

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF PUERTO RICO

**TROPICAL CHILL CORP. *et al.***

*Plaintiffs,*

**v.**

**HON. PEDRO R. PIERLUISI**

**URRUTIA *et al.***

*Defendants.*

**CIVIL NO. 21-1411 (RAM)**

**JOINT MOTION IN COMPLIANCE WITH ORDER**

**I. FACTUAL STIPULATIONS**

1. According to the CDC, as of October 7, 2021, Puerto Rico was second among U.S. jurisdictions (Palau is again first) in "Percent of Total Pop Fully Vaccinated by State of Residency" of those reported. Refer to Appendix 2. CDC, COVID-19 Vaccinations in the United States (View: Total Doses, Show: Administered, Metric: Rate per 100,000, Population: Total Population), *Data Table for COVID-19 Vaccinations in the United States*, [https://covid.cdc.gov/covid-data-tracker/#vaccinations\\_vacc-people-fully-percent-total](https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-people-fully-percent-total)
2. According to the Puerto Rico Health Dept. COVID-19 dashboard, as of October 8, 2021, Puerto Rico had, of the eligible population, 79.8% fully vaccinated and 88% with one dose, while on August 16, 2021, when EO 2021-062 became effective, Puerto Rico had 72.4% fully vaccinated and 82.3% with one dose, and on August 5, 2021, when EO 2021-062 was announced, Puerto Rico had 71.3% fully vaccinated and 79.8% with one dose. Refer to Appendixes 3A and 3B. Puerto Rico Health Department COVID-19 Dashboard, *Vacunacion*, <https://covid19datos.salud.gov.pr/#vacunacion>
3. According to U.S. Census, Puerto Rico's population in 2020 was 3,285,874. United States Census, *Puerto Rico: 2020 Census*, <https://www.census.gov/library/stories/state-by-state/puerto-rico-population-change-between-census-decade.html>
4. According to the Puerto Rico Health Dept. COVID-19 dashboard, of the total population able to be vaccinated, from August 6, 2021, the day after the EO 2021-062 was announced, to October 8, 2021, a total of 8.5% were fully vaccinated and 8.2%

received one dose. From August 6 to September 3, 2021 (28 days), 4% were fully vaccinated and from September 4 to October 2, 2021 (28 days), 4.1% were fully vaccinated. From July 8 to August 5, 2021 (28 days), 3.6% were fully vaccinated. Refer to Appendixes 5A and 5B. Puerto Rico Health Department COVID-19 Dashboard, *Vacunacion*, <https://covid19datos.salud.gov.pr/#vacunacion>

5. According to the Puerto Rico Health Dept. COVID-19 dashboard, as of October 8, 2021, of the people with at least one dose, 364,512 people are 60-69 years old, 277,285 are 70-79 years old and 143,000 are 80+ years old. These numbers total 784,797 people aged 60 or higher who have received at least one dose. Refer to Appendix 6. Puerto Rico Health Department COVID-19 Dashboard, *Vacunacion*, <https://covid19datos.salud.gov.pr/#vacunacion>
6. According to the Puerto Rico Health Dept. COVID-19 dashboard, on October 8, 2021, the numbers of vaccinated people by age and sex were as follows. In the *60-69 years old group, males*: 150,233 fully vaccinated, 163,601 with at least one dose, and 17,800 not vaccinated; *females*: 183,708 fully vaccinated, 199,943 with at least one dose, and 17,719 not vaccinated. In the *70-79 years old group, males* 108,341 fully vaccinated, 118,488 with one dose, and 18,553 not vaccinated; *females* 144,388 fully vaccinated, 157,908 with at least one dose, and 12,934 not vaccinated. In the *80+ years old group, males* 49,162 fully vaccinated, 54,404 with at least one dose, and 18,121 not vaccinated; *females* 78,844 fully vaccinated, 88,073 with at least one dose, and 21,242 not vaccinated. Refer to Appendix 7A, 7B, 7C, 7D, 7E, 7F. Puerto Rico Health Department COVID-19 Dashboard, *Vacunacion*, <https://covid19datos.salud.gov.pr/#vacunacion>
7. According to the Puerto Rico Health Dept. COVID-19 dashboard, as of October 8, 2021, among the 80+ year-old population, there have been 985 deaths (30.8% of total COVID-19 related deaths), among 70-79 year-olds, 832 deaths (26.1%), and among 60-69 year-olds, 614 deaths (19.2%). At the same time, among 50-59 year-olds, 451 deaths (14.1%); among 40-49 year-olds, 202 deaths (6.3%); among 30-39 year-olds, 73 deaths (2.3%); among 20-29 year-olds, 28 deaths (0.9%); among 10-19 year-olds, 6 deaths (0.2%), and among 0-9 year-olds, 2 deaths (0.1%). The total accumulated deaths related to COVID are 3,193. Refer to Appendix 9. Puerto Rico Health Department COVID-19 Dashboard, *Defunciones*, <https://covid19datos.salud.gov.pr/#defunciones>
8. According to the CDC, as of October 9, 2021, Puerto Rico, with 50,375.93 “cumulative tests performed per 100K” is second to last (ahead only of the U.S. Virgin Islands), listed number 49 of 50 of U.S. jurisdictions reported. Refer to Appendix 12. CDC, Cases, Deaths and Testing (View: Tests Performed, Time Period: All Time, Metric: Rate per 100,000), *Data Table for Cumulative COVID-19 Nucleic Acid Amplification Tests (NAATs) Performed per 100k by State/Territory*, [https://covid.cdc.gov/covid-data-tracker/#cases\\_testsper100k](https://covid.cdc.gov/covid-data-tracker/#cases_testsper100k)
9. According to the CDC, as of October 9, 2021, Puerto Rico, with 5,533.12 “# tests performed last 30 days per 100K” is fifth to last (ahead only of the U.S. Virgin Islands,

- Mississippi, Nebraska and Oklahoma), listed number 46 of 50 of U.S. jurisdictions reported. Refer to Appendix 13. CDC, Cases, Deaths and Testing (View: Tests Performed, Time Period: Last 30 Days, Metric: Rate per 100,000), *Data Table for COVID-19 Nucleic Acid Amplification Tests (NAATs) Performed in Last 30 Days per 100k by State/Territory*, [https://covid.cdc.gov/covid-data-tracker/#cases\\_testsper100k30day](https://covid.cdc.gov/covid-data-tracker/#cases_testsper100k30day)
10. According to the Puerto Rico Health Department COVID-19 dashboard, as of October 8, 2021, there were a total of 150,569 accumulated confirmed cases and 32,210 accumulated probable cases accumulated. This totalizes 182,779 (150,569 + 32,210) accumulated cases. Refer to Appendix 14. Puerto Rico Health Department COVID-19 Dashboard, *Casos*, <https://covid19datos.salud.gov.pr/#casos>
  11. According to the Puerto Rico Health Department COVID-19 dashboard as of October 8, 2021, from July 1, 2020 to June 15, 2021, there were 120,590 accumulated confirmed cases and 2,067,324 accumulated molecular tests administered and, from June 16, after the Delta variant was first confirmed in Puerto Rico, to October 7, 2021, there were 27,760 accumulated confirmed cases and 578,994 accumulated molecular tests administered. Refer to Appendixes 18A and 18B. Puerto Rico Health Department COVID-19 Dashboard, *Casos*, <https://covid19datos.salud.gov.pr/#casos> Puerto Rico Health Department Covid-19 Dashboard, *Pruebas*, <https://covid19datos.salud.gov.pr/#pruebas>
  12. According to the CDC, since January 21, 2020 to October 9, 2021, Puerto Rico has had 5,711 “case rate per 100,000”, listing it the 53rd of 58 U.S. states and territories (including New York City and the District of Columbia) reported. Refer to Appendix 21. Cases, Deaths and Testing (View: Cases, Time Period: Since Jan 21, 2020, Metric: Rate per 100,000), *Data Table for Case Rate by State/Territory*, [https://covid.cdc.gov/covid-data-tracker/#cases\\_casesper100k](https://covid.cdc.gov/covid-data-tracker/#cases_casesper100k)
  13. According to the US Census, as of July 1, 2019, the population of Puerto Rico was 3,193,694, for Connecticut was 3,565,287, for Nevada was 3,080,156, for Iowa was 3,155,070, for Utah was 3,205,958, and for Arkansas was 3,017,804. United States Census, *Table 1. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2019*, <https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html>
  14. According to the US Census, as of 2020, the population density of Puerto Rico was 959.6/sq mi, for Connecticut was 744.7/sq mi, for Nevada was 28.3/sq mi, for Iowa was 57.1/sq mi, for Utah 39.7/sq mi, and for Arkansas 57.9 sq mi. United States Census, *Historical Population Density Data (1910-2020)*, <https://www.census.gov/data/tables/time-series/dec/density-data-text.html>
  15. According to the CDC, on August 5, 2021, the 7-day moving average of daily “new admissions of patients with confirmed with COVID-19” in Puerto Rico was 21 new admissions. On August 16, 2021, it was 27 new admissions, on September 7, 2021, it

- was 21 new admissions and on October 6, 2021 it was 5 new admissions. Refer to Appendixes 22A and 22B. CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>
16. According to the CDC, on March 28, 2021, the 7-day moving average of daily “new admissions of patients with confirmed with COVID-19” was 20 new admissions, on April 27, 2021, it was 47 new admissions and on May 17, 2021 it was 16 new admissions. Refer to Appendixes 23A and 23B. CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>
  17. According to the CDC, on October 19, 2020, the 7-day moving average of daily “new admissions of patients with confirmed with COVID-19” was 17 new admissions, on November 10, 2020, it was 189 new admissions and on December 29, 2020, it was 25 new admissions. Refer to Appendixes 24A and 24B. CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>
  18. Puerto Rico, of the population able to be vaccinated, reached 60% fully vaccinated on June 4, 2021 and reached 70.1% fully vaccinated on July 27, 2021. Puerto Rico Health Department COVID-19 Dashboard, *Vacunacion*, <https://covid19datos.salud.gov.pr/#vacunacion>
  19. According to the World Health Organization, “The number of hospital beds available in public and private hospitals. Hospital beds are regularly maintained and staffed for the accommodation and full-time care of a succession of inpatients and situated in wards or a part of a hospital where continuous medical care for inpatients is provided. The total number of such beds constitutes the normally available bed complement of the hospital.” World Health Organization, The Global health Observatory, <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/3409>
  20. According to the United States Census (v2019), the population 65 years and older is 21.3% of the overall population in Puerto Rico. According to the Population Reference Bureau, as reported on March 16, 2021, under the article “Which U.S. States Have The Oldest Population”, the “States Ranked by Percent of Population Age 65 or Older, 2018” listed Maine as #1 with 20.6% of the population of its population 65 years or older. Population Reference Bureau (PRB), *Which U.S. States Have The Oldest Population*, <https://www.prb.org/resources/which-us-states-are-the-oldest/>
  21. According to the CDC, the “death rate per 100,000”, “Since January 21, 2020” to October 9, 2021, listed Puerto Rico with 99 deaths, as number 48th of 58 listed states and territories (including New York City and the District of Columbia) that reported. Refer to Appendix 27. CDC, Cases, Deaths and Testing (View: Deaths, Time Period:

- Since Jan 21, 2020, Metric: Rate per 100,000), *Data Table for Death Rate by State/Territory*, [https://covid.cdc.gov/covid-data-tracker/#cases\\_deathsper100k](https://covid.cdc.gov/covid-data-tracker/#cases_deathsper100k)
22. According to the Puerto Rico Health Department COVID-19 dashboard, as of October 8, 2021, Puerto Rico has a total of 3,193 accumulated deaths related to COVID since March 17, 2020. Refer to Appendix 9. Puerto Rico Health Department COVID-19 Dashboard, *Defunciones*, <https://covid19datos.salud.gov.pr/#defunciones>
  23. According to the Puerto Rico Health Department COVID-19 dashboard, certified deaths for COVID include confirmed and probable deaths. Puerto Rico Health Department COVID-19 Dashboard, *Defunciones*, <https://covid19datos.salud.gov.pr/#defunciones>
  24. In early 2021, the Food and Drug Administration authorized three vaccines (Pfizer-BioNtech, Moderna, J&J/Janssen) for use in the United States (including Puerto Rico). WHO, *Evaluation of COVID-19 vaccine effectiveness* (17 March 2021), [https://www.who.int/publications-detail-redirect/WHO-2019-nCoV-vaccine\\_effectiveness-measurement-2021.1](https://www.who.int/publications-detail-redirect/WHO-2019-nCoV-vaccine_effectiveness-measurement-2021.1)
  25. On July 27, 2021, CDC released updated guidance on the need for urgently increasing COVID-19 vaccination coverage and a recommendation for everyone in areas of substantial or high transmission to wear a mask in public indoor places, even if they are fully vaccinated. CDC issued this new guidance due to several concerning developments and newly emerging data indicators. (<https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html>).
  26. On August 30, 2021, Puerto Rico was placed by the CDC in Level 4: Very High Level of COVID-19. (<https://wwwnc.cdc.gov/travel/notices/covid-4/coronavirus-puerto-rico>).
  27. The CDC has stated that the Delta variant is highly contagious, more than 2x as contagious as previous variants. (<https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html>).
  28. The CDC has stated that COVID-19 vaccines approved or authorized in the United States are highly effective at preventing severe disease and death, including against the Delta variant. (<https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html>).
  29. On August 26, 2021, the CDC has stated that high vaccination coverage will reduce spread of the virus and help prevent new variants from emerging. (<https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html>).
  30. CDC recommends that everyone aged 12 years and older get vaccinated as soon as possible. (<https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html>).

31. As of September 15, 2021, there have been 5 deaths due to COVID-19 in the age group of 10-19 years old. ([https://www.salud.gov.pr/estadisticas\\_v2#casos](https://www.salud.gov.pr/estadisticas_v2#casos)).
32. Over 55,000 children have been hospitalized with Covid-19 since August 2020 in the United States. (<https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>).
33. In 19 months since advent of the virus, 1 in 500 Americans have died of COVID-19. (See Johns Hopkins University data <https://coronavirus.jhu.edu/>)
34. The CDC has stated that COVID-19 vaccines are safe and effective. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>)
35. The CDC has stated that “If you are fully vaccinated, you can resume activities that you did prior to the pandemic.” (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>)
36. The CDC has stated that over 403 million doses of COVID-19 vaccine have been given in the United States from December 14, 2020, through October 12, 2021. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>)
37. The CDC has stated that COVID-19 vaccines are safe and effective. COVID-19 vaccines were evaluated in tens of thousands of participants in clinical. The vaccines met the Food and Drug Administration’s (FDA) rigorous scientific standards for safety, effectiveness, and manufacturing quality needed to support approval or authorization of a vaccine. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>).
38. The CDC has stated that Millions of people in the United States have received COVID-19 vaccines since they were authorized for emergency use by the FDA. These vaccines have undergone and will continue to undergo the most intensive safety monitoring in U.S. history. This monitoring includes using both established and new safety monitoring systems to make sure that COVID-19 vaccines are safe. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>).
39. The CDC has stated that the systems in place to monitor the safety of these vaccines have found only two serious types of health problems after vaccination, both of which are rare. These are anaphylaxis and thrombosis with thrombocytopenia syndrome (TTS) after vaccination with J&J/Janssen COVID-19 Vaccine. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>).



40. The CDC has stated that serious side effects that could cause a long-term health problem are extremely unlikely following any vaccination, including COVID-19 vaccination. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>)
41. At the time of the enactment of Executive Orders Nos. 2021-062 through 2021-064, Puerto Rico was in an increasing trend and a case rate of more than 50.98 per 100.00 person, being at the substantial level. ([https://www.salud.gov.pr/estadisticas\\_v2#casos](https://www.salud.gov.pr/estadisticas_v2#casos)).
42. The CDC has stated that COVID-19 vaccines do not change or interact with your DNA in any way. Both mRNA and viral vector COVID-19 vaccines deliver instructions (genetic material) to our cells to start building protection against the virus that causes COVID-19. However, the material never enters the nucleus of the cell, which is where our DNA is kept. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html>).
43. The CDC has stated that COVID-19 vaccination is recommended for everyone 12 years of age or older, including people who are trying to get pregnant now or might become pregnant in the future, as well as their partners. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html>).
44. The CDC has stated that currently no evidence shows that any vaccines, including COVID-19 vaccines, cause fertility problems (problems trying to get pregnant) in women or men. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html>).
45. The CDC has stated that COVID-19 vaccination helps protect people from getting sick or severely ill with COVID-19 and might also help protect people around them. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html>)
46. The CDC has stated that all COVID-19 vaccines currently available in the United States are effective at preventing COVID-19 as seen in clinical trial settings. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html>).
47. The CDC has stated that some people who are fully vaccinated against COVID-19 will still get sick because no vaccine is 100% effective. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html>).
48. The CDC has stated that experts continue to monitor and evaluate how often people who are fully vaccinated against COVID-19 will still get sick, how severe their illness is, and how likely a vaccinated person is to spread COVID-19 to others. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html>).
49. The CDC has stated that vaccine breakthrough infections are expected. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html>).

50. The CDC has stated that vaccines remain effective in protecting most people from COVID-19 infection and its complications. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html>).
51. CDC has multiple surveillance systems and ongoing research studies to monitor the performance of vaccines in preventing infection, disease, hospitalization, and death. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html>).
52. CDC also collects data on vaccine breakthrough infections through outbreak investigations. (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html>).
53. One important system that CDC uses to track vaccine breakthrough infections is COVID-NET (the Coronavirus Disease 2019 [COVID-19]-Associated Hospitalization Surveillance Network). (<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html>).
54. The CDC has stated that efforts to increase vaccination coverage are critical to reducing the risk for COVID-19–related hospitalization, particularly in older adults. ([https://www.cdc.gov/mmwr/volumes/70/wr/mm7032e3.htm?s\\_cid=mm7032e3\\_w](https://www.cdc.gov/mmwr/volumes/70/wr/mm7032e3.htm?s_cid=mm7032e3_w)).

## II. STIPULATIONS SUGGESTED BY PLAINTIFFS AND REJECTED BY DEFENDANTS

	A. Plaintiffs' Suggested Stipulation	B. Defendants' Reason to Reject Suggestion
1.	According to the CDC, as of October 8, 2021, Puerto Rico was listed second among the U.S. jurisdictions (Republic of Palau is listed 1st) in “Doses Administered per 100k by State where Administered” of those reported. Refer to Appendix 1. CDC, COVID-19 Vaccinations in the United States (View: Total Doses, Show: Administered, Metric: Rate per 100,000, Population: Total Population), <i>Data Table for COVID-19 Vaccinations in the United States (Doses Administered per 100k by State where Administered)</i> , <a href="https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-total-admin-rate-total">https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-total-admin-rate-total</a>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.



2.	Palau is a U.S. protectorate with a free-association agreement with the United States, not a U.S. territory as such, so Puerto Rico is first among U.S. states and territories.	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
3.		
4.		
5.		
6.	<p>According to Our World in Data, as of October 8, 2021, the top 11 countries in the world with the highest percentage of fully vaccinated population, among all its people, are Portugal with 86%, United Arab Emirates 84%, Spain 79%, Singapore 78%, Denmark 75%, Chile 74%, Uruguay 74%, Ireland 74%, Canada 72%, China 71%, Italy 69%.<sup>45</sup> Puerto Rico, as of October 8, 2021, has 2,273,035 people fully vaccinated among a total population of 3,285,874, meaning it has 69% of its total population fully vaccinated, which is comparable to worldwide-11th-place Italy. Refer to Appendixes 3A and 4</p> <p>Puerto Rico Health Department COVID Dashboard, <i>Vacunacion</i>, <a href="https://covid19datos.salud.gov.pr/#vacunacion">https://covid19datos.salud.gov.pr/#vacunacion</a></p> <p>United States Census, Puerto Rico: 2020 Census, <a href="https://www.census.gov/library/stories/state-by-state/puerto-rico-population-change-between-census-decade.html">https://www.census.gov/library/stories/state-by-state/puerto-rico-population-change-between-census-decade.html</a></p> <p>Our World in Data, Coronavirus (COVID-19) Vaccinations, (Metric: People vaccinated (by dose)), Share of People Vaccinated Against Covid-19, October 8, 2021, <a href="https://ourworldindata.org/covid-vaccinations">https://ourworldindata.org/covid-vaccinations</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.

7.		
8.	The increase in the percentage of fully vaccinated people after EO 2021-062 was announced, considering the rate of vaccination in Puerto Rico during the 28 days prior to the announcement, has been 0.4% for the first 28 days after the mandate announcement and 0.5% in the following 28 days, so there is an average of 0.45% increase per 28 days since the mandate was announced.	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
9.		
10.		
11.	The total number of fully vaccinated Puerto Ricans aged 60 years or older ( $150,233 + 183,708 + 108,341 + 144,388 + 49,162 + 78,844$ ) is 714,676, which represents 80.4% ( $714,676 / 888,786$ ) of this age group. The total number of Puerto Ricans aged 60 and older with at least one dose ( $163,601 + 199,943 + 118,488 + 157,908 + 54,404 + 88,073$ ) is 782,417, which represents 88% ( $782,417 / 888,786$ ).	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
12.	12. According to the Puerto Rico Health Dept. COVID-19 dashboard, as of October 8, 2021, the 7-day moving average (7dMA) of daily confirmed cases was 78.6 and of daily probable cases was 57.9. There were 100 adults hospitalized and 33 ICU adult hospitalizations due to COVID-19. With 2,690 adult beds available and 188 ICU adult beds available, the percentage of total adult beds occupied related to COVID-19 was 1% and total adult ICU beds occupied due to COVID-19 was 5%. The 7dMA of daily deaths was 3.1. Refer to Appendixes 8A, 8B, 8C and 8D Puerto Rico Health Department COVID-19 Dashboard, Defunciones,	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.

	<a href="https://covid19datos.salud.gov.pr/#defunciones">https://covid19datos.salud.gov.pr/#defunciones</a> Puerto Rico Health Department COVID-19 Dashboard, Casos, <a href="https://covid19datos.salud.gov.pr/#casos">https://covid19datos.salud.gov.pr/#casos</a> Puerto Rico Health Department COVID-19 Dashboard, Sistema de Salud (Hoy, Historico), <a href="https://covid19datos.salud.gov.pr/#sistemas_salud">https://covid19datos.salud.gov.pr/#sistemas_salud</a>	
13.		
14.	<p>As of October 8, 2021, the total of the deaths related to COVID 19 of people 60 years or older totaled 2,431 (985 + 832 + 614) and among those 59 years or younger totaled 762 (451 + 202 + 73 + 28 + 6 + 2). That means that 76.1% of deaths (2,431 / 3,193) are among people 60 years or older. Id.</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.</p>
15.	<p>According to the covidestim: COVID-19 nowcasting website, a project collaboration between Yale School of Public Health, Harvard School of Public Health and Stanford Medical School (supported by Cooperative Agreement NU38OT000297 from the Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists (CSTE)), as of October 6, 2021, the Effective Transmission Rate (Rt), for Puerto Rico was 0.91. On July 28, 2021, it was 1.40, on August 11, 2021, 5 days prior to EO 2021-058 going into effect, it was below 1 at 0.98 and on August 16, 2021, when it went into effect, it was 0.88. "Rt is the average number of people that an individual infected on day t is expected to go on to infect. When Rt is above 1, we expect cases to increase in the near future. When Rt is below one, we expect cases to decrease in the near future." Refer to Appendix 10</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.</p>

	covideestim   COVID-19 nowcasting, Effective reproduction number (Rt), <a href="https://covideestim.org/">https://covideestim.org/</a>	
16.	<p>According to HealthData.gov, on their Territory Profile Report dated October 1, 2021, Puerto Rico's Community Transmission Level is "Moderate Transmission" and the "change from previous week" on Rate of New Covid-19 Cases per 100,000 was -7%, New Confirm Covid-19 Hospital Admissions / 100 beds was -51%, Rate of New COVID-19 Deaths per 100,000 was -29%, while Number of Hospitals with Staff Shortages (Percent) was -17%. Refer to Appendixes 11A and 11B HealthData.gov, COVID-19 State Profile Report - Puerto Rico (October 1, 2021), <a href="https://healthdata.gov/Community/COVID-19-State-Profile-Report-Puerto-Rico/dfc5-i6nj">https://healthdata.gov/Community/COVID-19-State-Profile-Report-Puerto-Rico/dfc5-i6nj</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
17.		
18.		
19.	<p>According to the CDC, in "Using Percent Positivity Calculation for Public Health Surveillance", "Percent positivity can vary depending on the volume of testing and the population tested. A high NAAT percent positivity occurs when many of the test results among those being tested and reported in a community are positive. This can mean the following: There are widespread infections in the community tested. Only those at greatest risk of infection within a community are being tested. There are reporting processes or delays that skew the results</p> <p>CDC, Calculating SARS-CoV-2 Laboratory Test Percent Positivity: CDC Methods and Considerations for Comparisons and Interpretation,</p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.

	<a href="https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/calculating-percent-positivity.html">https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/calculating-percent-positivity.html</a>	
20.	<p>According to the Intelligencer (a New Yorker feature), in a December 7, 2020, report titled “The Problem With the Positivity Rate,” “the positivity rate statistic is so inconsistently calculated and reported across U.S. states that the COVID Tracking Project, one of the nation’s trusted aggregators and reporters of coronavirus data and trends, doesn’t publish it, says Jessica Malaty Rivera, the science communication lead with the project. An October blog post co-authored by Malaty Rivera called positivity rate figures in the U.S. “a mess” and stated that she and her team “emphatically recommend against over-reliance” on it to justify changes in policy.” It also discussed the issue of introducing antigen tests by saying “COVID Tracking Project data collectors have noticed that states are including the results of less accurate, less expensive so-called antigen tests, which look for pieces of the virus, not the whole virus, instead of the results of widely used PCR tests for the entire virus, Malaty Rivera says. “For that reason, I feel especially pessimistic about the future of this calculation,” Malaty Rivera says. “Because if we do see testing increase dramatically, it will be because of an influx in antigen testing. It really should just be PCR testing to determine this. And when we combine units, it’s going back to basic fractions, right? You don’t combine your apples and oranges when you’re doing a math equation. Intelligencer, The Problem With the Positivity Rate,</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<a href="https://nymag.com/intelligencer/2020/12/the-problem-with-the-covid-19-positivity-rate.html">https://nymag.com/intelligencer/2020/12/the-problem-with-the-covid-19-positivity-rate.html</a>	
21.	<p>According to the Families First Coronavirus Response Act, which became public law No. 116-127 on March 18, 2020, under “Division F – Health Provisions, Sec. 6001. Coverage of Testing for COVID-19,” “a group health plan and a health insurance issuer offering group or individual health insurance coverage . . . shall provide coverage, and shall not impose any cost sharing (including deductibles, copayments, and coinsurance) requirements or prior authorization or other medical management requirements, for the following items and services furnished during any portion of the emergency period . . . beginning on or after the date of the enactment of this Act:</p> <p>(1) In vitro diagnostic products (as defined in section 809.3(a) of title 21, Code of Federal Regulations) for the detection of SARS-CoV-2 or the diagnosis of the virus that causes COVID-19 that are approved, cleared, or authorized under section 510(k), 513, 515 or 564 of the Federal Food, Drug, and Cosmetic Act, and the administration of such in vitro diagnostic products.</p> <p>(2) Items and services furnished to an individual during health care provider office visits (which term in this paragraph includes in-person visits and telehealth visits), urgent care center visits, and emergency room visits that result in an order for or administration of an in vitro diagnostic product described in paragraph (1), but only to the extent such items and services relate to the furnishing or administration of such</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>



	<p>product or to the evaluation of such individual for purposes of determining the need of such individual for such product.</p> <p>Congress.gov, H.R.6201 - Families First Coronavirus Response Act, <a href="https://www.congress.gov/bill/116th-congress/house-bill/6201/text">https://www.congress.gov/bill/116th-congress/house-bill/6201/text</a></p>	
22.	<p>According to the U.S. Department of Health and Human Services (HHS), a system called “Community-Based Testing Sites was created” which provides “COVID-19 tests . . . available at no cost nationwide at health centers and select pharmacies. The Families First Coronavirus Response Act ensures that COVID-19 testing is free to anyone in the U.S., including the uninsured.”</p> <p>HHS.gov, Community-Based Testing Sites for COVID-19, <a href="https://www.hhs.gov/coronavirus/community-based-testing-sites/index.html">https://www.hhs.gov/coronavirus/community-based-testing-sites/index.html</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
23.	<p>According to the office of U.S. Congresswoman Jennifer González-Colón, on January 7, 2021 it was reported that “Puerto Rico will receive \$183,823,862 to support COVID-19 test administration efforts.</p> <p>Office of U.S. Congresswoman Jennifer González-Colón, Jenniffer González Colón anuncia \$212 millones para pruebas y vacunas de COVID-19 en Puerto Rico, <a href="https://gonzalez-colon.house.gov/media/press-releases/jenniffer-gonz-lez-col-n-anuncia-212-millones-para-pruebas-y-vacunas-de-covid">https://gonzalez-colon.house.gov/media/press-releases/jenniffer-gonz-lez-col-n-anuncia-212-millones-para-pruebas-y-vacunas-de-covid</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
24.	<p>According the Puerto Rico Health Department, on October 19, 2020, the Administrative Order #467, titled “To clarify the requirement to obtain a prior medical order for the</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories</p>

	<p>administration of tests to detect coronavirus (COVID-19) classified as "exempt" by the federal Food and Drug Administration (FDA, for its acronym in English) during the validity of the existing state of emergency," was signed by the Secretary of Health ordering that "the clinical laboratories of Puerto Rico that are duly licensed and certified, may perform COVID-19 exempt tests without the need for a prior medical order. This applies both to molecular exempt tests, as well as antigen-free tests that have the corresponding authorization from the FDA." (Emphasis added.)</p> <p>Source: Puerto Rico Health Department, OA 467 Aclaración requisito de obtener orden médica para detectar COVID-19, <a href="https://www.salud.gov.pr/CMS/DOWNLOAD/3728">https://www.salud.gov.pr/CMS/DOWNLOAD/3728</a></p>	<p>with their own interpretation of scientific statistical data.</p>
25.	<p>The "EL VOCERO" newspaper reported on September 2, 2021, that the "[Puerto Rico] Health Department limits covid-19 testing due to lack of supplies." It reported that "The Secretary of Health, Carlos Mellado, admitted to EL VOCERO that the number of tests carried out in the 37 fixed centers, where people can perform them for free and obtain the result in a short time, have increased in recent weeks and they have had to start limiting them in some places. We had to limit tests to 175 because there is a national testing shortage. They are guaranteeing us a number of tests, but at least in the Health [Department] tent we limit it. El VOCERO, El Departamento de Salud limita las pruebas de covid-19 por falta de suministros, <a href="https://www.elvocero.com/gobierno/agencias/el-departamento-de-salud-">https://www.elvocero.com/gobierno/agencias/el-departamento-de-salud-</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.</p>

	<a href="https://www.elvocero.com/gobierno/municipal/la-asociacion-de-alcaldes-advierte-la-escasez-de-pruebas-de-antigenos-de-covid-19/article_83407cda-0ba0-11ec-a3da-53146f9e24d0.html">limita-las-pruebas-de-covid-19-por-falta-de-suministros/article_83407cda-0ba0-11ec-a3da-53146f9e24d0.html</a>	
26.	<p>The “El VOCERO” newspaper reported, on September 7, 2021, that “Mayors’ Association warns of shortage of covid-19 antigen testing.” It reported that the president of the Mayors’ Association (“Asociación de Alcaldes”), Hon. Luis Javier Hernández, “made a claim to the Puerto Rico Health Department to activate an action plan under the apparent limitation of antigen tests of COVID-19 ON PENIS’.” It also reported that “the mayor of Isabela, Hon. Miguel Méndez Pérez, pointed out that the participants of the Vital Health Plan of his municipality are being charged \$30 for the Covid-19 antigen test, which results onerous. Source: El VOCERO, , La Asociación de Alcaldes advierte la escasez de pruebas de antígenos de covid-19,</p> <p><a href="https://www.elvocero.com/gobierno/municipal/la-asociacion-de-alcaldes-advierte-la-escasez-de-pruebas-de-antigenos-de-covid/article_9604ceaa-0fd5-11ec-b055-d7a1425e973b.html">https://www.elvocero.com/gobierno/municipal/la-asociacion-de-alcaldes-advierte-la-escasez-de-pruebas-de-antigenos-de-covid/article_9604ceaa-0fd5-11ec-b055-d7a1425e973b.html</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.
27.	<p>The “El Nuevo Dia” newspaper reported on June 15, 2021, the first case of the COVID-19 Delta variant in Puerto Rico.</p> <p>Source: El Nuevo Dia, Confirman el primer caso de la variante Delta del COVID-19 en una niña de cuatro años,</p> <p><a href="https://www.elnuevodia.com/noticias/locales/notas/confirman-el-primer-caso-de-la-variante-delta-del-covid-19-en-una-nina-de-cuatro-anos/">https://www.elnuevodia.com/noticias/locales/notas/confirman-el-primer-caso-de-la-variante-delta-del-covid-19-en-una-nina-de-cuatro-anos/</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.
28.		
29.	29. As of October 8, 2021, 4.6% (150,569 / 3,285,874) of the total	The Proposed stipulation is speculative, flawed, and contains

	<p>population of Puerto Rico has had a confirmed case of COVID-19 and 0.98% (32,210 / 3,285,874) has had a probable case of COVID-19. That is, since the first confirmed case in Puerto Rico on March 9, 2020 and up to October 8, 2021, almost 19 months, 95.4% of the population in Puerto Rico has not had a recorded confirmed case of COVID-19 and 99.02% of the population in Puerto Rico has not had a recorded probable case of COVID-19. Id.</p>	<p>legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.</p>
30.	<p>According to the Puerto Rico Health Department COVID-19 dashboard, on November 23, 2020 we had the highest 7-day Moving Average (7dMA) of confirmed cases in 2020 with 847.6 confirmed cases. In 2021, the highest 7dMA of confirmed cases occurred in April 15 with a 7dMA of 827. In the month of August 2021, the highest 7dMA occurred in August 14 with 620 confirmed cases. Refer to Appendix 15.</p> <p>Puerto Rico Health Department COVID-19 Dashboard, <i>Casos</i>, <a href="https://covid19datos.salud.gov.pr/#casos">https://covid19datos.salud.gov.pr/#casos</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.</p>
31.	<p>According to the Puerto Rico Health Department COVID-19 dashboard, on August 14, 2021, two days prior to EO 2021-062 becoming effective, the 7dMA of daily confirmed cases was 620 confirmed cases. On August 16, 2021 it was 603.1 confirmed cases, on August 31, 2021 was 453.4 confirmed cases, on September 12, 2021 was 284 confirmed cases, on September 27, 2021 was 131.4 confirmed cases and October 6, 2021 was 72.6 confirmed cases. Refer to Appendixes 16A, 16B and 16C</p> <p>Puerto Rico Health Department COVID-19 Dashboard, <i>Casos</i>,</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.</p>

	<a href="https://covid19datos.salud.gov.pr/#casos">https://covid19datos.salud.gov.pr/#casos</a>	
32.	<p>According to the Puerto Rico Health Department COVID-19 dashboard, on August 14, 2021, two days prior to EO 2021-062 becoming effective, the 7dMA of daily probable cases was 331.4 probable cases. On August 16, 2021 it was 319.9 probable cases, on August 31, 2021 was 233 probable cases, on September 12, 2021 was 120.4 probable cases, on September 27, 2021 was 63.6 probable cases and on October 6, 2021 was 58 probable cases. Refer to Appendixes 17A, 17B and 17C</p> <p>Puerto Rico Health Department COVID-19 Dashboard, <i>Casos</i>, <a href="https://covid19datos.salud.gov.pr/#casos">https://covid19datos.salud.gov.pr/#casos</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
33.		
34.	<p>The positivity rate for molecular tests prior to the Delta variant, from July 1, 2020 to June 15, 2021, in Puerto Rico was 5.8% (120,590 / 2,067,324) and with the Delta variant, from June 16 to October 7, 2021, it has been 4.8% (27,760 / 578,994).</p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
35.	<p>According to the Puerto Rico Health Department COVID-19 dashboard, from July 1, 2020 to June 15, 2021, there were 16,853 accumulated probable cases and 1,222,046 accumulated antigen tests administered and, from June 16 to October 7, 2021, there were 15,314 accumulated probable cases and 1,048,449 accumulated antigen tests administered. Refer to Appendixes 19A and 19B.</p> <p>Puerto Rico Health Department COVID-19 Dashboard, <i>Casos</i>, <a href="https://covid19datos.salud.gov.pr/#casos">https://covid19datos.salud.gov.pr/#casos</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.

	Puerto Rico Health Department Covid-19 Dashboard, Pruebas, <a href="https://covid19datos.salud.gov.pr/#pruebas">https://covid19datos.salud.gov.pr/#pruebas</a>	
36.	The positivity rate for antigen tests prior to the Delta variant, from July 1, 2020 to June 15, 2021, in Puerto Rico was 1.4% (16,853 / 1,222,046), and with the Delta variant, from June 16 to October 7, 2021, it has been 1.5% (15,314 / 1,048,449). <i>Id.</i>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
37.	According to the Puerto Rico Health Department COVID-19 dashboard, from July 1, 2020 to June 15, 2021, there were 137,443 accumulated confirmed and probable cases and 3,289,370 accumulated molecular and antigen tests administered and, from June 16 to October 7, 2021, there were 43,074 accumulated confirmed and probable cases and 1,627,443 accumulated molecular and antigen tests administered. Refer to Appendixes 20A and 20B Puerto Rico Health Department COVID-19 Dashboard, <i>Casos</i> , <a href="https://covid19datos.salud.gov.pr/#casos">https://covid19datos.salud.gov.pr/#casos</a> Puerto Rico Health Department Covid-19 Dashboard, Pruebas, <a href="https://covid19datos.salud.gov.pr/#pruebas">https://covid19datos.salud.gov.pr/#pruebas</a>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
38.	The positivity rate for total (molecular and antigen) tests prior to the Delta variant, from July 1, 2020 to June 15, 2021, in Puerto Rico was 4.2% (137,443 / 3,289,370) and with the Delta variant, from June 16 to October 7, 2021, it has been 2.6% (43,074 / 1,627,443). <i>Id.</i>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
39.	The empirical data shows that the virus in Puerto Rico, even with the Delta variant, did not spread any faster among the population than before. In fact, the empirical data shows that the spreading, when	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of



	looking at the positivity rate for total tests, was almost 40% less during the Delta variant than before.	scientific statistical data.
40.		
41.	<p>According to the CDC, Puerto Rico's "case rate per 100,000", since Jan 21, 2020, as of October 9, 2021, were Puerto Rico 5,711 cases, Connecticut 11,051 cases, Nevada 14,163 cases, Iowa 14,732 cases, Utah 16,226 cases and 16,619 deaths. Refer to Appendix 21</p> <p>Cases, Deaths and Testing (View: Cases, Time Period: Since Jan 21, 2020, Metric: Rate per 100,000), <i>Data Table for Case Rate by State/Territory</i>, <a href="https://covid.cdc.gov/covid-data-tracker/#cases_casesper100k">https://covid.cdc.gov/covid-data-tracker/#cases_casesper100k</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
42.		
43.		
44.	Puerto Rico case rate per 100,000 since Jan 21, 2020, as of October 9, 2021, has been between 50% and 75% less than the case rate per 100,000 of Connecticut, Nevada, Iowa, Utah and Arkansas, all of these states have a similar population to Puerto Rico with population density that is from 23% lower to 34x lower than the one in Puerto Rico.	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
45.	<p>When using the Predicted Active Cases model from California State Polytechnic University, as of October 9, 2021, Puerto Rico's Predictive Active Cases up to October 7, 2021 was estimated to be 706 active cases. California State Polytechnic University, COVID-19 Total Cases and Estimated of Active Cases in Southern California, 4 Predictive Active Cases</p> <p><a href="https://www.cpp.edu/~clange/covid19/Covid19ReportCaliforniaComp.html#4_Predicted_Active_Cases">https://www.cpp.edu/~clange/covid19/Covid19ReportCaliforniaComp.html#4_Predicted_Active_Cases</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
46.		

47.		
48.		
49.	<p>According to the CDC, as of October 6, 2021, the 7-day moving average of daily “new admissions of patients with confirmed with COVID-19” the highest it has been in August 2021 was August 21 with 33 new admissions. The highest it has been in 2021 was in April 27 with 47 new admissions and the highest it has been in 2020 was on November 10, with 189 new admissions.</p> <p>CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico),  <a href="https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions">https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
50.	<p>According to the Puerto Rico Health Department COVID-19 dashboard, since November 21, 2021 until October 7, 2021, the highest percentage of adult hospital beds occupied due to COVID was 10% on December 11 and 12, 2020 followed by April 21 to 27, 2021 with 8% and then August 19 to 31, 2021 with 7%. On adult ICU beds occupied due to COVID, the highest percentage in 2020 was November 24, with 15% and in 2021 was August 30 with 21% followed by August 20 and September 7 with 20%. The percentage of adults’ beds not occupied has never been less than 35% and of ICU adult beds has never been less than 20%. Refer to Appendix 25</p> <p>Puerto Rico Health Department Covid-19 Dashboard, Sistema de Salud (Historico),  <a href="https://covid19datos.salud.gov.pr/#sis temas_salud">https://covid19datos.salud.gov.pr/#sis temas_salud</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
51.	<p>There have been three “waves” in Puerto Rico, two before the Delta variant and one after it. In the first</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the</p>

<p>wave, between the end of October 2020 and the end of January 2021, the peak of the 7dMA of confirmed cases was on November 23, 2020 with 847.6 cases, the peak of 7dMA of New Admissions of Patients with Confirmed COVID-19 was on November 10, 2020 with 189 admissions, the peak of adult hospitalizations was on December 10, 2020 with 657 hospitalizations with 2,776 adult beds available, the peak of ICU adult hospitalizations was November 24, 2020 with 110 ICU hospitalizations with 182 ICU adult beds available, the peak of percentage of total adult beds occupied due to COVID-19 was on December 10 and 11, 2021 with 10% and of total ICU adult beds occupied due to COVID-19 was on November 24, 2020 with 15% and the peak of 7dMA of deaths related to COVID was on December 12, 2020 with 16.7 deaths.</p> <p>For the second wave, between the end of March and the end of May 2021, the peak of the 7dMA of confirmed cases was on April 15, 2021 with 827 cases, the peak of 7dMA of New Admissions of Patients with Confirmed COVID-19 was on April 27, 2021 with 47 admissions, the peak of adult hospitalizations was on April 27, 2021 with 520 hospitalizations with 2,885 adult beds available, the peak of ICU adult hospitalizations was April 26, 2021 with 111 ICU hospitalizations with 204 ICU adult beds available, the peak of percentage of total adult beds occupied due to COVID-19 was on April 21 through 27, 2021 with 8% and of total ICU adult beds occupied due to COVID-19 was on April 21, 22, 25 and 26, 2021 with 14% and the peak of</p>	<p>narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.</p>
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<p>7dMA of deaths related to COVID was on April 22, 2021 with 9.9 deaths.</p> <p>For the third wave, between the end of July and the middle of September 2021, the peak of the 7dMA of confirmed cases was on August 14, 2021 with 620 cases, the peak of 7dMA of New Admissions of Patients with Confirmed COVID-19 was on August 21, 2021 with 33 admissions, the peak of adult hospitalizations was on August 25, 2021 with 515 hospitalizations with 2,507 adult beds available, the peak of ICU adult hospitalizations was August 30, 2021 with 130 ICU hospitalizations with 176 ICU adult beds available, the peak of percentage of total adult beds occupied due to COVID-19 was on August 19 through 31, 2021 and then on September 2 and 3, 2021 with 7% and of total ICU adult beds occupied due to COVID-19 was on August 30, 2021 with 21% and the peak of 7dMA of deaths related to COVID was on August 31, 2021 with 14.3 deaths.</p> <p>Puerto Rico Health Department COVID-19 Dashboard, Defunciones, <a href="https://covid19datos.salud.gov.pr/#defunciones">https://covid19datos.salud.gov.pr/#defunciones</a></p> <p>Puerto Rico Health Department COVID-19 Dashboard, Casos, <a href="https://covid19datos.salud.gov.pr/#casos">https://covid19datos.salud.gov.pr/#casos</a></p> <p>Puerto Rico Health Department COVID-19 Dashboard, Sistema de Salud (Hoy, Historico), <a href="https://covid19datos.salud.gov.pr/#sistemas_salud">https://covid19datos.salud.gov.pr/#sistemas_salud</a></p> <p>CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <a href="https://covid.cdc.gov/covid-data-">https://covid.cdc.gov/covid-data-</a></p>	
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	<a href="https://covid19datos.salud.gov.pr/#sistemas_salud">tracker/#new-hospital-admissions</a> Puerto Rico Health Department Covid-19 Dashboard, Sistema de Salud (Historico), <a href="https://covid19datos.salud.gov.pr/#sistemas_salud">https://covid19datos.salud.gov.pr/#sistemas_salud</a>	
52.	For third “wave”, between end of July and middle of September, which includes the Delta variant, the peak of the 7dMA of confirmed cases was 27% less than in the first wave and 25% less than in the second wave, the peak of 7dMA of New Admissions of Patients with Confirmed COVID-19 was 83% less than in the first wave and 30% less than in the second wave, the peak of adult hospitalizations was 22% less than in the first wave and 1% less than in the second wave, the peak of ICU adult hospitalizations was 15% more than in the first wave and second wave, the peak of percentage of total adult beds occupied due to COVID-19 was 30% less than in the first wave and 13% less than in the second wave and of total ICU adult beds occupied due to COVID-19 was 6% more than in the first wave and 7% more than in the second wave and the peak of 7dMA of deaths related to COVID was 15% less than in the first wave and 30% more than in the second wave. Id.	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.
53.	The fact that our hospitals have not exceeded, since vaccination started at the beginning of December 2020, 8% utilization in adult beds and 21% utilization in ICU beds and total adult beds availability has been maintained at over 30% and total ICU adult bed availability has been maintained at over 20%, provides empirical data to demonstrate that non-vaccinated individuals are risking the public’s health system capability or that	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.

	causes a threat of collapse to the healthcare system. Refer to Appendix 25. Puerto Rico Health Department Covid-19 Dashboard, Sistema de Salud (Historico), <a href="https://covid19datos.salud.gov.pr/#sis temas_salud">https://covid19datos.salud.gov.pr/#sis temas_salud</a>	
54.		
55.	<p>According to Trilliant Health, in its Trilliant Blog, under an opinion titled “Farr's Law: It's Happening...”, stated that “In 1840, the British epidemiologist William Farr submitted a letter to the Registrar-General... Mr. Farr observed that “diseases of the epidemic class follow laws of their own; they remain nearly stationary during months, years, and, as we learn from medical history, centuries; then suddenly rise, like a mist from the earth, and shed desolation on nations – to disappear as rapidly or insensibly as they came.” It continues saying that “According to Farr’s Law, epidemics rise and fall at a mathematically predictable rate that can be calculated by a single mathematical formula approximated by a bell-shaped curve.” It also states that according to Mr. Farr, “epidemics have furnished much matter for discussion, and still offer large scope for inquiry...Epidemics appear to be generated at intervals in unhealthy places, spread, go through a regular course, and decline; but of the cause of their evolutions no more is known than of the periodical paroxysms of ague.</p> <p>Trillian Health. Farr’s Law: It’s Happening (October 1, 2020), <a href="https://blog.trillianthealth.com/farrs-law-its-happening">https://blog.trillianthealth.com/farrs-law-its-happening</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.
56.	The “El VOCERO” newspaper	The Proposed stipulation is



	<p>published, on August 16, 2021, an article titled “En estado de alerta los hospitales” that the president of the “Hospital Association of Puerto Rico,” Attorney Jaime Plá said, “The reality is that hospitals have not been able to recover and return to the censuses they had prior to the pandemic. Before, hospitals could be 100% and others had less. The normal average was between 77% and 82% occupancy. Now they are still at 60%, about 20% less. EL VOCERO, En estado de alerta los hospitales,</p> <p><a href="https://www.elvocero.com/economia/otros/en-estado-de-alerta-los-hospitales/article_3363670c-fe00-11eb-97f1-fb8badc7ec5d.html">https://www.elvocero.com/economia/otros/en-estado-de-alerta-los-hospitales/article_3363670c-fe00-11eb-97f1-fb8badc7ec5d.html</a></p>	<p>speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
57.		
58.	<p>According to the HHS Protect Inpatient Dashboard, as of October 8, 2021, the overall Inpatient Bed Utilization in the United States is 77.87% and in Puerto Rico 61.85% and the overall Inpatient Beds In Use for Covid-19 in the United States is 8.76% and in Puerto Rico is 1.42%. The overall ICU Bed Utilization in the United States is 78.19% and in Puerto Rico is 73.74% and the overall ICU Beds In Use for Covid-19 in the United States is 21.47% and in Puerto Rico is 5.6%. Refer to Appendixes 26A and 26B.</p> <p>HHS, HHS Protect Inpatient Bed Dashboard, <a href="https://protect-public.hhs.gov/pages/hospital-utilization">https://protect-public.hhs.gov/pages/hospital-utilization</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
59.	<p>The “Medicina y Salud Publica” digital paper, on November 12, 2021, published an article titled “They advocate for the elimination of the requirement for a referral in telemedicine service and the COVID-19 test,” that, “at the beginning of the</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<p>pandemic during the month of March, it had been established that it was not a requirement to implement the referral to receive medical, laboratory, or medical services, radiology and hospital services. However, on October 9, the Puerto Rican government reported that it will be necessary and reestablishes the aforementioned requirement to be able to care for Vital Plan patients. Medicina y Salud Publica, Abogan para que se elimine requisito de referido en servicio de telemedicina y la prueba de COVID-19, <a href="https://medicinaysaludpublica.com/noticias/administracion-y-gerencia-medicina/abogan-para-que-se-elimine-requisito-de-referido-en-servicio-de-telemedicina-y-la-prueba-de-covid-19/7244">https://medicinaysaludpublica.com/noticias/administracion-y-gerencia-medicina/abogan-para-que-se-elimine-requisito-de-referido-en-servicio-de-telemedicina-y-la-prueba-de-covid-19/7244</a></p>	
60.		
61.		
62.		
63.		
64.	<p>According to the CDC, for cumulative deaths related to COVID per 100,000, as of October 9, 2021, Utah has 93 deaths, Puerto Rico has 99 deaths, Iowa has 210 deaths, Nevada has 236 deaths, Connecticut has 243 deaths and Arkansas has 258 deaths. Refer to Appendix 26. CDC, Cases, Deaths and Testing (View: Deaths, Time Period: Since Jan 21, 2020, Metric: Rate per 100,000), Data Table for Death Rate by State/Territory, <a href="https://covid.cdc.gov/covid-data-tracker/#cases_deathsper100k">https://covid.cdc.gov/covid-data-tracker/#cases_deathsper100k</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.</p>
65.	<p>According to the Puerto Rico Health Department COVID-19 dashboard, as of October 8, 2021, the highest 7dMA of daily deaths in 2020 was on December 12, 2020 with 16.7 deaths, and in 2021 was on August 31 and</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of</p>

	<p>September 1, 2021, with 14.3 deaths. On October 8, the 7dMA of daily deaths was 3.1 deaths. Refer to Appendix 29A and 29B.</p> <p>Puerto Rico Health Department COVID-19 Dashboard, Defunciones, <a href="https://covid19datos.salud.gov.pr/#defunciones">https://covid19datos.salud.gov.pr/#defunciones</a></p>	scientific statistical data.
66.	<p>According to the Puerto Rico Health Department's data, three of the deaths among the ages of 10 and 19 happened after vaccine availability. (June, August and October 2021). Puerto Rico Health Department COVID-19 Dashboard, Defunciones, <a href="https://covid19datos.salud.gov.pr/#defunciones">https://covid19datos.salud.gov.pr/#defunciones</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
67.	<p>Noticel reported, on September 29, 2021, under the news article "Forensic Sciences has certified 140 deaths from Covid-19 since the pandemic began" that "the Institute of Forensic Sciences (ICF) confirmed today that in August they certified 15 cases of deaths from covid-19, which brings to 140 certified cases since the pandemic began. In that statistic, the cases of this month of September are not yet added, which has not yet ended, said Dr. María Conte Miller, director of the ICF today.</p> <p>Noticel, Ciencias Forenses ha certificado 140 muertes por covid-19 desde que empezó la pandemia, <a href="https://www.noticel.com/salud/ahora/top-stories/20210929/ciencias-forenses-ha-certificado-140-muertes-por-covid-19-desde-que-empezo-la-pandemia/">https://www.noticel.com/salud/ahora/top-stories/20210929/ciencias-forenses-ha-certificado-140-muertes-por-covid-19-desde-que-empezo-la-pandemia/</a></p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.
68.	<p>According to the American Academy of Pediatrics, "among states reporting, children ranged from 1.6%-4.1% of their total cumulated hospitalizations, and 0.1%-2.0% of all their child COVID-19 cases resulted in hospitalization" and</p>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs' view and legal theories with their own interpretation of scientific statistical data.

	<p>“among states reporting, children were 0.00%-0.27% of all COVID-19 deaths, and 7 states reported zero child deaths. In states reporting, 0.00%-0.03% of all child COVID-19 cases resulted in death.</p> <p>American Academy of Pediatrics, Children and COVID-19: State-Level Data Report,  <a href="https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/">https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/</a></p>	
69.	<p>Primera Hora reported on September 13, 2021, under the article “ICF delivers to Health a report that confirms that a five-year-old girl died of COVID-19” that “the minor, a resident of the southern area and who had a history of chronic asthma, died at an area hospital before receiving a diagnosis from an emergency room doctor.” Also stated, “this [chronic asthma] is an underlying condition that aggravates the clinical picture in patients with COVID-19 disease.”</p> <p>Primera Hora, ICF entrega a Salud informe que confirma que niña de cinco años murió por COVID-19,  <a href="https://www.primerahora.com/noticias/gobierno-politica/notas/icf-entrega-a-salud-informe-que-confirma-que-nina-de-cinco-anos-murio-por-covid-19/">https://www.primerahora.com/noticias/gobierno-politica/notas/icf-entrega-a-salud-informe-que-confirma-que-nina-de-cinco-anos-murio-por-covid-19/</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
70.	<p>According to the National Vaccine Information Center, search results for the CDC VAERS system, it found 97 adverse event cases for pregnancy and breast feeding.</p> <p>National Vaccine Information Center, Vaccine targets COVID-19 (COVID19) and Symptom is Breast feeding,  <a href="https://medalerts.org/vaersdb/findfield.php?TABLE=ON&amp;GROUP1=AGE&amp;EVENTS=ON&amp;SYMPTOMS=Bre">https://medalerts.org/vaersdb/findfield.php?TABLE=ON&amp;GROUP1=AGE&amp;EVENTS=ON&amp;SYMPTOMS=Bre</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<a href="#">ast+feeding+%2810006247%29&amp;VAX=COVID19&amp;VAXTYPES=COVID-19</a>	
71.	<p>According to The Israeli Public Emergency Council For The Covid19 Crisis, “the implicit message that emerges from the existing discourse, suggesting that unvaccinated people, unlike vaccinated people, pose a risk to others, is actually most dangerous to the vaccinated persons themselves, as it fosters the illusion that vaccination protects against contagion, and thus encourages careless behaviors of vaccinated persons in public spaces shared with high-risk populations. Medicine is not only a science; it is also intertwined into the social, ethical and moral fabric. The right of society to protection prevails over the right of the individual to freedom only when there is a real danger (as is done in the case of violent psychotic patients, or in the very different case of prisoners). It is wrong to restrict a person’s liberty due to a remote potential risk (for example, the case of an AIDS patient, a person returning from a country with a high rate of tuberculosis or tropical diseases, or, to give a very different example, a released prisoner with a high chance of reoffending). We call for continued effort to persuade and make information accessible to members of the elderly population or those who are at high risk but have not yet been vaccinated with the first two doses. The choice of whether to get vaccinated should remain in the hands of every person, according to their understanding and values.”</p> <p>The Israeli Public Emergency Council for the Covid19 Crisis, Position Paper - The Science And</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<p>The Ethics Regarding The Risk Posed By Non-Vaccinated Individuals, <a href="https://pecc-il.org/docs/position-paperthe-science-and-the-ethics-regarding-the-risk-posed-by-non-vaccinated-individuals/">https://pecc-il.org/docs/position-paperthe-science-and-the-ethics-regarding-the-risk-posed-by-non-vaccinated-individuals/</a></p>	
72.	<p>According to The Lancet, on the research paper titled “Transmission, viral kinetics and clinical characteristics of the emergent SARS-CoV-2 Delta VOC in Guangzhou, China” published on September 12, 2021, “the Delta VOC yielded a significantly shorter incubation period (4.0 vs. 6.0 days), higher viral load (20.6 vs. 34.0, cycle threshold of the ORF1a/b gene), and a longer duration of viral shedding in pharyngeal swab samples (14.0 vs. 8.0 days) compared with the wild-type strain.”</p> <p>The Lancet, Transmission, viral kinetics and clinical characteristics of the emergent SARS-CoV-2 Delta VOC in Guangzhou, China (September 12, 2021), <a href="https://www.thelancet.com/journals/clinm/article/PIIS2589-5370(21)00409-0/fulltext">https://www.thelancet.com/journals/clinm/article/PIIS2589-5370(21)00409-0/fulltext</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
73	<p>According to JAMA Internal Medicine, in the original investigation paper titled “COVID-19 Transmission Dynamics Among Close Contacts of Index Patients With COVID-19: A Population-Based Cohort Study in Zhejiang Province, China”, published on August 23, 2021, “contacts were at highest risk of COVID-19 if they were exposed between 2 days before and 3 days after the index patient’s symptom onset, peaking at day 0”. JAMA Internal Medicine, COVID-19 Transmission Dynamics Among Close Contacts of Index Patients With COVID-19: A Population-</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>



	Based Cohort Study in Zhejiang Province, China (August 23, 2021), <a href="https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2783099">https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2783099</a>	
74.	According to the CDC, “Cycle threshold values were similar among specimens from patients who were fully vaccinated and those who were not.” It further says in the discussion, “...there was no significant difference between the Ct values of samples collected from breakthrough cases and the other cases. This might mean that the viral load of vaccinated and unvaccinated persons infected with SARS-CoV-2 is also similar. CDC, MMWR Outbreak of SARS-CoV-2 Infections, Including COVID-19 Vaccine Breakthrough Infections, Associated with Large Public Gatherings — Barnstable County, Massachusetts, July 2021, <a href="https://www.cdc.gov/mmwr/volumes/70/wr/mm7031e2.htm">https://www.cdc.gov/mmwr/volumes/70/wr/mm7031e2.htm</a>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.
75.	According to the CDC, on a “Statement from CDC Director Rochelle P. Walensky, MD, MPH on Today’s MMWR” published on July 30, 2021, it says “...today, some of those data were published in CDC’s Morbidity and Mortality Weekly Report (MMWR), demonstrating that Delta infection resulted in similarly high SARS-CoV-2 viral loads in vaccinated and unvaccinated people. High viral loads suggest an increased risk of transmission and raised concern that, unlike with other variants, vaccinated people infected with Delta can transmit the virus. CDC Newsroom, Statement from CDC Director Rochelle P. Walensky, MD, MPH on Today’s MMWR (July 30, 2021), <a href="https://www.cdc.gov/media/releases/">https://www.cdc.gov/media/releases/</a>	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.

	<a href="https://www.mmrwr-covid-19.html">2021/s0730-mmwr-covid-19.html</a>	
76.	<p>According to medRxiv, in the study “Virological and serological kinetics of SARS-CoV-2 Delta variant vaccine-breakthrough infections: a multi-center cohort study”, published on July 31, 2021, “the initial median Ct value did not differ between unvaccinated and fully vaccinated patients (unvaccinated median Ct 18.8 (14.9-22.7), vaccinated 19.2 (15.2-22.2), <math>p=0.929</math>). However, fully vaccinated patients had a faster rate of increase in Ct value over time compared with unvaccinated individuals, suggesting faster viral load decline (coefficient estimates for interaction terms ranged from 9.12 (standard error 3.75) to 12.06 (standard error 3.03); <math>p</math>-value <math>&lt;0.05</math> for each interaction terms) (Figure 1).” It said, “initial viral load indicated by PCR Ct values was similar between vaccinated and unvaccinated patients with B.1.617.2”. It was denoted as the day one of illness “for symptomatic patients, from the day of symptom onset or the day of confirmatory COVID-19 diagnosis, whichever earlier.</p> <p>medRxiv, Virological and serological kinetics of SARS-CoV-2 Delta variant vaccine-breakthrough infections: a multi-center cohort study (July 31, 2021), <a href="https://www.medrxiv.org/content/10.1101/2021.07.28.21261295v1">https://www.medrxiv.org/content/10.1101/2021.07.28.21261295v1</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
77.	<p>For the first 7 days, viral load in vaccinated patients and unvaccinated individuals remains similar with <math>Ct &lt; 25</math>. Therefore, during the time of most contagiousness, 2 days before and 3 days after, both unvaccinated and vaccinated carry the same viral load.</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<p>JAMA Internal Medicine, COVID-19 Transmission Dynamics Among Close Contacts of Index Patients With COVID-19: A Population-Based Cohort Study in Zhejiang Province, China (August 23, 2021), <a href="https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2783099">https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2783099</a></p> <p>medRxiv, Virological and serological kinetics of SARS-CoV-2 Delta variant vaccine-breakthrough infections: a multi-center cohort study (July 31, 2021), <a href="https://www.medrxiv.org/content/10.1101/2021.07.28.21261295v1">https://www.medrxiv.org/content/10.1101/2021.07.28.21261295v1</a></p>	
78.	<p>According to medRxiv, in the study titled “Shedding of Infectious SARS-CoV-2 Despite Vaccination” published on August 24, 2021, they “observed low Ct values (&lt;25) in 212 of 310 fully vaccinated (68%) and 246 of 389 (63%) unvaccinated individuals. Testing a subset of low-Ct samples revealed infectious SARS-CoV-2 in 15 of 17 specimens (88%) from unvaccinated individuals and 37 of 39 (95%) from vaccinated people. Low Ct values were detected in vaccinated people regardless of symptoms at the time of testing.” Moreover, “time from symptom onset to testing did not vary by vaccination status.” and “although few asymptomatic individuals were sampled, these results indicate that even asymptomatic, fully vaccinated people might shed infectious virus.” medRxiv, Shedding of Infectious SARS-CoV-2 Despite Vaccination (August 24, 2021), <a href="https://www.medrxiv.org/content/10.1101/2021.07.31.21261387v4.full">https://www.medrxiv.org/content/10.1101/2021.07.31.21261387v4.full</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
79.	<p>According to The New England Journal of Medicine, on the research article titled “Waning of BNT162b2</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the</p>

	<p>Vaccine Protection against SARS-CoV-2 Infection in Qatar” published October 6, 2021, stated in their results that the “estimated BNT162b2 effectiveness against any SARS-CoV-2 infection...reached its peak at 77.5% in the first month after the second dose. Effectiveness declined gradually thereafter, with the decline accelerating after the fourth month to reach approximately 20% in months 5 through 7 after the second dose.” It concluded that “BNT162b2-induced protection against SARS-COV-2 infection appeared to wane rapidly following its peak after the second dose, but protection against hospitalization and death persisted at a robust level for 6 months after the second dose. ”</p> <p>New England Journal of Medicine, Waning of BNT162b2 Vaccine Protection against SARS-CoV-2 Infection in Qatar (October 6, 2021), <a href="https://www.nejm.org/doi/full/10.1056/NEJMoa2114114">https://www.nejm.org/doi/full/10.1056/NEJMoa2114114</a></p>	<p>narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
80.	<p>According to Nature, on the scientific study “Rates of SARS-CoV-2 transmission and vaccination impact the fate of vaccine-resistant strains”, published on July 30, 2021, “the emergence of vaccine-resistant strains may come too rapidly for current vaccine developments to alleviate the health, economic and social consequences of the pandemic.” In its discussion it states “By contrast, a counterintuitive result of our analysis is that the highest risk of resistant strain establishment occurs when a large fraction of the population has already been vaccinated but the transmission is not controlled. Indeed, it seems likely that when a large fraction of the population is vaccinated, especially</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<p>the high-risk fraction of the population (aged individuals and those with specific underlying conditions) policy makers and individuals will be driven to return to pre-pandemic guidelines<sup>59</sup> and behaviours conducive to a high rate of virus transmission<sup>60,61</sup>. However, the establishment of a resistant strain at that time may lead to serial rounds of resistant strain evolution with vaccine development playing catch up in the evolutionary arms race against novel strains.”</p> <p>Nature, Rates of SARS-CoV-2 transmission and vaccination impact the fate of vaccine-resistant strains, <a href="https://www.nature.com/articles/s41598-021-95025-3">https://www.nature.com/articles/s41598-021-95025-3</a></p>	
81.	<p>According to medRxiv, the article titled “Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections”, published on August 25, 2021, states that “SARS-CoV-2-naïve vaccinees had a 13.06-fold increased risk for breakthrough infection with the Delta variant compared to those previously infected”. It concluded that the study “demonstrated that natural immunity confers longer lasting and stronger protection against infection, symptomatic disease and hospitalization caused by the Delta variant of SARS-CoV-2, compared to the BNT162b2 two-dose vaccine-induced immunity.</p> <p>medRxiv, Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections (August 25, 2021), <a href="https://www.medrxiv.org/content/10.1101/2021.08.24.21262415v1">https://www.medrxiv.org/content/10.1101/2021.08.24.21262415v1</a></p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
82.	According to the European Journal of	The Proposed stipulation is

	<p>Immunology, the research article titled “Persistence of neutralizing antibodies a year after SARS-CoV-2 infection in humans” published September 27, 2021, natural immunity could last at least 13 months, “the proportion of subjects with neutralizing antibodies (NAb) were assessed. We found that NAb against the wild-type virus persisted in 89% and S-IgG in 97% of subjects for at least 13 months after infection. Subjects with severe infection had markedly higher IgG and NAb levels and are expected to remain seropositive for longer.” European Journal of Immunology, Persistence of neutralizing antibodies a year after SARS-CoV-2 infection in humans (September 27, 2021), <a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/eji.202149535">https://onlinelibrary.wiley.com/doi/abs/10.1002/eji.202149535</a></p>	<p>speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
83.	<p>According to The Lancet, on the research article titled “Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study” published October 4, 2021, “for fully vaccinated individuals, effectiveness against SARS-CoV-2 infections was 73%”. However, “effectiveness against infections declined from 88% (95% CI 86–89) during the first month after full vaccination to 47% (43–51) after 5 months. Among sequenced infections, vaccine effectiveness against infections of the delta variant was high during the first month after full vaccination (93%) but declined to 53% after 4 months.” It interprets in the study, among other things, that “reduction in vaccine effectiveness against SARS-CoV-2 infections over time is probably primarily due to waning immunity</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<p>with time rather than the delta variant escaping vaccine protection.</p> <p>The Lancet, Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study (October 4, 2021), <a href="https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02183-8/fulltext">https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02183-8/fulltext</a></p>	
84.	<p>According to The New England Journal of Medicine, on the research article title “Waning Immune Humoral Response to BNT162b2 Covid-19 Vaccine over 6 Months” published October 6, 2021, a “study was conducted from December 19, 2020, to July 9, 2021. Of the 12,603 vaccinated health care workers who were eligible for the study, 4868 were recruited for study participation”. It concluded that “six months after receipt of the second dose of the BNT162b2 vaccine, humoral response was substantially decreased, especially among men, among persons 65 years of age or older, and among persons with immunosuppression.” It adds that “published work about many vaccines, such as those against measles, mumps, and rubella, has shown a small decrease each year of 5 to 10% in the neutralizing antibody levels.<sup>13,14</sup> We found that a significant and rapid decrease in humoral response to the BNT162b2 vaccine was observed within months after vaccination.” As to natural immunity it stated, “several studies on the durability of humoral response in persons who have recovered from SARS-CoV-2 infection showed that both IgG and neutralizing antibody levels decrease only modestly at 8 to 10 months after the infection. This</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>



	<p>striking difference in antibody kinetics between convalescent persons and vaccinated persons may be the reason for the substantially lower incidence of breakthrough infection among previously infected persons than among vaccinated persons.<sup>24,25</sup> Overall, the accumulating evidence from our study and others shows that long-term humoral response and vaccine effectiveness in previously infected persons were superior to that in recipients of two doses of vaccine. New England Journal of Medicine, Waning Immune Humoral Response to BNT162b2 Covid-19 Vaccine over 6 Months (October 6, 2021), <a href="https://www.nejm.org/doi/full/10.1056/NEJMoa2114583">https://www.nejm.org/doi/full/10.1056/NEJMoa2114583</a></p>	
85.	<p>According to the Foundation for Economic Education (FEE), on an article title “Stanford Epidemiologist Says COVID Vaccination Is Primarily a Matter of Personal Health, Not Public Health” published October 8, 2021, and written by Eric Brakey, Maine state senator from 2014 to 2018, who served as senate chairman for the Maine Health and Human Services Committee. It says, “Studies from multiple countries now indicate that vaccination alone is less effective than the acquired immunity many already possess and unable to prevent transmission in the medium-to-long term.” It discusses herd immunity by stating, “before the advent of vaccination, herd immunity relied on the development of natural immunity through widespread exposure to a virus. Since vaccination became common, many viruses once plaguing society are now virtually eradicated. To maintain herd immunity for subsequent generations</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<p>and prevent the return of our old viral enemies, widespread vaccination is widely regarded as essential. For COVID vaccination, however, this does not appear to be the case.” It also says that “According to Dr. Jay Bhattacharya, a professor of medicine who studies epidemiology at Stanford University, recent studies indicate that the mRNA vaccines produced by Moderna and Pfizer do not contribute to herd immunity. During a September 2021 interview with New York Times best-selling author Tom Woods, Bhattacharya, one of the authors of the Great Barrington Declaration, cited a study from Qatar with important findings on vaccine effectiveness. While vaccinated individuals were up to 95 percent safer from severe disease six months after vaccination, protection against infection and transmission was fleeting. Immunity began to diminish after five weeks. At 20 weeks, the vaccinated were as likely to become infected and transmit the virus as those unvaccinated.” Continues with “At the same time, Bhattacharya concludes that, without contributing to herd immunity, COVID vaccination is a matter of personal health, not public health. As the benefits rest primarily with the individual, not society, government officials have no greater moral authority to prescribe vaccination than they do to prescribe chemotherapy. These are decisions for the individual to decide in consultation with their own physician.”. The article concludes by saying “Mandatory COVID vaccination oversteps the bounds of public health, violating long-standing Western principles of bodily</p>	
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	<p>autonomy and individual rights. Lacking even the clear positive externalities often used to justify past vaccination requirements, these mandates should be opposed at all levels of policymaking.”</p> <p>FEE, Stanford Epidemiologist Says COVID Vaccination Is Primarily a Matter of Personal Health, Not Public Health (October 8, 2021), <a href="https://fee.org/articles/stanford-epidemiologist-says-covid-vaccination-is-primarily-a-matter-of-personal-health-not-public-health/">https://fee.org/articles/stanford-epidemiologist-says-covid-vaccination-is-primarily-a-matter-of-personal-health-not-public-health/</a></p>	
86.		
87.	<p>There is no Vaccine Mandate by for the private sector by a state government in any of the United States.</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>
88.	<p>According to the National Center for Biotechnology Information (NCBI), on an article title “Increases in COVID-19 are unrelated to levels of vaccination across 68 countries and 2947 counties in the United States”, published on September 30, 2021, says that comparing among 68 countries, it found that “there appears to be no discernable relationship between percentage of population fully vaccinated and new COVID-19 cases in the last 7 days. In fact, the trend line suggests a marginally positive association such that countries with higher percentage of population fully vaccinated have higher COVID-19 cases per 1 million people. Notably, Israel with over 60% of their population fully vaccinated had the highest COVID-19 cases per 1 million people in the last 7 days. The lack of a meaningful association between percentage</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

	<p>population fully vaccinated and new COVID-19 cases is further exemplified, for instance, by comparison of Iceland and Portugal. Both countries have over 75% of their population fully vaccinated and have more COVID-19 cases per 1 million people than countries such as Vietnam and South Africa that have around 10% of their population fully vaccinated.” Comparing across the 2,947 counties within the United States it found that “the median new COVID-19 cases per 100,000 people in the last 7 days is largely similar across the categories of percent population fully vaccinated. Notably there is also substantial county variation in new COVID-19 cases within categories of percentage population fully vaccinated. There also appears to be no significant signaling of COVID-19 cases decreasing with higher percentages of population fully vaccinated.” Moreover, it adds that “of the top 5 counties that have the highest percentage of population fully vaccinated (99.9–84.3%), the US Centers for Disease Control and Prevention (CDC) identifies 4 of them as “High” Transmission counties. Chattahoochee (Georgia), McKinley (New Mexico), and Arecibo (Puerto Rico) counties have above 90% of their population fully vaccinated with all three being classified as “High” transmission. Conversely, of the 57 counties that have been classified as “low” transmission counties by the CDC, 26.3% (15) have percentage of population fully vaccinated below 20%.” It concludes by saying that “even as efforts should be made to encourage populations to get</p>	
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	<p>vaccinated it should be done so with humility and respect. Stigmatizing populations can do more harm than good. Importantly, other non-pharmacological prevention efforts (e.g., the importance of basic public health hygiene with regards to maintaining safe distance or handwashing, promoting better frequent and cheaper forms of testing) needs to be renewed in order to strike the balance of learning to live with COVID-19 in the same manner we continue to live a 100 years later with various seasonal alterations of the 1918 Influenza virus. NCBI, Increases in COVID-19 are unrelated to levels of vaccination across 68 countries and 2947 counties in the United States (September 30, 2021),<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8481107/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8481107/</a></p>	
89.	<p>According to the CATO Institute, in a report titled “Society Will Never Be Free of COVID-19—It’s Time to Embrace Harm Reduction”, published August 26, 2021, it states that “Policymakers should accept the fact that COVID-19 will become endemic and adopt the vision of the harm reduction movement that grew up in response to the crisis created by drug prohibition.”. It continues by saying “The COVID-19 virus will not be eradicated. The only human virus ever to be eradicated was smallpox, and that took 200 years. COVID-19 will become endemic. It likely will continue mutating and developing variants.”. It continues by comparing COVID-19 fatality rate to other viruses, “unlike smallpox, which had a 30 percent fatality rate; or Ebola, which has a 50 percent fatality rate; or respiratory syncytial virus (RSV), which has up to a 1.7 percent fatality</p>	<p>The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.</p>

<p>rate in children and over an 11 percent fatality rate in adults, COVID-19 appears to average a 0.3 to 0.4 percent infection fatality rate in Europe and the Americas and a 0.2 percent fatality rate among people not living in institutions.” It also looks at the impact of the age groups, “In the United States, 80 percent of fatalities have occurred in people over age 65, and 39 percent of all COVID-19 deaths in 2020 occurred in nursing homes. As of July 29, 2021, 358 U.S. children under age 17 had died from COVID-19 since the start of the pandemic. (For comparison, the average annual fatality rate for RSV in children is 500.) Martin A. Makary, a public health professor, and his team at Johns Hopkins University found that most of the children who died of COVID-19 had preexisting vulnerabilities such as leukemia. This tells us which populations need the most protection.” It adds, “While vaccines are clearly advisable, state-mandated vaccination should be avoided. It is impossible to know if an unvaccinated person will become infected and spread the virus to others. There is no certainty that forcibly vaccinating someone won’t cause that person serious or even life-threatening harm. With COVID-19 downgraded to the status of a common respiratory virus for those who choose to get vaccinated, vaccinated people are less threatened by those who pass up the vaccine. On the other hand, neither is it justifiable for the state to prohibit private organizations, businesses, or workplaces from requiring customers, clients, or employees to get vaccinated. These are voluntary</p>	
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<p>associations. Just as places of business have the right to state, “no shirt, no shoes, no service,” they have the right to add “no vax” to the list of conditions. For certain industries, such as the hospitality industry, it may make good business sense to do so. CATO Institute, Society Will Never Be Free of COVID-19—It’s Time to Embrace Harm Reduction (August 26, 2021), <a href="https://www.cato.org/pandemics-policy/society-will-never-be-free-covid-19-its-time-embrace-harm-reduction">https://www.cato.org/pandemics-policy/society-will-never-be-free-covid-19-its-time-embrace-harm-reduction</a></p>	
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### III. STIPULATIONS SUGGESTED BY DEFENDANT AND REJECTED BY PLAINTIFFS

	<b>A. Defendant’s Suggested Stipulation</b>	<b>B. Plaintiffs’ Reason to Reject Suggestion</b>
1.		
2.		
3.		
4.	<p>Delta is currently the predominant variant of the virus in the United States and Puerto Rico. (<a href="https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html">https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html</a>) and (<a href="https://www.elvocero.com/gobierno/agencias/el-departamento-de-salud-ha-detectado-m-s-de-150-casos-de-la-variante-delta/article_e08d2cee-f8ae-11eb-9b7c-6b502b1ef8a.html">https://www.elvocero.com/gobierno/agencias/el-departamento-de-salud-ha-detectado-m-s-de-150-casos-de-la-variante-delta/article_e08d2cee-f8ae-11eb-9b7c-6b502b1ef8a.html</a>)</p>	<p>The CDC statement is from August 26, 2021 and it says “Delta is currently the predominant variant of the virus in the United States.” It does not mention Puerto Rico directly. The El Vocero article does not say that it is the predominant variant. It says “On the other hand, Epidemiologist Cruz María Nazario, tenured professor of Epidemiology of the University of Puerto Rico Medical school, stated that it is difficult to confirm that the increase in cases is due to the delta variant because the Health Department does not disclose that information in its platform. However, she said that ‘undoubtedly is should be de predominant variant in Puerto Rico, although the lambda variant</p>



		is on its way, which was first identified in South America.”
5.	<p>The CDC has stated that some data suggest the Delta variant might cause more severe illness than previous variants in unvaccinated people. (<a href="https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html">https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html</a>).</p>	<p>This is misleading. The CDC may have said that in a statement in the past, but it is not taking into account duration of vaccine effectiveness nor natural immunity on unvaccinated people. Multiple recent scientific studies have demonstrated that vaccine effectiveness wanes over time and individuals who have been infected and acquire natural immunity have stronger protection than fully vaccinated people, regardless of time since vaccination, which also last longer.</p> <p>According to the article “Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections,” published on August 25, 2021, it states that “SARS-CoV-2-naïve vaccinees had a 13.06-fold increased risk for breakthrough infection with the Delta variant compared to those previously infected”. It concluded that the study “demonstrated that natural immunity confers longer lasting and stronger protection against infection, symptomatic disease and hospitalization caused by the Delta variant of SARS-CoV-2, compared to the BNT162b2 two-dose vaccine-induced immunity.” (<a href="https://www.medrxiv.org/content/10.1101/2021.08.24.21262415v1">https://www.medrxiv.org/content/10.1101/2021.08.24.21262415v1</a>)</p> <p>Also, the European Journal of Immunology, the research article title “Persistence of neutralizing antibodies a year after SARS-CoV-2 infection in humans” published September 27, 2021, natural immunity could last at least 13 months, “the proportion of subjects with neutralizing antibodies (NAb) were assessed. We found that NAb against the wild-type virus persisted in 89% and S-IgG in 97% of subjects for at least 13</p>

	<p>months after infection. Subjects with severe infection had markedly higher IgG and NAb levels and are expected to remain seropositive for longer.”  <a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/eji.202149535">https://onlinelibrary.wiley.com/doi/abs/10.1002/eji.202149535</a>)</p> <p>As to the vaccine effectiveness throughout time, the most recent study title “Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study” published on October 4, 2021. It states that “for fully vaccinated individuals, effectiveness against SARS-CoV-2 infections was 73%”. However, “effectiveness against infections declined from 88% (95% CI 86–89) during the first month after full vaccination to 47% (43–51) after 5 months. Among sequenced infections, vaccine effectiveness against infections of the delta variant was high during the first month after full vaccination (93%) but declined to 53% after 4 months.” It interprets in the study, among other things, that “reduction in vaccine effectiveness against SARS-CoV-2 infections over time is probably primarily due to waning immunity with time rather than the delta variant escaping vaccine protection.”  <a href="https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02183-8/fulltext">https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02183-8/fulltext</a>)</p> <p>Moreover, according to The New England Journal of Medicine, on the research article “Waning of BNT162b2 Vaccine Protection against SARS-CoV-2 Infection in Qatar” published October 6, 2021, stated in their results that the “estimated BNT162b2 effectiveness against any SARS-CoV-2 infection...reached its peak at 77.5% in the first month after the second dose. Effectiveness declined gradually thereafter, with the decline</p>
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		<p>accelerating after the fourth month to reach approximately 20% in months 5 through 7 after the second dose.” It concluded that “BNT162b2-induced protection against SARS-COV-2 infection appeared to wane rapidly following its peak after the second dose, but protection against hospitalization and death persisted at a robust level for 6 months after the second dose.”  <a href="https://www.nejm.org/doi/full/10.1056/NEJMoa2114114">https://www.nejm.org/doi/full/10.1056/NEJMoa2114114</a>)</p> <p>Another study from Israel, “Waning immunity of the BNT162b2 vaccine: A nationwide study from Israel” published on August 30, 2021, stated that “The rates of both documented SARS-CoV-2 infections and severe COVID-19 exhibit a statistically significant increase as time from second vaccine dose elapsed.”  <a href="https://www.medrxiv.org/content/10.1101/2021.08.24.21262423v1">https://www.medrxiv.org/content/10.1101/2021.08.24.21262423v1</a>)</p>
6.	The CDC has stated that the vast majority of hospitalizations and deaths caused by COVID-19 are in unvaccinated people. <a href="https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html">https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html</a> ).	See Response to Defendants’ Suggested Stipulation 5.
7.	The CDC has stated that the greatest risk of transmission is among unvaccinated people who are much more likely to get infected, and therefore transmit the virus. <a href="https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html">https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html</a> ).	See Response to Defendants’ Suggested Stipulation 5.
8.	The CDC has stated that fully vaccinated people get COVID-19 less often than unvaccinated people. <a href="https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html">https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html</a> ).	See Response to Defendants’ Suggested Stipulation 5.
9.	The CDC has stated that fully vaccinated people with Delta variant breakthrough infections can spread the virus to others. However, vaccinated people appear to spread the virus for a shorter period. <a href="https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html">https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html</a> ).	See Response to Defendants’ Suggested Stipulation 5.  In addition, a study cited by the CDC suggests that the period for infected vaccinated people to spread the virus is 7 days. The study is titled “Virological and

		<p>serological kinetics of SARS-CoV-2 Delta variant vaccine-breakthrough infections: a multi-center cohort study”, published on July 31, 2021 states that “fully vaccinated patients had a faster rate of increase in Ct value over time compared with unvaccinated individuals, suggesting faster viral load decline (coefficient estimates for interaction terms ranged from 9.12 (standard error 3.75) to 12.06 (standard error 3.03); p-value &lt;0.05 for each interaction terms) (Figure 1).” (<a href="https://www.medrxiv.org/content/10.1101/2021.07.28.21261295v1">https://www.medrxiv.org/content/10.1101/2021.07.28.21261295v1</a>)</p> <p>Moreover, according to JAMA Internal Medicine, in the original investigation paper, “COVID-19 Transmission Dynamics Among Close Contacts of Index Patients With COVID-19: A Population-Based Cohort Study in Zhejiang Province, China”, published on August 23, 2021, it states that “contacts were at highest risk of COVID-19 if they were exposed between 2 days before and 3 days after the index patient’s symptom onset, peaking at day 0”. (<a href="https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2783099">https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2783099</a>)</p> <p>This means that for the first 7 days, viral load in vaccinated patients and unvaccinated individuals remains similar with Ct&lt;25. Therefore, during the time of most contagiousness (2 days before and 3 days after), both unvaccinated and vaccinated carry the same viral load.</p>
10.	<p>The CDC has stated that the amount of viral genetic material may go down faster in fully vaccinated people when compared to unvaccinated people. This means fully vaccinated people will likely spread the virus for less time than unvaccinated people. (<a href="https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html">https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html</a>).</p>	<p>See Response to Defendants’ Suggested Stipulation 9.</p>

11.		
12.	The CDC has stated that COVID-19 vaccines approved or authorized in the United States are playing a crucial role in limiting the spread of the virus and minimizing severe symptoms of the disease. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html">https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html</a> ).	What the referenced article says is “in limiting spread of the virus and minimizing severe disease”. It does not mention “symptoms of the disease”.
13.		
14.		
15.	Since the advent of the virus more than 3,000 people have died of COVID-19 in Puerto Rico. ( <a href="https://www.salud.gov.pr/estadisticas_v2#defunciones">https://www.salud.gov.pr/estadisticas_v2#defunciones</a> ).	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of the defendants’ view and legal theories with their own interpretation of scientific statistical data. As stated by the Puerto Rico Health Department in their “Informe de Casos COVID-19” deaths certified for COVID-19 can be either confirmed, probable or suspicious deaths. <ul style="list-style-type: none"> <li>- Confirmed COVID-19 deaths are deaths of people with one or more positive molecular tests.</li> <li>- Probable COVID-19 deaths include deaths of: <ol style="list-style-type: none"> <li>1) People who meet clinical criteria and epidemiological evidence as defined by the Council of State and Territorial Epidemiologists (CSTE), without confirmatory tests for COVID-19;</li> <li>2) People with a positive antigens test and meeting the clinical criteria or epidemiological evidence as defined by the CSTE; and</li> <li>3) Deaths that meet the criteria for vital statistics in which no evidence of confirmation for COVID-19.</li> </ol> </li> <li>- Suspicious deaths from COVID-19 include deaths of people in whom it is detected a specific antibody in serum, plasma, or blood, or a specific antigen is detected by immunocytochemistry in an autopsy specimen, which were not reported as confirmed or probable COVID-19 cases. This in accordance</li> </ul>

		<p>with the provisional recommendations of the CSTE and the "National Center for Health Statistics" of the Centers for Disease Control and Prevention (CDC). Page 5, footnote 9.</p> <p>(<a href="https://www.salud.gov.pr/CMS/DOWNLOAD/5167">https://www.salud.gov.pr/CMS/DOWNLOAD/5167</a>). That is why you cannot say "died of COVID-19"; "death related to COVID-19" is the correct term.</p>
16.	<p>As of October 15, 2021, there are more than 15 pediatric hospitalizations. (<a href="https://www.salud.gov.pr/estadisticas_v2#sistemas_salud">https://www.salud.gov.pr/estadisticas_v2#sistemas_salud</a>).</p>	<p>As of October 15, 2021 there were 16 pediatric hospitalizations, but it's not clear if they are "for to COVID" or "with COVID" as it is unclear if they were admitted for other reasons and have no COVID symptoms. In addition, it's not clear if the case is confirmed (molecular) or probable (antigen).</p> <p>According to Hospital Pediatrics article, title "'For COVID" or "With COVID": Classification of SARS-CoV-2 Hospitalizations in Children" published in August 2021, states that "most public reporting of COVID-19 hospitalizations is based simply on detection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in hospitalized patients rather than the presence of a clinical syndrome. Hospitals have increasingly transitioned to universal screening for all hospitalizations to direct infection control precautions. Given the high proportion of asymptomatic or mild disease in children, pediatric SARS-CoV-2 hospitalization rates may be more reflective of community prevalence and lead to overestimation of the true burden of disease." In its discussion, the article states "Our findings reveal that most children hospitalized with SARS-CoV-2 have asymptomatic or mild or moderate disease, and nearly one-half of these hospitalizations were not caused by infection from the virus itself." It concludes by saying "reports of increased COVID-19 hospitalizations in children</p>

		have captured news headlines, leading to concerns over school reopening and may influence policy decisions. Our findings reveal that such decisions should account for the fact that reported hospitalization rates lead to overestimation of the COVID-19 disease burden in children considerably.” ( <a href="https://hosppeds.aappublications.org/content/11/8/e151.long">https://hosppeds.aappublications.org/content/11/8/e151.long</a> )
17.	Testing in Puerto Rico has increased since the month of June 2021. ( <a href="https://www.salud.gov.pr/estadisticas_v2#pruebas">https://www.salud.gov.pr/estadisticas_v2#pruebas</a> )	The stipulation does not make sense. It does not state the amount of the increase nor any number to make a comparison. COVID tests increase every day as people get tested each day.
18.		
19.	As of August 8, 2021, at least 520 children have died in the United States due to COVID-19. ( <a href="https://covid.cdc.gov/covid-data-tracker/#demographics">https://covid.cdc.gov/covid-data-tracker/#demographics</a> )	The Proposed stipulation is speculative. <i>See also</i> Responses’ Proposed Stipulations Nos. 15 and 16.
20.		
21.		
22.		
23.		
24.	The CDC has stated that infections happen in only a small proportion of people who are fully vaccinated, even with the Delta variant. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html</a> )	This is misleading. The CDC also stated, within that same announcement, “What We’re Still Learning - How long COVID-19 vaccines can protect people.” Recent scientific studies demonstrate waning vaccine effectiveness through time.  A recent study, “Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study”, published on October 4, 2021, states that “for fully vaccinated individuals, effectiveness against SARS-CoV-2 infections was 73%”. However, “effectiveness against infections declined from 88% (95% CI 86–89) during the first month after full vaccination to 47% (43–51) after 5 months. Among sequenced infections, vaccine effectiveness against



	<p>infections of the delta variant was high during the first month after full vaccination (93%) but declined to 53% after 4 months.” It interprets in the study, among other things, that “reduction in vaccine effectiveness against SARS-CoV-2 infections over time is probably primarily due to waning immunity with time rather than the delta variant escaping vaccine protection.”</p> <p>(<a href="https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02183-8/fulltext">https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02183-8/fulltext</a>)</p> <p>Moreover, according to The New England Journal of Medicine, on the research article “Waning of BNT162b2 Vaccine Protection against SARS-CoV-2 Infection in Qatar” published October 6 2021, stated in their results that the “estimated BNT162b2 effectiveness against any SARS-CoV-2 infection...reached its peak at 77.5% in the first month after the second dose. Effectiveness declined gradually thereafter, with the decline accelerating after the fourth month to reach approximately 20% in months 5 through 7 after the second dose.” It concluded that “BNT162b2-induced protection against SARS-COV-2 infection appeared to wane rapidly following its peak after the second dose, but protection against hospitalization and death persisted at a robust level for 6 months after the second dose.”</p> <p>(<a href="https://www.nejm.org/doi/full/10.1056/NEJMoa2114114">https://www.nejm.org/doi/full/10.1056/NEJMoa2114114</a>)</p> <p>Another study from Israel, title “Waning immunity of the BNT162b2 vaccine: A nationwide study from Israel” published on August 30, 2021 stated that “The rates of both documented SARS-CoV-2 infections and severe COVID-19 exhibit a statistically significant increase as time from second vaccine dose elapsed.”</p> <p>(<a href="https://www.medrxiv.org/content/10.1101">https://www.medrxiv.org/content/10.1101</a></p>
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		<a href="#">/2021.08.24.21262423v1)</a>
25.	Pope Francis said that "Being vaccinated with vaccines authorized by the competent authorities is an act of love. And contributing to ensure the majority of most people are vaccinated is an act of love."( <a href="https://www.vaticannews.va/en/pope/news/2021-08/pope-francis-appeal-covid-19-vaccines-act-of-love.html">https://www.vaticannews.va/en/pope/news/2021-08/pope-francis-appeal-covid-19-vaccines-act-of-love.html</a> )	This is misleading. Pope Francis might have said that, but that is not the Catholic Church's official position. In pertinent part, the Vatican's official position is that "practical reason makes evident that vaccination is not, as a rule, a moral obligation and that, therefore, it must be voluntary. . . . Those who, however, for reasons of conscience, refuse vaccines produced with cell lines from aborted fetuses, must do their utmost to avoid, by other prophylactic means and appropriate behavior, becoming vehicles for the transmission of the infectious agent. In particular, they must avoid any risk to the health of those who cannot be vaccinated for medical or other reasons, and who are the most vulnerable." Congregation for the Doctrine of the Faith, <i>Note on the morality of using some anti-Covid-19 vaccines</i> (Dec. 21, 2020), ( <a href="https://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_2020_1221_nota-vaccini-anticovid_en.html">https://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_2020_1221_nota-vaccini-anticovid_en.html</a> )
26.	The Pfizer and Moderna vaccines were found to be ethically uncontroversial by the pro-life policy organization the Charlotte Lozier Institute. ( <a href="https://s27589.pcdn.co/wp-content/uploads/2020/06/An-Ethics-Assessment-of-COVID-19-Vaccine-Programs-On-Point-46.pdf">https://s27589.pcdn.co/wp-content/uploads/2020/06/An-Ethics-Assessment-of-COVID-19-Vaccine-Programs-On-Point-46.pdf</a> )	The phrase "ethically uncontroversial" is not mentioned in the provided source. Moreover, the data is outdated, as it's from May 2020. And some tests conducted by Pfizer and Moderna used abortion-derived cells. ( <a href="https://lozierinstitute.org/what-you-need-to-know-about-the-covid-19-vaccine/">https://lozierinstitute.org/what-you-need-to-know-about-the-covid-19-vaccine/</a> )
27.	The Secretariat of Pro-Life Activities, a committee within the United States Conference of Catholic Bishops, has stated: neither Pfizer nor Moderna used an abortion-derived cell line in the development or production of the vaccine. However, such a cell line was used to test the efficacy of both vaccines. Thus, while neither vaccine is completely free from any use of abortion-derived cell lines, in these two cases the use is very remote from the initial evil of the abortion...one may receive any of the clinically recommended vaccines in good conscience with the assurance that	This is misleading. The Secretariat of Pro-Life Activities, a committee within the United States Conference of Catholic Bishops, might have said that, but that is not the Catholic Church's official position. In pertinent part, the Vatican's official position is that "practical reason makes evident that vaccination is not, as a rule, a moral obligation and that, therefore, it must be voluntary. . . . Those who, however, for reasons of conscience, refuse vaccines produced with cell lines from aborted fetuses, must do their utmost to avoid, by other prophylactic means and appropriate behavior, becoming vehicles for the

	reception of such vaccines does not involve immoral cooperation in abortion. (https://www.usccb.org/resources/Answers%20to%20Key%20Ethical%20Questions%20About%20COVID-19%20Vaccines.pdf)	transmission of the infectious agent. In particular, they must avoid any risk to the health of those who cannot be vaccinated for medical or other reasons, and who are the most vulnerable.” Congregation for the Doctrine of the Faith, Note on the morality of using some anti-Covid-19 vaccines (Dec. 21, 2020), (https://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_20201221_nota-vaccini-anticovid_en.html)
28.	Infections happen in only a small proportion of people who are fully vaccinated, even with the Delta variant. When these infections occur among vaccinated people, they tend to be mild. (https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html)	The CDC may have said that, but the proposed stipulation does not indicate what it means by “small proportion.”
29.		
30.		
31.		
32.		
33.		
34.	From June 6, 2021, to September 3, 2021, Puerto Rico’s positivity rate in molecular tests increased and 7.95% positivity rate was estimated. (https://www.salud.gov.pr/estadisticas_v2#pruebas)	This is misleading. First, it does not consider the significant reduction of molecular tests performed in Puerto Rico during that time. During that period, a total of 432,200 molecular tests were performed. However, the previous period to that, with the same amount of that, March 16, 2021 to June 5, 2021, a total of 511,001 molecular tests were performed. That is approximately 18% less tests. (https://covid19datos.salud.gov.pr/#pruebas)  Moreover, according to CDC, as of October 9, 2021, Puerto Rico, with 50,375.93 “cumulative tests performed per 100K” is second to last (ahead only of the U.S. Virgin Islands), listed #49 of 50, of U.S. jurisdictions reported. (https://covid.cdc.gov/covid-data-tracker/#cases_testsper100k)

	<p>In addition, according to the CDC, as of October 7, 2021, Puerto Rico, with 5,533.12 “# tests performed last 30 days per 100K” is fifth to last (ahead only of the U.S. Virgin Islands, Mississippi, Nebraska and Oklahoma), listed #46 of 50, of U.S. jurisdictions reported. (<a href="https://covid.cdc.gov/covid-data-tracker/#cases_testsper100k30day">https://covid.cdc.gov/covid-data-tracker/#cases_testsper100k30day</a>)</p> <p>Moreover, according to the CDC, on “calculating SARS-CoV-2 laboratory test percent positivity”, “[it] can vary depending on the volume of testing and the population tested. A high NAAT percent positivity occurs when many of the test results among those being tested and reported in a community are positive. This can mean the following: There are widespread infections in the community tested. Only those at greatest risk of infection within a community are being tested. There are reporting processes or delays that skew the results.” (<a href="https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/calculating-percent-positivity.html">https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/calculating-percent-positivity.html</a>)</p> <p>The Intelligencer (The New Yorker), on a report titled “The Problem With the Positivity Rate”, dated December 7, 2020, it stated “Meanwhile, the positivity rate statistic is so inconsistently calculated and reported across U.S. states that the COVID Tracking Project, one of the nation’s trusted aggregators and reporters of coronavirus data and trends, doesn’t publish it, says Jessica Malaty Rivera, the science communication lead with the project. An October blog post co-authored by Malaty Rivera called positivity rate figures in the U.S. “a mess” and stated that she and her team “emphatically recommend against over-reliance” on it to justify changes in policy. COVID</p>
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		Tracking Project data collectors have noticed that states are including the results of less accurate, less expensive so-called antigen tests, which look for pieces of the virus, not the whole virus, instead of the results of widely used PCR tests for the entire virus, Malaty Rivera says. “For that reason, I feel especially pessimistic about the future of this calculation,” Malaty Rivera says. “Because if we do see testing increase dramatically, it will be because of an influx in antigen testing. It really should just be PCR testing to determine this. And when we combine units, it’s going back to basic fractions, right? You don’t combine your apples and oranges when you’re doing a math equation.” ( <a href="https://nymag.com/intelligencer/2020/12/the-problem-with-the-covid-19-positivity-rate.html">https://nymag.com/intelligencer/2020/12/the-problem-with-the-covid-19-positivity-rate.html</a> )
35.		
36.	The CDC has stated that, at the time of the enactment of Executive Orders Nos. 2021-062 through 2021-064, Puerto Rico was in an increasing trend of more than 113 hospitalizations and 28 people in ICU. ( <a href="https://www.salud.gov.pr/estadisticas_v2#sistemas_salud">https://www.salud.gov.pr/estadisticas_v2#sistemas_salud</a> )	The link does not state what Defendants indicate in the proposed stipulation.
37.	The CDC has stated that VAERS data alone cannot determine if the reported adverse event was caused by a COVID-19 vaccination. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html</a> )	This is misleading. The CDC may have stated that, but the U.S. Department of Health & Human Services (HHS) says that “healthcare providers are required by law to report to VAERS any adverse event listed in the VAERS Table of Reportable Events Following Vaccination that occurs within the specified time period after vaccinations.”  In addition, it says that “vaccine manufacturers are required to report to VAERS all adverse events that come to their attention. Online reporting is strongly encouraged.” Moreover, it states that “knowingly filing a false VAERS report is a violation of Federal law (18 U.S. Code §

		1001) punishable by fine and imprisonment.” ( <a href="https://vaers.hhs.gov/reportevent.html">https://vaers.hhs.gov/reportevent.html</a> )
38.	The CDC has stated that anyone can report events to VAERS, even if it is not clear whether a vaccine caused the problem. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html</a> )	See Response to Defendant’s Suggested Stipulation 37.
39.	The CDC has stated that some VAERS reports may contain information that is incomplete, inaccurate, coincidental, or unverifiable. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html</a> )	See Response to Defendants’ Suggested Stipulation 37.
40.	The CDC has stated that recently, the number of deaths reported to VAERS following COVID-19 vaccination has been misinterpreted and misreported as if this number means deaths that were proven to be caused by vaccination. Reports of adverse events to VAERS following vaccination, including deaths, do not necessarily mean that a vaccine caused a health problem. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html</a> )	See Response to Defendants’ Suggested Stipulation 37.
41.		
42.		
43.		
44.		
45.	The CDC has stated that COVID-19 vaccination is an important tool to help stop the COVID-19 pandemic. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html</a> )	This is misleading. The CDC may have said this in the past (May 10, 2021) but more recent studies by the CDC and others have demonstrated that due to the fact that vaccine does not prevent transmission and the vaccine provides waning immunity, it is most likely that the virus will remain as an endemic disease.  In an article by The Guardian, “Delta variant renders herd immunity from Covid ‘mythical,’” reported on August 10, 2021, it said about Sir Andrew Pollard, Head of Oxford Vaccine Group, “giving evidence to MPs on Tuesday, Prof Sir Andrew

		<p>Pollard said the fact that vaccines did not stop the spread of Covid meant reaching the threshold for overall immunity in the population was “mythical”.</p> <p>“The problem with this virus is [it is] not measles. If 95% of people were vaccinated against measles, the virus cannot transmit in the population,” he told the all-party parliamentary group (APPG) on coronavirus.</p> <p>“The Delta variant will still infect people who have been vaccinated. And that does mean that anyone who’s still unvaccinated at some point will meet the virus ... and we don’t have anything that will [completely] stop that transmission.”</p> <p>Although the existing vaccines are very effective at preventing serious Covid illness and death, they do not stop a fully vaccinated person from being infected by the virus that causes Covid-19.”  <a href="https://www.theguardian.com/world/2021/aug/10/delta-variant-renders-herd-immunity-from-covid-mythical">https://www.theguardian.com/world/2021/aug/10/delta-variant-renders-herd-immunity-from-covid-mythical</a></p> <p>Moreover, Dr. Yonatan Grad from the T.H. Chan School of Public Health said “the expectation that COVID-19 will become endemic essentially means that the pandemic will not end with the virus disappearing; instead, the optimistic view is that enough people will gain immune protection from vaccination and from natural infection such that there will be less transmission and much less COVID-19-related hospitalization and death, even as the virus continues to circulate.”  <a href="https://www.hsph.harvard.edu/news/features/what-will-it-be-like-when-covid-19-becomes-endemic/">https://www.hsph.harvard.edu/news/features/what-will-it-be-like-when-covid-19-becomes-endemic/</a></p>
46.		
47.	The CDC has stated that to receive the most protection, people should receive all	This is misleading. The CDC may have said that in a statement in the past, but it is



<p>recommended doses of a COVID-19 vaccine. (<a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness.html</a>)</p>	<p>not taking into account the protection provided by natural immunity on unvaccinated people. Multiple recent scientific studies have demonstrated that individuals who have been infected and acquire natural immunity have stronger protection than fully vaccinated people, regardless of time since vaccination, which also lasts longer.</p> <p>According to the article title “Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections”, published on August 25, 2021, it states that “SARS-CoV-2-naïve vaccinees had a 13.06-fold increased risk for breakthrough infection with the Delta variant compared to those previously infected”. It concluded that the study “demonstrated that natural immunity confers longer lasting and stronger protection against infection, symptomatic disease and hospitalization caused by the Delta variant of SARS-CoV-2, compared to the BNT162b2 two-dose vaccine-induced immunity.” (<a href="https://www.medrxiv.org/content/10.1101/2021.08.24.21262415v1">https://www.medrxiv.org/content/10.1101/2021.08.24.21262415v1</a>)</p> <p>Also, the European Journal of Immunology, the research article title “Persistence of neutralizing antibodies a year after SARS-CoV-2 infection in humans” published September 27, 2021, natural immunity could last at least 13 months, “the proportion of subjects with neutralizing antibodies (NAb) were assessed. We found that NAb against the wild-type virus persisted in 89% and S-IgG in 97% of subjects for at least 13 months after infection. Subjects with severe infection had markedly higher IgG and NAb levels and are expected to remain seropositive for longer.” (<a href="https://onlinelibrary.wiley.com/doi/abs/10.1002/eji.202149535">https://onlinelibrary.wiley.com/doi/abs/10.1002/eji.202149535</a>)</p>
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48.		
49.		
50.	The CDC has stated that getting vaccinated is the best way to slow the spread of COVID-19 and to prevent infection by Delta or other variants. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html</a> )	See Response to Defendants' Suggested Stipulation 47.
51.		
52.	The CDC has stated that the risk of infection remains much higher for unvaccinated than vaccinated people. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html</a> )	See Response to Defendants' Suggested Stipulation 5.
53.	The CDC has stated that studies so far show that vaccinated people are 8 times less likely to be infected and 25 times less likely to experience hospitalization or death. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html</a> )	See Response to Defendants' Suggested Stipulation 5.
54.		
55.		
57.		
58.		
59.	COVID-NET provides the most complete data on vaccine breakthrough in the general population. ( <a href="https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html">https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html</a> )	This is misleading. This only applies to the general population in the United States. Other countries like England (Public Health England), use different systems to monitored breakthrough infections within the general population. ( <a href="https://www.gov.uk/government/publications/phe-monitoring-of-the-effectiveness-of-covid-19-vaccination">https://www.gov.uk/government/publications/phe-monitoring-of-the-effectiveness-of-covid-19-vaccination</a> )
60.	One recent COVID-NET publication assessed the effectiveness of COVID-19 vaccines in preventing hospitalization among adults $\geq 65$ years. ( <a href="https://www.cdc.gov/mmwr/volumes/7">https://www.cdc.gov/mmwr/volumes/7</a>	This is misleading. The CDC published the "Effectiveness of COVID-19 Vaccines in Preventing Hospitalization Among Adults Aged $\geq 65$ Years — COVID-NET, 13 States, February–April 2021" in

	0/wr/mm7032e3.htm?s_cid=mm7032e3_w)	August 13, 2021 covering 13 states during pre-Delta variant period, February to April 2021.
61.		
62.	A study from Umeå University in Sweden found that people without immunity were at a significantly reduced risk of being infected if family members were vaccinated or had experienced a previous coronavirus infection. ( <a href="https://jamanetwork.com/journals/jama-internalmedicine/fullarticle/2785141">https://jamanetwork.com/journals/jama-internalmedicine/fullarticle/2785141</a> )	Plaintiffs could not identify the alleged facts from the provided study. The study, however, stated that “family members without immunity had a 45% to 97% lower risk of contracting COVID-19 as the number of immune family members increased.”
63	A study published in the journal <i>The Lancet Microbe</i> found that those who were naturally infected early in the pandemic are increasingly likely to become reinfected in the near future. ( <a href="https://www.eurekalert.org/releaseguidelines">https://www.eurekalert.org/releaseguidelines</a> )	The Proposed stipulation is speculative, flawed, and contains legal conclusions that follow the narrative and compilation of Plaintiffs’ view and legal theories with their own interpretation of scientific statistical data.  See Response to Defendants’ Suggested Stipulation 47.

**LIST OF FACT WITNESSES, EXPERT WITNESSES AND DOCUMENTS PLAINTIFFS INTEND TO INTRODUCE AT A PRELIMINARY INJUNCTION HEARING**

**Witnesses**

1. All Plaintiffs: They will testify about the facts included in the complaint.
2. Juan Carlos Fenollal: He will testify about the burdens he has faced to obtain a COVID test, and the hardships and undue burdens of living with the vaccine mandates.
3. Viviana Santos Perez: She will testify about the burdens he has faced to obtain a COVID test, and the hardships and undue burdens of living with the vaccine mandates.
4. Cynthia Avellanet: She will testify about the burdens she has faced to obtain a COVID test, and the hardships and undue burdens of living with the vaccine mandates.
5. Ofelia Otero: She will testify about her Covid-19 natural immunity status, the adverse effect of the Covid-19 vaccine because of her high antibody levels, and the hardships and undue burdens of living with the vaccine mandates.

6. A representative from the Auxiliar Secretary for the Regulation and Accreditation of Health Facilities, and/or other representative for the P.R. Health Department who will testify about,
  - a. The process of reporting bed and ICU availability
  - b. Process for Conducting COVID-19 tests in laboratories including CT Values.
  - c. Reasons why a medical referral is needed to obtain a CPVID test in a private laboratory.
  - d. The total number of COVID tests that can be performed in Puerto Rico in a day.
  - e. The total capacity of COVID testing in Puerto Rico and how the capacity is defined.
  - f. How federal funds received by the Department of Heath for managing COVID-19 have been spent during the pandemic.
  - g. Reasons why a medical referral is necessary for insurance companies to cover the costs of COVID tests.
  - h. The existence *vel non* of Health Department policies regarding reporting of Ct values in COVID rtPCR tests for private and public COVID tests.
  - i. The reasons why the Health Department experienced a supply shortage of COVID-19 tests.
  - j. Statistics of people who have had COVID-19 but have not been vaccinated.
  - k. Patient profiles of hospitals admissions, hospitalizations, and deaths due to COVID.
  - l. How the Department of Health has censored physicians who argue against the measures taken by the Government regarding COVID.
  - m. Any other information within their expertise that may be pertinent to the case.
7. The plaintiffs may also call as a witness any person needed to authenticate documents.

### **Experts**

1. Dr. Joel Hay: He will generally testify about COVID-related statistics. In essence, Dr. Hay will compare the Puerto Rico COVID situation with the COVID situation in other jurisdictions. He will also testify that, based on previous patterns, the so-called Delta Spike is over, and that the government overreacted thereto. Finally, Dr. Hay will testify about all the statistics and data mentioned in Plaintiffs' filings, including the amended complaint and the preliminary injunction motion.
2. Dr. Andrew Bostom: He will testify about potential adverse effects of COVID-19 vaccines; about the spread of COVID between vaccinated and unvaccinated people; about natural immunity from having had COVID; about why randomized tests need to be performed to properly measure the efficacy of a vaccine within a population; and about the proper threshold cycle (Ct) for performing COVID tests. Finally, Dr. Bostom will testify about all the COVID scientific studies and data mentioned in Plaintiffs' filings, including the amended complaint and the preliminary injunction motion.

3. Dr. Mark McDonald: He will testify about the psychological effects or damages of segregating the population among the vaccinated and unvaccinated. He will also testify about the stigma and other psychological harm inflicted by the vaccine mandates at play.
4. Dr. Maria Carrascal Muñoz: She will testify about natural immunity, the potential adverse effects of the Covid-19 vaccines, and why the mandates do not correctly take natural immunity into account.

#### **Documentary Evidence**

1. Documents included and referenced in the amended complaint, the preliminary-injunction motion, the stipulations and proposed stipulations included herein, and related filings.
2. Photographs showing the burdens that people endure to obtain free Covid tests.
3. The plaintiffs reserve the right to supplement these disclosures in consideration of new developments and of the evidence that the defendants disclose and otherwise present at the hearing.

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#### **LIST OF DEFENDANTS**

##### **Expert witnesses**

1. Dr. Melissa Marzán, Chief Epidemiology Officer of the Department of Health of Puerto Rico, will testify as an expert in epidemiology for the purpose of expressing her opinions about some of the allegations in the complaint regarding covid-19 health statistics in Puerto Rico and the fallacies in the conclusions and inferences plaintiffs draw from such statistics in support of their pleadings. she will also testify about the process of compiling information for official covid-19 statistics, and the reliability of the information, and the measures adopted by the government to stop or slow the spread of the virus.
2. Dr. Iris Cardona, Chief Medical Officer of The Department of Health of Puerto Rico, will testify as a representative of the department and as a member of the scientific coalition advising the governor of Puerto Rico on covid-19 policy. She will testify about the nature and characteristics of covid, its history, the vaccine developed to attack the virus, and the measures adopted by the government to stop or slow the spread of the virus.
3. Dr. Rafael Irizarry, Professor of the Biostatistics Department of Harvard University, Data Science Chair of Dana Farber Cancer Institute, and member of the scientific coalition advising the governor of Puerto Rico on COVID-19 policy. He will testify regarding the scientific data considered to advise the Governor on the public policy regarding COVID-19, and other relevant areas.

### Documentary Evidence

1. SARS-CoV-2 Variants in PR, March-September 1, 2021.
2. FDA Vaccine Facts.
3. Covid-19 Confirmed and Probable Cases, and Vaccination status.
4. Covid-19 Hospitalizations and Vaccination Status, Puerto Rico.
5. Deaths per 100,000 habitants and vaccination status.
6. Curriculum vitae Dr. Iris Cardona.
7. Curriculum vitae Dr. Melissa Marzán.
8. Curriculum vitae Dr. Rafael Irizarry.
9. CDC-Vaccination offers strong protection against Covid-19. From CDC web page.
10. Growth rate (confirmed and probable cases) graphic: 7/1-9/25/2021.

Distribution of cases (confirmed and probable) graphic: 7/1-9/25/2021.

Dated: October 22, 2021

Respectfully Submitted

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## Appendix 1

Data Table for COVID-19 Vaccinations in the United States

CDC | Data as of: October 8, 2021 6:00am ET. Posted: Friday, October 8, 2021 3:26 PM ET

Download Data 

State/Territory/Federal Entity	Total Doses Administered by State where Administered #	Doses Administered per 100k by State where Administered #	18+ Doses Administered by State where Administered #	18+ Doses Administered per 100K by State where Administered #
Republic of Palau	31,298	174,781	28,709	205,844
Puerto Rico	4,764,407	149,182	4,388,289	167,430
Vermont	917,788	147,084	856,780	168,001
Guam	239,440	144,443	214,687	166,277
Massachusetts	9,954,959	144,432	9,233,058	166,671
Connecticut	5,138,344	144,121	4,749,594	167,366
District of Columbia	1,016,129	143,979	976,817	169,122
Rhode Island	1,489,433	140,597	1,389,982	162,596
Maine	1,852,926	137,845	1,740,557	158,901
New York State	26,331,713	135,357	24,646,165	159,778
New Mexico	2,829,941	134,963	2,615,399	161,346
Hawaii	1,906,531	134,654	1,784,337	159,886
Maryland	8,116,338	134,250	7,493,436	159,063
New Jersey	11,733,172	132,098	10,872,832	156,588
New Hampshire	1,783,818	131,191	1,665,840	150,829
California	51,583,481	130,551	47,607,867	155,492
Virginia	11,097,362	130,014	10,247,378	153,526
Pennsylvania	16,551,120	129,286	15,557,236	153,011
Washington	9,798,601	128,677	9,132,370	153,438
Florida	27,311,365	127,161	25,800,009	149,584
Colorado	7,310,621	126,948	6,782,932	150,758
Delaware	1,234,411	126,767	1,153,803	149,807
Oregon	5,338,905	126,582	4,983,466	148,708
Northern Mariana Islands	70,721	124,329	62,092	140,150
Illinois	15,587,972	123,013	14,427,880	146,417
Minnesota	6,802,645	120,622	6,302,166	145,329
Wisconsin	6,936,268	119,130	6,508,057	142,851
Arizona	8,370,474	114,999	7,799,318	138,323
Nebraska	2,216,436	114,580	2,062,139	141,404
Texas	32,939,626	113,601	30,246,541	140,056
American Samoa	63,123	113,349	52,479	120,989
Kentucky	5,053,351	113,109	4,752,729	137,172
Nevada	3,464,385	112,474	3,245,201	135,924
Iowa	3,525,042	111,726	3,305,878	136,144
North Carolina	11,640,273	110,986	10,897,706	133,104
Alaska	810,238	110,757	751,795	136,303
South Dakota	975,953	110,320	913,750	136,879
Utah	3,504,509	109,312	3,172,436	139,462
Michigan	10,837,674	108,519	10,206,715	130,139
Kansas	3,149,155	108,095	2,936,538	132,691
Oklahoma	4,247,608	107,345	3,983,914	132,588
Ohio	12,336,137	105,535	11,632,216	127,671
Missouri	6,440,676	104,941	6,059,249	127,112
South Carolina	5,394,101	104,766	5,096,161	126,220
Montana	1,115,986	104,417	1,054,454	125,502
Tennessee	7,049,724	103,230	6,693,942	125,847
Indiana	6,889,662	102,339	6,480,661	125,491
Georgia	10,855,933	102,246	10,179,204	125,459
Arkansas	3,085,323	102,237	2,875,426	124,067
North Dakota	762,221	100,021	720,978	123,903
Virgin Islands	104,538	99,864	99,522	122,063
Louisiana	4,623,927	99,465	4,377,010	122,910
Mississippi	2,840,936	95,457	2,674,308	117,420
Alabama	4,624,892	94,324	4,385,764	114,965
Wyoming	534,368	92,330	506,586	113,833
Idaho	1,608,784	90,024	1,607,599	120,072
West Virginia	1,567,789	87,481	1,494,241	104,304
Indian Health Svc	1,667,794	80,074	1,526,540	N/A
Federated States of Micronesia	73,545	70,960	72,349	89,623
Marshall Islands	40,936	70,080	40,810	89,698
Bureau of Prisons	231,428	N/A	231,426	N/A
Dept of Defense	5,757,605	N/A	5,463,526	N/A
Veterans Health	5,772,451	N/A	5,769,485	N/A

Footnotes




CDC, COVID-19 Vaccinations in the United States (View: Total Doses, Show: Administered, Metric: Rate per 100,000, Population: Total Population), *Data Table for COVID-19 Vaccinations in the United States*, [https://covid.cdc.gov/covid-data-tracker/#vaccinations\\_vacc-total-admin-rate-total](https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-total-admin-rate-total)



## Appendix 2

Data Table for COVID-19 Vaccinations in the United States

CDC | Data as of: October 8, 2021 6:00am ET. Posted: Friday, October 8, 2021 3:26 PM ET

Download Data 

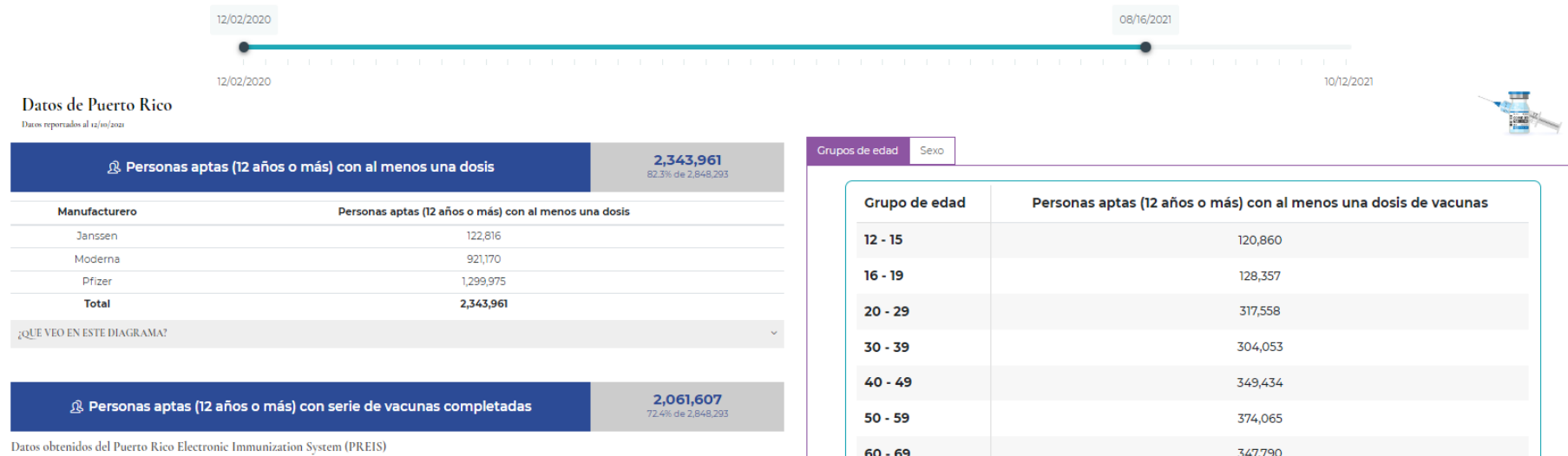
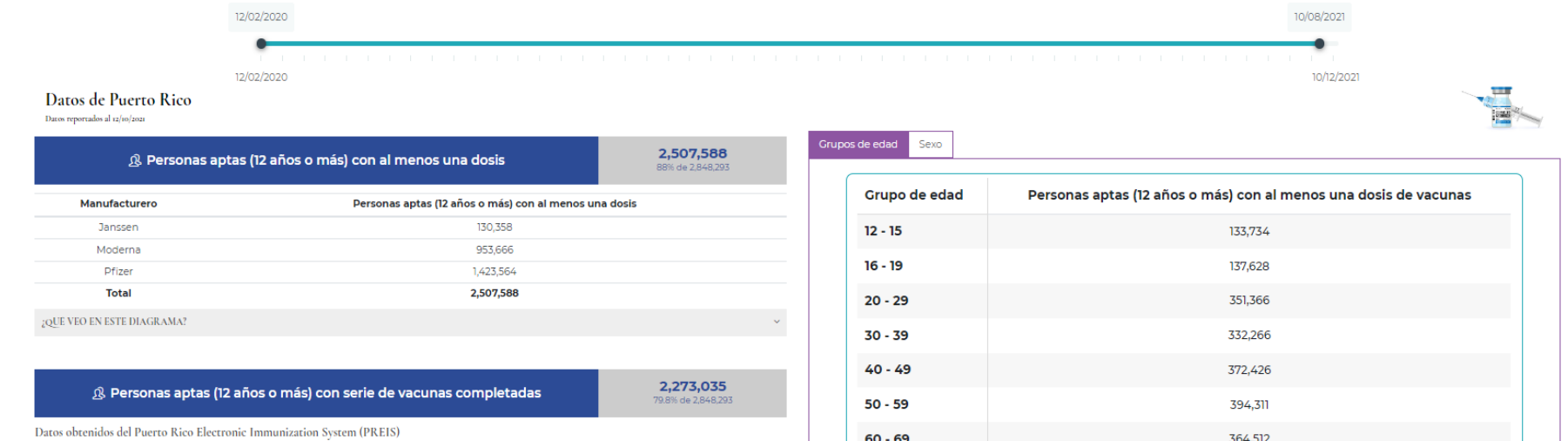
State/Territory/Federal Entity	People Fully Vaccinated by State of Residence	Percent of Total Pop Fully Vaccinated by State of Residence	People 18+ Fully Vaccinated by State of Residence	Percent of 18+ Pop Fully Vaccinated by State of Residence
Republic of Palau	15,561	86.9	14,308	99.9
Puerto Rico	2,282,713	71.5	2,107,589	80.4
Vermont	437,363	70.1	408,691	80.1
Guam	115,699	69.8	104,442	80.9
Connecticut	2,472,337	69.3	2,295,271	80.9
Rhode Island	732,505	69.1	684,922	80.1
Maine	927,554	69	875,184	79.9
Massachusetts	4,714,276	68.4	4,382,206	79.1
New Jersey	5,769,707	65	5,368,254	77.3
Maryland	3,912,884	64.7	3,625,332	77
New York State	12,541,761	64.5	11,761,155	76.2
New Mexico	1,334,938	63.7	1,233,518	76.1
New Hampshire	842,004	61.9	793,554	71.9
Washington	4,709,138	61.8	4,401,293	73.9
Oregon	2,593,020	61.5	2,428,368	72.5
Virginia	5,231,142	61.3	4,842,821	72.6
District of Columbia	428,769	60.8	411,203	71.2
Northern Mariana Islands	34,341	60.4	30,172	68.1
Colorado	3,455,928	60	3,209,990	71.3
California	23,572,618	59.7	21,791,531	71.2
Minnesota	3,307,486	58.6	3,069,463	70.8
Pennsylvania	7,497,640	58.6	7,075,314	69.6
Hawaii	828,407	58.5	780,353	69.9
Delaware	568,699	58.4	534,174	69.4
Florida	12,485,973	58.1	11,823,870	68.6
Wisconsin	3,322,774	57.1	3,126,415	68.6
Nebraska	1,067,098	55.2	995,059	68.2
Iowa	1,717,770	54.4	1,616,283	66.6
Illinois	6,857,894	54.1	6,375,423	64.7
Kentucky	2,377,246	53.2	2,243,366	64.7
American Samoa	29,163	52.4	24,415	56.3
Michigan	5,230,448	52.4	4,938,358	63
South Dakota	461,422	52.2	435,092	65.2
Texas	15,035,159	51.9	13,847,285	64.1
Kansas	1,507,919	51.8	1,409,958	63.7
Arizona	3,762,179	51.7	3,510,419	62.3
Utah	1,656,346	51.7	1,508,267	66.3
Nevada	1,582,597	51.4	1,490,302	62.4
Alaska	373,950	51.1	347,596	63
North Carolina	5,348,651	51	5,023,410	61.4
Ohio	5,937,051	50.8	5,611,090	61.6
Montana	523,509	49	496,355	59.1
Indiana	3,292,596	48.9	3,106,600	60.2
Missouri	2,978,294	48.5	2,809,254	58.9
Oklahoma	1,911,983	48.3	1,795,280	59.7
South Carolina	2,478,549	48.1	2,344,824	58.1
Arkansas	1,395,671	46.2	1,304,156	56.3
Georgia	4,902,669	46.2	4,616,249	56.9
Tennessee	3,155,230	46.2	3,002,019	56.4
Louisiana	2,141,368	46.1	2,033,657	57.1
Virgin Islands	47,498	45.4	45,282	55.5
North Dakota	341,319	44.8	324,094	55.7
Mississippi	1,314,997	44.2	1,241,388	54.5
Alabama	2,126,766	43.4	2,025,049	53.1
Idaho	755,435	42.3	753,913	56.3
Wyoming	244,957	42.3	232,967	52.3
West Virginia	728,103	40.6	696,822	48.6
Federated States of Micronesia	39,164	37.8	38,627	47.8
Indian Health Svc	756,264	36.3	693,580	N/A
Marshall Islands	20,024	34.3	19,983	43.9
Bureau of Prisons	118,196	N/A	118,195	N/A
Dept of Defense	2,391,171	N/A	2,266,343	N/A
Veterans Health	2,838,825	N/A	2,837,513	N/A

Footnotes

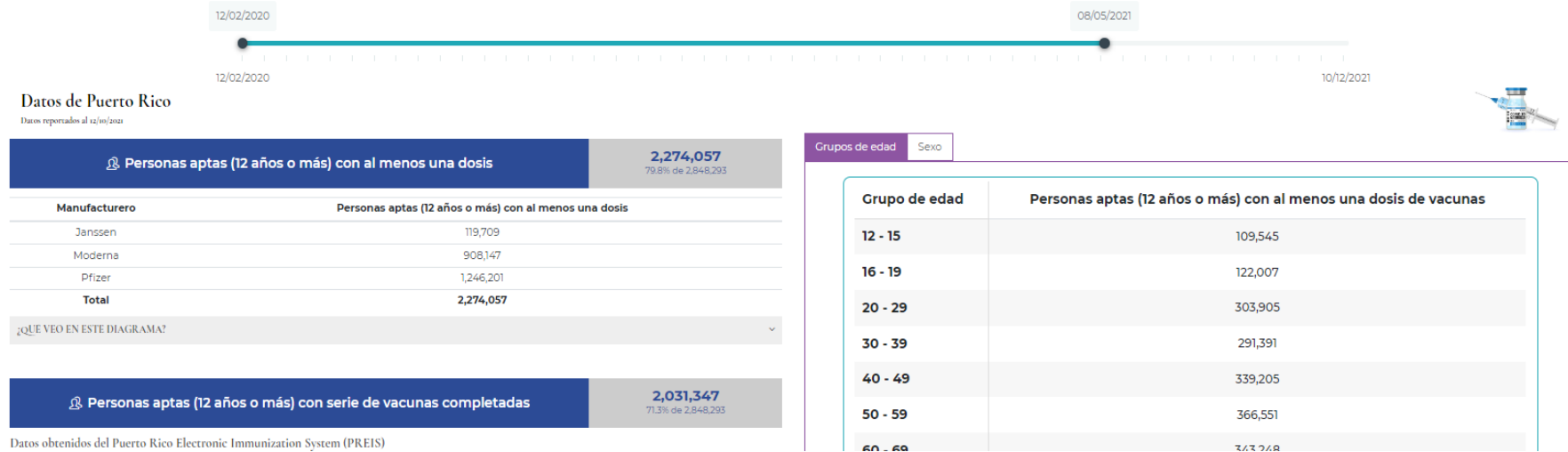
+

CDC, COVID-19 Vaccinations in the United States (View: People, Show: Fully Vaccinated, Metric: % of the Population, Population: Total Population), *Data Table for COVID-19 Vaccinations in the United States | Percent of Total Pop Fully Vaccinated by State of Residence*, [https://covid.cdc.gov/covid-data-tracker/#vaccinations\\_vacc-people-fully-percent-total](https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-people-fully-percent-total).

## Appendix 3A



## Appendix 3B



Puerto Rico Health Department COVID-19 Dashboard, *Vacunacion*, <https://covid19datos.salud.gov.pr/#vacunacion>

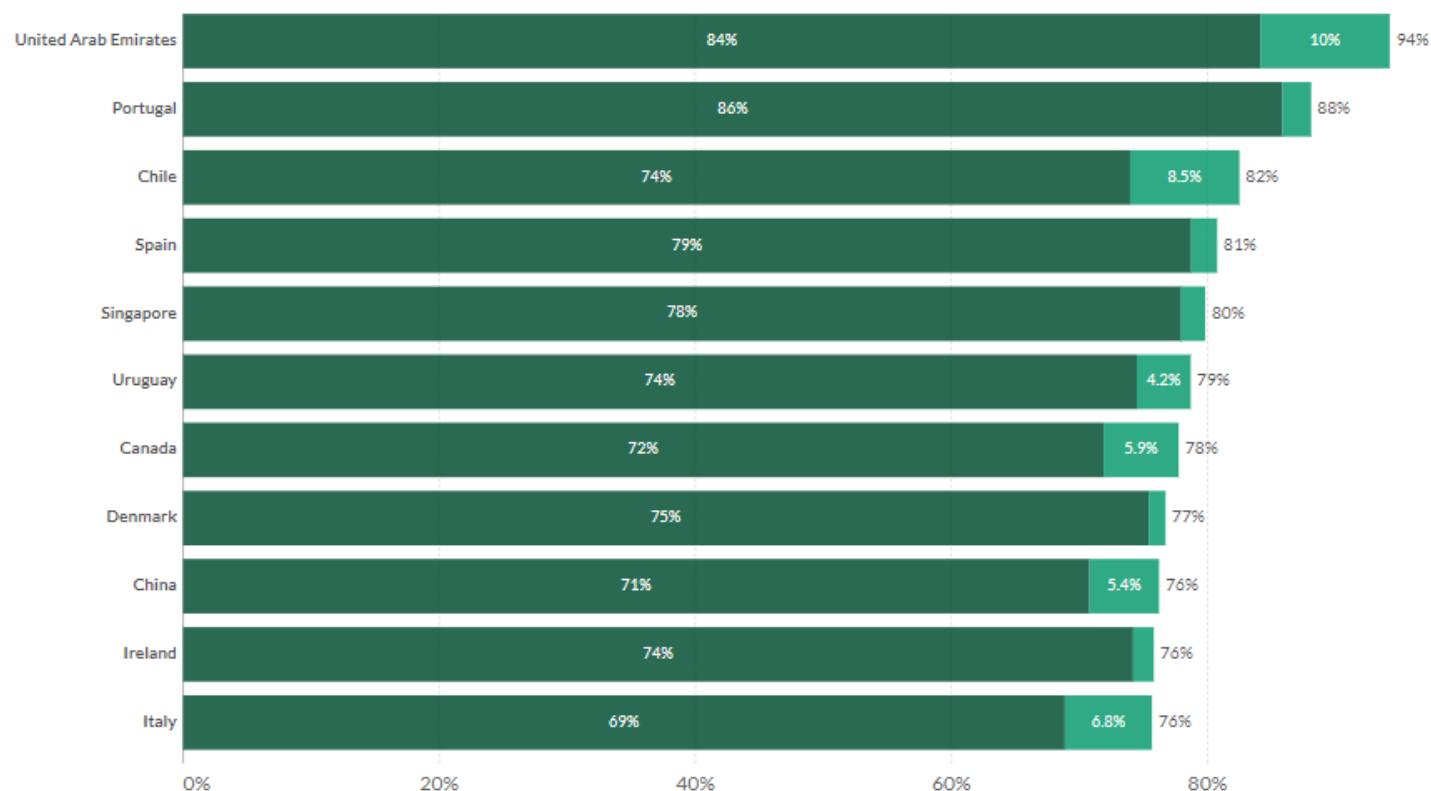
## Appendix 4

## Share of people vaccinated against COVID-19, Oct 8, 2021

Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.



■ Share of people fully vaccinated against COVID-19 ■ Share of people only partly vaccinated against COVID-19



Source: Official data collated by Our World in Data. This data is only available for countries which report the breakdown of doses administered by first and second doses in absolute numbers.

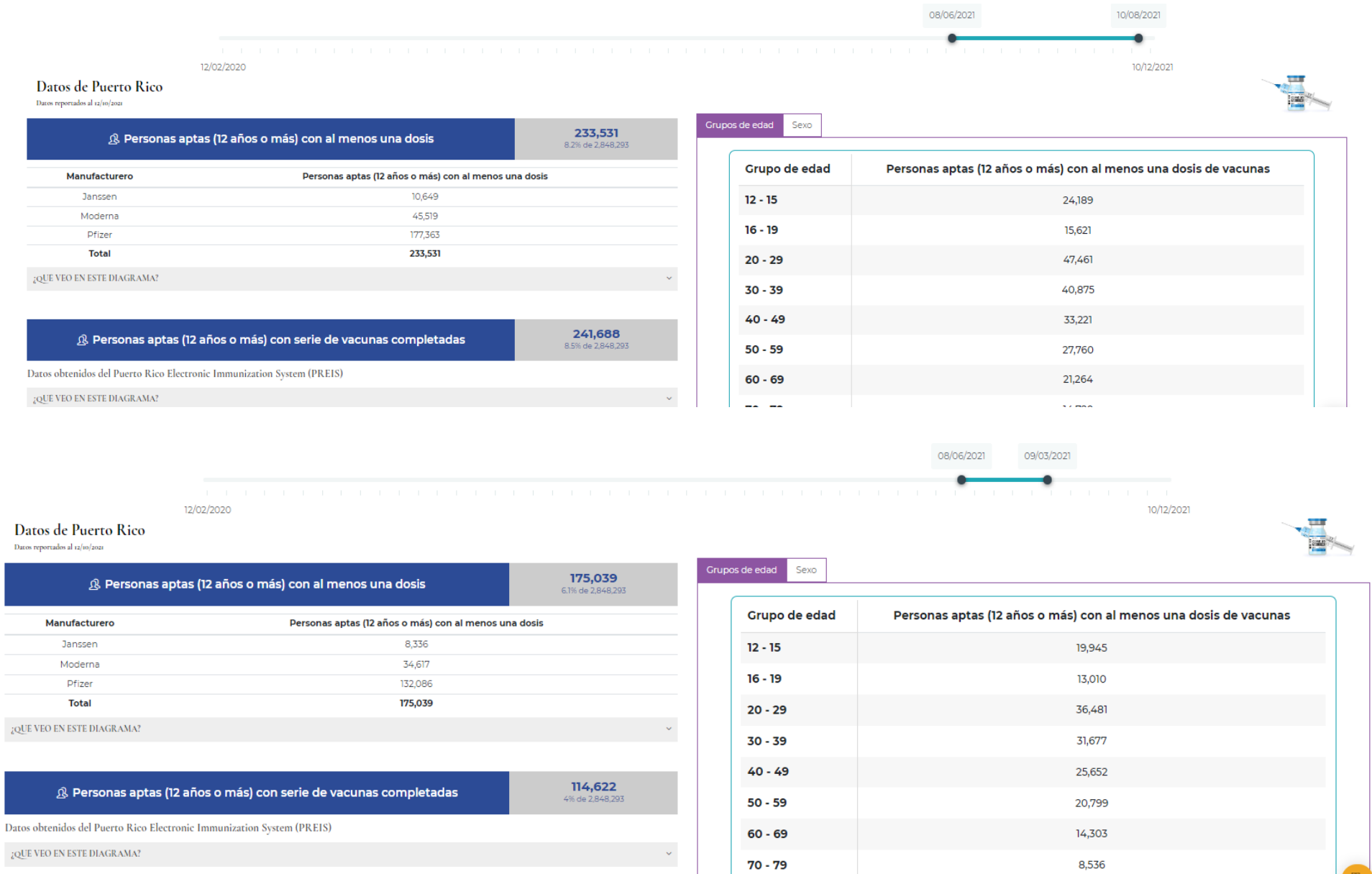
CC BY

Jan 1, 2021

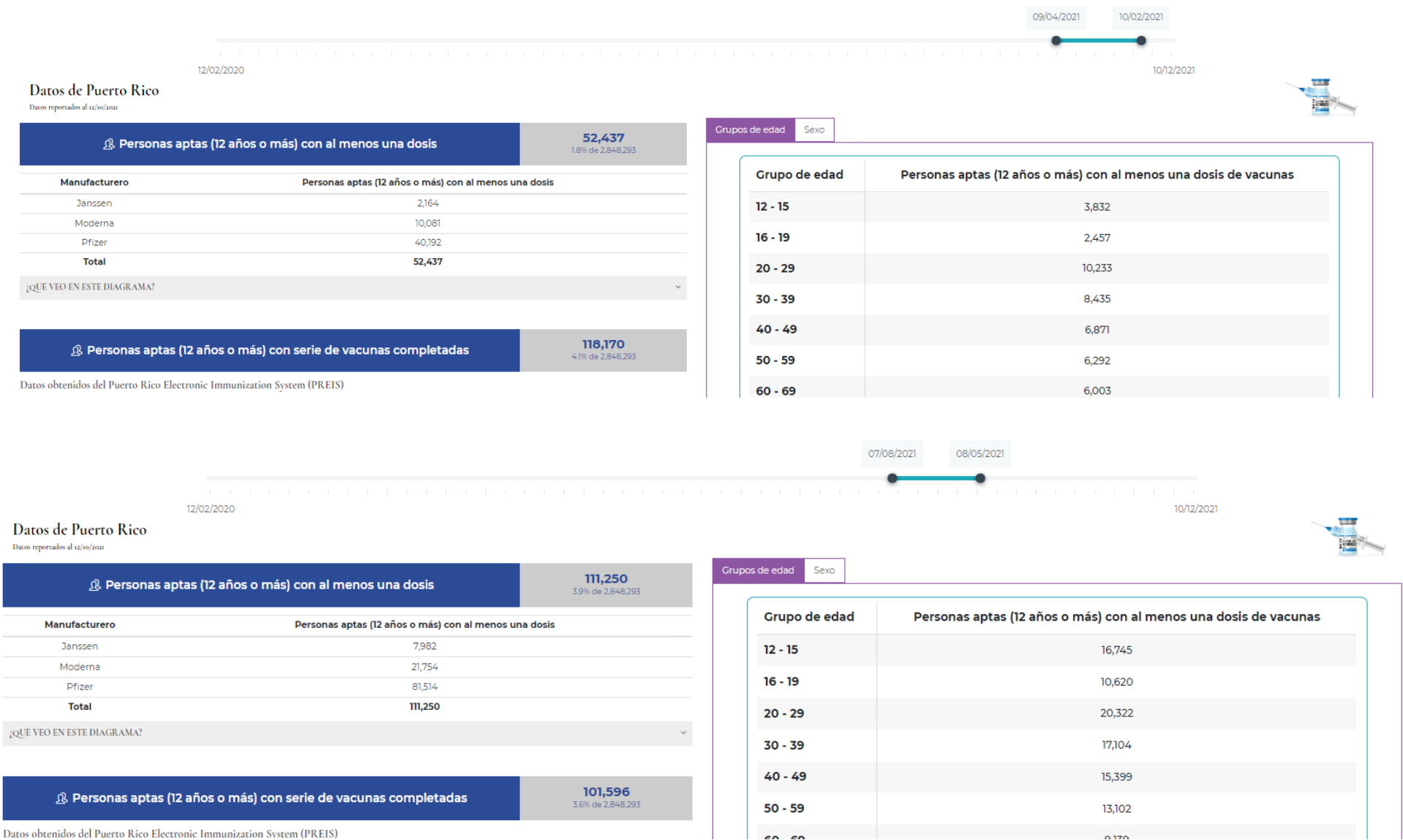
Oct 8, 2021

Our World in Data, Coronavirus (COVID-19) Vaccinations, (Metric: People vaccinated (by dose)), *Share of People Vaccinated Against Covid-19, October 8, 2021*, <https://ourworldindata.org/covid-vaccinations>

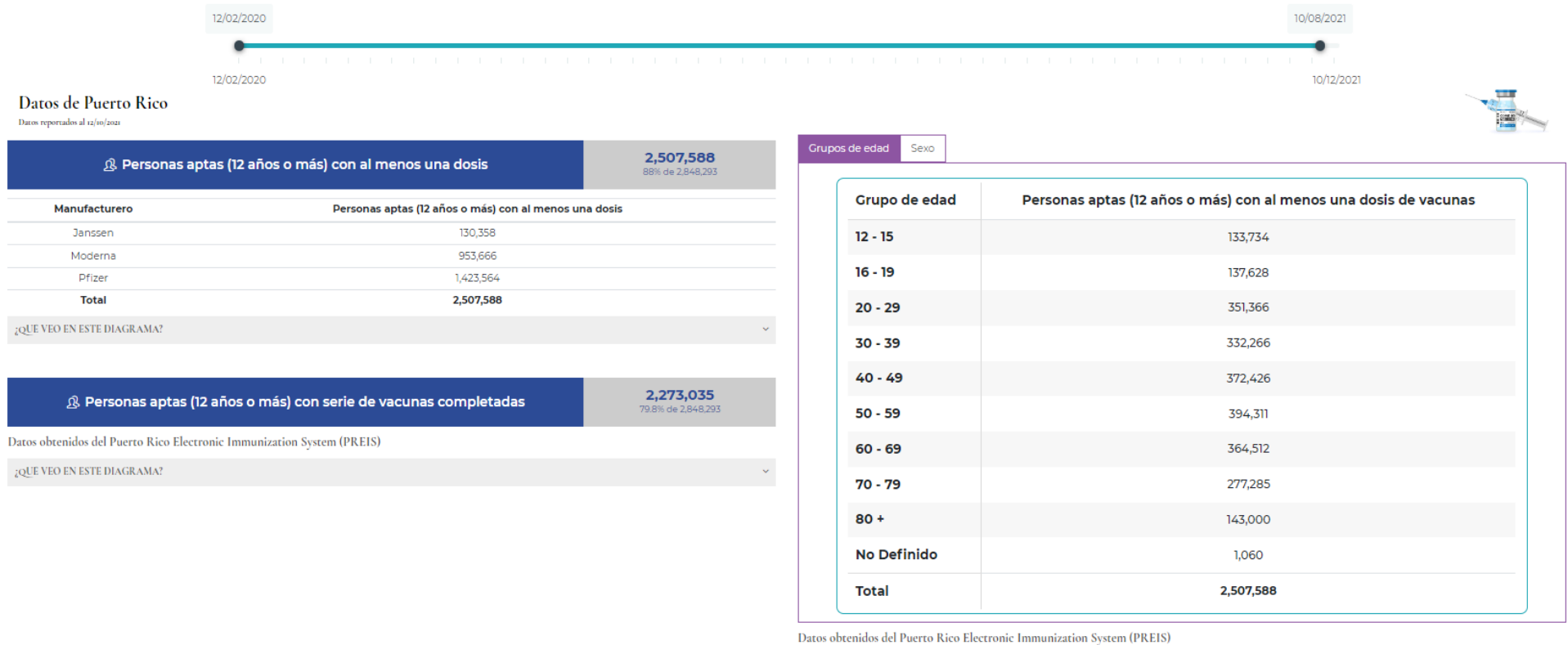
## Appendix 5A



## Appendix 5B

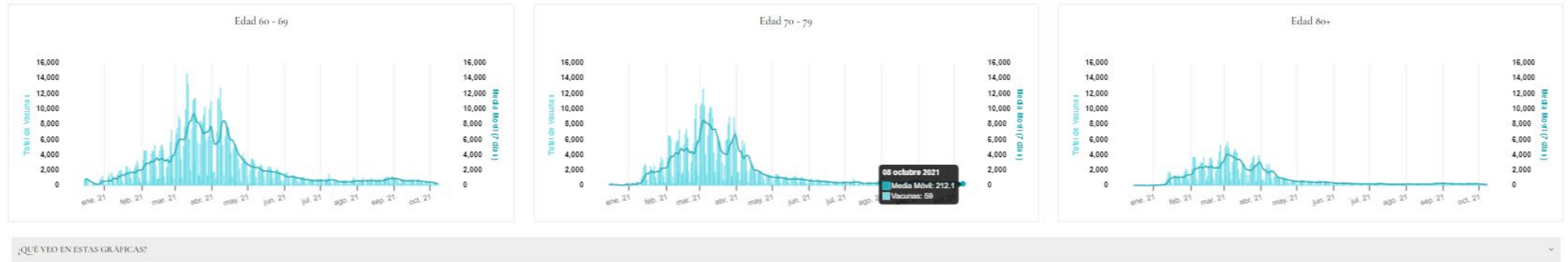


## Appendix 6

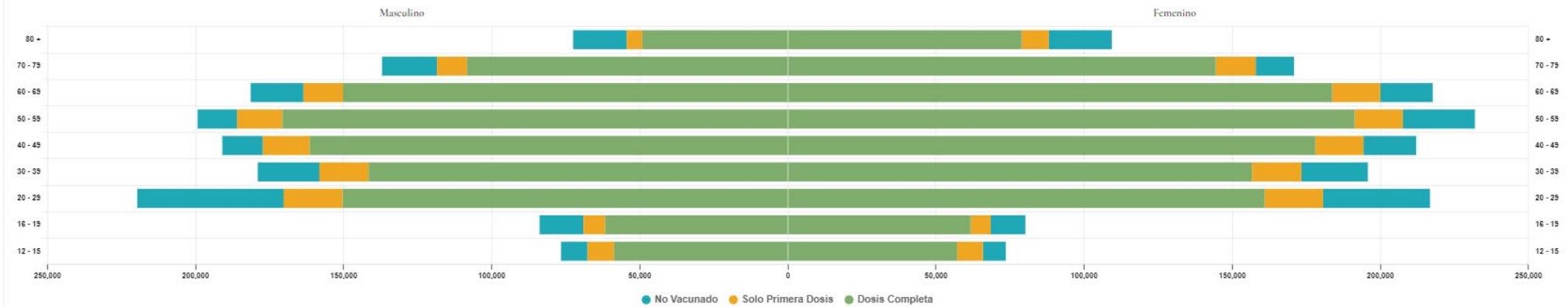


Puerto Rico Health Department COVID-19 Dashboard, *Vacunacion*, <https://covid19datos.salud.gov.pr/#vacunacion>

## Appendix 7A



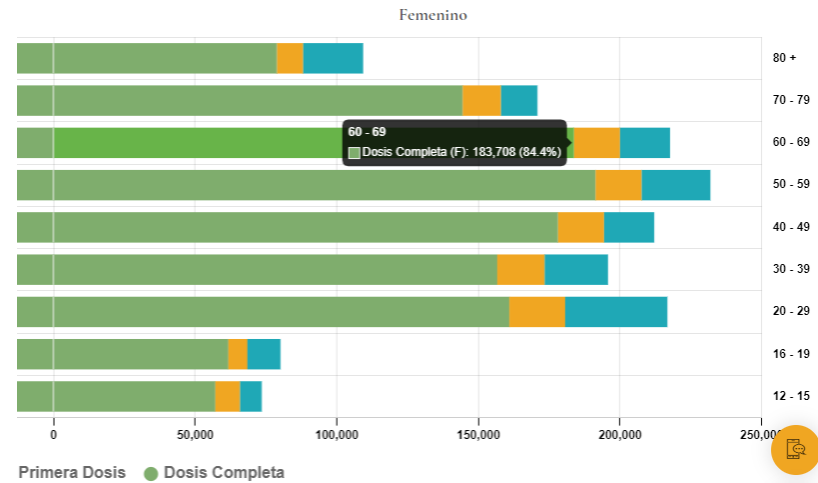
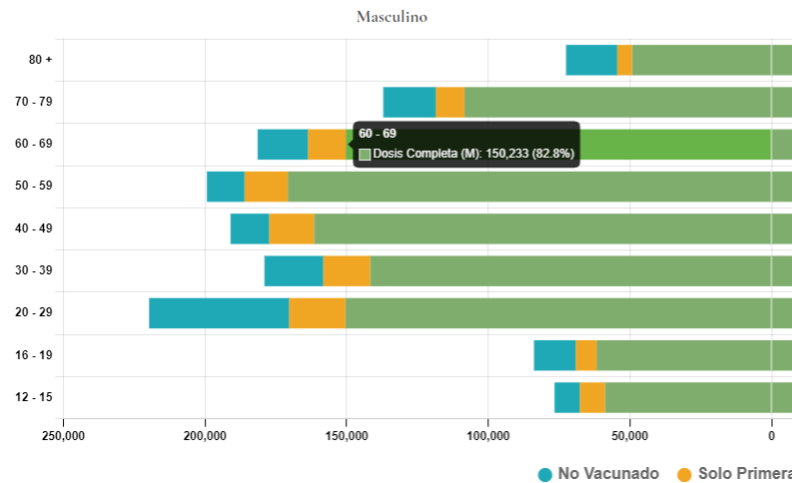
## Distribución de la población por sexo y grupo de edad



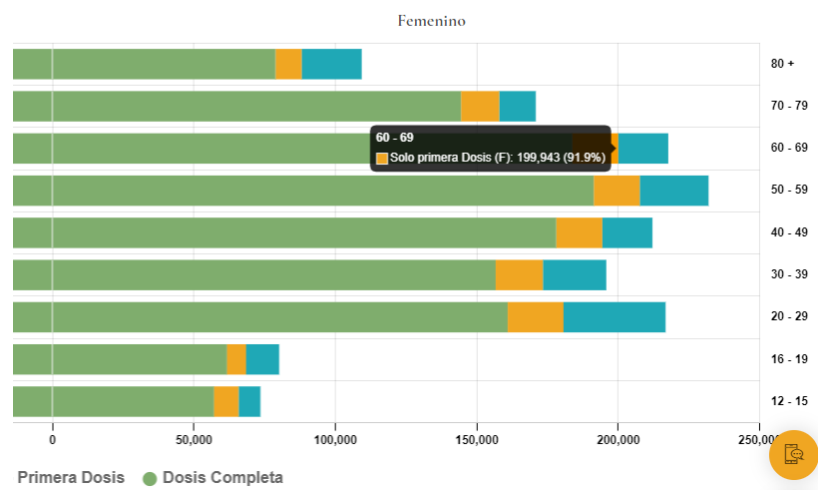
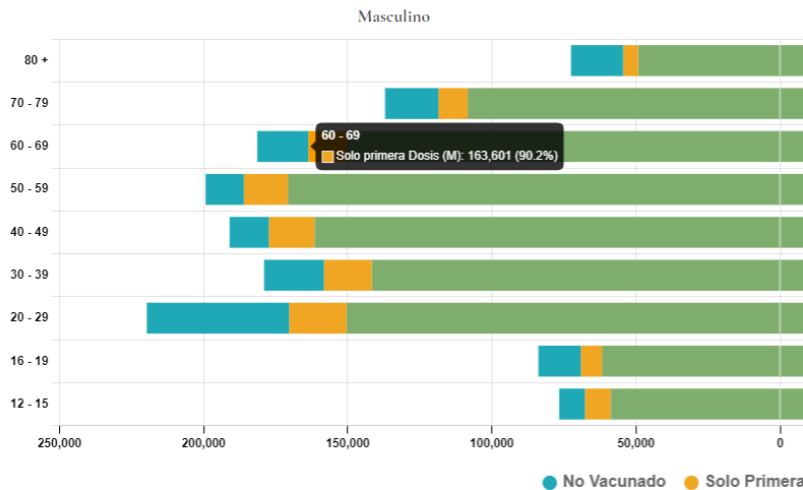


## Appendix 7B

## Distribución de la población por sexo y grupo de edad

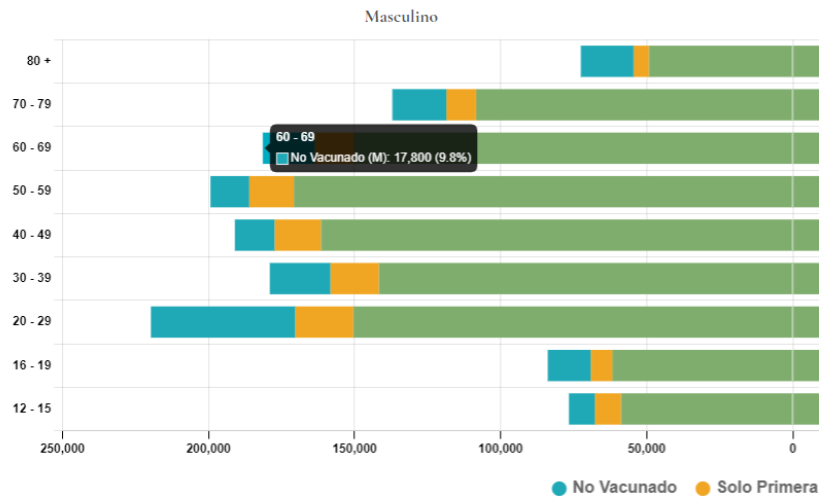


## Distribución de la población por sexo y grupo de edad

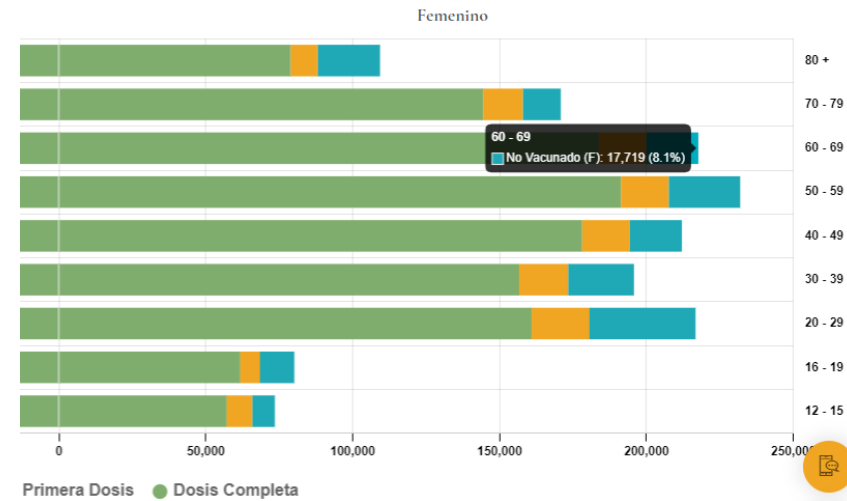


## Appendix 7C

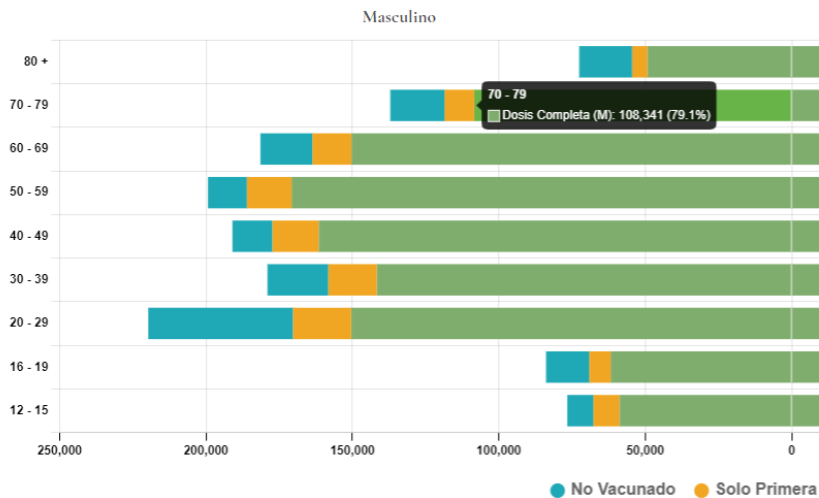
Distribución de la población



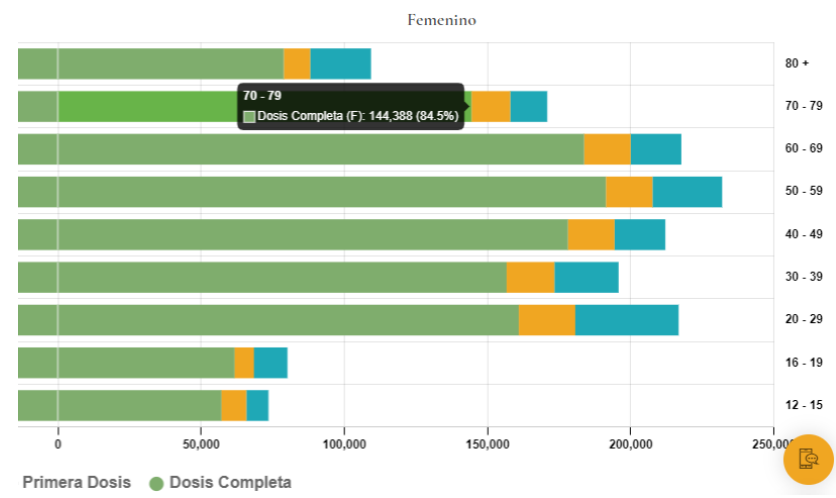
ción por sexo y grupo de edad



Distribución de la población

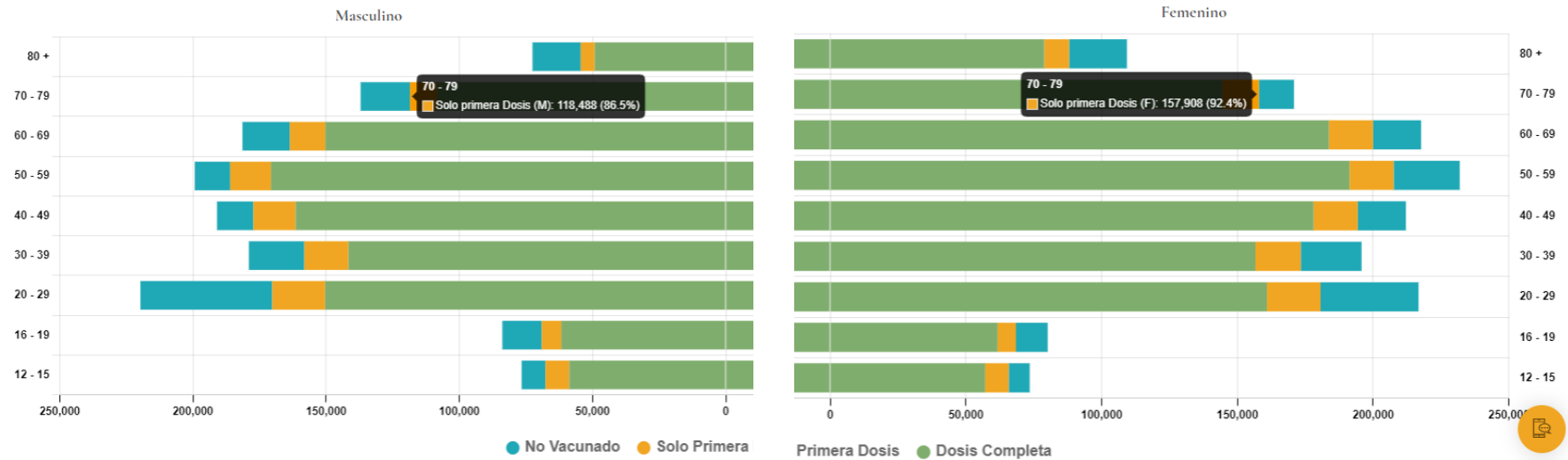


ción por sexo y grupo de edad

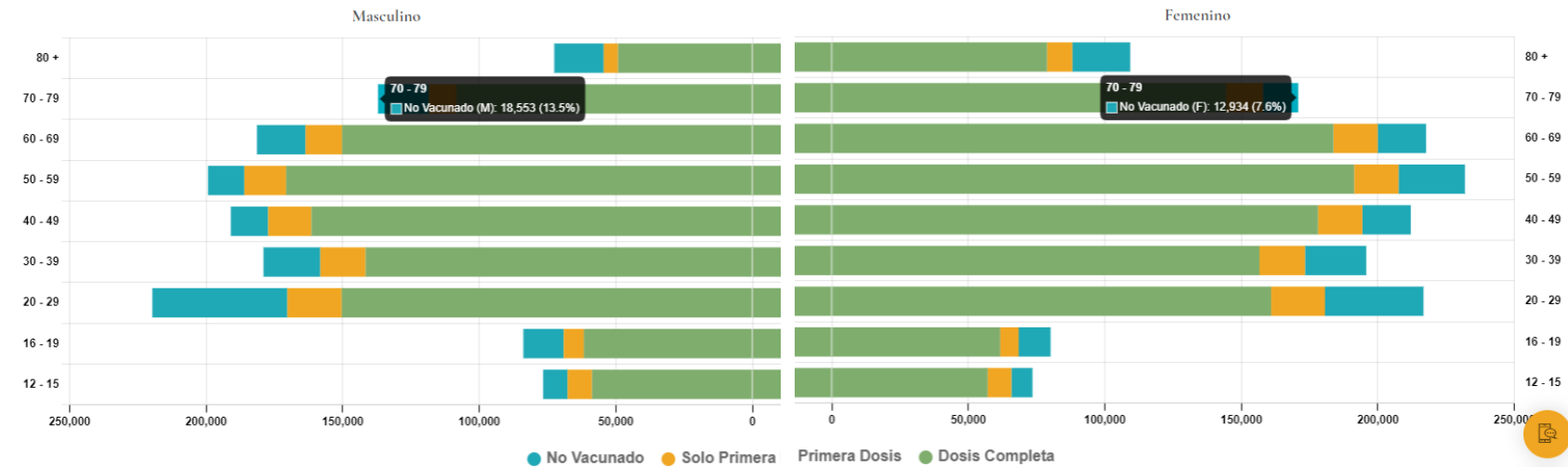


## Appendix 7D

## Distribución de la población por sexo y grupo de edad



## Distribución de la población por sexo y grupo de edad



## Appendix 7E

## Distribución de la población por sección por sexo y grupo de edad

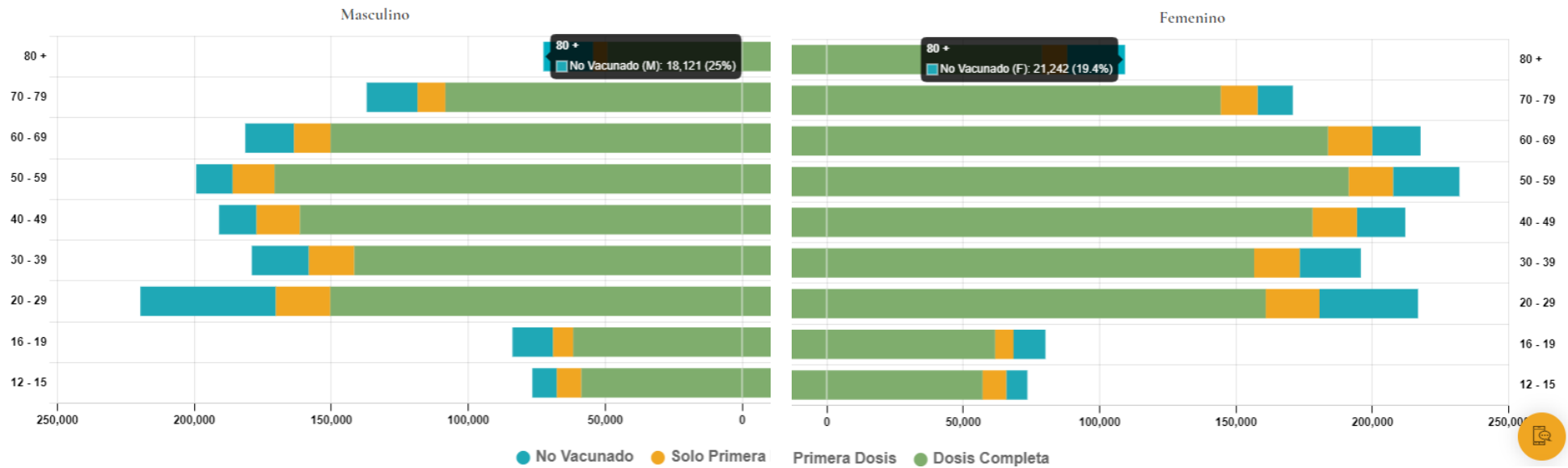


## Distribución de la población por sección por sexo y grupo de edad



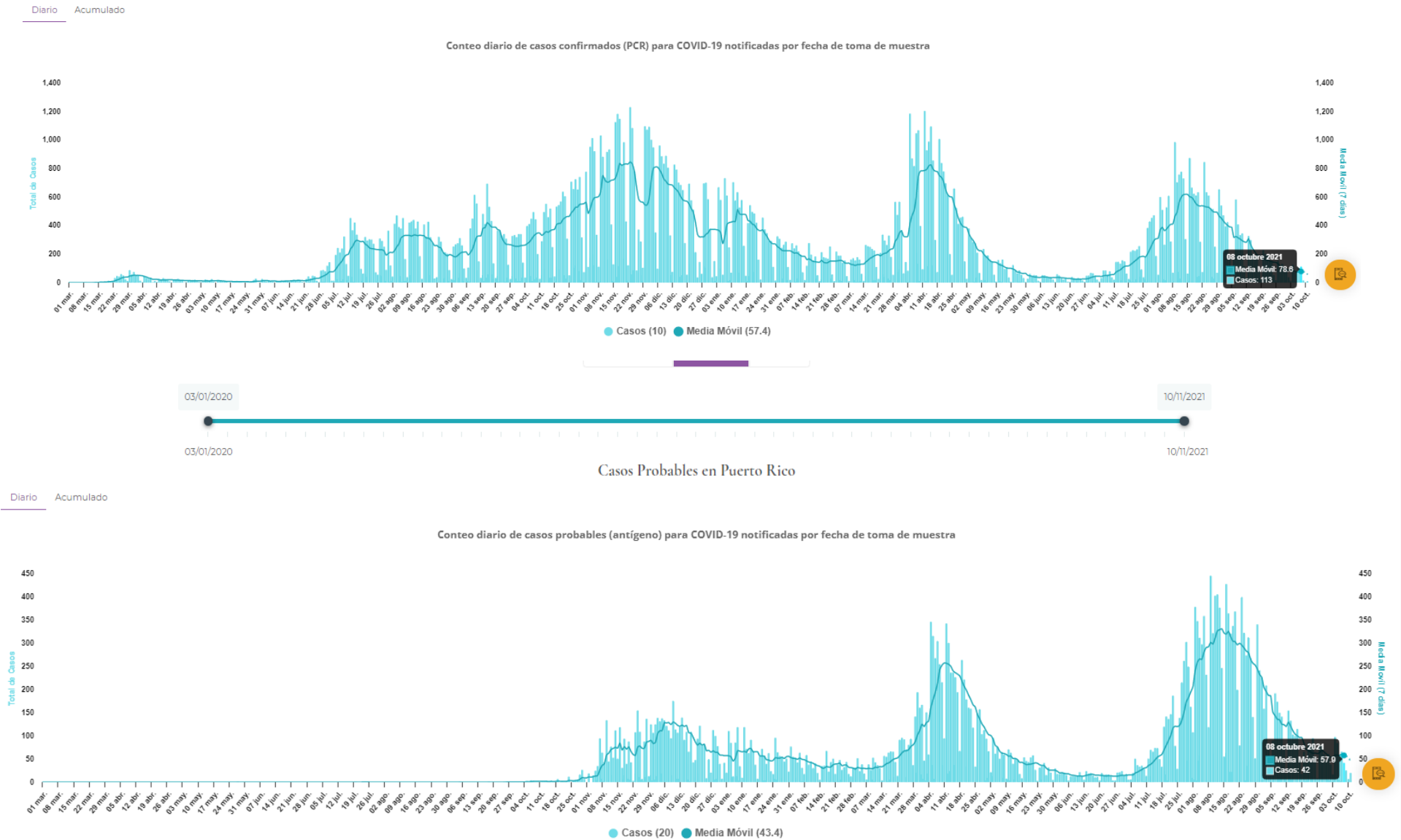
## Appendix 7F

## Distribución de la población por sexo y grupo de edad



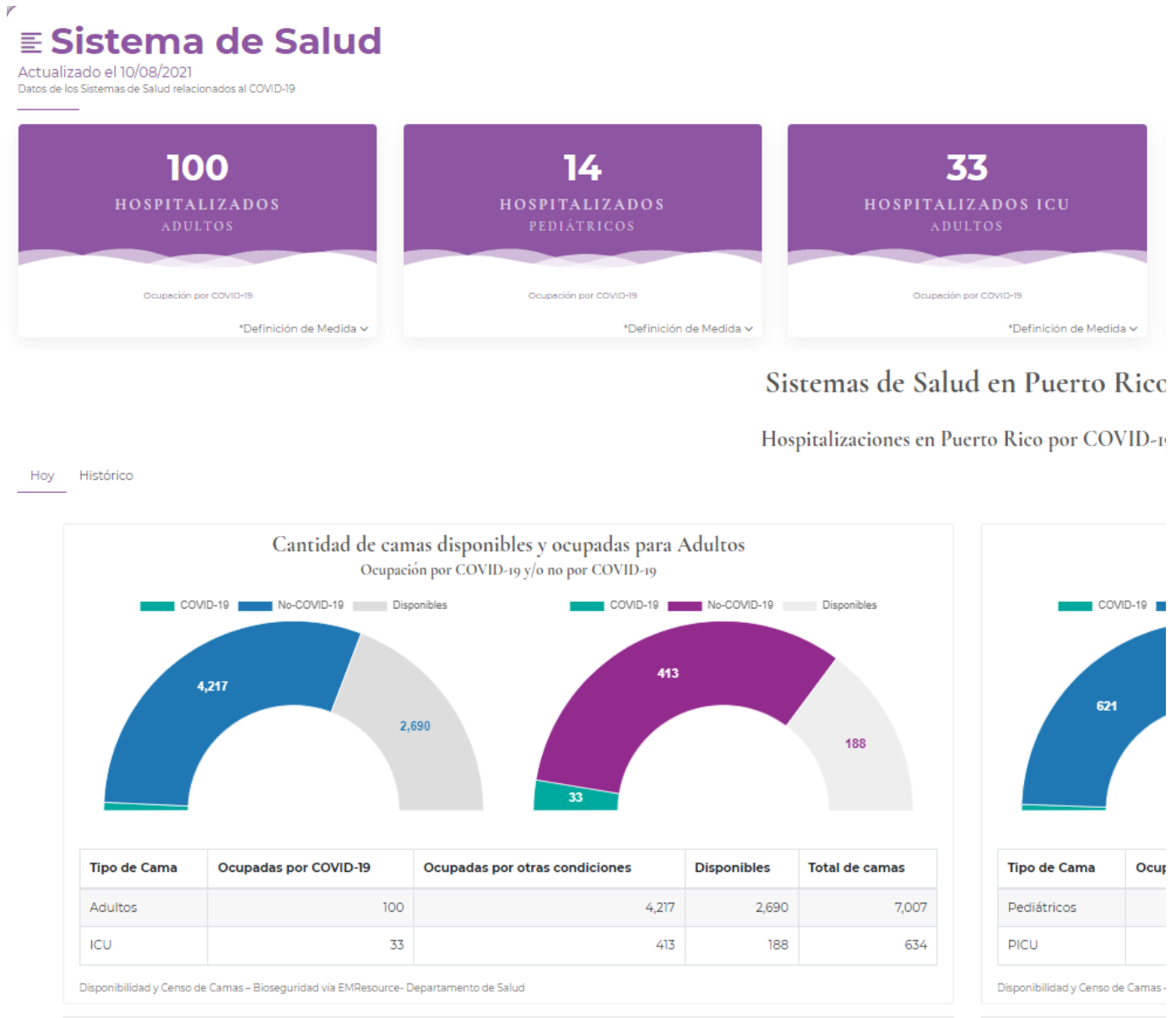
Puerto Rico Health Department COVID-19 Dashboard, *Vacunacion*, <https://covid19datos.salud.gov.pr/#vacunacion>

## Appendix 8A



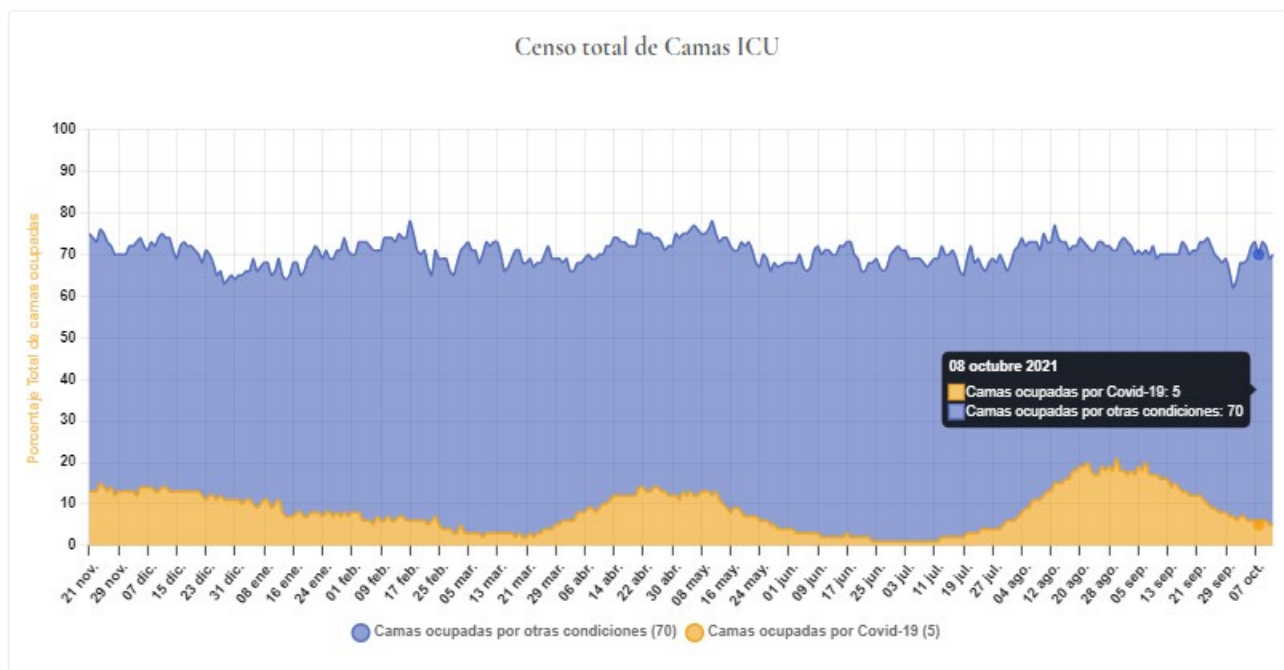
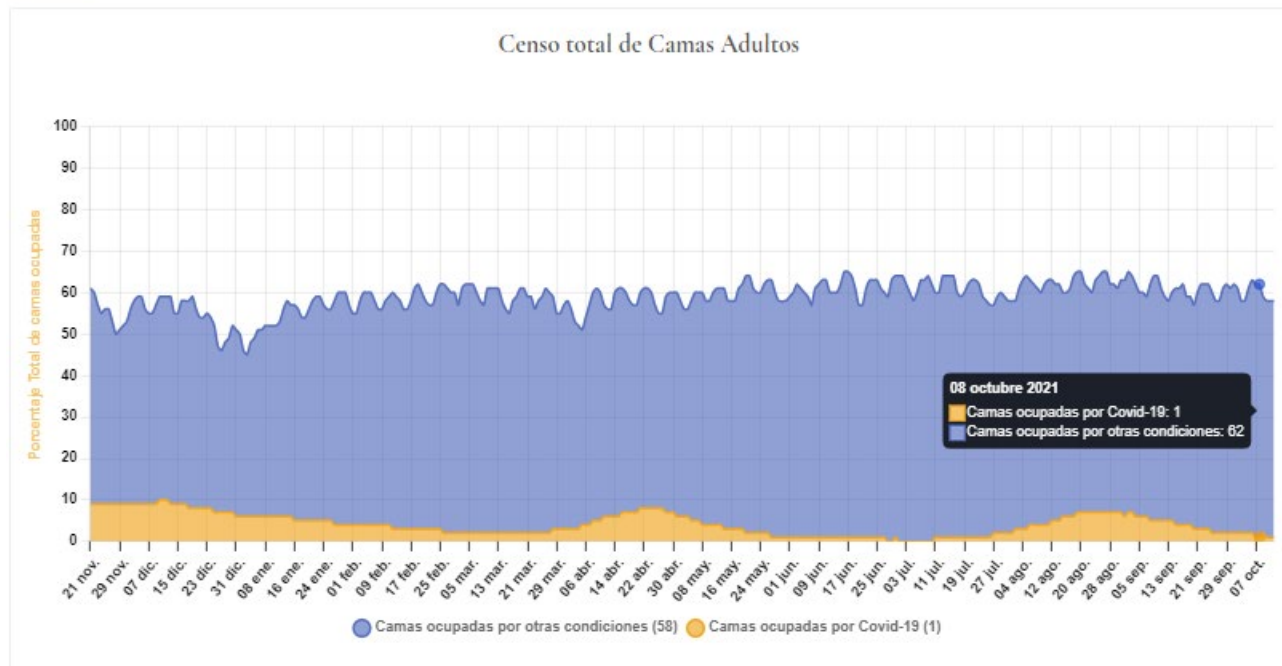
Puerto Rico Health Department COVID-19 Dashboard, *Casos (Diario)*, <https://covid19datos.salud.gov.pr/#casos>

## Appendix 8B



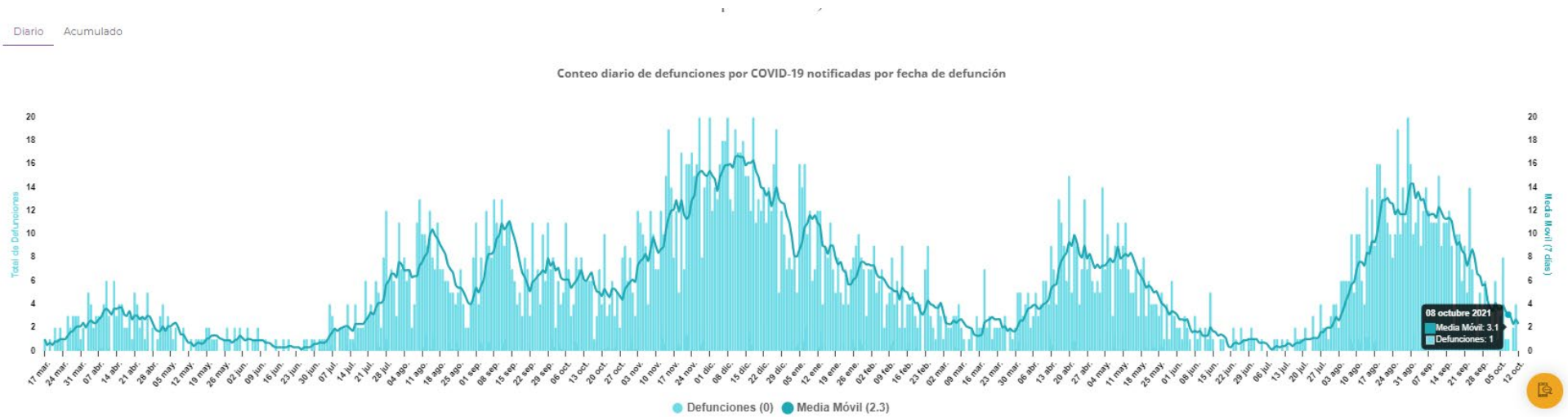
Puerto Rico Health Department COVID-19 Dashboard, *Sistema de Salud (Hoy)*, [https://covid19datos.salud.gov.pr/#sistemas\\_salud](https://covid19datos.salud.gov.pr/#sistemas_salud)

## Appendix 8C

Hoy Historico**Adultos**Puerto Rico Health Department Covid-19 Dashboard, *Sistema de Salud (Historico)*,[https://covid19datos.salud.gov.pr/#sistemas\\_salud](https://covid19datos.salud.gov.pr/#sistemas_salud)

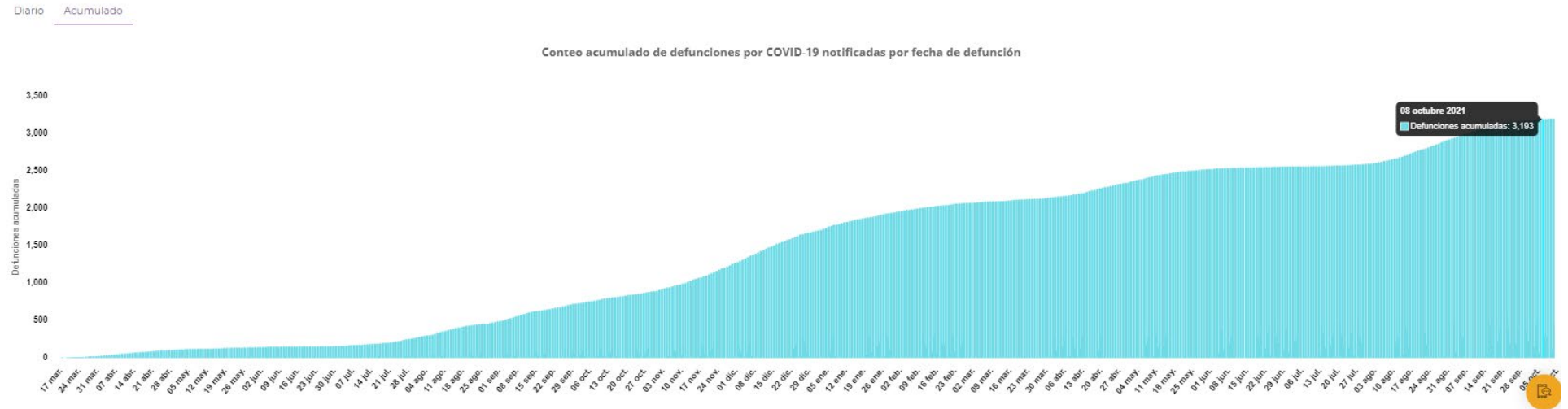


## Appendix 8D



Puerto Rico Health Department COVID-19 Dashboard, *Defunciones (Diario)*, <https://covid19datos.salud.gov.pr/#defunciones>

## Appendix 9



Pirámide de defunciones por COVID-19 por grupos de edad y sexo

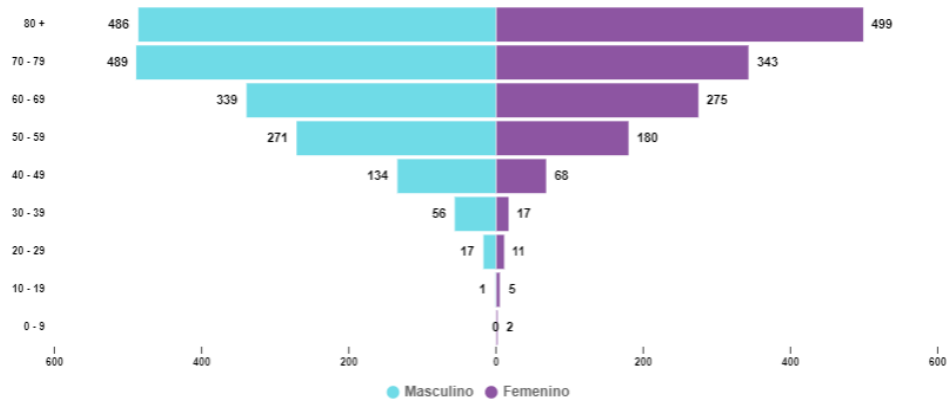
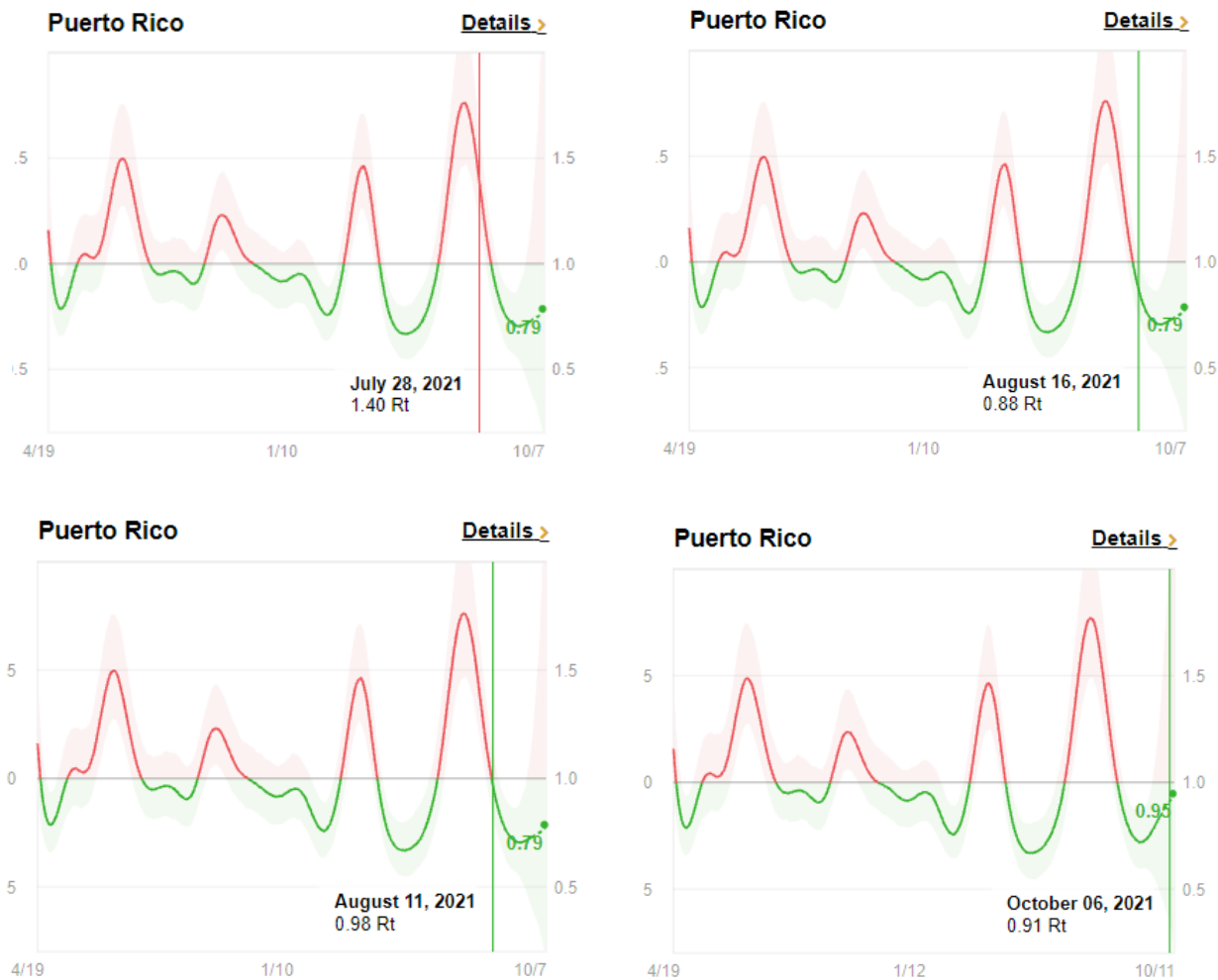


Tabla de defunciones por COVID-19 por grupos de edad y sexo

Edades	Masculino	Femenino	Total
80 +	486 (15.2%)	499 (15.6%)	985 (30.8%)
70 - 79	489 (15.3%)	343 (10.7%)	832 (26.1%)
60 - 69	339 (10.6%)	275 (8.6%)	614 (19.2%)
50 - 59	271 (8.5%)	180 (5.6%)	451 (14.1%)
40 - 49	134 (4.2%)	68 (2.1%)	202 (6.3%)
30 - 39	56 (1.8%)	17 (0.5%)	73 (2.3%)
20 - 29	17 (0.5%)	11 (0.3%)	28 (0.9%)
10 - 19	1 (0%)	5 (0.2%)	6 (0.2%)
0 - 9	0 (0%)	2 (0.1%)	2 (0.1%)
<b>Total</b>	<b>1,793 (56%)</b>	<b>1,400 (44%)</b>	<b>3,193 (100%)</b>

Puerto Rico Health Department COVID-19 Dashboard, *Defunciones (Acumuladas)*, <https://covid19datos.salud.gov.pr/#defunciones>

## Appendix 10



**Yale SCHOOL OF PUBLIC HEALTH**  
*Epidemiology of Microbial Diseases*



**HARVARD**  
**T.H. CHAN**

**SCHOOL OF PUBLIC HEALTH**  
 Department of Global Health  
 and Population



**Stanford | MEDICINE**

This project was supported by [Cooperative Agreement NU38OT000297](#) from the Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists (CSTE), and does not necessarily represent the views of CDC or CSTE.

The effective reproductive number ( $R_t$ ) is an important metric of epidemic growth.  $R_t$  is the average number of people that an individual infected on day  $t$  is expected to go on to infect. When  $R_t$  is above 1, we expect cases to increase in the near future. When  $R_t$  is below one, we expect cases to decrease in the near future.

Calculating  $R_t$  from the reported number of reported cases is complicated. People are typically diagnosed after they have already spread the disease, and many are not diagnosed at all. As diagnostic guidelines loosen and testing availability improves, we expect to see more cases, though the underlying incidence of disease may or may not have changed. Lags in diagnosis, diagnostic delays, and changing diagnostic guidelines will all impact case reports, and bias estimates of  $R_t$ .

We can avoid these biases by estimating  $R_t$  from the number of new infections each day. We estimate new infections using a statistical model that combines information about reported cases, reported deaths, the percentage of the population vaccinated, disease stage duration, and disease severity and mortality risks. **Our infections metric takes into account the delays mentioned above, and includes individuals who haven't tested positive.** Once we estimate the number of new infections each day, we can use that number to produce a more robust estimate of  $R_t$ . **Present-day estimates of  $R_t$  are highly uncertain, and can change dramatically over time.** We feel most confident about results for dates which are at least 14 days in the past. Additionally,  $R_t$  is easy to misinterpret. In many cases, we expect users will find our *Infections per capita* metric to be more useful. See [here](#) for a discussion of the pitfalls of  $R_t$ .

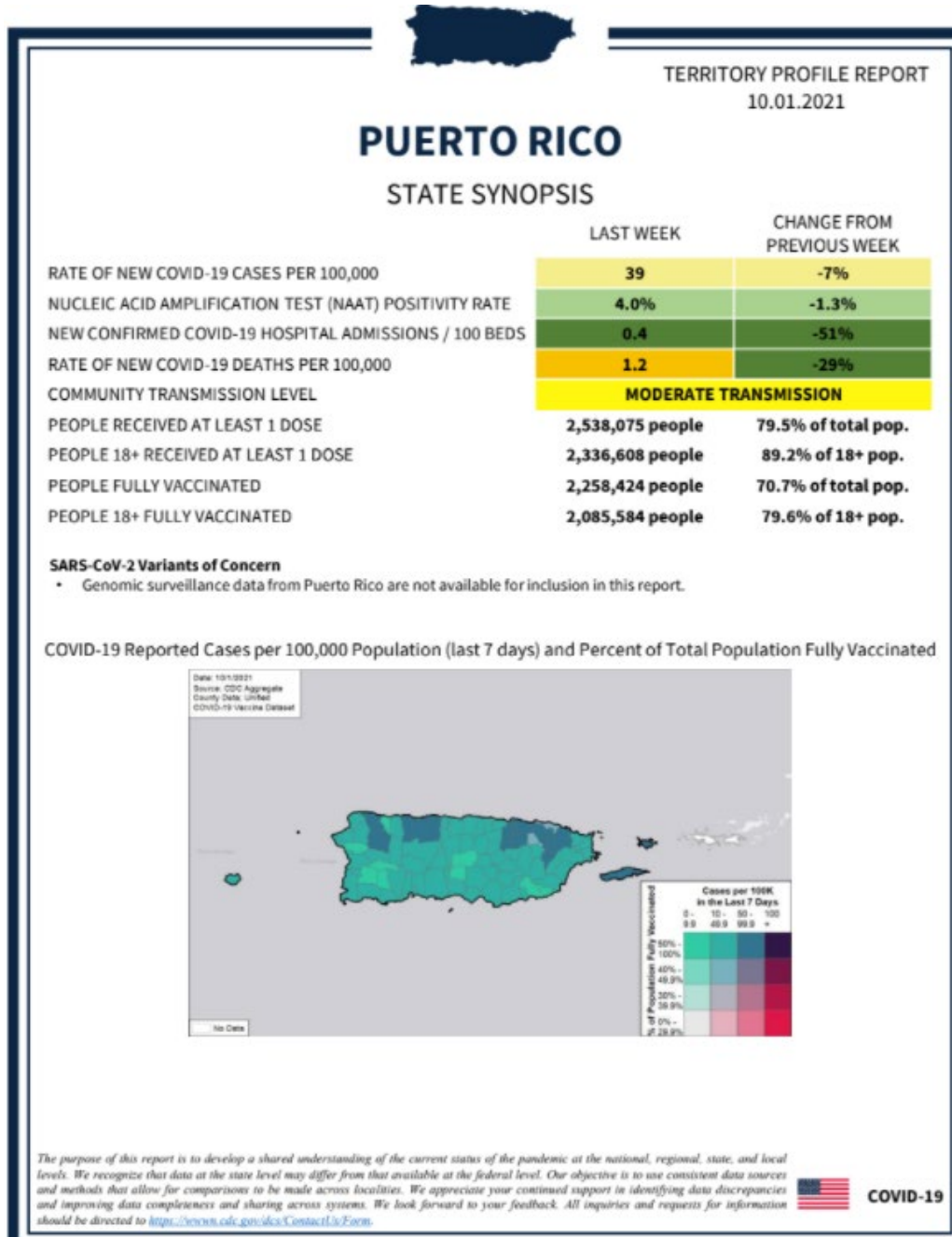
Contributors to this project include: [Melanie H. Chitwood](#), [Ted Cohen](#), [Kenneth Gunasekera](#), [Joshua Havumaki](#), [Fayette Klaassen](#), [Nicolas A. Menzies](#), [Virginia E. Pitzer](#), [Marcus Russi](#), [Joshua Salomon](#), [Nicole Swartwood](#), [Joshua L. Warren](#), and [Daniel M. Weinberger](#).

Compute and computational support provided by the [Yale Center for Research Computing](#). We use [Nextflow](#) for orchestration.

Original site built by [Mike Kneiger](#), with thanks to Ryan O'Rourke and Thomas Dimson.

Visualizations built using [d3](#) and [react-vis](#); site built using [Next.js](#).

## Appendix 11A



HealthData.gov, COVID-19 State Profile Report - Puerto Rico (October 1, 2021), <https://healthdata.gov/Community/COVID-19-State-Profile-Report-Puerto-Rico/dfc5-i6nj>

## Appendix 11B



COVID-19

# PUERTO RICO

TERRITORY PROFILE REPORT | 10.01.2021

	STATE	STATE, % CHANGE FROM PREVIOUS WEEK	FEMA/HHS REGION	UNITED STATES
NEW COVID-19 CASES (RATE PER 100,000)	1,257 (39)	-7%	49,051 (155)	732,548 (221)
NUCLEIC ACID AMPLIFICATION TEST (NAAT) POSITIVITY RATE	4.0%	-1.3%*	3.5%	6.4%
TOTAL NAAT VOLUME (TESTS PER 100,000)	38,604** (1,209**)	-14%**	1,416,868** (4,479**)	11,264,018** (3,393**)
NEW COVID-19 DEATHS (RATE PER 100,000)	37 (1.2)	-29%	477 (1.5)	10,423 (3.1)
CONFIRMED AND SUSPECTED NEW COVID-19 HOSPITAL ADMISSIONS (RATE PER 100 BEDS)	141 (1.7)	-33% (-33%)	4,732 (6.4)	93,036 (13.3)
CONFIRMED NEW COVID-19 HOSPITAL ADMISSIONS (RATE PER 100 BEDS)	37 (0.4)	-51% (-51%)	2,809 (3.8)	56,805 (8.1)
NUMBER OF HOSPITALS WITH SUPPLY SHORTAGES (PERCENT)	8 (14%)	+0%	14 (5%)	288 (5%)
NUMBER OF HOSPITALS WITH STAFF SHORTAGES (PERCENT)	5 (9%)	-17%	25 (8%)	955 (18%)
PEOPLE 12+ INITIATING VACCINATION (PERCENT OF POPULATION)	20,679 (0.7%)	-14.7%	235,724 (0.9%)	1,735,294 (0.6%)
PEOPLE 12-17 INITIATING VACCINATION (PERCENT OF POPULATION)	1,678 (0.7%)	-24.2%	21,729 (1.0%)	174,338 (0.7%)
PEOPLE 18+ INITIATING VACCINATION (PERCENT OF POPULATION)	19,001 (0.7%)	-13.7%	213,995 (0.9%)	1,560,956 (0.6%)

\* Indicates absolute change in percentage points.


\*\* Due to delayed reporting, this figure may underestimate total diagnostic tests and week-on-week changes in diagnostic tests.

**DATA SOURCES****Note:** Some dates may have incomplete data due to delays in reporting. Data may be backfilled over time, resulting in week-to-week changes.**Cases and Deaths:** State values are aggregated data provided by the states to the CDC. Historical reports of cases and deaths exceeding 1% of the total new cases or deaths reported in the US that day have been excluded. Data are through 9/30/2021; previous week is from 9/17 to 9/23.**Testing:** CELR (COVID-19 Electronic Lab Reporting) state health department-reported data. The term Nucleic Acid Amplification Test (NAAT) includes RT-PCR and other testing methods. Test positivity through 9/28/2021; previous week is from 9/15 to 9/21. Test volume through 9/24/2021; previous week is from 9/11 to 9/17.**Admissions:** Unified Hospitals Dataset in HHS Protect. Data are through 9/29; previous week is from 9/16 to 9/22.**Shortages:** Unified Hospitals Dataset in HHS Protect. Values presented show the latest reports from hospitals in the week ending 9/29/2021 for staffing and the week ending 9/28/2021 for supplies.**Vaccinations:** [CDC COVID Data Tracker](#). Data includes the Moderna, Pfizer BioNTech, and J&J/Janssen COVID-19 vaccines and reflects current data available as of 11:41 EDT on 10/01/2021. Data last updated 06:00 EDT on 10/01/2021. People initiating vaccination include those who have received the first dose of the Moderna or Pfizer-BioNTech vaccine as well as those who have received one dose of the J&J/Janssen vaccine. Population denominators reflect the subset of the population of the corresponding age range.**METHODS:** Details available on last two pages of report.

## Appendix 12

Data Table for Cumulative COVID-19 Nucleic Acid Amplification Tests (NAATs) Performed per 100k by State/Territory

CDC | Data as of: October 9, 2021 12:35 PM ET. Posted: October 9, 2021 2:00 PM ET

Download Data 


State †	Cumulative Tests Performed per 100K ‡	Cumulative Percent Positivity ‡
Alaska	425,233.17	3-4.9%
Rhode Island	424,492.97	3-4.9%
Massachusetts	412,755.29	3-4.9%
District of Columbia	385,197.71	3-4.9%
Vermont	353,595.66	< 3%
Connecticut	303,200.22	3-4.9%
New York*	296,057.15	3-4.9%
Minnesota	273,087.53	5-7.9%
Delaware	263,828.92	5-7.9%
North Dakota	241,821.93	5-7.9%
Maryland	231,471.76	5-7.9%
Illinois	209,705.33	5-7.9%
California	205,992.72	N/A
Maine	203,157.91	< 3%
New Jersey	200,783.82	5-7.9%
Wisconsin	199,560.79	5-7.9%
West Virginia	198,496.5	5-7.9%
Florida	187,666.62	10-14.9%
New Hampshire	184,290.04	3-4.9%
Louisiana	178,366.37	8-9.9%
Colorado	177,328.39	5-7.9%
Wyoming	176,642.44	5-7.9%
New Mexico	174,264.57	8-9.9%
South Carolina	172,769.45	10-14.9%
Hawaii	167,982.77	3-4.9%
Michigan	167,467.81	5-7.9%
Utah	160,592	10-14.9%
Indiana	156,247.61	10-14.9%
North Carolina	148,796.8	8-9.9%
Pennsylvania	143,491.15	8-9.9%
Montana	142,803.37	10-14.9%
Arizona	142,030.79	10-14.9%
Kentucky	138,665.39	10-14.9%
Nevada	137,523.29	10-14.9%
Iowa	136,954.05	10-14.9%
Ohio	136,544.5	5-7.9%
Kansas	135,061.45	8-9.9%
Missouri	134,505.2	10-14.9%
Tennessee	125,608.24	N/A
Texas	122,484.11	10-14.9%
Virginia	121,713.42	10-14.9%
Idaho	121,626.58	15-19.9%
Nebraska	121,607.13	10-14.9%
Oregon	119,557.6	5-7.9%
Alabama	118,951.91	10-14.9%
Arkansas	118,892.98	8-9.9%
Washington	110,334.91	N/A
Georgia	106,728.6	10-14.9%
Guam	106,042.71	5-7.9%
South Dakota	89,140.34	10-14.9%
Oklahoma	75,510.99	20-24.9%
Mississippi	62,637.59	10-14.9%
Puerto Rico	50,375.93	5-7.9%
Virgin Islands	41,938.72	8-9.9%
American Samoa	N/A	N/A
Federated States of Micronesia	N/A	N/A
New York (Level of Community Transmission)*	N/A	N/A
New York City*	N/A	N/A
Northern Mariana Islands	N/A	N/A
Palau	N/A	N/A
Republic of Marshall Islands	N/A	N/A

Footnotes

CDC, Cases, Deaths and Testing (View: Tests Performed, Time Period: All Time, Metric: Rate per 100,000), *Data Table for Cumulative COVID-19 Nucleic Acid Amplification Tests (NAATs) Performed per 100k by State/Territory*, [https://covid.cdc.gov/covid-data-tracker/#cases\\_testsper100k](https://covid.cdc.gov/covid-data-tracker/#cases_testsper100k)

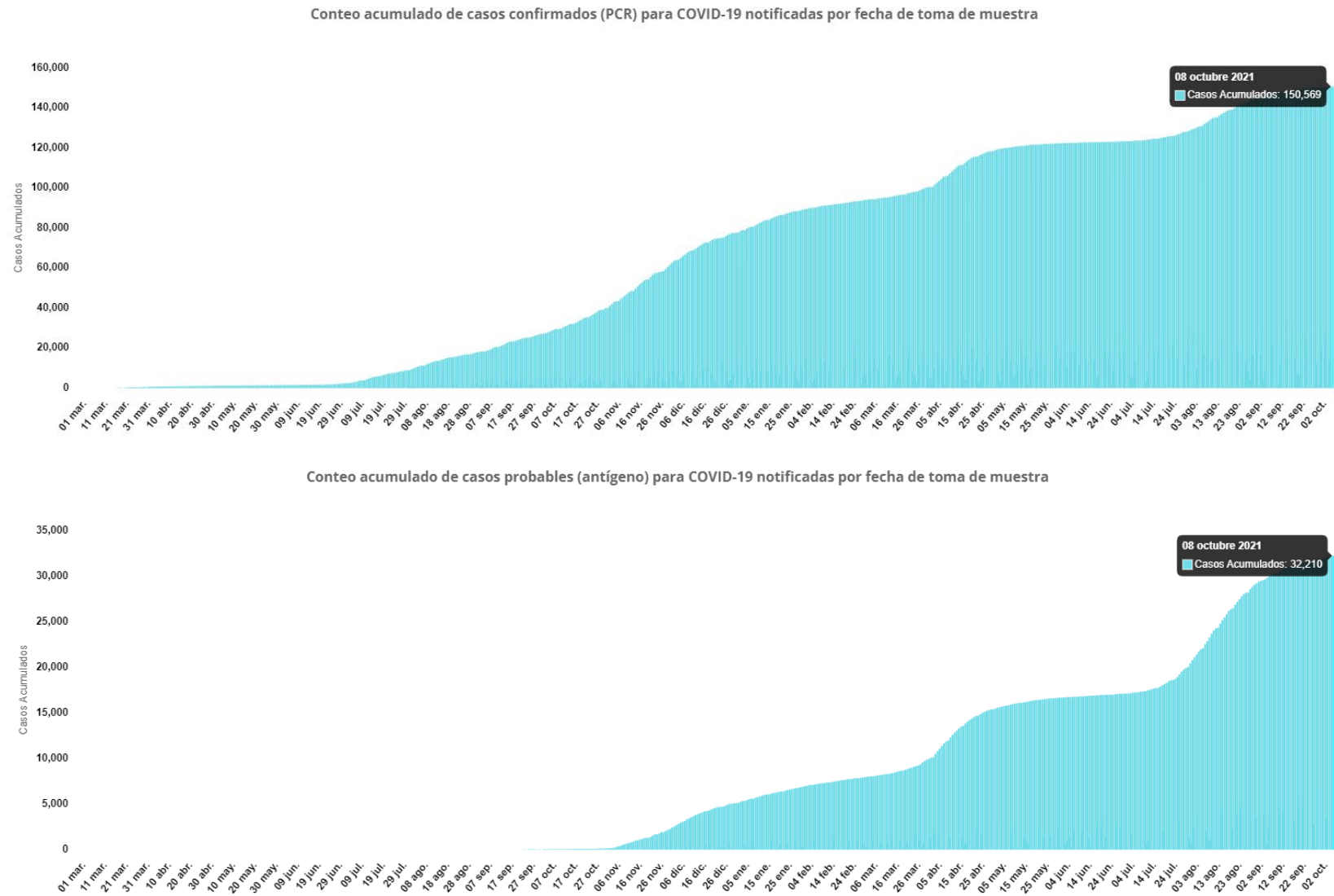


## Appendix 13

Data Table for COVID-19 Nucleic Acid Amplification Tests (NAATs) Performed in Last 30 Days per 100k by State/Territory			
CDC   Data as of: October 9, 2021 12:35 PM ET. Posted: October 9, 2021 2:00 PM ET			Download Data 
State †	# Tests Performed Last 30 Days per 100K ‡	30-day Percent Positivity ‡	
District of Columbia	47,629.4	< 3%	
Rhode Island	37,779.28	< 3%	
Massachusetts	33,118.97	< 3%	
Vermont	32,397.69	3-4.9%	
California	23,032.75	N/A	
New York*	21,888.1	3-4.9%	
West Virginia	20,646.46	10-14.9%	
Minnesota	19,923.78	5-7.9%	
Illinois	19,657.12	3-4.9%	
South Carolina	18,829.05	10-14.9%	
Delaware	18,433.42	5-7.9%	
Hawaii	16,952.1	5-7.9%	
Maryland	16,359.24	5-7.9%	
Wyoming	15,777.9	10-14.9%	
Wisconsin	15,358.23	8-9.9%	
Kentucky	15,111.69	10-14.9%	
Connecticut	14,936.97	< 3%	
North Carolina	14,928.43	8-9.9%	
New Hampshire	14,374.08	5-7.9%	
Colorado	14,336.83	5-7.9%	
New Jersey	13,751.87	3-4.9%	
Idaho	13,680.08	20-24.9%	
Guam	13,478.31	10-14.9%	
Florida	12,831.05	8-9.9%	
North Dakota	12,354.38	8-9.9%	
Montana	12,196.83	15-19.9%	
New Mexico	12,030.26	5-7.9%	
Maine	11,982.34	3-4.9%	
Virginia	11,250.95	8-9.9%	
Pennsylvania	11,165.4	8-9.9%	
Michigan	11,148.45	8-9.9%	
Utah	11,077.75	10-14.9%	
Missouri	11,069.56	8-9.9%	
Ohio	10,731.26	10-14.9%	
Indiana	10,707.51	10-14.9%	
Alaska	10,530.32	8-9.9%	
Kansas	10,471.48	8-9.9%	
Arizona	10,069.25	10-14.9%	
Texas	9,986.7	10-14.9%	
Iowa	9,951.09	10-14.9%	
Oregon	9,709.07	8-9.9%	
Georgia	8,891.54	10-14.9%	
Nevada	8,520.7	10-14.9%	
Louisiana	8,292.69	5-7.9%	
South Dakota	7,590.83	15-19.9%	
Alabama	7,525.27	10-14.9%	
Arkansas	7,328.28	8-9.9%	
Tennessee	6,831.22	N/A	
Washington	5,789.06	N/A	
Puerto Rico	5,533.12	5-7.9%	
Oklahoma	5,101.07	15-19.9%	
Nebraska	4,561.24	10-14.9%	
Mississippi	4,373.37	10-14.9%	
Virgin Islands	1,839.14	15-19.9%	
American Samoa	N/A	N/A	
Federated States of Micronesia	N/A	N/A	
New York (Level of Community Transmission)*	N/A	N/A	
New York City*	N/A	N/A	
Northern Mariana Islands	N/A	N/A	
Palau	N/A	N/A	
Republic of Marshall Islands	N/A	N/A	
Footnotes			+

Cases, Deaths and Testing (View: Tests Performed, Time Period: Last 30 Days, Metric: Rate per 100,000), *Data Table for COVID-19 Nucleic Acid Amplification Tests (NAATs) Performed in Last 30 Days per 100k by State/Territory*, [https://covid.cdc.gov/covid-data-tracker/#cases\\_testsper100k30day](https://covid.cdc.gov/covid-data-tracker/#cases_testsper100k30day)

## Appendix 14

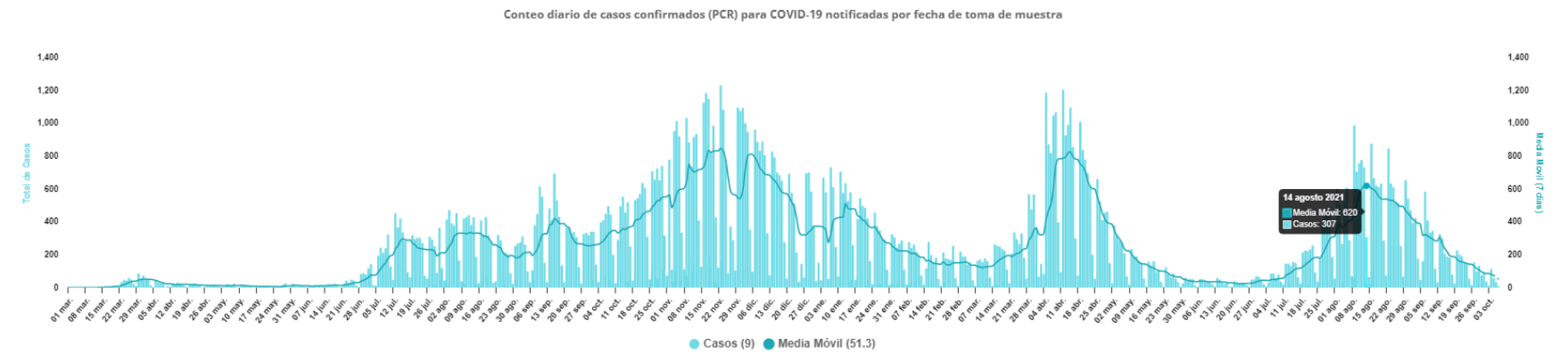
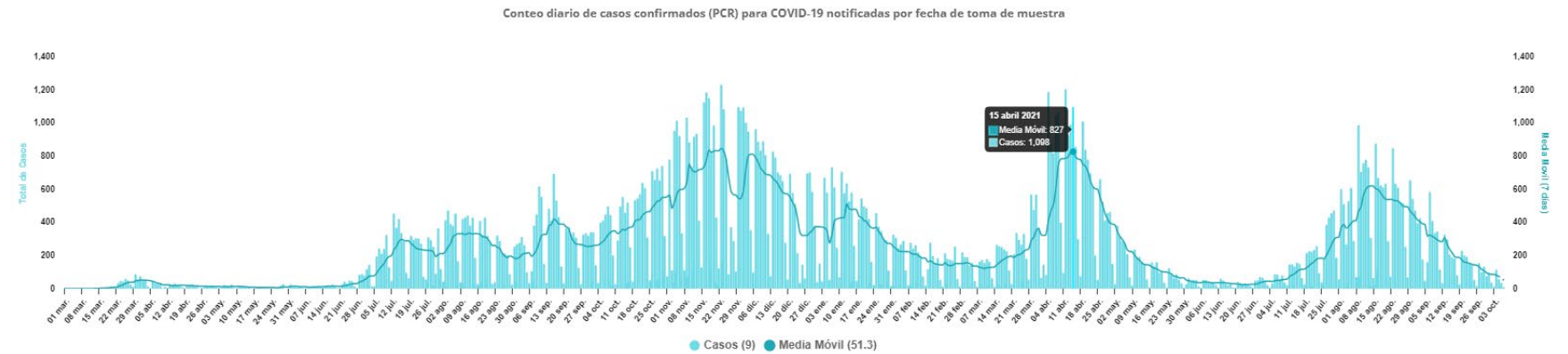
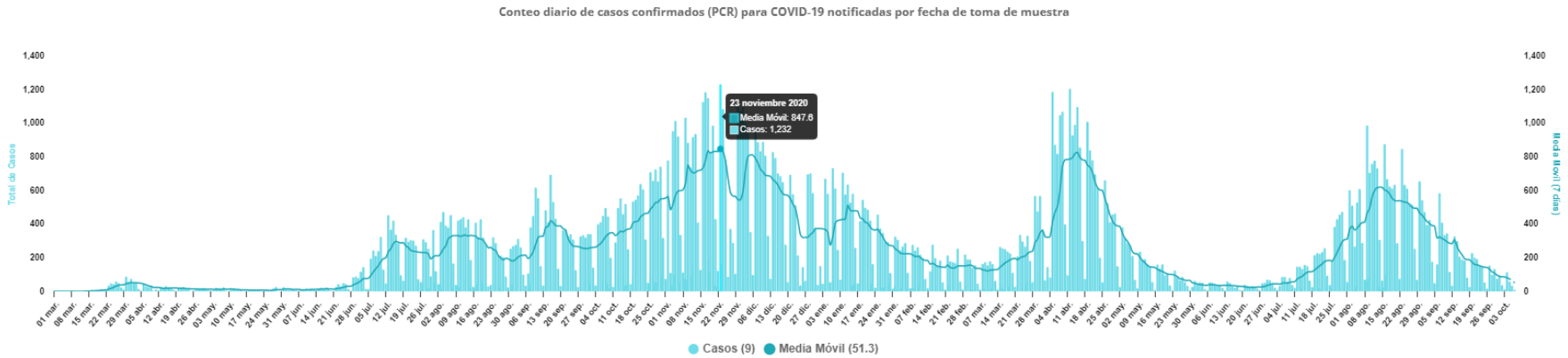


Puerto Rico Health Department COVID-19 Dashboard, *Casos (Confirmados (Acumulados), Probables (Acumulados))*, <https://covid19datos.salud.gov.pr/#casos>



## Appendix 15

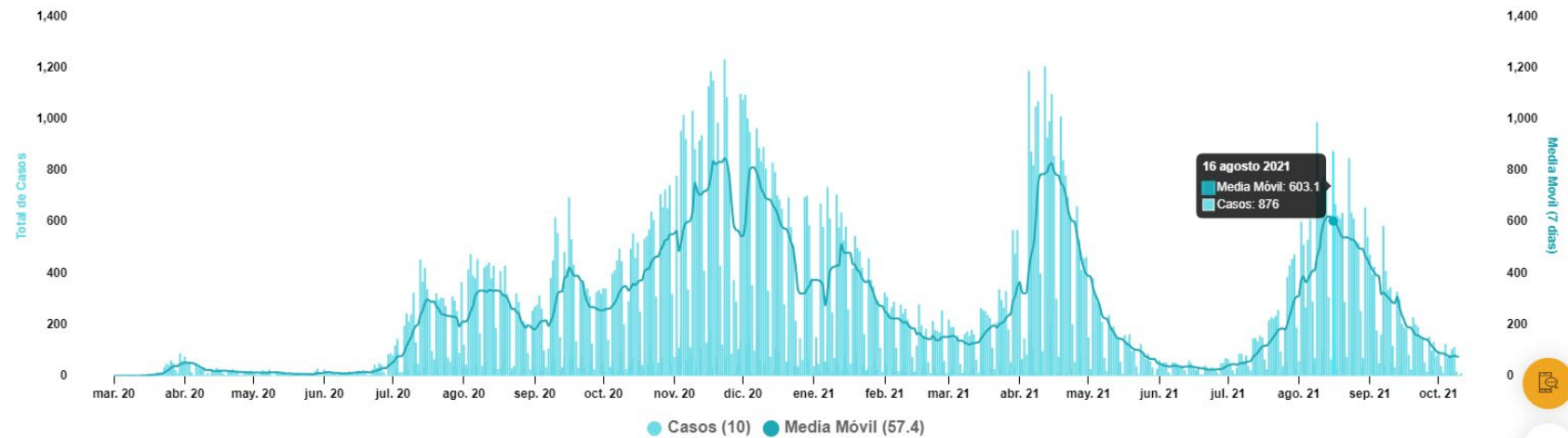
Diario Acumulado



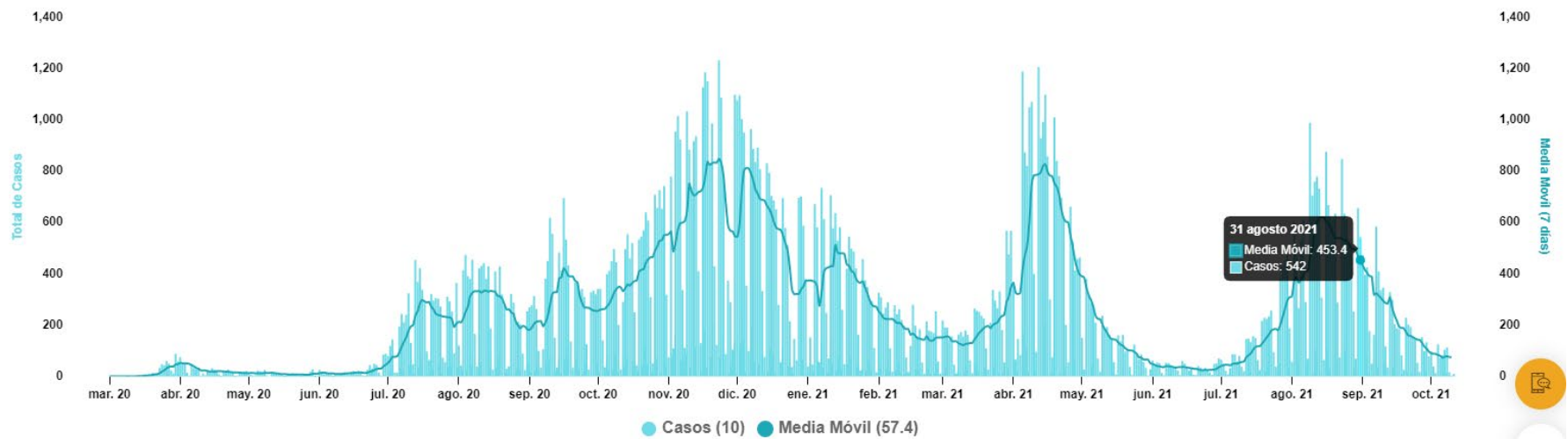
Puerto Rico Health Department COVID-19 Dashboard, *Casos (Confirmados)*, <https://covid19datos.salud.gov.pr/#casos>

## Appendix 16A

Conteo diario de casos confirmados (PCR) para COVID-19 notificadas por fecha de toma de muestra



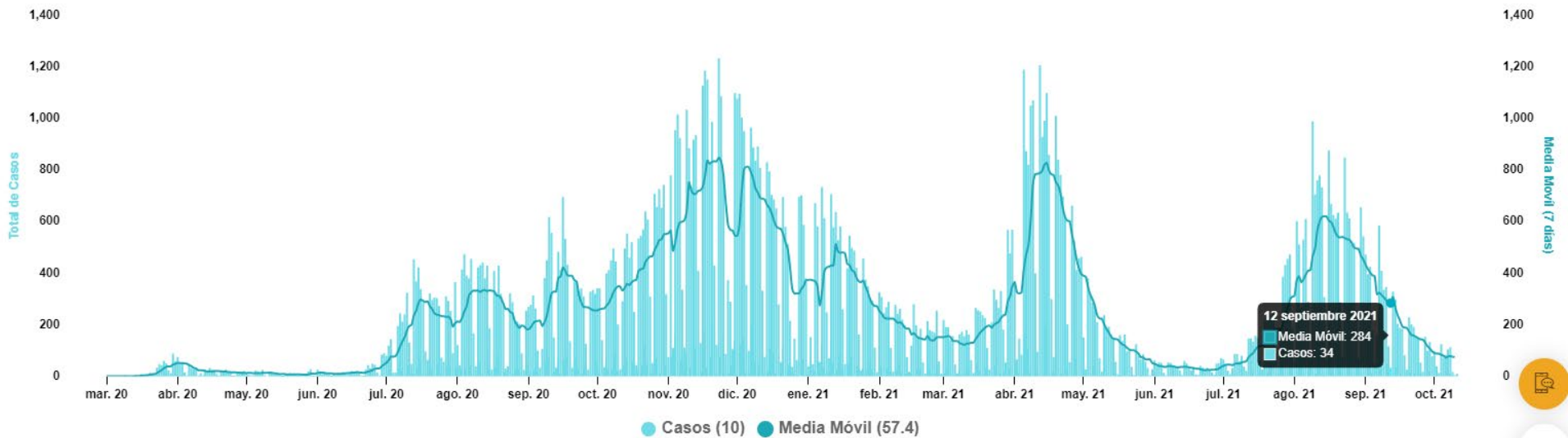
Conteo diario de casos confirmados (PCR) para COVID-19 notificadas por fecha de toma de muestra



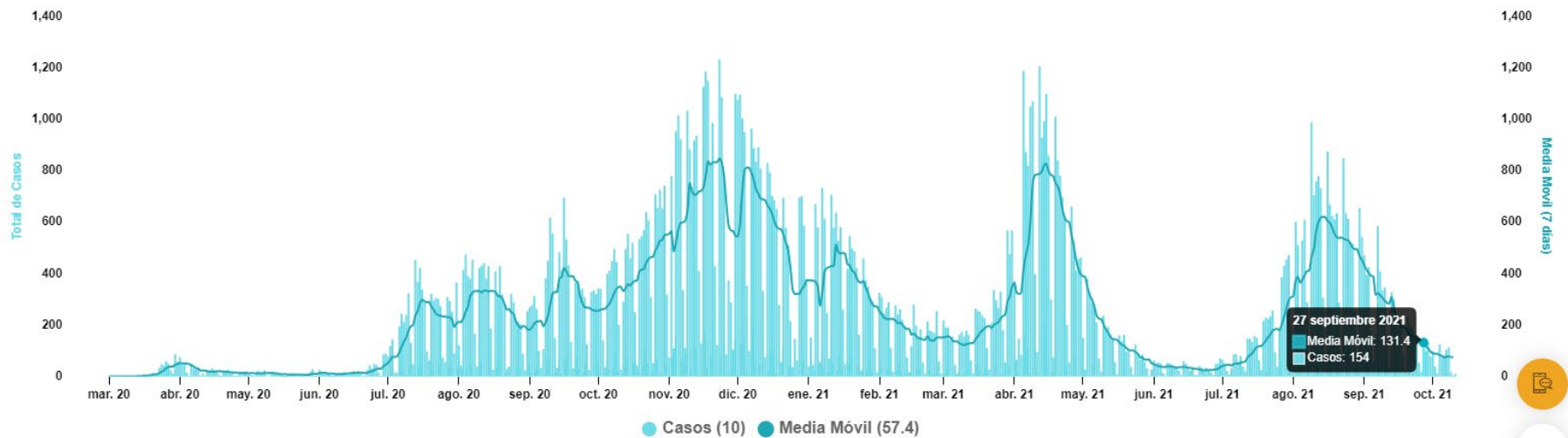
Puerto Rico Health Department COVID-19 Dashboard, *Casos (Confirmados)*, <https://covid19datos.salud.gov.pr/#casos>

## Appendix 16B

Conteo diario de casos confirmados (PCR) para COVID-19 notificadas por fecha de toma de muestra

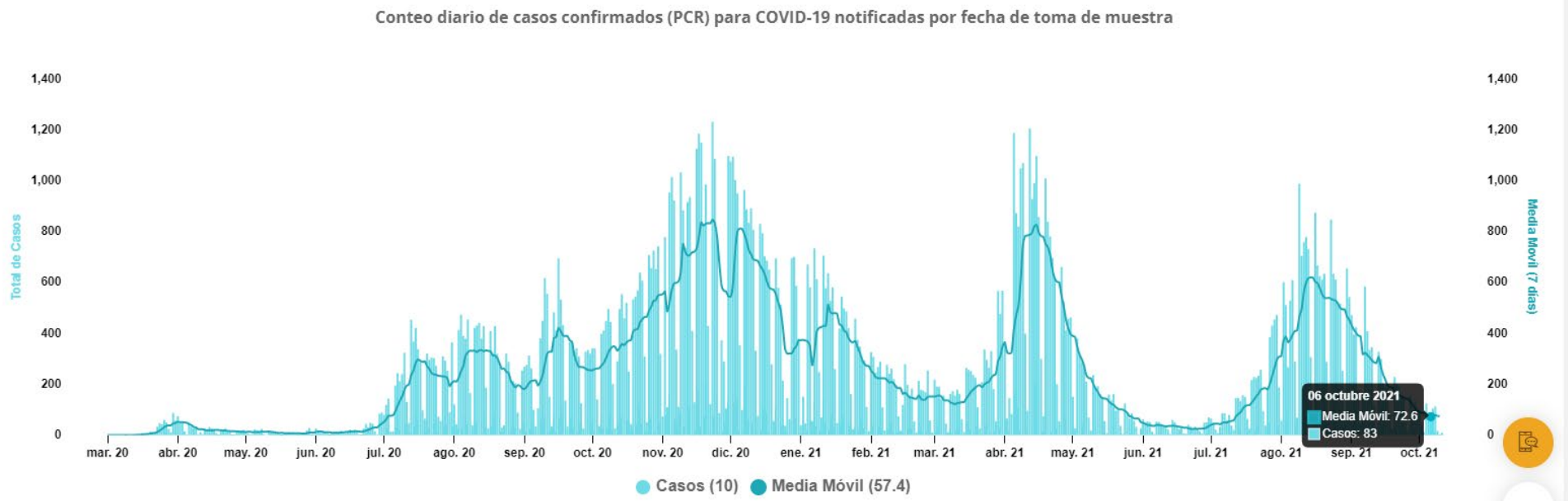


Conteo diario de casos confirmados (PCR) para COVID-19 notificadas por fecha de toma de muestra



Puerto Rico Health Department COVID-19 Dashboard, *Casos (Confirmados)*, <https://covid19datos.salud.gov.pr/#casos>

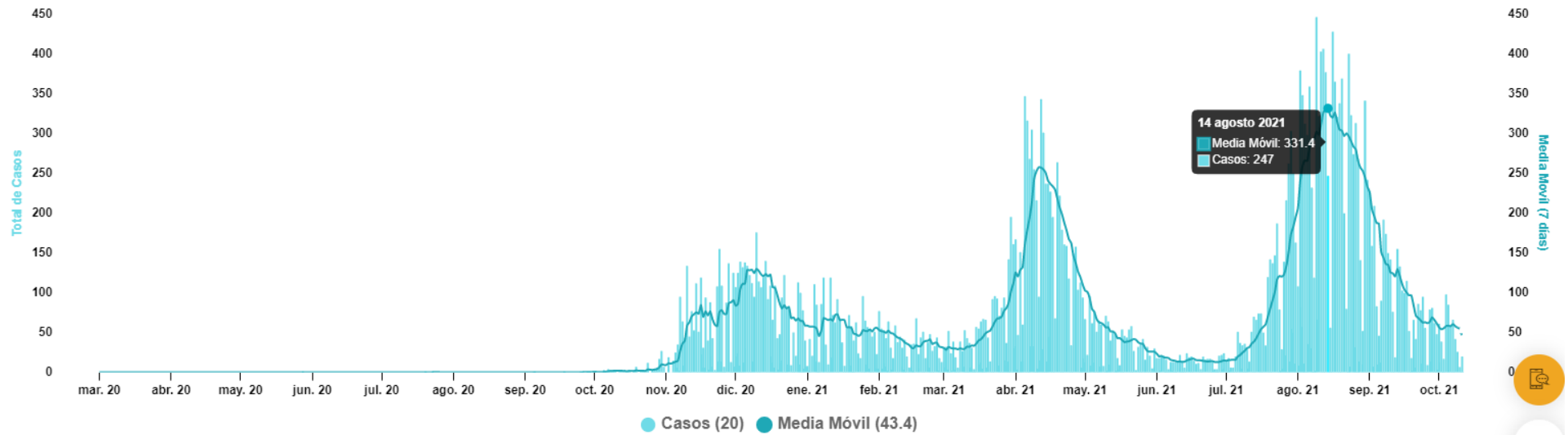
Appendix 16C



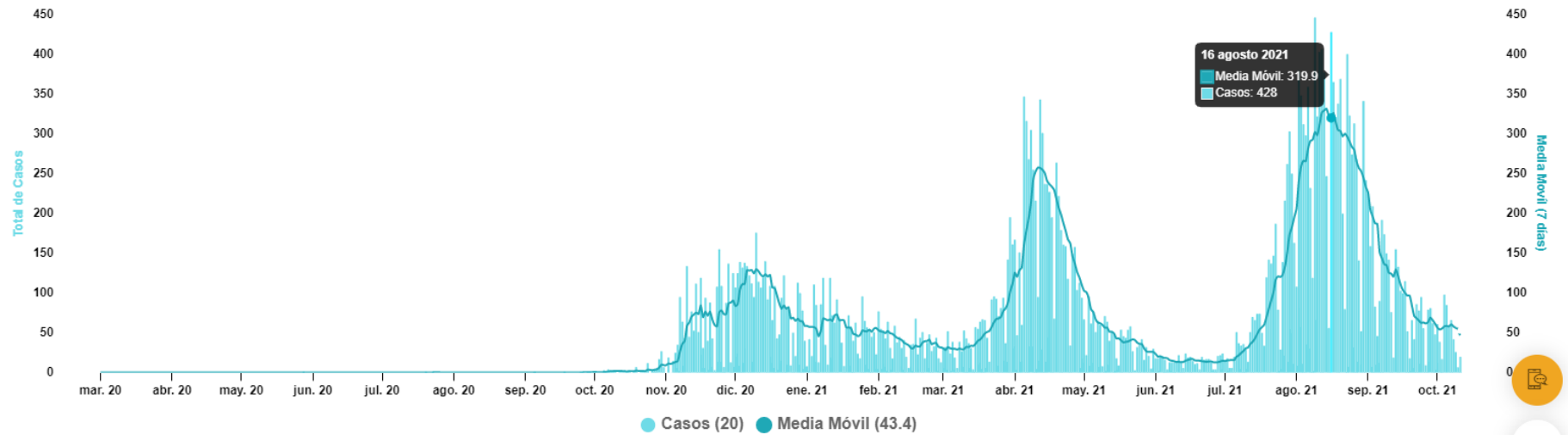
Puerto Rico Health Department COVID-19 Dashboard, *Casos (Confirmados)*, <https://covid19datos.salud.gov.pr/#casos>

## Appendix 17A

Conteo diario de casos probables (antígeno) para COVID-19 notificadas por fecha de toma de muestra

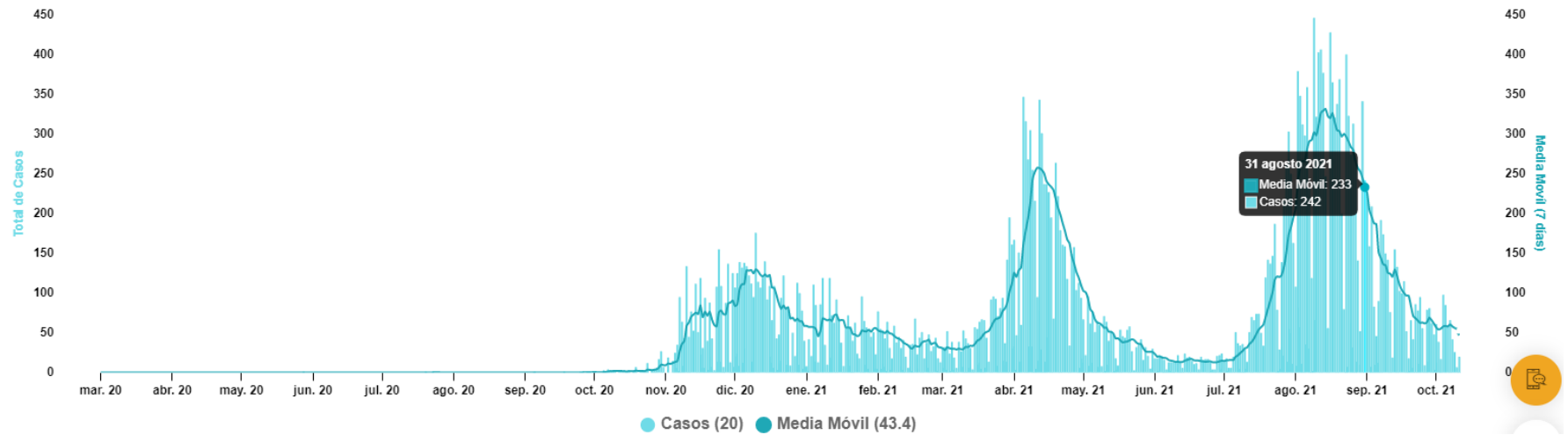


Conteo diario de casos probables (antígeno) para COVID-19 notificadas por fecha de toma de muestra

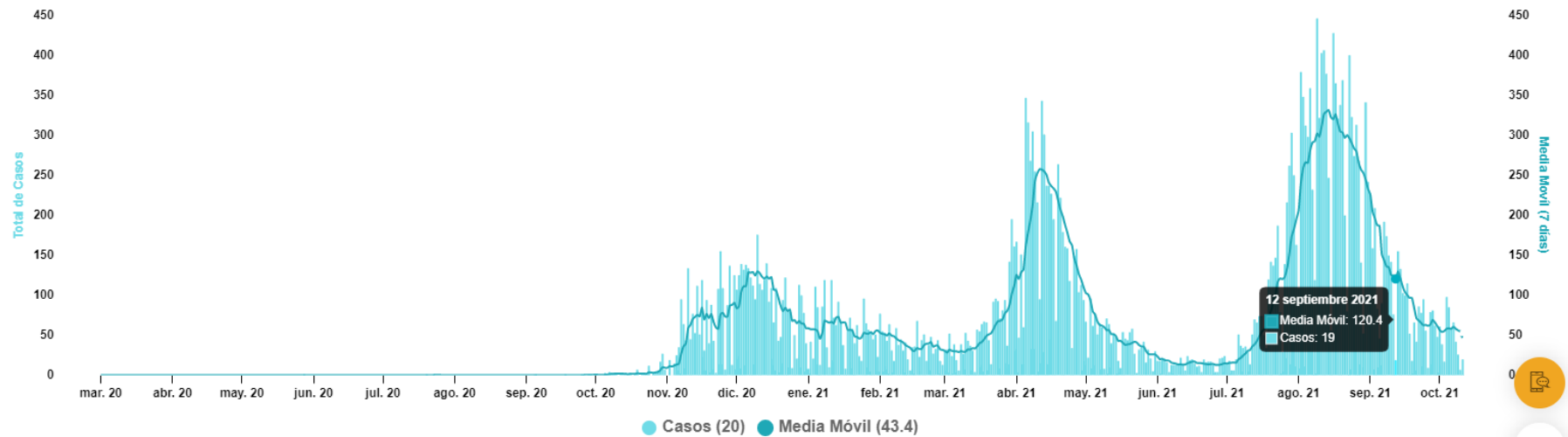


## Appendix 17B

Conteo diario de casos probables (antígeno) para COVID-19 notificadas por fecha de toma de muestra



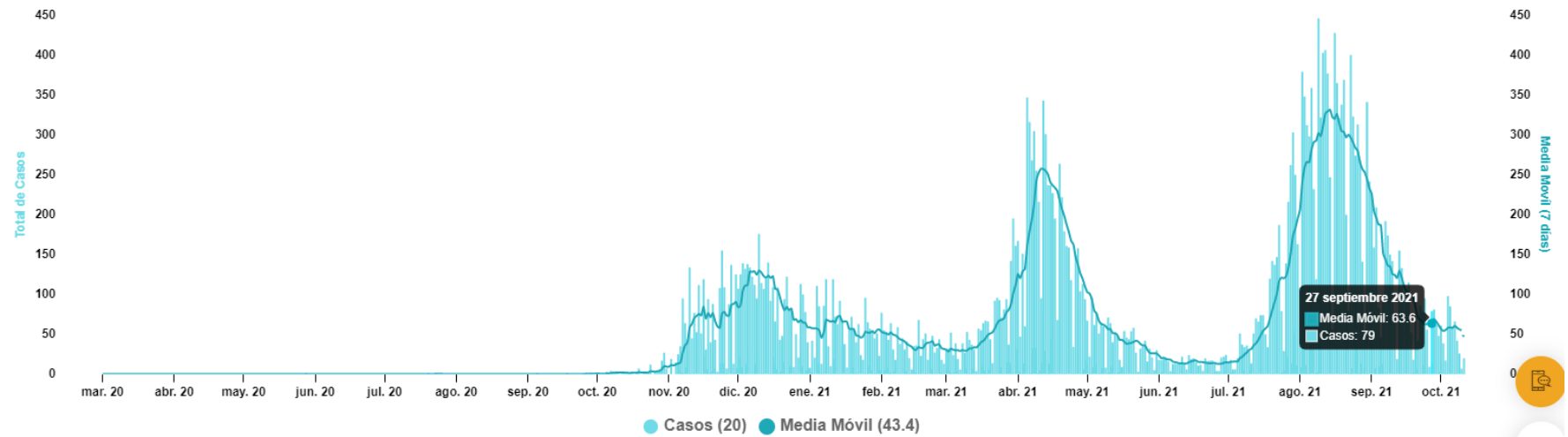
Conteo diario de casos probables (antígeno) para COVID-19 notificadas por fecha de toma de muestra



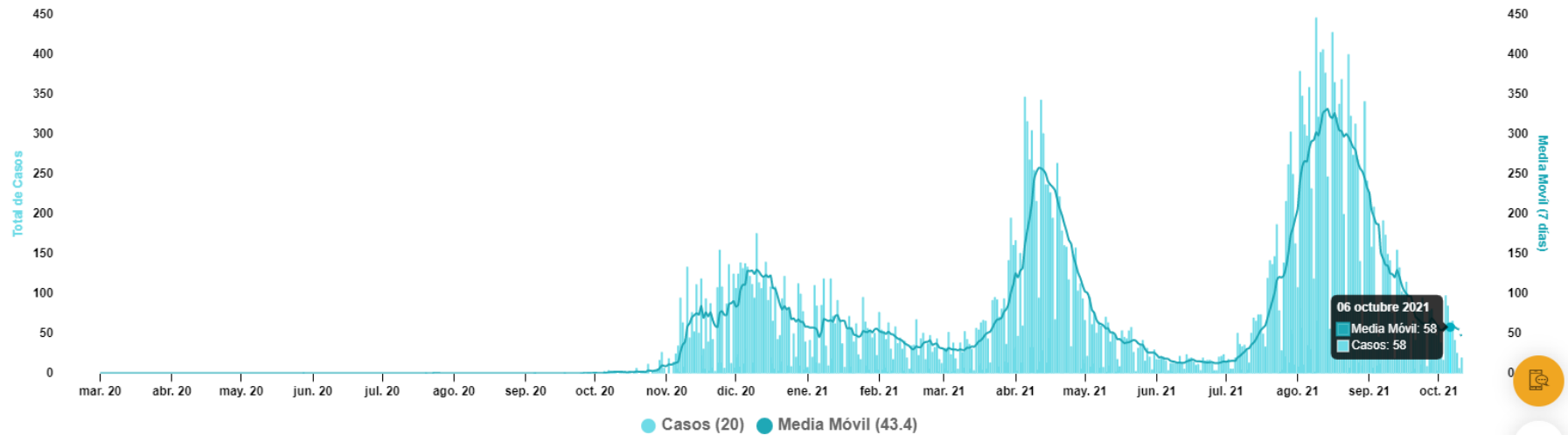
Puerto Rico Health Department COVID-19 Dashboard, *Casos (Probables)*, <https://covid19datos.salud.gov.pr/#casos>

## Appendix 17C

Conteo diario de casos probables (antígeno) para COVID-19 notificadas por fecha de toma de muestra

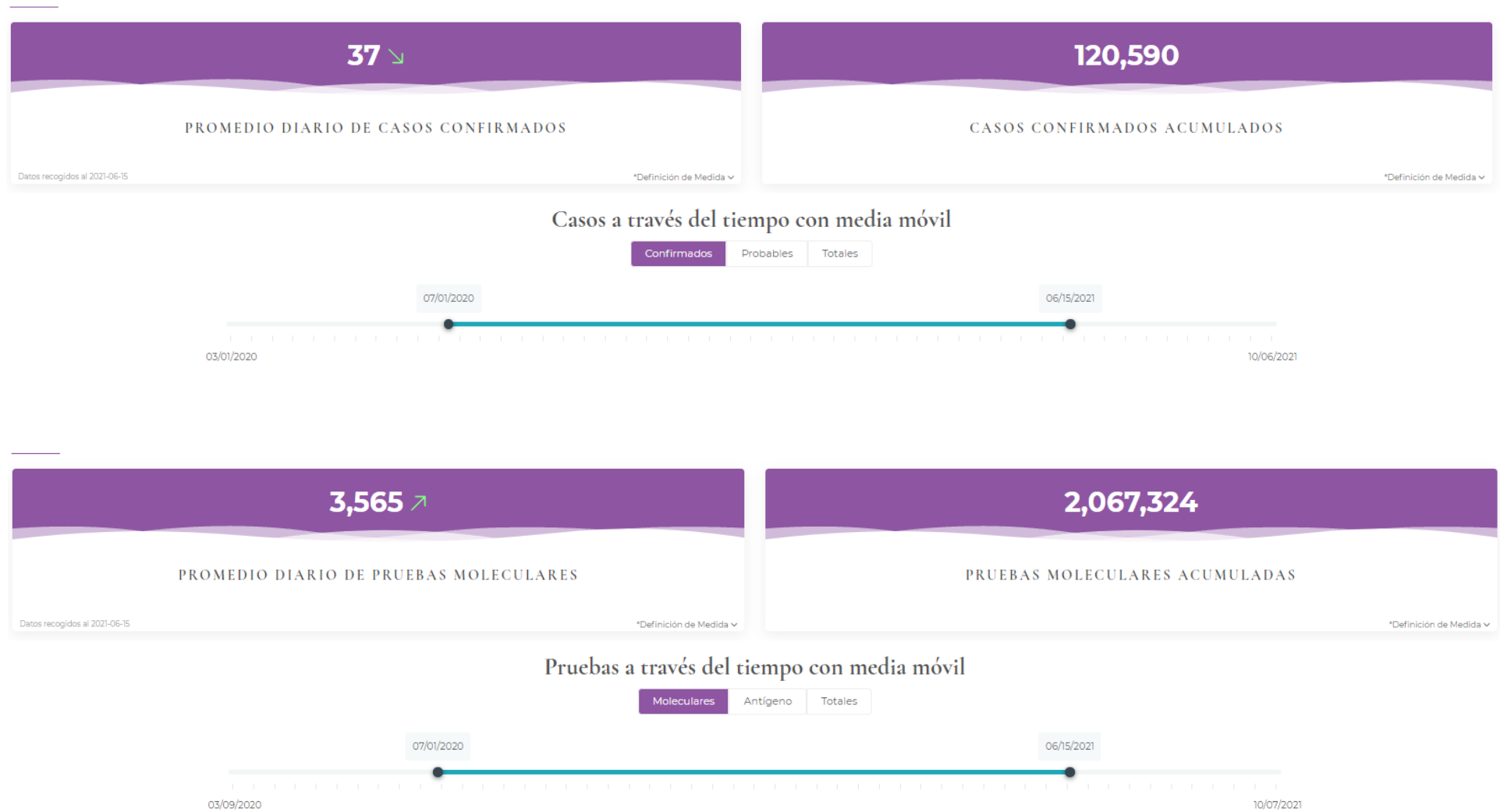


Conteo diario de casos probables (antígeno) para COVID-19 notificadas por fecha de toma de muestra



Puerto Rico Health Department COVID-19 Dashboard, *Casos (Probables)*, <https://covid19datos.salud.gov.pr/#casos>

## Appendix 17A



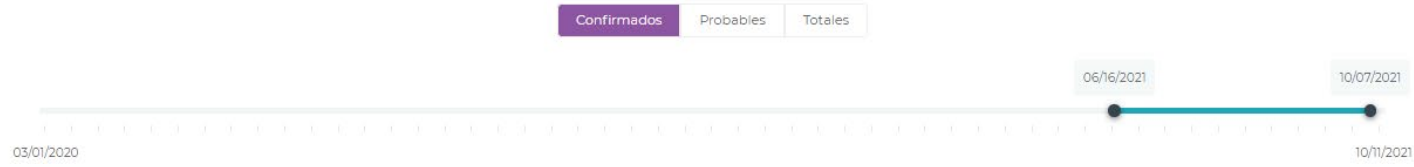
Puerto Rico Health Department COVID-19 Dashboard, *Casos (Confirmados)*, <https://covid19datos.salud.gov.pr/#casos>; *Pruebas (Moleculares)*, <https://covid19datos.salud.gov.pr/#pruebas>



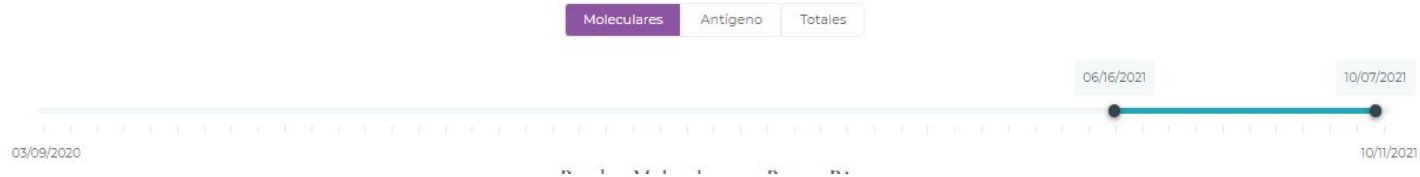
## Appendix 18B



## Casos a través del tiempo con media móvil

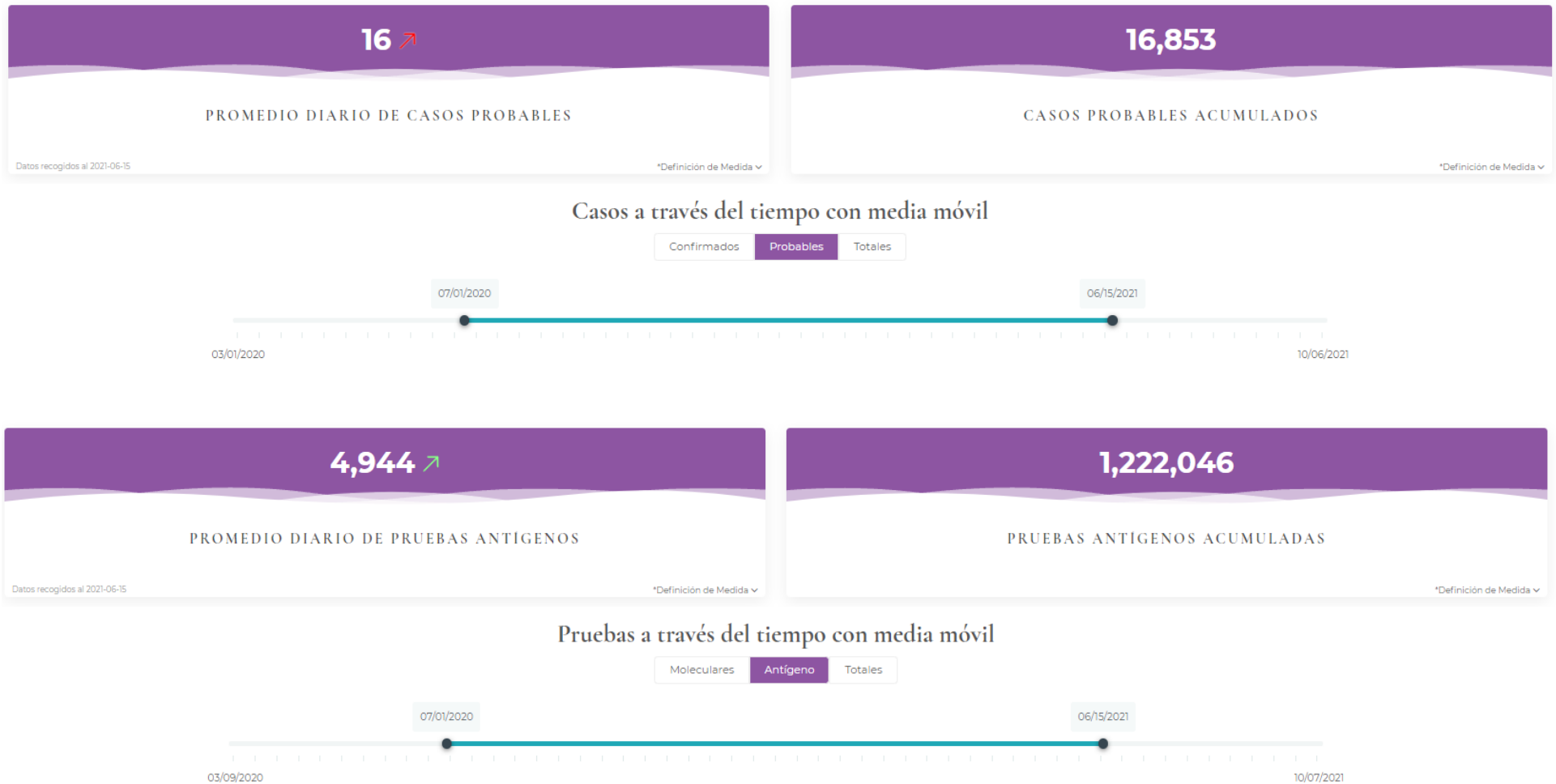


## Pruebas a través del tiempo con media móvil



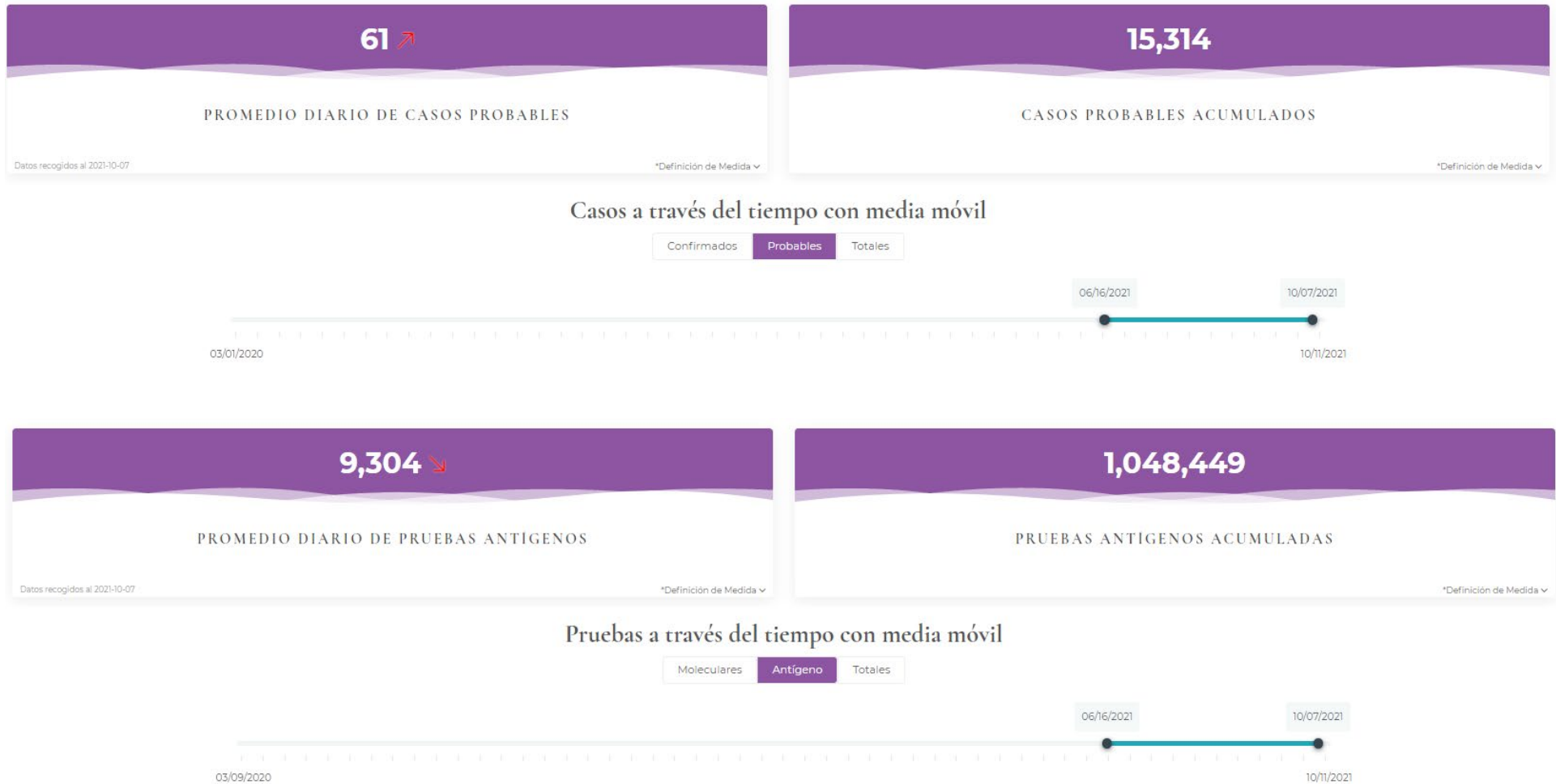
Puerto Rico Health Department COVID-19 Dashboard, *Casos (Confirmados)*, <https://covid19datos.salud.gov.pr/#casos>; *Pruebas (Moleculares)*, <https://covid19datos.salud.gov.pr/#pruebas>

## Appendix 19A



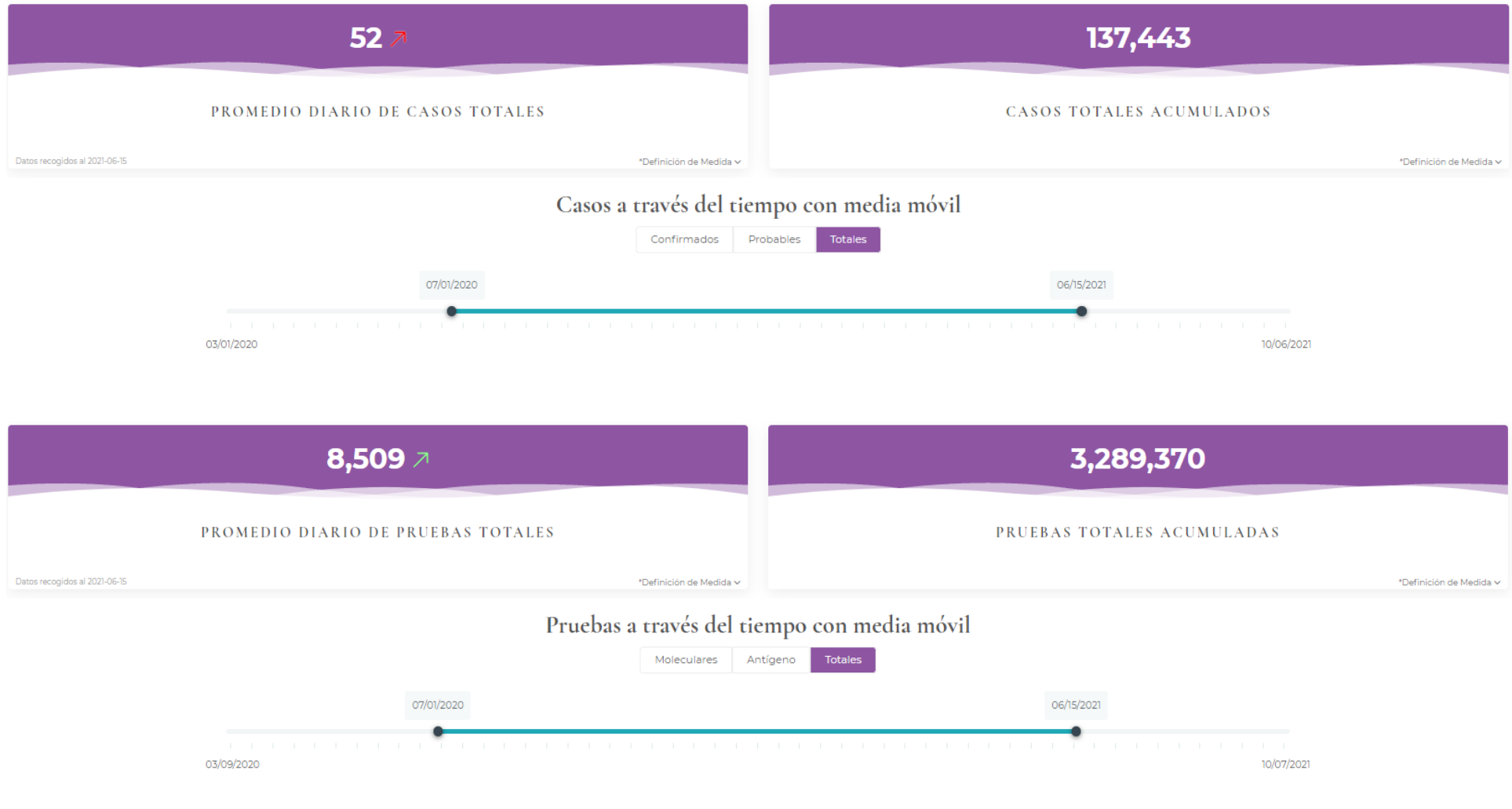
Puerto Rico Health Department COVID-19 Dashboard, *Casos (Probables)*, <https://covid19datos.salud.gov.pr/#casos>; *Pruebas (Antígeno)*, <https://covid19datos.salud.gov.pr/#pruebas>

## Appendix 19B



Puerto Rico Health Department COVID-19 Dashboard, *Casos (Probables)*, <https://covid19datos.salud.gov.pr/#casos>; *Pruebas (Antígeno)*, <https://covid19datos.salud.gov.pr/#pruebas>

## Appendix 20A

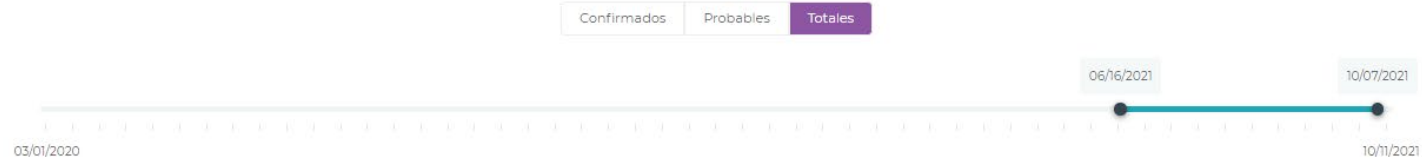


Puerto Rico Health Department COVID-19 Dashboard, *Casos (Probables)*, <https://covid19datos.salud.gov.pr/#casos>; *Pruebas (Antígeno)*, <https://covid19datos.salud.gov.pr/#pruebas>

## Appendix 20B



## Casos a través del tiempo con media móvil



## Pruebas a través del tiempo con media móvil



Puerto Rico Health Department COVID-19 Dashboard, *Casos (Totales)*, <https://covid19datos.salud.gov.pr/#casos>; *Pruebas (Totales)*, <https://covid19datos.salud.gov.pr/#pruebas>

## Appendix 21

Data Table for Case Rate by State/Territory	
CDC   Data as of: October 9, 2021 12:35 PM ET. Posted: October 9, 2021 2:00 PM ET	
<a href="#">Download Data</a>	
State/Territory ↕	Case Rate per 100,000 ↕
Tennessee	18,294
North Dakota	18,066
South Carolina	16,962
Florida	16,784
South Dakota	16,709
Arkansas	16,619
Mississippi	16,608
Rhode Island	16,479
Alabama	16,468
Wyoming	16,294
Utah	16,226
Louisiana	16,076
Alaska	15,907
Kentucky	15,900
Oklahoma	15,816
Arizona	15,306
Georgia	15,095
Idaho	14,978
Montana	14,847
Iowa	14,732
Indiana	14,593
Wisconsin	14,342
Kansas	14,336
Texas	14,185
Nevada	14,163
Nebraska	14,080
Delaware	14,036
West Virginia	13,994
North Carolina	13,587
Missouri	13,567
New Jersey	13,153
New York City*	13,061
Minnesota	13,044
Illinois	13,022
Ohio	12,480
New York*	12,378
New Mexico	12,349
California	12,020
Colorado	11,955
Massachusetts	11,948
Michigan	11,906
Pennsylvania	11,481
Connecticut	11,051
Virginia	10,435
Guam	9,718
New Hampshire	9,135
Maryland	8,980
Washington	8,904
District of Columbia	8,823
Oregon	8,088
Maine	7,059
Virgin Islands	6,615
Puerto Rico	5,711
Hawaii	5,551
Vermont	5,232
Northern Mariana Islands	528
Palau	56
Republic of Marshall Islands	7
American Samoa	N/A
Federated States of Micronesia	N/A
New York (Level of Community Transmission)*	NaN
Footnotes	+

Cases, Deaths and Testing (View: Cases, Time Period: Since Jan 21, 2020, Metric: Rate per 100,000), *Data Table for Case Rate by State/Territory*, [https://covid.cdc.gov/covid-data-tracker/#cases\\_casesper100k](https://covid.cdc.gov/covid-data-tracker/#cases_casesper100k)

## Appendix 22A

New Admissions of Patients with Confirmed COVID-19, Puerto Rico  
Aug 01, 2020 - Oct 07, 2021**12,106**

Total Admissions

Aug 01, 2020 - Aug 05, 2021

**21**

Current 7-Day Average

Jul 30, 2021 - Aug 05, 2021

**9**

Prior 7-Day Average

Jul 23, 2021 - Jul 29, 2021

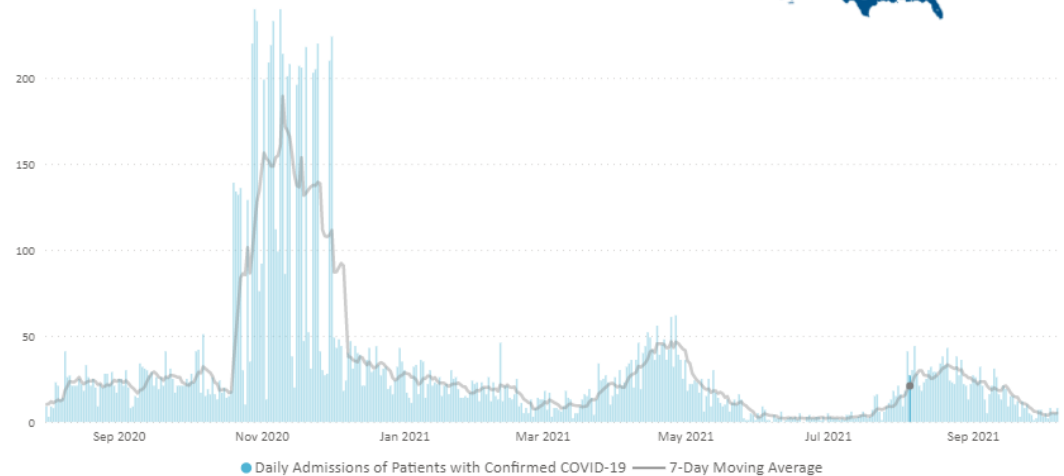
**189**

Peak 7-Day Average

Nov 04, 2020 - Nov 10, 2020

**+129.7%**Percent change from prior 7-day  
avg. of Jul 23, 2021 - Jul 29, 2021**-88.9%**Percent change from peak 7-day  
avg. of Nov 04, 2020 - Nov 10, 2020

New Admissions of Patients with Confirmed COVID-19



Based on reporting from all hospitals (N=5,258). Due to potential reporting delays, data reported in the most recent 7 days (as represented by the shaded bar) should be interpreted with caution.

Small shifts in historic data may occur due to changes in the CMS Provider of Services file, which is used to identify the cohort of included hospitals. Data since December 1, 2020 have had error correction methodology applied. Data prior to this date may have anomalies that are still being resolved. Data prior to August 1, 2020 are unavailable.

Last Updated: Oct 10, 2021

Unified Hospital Dataset, White House COVID-19 Team, Data Strategy and Execution Workgroup

New Admissions of Patients with Confirmed COVID-19, Puerto Rico  
Aug 01, 2020 - Oct 06, 2021**12,415**

Total Admissions

Aug 01, 2020 - Aug 16, 2021

**27**

Current 7-Day Average

Aug 10, 2021 - Aug 16, 2021

**30**

Prior 7-Day Average

Aug 03, 2021 - Aug 09, 2021

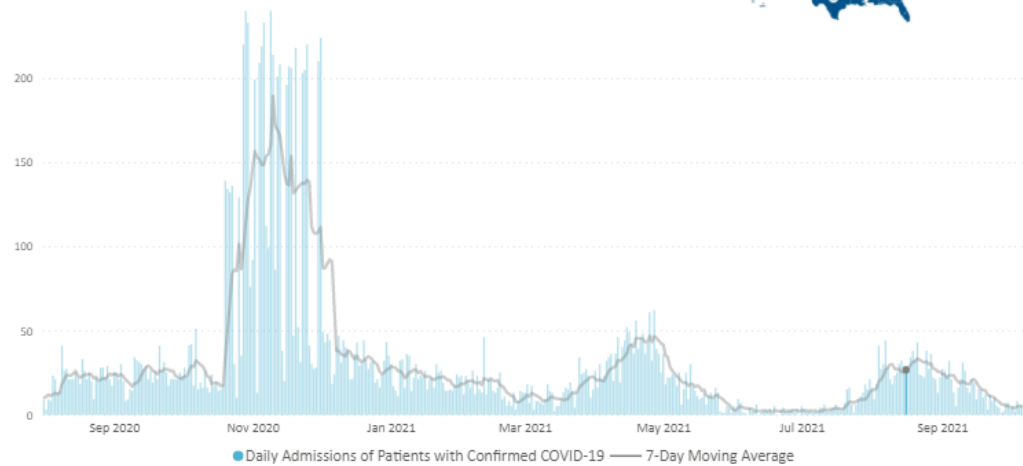
**189**

Peak 7-Day Average

Nov 04, 2020 - Nov 10, 2020

**-11.0%**Percent change from prior 7-day  
avg. of Aug 03, 2021 - Aug 09, 2021**-86.0%**Percent change from peak 7-day  
avg. of Nov 04, 2020 - Nov 10, 2020

New Admissions of Patients with Confirmed COVID-19



Based on reporting from all hospitals (N=5,258). Due to potential reporting delays, data reported in the most recent 7 days (as represented by the shaded bar) should be interpreted with caution.

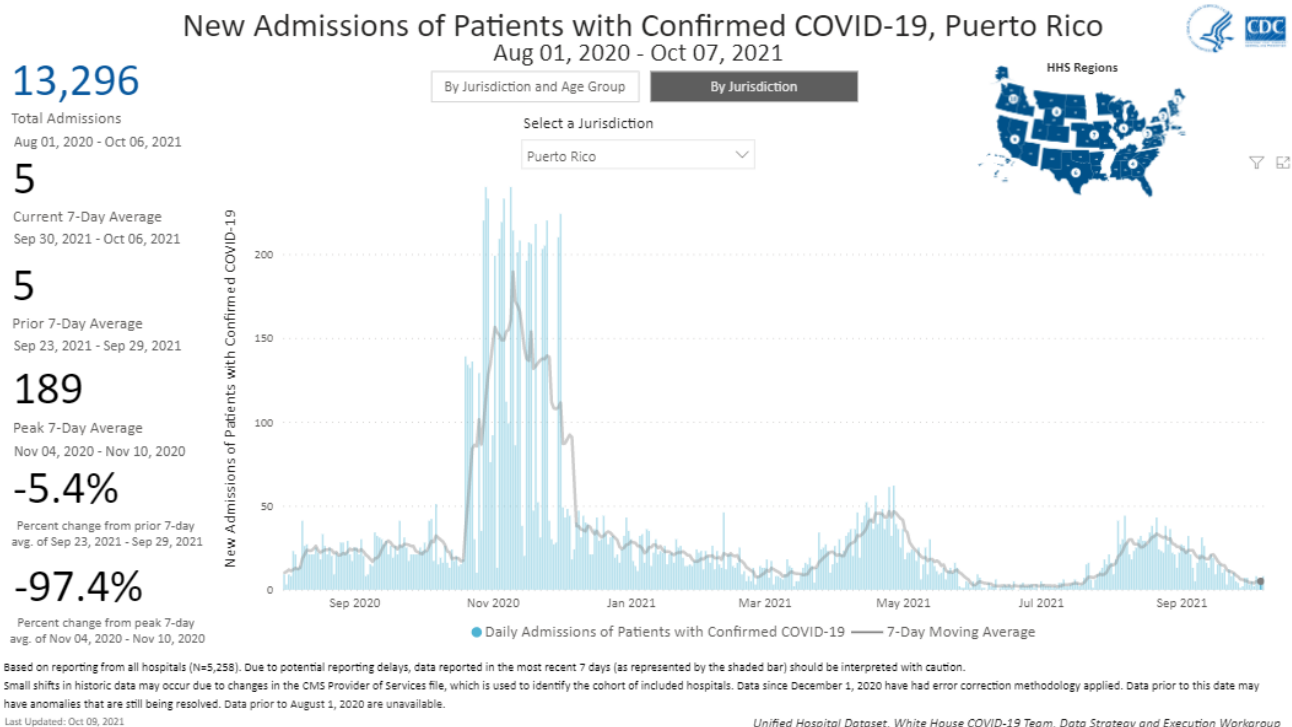
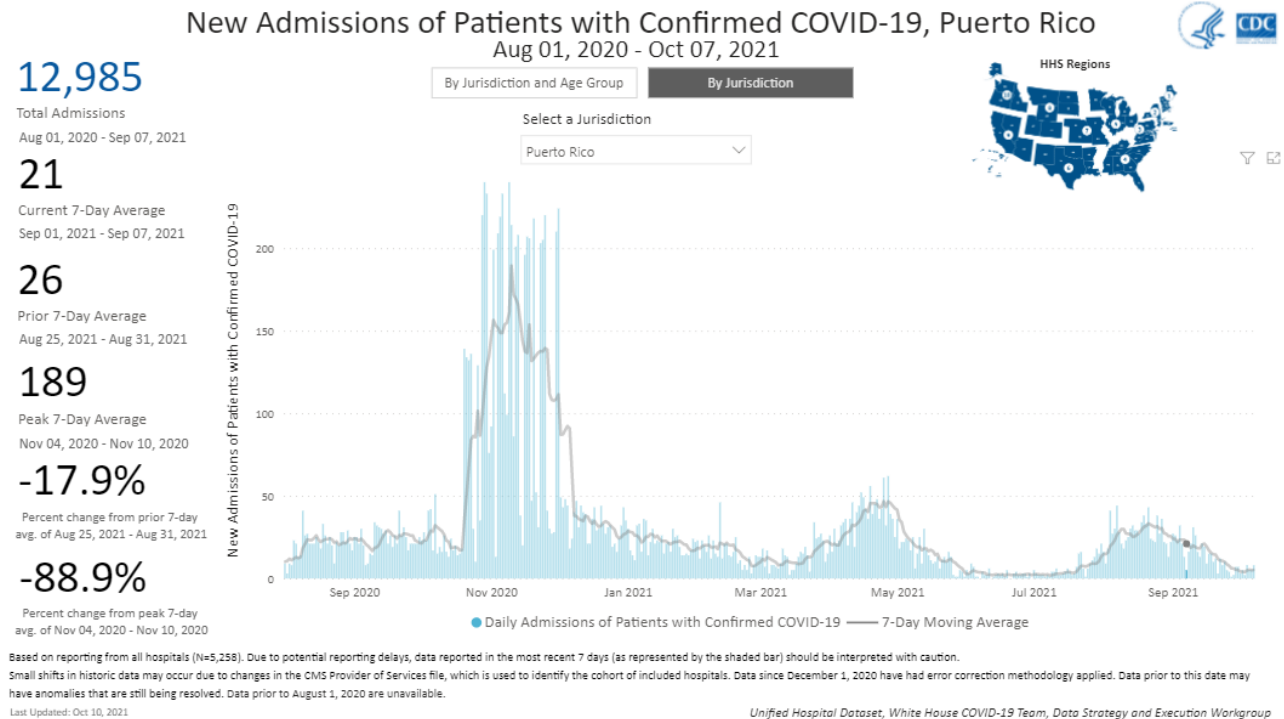
Small shifts in historic data may occur due to changes in the CMS Provider of Services file, which is used to identify the cohort of included hospitals. Data since December 1, 2020 have had error correction methodology applied. Data prior to this date may have anomalies that are still being resolved. Data prior to August 1, 2020 are unavailable.

Last Updated: Oct 08, 2021

Unified Hospital Dataset, White House COVID-19 Team, Data Strategy and Execution Workgroup

CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

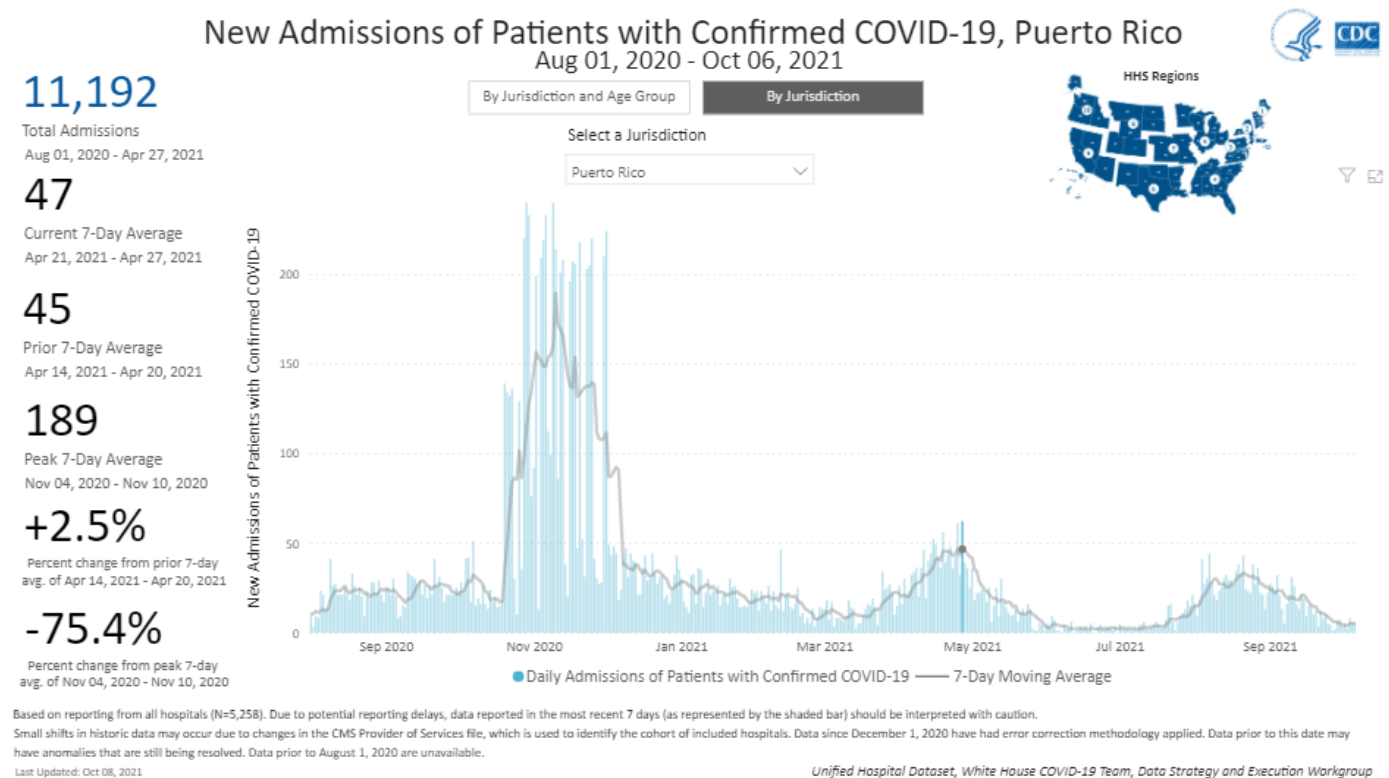
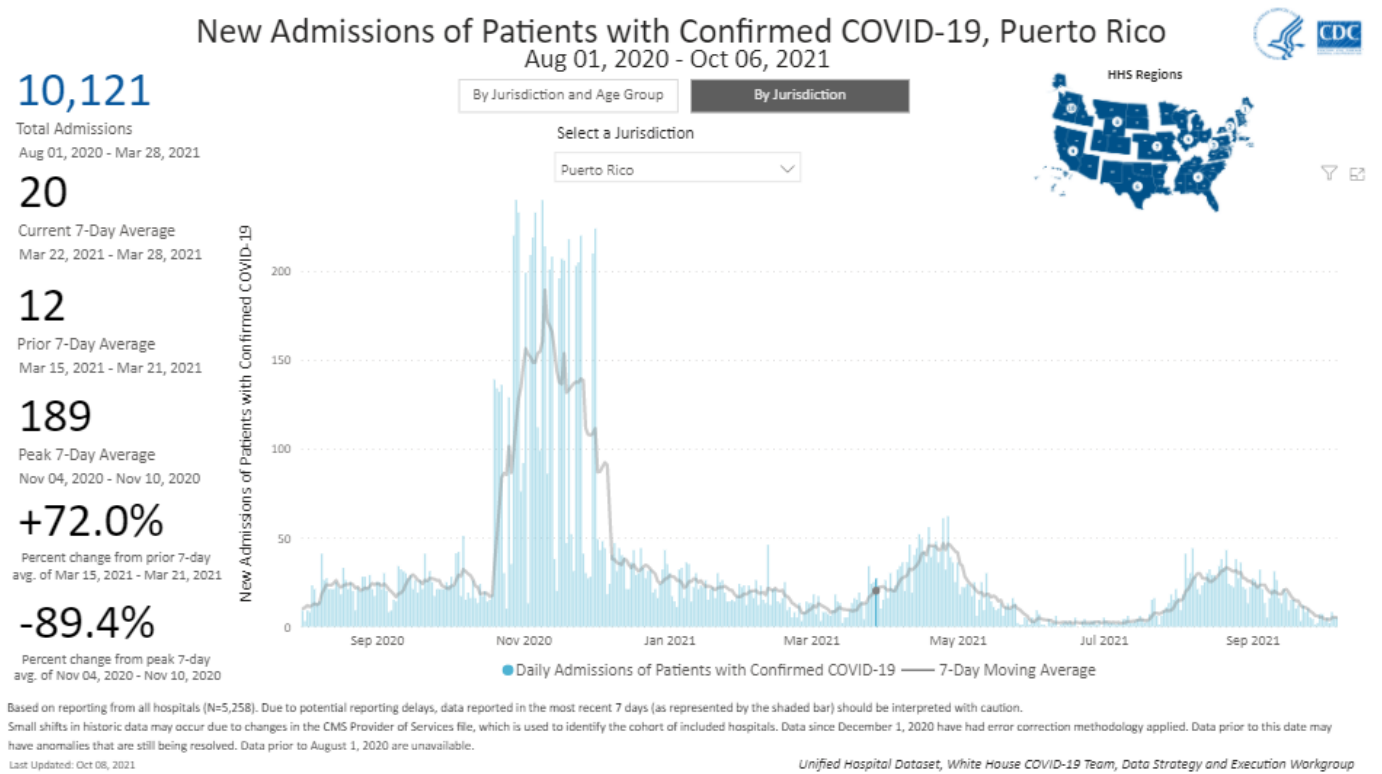
## Appendix 22B



CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

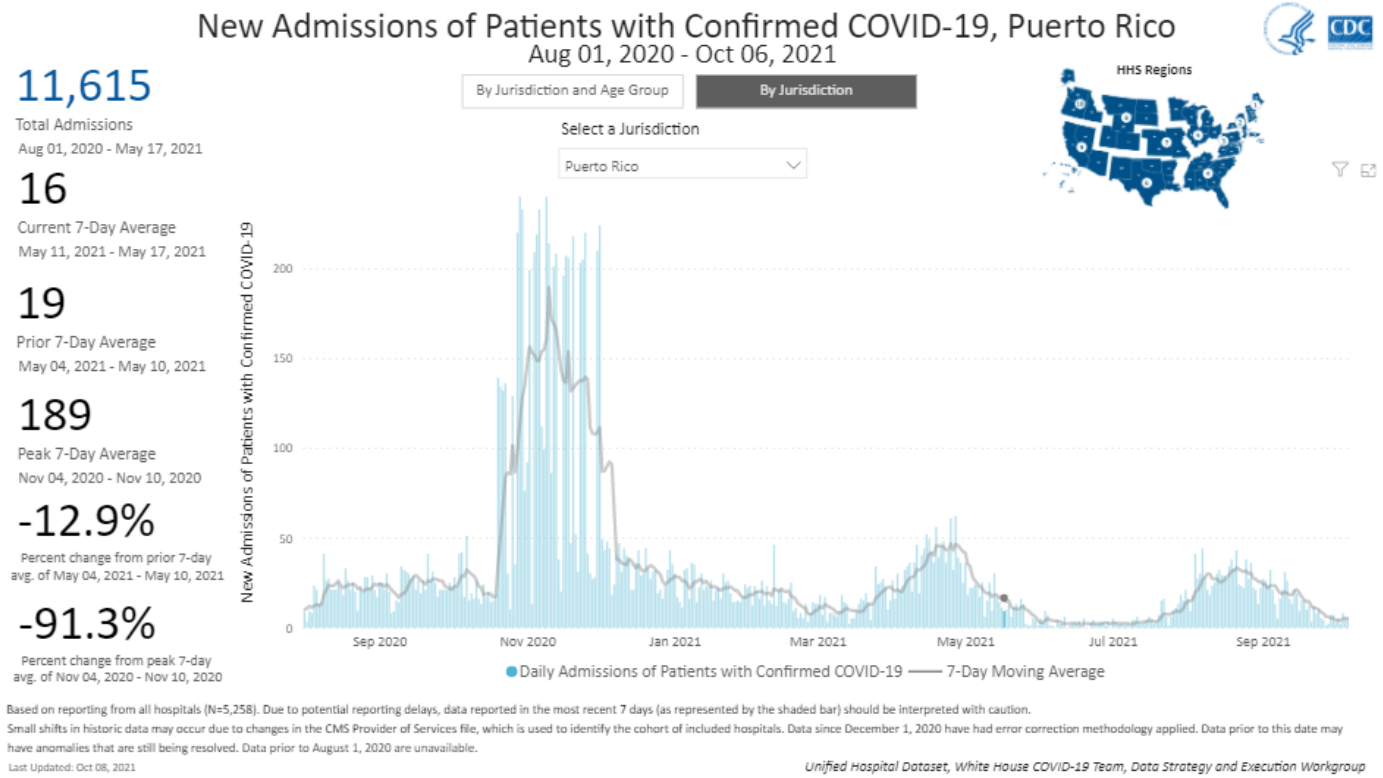


## Appendix 23A



CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

## Appendix 23B



CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

## Appendix 24A

## New Admissions of Patients with Confirmed COVID-19, Puerto Rico

Aug 01, 2020 - Oct 06, 2021



# 1,793

Total Admissions

Aug 01, 2020 - Oct 19, 2020

# 17

Current 7-Day Average

Oct 13, 2020 - Oct 19, 2020

# 23

Prior 7-Day Average

Oct 06, 2020 - Oct 12, 2020

# 189

Peak 7-Day Average

Nov 04, 2020 - Nov 10, 2020

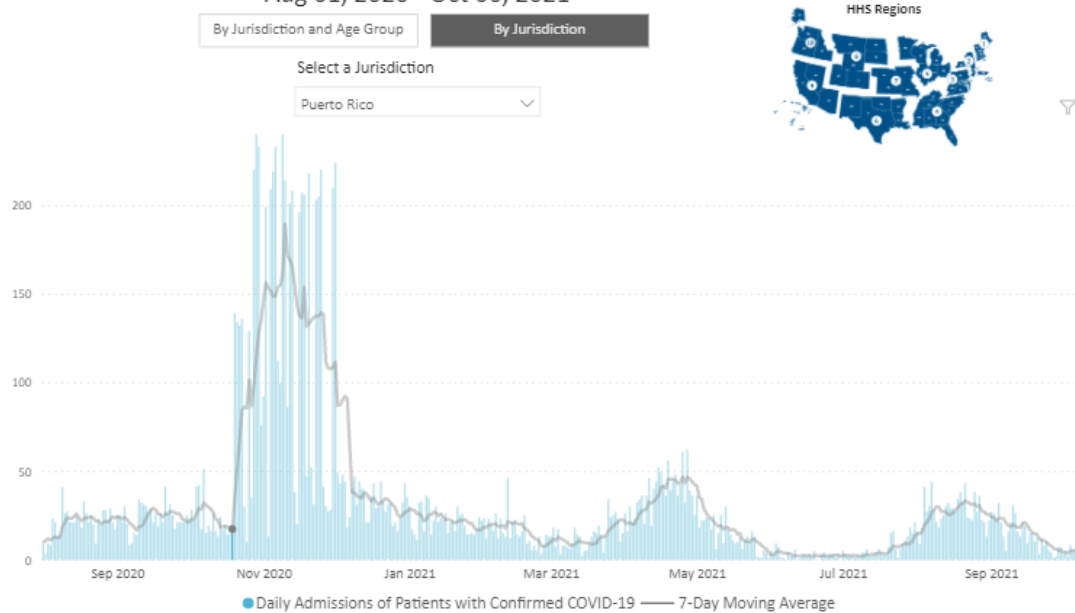
# -24.4%

Percent change from prior 7-day avg. of Oct 06, 2020 - Oct 12, 2020

# -90.9%

Percent change from peak 7-day avg. of Nov 04, 2020 - Nov 10, 2020

New Admissions of Patients with Confirmed COVID-19



Based on reporting from all hospitals (N=5,258). Due to potential reporting delays, data reported in the most recent 7 days (as represented by the shaded bar) should be interpreted with caution.

Small shifts in historic data may occur due to changes in the CMS Provider of Services file, which is used to identify the cohort of included hospitals. Data since December 1, 2020 have had error correction methodology applied. Data prior to this date may have anomalies that are still being resolved. Data prior to August 1, 2020 are unavailable.

Last Updated: Oct 08, 2021.

Unified Hospital Dataset, White House COVID-19 Team, Data Strategy and Execution Workgroup

## New Admissions of Patients with Confirmed COVID-19, Puerto Rico

Aug 01, 2020 - Oct 06, 2021



# 4,937

Total Admissions

Aug 01, 2020 - Nov 10, 2020

# 189

Current 7-Day Average

Nov 04, 2020 - Nov 10, 2020

# 153

Prior 7-Day Average

Oct 28, 2020 - Nov 03, 2020

# 189

Peak 7-Day Average

Nov 04, 2020 - Nov 10, 2020

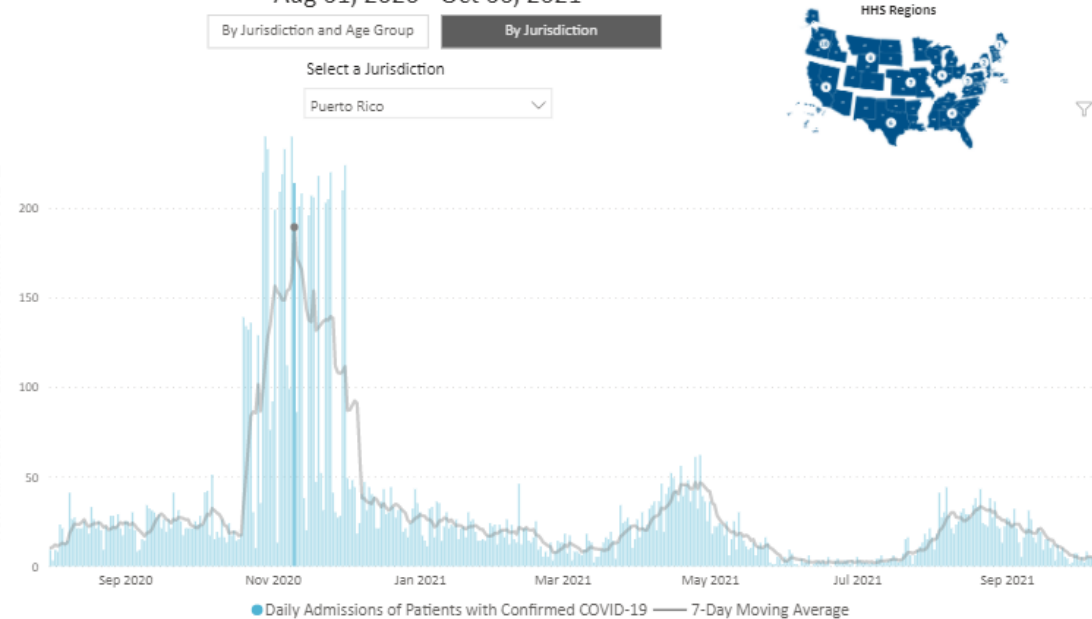
# +23.6%

Percent change from prior 7-day avg. of Oct 28, 2020 - Nov 03, 2020

# 0.0%

Percent change from peak 7-day avg. of Nov 04, 2020 - Nov 10, 2020

New Admissions of Patients with Confirmed COVID-19



Based on reporting from all hospitals (N=5,258). Due to potential reporting delays, data reported in the most recent 7 days (as represented by the shaded bar) should be interpreted with caution.

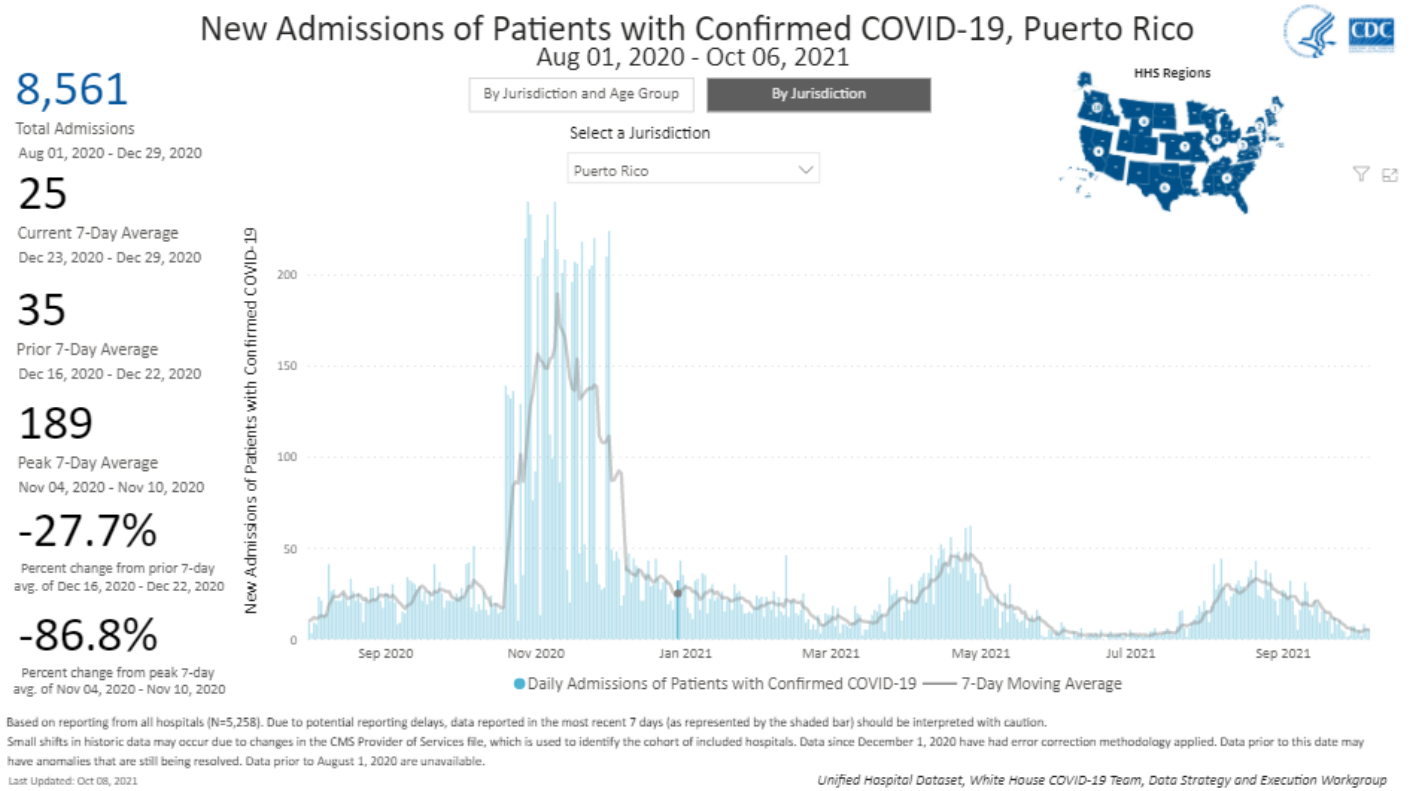
Small shifts in historic data may occur due to changes in the CMS Provider of Services file, which is used to identify the cohort of included hospitals. Data since December 1, 2020 have had error correction methodology applied. Data prior to this date may have anomalies that are still being resolved. Data prior to August 1, 2020 are unavailable.

Last Updated: Oct 08, 2021.

Unified Hospital Dataset, White House COVID-19 Team, Data Strategy and Execution Workgroup

CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

## Appendix 24B



CDC, New Hospital Admissions (By Jurisdiction, Select Jurisdiction: Puerto Rico), <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>

## Appendix 25

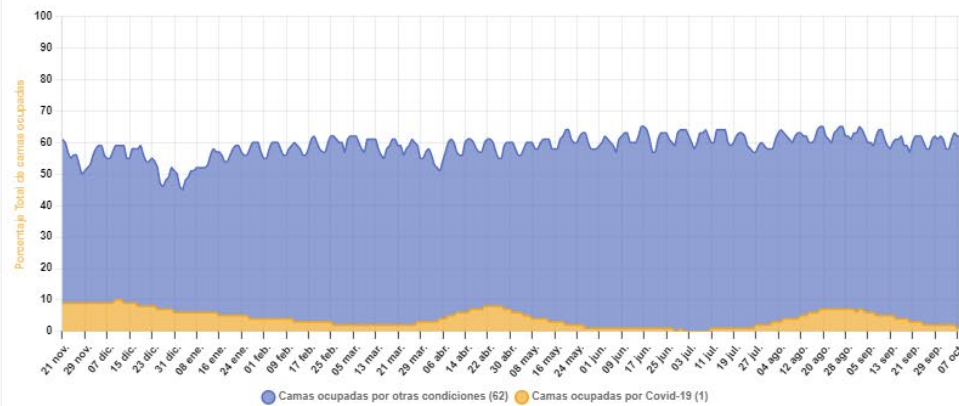
## Sistemas de Salud en Puerto Rico

Hospitalizaciones en Puerto Rico por COVID-19

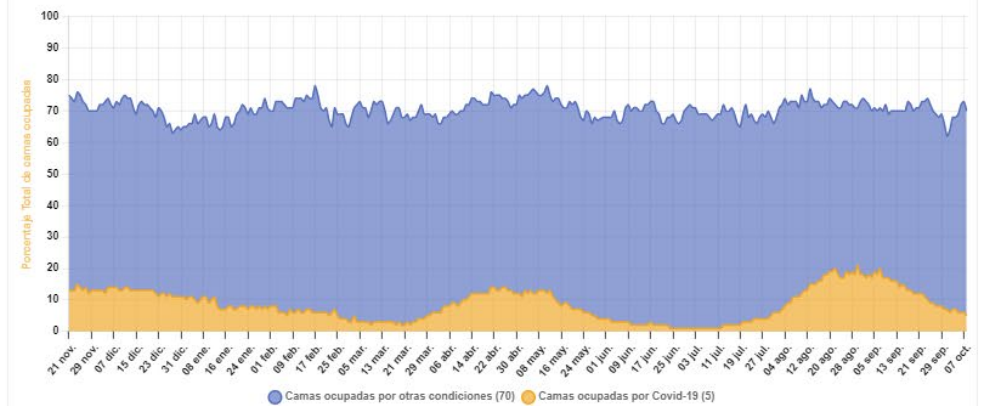
Hoy Histórico

## Adultos

Censo total de Camas Adultos



Censo total de Camas ICU

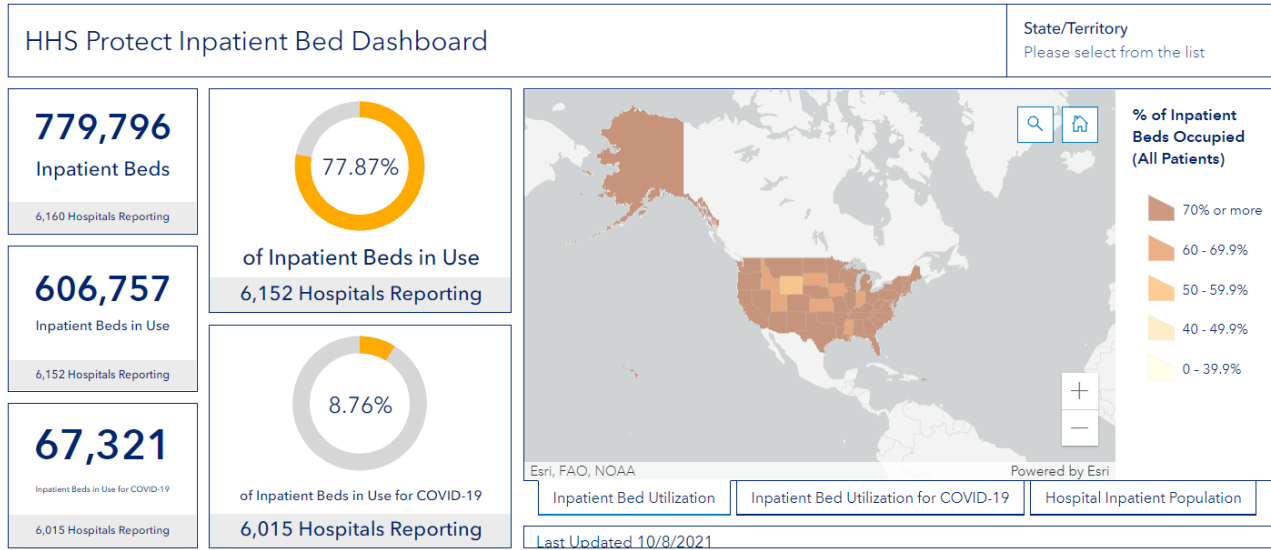


Puerto Rico Health Department Covid-19 Dashboard, *Sistema de Salud (Historico)*, [https://covid19datos.salud.gov.pr/#sistemas\\_salud](https://covid19datos.salud.gov.pr/#sistemas_salud)

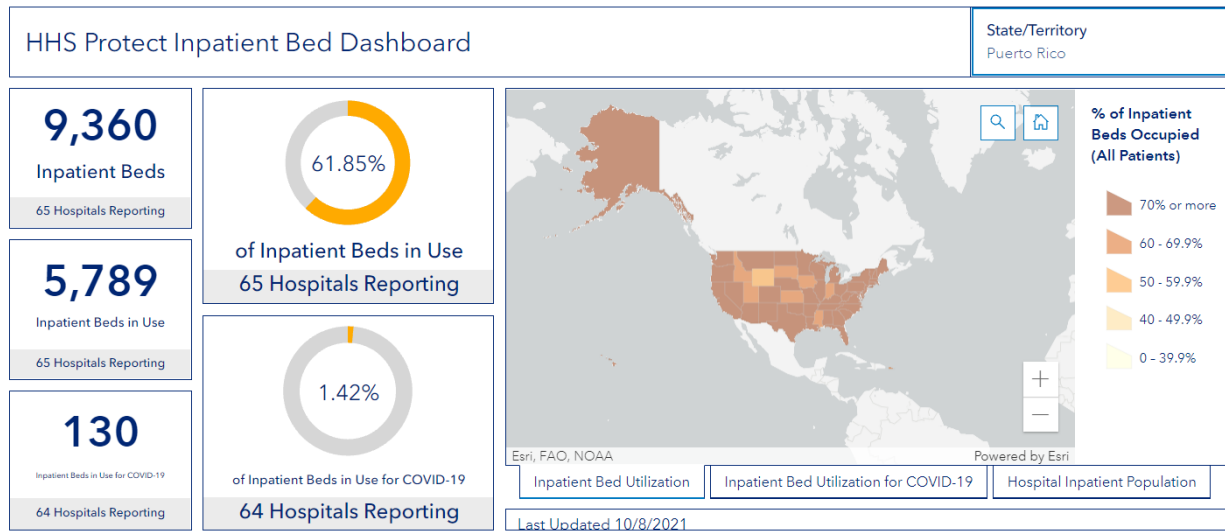
## Appendix 26A

**Inpatient Bed Utilization by State**

Select your State or Territory from the dropdown on the right to see information on inpatient bed utilization.

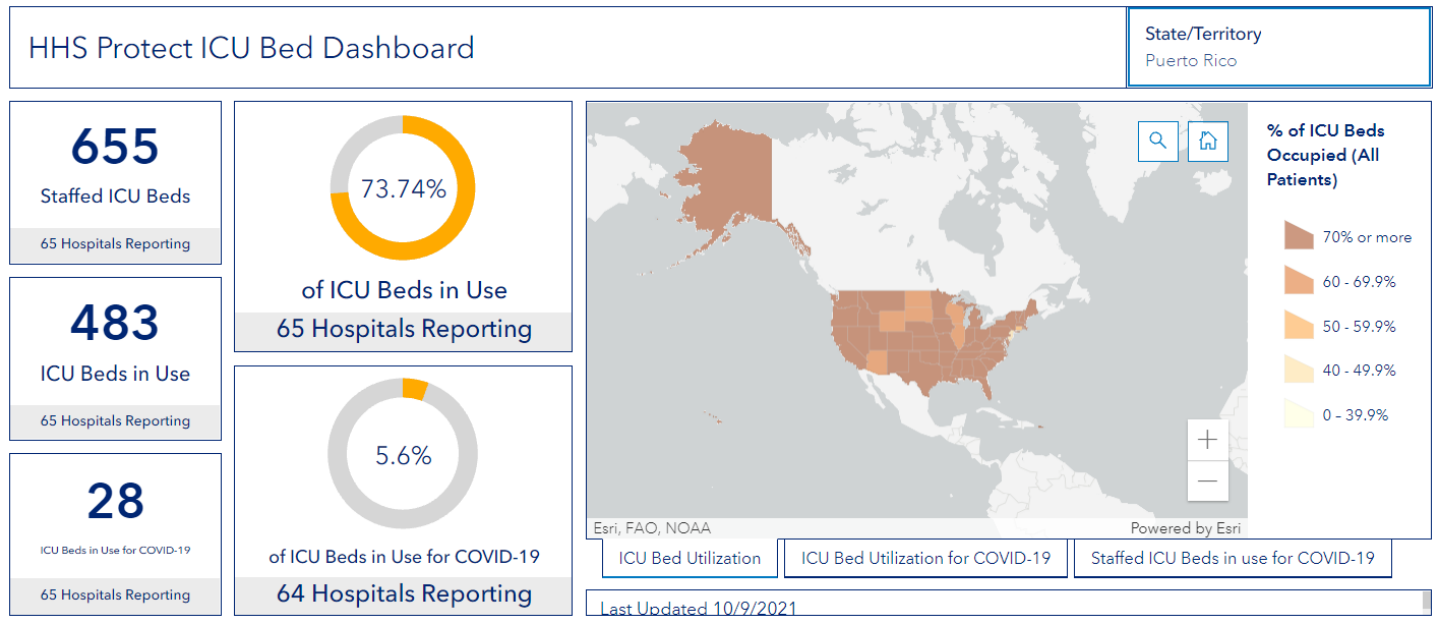
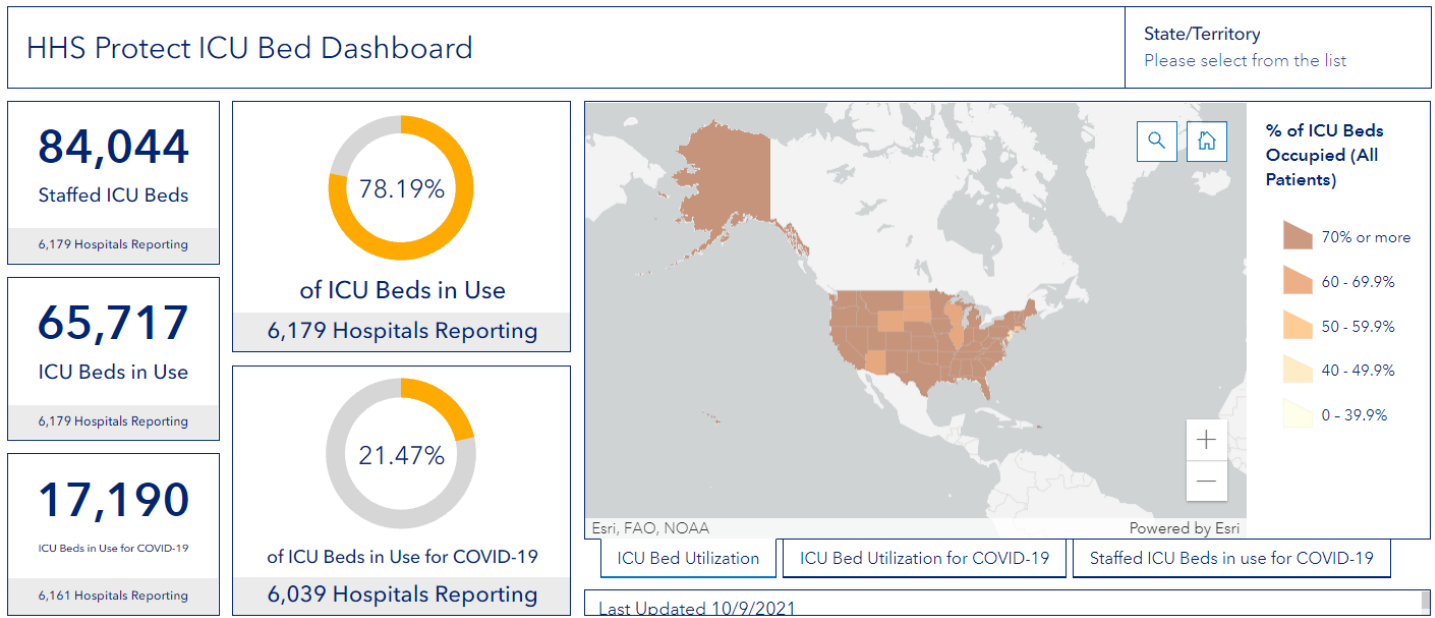
**Inpatient Bed Utilization by State**

Select your State or Territory from the dropdown on the right to see information on inpatient bed utilization.



HHS, HHS Protect Inpatient Bed Dashboard, <https://protect-public.hhs.gov/pages/hospital-utilization>

## Appendix 26B



HHS, HHS Protect Inpatient Bed Dashboard, <https://protect-public.hhs.gov/pages/hospital-utilization>

## Appendix 27

Data Table for Death Rate by State/Territory	
CDC   Data as of: October 9, 2021 12:35 PM ET. Posted: October 9, 2021 2:00 PM ET	
<a href="#">Download Data</a>	
State/Territory ↕	Death Rate per 100,000 ↕
New York City*	408
Mississippi	329
New Jersey	310
Louisiana	304
Alabama	303
Arizona	279
Massachusetts	271
Rhode Island	269
Florida	262
Arkansas	258
Georgia	255
South Carolina	252
South Dakota	245
Connecticut	243
Indiana	237
Nevada	236
Oklahoma	234
Pennsylvania	233
New Mexico	232
Michigan	227
Tennessee	227
Texas	227
Illinois	220
West Virginia	219
North Dakota	215
Iowa	210
Kansas	210
Delaware	205
Kentucky	202
Ohio	195
Montana	194
New York*	191
Missouri	190
Wyoming	179
California	175
Maryland	175
Idaho	174
District of Columbia	167
North Carolina	163
Wisconsin	154
Virginia	153
Minnesota	149
Nebraska	147
Colorado	134
Guam	127
New Hampshire	110
Washington	105
Puerto Rico	99
Oregon	94
Utah	93
Maine	79
Alaska	77
Virgin Islands	69
Hawaii	58
Vermont	50
Northern Mariana Islands	3
Palau	0
Republic of Marshall Islands	0
American Samoa	N/A
Federated States of Micronesia	N/A
New York (Level of Community Transmission)*	N/A
Footnotes	+

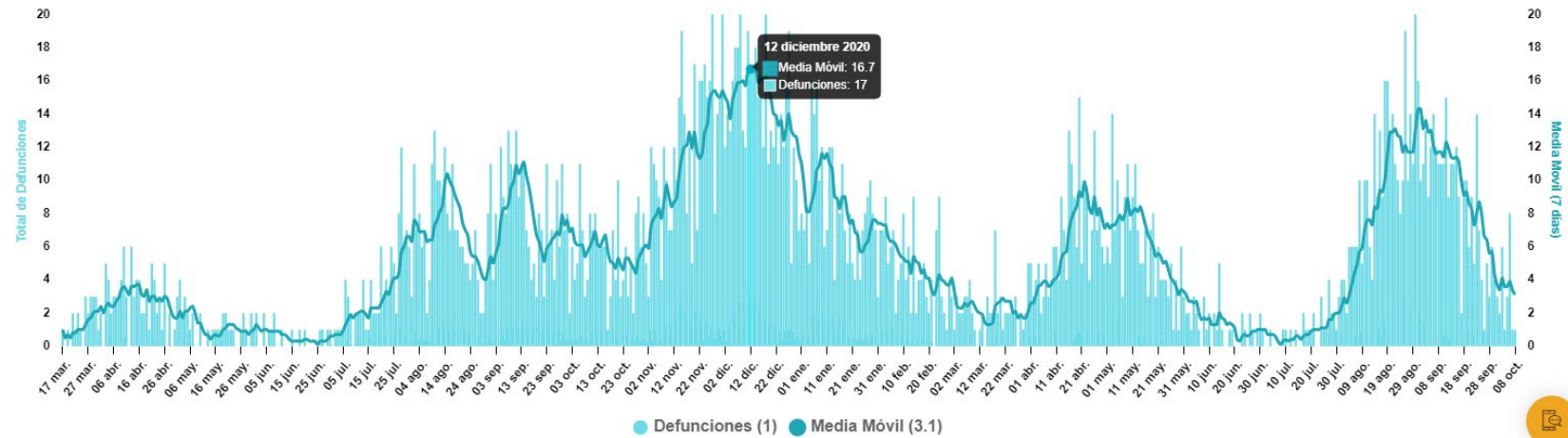
CDC,

Cases, Deaths and Testing (View: Deaths, Time Period: Since Jan 21, 2020, Metric: Rate per 100,000), *Data Table for Death Rate by State/Territory*, [https://covid.cdc.gov/covid-data-tracker/#cases\\_deathsper100k](https://covid.cdc.gov/covid-data-tracker/#cases_deathsper100k)

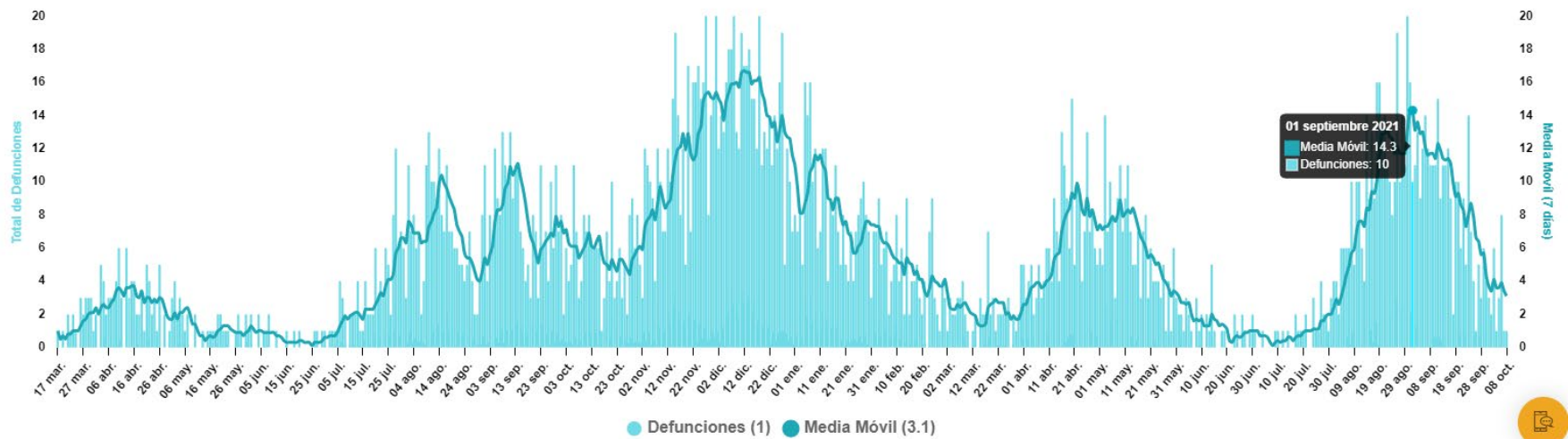


## Appendix 29A

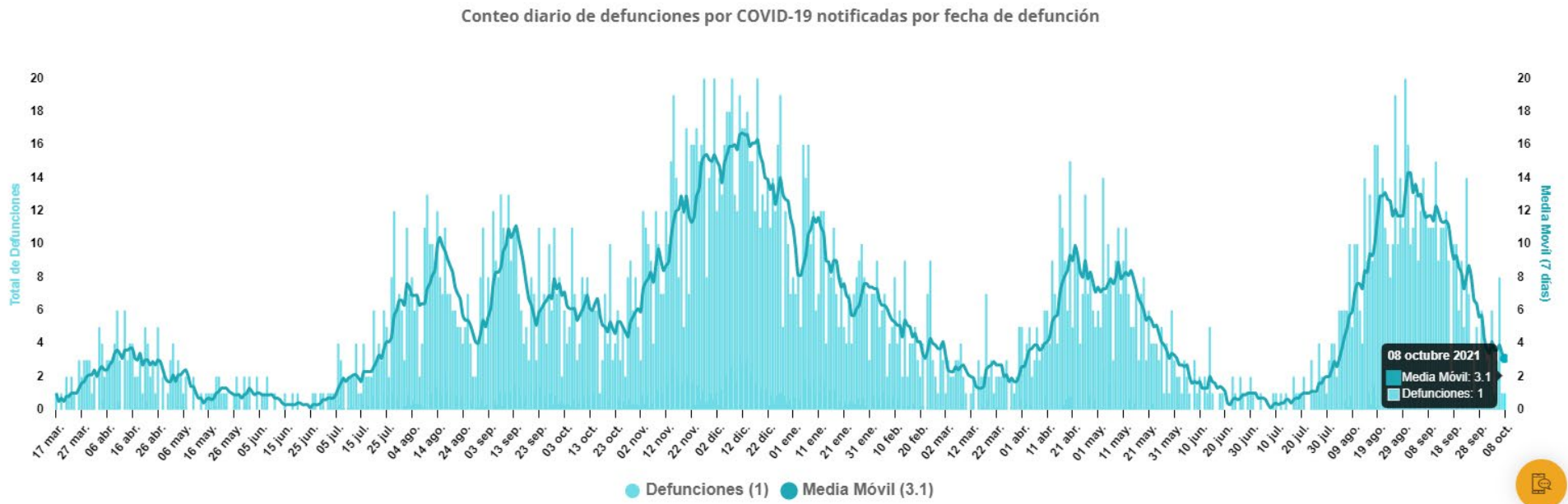
Conteo diario de defunciones por COVID-19 notificadas por fecha de defunción



Conteo diario de defunciones por COVID-19 notificadas por fecha de defunción



## Appendix 29B



Puerto Rico Health Department COVID-19 Dashboard, *Defunciones*, <https://covid19datos.salud.gov.pr/#defunciones>