

## Review Article

# Why is a higher incidence of COVID-19 reported in the USA?

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**Received:** 17 April 2020; **Accepted:** 28 April 2020; **Published:** 04 May 2020

**Citation:** Srinivasan Vijayakumar, Satyaseelan Packianathan, Hiba Zara Ahmed, Maria Smith. Why is a higher incidence of COVID-19 reported in the USA?. Archives of Internal Medicine Research 3 (2020): 108-113.

### Abstract

The USA is currently reported to have the highest incidence of COVID-19. We believe the absolute incidence to be true but the relative rate of incidence per 100,000 persons to be artificially high. Here we discuss elements of the US government and national structure to support and expand our theories of why these differences may exist.

**Keywords:** COVID-19

### 1. Introduction

The United States of America (USA) has one of the finest healthcare systems in the world. We lead the world in biomedical research and disease prevention in terms of investment. Our citizens are consistently awarded most of the Nobel prizes in Medicine and Physiology. Yet, the USA now is reported to have the dubious honor of ranking #1 in terms of the incidence of

COVID-19. Is this true? If so, what are the reasons underlying this situation? In this short communication, we discuss the possible and probable causes of the high incidence of COVID-19 in the USA. We think the absolute high incidence in the USA is likely real; however, we argue that the relative rate of incidence per 100,000 persons is probably artificial. We expand further on these concepts. The USA is a constitutional republic and its federal and state governments are democratically elected, down to its lowest political levels. Although the republic's government structure is federalist, the country is a vast conglomerate of 50 states, each with different regions having varying philosophical and religious diversity in its population's views and behaviors. Democratically-led societies are generally slower to act when making major decisions as the adversarial governing and opposition parties seek consensus and compromise. Together, these factors

may have compounded the COVID-19 pandemic's spread in the USA and created a perfect-storm where the incidence is very high in absolute terms. However, its relative ranking at this time as having the highest incidence of COVID-19 infection is likely artificial.

## 2. Discussion

Enumerated below are some of what we believe are the causes of the higher incidence of COVID-19 in the USA:

1. The People's Republic of China, with a dictatorial and centralized communist government, was able to totally and completely lock-down the entire alleged province-of-origin of the SARS-CoV2 virus (Hubei) once its severity was suspected [1]. This likely prevented its spread beyond those who were already sick as they were confined to hospitals as quickly as they were discovered. Any spread thereafter may have been limited to the sporadically-arising infection and those infected by asymptomatic carriers. However, such a total lock-down of an entire state or province, confining everyone to their homes under a 24-hour curfew, is generally inconceivable and infeasible in a free society. The higher incidences of the disease reported in the European countries support this contention. The only exception so far to this contention is India – where although a democratically elected, federalistic central government is in place, it was able to forcefully shut-down the entire population's activities and confine them to their home for at least 21 days [2]; however, as expected, this has created its own social, economic, and moral quandaries as the migrant worker population in India's large cities has been forced, under duress, to return to their home villages (unlike the draconian “no movements permitted” lockdown in Hubei, China), likely creating local foci of disease on their travel and when they eventually reach their homes.
2. “Police power,” (*vide infra*) under normal and health epidemic conditions, in the USA is vested solely within the state and local governments. Exceptions for federal intervention in the states exist but these are exercised only in limited and extenuating circumstances and each state is permitted to deal with its statewide problems as it sees fit. With their many differences in population density, governing philosophy, governing party policies, *et cetera*, state and local governments were generally slower to act and when they did, the policies generated and implemented were sometimes discordant and not unified across state lines.
3. Being a leader among the western nations and the undisputed leader of the developed nations, the USA has served as the host country to the United Nations since its inception, with its headquarters located in New York, one of the country's most populous and diverse cities. Given this reality, government leaders, assorted diplomats, representatives of international organizations, businesspersons, and students of every nationality and ethnic origin regularly visit the USA and all are free to travel anywhere without hindrance. Thus, there was and is always a much higher free-flow of international travelers, infected and uninfected, into the USA than compared to, say, the province of Hubei in China.
4. The People's Republic of China is generally a closed society with information at every level highly controlled and released only in fits and starts and only when it suits the needs of their federal government or when it can be kept hidden no

longer. The World Health Organization (WHO), other than for announcing congratulatory platitudes to the central government, has never independently verified any of the data released by the Chinese government. There has also never been any open conference where high level health authorities have to face questions directly from the local or international press or the public or even legislators about the information they have released. Compare this to the virtually 24-hour incessant questioning of every action taken by the federal and state governments in the USA on radio, television, printed media, and by legislators, both state and federal.

5. The USA is conducting far more tests for the virus among its population than any other nation. Data from China and elsewhere suggest that almost 50%

of the people who are infected may show no symptoms of the disease – hence, they are unlikely to come to the attention of medical practitioners and are unlikely to be tested. Because, we are testing more people, many of them asymptomatic, it is only natural that the USA numerically detects more SARS-CoV2-positive human subjects than in other countries. This has likely contributed to a falsely elevated incidence rate per 100,000 patients in the USA. Moreover, the tests themselves were of variable quality and have been performed haphazardly and in response to different criteria as the pandemic and information about the disease evolved. Results reported from such a wide variability of testing techniques all testing for the same disease can give rise to the Will Rogers Phenomenon [3].

Country or State	Confirmed Cases as of: April 7, 2020	Confirmed Cases per 100,000
China	83,071	5.794
Hubei Province, China (Wuhan)	67,803	611.940
Iran	60,500	72.971
Italy	132,547	218.905
Spain	135,032	288.900
France	73,488	112.833
UK	51,612	76.428
India	4,067	0.298
United States	333,811	101.444
Washington	8,384	110.100
New York	130,689	671.800
New Jersey	41,090	462.611
Connecticut	6,906	193.701
Louisiana	14,867	319.803
Mississippi	1,738	58.398

**Table 1<sup>[4-8]</sup>:** Cases of confirmed COVID-19, absolute numbers and cases per 100,000 persons for various countries and states.

We would like to elaborate further on some of the above observations. Table-1 lists the incidence of COVID-19 cases to date for selected countries and provinces/states based on publicly reported data and also the calculated incidence rate per 100,000 persons. The table is remarkable for the wide variation in the incidences reported as well as its probable inaccuracy. From the table, we can make the following observations:

- The incidence for China, as a country, is very low despite it being very high for the province of Hubei, whose capital city is Wuhan. It appears that the draconian lock-down steps taken by the Chinese authorities may have contributed to their success in containing the spread of the virus to the rest of the country. However, now that the lock-down has been lifted (April 8, 2020), visitors are now free to return to their home provinces and it has been suggested that a second surge of COVID-19 may occur soon as a consequence of this movement of persons.
- The incidence rates for the province of Hubei and the state of New York, two of the severely affected areas, are reasonably comparable at 612 and 672 per 100,000 people, respectively.
- Within the USA as a whole, the rates of infection vary to a large extent, being higher in the cities and states with a higher population density.
- Our thesis that the incidence rates of COVID-19 reported are impacted by multiple factors is well demonstrated by the table.

The term, “police power,” does not apply to curtailing of criminal activities but essentially refers to the limitation of private rights, when necessary, for the preservation of the common good<sup>9</sup>. In the USA, this is a

right reserved to the states. The original states reserved this right when they adopted the US Constitution between 1787-1788 and each subsequent state that has joined the Union also holds this right. The only federal limitations on the police power held by the states are the US Constitution’s Supremacy Clause and any individual rights protected by the Constitution at that time and created by any subsequent constitutional amendments. The Supremacy Clause dictates that the Constitution itself, any federal laws in accordance with the Constitution, and any treaties made by the federal government supersede any state laws, *i.e.*, certain federal laws (those in concordance with the US Constitution) take priority over state laws when they are in conflict (*for instance*, patchwork immigration laws promulgated by individual states is superseded by federal immigration law covering all states because immigration is solely the province of the federal government and not the states). In the realm of public health, the doctrine of “public health police power” allows each state to pass and enforce isolation, quarantine, health, and inspection laws to interrupt or prevent the spread of diseases. The first documented instance of its application was when the State of Pennsylvania quarantined the city of Philadelphia in order to control the threat posed by an epidemic of Yellow Fever. Subsequently, The Supreme Court affirmed and upheld the state’s decision, reasoning that the decision was made, “to provide for the health of the citizens” of Pennsylvania and was based on the established legal principles of *sic utere...\** and *salus publica...\*\** (*\*sic utere tuo ut alterum non laedas* – use that which is yours so as not to injure others; *\*\*salus publica suprema lex est* – public wellbeing is the supreme law).

Historically, states have used their public health police power to enforce such health quarantines even when they inarguably infringed upon individual rights and liberties (*for instance*, the rights to privacy, freedom of assembly, free exercise of religion, *et cetera*) but our judicial authorities have generally held a deferential view towards the presumption of its constitutionality. Starting in the 1950's, however, that judicial deference began to fray. The Warren Court's (a period in the history of the Supreme Court of the US during which Earl Warren served as its Chief Justice) focus and leanings towards civil rights protection turned the conversation regarding police power more towards individual liberties than towards the collective good. In the context of the AIDS epidemic in the USA, for instance, we have a prime example of how the Warren Court significantly and permanently modified the extent of public health police power. Under its guidance, informed consent for HIV testing and patient confidentiality (*versus* the duty to warn sexual partners of the infected) were promoted while the surveillance and reporting of these individuals were curtailed, compared to situation in the era of Yellow Fever quarantines. These decisions continue to impact the exercise of public health police power to this day and the resulting institutionalized deference to patient autonomy may have played a role in the United States' response to COVID-19.

### 3. Summary and Conclusions

Although many lessons can be learned by our medical and policy maker personnel from this experience, we must first ask the right questions. The high incidence of COVID-19 in the USA likely has multifactorial and multidimensional causes as we have noted. While the COVID-19 pandemic is still evolving, however, expecting a full accounting of the causes is probably too

ambitious an endeavor. Nonetheless, in our quest to save lives, we should still attempt to see what we can learn quickly about the disease and its vector as we are in the midst of a humanitarian crisis. This short communication is a step in starting a national dialogue among professionals, policy makers, and the general public to start thinking what we can and should do differently if we were to face a similar crisis in the future. We will end this communication with few questions for all of us to ponder:

1. Do we have to reconsider our traditional state's ownership of Police Power? Similar questions were also raised in the aftermath of the Twin Towers terrorist attack of September 11, 2001.
2. Do we need a constitutional amendment to augment the Federal government's ability to act more quickly at the times of epidemics and pandemics? If such a step is taken, should legislative extension of those "activities" be required at specified time points so that a never-ending federally-declared state of emergency is not inclined to arise?
3. What are the responsibilities of governmental advisory institutions such as the Institute of Medicine and the National Academy of the Sciences under dire healthcare circumstances such as a global pandemic? Should they be more proactive in educating the general public and recommending policies to the government?
4. How do we, as a constitutional republic, balance the extremes of total freedom *versus* total control of the population when making decisions at times of grave healthcare crises?
5. Should the offices of the UN be less centralized so that its entire administrative apparatus is not located within a few countries but apportioned to other member states which can afford the burden of such costs? In the electronically "connected" world we

now live in such diversification is certainly feasible and will curtail some of the travel of administrators and diplomats especially in times of crises where the travelers can be unwitting carriers.

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