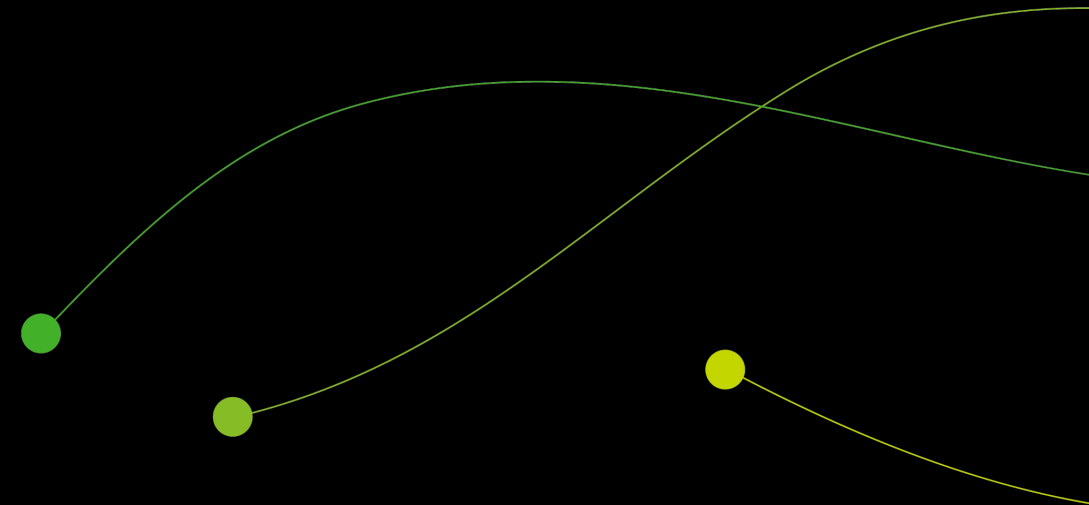
EXECUTING THE COVID-19 RECOVERY

A guide for state and local governments for reopening and restoring their economies

April 2020

Contents

Executive Summary

The challenge

State and local governments are on the front line of the COVID-19 crisis. In the coming months, they will be focused on the following steps as we move through recovery and beyond.

Balance health and economic impacts

The economic recovery will depend on a healthy population. What do states and municipalities need to do in terms of testing, health system capacity and the development of vaccines and treatments?

Promote economic health for individuals, businesses and sectors

How can government best provide support to those affected by the economic shutdown? Federal assistance will help, but cities and states will need to execute.

Reopen the economy for a better future

Consensus is calling for a phased reopening, with timing dictated by health science. How might states execute such a reopening?

Managing the state recovery process

State and local governments not only need to manage the health crisis and the economic crisis, they need to do so in light of drastic reductions in revenue, surging demand, and the need to restart public agencies in a manner that is safe for both public employees and constituents.

The "Next Normal"

We have seen how critical data, digital workflows, and agility have been in responding to this crisis. As we move ahead, governments will need to reexamine their basic operating systems. From public transit to schools, governments should reexamine operations, service delivery, workforce, and safety issues as they sequence the reopening of government offices. This is an opportunity for state and local governments to adopt new tools that enable them to better serve the people.

THE CHALLENGE

State and local governments must take action on three fronts to address the COVID-19 crisis

**How do we address the
health care crisis?**
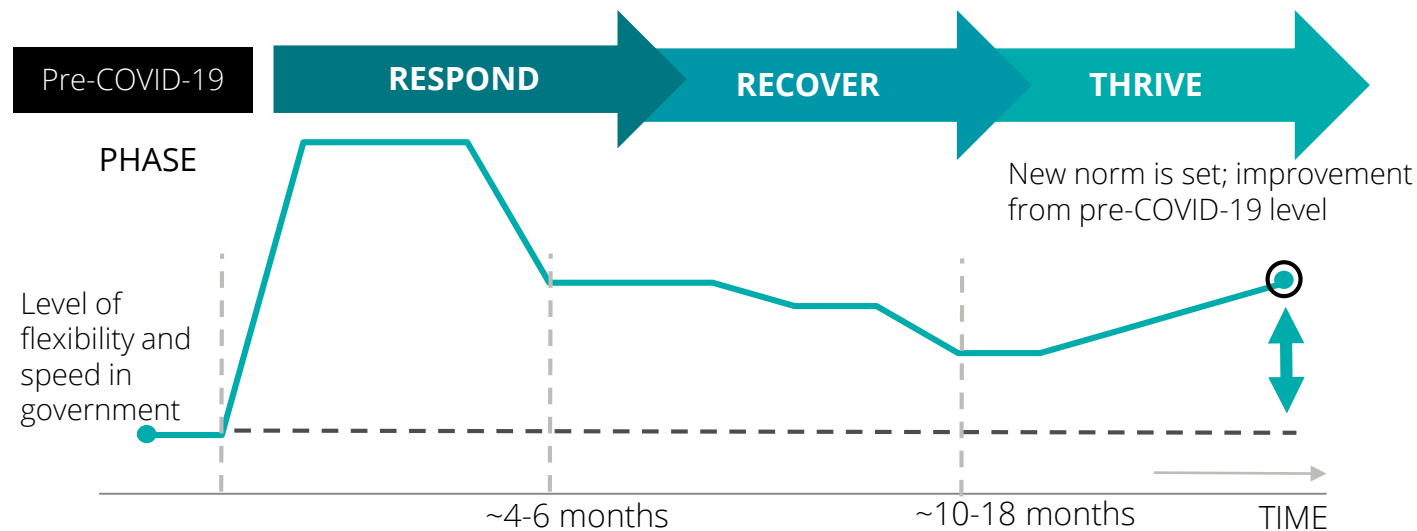
**How do we address
the economic crisis?**

**How do we keep "the business"
of government operating?**

Any given government agency may be involved with one, two, or all three fronts. For instance, a transit agency may limit ridership, enforce social distancing, and regularly disinfect vehicles while monitoring employee health. Later, the agency may play a part in the recovery by spending stimulus money on upgrading infrastructure.

State and local governments are starting to move into the recover and thrive phases

The figure models the COVID-19 crisis over time across the three overlapping phases governments will pass through: Respond, Recover, and Thrive

RESPOND **RECOVER** **THRIVE**

Pre-COVID-19

PHASE

New norm is set; improvement from pre-COVID-19 level

Level of flexibility and speed in government

~4-6 months   ~10-18 months   TIME

"You don't make the timeline; the virus makes the timeline."

—Dr. Anthony Fauci

Act to promote safety and continuity

- Focus on essentials
- Offer maximum flexibility
- Use maximum speed

Restore and emerge stronger

- Move toward normalcy
- Offer high flexibility
- Use high speed

Prepare for the next normal

- Build long-term enhancements to the public sector
- Establish a better foundation for the future
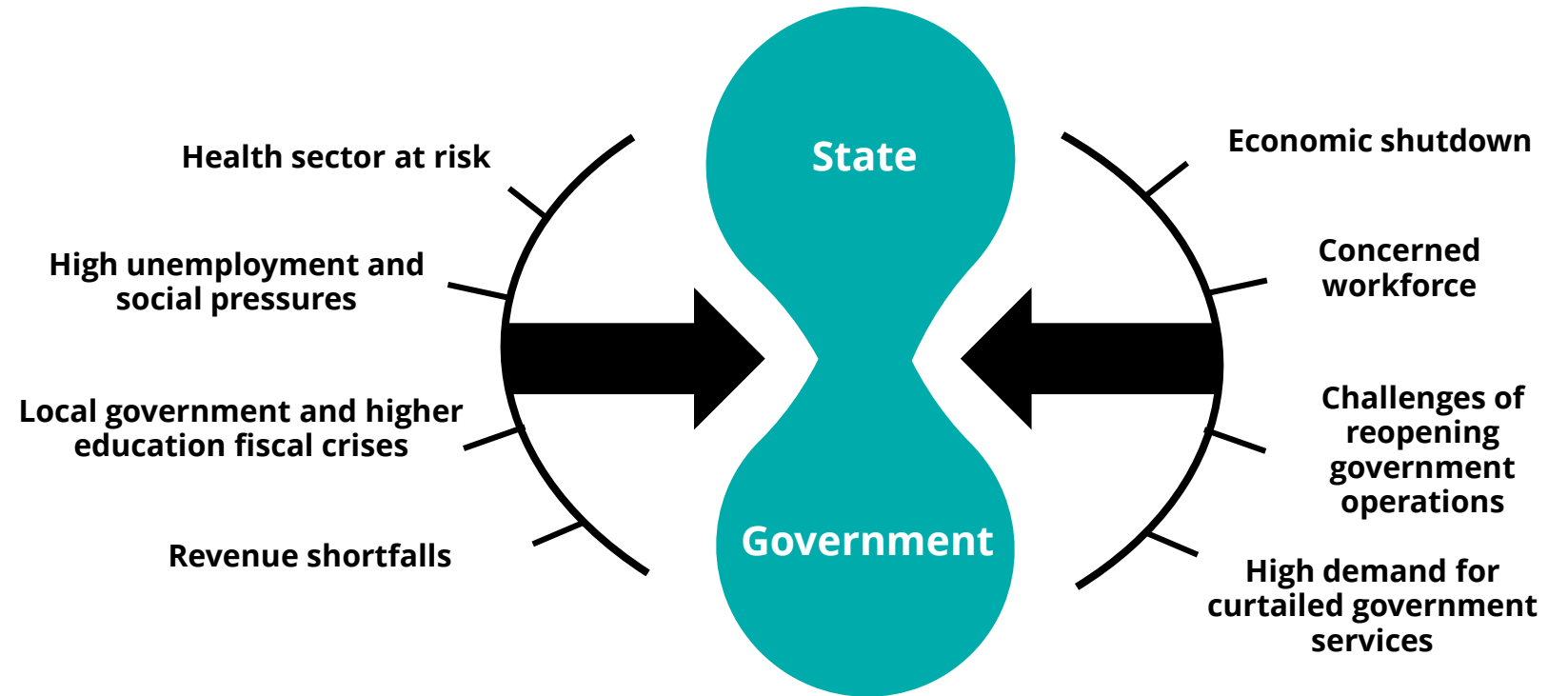- Create a new level of flexibility

Note: These timelines may change   Source: Government's response to COVID-19

# State governments are being "squeezed" from multiple directions

State governments are facing revenue shortfalls and a simultaneous surge in demand for services. As they look to reopen the economy, they will also be restarting many of their own operations under new, post-COVID-19 conditions—no easy task.

State

Government

Health sector at risk

High unemployment and social pressures

Local government and higher education fiscal crises

Revenue shortfalls

Economic shutdown

Concerned workforce

Challenges of reopening government operations

High demand for curtailed government services

Forecasts show strong economic headwinds

Depending on policies, business activity and consumer spending recovery could take different shapes and forms

Real GDP
Billions of 2012 chained dollars**
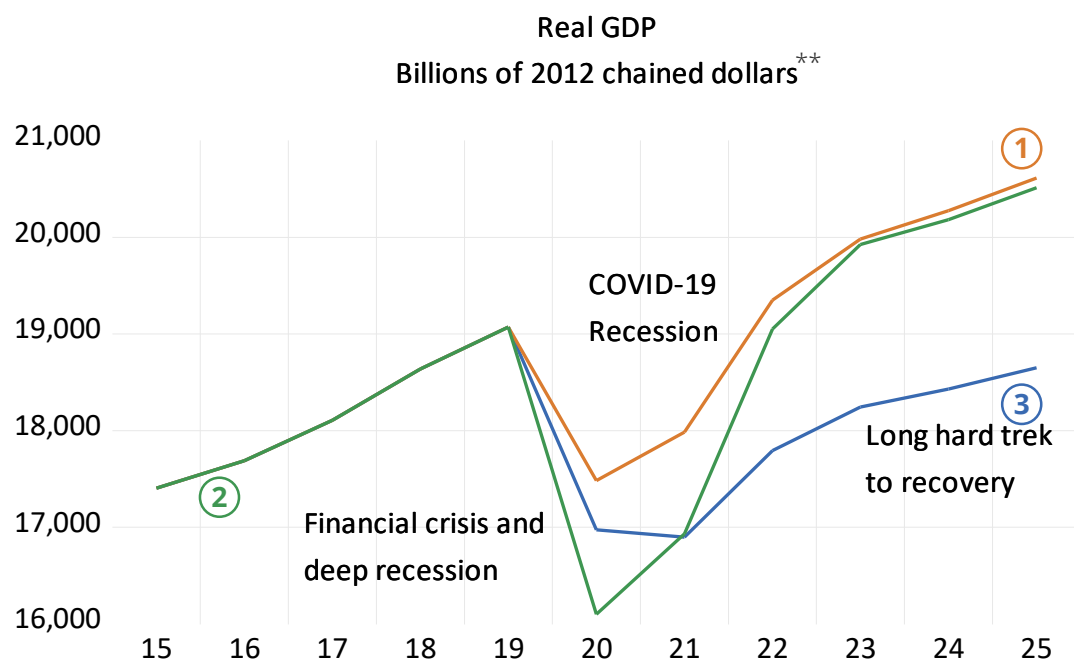
Sources: Bureau of Economic Analysis/Oxford Economics and Deloitte

*Scenarios as of March 27, 2020 **Chained dollar unit represents inflation adjusted dollar value over a period of time

Source: United States Economic Forecast – 1st quarter 2020

1 **The COVID-19 recession (10 percent probability)**
- The immediate impact of COVID-19 is a huge drop in economic growth.
- GDP falls 8.3 percent in 2020 but starts recovering in 2021.

2 **Financial crisis + deep recession (50 percent probability)**
- Economic activity plunges as the COVID-19 outbreak affects both the economy's supply and demand side. The combination of supply-side limits, weak demand, and financial crisis throws the economy into a recession.
- Quick, substantial fiscal and monetary intervention creates enough demand to lift the economy out of recession by mid-2021, and 2022 sees a strong recovery.

3 **Long hard trek to recovery (40 percent probability)**
- As the economy struggles to recover from the initial recession, regional outbreaks of COVID-19 continue for about two years, accompanied by interruptions of economic activity in that region.
- After falling substantially in 2020, GDP is flat in 2021, and unemployment remains high. Growth then picks up to 3 percent or more by 2023 and remains high for another year because of pent-up demand for big-ticket items, combined with very accommodative monetary and fiscal policy.

For the methodology read: United States Economic Forecast – 1st quarter 2020

A strong recovery depends on societal attitudes

Citizen concerns and confidence are part of the terrain of any recovery

Rising fear of catching the disease[i]

55% of Americans are very or somewhat concerned they that will get COVID-19 and require hospitalization

Concerns around social gathering[ii]

~60% of Americans say they're concerned about eating out

Lack of business activity[iii]

40.9 US Composite Purchasing Manager Index declined to 40.9 in March 2020, a record low

Concerns around health[iv]

61% of respondents in the US are most concerned with the threat to their health from the virus, over isolation and financial impact

Consumers not willing to spend[v]

50.5% Consumer spending at clothing and clothing accessories stores decreased by 50.5% between Feb and March

Concerns around privacy[vi]

37% of Americans say it is at least somewhat acceptable to use cellphone data to make sure people are following social distancing guidelines

Younger workers to be hit hard by slump[vii]

1.3 Million In the US, more than 3.5 million students are expected to graduate from high school, 1.3 million students are expected to graduate from two year or four year colleges. Younger workers will have more trouble finding and maintaining jobs in an already slow economy. [vii]
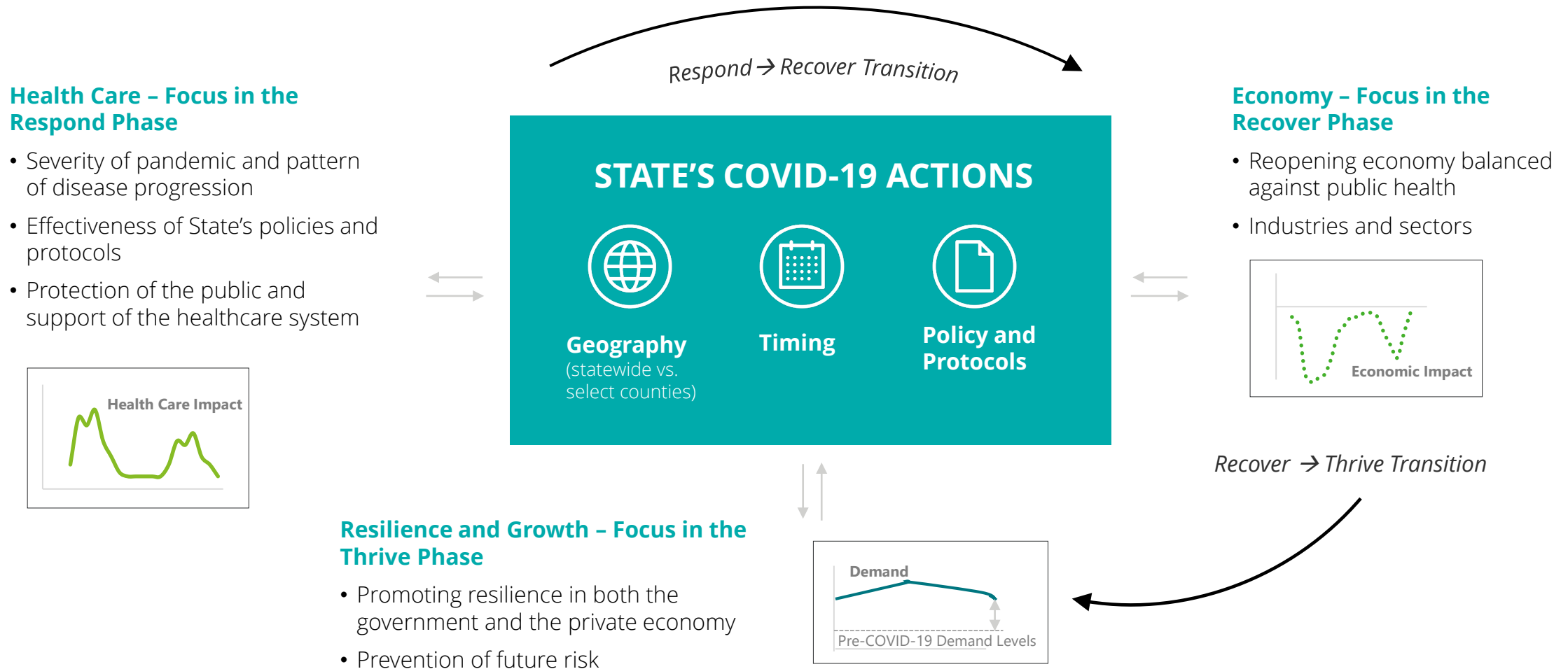
Reopening too soon[viii]

66% of Americans are concerned that the US may lift restrictions too soon

Sources: [1] Pew research; [ii]QSR Magazine; [iii] Trading Economics; [iv]ISR; [v]Quartz, Census Bureau; [vi] Pew Research ; [vii]The Conversation; [viii]Pew Research

State governments will have a central role in this recovery

Respond → Recover Transition

STATE'S COVID-19 ACTIONS

Geography
(statewide vs. select counties)

Timing

Policy and Protocols

Health Care – Focus in the Respond Phase

- Severity of pandemic and pattern of disease progression
- Effectiveness of State's policies and protocols
- Protection of the public and support of the healthcare system

Health Care Impact

Economy – Focus in the Recover Phase

- Reopening economy balanced against public health
- Industries and sectors

Economic Impact

Recover → Thrive Transition

Resilience and Growth – Focus in the Thrive Phase

- Promoting resilience in both the government and the private economy
- Prevention of future risk

Demand

Pre-COVID-19 Demand Levels

KEY RECOVERY ACTIONS

State government will need to take actions on various fronts to support the economic recovery

Key actions for the economic recovery

Balance actions to limit disease spread and economic impact

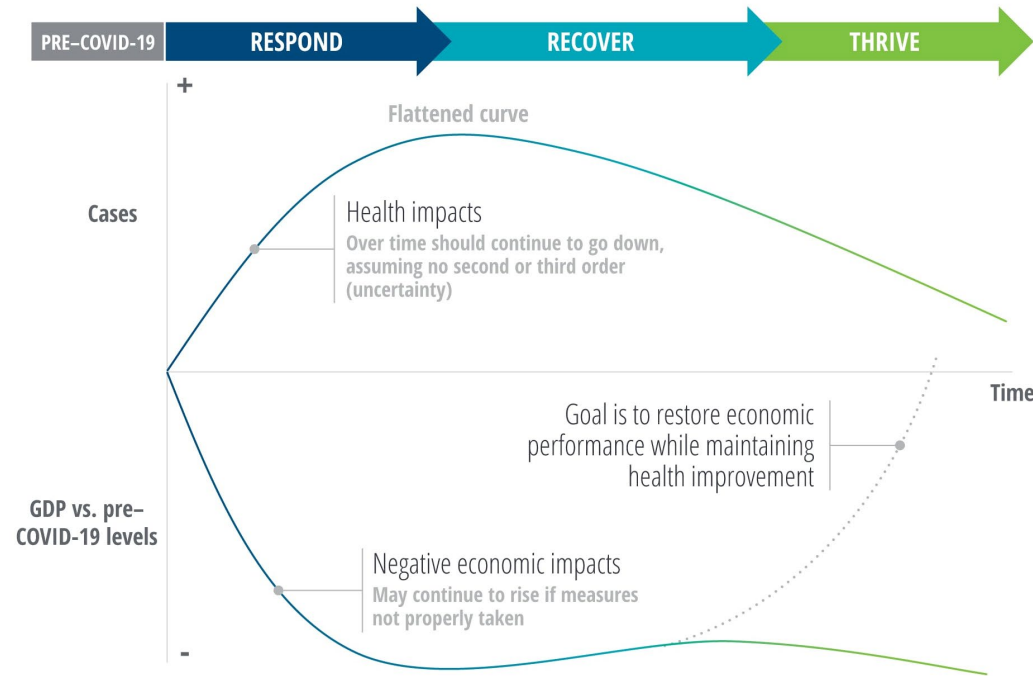**Provide relief for individuals, businesses and sectors**

Re-open the economy

Balance actions to limit disease spread and economic impact

States are wrestling with balancing health and economic impacts

State leaders will have to determine what is optimal for their states

Recovery on the health and economic fronts is intertwined: Until people can gather in groups to work, travel, and shop, any economic recovery will likely be limited (see figure). How do we speed recovery while limiting risk? When do we relax the rules? What restrictions should be imposed on businesses and individuals? Should these restrictions differ by area and by industry?

Reoccurrence is likely to be patchy. This could mean that a second wave may not be as severe as the current one but may spike in a few geographic areas and could also be seasonal in some cases.

PRE–COVID-19   RESPOND   RECOVER   THRIVE

+

Flattened curve

Cases

Health impacts
Over time should continue to go down, assuming no second or third order (uncertainty)

Time

Goal is to restore economic performance while maintaining health improvement

GDP vs. pre–COVID-19 levels

Negative economic impacts
May continue to rise if measures not properly taken

-

Source: Deloitte analysis.

Source: Governments' response to COVID-19

There will be critical choices along the journey and states will need to monitor progress and adapt
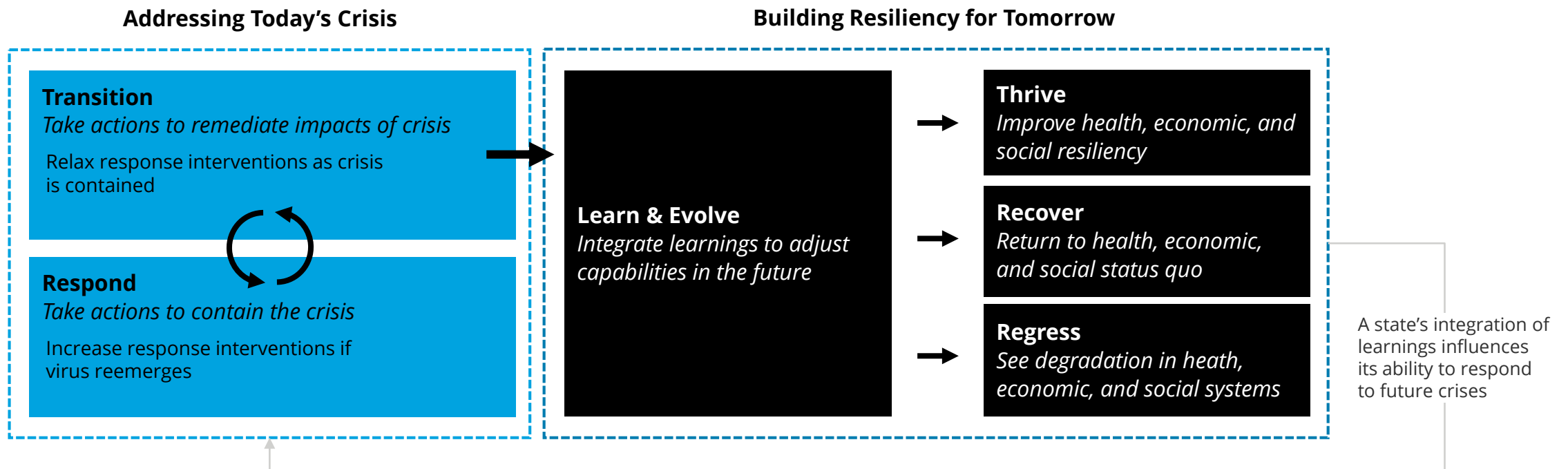
Potential COVID-19 Path for State/Region A
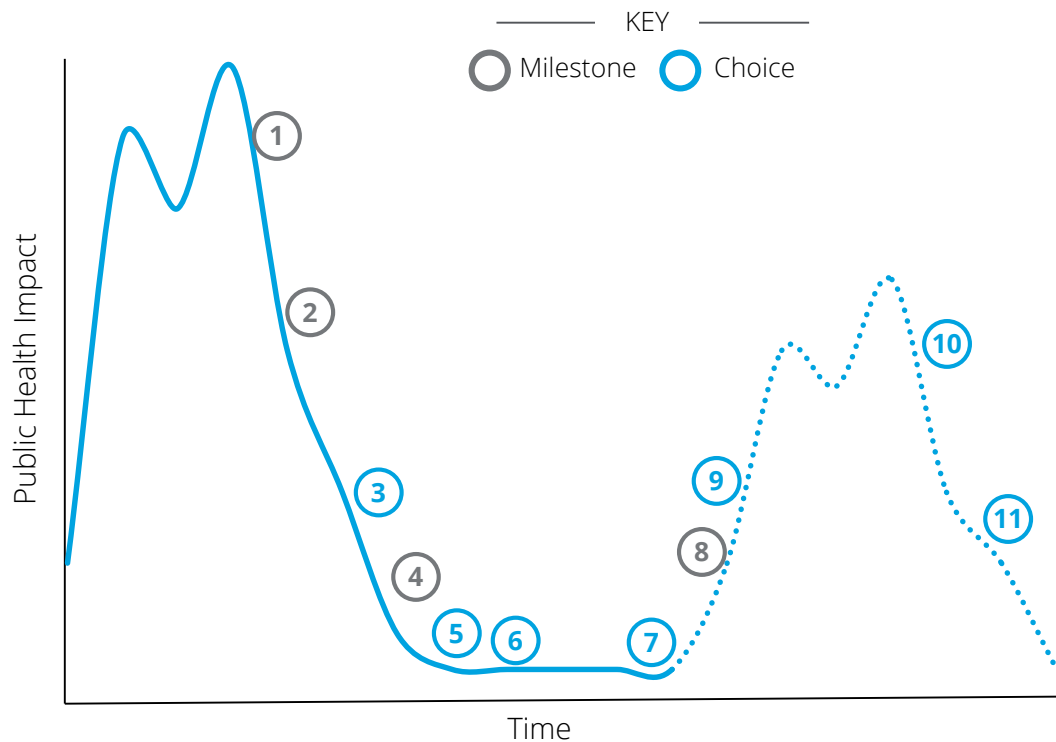
Potential Relevant Response Milestones & Choices (Illustrative)

KEY
○ Milestone ○ Choice

Public Health Impact

Time

Potential second wave of infections

1. Cases are declining consistently across geographies

2. All public health pre-requisites are met:
   - sufficient supplies at surge capacity
   - minimized risks for vulnerable populations
   - preventative measures for workplaces
   - reduced importation risks

3. CHOOSE to decrease restrictions on some non-essential services (e.g. personal care, fitness centers, etc.)

4. Mass viral and serology testing available

5. CHOOSE to increase public health departments staff to continue widespread contact tracing and testing

6. CHOOSE to decrease some restrictions on social and economic activity (e.g., reopen schools)

7. CHOOSE to fast-track limited release of vaccine to healthcare workers (impact depends on vaccine efficacy and participation)

8. Cases begin to rise with second wave of infections

9. CHOOSE to implement targeted increase in restrictions on economic and social activity

10. CHOOSE to make vaccine available for broader population (impact depends on vaccine efficacy and participation)

11. CHOOSE to decrease restrictions on social and economic activities for vaccinated population

Non-linear path to emerge from the crisis better prepared for the future

Responses to the COVID-19 crisis require iterative approaches to addressing the health threat, transitioning out of the crisis and rebuilding health, economic, and social systems

Addressing Today's Crisis

Building Resiliency for Tomorrow

Transition
Take actions to remediate impacts of crisis

Relax response interventions as crisis is contained

Respond
Take actions to contain the crisis

Increase response interventions if virus reemerges

Learn & Evolve
Integrate learnings to adjust capabilities in the future

Thrive
Improve health, economic, and social resiliency

Recover
Return to health, economic, and social status quo

Regress
See degradation in heath, economic, and social systems

A state's integration of learnings influences its ability to respond to future crises

Testing capabilities have grown but more progress is needed

Testing capacity has increased dramatically but is still far below recommended levels

Proposals on reopening the economy recommend testing from **750K per week to millions of Americans a day**.*

COVID-19 testing has been largely limited to symptomatic cases and impacted groups only due to barriers in raising testing capacity. Wider testing on a mass scale is needed to better understand the disease.

In addition to testing for the disease, increasing serological tests/ testing for antibodies to indicate exposure and immunity and contact tracing will be critical to reopening the economy. Successful antiviral or plasma treatments and vaccines will be crucial for long-term recovery efforts.

*For example, American Enterprise Institute recommends 750K per week and Harvard Center for Ethics recommends 2.5 million to 100 million per day

Average tests per day in U.S.

Period	Value
2 March - 8 March	693
9 March - 15 March	5,174
16 March - 22 March	30,203
23 March - 29 March	95,517
30 March - 5 April	126,656
6 April - 12 April	150,131
13 April - 19 April	149,138
20 April - 26 April	214,970
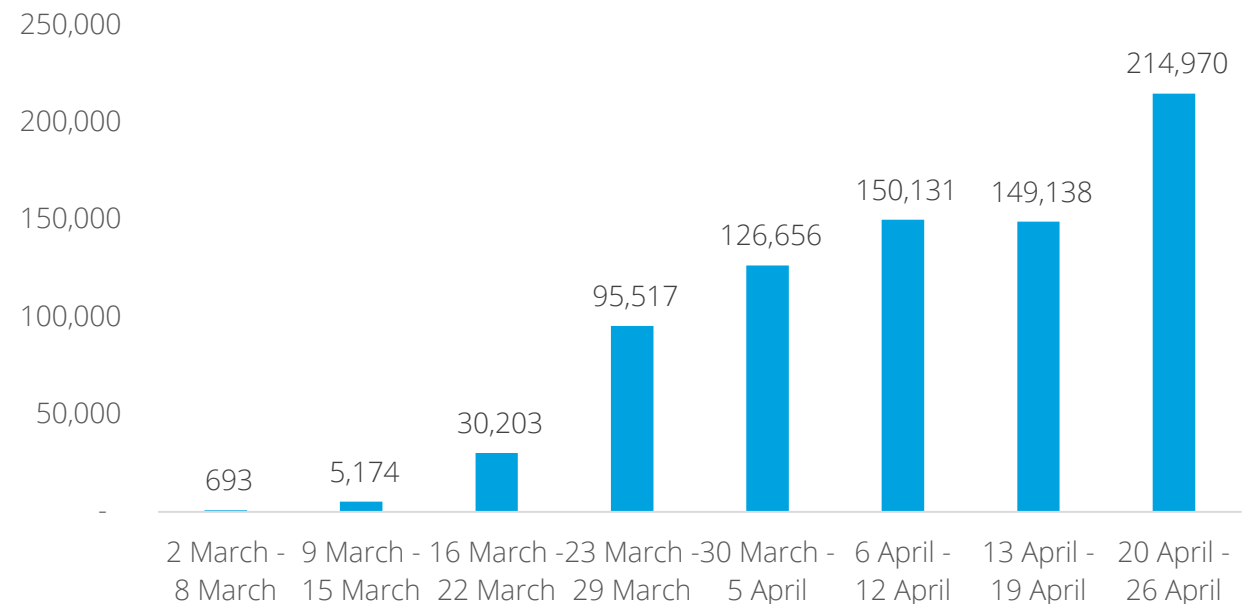
Sources: Deloitte analysis using data from The COVID Tracking Project , American Enterprise Institute, Harvard Center for Ethics

Contact tracing will be key to limiting the spread of the disease

An integrated approach to contact tracing would trace COVID-19 contacts through automated case management and data analytics by public health entities, community partners and government agencies

Public Sentiment & Trust Campaign

Governments need the ability to understand customer experience and analyze sentiments toward the region's COVID-19 contact tracing efforts.

Application Programming Interface (API) Integration

Governments will need the ability to securely exchange information and provide reporting and integration with existing disease surveillance and health data systems and third party providers.

Case Management

Would enable state, local and public health organizations to collect information on tracking, and conduct follow-up; also allows users to report and receive follow-up guidance.

Proximity Tracking

A network of information on individuals' mobility to trace contacts based on self opt in for public use, and for employers.

Contact Tracers

Acquisition of contact tracers and specialized call center talent, including community heath professionals, will be needed in many jurisdictions.

Contact/Call Center

A range of customer support is needed, including telephony support, agents, chatbot & voice to text, and multi-language support.

Network Analysis & Advanced Analytics

Network analysis can provide public health officials insights to guide strategy and policy.

Many states have started building an army of contact tracers to slow spread and prepare for second waves

Massachusetts: The state currently has 850 people working on contact tracing.

New York: Partnered with New Jersey and Connecticut to launch a tri-state contact tracing program.

- The Bloomberg School of Public Health will build an online training program for contact tracers.
- The State Department of Health and Bloomberg Philanthropies will identify and recruit contact tracers for the program.

California: Building a large army of 10,000-50,000 tracers.

Maryland: Plans to increase contact tracers from 250 to 1,000 people.

KEY RECOVERY ACTIONS

Promote economic health for individuals, businesses and sectors
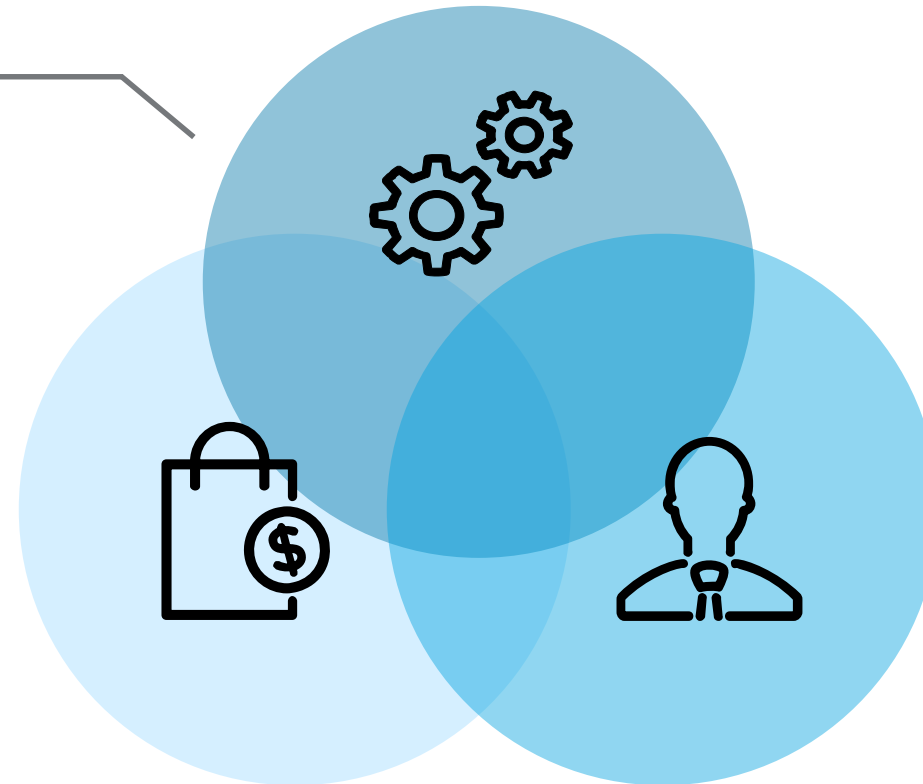
States have several ways to boost the economy

Governments need to focus on three areas when it comes to promoting economic health

Stimulating economic activity

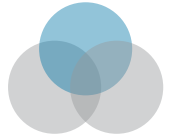- Promote spending
- Reducing barriers to economic activity

Getting individuals back to work

- Minimize further job losses and promote job creation

Assist distressed businesses

- Work to stabilize, then advance business health

Stimulating economic activity

Use the broad power and resources of the state to foster business growth and reduce growth-impairing constraints. Encourage individuals and businesses to resume personal spending and business investment to re-start economic "engine" of the state.

Maximize federal funding. Designate a team to maximize state's receipt of federal funding.

Use rainy day funds strategically. Use the funds to promote business growth and hiring.

Tax credits to incentivize hiring. To promote investment and immediate hiring, consider one-time, time-limited tax credit options to incentivize new employment or immediate business expansion.

Review timeline for proposed construction projects under existing bonds issuance of the transportation department, including greater focus on "shovel ready" projects as a key criteria.

Expedite permit approvals. Expedite approvals for construction permits not creating high risk to health, safety, or the environment.

Extensions for professional licenses. Consider streamlined extensions for state authorized professional licenses, except those health-related or others with higher risk to public safety.

Relax regulations. Relax regulations to reduce burden of compliance on businesses which would help businesses focus on recovery.
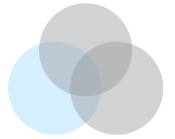
Assisting distressed businesses

Seek to reduce business failures, mitigate further business disruption, then provide growth-oriented support

Consider establishing a business recovery center to help local companies gain streamlined access to business support, technical assistance or government assistance. Partner with business associations to streamline dissemination of information and direct business to appropriate assistance programs.

Use data to identify the hardest-hit sectors and regions. Data-driven analysis can identify where support is most needed.

Shift focus of economic development agencies to recovery. Shift business attraction resources to recovery, retention, and job-growth of in-state industries.

Conduct an industry/sector assessment. By analyzing various sectors of the economy against their level of COVID-19 vulnerability, governments can provide more precise guidance than just "essential vs. non-essential" designations. Such an assessment could include the likelihood of widespread transmission, ability to mitigate against such transmission, and so forth, informing reopening decisions.

Providing relief to individuals and businesses in the United States

The CARES Act provides relief to individuals, families, businesses, and state and local governments

Individuals – $603.7 Billion

- Cash payments - $300 Billion
- Unemployment payments – $260 Billion
- Student loans - $43.7 Billion

Large Corporations – $500 Billion

- Loans for corporation – $425 Billion
- Others (including airlines) – $75 Billion

Small Businesses – $377 Billion

- New loans - $350 Billion
- Relief and grants - $27 Billion

State and Local Governments – $339.8 Billion

- COVID-19 response – $274 Billion
- Others (including K-12 and Higher Education) – $65.8 Billion

Public Services – $179.5 Billion

To date, a number of economic relief packages have been enacted in the United States to "fight the virus" and "stabilize the economy"

$484 billion (passed on April 24th)

Paycheck Protection Program and Health Care Enhancement Act

$2 trillion (passed on March 27th)

Coronavirus Aid, Relief, and Economic Security (CARES) Act

$192 billion (passed on March 18th)

Families First Coronavirus Response Act

$8 billion (passed on March 6th)

Coronavirus Preparedness and Response Supplemental Appropriations Bill

Sources: Visual Capitalist, KFF, AAHA, Congressional Budget Office

Effectively administering disbursement of emergency funds represents a massive additional responsibility for government

The CARES Act establishes the "Pandemic Response Accountability Committee" (PRAC) to monitor the distribution of the COVID-19 stimulus funds.

A similar, Recovery Accountability and Transparency Board (RATB) was created in 2009 to oversee the distribution of the 2009 stimulus funds.

Governments need a holistic approach to ensure program integrity—

- Make **prevention** a cornerstone of your strategy

- Build a **broader portfolio of tools** to fight fraud, waste, and abuse
  - Data and analytics
  - Behavioral nudges
  - AI and other advanced technologies

- Bring **transparency** to stimulus efforts and open up deployment details for public scrutiny

Maintaining program integrity in the disbursement of emergency relief and stimulus funds will be critical for governments.

Sources: The Hill; Deloitte

Getting individuals back to work

Minimize further loss in employment, while taking actions to promote job creation and matching displaced workers to in-demand sectors

Implement a fast track program focused on displaced workers from COVID-19 crisis, focused on connecting individuals with transferable skills to near-term, in-demand positions (e.g., healthcare, e-commerce/distribution, food processing). The program should be aligned to greatest impacts and needs in each unique region of the state.

Accelerate certifications program for in-demand positions. Leverage best, "off the shelf" programs of community colleges, employers, labor associations, etc., to advertise and make certificate programs available rapidly and at scale.

Promote in-demand employment opportunities. Use Governor's press briefing and other "free media" to promote accelerated workforce development programs and employment opportunities.

Focus on reskilling to help workers navigate the disruptions caused by technology advancements and shifts in employer demands.

Reskilling to help workers navigate the disruptions caused by COVID-19

Reskilling will be critical in the post COVID-19 economy to –

Retrain workers to deal with surges in overloaded areas

Prepare unemployed workers for industries that see a high demand for talent

Help workers adapt to digital workspaces

Government's reskilling "Toolkit"

Data-driven approach: Analyze data to understand how industries are reacting to COVID-19. Which occupations are expanding and which ones are contracting?

Build partnerships: Develop deep partnerships with companies/industries that are expanding hiring and tailor programs to meet employer needs

Target the right segments: Provide wraparound support to challenged population segments such as single parents, older workers and the physically challenged who may have more employment opportunities due to increases in telework across different occupations

Act as a connector: Connect employers, philanthropies and other stakeholders to build a workforce information system that reduces information gaps between various participants

More than **26 million workers*** have sought unemployment benefits during one month of shutdowns

Source: NBC

* As of April 23, 2020

Reopen the economy for a better future

The "shutdown" was abrupt...
but the restart will be in phases

March 11, 2020

US airlines carried 70.5 million passengers in Jan 2020, up 5.6 percent YoY

Unemployment was at 3.5% in Feb 2020

- In California, 16K+ NHL fans watched the St. Louis Blues beat the Anaheim Ducks 4-2
- In Denver 18K fans attended a Post Malone concert

Weeks later...

Airline travel from Europe banned. In the US, scheduled flights declined by 23 percent on 30 March 2020 YoY

By April 3, 22 million applied for Unemployment Insurance

- All "non-essential" businesses closed
- Gatherings banned, schools closed and citizens advised not to leave home
- Libraries, motor vehicles and many other state offices closed

There is more to restarting the economy than merely reopening businesses. This isn't about flipping a switch. It's about building and executing a plan that will include transitional stages, and will involve health, business, education and government sectors.

Sources: Bureau of Transportation Statistics; BLS; Global News Forbes,; Cirium; CNJN

Governments will have an unprecedented number of roles to play in restarting the economy

How government leaders communicate about the restart will be critical

- There is a need to douse fears and instill confidence in people. It won't matter if stores are open if no one will go outside

- States should seek inputs from industry associations to develop a plan

While restarting businesses is important, restarting government services will be equally critical

- From transportation to licensing, government activities support and enable economic activity

State government is a large and diverse employer

- The public sector will also employ some kind of phased reopening

- The safety of workers and those with whom they interact will be key

Schools, daycare, and social services to free up workers

- Many workers rely on public entities to educate and care for their children and sick relatives so they can go to work

Government as a **communicator** will provide clear, consistent and adequate communication to all involved in the recovery process.

Government as an **enforcer** will be in charge of making sure protocols are followed and inspections are conducted.

Government as a **designer** will draw out the initial plan, lay down the protocols and guidelines needed to reopen.
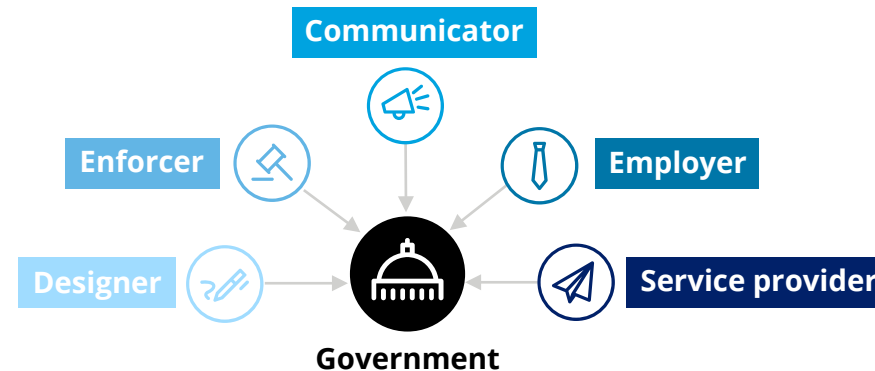
Government as an **employer** will have to ensure staff safety, redeployment and retraining of staff to quickly recover.

Government as a **service provider** will have to rethink delivery of services and create the necessary infrastructure.

Communicator
Enforcer
Employer
Designer
Service provider
Government

Government will have to wear many hats and juggle many responsibilities

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Reopening is a complex task that may shift as circumstances evolve

- **Reopening is one of the most important events in recent history**

- **States are at the center of a complex and highly unpredictable set of facts**

Massive complexity with a huge number of intertwined issues and efforts

Limited resources already spread thin with core government operations

Short, and constantly shifting, timeframe

Facts on the ground and medical advancements are constantly changing

Many layers and parts of government engaged and interacting

White House Reopening Guidelines provide a starting point for states to develop their reopening plans

GATING CRITERION to be satisfied before proceeding to phased reopening

Symptoms
Downward trajectory of influenza-like illnesses (ILI) reported within a 14 day period **and**

Downward trajectory of covid-like syndromic cases reported within a 14 day period

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 (flat or increasing volume of tests)

Hospitals
Treat all patients without crisis care **and**

Robust testing plan in place for at-risk healthcare workers, including emerging antibody testing

Phase 1 (for states and region that satisfy gating criterion)	Phase 2 (For states and regions with no evidence of a rebound and that satisfy the gating criteria a second time)	Phase 3 (For states and regions with no evidence of a rebound and that satisfy the gating criteria a third time)

Individuals
- Vulnerable individuals to continue shelter in place
- Social setting of more than 10 people to be avoided where appropriate distancing may not be practical
- Minimize non-essential travel

- Vulnerable individuals to continue shelter in place
- Social setting of more than 50 people to be avoided where appropriate distancing may not be practical
- Non-essential travel can resume

- Vulnerable individuals can resume public interactions but should practice social distancing
- Low risk population should consider minimizing time spent in crowded environments

Employers

Service areas to reopen
- Schools and daycare, bars, visits to senior living facilities and hospitals to remain closed
- To open under strict protocols – large venues (restaurants, theaters, sports facilities, etc.), elective surgeries, gyms

Service areas to reopen
- Schools and daycare, and bars to re-open
- Large venues can operate under moderate physical distancing protocols
- Gyms can remain open and elective surgeries can continue

Service areas to reopen
- All services to re-open

Source: White House

The National Governors Association (NGA) has published a guide for critical reopening decisions

Building the public health infrastructure

1 Expand testing capacity and make testing broadly available

2 Strengthen public health surveillance to understand the spread of the disease and rapidly detect outbreaks

3 Dramatically scale capacity for isolation, contact tracing, and quarantine

4 Ensure the healthcare system can respond to potential surges

5 Protect essential workers and at-risk populations

Creating and executing a plan to gradually reopen economy

1 Develop a strong and clear communication and public engagement plan

2 Create a framework for reopening

3 Set the criteria and define the stages for reopening

4 Build partnerships between public and private sectors to implement the plan

5 Prepare to assess and improve the plan frequently

"There is substantial consensus among national experts that significant preparation will be required by state and national leaders to scale up the required public health infrastructure to limit outbreaks. States will also need to develop plans for a careful, staged reopening that protects the public's health while laying a strong foundation for long-term economic recovery"

Roadmap to Recovery, NGA

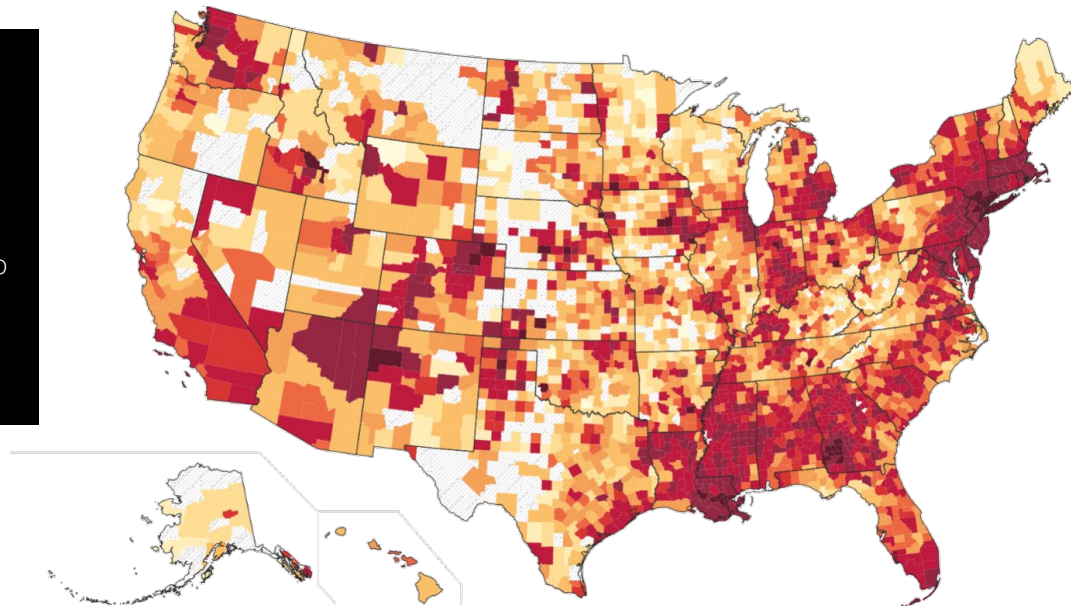Source: National Governors Association, "Roadmap to Recovery", April 22, 2020

States and regions are developing their own plans

Governors have to think about this at three levels –counties, regions and states.

Pacts across regions and states for reopening

California, Oregon, Washington, Colorado and Nevada
- Formed The Western States Pact –a shared vision for reopening their economies and controlling COVID-19 into the future
- Framework prioritizing joint efforts, residents health, and scientific decisions

Michigan, Ohio, Wisconsin, Minnesota, Illinois, Indiana and Kentucky
- Co-ordinating to restart
- Reopening decisions based on recommendations from business, health care, education, and labor experts.
- Focusing on control of new infection, social distancing protocols, sufficient health care capacity, effective tracing and tacking measures
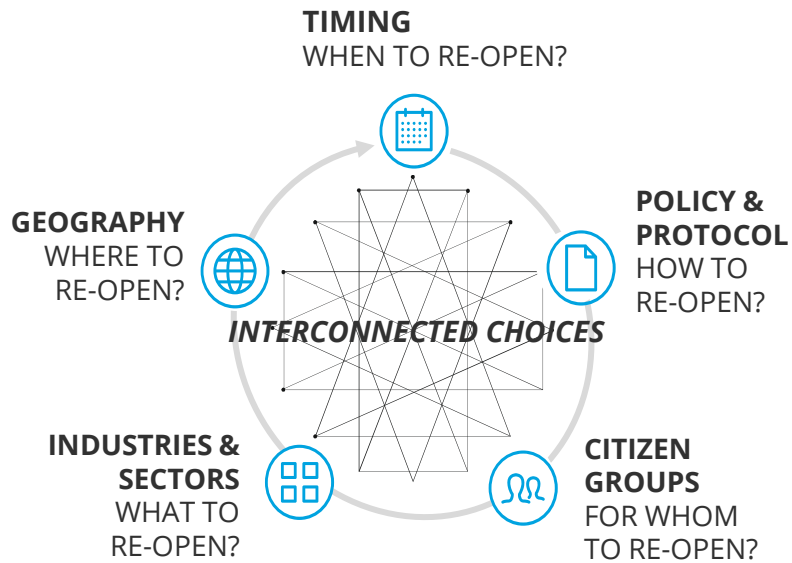
New York, New Jersey, Connecticut, Pennsylvania, Rhode Island, Delaware and Massachusetts
- Co-ordinated restart in phases
- Ramping up availability of rapid tests and new antibody test to certify recovered individuals
- Developing regional testing protocols

Florida, Mississippi, Alabama, Georgia, South Carolina and Tennessee are working on a plan to reopen businesses in the region and ensure citizens' safety as they return to work. Each state is issuing safety guidelines for reopening businesses.

Confirmed Cases of COVID-19 per 100,000 People

Bar sizes reflect number of counties in segment

No Data   5   10   20   40   60   80   100   250   > 1,000

Sources: Covid19 Case Mapper (data as of April 29) CDC, CNN, National review, New York State, Office of Governor, Bangordailynews

Reopening is a multi-dimensional challenge requiring real-time, data-driven decision making

Illustrative State reopening plan

INTERCONNECTED CHOICES

TIMING WHEN TO RE-OPEN?

POLICY & PROTOCOL HOW TO RE-OPEN?

GEOGRAPHY WHERE TO RE-OPEN?

INDUSTRIES & SECTORS WHAT TO RE-OPEN?

CITIZEN GROUPS FOR WHOM TO RE-OPEN?

Informs

	1. RESPOND: CRISIS ECONOMY AND DISEASE DAMPENING	2. RECOVER: TRANSITION ECONOMY AND DISEASE VIGILENCE		3. THRIVE: NEXT ECONOMY AND DISEASE RESILIENCE
	Crisis/ shutdown	**Phase 1**	**Phase 2**	**Phase 3**
Allow	• Hospitals • Grocery stores & pharmacies • Delivery food services • Liquor store (e.g., package stores) • Banks/financial institutions	• Certain offices & white collar work settings open (e.g., state gov't) • Public transport (constraint riders) • Restaurants & bars (with distancing restrictions) • Beauty and personal care services	• Gov service offices (DMVs, benefits, etc.) • Malls & large retail centers • Sports • Gym & health fitness centers • Schools and universities	• All normal activity
Restrict	• Everything outside of "essential businesses" (e.g., above) • Schools and universities • Travel out of state • Gatherings >10 people	• Gyms & health fitness centers • Malls & large retail centers • Move theaters & arts centers • Large sporting events • Gatherings >20 people	• Amusement parks • Public pools	• n/a
Suggest	• Mandatory or recommended stay-at-home-orders and/or curfews • Hours for vulnerable populations • Use of face masks	• Continued use of face masks • Limitations on store hours • Limitations on store & restaurant capacity • Limitations on # riders in public transit	• Business & health surveillance mechanisms • Policies for renewed lockdown if 2nd or 3rd wave	• Some restrictions on travel • Some restrictions on conferences & large gatherings
Do	• Make available testing for COVID-19 • Negotiations for PPE for hospitals • Social distancing requirements • Self-quarantine for 14 days if experiencing symptoms	• Testing for individuals spreading the virus at a higher rate • Mass testing for COVID-19 • Testing for antibodies • Contact tracing	• Intensive monitoring for 2nd or 3rd wave	• Business monitoring of employees' health, temperatures, infection, etc.

TRIGGERS — TRIGGERS — TRIGGERS

States will need to define and monitor triggers appropriate to their circumstances

Successfully operationalizing indicators will bring its own challenges

Some examples

Symptoms
- Downward trajectory of influenza-like illnesses (ILI) reported within a 14 day period
- Downward trajectory of COVID-like syndromic cases reported within a 14 day period

Resources
- Contact tracing protocols
- Hygiene protocols for public spaces
- Supply of PPE, swabs and medical equipment

Testing
- Testing capacity
- Serological and antibody testing

Cases
- Downward trajectory of documented cases within a 14-day period
- Downward trajectory of severe cases requiring hospitalization

Hospital capacity
- Ability to treat all patients without crisis care
- Robust testing plan in place for at-risk healthcare workers, including emerging antibody testing

States will need to monitor triggers in real time for an early warning at a granular level for decision making. They might need to consider other variables that deal with interdependencies in their state and also pick the right triggers for their industries.

Source: Deloitte

Different triggers: Lessons from other countries on reopening the economy

Key health data triggers

Austria

- Cases: 1,600 per million
- Hospitalization: Only 25 percent of the country's ICU capacity was used
- Days taken to double the rate of infections: Two weeks

Lesson: Reopen the economy once health care capacity can accommodate existing and new cases and the growth of new cases has slowed down considerably.

South Korea

- Tests performed: More than 610,000
- Positivity rate (% of people found to be positive in tests): 1.8 percent
- Testing per million: 10,862

Lesson: Aggressive testing and tracing of individuals so that positive and symptomatic cases can be quarantined, and economic activity can be continued in non-hotspots. South Korea did not implement nation-wide lockdown.

Germany

- Excess health care capacity: 12,000+ ICUs vacant
- R0 (one person infecting other person): 0.9
- Lowering of mortality rate
- Anti-body tests: Plan for mass testing of anti-bodies as economy reopens

Lesson: Reopen the economy if health care capacity can accommodate new cases and R0 is below 1. Launch large-scale antibody tests to assess infection rates and monitor the spread

* The impact of reopening in these countries will be known only in the future
Sources: Foreign Policy; Ministry of Health and Welfare, Korea, Business Insider; Robert Koch Institute

Risk stratification: Analyzing different types of risk

PEOPLE RISK – BASED ON WHO YOU ARE

- **Susceptibility risk -** Some populations are much more likely to suffer severe symptoms from the disease, including hospitalization and death. Key risk factors include age, and underlying conditions such as obesity, diabetes and hypertension.
- **Mitigation strategy -** Identify the high-risk group and accommodate high risk individuals. In Austria, some 90,000 employees were classified by the government as being in a higher risk group for the coronavirus; they will receive a letter establishing their right to telework or paid leave even after measures are lifted.

ACTIVITY-BASED RISK – BASED ON WHAT YOU DO

- **Transmissibility Risk** – Close and frequent human interactions increase the likelihood of contracting the virus. Physical proximity, such as working or living with others, or the use of mass transportation (trains, buses, planes, elevators, etc.) enables spread of the infection.
- **Mitigation strategy -** Social distancing, masks and other forms of personal protective equipment, and strong personal hygiene such as handwashing. Government in the UK and elsewhere have issued guidance on social distancing measures for workers in construction, manufacturing, logistics businesses and retail respectively.

AMBIENT RISK – BASED ON THE ENVIRONMENT AROUND YOU

- **Health Environment Risk** – Many factors about the external environment influence both the likelihood of coming into contact with the disease as well as the consequences of doing so. These include the prevalence of infectious individuals in your area, the treatments and health care available, and other factors such as air quality.
- **Mitigation strategy -** Understand the community levels of disease, including those with acquired immunity, and other data around the extent of sick and immune people in the local population.

## Advanced analytics to guide decision-making

Community risk metrics

Aggregating a variety of "signals" from traditional and non-traditional sources to understand the relative risks in a given region.

Statistically comparable regional analysis

Use statistical matching methods to identify other regions with similar risk profiles and demographics for comparison. Measure how likely an infection is to spread within the community due to factors like density, commutes, and frequency of infection spread in hospitals

Simulation modeling

Model feeds into dashboard and decision support framework – helps illustrate how changes like holding a large one-time event or relaxing restrictions on restaurants might bend the infection curve
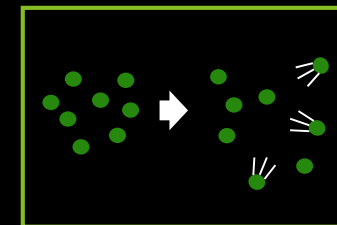
How does moderate social distancing among a large swath of the population (e.g. closing bars) affect the trajectory, as opposed to preventing a smaller number of highly concentrated gatherings?

Sources: Metropole, Gov.UK

Reopening: An industry and risk perspective (Illustrative)

Information is a classic work at home industry. It is an essential and it has the least amount of risk of transmitting or spreading virus at workplace.

Arts, Entertainment and Recreation is high risk/low in terms of an essential industry. Firms, in this industry require either their workers or consumers to gather at one place. These industries were shut early.

Transit and Ground Passenger Transportation is extremely risky but also very important. The other industries have dependency on this industry. This will be one of the most difficult sectors when it is time to resume full service.

Value added: The economic value added by an industry
Essential: How essential is the industry to keep running the economy

Risky: Risk of transmitting or spreading the virus depending on whether an industry can maintain social distancing and other safety protocols

Current status: Whether the industry is shutdown, open or partially open

Illustrative view of industries, their value addition and risk of spreading virus

Industry	Value added ($B)	How essential (Scale: 1-5, 1=less essential, 5=most essential)	How risky (Scale: 1-5, 1=less risky, 5=risky)	Current status (Scale: 1-5, 1=not shut down, 5=shutdown)
Finance, Insurance, Real Estate, Rental and Leasing	4,490	3	1	1
Professional and Business Services	2,750	3	1	1
Manufacturing	2,360	3	3	3
Information	1,120	4	1	1
Construction	880	2	3	2
Retail	640	1	4	5
Hospitals	520	5	5	3
Utilities	340	5	2	1
Educational Services	260	3	3	4
Arts, Entertainment and Recreation	240	1	5	5
Food and Beverage Stores	160	5	4	1
Air Transportation	150	2	5	5
Transit and Ground Passenger Transportation	50	4	5	4

Note: The importance, employment, mix across and within categories, etc. will impact ranking and vary by region

Sector priority and risk mitigation

Focus on mitigation for essential sectors
Even at the height of the pandemic, certain sectors have remained operational, including critical health providers, prisons, grocery stores, and other essential activities. There is little option but to keep these open, but optimum mitigation strategies should be employed.

Develop data-driven plans for phased sector openings, mitigation
Critical economic activities, and those with limited risk, should be prioritized. In addition, sectors that enable more widespread economic activity such as mass transit or education and day care, should also be given priority. Data-driven analysis of both economic impact and likelihood of transmission should drive decisions.

Develop concrete plans for large-scale activities
Activities such as mass transit, public education, correctional facilities, and nursing homes merit detailed analysis and concrete mitigation strategies. In many countries, education ministries are developing guidelines for hygiene measures, school bus operations, break times and group division that meet social distancing guidelines.

Examples of possible rules for school reopening

Staggered schedules with classrooms at half capacity

No sports or music (due to increased risk of infection)

1.5-meter (5-foot) spacing between desks

Masks required when coming to school

Hygiene protocols, facilities for washing hands and adequate supplies of disinfectant

Special emphasis on graduating classes, the oldest primary school children and students who are taking exams

Risk mitigation strategies should begin with essential sectors, cascading into other economic activities. Phased sector openings and reopening large-scale activities merit comprehensive and data-driven mitigation strategies.

Source: The Local.de

Each state may need unique approaches to recovery activities...

GEOGRAPHY
Prioritization (in-state and across region) will be key

INDUSTRIES & SECTORS
Not all industries and sectors will re-open at the same time

POLICY & PROTOCOL
Guidance is critical since reopening is not returning to normal

COMMUNICATIONS
Messaging to the right audience

- Regions with lower infection rates and less potential for spread can be opened up more easily;
- After the formation of natural immunity, especially areas and regions with high immunity can be open;
- Regions with free capacities in health care can be opened up more easily.

- Sectors with a low risk of infection, e.g. highly automated factories, and less vulnerable persons, e.g. day-care centers and schools, should be opened first
- Complementarities between sectors must be taken into account. For example, many people with children cannot go to work when day-care centers and schools are closed;
- Sectors where home office and digital technologies can be used well have less priority than sectors where this is not possible;
- Sectors that generate high employment and economic activity in a given region should be considered as a criterion for priority opening;
- Priority should be given to easing restrictions that imply high social or psychological stress.

- Release guidance on personal hygiene, workplace place, physical distancing a few days before reopening;
- Devise guidelines on percentage of workforce that can come back to work;
- Before reopening, consider developing immunity certified workforce to mitigate spread of the virus while handling personal information discreetly.

- Devise targeted communication plans for areas and industries that are reopening first;
- Communicate to clarify questions on reopening;
- Clearly explain the reasons for not opening certain areas and industries.

Sources: IFO Institute; Deloitte Insights; Deloitte   40

Reopening strategies from other countries*

Countries around the world are gradually easing up on their lockdown restrictions in phases, while following strict social distancing and hygiene protocols

Country	Construction and manufacturing units	Non-essential stores**	Kindergarten/ primary schools/ day care centers	High schools/ Universities	Car dealerships, bike shops	Non critical health care/ elective surgery	Salons and personal care	Restaurants/ cafes	Shopping centers/ Theaters/ Museums
Austria	Reopening shortly	Reopening shortly	Limited capacity	Reopening shortly	Reopening shortly	Reopening shortly	Reopening shortly	Reopening shortly	Reopening shortly
Australia	Limited capacity	Limited capacity	Reopening shortly	Not opened	Not opened	Reopening shortly	Limited capacity	Reopening shortly	Limited capacity
Czech Republic	Not opened	Reopening shortly	Not opened	Not opened	Reopening shortly	Reopening shortly	Not opened	Reopening shortly	Reopening shortly
Denmark	Limited capacity	Limited capacity	Re-opened	Not opened	Not opened	Reopening shortly	Reopening shortly	Reopening shortly	Not opened
Germany	Limited capacity	Re-opened	Reopening shortly	Reopening shortly	Re-opened	Not opened	Reopening shortly	Not opened	Re-opened
Iceland	Not opened	Limited capacity	Limited capacity	Reopening shortly	Not opened	Reopening shortly	Not opened	Limited capacity	Not opened
Italy	Reopening shortly	Reopening shortly	Not opened	Not opened	Reopening shortly	Not opened	Not opened	Not opened	Not opened
New Zealand***	Reopening shortly	Reopening shortly	Reopening shortly	Not opened	Reopening shortly	Reopening shortly	Not opened	Re-opened	Not opened
Norway	Limited capacity	Limited capacity	Re-opened	Not opened	Limited capacity	Limited capacity	Re-opened	Limited capacity	Not opened
Spain	Re-opened	Not opened	Not opened	Not opened	Not opened	Not opened	Not opened	Not opened	Not opened

*This information is as of April 29th 2020
**Small shops, garden centers, laundries, stationery and bookstores
***New Zealand reopened non-essential stores, cafes and restaurants on April 27th, but only for online delivery or pick-up
Note: Taiwan and South Korea did not enforce nation-wide lockdown so most of the activities were open in both the countries with a few restrictions. China has also re-opened many of its sectors.

Re-opened
Reopening shortly
Remained open with limited capacity
Not opened/ reopening in later phases
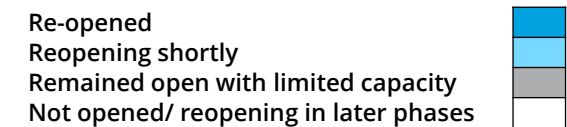
Sources: The Guardian Reuters, CNN, TIME, Business insider, US News, WSJ, The Guardian, Reuters, StraitTimes, RNZ, NZ Herald, TVNZ, Dailyforex, ABC, ABC, NewsHub, Dailymail, Telegraph, IcelandReview, IcelandReview, WSJ, Deloitte COVID –19 Government response portal, Reuters, Ruptly, Automotive Logistics
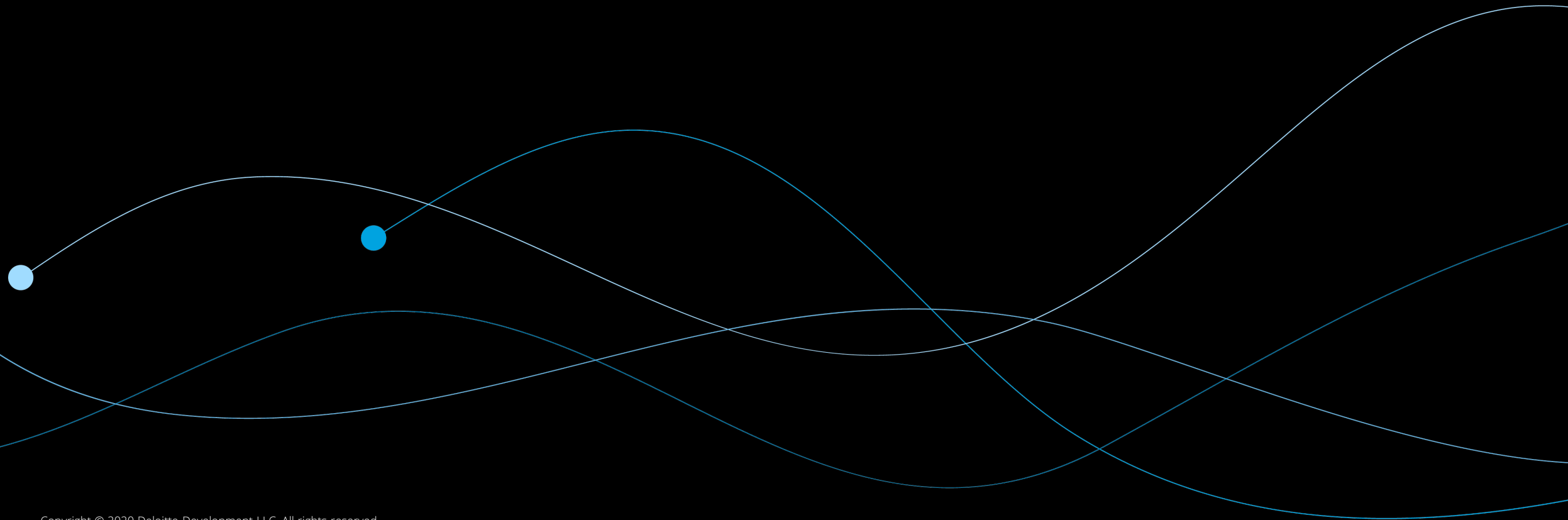
Reopening strategies vary between countries

Lessons can be learned from other countries on how to reopen different sectors of the economy

	Schools	**Retail Shops**	**Workplaces**
Austria	**Staggered schedule; prioritizing graduating students** • Reopening from May 4th. First resuming high school classes which have school leaving exams • Some students will learn in shifts with half students attending school in the first half of the week and the remaining attending in the second half of the week. No afternoon teaching, sports or music classes	**Reopening smaller shops with guidelines on social distancing and wearing of PPEs** • Reopened small shops of size 400 square meters or less starting April 14th. • Only one customer at a time for every 20 square meters is allowed. Compulsory for all customers to wear masks	**Identified high-risk employees to continue to telework** • Unclear on reopening date for workplaces • Identified 90,000 employees who are at higher risk for the coronavirus. High risk employees to continue telework or paid leave after measures are lifted
Germany	**Prioritizing graduating students and those expected to take exams; limiting class size; and physical distancing of desks** • Reopening from May 4th. Focusing on graduating classes, oldest primary school children and students who are expected to take exams in the coming year • Spacing of 5 feet to be maintained between desks. Local variation in guidelines across regions. Example Hesse is maximizing class size to 15 students, Saxony is holding classes only for subjects relevant to the exams	**Reopening smaller outlets with social distancing mechanisms in place** • Reopened stores of size 800 square meters or less starting April 20th • Shoppers have been asked to maintain 5 feet distance from each other • Some big stores have cordoned off a smaller area to meet 800 square meter rule	**Updating occupational safety standards for employees returning to work** • Employees recommended to work from home wherever possible • Additional occupational safety standards have been issued by Federal Minister of Labor for employees who have to return to work
Denmark	**Reopened for lower grades under strict hygiene and distancing protocols** • Reopened on April 14th for lower grades (students up to 12 years of age) • High schools and universities to reopen mid-may • Student desks have to be 6.5 feet apart. Handwashing every 2 hours has become routine. Only a small group (3-5 children) are allowed together on the playground.	**Most shops remained open with guidelines on hygiene and distance** • Many non-essential shops remained open during the lockdown period however customers need to comply with guidelines on hygiene and distance	**Reopened for companies facing productivity losses; guidelines on social distancing** • Reopened on April 14th particularly for companies facing productivity losses. All other companies recommended to continue work from home • Guidelines issued by Danish Business Authority on workplace protocols including spreading employees across premises, working in shifts etc.

Sources: Reuters, Express, Bird & Bird, The Local, Metropole, The Guardian, The Guardian, The Guardian, Express, Reuters, The Hill, KCRW Berlin, DW, Lexology, BBC, WSJ, NPR

MANAGING THE STATE RECOVERY PROCESS: COORDINATED EXECUTION

Success in the recovery phase requires coordinated success on all fronts

How do we address the health care crisis?

Establish and maintain a safe and healthy environment; oversee testing; ensure hospital capacity and access to treatments

How do we address the economic crisis?

Resume/reopen markets; provide funding to at-risk sectors/businesses; stabilize employment

How do we keep "the business" of government operating?

Resume/reopen offices; manage the State's own Services, Facilities, and Employees during the crisis

Establish education policies, maintain transportation networks, and ensure access to other essentials for the public (may be public, private or a combination)

Governor, executive level, and their designees plan and coordinate the State's actions across the Workstreams

States and local governments face a daunting set of decisions/actions during the recovery phase

The sample decision points and actions listed below illustrate the complexity of the recovery. Close coordination, careful monitoring and real-time adjustments will be needed to speed an effective recovery.

Healthcare

- Monitor COVID-19 cases to detect a possible "second wave" during the recovery
- Resume non-COVID-19 health care services at full scale
- Review overall costs of COVID-19 and secure additional funding
- Define discharging/outpatient conditions and services
- Support health workers post COVID-19 with support and counseling services
- Develop a plan for closing temporary testing facilities and disposing materials/equipment
- Identify potential vaccines for mass-deployment and develop potential roll-out plan
- Establish ongoing relationships/action plan with neighboring state governments
- Establish on-call emergency supplier/supplier networks
- Review county – by – county status to confirm return to stability
- Identify hot-spot, laggard areas on the county or city levels and resolve

Economy

- Execute economic stimulus plans
- Monitor effectiveness of stimulus and other economic recovery plans
- Identify strategies to support struggling industries (e.g. airlines)
- Monitor financial controls
- Manage supply chain risk and resolve issues
- Assess tax strategy based on effectiveness of the recovery
- Provide additional emergency support and/or funding as needed
- Redesign unemployment claims process for greater simplicity/efficiency
- Develop and deploy fiscal support for counties and municipalities facing liquidity issues during the recovery
- Identify unmet needs during the recovery to prioritize and potentially apply for future stimulus funds
- Continue to develop and monitor various economic scenarios for the recovery

Business of government

- Track and disburse recovery funds
- Co-ordinate reopening of government offices
- Track and update regulatory changes
- Support workforce upskilling/ reskilling
- Monitor decline of health care crisis and measure ending health related impacts on all stakeholders
- Model state conditions across health, economy, and citizen activity with particular focus on economic levers
- Estimate impact of different levels of business reopening on scenario modeling and simulation
- Monitor Federal Government policies – focus on economic policies (e.g. tax filing)
- Refortify key supplier networks
- Monitor impact of business reopening measures
- Review programs for supporting business entities and update for current conditions (e.g. need for additional funding)
- Model state budget impact at different stages of reopening
- Propose and simulate new economic regulations' impacts until full resumption of business

How do you address all these issues in an integrated fashion?

Measures

1	2	3	4
Establish a COVID-19 mission control center	**Develop communication strategy to increase transparency and build trust**	**Execution by Network** – with federal and local governments, private sector, academics, non-profits	**Use data, business and technology tools to accelerate recovery**

Source: Deloitte

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1. A unified approach through a COVID-19 Mission Control Center

A COVID-19 mission control center brings together a cross-functional, cross-agency team, structure, processes, and tools to coordinate a state or local government's actions through the crisis. It can enhance the government's ability to quickly move to a proactive and strategic response to the crisis.

Defining guiding principles	**Defining workstreams**	**Developing workstream plans**	**Activating the response center**	**Operating the response center**
The mission control center establishes and defines the overall objectives, decision-making philosophy, investment priorities, and broader governance structure. For instance, managing competing priorities between different agencies and focus areas will be key during the initial recovery period.	Governments need to identify key streams of activities—public health capacity, public safety, communication strategy, recovery task force—and include projects, initiatives, and milestones that need to be undertaken in each.	The next step is to identify the roles, responsibilities, objectives, governance structure, and resources that would help drive activities in each workstream. It's important to identify the right agency leaders to drive each workstream and make granular plans wherever possible.	The center should establish core services and supporting tools, technology, and platforms to operationalize, track, manage, and align workstream activities. There is a need to tap into cross-agency resources and best practices and bring them in to the center.	The mission control center activities need to be driven in an open and transparent environment. It needs to ensure alignment across workstreams and actively manage issues, decisions, and risks to drive activities toward completion.

Source: Deloitte

Mission control center pandemic response activities

What would the command center do?	Benefits
Strategy, Governance & Interagency Coordination	
• Provide subject matter advice to assess and help enhance governance structure, central coordination, protocols, and emergency actions • Assist with communication strategy related to the implementation of protective measures • Provide recommendations regarding resource prioritization	• Better-informed governance model for responding to the pandemic • Optimized resource allocation • Effective standard operation procedures
Incident Action Planning	
• Assist with recommendations for establishing an Incident Command System, which the client would use to manage the incident, coordinate resources, and establish a structure to maximize multi-agency support • Provide recommendations for developing daily priority setting, risk and issue tracking, and incident action planning	• Proactive mitigation of potential risks and issues • Robust command center for coordinating responses • Fit for purpose, executable plans configured for unique crisis events and types
Crisis Communication	
• Identify and coordinate messaging and conduct media trend and risk analysis • Assist with developing proactive communications • Provide recommendations for improving message development & planning	• Increased situational awareness • Actionable communications plan • Effective and clear communications to stakeholders during turbulent times

Mission control centers provide advice and recommendations regarding strategy, coordination, and governance for emergency management, health, and medical organizations responding to crises, including pandemics. They also provide advice and recommendations to establish and maintain command systems to manage incidents, coordinate resources, and establish a structure to maximize multi-agency support.

2. Communicate to develop trust and build confidence in recovery

▶ Convey the right information, at the right time

In a rapidly evolving crisis, short and frequent communications can keep people feeling informed. Transparency fosters trust, and increases the likelihood of voluntary compliance with rules and guidelines.

▶ Communicate decisions impacting businesses

Communicate to clarify any questions that businesses may have on the reopening guidelines. Establish resources such as hotlines to help businesses understand potential assistance programs.

▶ Use communication to build trust with citizens

Build trust by telling constituents what you know and admitting what you don't. Recognize and address the emotions of constituents. Clearly explain the decision to reopen and the measures taken to ensure the safety of government buildings and services.

▶ Obtain buy-in from the workforce

The government workforce, especially at the staff and program manager level, will be executing much of the reopening plan. It is critical to get their buy-in on the plan, set their expectations on the workload, and allay their fears on workplace safety.

Communication is critical. Citizens, businesses, and the public employee workforce will all be looking for guidance on the path to recovery.

▶ Consider the medium

As important as the message, is the medium through which it is delivered. A majority of communication is non-verbal, and emails, chats, and texts may miss the body language required for trust building. Government leaders should consider using video, where possible, to connect emotionally with internal teams and constituents.

Sources: Deloitte Insights; Deloitte

Reopening requires robust communications infrastructure and processes

A communications command center can help drive coordinated, data driven, communications across Paid (Media), Owned (State Websites), and Earned channels (Social media etc.). These could include—

- Broad policy communications

- Identifying and directing citizens to get tested

- Information on what's open and what's not

- Targeted communications to specific towns, regions, cohorts (example people over age 55), etc.

- Messages to business owners with protocols on how to reopen

- Communications for recruiting individuals into "trials"

- Communications encouraging citizens to share their health updates daily

- Social media sentiment analysis

Traditional advertising & marketing technologies, data, and AI can drive more targeting of cohorts

More personalized, individual real time communications to both business leaders, and constituents in all settings (geofenced announcements, could target cohorts of impacted individuals (at risk vs recovered), etc.

A single "Constituent Repository" for all such communications

3. Execution by network

Working together with locals, private sector, academics, non-profits to execute the recovery

A major crisis requires a network of problem solvers. Technology companies, universities, research labs, and other experts can contribute to collective intelligence that increases government's ability to mitigate a crisis.

Tracking recovery with data: Just like public private data partnerships helped countries in East Asia track the transmission of COVID-19, similar data partnerships can help governments analyze consumer sentiments (using social media data) , monitor when the rebound stage has arrived (using restaurant footfall data, road congestion data etc.) or identify the hardest hit industries and regions.

Reviving certain sectors: Partnering with the private sector can help governments revive sectors that have been hit hard by COVID-19. For example, in 2004, Taiwan's government collaborated with the private sector to revive tourism, hospitality and other sectors hit hard by SARS by rolling out aggressive marketing campaigns for each.

Providing social services: Governments can partner with non-profits during the recover phase to increase efficacy of social services. These partnerships can be a source of innovative ideas and new business models for providing social services to population segments most impacted by COVID-19.

Building confidence: Building citizen trust and boosting business confidence will be essential for widespread recovery. Collaborating with industry associations, consumer protection and safety groups can help governments reach different population segments and build the trust needed for citizens to re-engage with the community.
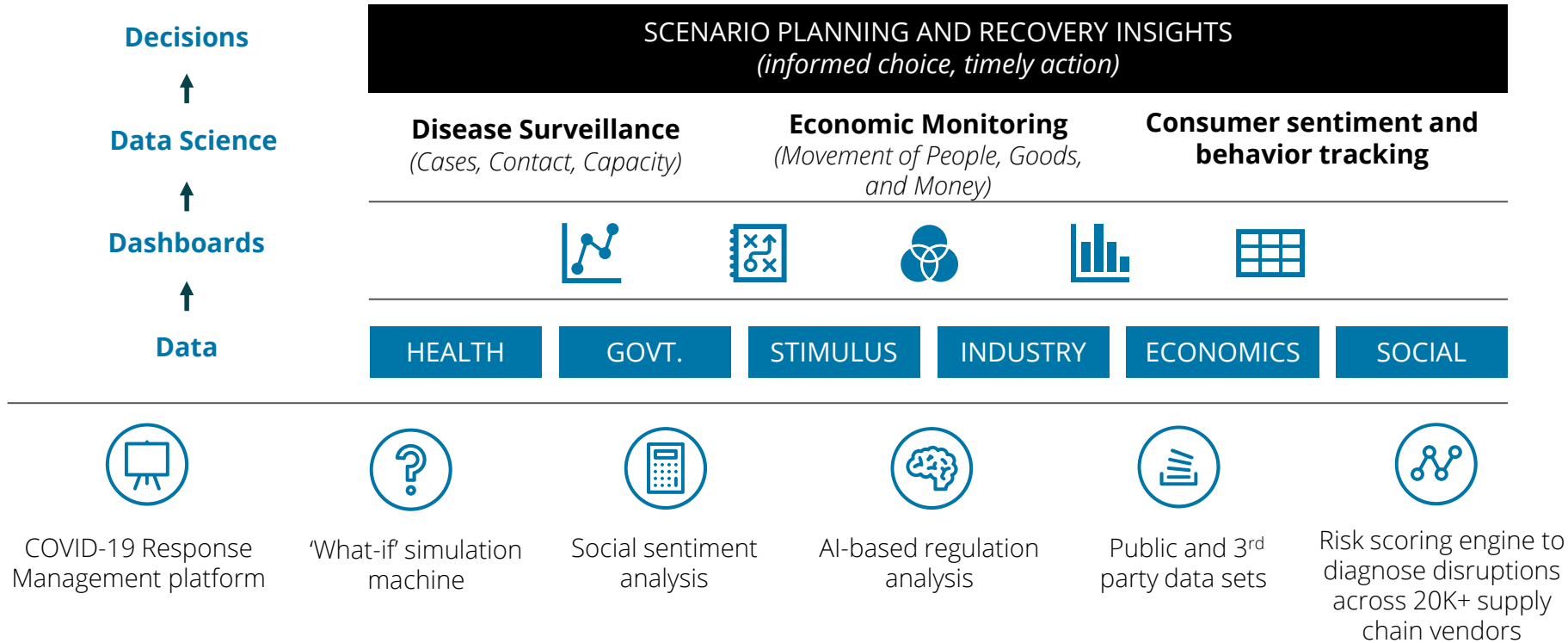
Intra-state collaboration: States would also need to build a broader coalition of counties, cities, and municipal leaders to drive the recovery in the state. Learning from others' success stories, sharing resources, and driving activities regionally instead of in silos will make the recovery process efficient.

Source: Deloitte

4. Data and analytics should underpin decisions

Integrating multiple sets of data can help governments make sense of the chaos and model various scenarios

Decisions

↑

Data Science

↑

Dashboards

↑

Data

SCENARIO PLANNING AND RECOVERY INSIGHTS *(informed choice, timely action)*		
Disease Surveillance *(Cases, Contact, Capacity)*	**Economic Monitoring** *(Movement of People, Goods, and Money)*	**Consumer sentiment and behavior tracking**

HEALTH	GOVT.	STIMULUS	INDUSTRY	ECONOMICS	SOCIAL

COVID-19 Response Management platform

'What-if' simulation machine

Social sentiment analysis

AI-based regulation analysis

Public and 3rd party data sets

Risk scoring engine to diagnose disruptions across 20K+ supply chain vendors

Integrated data will be needed to:

- Monitor and predict disease spread
- Prioritize government services
- Prioritize sectors and industries for opening
- Model interventions
- Plan care measures for vulnerable populations
- Monitor and influence citizen sentiment

Source: Deloitte

Tools to accelerate recovery

Technology tools and potential applications

Cloud Computing
Foundational technology for AI, sensors, and drones

Facial Recognition
Authenticating citizen identity and tracking attendance in workplaces

Drones
Enforcing physical distancing rules for residents and inspections of facilities through drones

Advanced data analytics and AI
Accelerating development of vaccines and supporting data-driven decision-making

Social Media Technologies
Understanding citizen sentiment during times of crisis and monitoring misinformation and fake news

Sensors
Tracing and tracking quarantined and positive cases

Business tools and potential applications

Behavioral insights and nudging
Nudging people to follow workplace safety and personal hygiene protocols

Scenario Planning
Testing resiliency of government operations against various scenarios

Networks and ecosystems
Collaborating with other governments, companies and universities to accelerate economic recovery
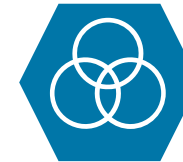
Human-centered design
Making relief funds easier to navigate by focusing on customer experience

Collective intelligence
Accelerating the development of drugs and vaccines by tapping into the wisdom of crowd

Sensing and horizon scanning
Anticipating second or third waves of outbreaks or predicting changes to business models

Sources: Deloitte Insights; Deloitte.

Leadership in the recover phase

As the immediate crisis recedes and governments begin moving to the new normal, leaders' jobs will change. They'll need to focus on communicating across boundaries—between government and industry, between layers of government, and among various agencies. The self-interest of different players may be put aside during the crisis, but during recovery, political considerations and different interests will reemerge.

Government leaders will also play a critical communication role in cutting through the noise to foster citizen confidence and trust that it is safe to reengage with the larger community. This trust will be essential to widespread recovery. While the focus may shift toward the economy and the business of government, data-driven vigilance must continue to help prevent additional waves of the virus from catching regions unaware. A dashboard of both medical and economic indicators, for instance, can help track progress throughout recovery.

Source: Deloitte Insights

What's next after recovery?

State and local governments will get through this, and when they do it is important that they emerge stronger and more resilient than ever before. For that to happen, leaders need to understand that the decisions made today will set the stage for the long term.

For example, this crisis has prompted many state agencies to employ telework to a much greater degree than ever before. As the recovery progresses, the flexibility afforded to state leaders is likely to diminish. So how telework is integrated in the transition back to the office can shape the workplace for years to come.

In the same way, there are a number of emerging tools that could enable state and local governments to thrive in the future (see figure on right).

State and local governments aren't going to be returning to anything like it was in the past. The window of opportunity is open right now, and state leaders can make sure that this recovery leads us to a brighter future.

Preparing for the next normal: Tools that can make state governments more resilient

Digital workflows	Data Analytics	Cloud Computing
Tele-medicine	Telework	Distance Learning
Job-centric upskilling	Artificial Intelligence	Human-centered design

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