



Bipartisan Policy Center

**Loosening COVID-19
Social Distancing
Interventions: Lessons
Learned from Abroad**

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Background

As of the end of April 2020, there are more than 3 million confirmed cases of COVID-19 resulting in over 200,000 deaths across approximately 200 countries.ⁱ While initial containment efforts to identify and isolate cases as well as trace and quarantine close contacts have been attempted to varying degrees of success across the world, virtually every country has found it necessary to also implement community mitigation strategies to slow the spread of the pandemic.

In the United States these strategies, which include personal protective measures, have been previously recommended and utilized to respond to pandemic influenza. For example, school closures, social distancing in workplaces, and postponing or cancelling mass gatherings are thought to slow the acceleration in the number of cases, reduce the peak number of cases and related demands on hospitals and infrastructure, and decrease the number of overall cases and health effects.ⁱⁱ This is, in essence, what “flattening” the pandemic curve is attempting to do.

In response to COVID-19, most states have implemented these specific strategies in addition to broader ones, including stay-at-home orders and closures of nonessential businesses. On April 13, the Centers for Disease Control and Prevention published preliminary evidence from four metropolitan areas across the country showing that using a combination of these strategies reduces community mobility – a proxy measure for social distancing – and are likely contributing to slowing the spread of infections.ⁱⁱⁱ

Over the last several weeks, it appears the United States reached a plateau of approximately 30,000 new confirmed cases and 2,000 deaths daily.^{iv} One caveat with confirmed cases is that testing unfortunately plateaued as well; thus, the percentage of positive COVID-19 tests may be a better indicator to gauge whether testing is sufficiently widespread to provide good data on which policymakers can act. Using that variable, it appears half of the states may not yet be past their peak.^v

Nevertheless, given the significant adverse economic consequences of community mitigation measures, there has been growing pressure to gradually begin lifting social distancing interventions. On April 16, President Trump unveiled the administration’s Guidelines for Opening Up America Again to assist states and localities in reopening their economies while still protecting American lives.^{vi}

Some states have followed suit and taken steps to ease restrictions and have offered detailed plans to do so over the coming weeks and months.^{vii,viii} Various organizations have also shared important guidance documents to support governors in this regard.^{ix,x,xi} There is general consensus that a more robust testing infrastructure which promptly leads to the identification and isolation of cases, a public health system that is well funded and supported to lead contact tracing

efforts, and a health care system with capacity and available personal protective equipment and critical medical material are essential to successfully loosening community mitigation measures.

One additional input that could be important to decision-makers involves analyzing the response of various countries around the world that are temporally similar to or ahead of the United States on their respective pandemic curves and are either contemplating or already in the process of loosening social distancing interventions. Researchers have started tracking and comparing the quantity and strictness of containment efforts and community mitigation strategies across various countries over time through a Stringency Index.^{xii} Continued tracking as the initial pandemic wave recedes will help to assess how countries are loosening government policies. East Asian countries such as China and South Korea are the furthest along in opening up their business sectors, while countries such as Hong Kong and Singapore still have significant restrictions in place after a March spike in infections. Many European Union countries are also in the process of making decisions with respect to loosening social distancing interventions. Table 1 provides a high-level snapshot as of April 28, 2020 of the impact of COVID-19 on various East Asian and European Union countries.

Table 1

Jurisdiction	Deaths/1M pop	Tot Cases/1M pop	Tests/1M pop	Deaths/Tot Cases
Austria	61	1,696	25,189	3.6%
Czech Republic	21	695	20,401	3.0%
Denmark	74	1,502	26,900	4.9%
France	357	2,541	7,103	14.0%
Germany	73	1,895	24,738	4.0%
Italy	446	3,298	29,600	13.5%
Netherlands	264	2,232	11,319	11.8%
Spain	503	4,907	28,779	10.3%
Switzerland	192	3,370	28,343	5.7%
UK	311	2,315	10,605	13.4%
South Korea	5	210	11,869	2.4%
Taiwan	0.3	18	2,590	1.7%
China	3	58	unreported	5.2%
Singapore	2	2,465	20,815	0.1%
Hong Kong	0.5	138	19,426	0.4%

Source: <https://www.worldometers.info/coronavirus/>

While many of these countries are distinct from the United States with respect to their size, form of government, culture, and extent of personal freedoms, lessons from their experiences could be helpful for U.S. policymakers.

To that end, the Bipartisan Policy Center initiated a study to assess how countries around the world are attempting to relax social distancing interventions as they transition from the initial pandemic wave. To assist with

this project, BPC analyzed real-time qualitative data from the Health System Response Monitor – a collaboration of the World Health Organization Regional Office for Europe, the European Commission, and the European Observatory on Health Systems and Policies. BPC also corresponded with experts connected to the Commonwealth Fund’s International Health Policy and Practice Innovations program, reviewed various media reports and published literature, and drew on the expertise of an advisory group (see acknowledgments) which met virtually on April 23, 2020. Focus countries included Austria, the Czech Republic, Denmark, France, Germany, Italy, Netherlands, Spain, Switzerland, the United Kingdom, South Korea, Taiwan, China, Singapore, and Hong Kong.

This white paper includes a case study of Germany’s response and approach to loosening social distancing interventions, preliminary insights from a cross-country analysis, as well as implications and initial recommendations for the United States with respect to loosening social distancing interventions.

German Case Study

Global responses to COVID-19 vary greatly depending on a variety of factors including size, geography, and government structure. There is no-one-size-fits-all response as needs and feasibility differ from country to country. In order to take lessons learned from countries that may be temporally ahead of the United States, it is key that these approaches be feasible politically, socially, and economically in our country.

Germany is comparable to the United States in many ways. Importantly, both Germany and the United States have federal systems of government – meaning power is shared between states and the federal government. As such, we highlight Germany’s COVID-19 response and plans to loosen social distancing measures in order to explore best practices to be considered for adoption in the United States.

Response efforts

Germany has the 6th highest number of confirmed cases with more than 160,000 cases and 6,215 deaths.^{xiii} The country saw its first case on January 27. Since then, the German federal and state governments have taken many steps to slow the spread of the virus.

Germany’s public health response to COVID-19 can be characterized in five essential areas: health communication, physical distancing, isolation and quarantine, monitoring and surveillance, and testing. Targeted efforts in these

areas have led to decreased spread and the ability to reopen the country.

Health communication has been vital in preventing the spread of COVID-19 as these efforts require collective participation. In early February, the German federal government released official recommendations for prevention strategies including hand hygiene, physical distancing when sneezing and coughing, and respiratory etiquette.^{xiv} The federal government leveraged social media to disseminate tutorials for these safety measures. The Robert Koch Institute, or RKI, the government's central scientific institution in the field of communicable disease, also held daily press briefings to communicate information on the outbreak.^{xv}

Another critical prevention measure involves physical distancing since person-to-person spread is the primary form of transmission.^{xvi} Though states can have individual plans, German states and the German Chancellor agreed upon similar measures to delay the spread and alleviate the burden on the health care system. Throughout March, federal and state governments gradually implemented more intense physical distancing policies.^{xvii} By March 16, the head of all states decided to close bars, clubs, theaters, and other social spaces. On March 22, all states implemented more social distancing measures including people maintaining 1.5 meters of physical distancing and a ban on more than two-person gatherings. One state, Bavaria, enforced a curfew. The new social distancing measures were set to end in early April but were extended until April 19.^{xviii} Many states announced fines for those who violate social distancing regulations. In addition to physical distancing policies, the country requires isolation and quarantine for confirmed COVID-19 cases and contact persons.

Monitoring and surveillance measures allowed medical officials to track the outbreak. Germany's RKI regularly updates laboratory testing criteria to ensure those who are most at risk receive testing priority. The criteria for testing have changed throughout the course of the pandemic. In order to determine testing needs, RKI conducted a nationwide laboratory survey. The country has a high capacity for testing with the ability to administer more than 600,000 tests per week.^{xix} On April 9, RKI announced an antibody study to monitor virus more efficiently where nearly 5,000 tests will be administered per day.^{xx} Additional antibody studies are in process to sample individuals in four outbreak areas and a broader study looking at a representative sample of 15,000 individuals across 150 locations in Germany.^{xxi}

The Minister of Health also confirmed Germany's Public Health Service will be deploying team members and utilizing technology to enhance monitoring efforts starting on March 25. All states agreed to have at least one contract tracing team of five public health personnel per 20,000 inhabitants. To support these efforts, public employees from other agencies will provide administrative assistance in identifying and containing COVID-19 outbreaks. If further support is needed in areas of high infection, soldiers and armed forces officials can be utilized. Additionally, the Ministry of Health is providing resources to upgrade reporting software and hardware. These

upgrades will help relieve administrative burden on local health offices as symptoms are currently being monitored through daily house calls. Additionally, a German research institute is developing a federally funded COVID-19 app. Users can receive direct notifications from local health authorities on COVID-19 test results and access contact tracing capabilities.^{xxii}

Germany's Plans to Reopen

Given that there is no vaccine or standard treatment for COVID-19, countries will likely have to adopt a “suppress and lift” strategy. The German government is set to announce official next steps on May 6. However, states generally have the authority to conduct reopening autonomously. As of April 15, German states agreed to gradually lift some social distancing rules including allowing car dealerships, bicycle shops, bookstores, and stores up to 800 square meters to open.

All physical distancing measures will stay in place until May 3 and large gatherings are banned until August 31. In order to decrease transmission while loosening social distancing measures, all federal states have required face masks be worn on public transportation and in stores.

The step-by-step plan is largely contingent upon the virus' reproduction number and the number of newly infected people per day. These data are dependent on the country's testing capacity – both for acute infections and past infections. In fact, Germany only considered reopening once its reproduction rate fell below 1, to 0.7 on April 16.^{xxiii} Scientists suggest a reproduction rate below 1 means the virus will spread slowly and eventually die out.^{xxiv} Testing capacity will serve as a critical public health indicator as these measures can determine the country's ability to deliver necessary care and contain the virus. According to the World Health Organization, countries with extensive testing have less than 10% of their tests come back positive. Germany is well below that benchmark with a positive result rate of 7.5%.^{xxv}

Areas and population groups with relatively low risk of infection are set to open first. On May 4, schools will begin to reopen. Students leaving secondary school or vocational school this year or have qualification examinations will return on May 4. Students in their final year of primary school will also resume classes on May 4, but younger elementary students do not have a return date set. Prior to any students returning to school, the Standing Conference of Ministries of Education and Cultural Affairs of the Länder in the Federal Republic of Germany must develop a plan for teaching with hygiene, social distancing measures such as reduced class sizes, and organization steps to prevent lines or groups from forming.

Bavaria has decided to delay secondary and primary school openings until May 11. Regardless of the reopening date, all schools must adhere to special hygiene standards. Hair and grooming service providers are also allowed to begin reopening with strict hygiene rules.

Due to necessary prevention strategies, economies across the world are suffering. The German government has allocated \$825 billion to support the economy. In addition, German officials have detailed a variety of measures to help the economy and labor market. Economic aid is focused in three areas: extending safety net protections, boosting employment and retention of staff in key sectors, and providing tax relief and direct subsidies. Key to extending social support is expanding childcare to mitigate necessary school and day-care closures. Under the Infection Protection Act, parents who now provide childcare for children up to 12 years of age are eligible to claim compensation for up to 67% of the net income.^{xxvi} In order to support small business, the federal government is distributing a one-time emergency supplement depending on the size of the business.

The Ifo Institute for Economic Research recommends priority for reopening be given to sectors that cannot easily work remotely especially those in the production industry who could aid in manufacturing a vaccine.^{xxvii}

Preliminary Insights

Based on BPC's cross-country analysis, below are eight preliminary insights, along with implications and initial recommendations for the United States.

- 1. Criteria for Loosening Social Distancing Interventions** – Few countries have explicit transparent quantitative criteria to guide decision-making. In Germany, as mentioned above, the basic reproduction number, or R_0 , is continuously monitored by the federal and state governments and must be kept under 1 to manage hospital capacity. The Outbreak Management Team, which advises the government of Netherlands on measures that should be met before social distancing interventions are gradually eased, also recommends the R_0 should be below 1 for a period of time. It also generally recommends 1) the healthcare system, including ICUs, should be no longer working at or above its capacity and should have had time to recover; 2) testing capacity should be sufficient; 3) contact tracing capacity should be sufficient to analyze large numbers of data; 4) and measurement systems should be available to evaluate the effect of the strategy.^{xxviii} In Switzerland, the gradual relaxation of measures depends on criteria including the number of new infections, hospital admissions and deaths, and hospital occupancy rates.^{xxix}

Implications for United States: *Guidelines for Opening America Up Again* specifies gating criteria based on a downward trajectory of influenza-like illness and COVID-like cases reported within a 14-day period, a downward trajectory of documented cases or percentage of positive tests within a 14-day period, and hospital capacity without crisis care.^{xxx} While some plans recommend a sustained reduction of

cases for 14 days, other state plans such as Maryland's call for first, a reduction in the hospitalization rate, including the current ICU bed usage rate, for COVID-19 patients and second, a reduction in the number of daily COVID-19 deaths.^{xxxix, xxxxi} The trajectory of cases or other metrics such as the doubling time of cases may be somewhat limiting until there is a more robust testing infrastructure in place.

Recommendation: States, with the assistance of the federal government, should develop and utilize a uniform and consistent set of quantitative metrics to determine loosening of social distancing interventions that include indicators of epidemic spread, health care capacity, and public health capacity.

2. Timeframe Between Phases – Various countries have specified time lengths between phases of re-opening the economy. For example, Switzerland, the Czech Republic, and Denmark all plan to allow 2-3 weeks between opening up various sectors (e.g., business, schools).^{xxxiii, xxxiv}

Implications for United States: The time period between stages in Guidelines for Opening America Up Again are similar to the initial gating criteria: 14-day reduction in symptoms and cases. Some states reportedly are considering shorter timeframes between phases of opening up nonessential businesses.^{xxxv}

Recommendation: Given the incubation period of the virus is estimated to be between 2-14 days and the time from presenting symptoms to being tested can range from a few days to over a week, two weeks between phases seem the absolute minimum policymakers should wait to assess the impacts of infection spread prior to further opening up of the economy.^{xxxvi}

3. Sequencing Sectors of Economy – Various countries are sequencing the opening of their economy based on the level of risk of transmission in specific sectors. For example, Austria has opened smaller shops and garden centers first with plans to open up bigger shops and malls as early as May, followed by hotels and restaurants; the Czech Republic is largely following a similar sequence.^{xxxvii} Other countries appear to be also taking into account the level of economic importance and disruption to a sector in terms of unemployment. For example, in addition to prioritizing highly automated factories with a low risk of transmission, Germany is considering parts of the manufacturing sector as a priority for opening, given its high value-add to the economy.^{xxxviii} Spain has also reportedly allowed restarting of construction and manufacturing, although many businesses remain closed.^{xxxix} Italy has announced it will begin lifting a nationwide lockdown on May 4 with construction and manufacturing being the first sectors allowed to restart.^{xl}

Implications for United States: Experts have categorized nonessential businesses based on their contact intensity, number of contacts, and modification potential to allow for social distancing. This should guide policymakers with decisions about opening up various sectors based on risk of transmission.^{xli} Other experts

have created frameworks mapping transmission risk by business disruption and recommended prioritizing those sectors with low transmission risk and high business disruption contingent upon occupational safety requirements being met.^{xlii}

Recommendation: Prior to these decisions being made, it is critical that CDC and the Occupational Safety and Health Administration update their guidance for employers to prepare and respond to COVID-19, and it is incumbent that these entities be required to follow the recommended best practices for conducting social distancing.^{xliii}

4. School Openings – Countries differ with respect to the phases during which school openings might occur, and this is further stratified based on the type of school – primary, secondary, or higher education system. Some experts believe the younger the child, the sooner that schools should re-open since younger children cannot learn autonomously, need more in-person care and support, and depend heavily on schools for their emotional and social development. In addition, younger children who aren't able to go to school will then need childcare, further complicating the lives of many working parents; for example, nurseries in Switzerland did not close at all for this reason during its recent pandemic wave.^{xliiv}

Implications for United States: While it appears children are less likely to develop severe COVID-19 infections, there are many outstanding scientific questions with respect to the transmissibility of the virus in children as well as how to best protect high-risk individuals (e.g., older adults, individuals with chronic conditions) who work in a school setting. There is also data to suggest that closing schools may only have a small effect on limiting the spread of COVID-19.^{xliv} Given the school calendar in East Asian countries runs through the summer months, there may be opportunities for the United States to track their experiences.

Recommendation: More research on school closures and guidance on mitigation practices are urgently needed to inform policymakers prior to the start of the 2020-21 school year. Institutions of higher learning should also start preparing and implementing plans to optimize distance learning and ensure the on-campus safety of faculty and staff when public health authorities allow for reopening.

5. SARS-CoV-2 Testing¹ – Initially, many of the countries analyzed noted difficulty ramping up testing due to a shortage of reagents. With the realization that loosening social distancing interventions is incumbent upon increased testing, more countries are now planning to focus on vulnerable populations beyond just symptomatic patients. For example, Austria recently announced plans to test

1 Discussion focuses on testing of the virus as opposed to antibody tests. This is because the latter are still very much a work in progress in terms of their accuracy and implications for immunity; thus, at this time it is difficult to use them as a guide to loosen social distancing interventions.

all personnel and residents of retirement and nursing homes, and Denmark will do the same in the event there is at least one confirmed case of COVID-19 in an institution.^{xlvi, xlvi} Italy's regional experiences in Lombardy and Veneto demonstrate the importance of testing to both protect vulnerable populations and to limit transmission. Veneto's significantly lower mortality rate compared to Lombardy is thought to be partially due to its roughly four-times higher testing rate. In addition to testing vulnerable populations, there is an ongoing regional pilot in Veneto conducting testing on essential workers such as supermarket workers, public transportation personnel, and police officers.^{xlviii} WHO leaders have publicly stated if the percentage of positive cases are less than 10%, then it is likely a country is testing well.^{xlix}

Implications for United States: The United States is learning from the experiences of other countries. For example, in February, South Korea received global attention for its drive-through screening centers which allowed more people to get tested with less social contact. This has been emulated across various parts of the United States. Nevertheless, most of the countries analyzed currently have higher testing per capita than the United States. According to The COVID Tracking Project, the United States performed about 1.5 million tests in the last week.¹ To replicate Veneto's successful testing strategy, the United States would have to increase weekly tests to approximately 5 million. Many of the countries analyzed, such as Austria, Denmark, and Netherlands, have a stated goal or capacity that would be equivalent to an average of 4 million tests per week in the United States.

Recommendation: In other words, the immediate priority for the United States should be to triple current SARS-CoV-2 testing capacity in the coming weeks to support the loosening of social distancing interventions. Testing will serve to provide direct protection to vulnerable populations and indirect protection to the community by identifying and mitigating potential transmission hotspots.

6. Contract Tracing – As described earlier, Germany has provided the most specificity in terms of the number of contract tracers it will require to reduce the spread of COVID-19: five people in public health offices per 20,000 people. During its first pandemic wave, Wuhan, China, required 1,800 contact investigator teams of five people each before the city reopened – approximately one investigator for every 1,200 individuals.^{li}

To support contract tracers, Germany, France, and the Netherlands are considering using voluntary mobile apps with Bluetooth technology for contact tracing.^{lii} All of the East Asian focus countries have used some form of technology-aided contact tracing.^{liii} Singapore uses a contact-tracing smartphone app – TraceTogether – that identifies people who have been within two meters of a COVID-19 patient for at least 30 minutes for follow up action by contact tracers.^{liv}

Implications for United States: Experts estimate to begin loosening social distancing interventions, at least 100,00 contact tracers will be needed to rapidly identify contacts of infected individuals and ensure they self-isolate for 14 days; this effort would require an estimated \$3.6 billion over 12 months^{lv}; other experts have called for \$12 billion to help expand the contract tracing workforce.^{lvi} The

public health infrastructure has been chronically underfunded well before COVID-19; in fact, experts have identified a \$4.5 billion annual gap between what the United States currently spends to build public health capabilities (e.g., surveillance, laboratory capacity, emergency preparedness and response) and what would be required to assure the conditions that people can be healthy. The Public Health Leadership Forum has called on the creation of a new Public Health Infrastructure Fund to address this funding gap.^{lvii}

Recommendation: Congress should address both the short-term contact tracing and long-term infrastructure needs of public health in the next supplemental package to optimally address the COVID-19 pandemic. Partnerships between government and technology companies to develop Bluetooth privacy-protected apps to assist with contract tracing should also be supported and accelerated.^{lviii, lix}

7. Public Use of Non-Medical Masks – Several of the countries analyzed, such as Austria, the Czech Republic, France, and Germany, are mandating the public wear cloth-based masks particularly in areas where social distancing is not possible such as public transport and grocery stores.^{lx} The public use of masks has been common across several East Asian countries as well. In phase one of Taiwan’s social distancing measures, if individuals wear face masks properly, the social distancing recommendations can be ignored.^{lxi}

Implications for United States: Limited data exists for the public use of cloth-based masks in preventing the spread of infectious diseases. Concerns include inappropriate wearing of masks, lack of effectiveness due to moisture retention, and a false sense of security that might reduce compliance with social distancing interventions. Nevertheless, the theoretical promise of physically blocking droplets spread from a cough or sneeze particularly in someone otherwise asymptomatic has led to recommendations and in some cases, mandates for their use in public particularly when social distancing is not possible. While the CDC has made such a recommendation, various counties, cities, and states across the United States are now mandating the use of face masks in public or upon entering stores.

Recommendation: Given that this trend will likely continue, the CDC should launch a national awareness campaign to teach Americans best practices with respect to making, donning, doffing, disinfecting, and maintaining cloth-based masks. Central to this campaign must be the key message that masks do not in any way replace personal protective measures or social distancing but rather complement these strategies.

8. Communication – Winning the public’s trust is critical in any public health crisis. The vice president of Taiwan, also a prominent epidemiologist, provides regular public service announcement broadcasts from the office of the president about key public health aspects of the response.^{lxiii} In Switzerland, even though the

federal government has introduced relaxations of social distancing measures, the recommendations to the general population are: “Stay at home whenever possible and avoid unnecessary contact. Stay at home and go outside only if it is really necessary. If you are older than 65 or you have some pre-existing condition, then it is strongly recommended that you stay at home unless you need to see a doctor.”^{lxiii}

Implications for United States: Messaging to the American public from the White House needs to be clear, transparent, and evidence-based with scientific information delivered by the nation’s leading medical experts.

Recommendation: *The President’s Coronavirus Guidelines for Americans should not be allowed to expire on April 30^{lxiv}; they should be renewed for another month and then updated based on epidemiological data available at that time. These are general recommendations supporting personal protective measures and social distancing that will help Americans slow the spread of the pandemic.*

Future Directions

This white paper provides some preliminary insights on how several East Asian and European Union countries are loosening social distancing interventions. Given that suppression and lifting of these interventions will be a part of each country’s response plans for the foreseeable future, additional cross-country analyses may be helpful to U.S. policymakers. Future analyses should build on this initial effort in the following ways:

1. Additional topic areas should be covered such as providing temporary housing to those with confirmed cases of COVID-19 or close contacts who cannot or should not recover in the home setting due to the likelihood of spreading the virus to family members. While China forcibly moved close contacts into out-of-home settings, experts believe this had a significant impact in reducing transmission.^{lxv} Taiwan provided hotel rooms for those who could not do so at home.^{lxvi} France is now considering this as part of its plans after its lockdown period.^{lxvii} In the United States, while individual jurisdictions are partnering with local hotels to house COVID-19 cases or close contacts, a much more comprehensive nationwide effort may be warranted.^{lxviii} This is especially true since as of April 22, nearly 8 out of 10 hotel rooms were empty across the country.^{lxix}
2. In addition to cross-country analyses, more granular data on smaller areas within countries may give insights into the heterogeneity of responses within a country. Not all areas of a country are impacted similarly by the pandemic at a given point of time. Intra-country analyses could be particularly helpful to the United States, given the reality of individual state decision-making and responses.

3. Additional focus countries may also provide valuable information. Australia and New Zealand have rapidly suppressed the virus through robust responses and are contemplating next steps.^{lxx} On the other hand, Japan's northern island of Hokkaido is experiencing an even more intense second wave of COVID-19 after restrictions were recently lifted resulting in significantly increased social interaction.^{lxxi}

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