

Shortages of Personal Protective Equipment (PPE)

2020 NAMCS Physician Induction Interview

The National Ambulatory Medical Care Survey (NAMCS), conducted by the National Center for Health Statistics (NCHS), collects data on visits to physician offices to describe patterns of ambulatory care delivery in the United States. As part of NAMCS, the Physician Induction Interview collects information about practice characteristics at physician offices. Partway through the 2020 NAMCS, NCHS added questions to the Physician Induction Interview to assess physician experiences related to COVID-19 in office-based settings.

Each year, physicians in the NAMCS sample are assigned to one of four interview periods and are contacted by a field representative to conduct the Physician Induction Interview during the assigned interview period. In the 2020 NAMCS, physicians were interviewed about PPE shortages in interview periods 3 (P3) and 4 (P4). Due to delays in data collection, interviews for P3 and P4 occurred between December 15, 2020 and May 5, 2021. Physicians were asked about experienced PPE shortages in the 3 months prior to their interview, and therefore, estimates for P3 and P4 in the below figures represent physician experiences between September 2020 and May 2021. The data used in these figures are considered preliminary, and the results may change with the final data release. This page will be updated every six months, as additional interview periods are completed in the 2021 NAMCS. More information on survey methodology can be found below the dashboard.

Results on this page show nationally representative estimates of PPE shortages experienced by office-based physicians in the United States in the 3 months prior to their NAMCS interview. Estimates on this page include:

- **Any PPE shortages:** percentage of physicians responding yes, they experienced N95 mask and/or eye protection, isolation gown, or glove shortages in the past 3 months.
- **N95 mask shortages:** percentage of physicians responding yes, they experienced N95 mask shortages some, most, or all of the time in the past 3 months.
- **Eye protection, isolation gown, or glove shortages:** percentage of physicians responding yes, they experienced eye protection, isolation gown, or glove shortages some, most, or all of the time in the past 3 months.

Data are presented according to interview period and can be examined by office type (solo or group practice), specialty type (primary care, surgical, or medical), owner type (physician or physician group, or other type), and urbanicity of office location (large metro area, medium/small metro area, nonmetro area).

Use the drop-down menus to select measures or groups. The left graph shows the selected measure by subgroups of physicians within the selected group, and the right graph shows the selected measure among all physicians. Hover the mouse over a bar to see additional information about a specific estimate.

Physician Experiences Related to COVID-19

[Shortages of Personal Protective
Equipment \(PPE\)](#)

[Experiences Related to COVID-19
at Physician Offices](#)

[Physician Telemedicine or
Telehealth Technology Use](#)

PPE Shortages Experienced by Office-Based Physicians Due to COVI

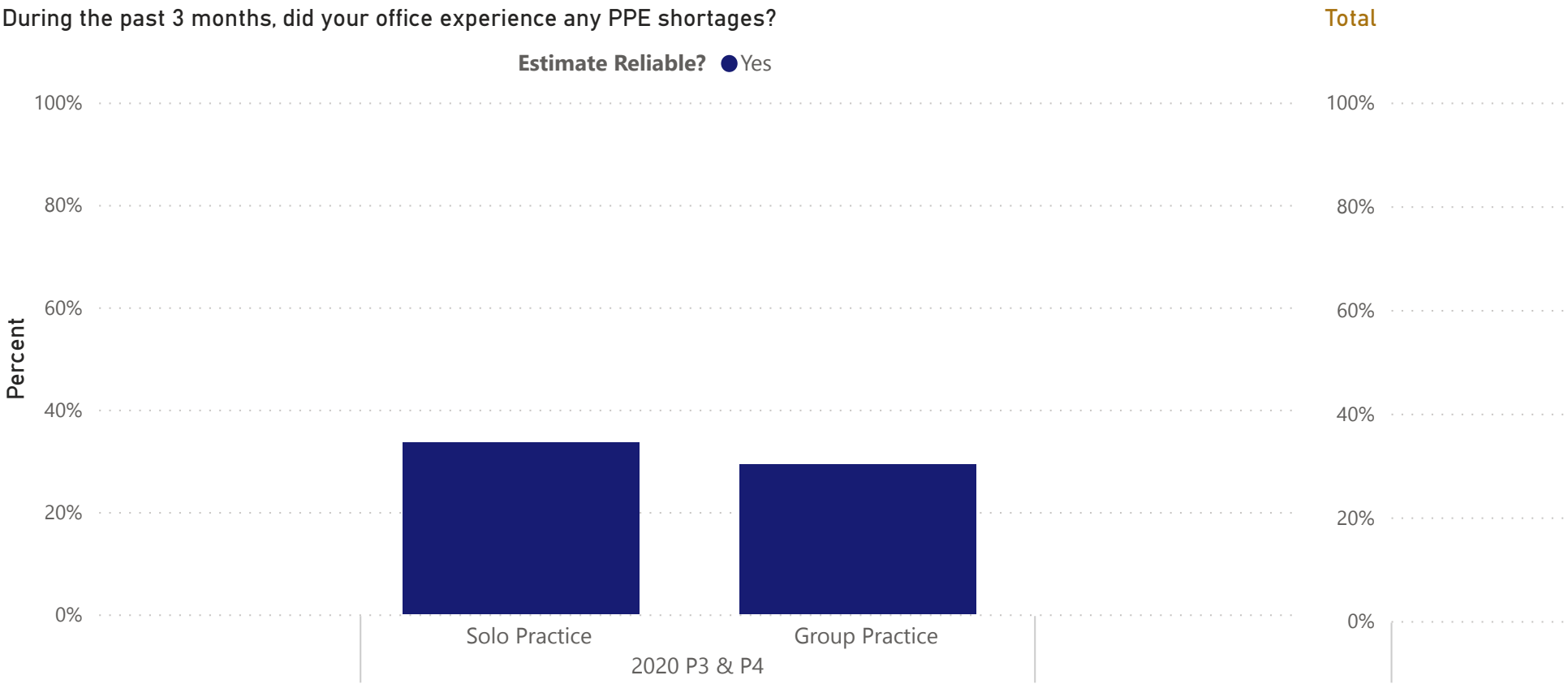
Select Measure

Experience any PPE shortages

▼

Select Group

By Office Type



Interview Periods: The NAMCS 2020 Periods 3 (P3) and 4 (P4) include interviews that occurred between 12/15/2020-5/5/2021. The data in the figures represent interview. Therefore, estimates for NAMCS 2020 P3 and P4 represent experiences occurring between September 2020 and May 2021.

NOTE: Reliability of estimates in this figure was assessed according to [NCHS standards](#). Estimates that did not meet these reliability standards are still shown but legend displayed above each graph. Statistical testing was not conducted to assess differences in estimates between subgroups.

SOURCE: National Center for Health Statistics, 2020 National Ambulatory Medical Care Survey (NAMCS), Physician Induction Interview

Bar Chart

Data Table

[Access Dataset on Data.CDC.gov \(Export to CSV, JSON, XLS, XML\)](#)^[?]

Technical Notes

- In Periods 3 and 4 of 2020 NAMCS, 422 out of 774 eligible physicians responded to the Physician Induction Interview, for a response rate of 54.5%.
- No physicians were excluded from estimates due to missing data.
- Estimates are weighted and are nationally representative.
- Data represent physicians, not physician offices.
- All estimates shown were assessed against the [NCHS Data Presentation Standards for Proportions](#) . Estimates that did not meet these reliability standards are still shown but are displayed in an alternate color according to the legend in the dashboard.

Data Source

The preliminary data presented are from the National Center for Health Statistics’ 2020 National Ambulatory Medical Care Survey (NAMCS) Physician Induction Interview. For general details on NAMCS, please visit https://www.cdc.gov/nchs/ahcd/about_ahcd.htm, and for specific details about the 2020 NAMCS Physician Induction Interview, see below.

Definitions

Measures

Survey questions used to develop the measures displayed in the above dashboard include:

“During the past 3 months, how often did your office experience shortages of N95 respirators or other approved facemasks due to the onset of the coronavirus disease (COVID-19) pandemic?”

- Estimates show the percentage of physicians responding yes to this survey question, including a response of “some...,” “most...,” or “all of the time.”

“During the past 3 months, how often did your office experience shortages of eye protection, isolation gowns, or gloves due to the onset of the coronavirus disease (COVID-19) pandemic?”

- Estimates show the percentage of physicians responding yes to this survey question, including a response of “some...,” “most...,” or “all of the time.”

The above two survey questions were used to derive the following measure shown in the above dashboard: “During the past 3 months, did your office experience any PPE shortages?”

- Estimates show the percentage of physicians responding yes to either the question about N95 mask shortages or the question about eye protection, gown, or glove shortages.

Groups

Measures are stratified by the following characteristics:

Office type:

- Solo Practice—Physicians responding that they work in a solo practice.
- Group Practice—Physicians responding that they work with other physicians, such as in a partnership or a group practice.

Owner type:

- Physician or physician group—Physicians responding that they work at an office owned by a physician or a physician group.
- Other—Physicians responding that they work at an office that is owned by an entity, such as an insurance company, health plan, hospital, health center, or other health care corporation.

Specialty type (as described in NCHS’ [NAMCS documentation](#) , pages 111-113):

- Primary care—Physicians responding that their specialty is primary care.
- Surgical —Physicians responding that their specialty is surgical.
- Medical —Physicians responding that their specialty is medical.

Urbanicity of office location (based on [NCHS’ Urban-Rural Classification Scheme for Counties](#)):

- Large metro area—Physicians’ offices in metropolitan statistical areas (MSA) with greater than 1 million people.
- Medium/small metro area—Physicians’ offices in MSAs with less than 1 million people.
- Nonmetro area—Physician’s offices in micropolitan statistical areas (urban clusters with a population of at least 10,000 but less than 50,000) or noncore areas (everything else considered non-micropolitan).

Survey Design and Sampling

NAMCS is an annual survey of 3,000 physicians working in nonfederally employed office-based settings working in the 50 U.S. states or Washington D.C., sampled from the American Medical Association and the American Osteopathic Association master files. Physicians working in specialties of anesthesiology, radiology, or pathology are not eligible to be sampled. Sampled physicians who had retired or were 85 years or over, were a resident, intern, or fellow, were not principally engaged in patient care activities at the time of the interview, could not be contacted, or were not providing care in an office-based setting were not eligible to complete NAMCS.

NAMCS consists of two parts: 1) a Physician Induction Interview with eligible, responding physicians, and 2) an abstraction of patient visits from those physicians. To provide representative data from across a survey year, the physician sample is divided into 52 subsamples, which are then randomly assigned to the 52 weeks of the survey year. These weekly subsamples are also grouped into four interview periods, with approximately 750 physicians in each period. Physicians are contacted to complete the Physician Induction Interview within a specific date range for their interview period, and then provide a sample of visits for abstraction from the reporting week to which they were assigned. Details regarding interview and reporting periods for the 2020 NAMCS are shown below in Table 1.

COVID-19-related questions were first introduced in the third interview period of the 2020 NAMCS Physician Induction Interview and will continue to be asked of physicians in the 2021 survey. Because of COVID-19, data collection was delayed and some of the interview dates for the 2020 NAMCS Physician Induction Interview occurred in 2021. Additionally, due to safety concerns and logistical challenges related to COVID-19, data abstraction was cancelled for periods 2, 3, and 4 of the 2020 NAMCS.

Table 1. 2020 NAMCS Sample Details

Interview Period	Interview Dates	COVID-19 Questions Asked	Reporting Weeks	Reporting Dates	Abstraction Occurred
2020 Period 1 (P1)	5/19/2020 – 8/25/2020	No	1-14	1/6/2020 – 4/12/2020	Yes
2020 Period 2 (P2)	7/29/2020 – 11/4/2020	No	15-27	4/13/2020 – 7/12/2020	No
2020 Period 3 (P3)	12/15/2020 – 2/23/2021	Yes	28-40	7/13/2020 – 10/11/2020	No
2020 Period 4 (P4)	2/24/2021 – 5/5/2021	Yes	41-52	10/12/2020 – 1/3/2021	No

Survey Weighting

Physicians were weighted according to their specialty and region. Weights were adjusted using multipurpose iterative proportional fitting, a technique that simultaneously performs calibration, nonresponse adjustment, and weight trimming. Records from periods 3 and 4 were combined and a 2020 Periods 3 and 4 weight was developed, allowing for the development of nationally representative estimates of PPE shortages for subsets of the annual physician sample. Estimates on this page are being published prior to final weighting to provide timely access to COVID-19 information.

Suggested Citation

National Center for Health Statistics. 2020 National Ambulatory Medical Care Survey Physician Induction Interview. Personal protective equipment shortages experienced by office-based physicians due to COVID-19: United States. Generated interactively: March 1, 2022.

Send comments and questions to ambcare@cdc.gov.