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COVID-19 Mitigations in the U.S.
March 1 - 15, 2021

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This report provides highlights of a weekly survey of practices regarding the mitigation of the spread of COVID-19 in the U.S. during the first half of March 2021 along with comparisons to prior half-month time periods. The survey asks about the degree to which the respondents perceive that people in their community are following 21 common mitigation practices. The responses are separated by state and compared to state level statistics regarding the level of COVID-19 infections from the Johns Hopkins COVID database for the same time period.

Executive Summary

For the second consecutive half month a decrease was observed in community mitigation compliance across the country. In the second half of February from average compliance was 62.4% compared to 62.8% in the first half of the month, according to observations from 743 individuals from 49 states. At the same time, new COVID-19 infections again fell sharply with 1.0 million new cases for late February compared to 1.5 million in the first half of the month and 2.7 million in the last half of January. The downward trend continues but the decrease is smaller.

Additional findings from the second half of January:

- Compliance for the top five mitigation practices is slipping. Only one of the mitigations have compliance over 75% and four of the five had significant declines in compliance percentages.
- Of the twenty-six states where we have significant data from this week, the worst three (Iowa, Virginia and Florida) had average compliance in the low-50's, with Florida repeating in the bottom three with 54% average compliance.
- Only two states among the twenty-six with significant data that had average mitigation compliance over 70% - Massachusetts and Maryland. California was able to maintain the improvement in mitigation that was achieved in the first half of February in response to their horrific experiences with infections in December and early January.

The full set of mitigations surveyed are included in the appendix to this report.

It is now estimated that immunities from vaccination total 16% of the population, while immunities from people who have been infected and recovered are over 8%, with the vaccinated group growing much faster than the recovered/immune group. But there seems to be a race between the vaccine impact, new strains of COVID and reduced compliance to determine the near-term course of the pandemic.

Mitigation Practices - National

Average percentage compliance with 21 COVID-19 mitigation strategies that are surveyed was 63.2% in the first half of March, up from 62.4% in the second half of February. For the half-month, two of the twenty-one mitigations practices had average compliance above 75%, four had average compliance below 50% and fifteen had average compliance between 50% and 75%.

Nationally the weighted average of compliance with these mitigations has stayed in a very tight range a low of 62.3% in late November to a high of 63.2 for this period. When mitigations are broken out into practices within states and regions of states, there is a far greater variance in mitigations as respondents observe the results of individual states implementing changes in COVID mitigations and Individuals react to their personal perceptions of the level of COVID danger.

Survey Details

Collects information from volunteers on perceptions of community compliance with 21 COVID Mitigation strategies. Participants answer between 0% and 100% that they see the strategy in use in their area. Participants are asked to fill out survey every week.

CHANGING MITIGATIONS

Throughout the past eight weeks, the six mitigations that our observers say have the highest average compliance have remained the same (with "Quarantine people with positive tests" shifting in and out of the Top 5). Results from the last four periods are presented below:

Top Five Mitigations	Jan 16-31	Feb 1-14	Feb 15-28	Mar 1-15
Special protection in hospitals areas that treat COVID patients	84%	85%	79%	79%
Visitors to senior living facilities to be restricted	81%	82%	75%	75%
Wearing a Mask in Public	72%	72%	72%	71%
Hairdresser and barber to be open with restrictions	73%	75%	71%	72%
Restaurants to have reduced seating	75%	75%	70%	73%

In the first half of March four of these five practices reported stable compliance and one, Restaurants to have reduced seating, reported a 3% increase. The top mitigants have had an average compliance of 75% to 76% for the last two months. That average dropped to 73% this period. This trend helps to create the slower improvement in Infection Level that will be discussed below.

Mitigation practices with the largest change are compared below.

Mitigations with Largest Change	Feb 15 - 28	Mar 1 - 15	Change
Maintaining social distance	59%	62%	3%
Restaurants to have reduced seating	70%	73%	3%
Quarantine travelers from higher infection places	50%	53%	3%
Quarantine people who have been in close contact with people with positive tests	62%	64%	2%
Wearing a mask in public	72%	71%	-1%

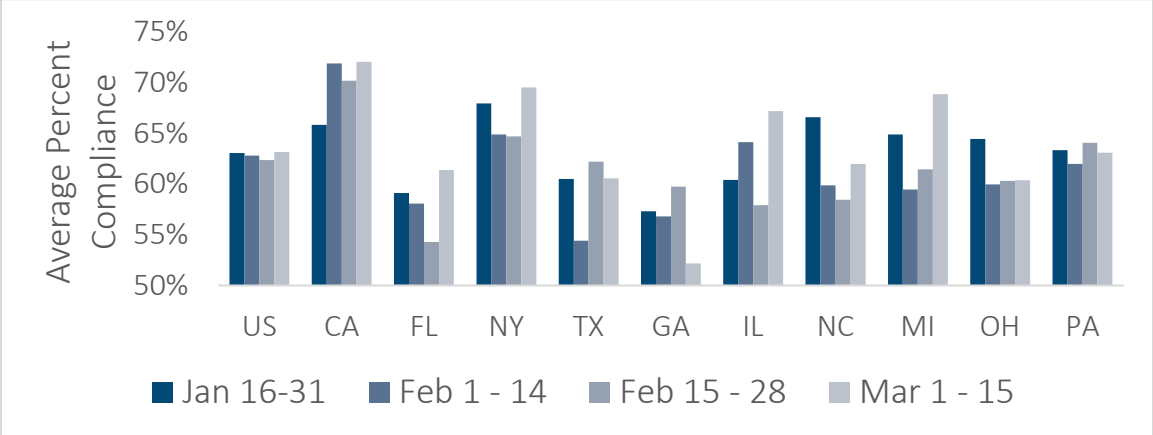
All five of these practices are thought to have a significant impact on transmission of the virus. "Wearing a mask in public" was the only one of the five where the change was a decrease. These very small "largest changes" are actually the result of fairly balanced much larger increases and decreases at the individual state level, which is discussed in the following section as Variability of Change in Mitigation Compliance by State.

Mitigation Practices – State Level

Weighting Basis
Weighting is based on average compliance in states where COVID was under control during September.

For the second half of February, the survey had a credible number of responses from 24 states. The states from that group with the highest compliance were California (72%), New York (70%), Michigan (69%) and New Jersey (68%). The states with the lowest compliance were Iowa (44%), Georgia (52%) and Oklahoma (57%).

Focusing in on the ten most populous states, there is quite a bit of variability of compliance over the past four months.



Six of the ten states showed substantial jumps in compliance, two states were flat and only two states, Georgia and Texas declined. Texas had a large increase in compliance in late February and followed that with a relaxation of restrictions at the state level along with at least ten other states. Few of the observations recorded here were from after

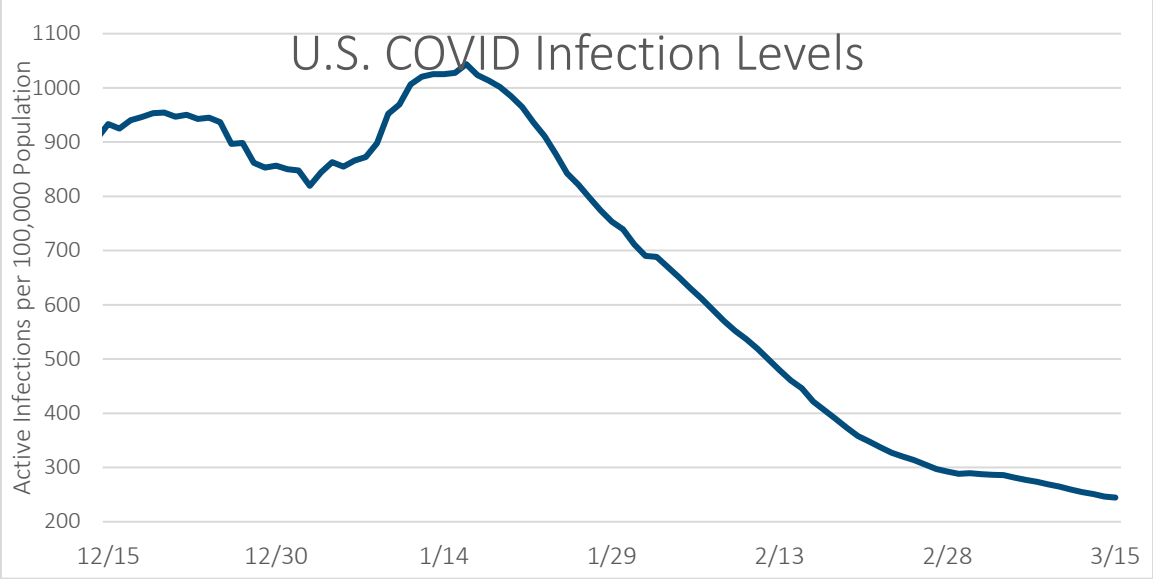
that step. The next half month report will show the degree to which individuals and businesses kept up mitigations even without a requirement from the state.

Variability of Changes in Mitigation Compliance by State

Mitigations with Largest Change	Change In U.S. Average	Number of States with Increases	Number of States with Decreases	Largest Increase	Largest Decrease
Maintaining social distance	3%	14	10	19%	-11%
Restaurants to have reduced seating	3%	15	9	33%	-13%
Quarantine travelers from higher infection places	3%	14	10	25%	-19%
Quarantine people who have been in close contact with people with positive tests	2%	14	10	19%	-17%
Wearing a mask in public	-1%	10	14	13%	-16%

In general, this shows that changes in the national averages are driven by the balance of states that are either increasing or decreasing their compliance. This table reflects only the 24 states where we have credible observations. The national average includes the responses from the other 26 states which make up only 15% of total observations.

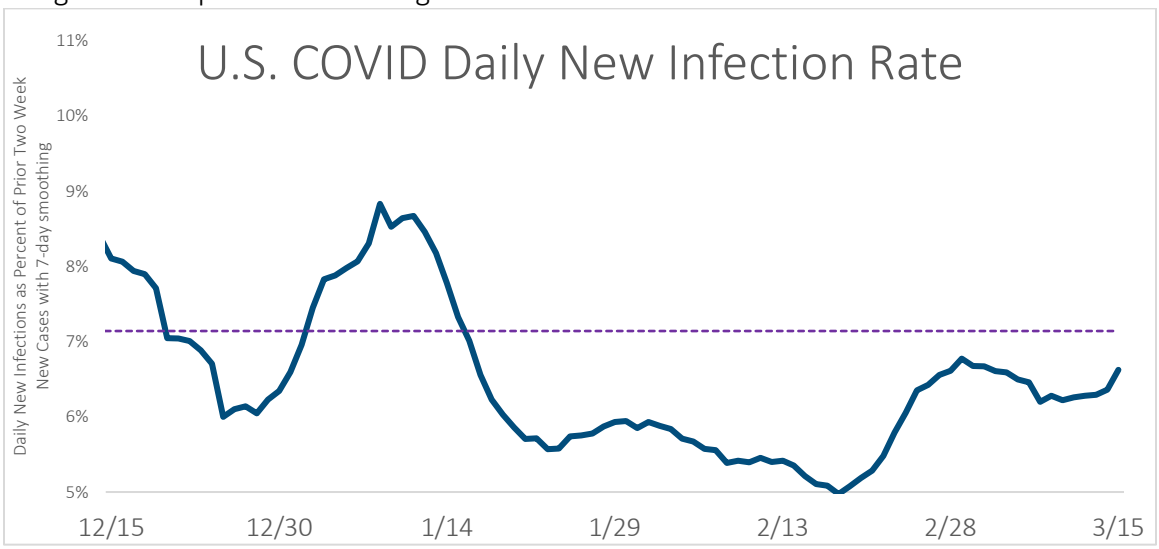
COVID-19 Spread of Infections – National



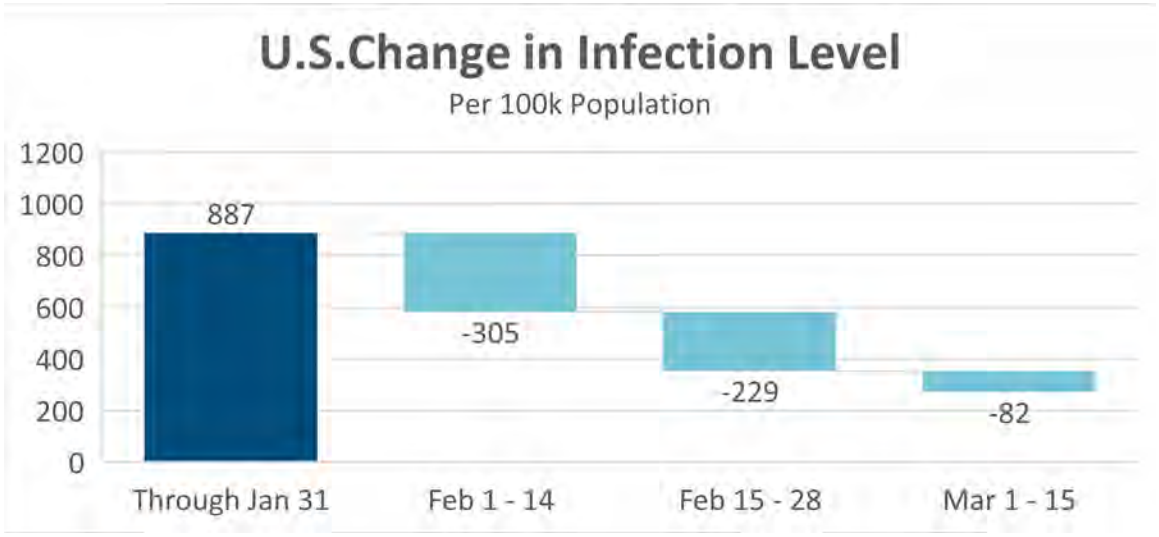
There were about 850,000 new cases of COVID-19 reported in the first half of February. This is down from 2.6 million reported in the second half of January and 3.6 million in the first half of that month. The reported infection level has now fallen well below the point where it was in late October. Vaccinations along with the increase in mitigation compliance are having a favorable effect.

Infection Level

is the number of active infections per 100,000 people.



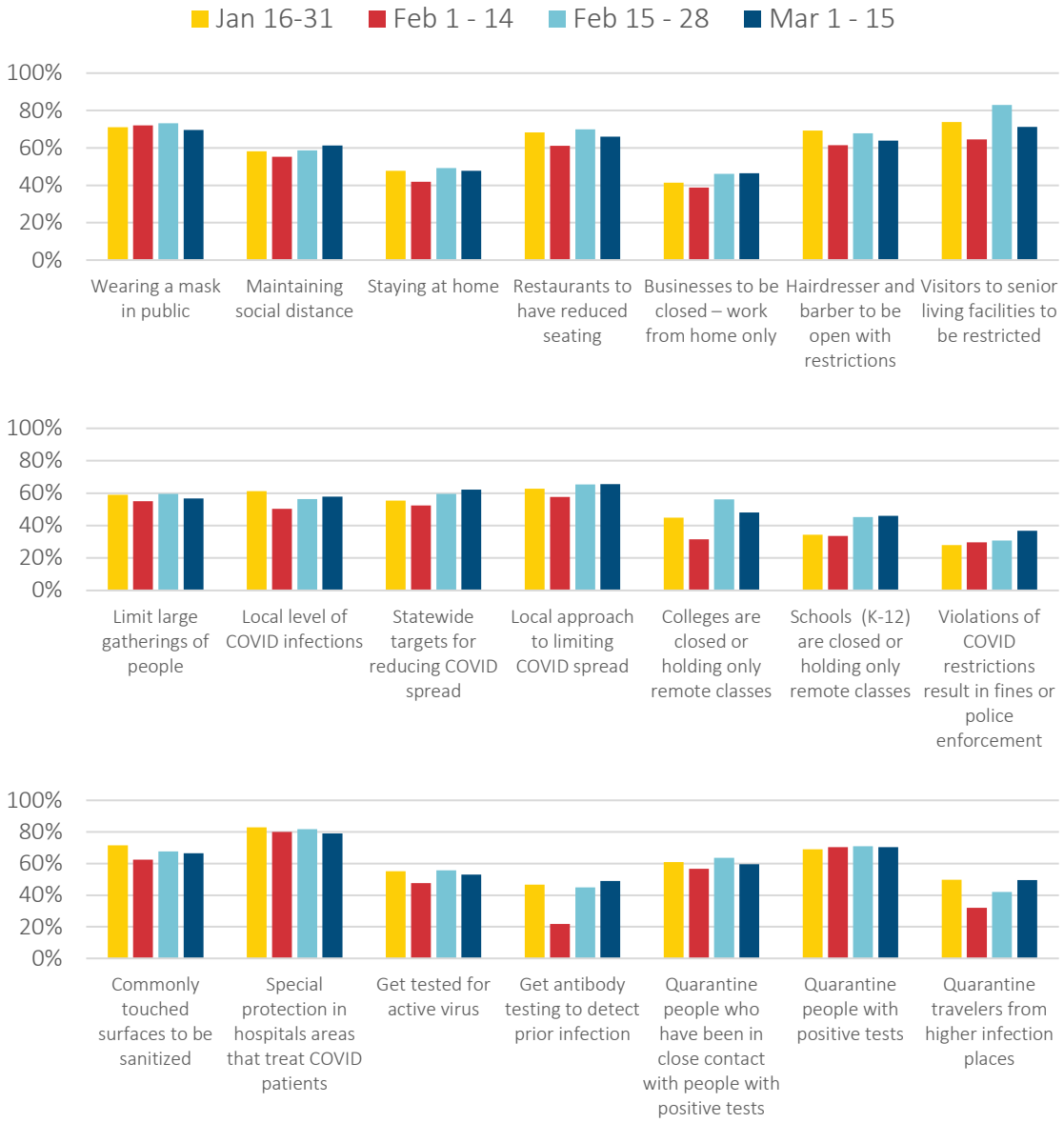
The rate of new infections had been holding steady around 6% for about a month ending in mid-February. That rate increased in late February and has stayed in the 6.5% to 7.0% range for the current period. This is below the No Growth level of 7.14% but close enough to it that future decreases will be smaller. The New Infection rate is being pulled upwards by the new, more infectious strains of COVID, downwards by the vaccinations and downwards by the average increasing mitigation compliance noted above.



The plot above clearly shows the monthly decreases in Infection Level getting smaller each month. .

Mitigations Levels over Time

The following charts provide a perspective on the relative compliance levels of all 21 mitigations with each other as well as the trends over the past two months.



Impact of Immunities

The vaccination programs are moving forward fairly rapidly. An estimate of the potential impact of immunity gained from vaccinations and from recoveries from COVID infections shows that at this time, the impact of immunities on the spread of COVID is reaching a significant level.

	2/28/21	3/15/21	Increase
Reported Recovered Immune	27.0 M	28.0 M	+1.0 M
Vaccinated Immune	37.7 M	55.2 M	+17.5 M
Total Immune	64.7 M	83.2 M	+18.5 M
Pct of Population	19.8%	25.5%	+5.7%
Est. Impact on NIR	-1.6%	-2.1%	-0.5%

While the national average total percent immune is shown above to be 25.5%, at the state level, immune percentage ranges from a high of 34% in South Dakota to a low of 20% in Oregon. These differences are primarily driven by the different levels of recovered immune people in the states with a smaller range of vaccinated immune.

These calculations are estimates based upon average reported efficacy of the vaccines and an assumption that people with immunity would face an average level of exposure to COVID infection. In addition, no adjustments were made to these figures to reflect the exact timing of the onset of immunity from vaccinations which varies by type of vaccine or the fact that some recovered immune people are getting vaccinated.

In addition, these calculations are based upon Reported Infections. Because COVID infections result in a very wide range of individual responses from largely symptom free to severe respiratory distress leading to hospitalization and death, there are thought to be many cases that go unreported. The CDC conducted a study of the seroprevalence of COVID antibodies in blood drawn for a variety of medical tests. Results from that study, updated in late January show that unreported infections may be as high as 120% of the reported infections. If that were true, the estimated Total Immune level could be as much as 33% of the U.S. population.

Future Concerns

There are a number of issues that will likely play out over the next month and will be examined in future editions of this report.

1. Relaxation of state mandates for mitigations in ten or more states.
2. People who refuse to get vaccinated.
3. Spring Break.
4. Infections with COVID varieties with higher transmissibility.

Acknowledgments

The researchers' gratitude goes to those without whose efforts this project could not have come to fruition: the Project Oversight Group and others for their diligent work overseeing questionnaire development, analyzing and discussing respondent answers, and reviewing and editing this report for accuracy and relevance.

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Note on Mitigation Compliance Observations

The COVID mitigation information is collected via a SurveyMonkey survey. In that survey, observers are asked to say what they are seeing in their community regarding the percentage compliance with 21 specific mitigation activities. The observers are volunteers who were either recruited personally by the project team or who responded to a variety of solicitations for observers via Twitter, Facebook, LinkedIn, and SurveyMonkey. This data is subject to self-selection and other biases. No adjustments have been made to the data that we have collected in order to respond to possible biases. Observations are aggregated and the average of multiple views are treated as true information about the mitigation activity in a state. The variance of the responses in a state has been examined and targets are set for a higher number of responses in states where there is a higher variance of responses.

Appendix List of Mitigations under Study

- Wearing a mask in public
- Maintaining social distance
- Staying at home
- Restaurants to have reduced seating
- Businesses to be closed – work from home only
- Hairdresser and barber to be open with restrictions
- Visitors to senior living facilities to be restricted
- Commonly touched surfaces to be sanitized
- Special protection in hospitals areas that treat COVID patients
- Get tested for active virus
- Get antibody testing to detect prior infection
- Quarantine people who have been in close contact with people with positive tests
- Quarantine people with positive tests
- Quarantine travelers from higher infection places
- Limit large gatherings of people
- Local level of COVID infections
- Statewide targets for reducing COVID spread
- Local approach to limiting COVID spread
- Colleges are closed or holding only remote classes
- Schools (K-12) are closed or holding only remote classes
- Violations of COVID restrictions result in fines or police enforcement

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