

# a guide for restoring the economy that matters to americans WORK IN THE TIME OF PANDEMIC, PHASE I

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## REOPENING AMERICA'S BUSINESSES: GETTING STARTED

Clearly, it is time to get serious about re-opening U.S. businesses & commerce. But the information we need to make smart, safe decisions is neither sufficiently available nor straightforward. And we simply won't have all the information we need in the near future to open the nation in a safe and secure way.

This Guide refers to a **Phase I reopening**, meaning that it does not suggest a plan for a full recovery. That's a process that could take a year - or significantly longer. This is a suggested plan for getting many Americans, though not all, back to work. It does not pretend to suggest a full return to many critical functions that society needs to function, including re-opening our schools, enjoying the things that once enriched our lives from cultural activities to sports and returning to the social interactions that were and will again be our part of our day-to-day existence.

Our entire health care system, from clinics and medical offices to major hospital centers, has been thrown into turmoil; from the great urban academic health care and research centers to the rural counties that have long experienced severe shortages of sufficient medical personnel and facilities, we will need to think long and hard about how we will restructure health care in America for the long haul. Health care in America will never be the same.

**But to even get started in the long recovery process, testing and our ability to identify infected individuals, isolate them, and trace their contacts is key to our ability to slow, then stop this pandemic within our borders.**

At present, our ability to test for the presence of the Coronavirus infection remains far behind where it should be for us to make a rapid diagnosis of a sick patient or understand where we stand in terms of the presence of COVID-19 in our communities. We need to adopt and employ new technologies that are in various stages of development in industry and academic labs around the world to help us trace and manage people who have been in contact with others who have tested positive, as well as define our geographic and demographic priorities for epidemic management.

Stopping the spread of COVID-19 will be extraordinarily challenging, requiring many new developments and strategies. Key elements of solving this pandemic will be both reliable, rapid diagnostic tests and an effective vaccine. Both will have to come at low to no cost for patients and will need to be widely available on the commercial market. Some rapid tests for COVID-19 infection exist now, but those require labs and equipment to operate. Finger stick or saliva tests also exist and have received FDA emergency use approval, but many presently on the US market have been shown to be non-specific or ineffective.

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### A STRATEGIC APPROACH

That said, even in the absence of all the tools we would prefer, **we must start developing active strategies to restart some of our key local economic engines.** Let's break it down, starting with some basic realities:

#### 1. Asymptomatic Carriers

**There are many unknowns when it comes to the virus itself, including what percentage of the population have the infection without symptoms.** In other words, you could be totally well, feeling great, but a test of the mucus in the back of your nose could still reveal the presence of SARS-CoV2, the Coronavirus responsible for COVID-19. In that case you would be considered an "asymptomatic or pre-symptomatic carrier", capable of infecting other people who could actually get very sick from the same virus that caused you no health problems at all. That is why it is key that everyone wears a face covering that helps prevent expelling potentially virus contaminated droplets into the environment. Why some people get very sick and some barely notice any illness is still unanswered

If you are infected, that is your Coronavirus test came back positive although you may have few or no symptoms, you need to be isolated for 14 days to make sure you don't develop symptoms or transmit the virus to others. You would then need two virus diagnostic tests (often called PCR tests) to make sure that you no longer carried the virus. At that point, you could venture out, although for the foreseeable future, like everyone else, you'd need to keep a safe distance from others - because you'll still be vulnerable to catching the virus if you happen not to be immune. And you'll need to wear a face mask or covering to protect yourself and others from inadvertently transmitting the virus.

This entire process could be facilitated in ways that are more comfortable and safer by a rapid test that could ideally be done at home with the results available in moments. Such a rapid testing technology is already in development and awaiting full FDA approval. However, we're still not sure how soon the technology will be readily available everywhere in the country.

#### 2. Testing

**There are two kinds of tests.** The one that we have heard most about is a test, called a "**diagnostic**" test or **PCR**, that actually looks for evidence that components of the virus are present in your body. At this point, the material collected for these tests come from long cotton tipped swabs that collect material through the nose and back into the throat. The swabs are then sent to a laboratory. The new rapid tests are said to be "more comfortable" (less invasive) and yield results quickly.

The other kind of tests, called "**serology**", **measures whether or not a person has antibodies** which are produced by someone who already had the infection. Presumably, antibodies (which once produced by the body help fight the infection) will prevent a person from getting a second bout of COVID-19. That was the case in a laboratory study conducted in Rhesus macaques in China; the monkeys were infected with COVID-19 and could not be re-infected with the same virus once they had recovered<sup>1</sup>.

<sup>1</sup> Bao, Linlin, Wei Deng, et. al. "Reinfection could not occur in SARS-CoV-2 infected rhesus macaques." BioRxiv. Cold Spring Harbor Laboratory. March, 2020.

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Unfortunately, we don't know if the protective antibodies will last for a month or a year - or more, and if everyone will develop them or just most. Eventually we'll know the answers, but not yet. Furthermore, some scientists worry that new vaccines may cause serious side-effect reactions.

We do know that we are very far from doing enough diagnostic tests each week in the U.S. A recent report from the Rockefeller Foundation suggests that we may need to screen as many as 30 million people each week for the next six months, perhaps 4-10 times the number we are testing in late April 2020<sup>2</sup>. In spite of claims from the federal government that we are doing well when it comes to testing, the fact is that we very far behind where should have been by now.

### 3. Contact Tracing & Controlling COVID-19 Spread

A particular overriding guideline for any "re-opening the economy" plan should be: **Any current or recent history of illness should preclude working until additional testing could be done.** Positive COVID-19 tests should initiate an isolation period of 14 days, contact tracing (to identify and test people who may have been in contact with any person who has had a positive test) - and negative tests prior to returning to work. That said, many experts understand that the public health workforce may be entirely inadequate at this point to process tests and we know that we don't have enough existing employees to trace contacts of people who have tested positive.

According to the Association of State and Territorial Health Officials (ASHTO) **we currently have less than 2,500 contact tracers in the U.S. Experts estimate that we may need an additional 100,000 – 200,000 such workers to find and care for Coronavirus contacts** who may be in danger of getting sick or transmitting the disease to others<sup>3</sup>.

And in all cases, **reopened work places will need to enforce physical distancing, require the use of face coverings, permit small meetings only, with adequate spacing of participants, provide hand washing and/or hand sanitizing stations and other measure to reduce the chances of virus transmission.** Businesses that do open are going to have to adapt their operating procedures to the virus. Grocery store and shopping lanes generally should switch to one-way lanes to maintain physical distancing, and all businesses should be required to provide hand sanitizer or handwashing stations.

## RE-OPENING THE ECONOMY

**How will we know that any given community is seeing a significant slowdown in the outbreak?** Basically, we could say that if the community has shown 10 to 14 days of a sustained reduction of overall daily cases, ER visits, hospitalizations and fatalities, we can feel somewhat assured that the outbreak is being controlled, and the unprecedented hospital and health care crisis is coming under some relative control. But it would give us even more confidence if we could actually document a substantial drop in the number of people in the community testing positive for the virus. Again, whether we want to know how prevalent COVID-19 is among our populations or whether we need to determine who can safely be at work versus those who should stay home we need massive up-scaling of our testing capabilities.

<sup>2</sup> National COVID-19 Testing Action Plan: Pragmatic steps to reopen our workplaces and our communities. The Rockefeller Foundation. April 21, 2020.

<sup>3</sup> A National Plan to Enable Comprehensive COVID-19 Case Finding and Contact Tracing in the U.S. Johns Hopkins Bloomberg School of Public Health and the Association of State and Territorial Health Officials.

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**If the above conditions are met, we can talk about getting back to work.** Everybody wants America's economy to start the long road to recovery. The question is how this critical goal can this be accomplished as safely as possible.

One important problem is that if one community is showing real signs of recovery from the outbreak, a nearby community may still be seeing a raging epidemic and serve as an on-going threat to the one that is actually improving. (That is one of the reasons that many experts, ourselves included, have promoted a simultaneous total national shutdown strategy so that we can gain control of the COVID-19 throughout the entire country and reduce the intensity of a second wave of the pandemic.)

### Adapting Business Practices

All businesses, especially those in which people are used to coming into close contact with one another like restaurants, bars, groceries, are going to have to adapt to having fewer customers at a time. Sometimes that is going to make a difference in whether a business can afford to stay open or not.

Here are nine examples of how we can begin to reopen our economy when the pandemic threat begins to measurably diminish:

1. **Organizations or businesses that can function effectively without physically gathering employees together:** Mail order businesses, foundations, non-governmental organizations, many government agencies, customer service organizations, insurance companies and others can and should sustain remote work via a wide-range of digital and internet-based communications.
2. **Retail, sales-based businesses:** Much like grocery stores and pharmacies which have remained open during the crisis, stores should limit the number of people allowed in the facility at any given time. People waiting in lines to come into the store should maintain safe distance from each other. All customers should be wearing masks or cloth nose and mouth coverings. Ideally, they should show documentation that they have tested negative for coronavirus within the previous 10 days, have no symptoms potentially consistent with COVID-19 and be rapid checked for fever prior to entering the store. Also, every employee should be tested for coronavirus at least weekly, wear masks, gloves and possibly face shields. In addition, they should be checked for fever every day as they come to work and asked a few standardized questions regarding the presence of influenza-like symptoms. And, if they feel ill during the day, they should immediately return home.

Plexiglass barriers between cashiers and customers are advisable. Cashiers handling cash or credit cards, as well as workers stocking shelves, should also wear plastic gloves. Needless to say, all surfaces should be appropriately cleaned at least daily. Hand-washing facilities and hand sanitizing stations should be readily available.

3. **Restaurants:** Same as above, plus limiting occupancy, separating tables and so on. In addition, it would preferable for food preparers and servers to be rapid-tested at the beginning of every shift, in addition to checking for fever and asking about recent symptoms. Workers in restaurants should also wear face coverings and gloves.
4. **Personal services:** These include salons, barber shops and so on. They are businesses that by necessity require very close contact between employees and customers. Here, too, every

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employee should be rapid tested for coronavirus at least weekly, with daily temperature and symptom screening. Every customer should receive the same clinical screening plus a rapid coronavirus test on entering the shop. Special care should be taken in cleaning surfaces and sterilizing combs, brushes and so on, as well as maintaining appropriate distancing between waiting customers. Masks and gloves need to be worn by staff; just facial coverings by customers.

5. **Taxis and car services:** All drivers should be tested weekly and screened for fever and symptoms daily – and wear face masks while driving passengers. In addition, surfaces in passenger areas of the vehicles should be appropriately disinfected between each passenger.
6. **Public transportation:** Operators and crews in public facing jobs are at high risk, as are passengers. Partitions should separate operators and conductors from passenger areas. Limitations on the number of passengers on every bus, as well as commuter and subway train cars. All passengers must wear masks and possibly face shields. All Operators should ideally be given a rapid coronavirus test weekly, preferably daily at the beginning of each shift. Disposable plastic gloves should be readily available for all passengers and operators. All public transportation vehicles must be cleaned and disinfected at least once every 24 hours.
7. **Auto dealerships:** This is another vital business which is important to the economy. Auto sales create demand that, in turn, stimulates manufacturing. Special precautions in a dealership open to the public include making sure that employees at all levels of a dealership from receptionists to salespeople and service technicians observe basic guidelines, including physical distancing, frequent hand washing or sanitizing and so on. All employees should, ideally, be tested on a regular basis. Customers must wear face masks and disposable gloves made available by the dealership. Employees must take special precaution to clean and disinfect surface that might well be touched by customers, including door handles, steering wheels, interior buttons, arm rests and so on. This needs to happen before and after car inspections, test drives and so on.
8. **Theaters:** Weekly testing plus daily fever checks and symptom questionnaires for all employees should be required. Masks and gloves for people exchanging money, dealing with credit cards and “ticket handlers”. Maximum capacity in entertainment venues should be reduced so that sufficient separation among attendees can be sustained. All audience members should wear masks and be screened for fever, as well as asked symptom questions before entering the venue.

Performers, actors, production crews and so on should all be tested weekly and checked daily for symptoms and fever. Physical distancing should be part of the rules in these settings, as well.

9. **Museums:** These can possibly be re-opened with rules that are similar to those applied to grocery and retail stores. Guidelines could include sharply limiting numbers of guests in the museum at any one time, all requiring face masks and gloves. Disposable gloves should be available on entry to the museum, fever checks and symptoms questions should be required. All attendants and cashiers should have weekly rapid coronavirus screening, daily fever checks and symptom reviews. Any current or recent history of illness should preclude working until additional testing could be done.

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### CRITICAL BOTTLENECKS

So, when does a real, fulsome return to some kind of sustainable new normal become feasible? As stated earlier, there are several issues which need to be resolved:

As discussed above, first is the issue of **diagnostic tests**. We need to have rapid “point of care” testing for the presence of the virus available everywhere. And we also need to perfect antibody testing to help determine who is and who is not immune to the offending virus. So, when will sufficient testing be available? Hard to say. That’s because the history of the federal government’s attempts to develop and distribute reliable tests is a history of failure and unfulfilled promises over the last few months in responding to the SARS-CoV-2 epidemic. This is particularly perplexing since efforts around previous pandemics and major outbreaks have been successful. At a minimum, under ideal conditions with significant associated costs, this would take approximately 4-6 months to stand up, nationally. This applies to both PCR and antibody testing. And, as detailed above we must have much expanded capacity to identify and trace contacts of people who have tested positive.

Still, the most definitive solution to stopping the pandemic will be an **effective, safe and widely available vaccine** that will prevent COVID-19 from infecting the vast majority of population in the U.S. and across the world. If we’re fortunate a good vaccine could be available by mid-2021.

**Yes, vaccines and treatments may be the light at the end of the tunnel, but the tunnel is long.**

Now what? We all need to hang in there, adapt as best we can, find ways to maintain our humanity, our family relationships - and our sanity – while we’re waiting for COVID-19 to be conquered. That said, **nobody should minimize the absolute need to get America working again – as soon as possible.** Families need to survive and thrive, make a decent living, provide for our children, care for elderly loved ones, save for retirement and enrich our lives and have fun and enrich our lives in the ways that have always been so important to our way of life. We just have to adapt our lives and routines to the new rules imposed upon us by COVID-19.

In the meantime, it is critical that the federal government continues to support the basic needs of a population that has been whipsawed by a public crisis the likes of which we haven’t seen for more than 100 years.

Most important is to understand that no matter what we do now, the country needs to be prepared for a resurgence or even multiple waves of the outbreak. Or if it turns out that a fully protective vaccine does not materialize, it may be that seasonal surges of COVID-19 may become part of our new reality. Under such circumstances, annual imposition of public health control strategies, including limited lockdowns may be in our future. Adaptations and coping will be part of the new norms in the U.S. and across the world. That said, new medications, much better public health control methodologies, effective vaccines and other scientific developments, yet unknown, may yet unlock a future free of deadly pandemics.

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## ADDITIONAL RESOURCES

For additional information, resources, and support, visit NCDP's [COVID-19 Global Pandemic](https://ncdp.columbia.edu/microsite-page/covid-19-global-pandemic) page. This microsite is designed to support and promote the dissemination of factual, evidence-based, up-to-date stories and information in order to combat widespread misinformation and confusion as well as provide thought leadership and best practices for a variety of audiences.

**NCDP COVID-19 Resource Center:** <https://ncdp.columbia.edu/microsite-page/covid-19-global-pandemic>

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