Country Policy Assessment

United States

Last update: March-9-2020

# Rating ([see rating scale](#_3as4poj))

**Red**: Current policies and programs are clearly inappropriate to the current threat level. Immediate action is needed to avoid significant public harm.

# Summary

The US has one of the world's most capable healthcare systems for pandemic response. An apparent reluctance to apply those capabilities against COVID19, however, has led to a growing likelihood of widespread transmission that may ultimately exceed US hospital capacities.

Unavailability of tests, limited screening, minimal restrictions on travel (global or domestic), and no national advisories or restrictions on organizations, public gatherings have contributed to the spread of cases to at least 29 states.

Communication has been problematic with statements from the White House downplaying the danger to public health and sometimes contradicting information from the Center For Disease Control (CDC), and other specialists.

The US should immediately clarify messaging, and apply the tools at its disposal for slowing the spread of this disease. Specific recommendations can be found at the end of this document.]

# Baseline Capabilities

The Johns Hopkins' [Global Health Security Index](https://www.ghsindex.org/) rated the US #1 in the world for pandemic preparedness, while also finding that no country was fully prepared. That report provides the baseline for assessing the US response to COVID-19.

Overall, the country scored 83.5 for preparedness, on a scale of 0-100, with 100 being the best. Scores for individual categories are shown below, followed by the global average in parentheses:

* Prevention: 83.1 (34.8)
* Detection & Reporting: 98.2 (41.9)
* Rapid Response: 79.7 (38.4)
* Health System: 73.8 (26.4)
* Compliance with International Norms: 85.3 (48.5)
* Risk Environment: 78.2 (55.0)

### Political System

Clearly the US has many of the tools needed for combating the virus, assuming only that they be deployed in a timely manner.

[Include here an assessment of the political system, including the mechanisms through which the government might enact various measures. For the US this would mention the nature of the federal system, what additional powers an emergency declaration might bring, etc.]

# COVID19 Specific Concerns

The rapid transmission of the virus demands an exceptional control effort. Several additional factors add to the difficulty of conducting a successful response in the US.

## Travel

The US has more airports than any other nation, and approximately 800 million air passengers each year. More than 100,000 people fly into the country on a daily basis. In the absence of voluntary or mandatory reductions in travel this provides the virus with an extraordinary means to spread quickly throughout the country.

The US also has significant bus/rail/subway local and regional transit systems, especially in and around large urban areas. On a normal weekday, for example, the NYC subway system alone provides more than 5 million rides, with city buses providing another 1.8 million.

## Population Density

82.7% of the US population lives in an urban environment, according to the CIA World Factbook. Urban settings, and large cities in particular, are especially challenging from a pandemic control standpoint.

## Aging population

[Nearly 17 percent](https://www.cia.gov/library/publications/the-world-factbook/geos/us.html) of the US population is over 65 years of age, versus a [global average of 8.9%](https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS?most_recent_value_desc=true). Moreover, there are 1.3 million Americans in nursing homes, which presents an additional significant challenge in protecting an at-risk population living in close quarters.

COVID19 disproportionately affects those above 60, with severity increasing with age. [Data from China showed Case Fatality Rates (CFRs) rising from 1.3% for people 50-59 years of age, to 14.8% for those above 80.](http://weekly.chinacdc.cn/en/article/id/e53946e2-c6c4-41e9-9a9b-fea8db1a8f51) A country with an aging population may be expected to experience a significantly greater load on its national health system (see below).

## Health System Capacity

### Background

Health system capacity has a strong influence on the policy options available to governments. Where capacity is scarce, there is a greater need for policies that minimize illness, by using extensive airport screening to prevent cases from entering the country, for example.

Anecdotally, there appears to be a strong relationship between the load on the healthcare system and outcomes. [In Wuhan, CFR was 4.9%](https://www.worldometers.info/coronavirus/coronavirus-death-rate/#nhc) versus less than 1% in Mainland China outside of Hubei province. Chinese scientists attributed this difference to an overloaded health system in Wuhan.

Given the strong relationship between disease severity and age, we consider population age when looking at the capacity of a nation’s health system. To do so, we introduce a metric called age-adjusted hospital beds.

Number of hospital beds per thousand

divided by

Number of residents over 65 per thousand.

For comparison, the South Korea has the highest score of countries where data is available:

* Percent of population age 65 or older having: 14.
* Population per 1,000 age 65 or older: 140.
* Hospital beds per 1,000: 12.27 (2017 figure)

Age adjusted hospital beds score = 12.27 / 140 = 0.087

### Country age-adjusted hospital beds

The US score is shown below

* Percent of population age 65 or older having: 16.85.
* Population per 1,000 age 65 or older: 169.
* Hospital beds per 1,000: 2.77 (2016 figure)

Age adjusted hospital beds score = 2.77 / 169 = 0.016.

Therefore South Korea, has 5.4 times more hospital beds per person over 65 than the US.

### Country-specific health system details

Given the proportion of severely or critically ill patients seen in other countries, the readiness of the US health system to meet the possible demand is a serious concern. At present, the health system would be inadequate to handle a rapid, nationwide spread of COVID19, should one occur.

There are approximately [924,000 staffed hospital beds of all kinds in the US](https://www.aha.org/statistics/fast-facts-us-hospitals). On an average day about [66% are filled](https://www.statista.com/statistics/185904/hospital-occupancy-rate-in-the-us-since-2001/), leaving approximately 324,000 beds typically available.

ICU beds account for [approximately 14% of all US hospital beds](https://www.sccm.org/Communications/Critical-Care-Statistics), or approximately 129,000. Many of these beds are also full on an average day.

Estimates of the number of beds needed vary, but [one COVID-19](https://www.businessinsider.com/presentation-us-hospitals-preparing-for-millions-of-hospitalizations-2020-3) model predicted a total of 4.8 million hospital admissions and 1.9 million ICU admissions. Given that recovery can take three to six weeks, such a scenario would greatly exceed capacity if many people became ill simultaneously.

A significant number of patients require respirators, which may also be in short supply. The CDC is working on a number of respirator conservation strategies.

# Current Pandemic Status

Currently, the US is rated as **YELLOW** defined as Countries or localities with a few cases of local transmission, but without clusters of community transmission (e.g. Singapore, Germany).

Within the US conditions vary. NY State is currently **ORANGE** (Countries or localities adjacent to Red Zones or with small clusters), while Washington and California are **RED** (Countries or localities that have sustained community transmission).

The official CDC case counts can be found [here](https://www.cdc.gov/coronavirus/2019-ncov/cases-in-us.html). It should be noted however, that the CDC counts are lagging behind state and local counts by a considerable margin, in part because of the accelerating number of cases.

# Assessment of Current Policies

So far US policy has been inadequate to stem or significantly slow the spread of this disease. To date, there have been 448 confirmed cases in at least 29 states. 115 of those cases were confirmed in the past 24 hours.

## Prevention

Current travel restrictions and screenings at international arrival points are insufficient to prevent the continued importation of new cases from outside the country. While the GHS Report rated the US at 100 on the ability to enact trade and travel restrictions, the exercise of that capability has been extremely limited.

On the plus side, the US placed restrictions on travel from China and Iran, but well after China established its own widespread domestic restrictions). Furthermore, those restrictions did not apply to US citizens and permanent residents, who, while warned to avoid to travel to and from China, remain free to do so if they believe their travel is "essential."

There are currently no restrictions on visitors from any country other than China and Iran, and no screening of visitors from any country other than China and Iran. Warnings are posted for travel to Japan, Italy, South Korea, and Hong Kong.

For a listing of all current US travel warnings, see the table below.

CDC Foreign Travel Warnings

|  |  |  |
| --- | --- | --- |
| **Country** | **Warnings for outbound passengers** | **Restrictions on inbound passengers** |
| **China** | Level 3 - Warning: Avoid non-essential travel to China. | Entry to the U.S. permitted for US citizens, permanent residents, family members, and other specialized classes. |
| **Iran** | Level 3 - Warning: Avoid non-essential travel to Iran. | Entry to the U.S. permitted for US citizens, permanent residents, family members, and other specialized classes. |
| **South Korea** | Level 3 - Warning: Avoid non-essential travel to South Korea.  Do not travel to Daegu. | None |
| **Italy** | Level 3 - Warning: Avoid non-essential travel to Italy.  Do not travel to Lombardy and Veneto. | None |
| **Japan** | Level 2 - Warning: Special Precautions for High-Risk Travelers | None |
| **Hong Kong** | Level 1 - Warning: Practice Usual Precautions | None |

Of particular note, there are more than 1,000 confirmed cases currently in both France and Germany, but no warnings or restrictions are in place.

A related concern is that US policy seemingly treats countries reporting few if any cases as if they actually have few cases. Many of these countries, however, have weak health systems, suggesting that the absence of case reports may reflect an issue with detection or reporting, rather than an absence of disease.

## Detection

Screening at entry points is minimal. The US currently performs airport screening only for passengers arriving directly from China or Iran. No land or sea transit points has implemented additional screening.

### Testing

While the US has a very capable lab infrastructure (GHS rating 100), testing to date has been inadequate. Test kits distributed by the CDC were defective and regulation prevented hospitals from using alternate sources for several weeks. As of March 6, it was estimated that fewer than 1,600 people were tested nationwide, as guidelines for testing were restrictive.

Testing is now accelerating with the result that confirmed cases tripled in the past 5 days.

The CDC now tells clinicians to use their judgment in determining whether testing is necessary. However, this is an area of rapid change and it is not clear whether tests are available everywhere they are needed. As of March 8, NY State still did not have permission to all perform tests at one of its labs.

## Health System

In addition to inadequate test supplies, there are concerns of possible shortages of other key supplies, including Personal Protection Equipment (e.g. Masks) for healthcare workers. There have been several reports of health care workers treating COVID-19 patients claiming that available protections are inadequate, or, in one case, that they could not get testing for themselves when they thought it was needed.

## Response

### Communication

Communication about the nature and severity of the disease, and about preventative measures has been mixed at best. While the CDC website contains clear information, other government officials have made statements (e.g. it’s "under control", or "contained") that significantly understate the risk. Numerous comparisons with the seasonal flu have led to public uncertainty about the size of the risk and what actions they should take.

### Domestic Travel

In spite of numerous cases where COVID-19 has reached new locations via domestic travel, there are no restrictions, warnings, or recommendations in place regarding domestic travel.

### Closings

There have been no national recommendations or requirements with regard to closing schools, businesses, houses-of-worship, or other organizations.

### Gatherings

There have been no nationwide recommendations against holding public gatherings. Large groups continue to assemble daily at sporting events, political rallies, conferences, etc.

**Cruise Ships:** Incidents on several cruise ships (the Diamond Princess, and the Grand Princess in particular) suggest that these environments are particularly hazardous. The CDC issued a warning, but no restrictions are in place.

While the CDC is [acting in various ways to combat COVID19](https://www.cdc.gov/coronavirus/2019-ncov/php/preparing-communities.html) such as developing respirator conservation strategies, the US continues to underutilize the most effective tool: limiting transmission between people. In addition to the examples noted above, CDC recommendations for businesses do not recommend telecommuting except as something to consider in the future and a recent set of recommendations for the elderly did not include a warning about air-travel.

## Political System

The political system in the US as noted above has the capabilities it needs to address this crisis, although the distributed nature of US government has significant impacts, positive as well as negative, on how those capabilities are used.

Currently, however, there is little political will at the national level to apply the available tools. In particular, ongoing efforts to downplay the risk severely limits the effectiveness of other actors trying to promote awareness and safe behaviors.

At the state level the response is mixed. While a number of states have declared a state of emergency, specific actions have been fairly limited.

# Action Recommendations

The US government should

* Urge all US citizens to avoid nonessential gatherings, especially in confined spaces

In NY State, State and Federal governments should coordinate the following actions:

* Promote personal protection including facial masks
* Postpone/cancel nonessential gatherings and events
* Disinfect public places
* Actively test everyone with symptoms
* Increase test capacity and speed

In Washington and California, State and Federal governments should take the following actions:

* Suspend schools, places of worship and businesses
* Restrict travel only for essential purposes
* Lockdown (quarantine) infected communities keeping people in their homes and delivering necessities to them without contact
* Quarantine contacts of cases
* Galvanize national resources (medical, logistical...) for the quarantined areas

For more information on recommendations, see the Alert Codes and associated protocol guidelines here: <https://www.endcoronavirus.org/map>

# Addendum

## Country policy rating scale

We use a four tier rating scale. The scale is evaluated relative to the current assessment of public health risk from the pandemic in the country of interest.

Consideration is given to the resources available to the country. For example, we do not penalize countries for failure to implement policies beyond their current capability. We also take into consideration that weakness in one area of capability (hospital capacity for example), may warrant greater effort in another area.

The assessment and recommendations are forward-looking, and attempt to answer the question: Given the current state, are policies appropriate for minimizing pandemic-driven harm to the public?

**Green**: Policies and programs are appropriate for the threat to the country as currently understood. No additional steps are needed.

**Yellow**: Policies and programs may be inadequate to minimize harm from the pandemic. Some additional steps are recommended to ensure public safety.

**Orange**: Policies and programs are insufficient to fully mitigate the effects of the pandemic. Additional steps are strongly recommended to ensure public safety.

**Red**: Current policies and programs are clearly inappropriate to the current threat level. Immediate action is needed to avoid significant public harm.

# Footnotes

Footnotes may include detailed explanations that don’t belong in the main text. Web-hosted, and freely available sources can be linked directly in the body of the text unless there’s a need to pull them out footnotes.