**Medical access during COVID-19**

**Medical access during the COVID-19 pandemic: an analysis from the US Census bureau’s Household Pulse Survey**

**Background**

The novel coronavirus, or SARS-CoV-2, the potentially deadly virus that has led to the COVID-19 COVID-19 pandemic has placed a devastating toll on the United States healthcare system. Previous studies to date have not specifically explored access to medical care trends since the onset of the COVID-19 global health pandemic. Here, we investigate how trends of access to medical care are distributed across subgroups since April 2020 to April 2021, based on data from the Household Pulse Survey.

**Objective**

To describe, in the US population, trends of groups with various levels of health access to medical care during different phases of the COVID-19 pandemic.

**Methods**

The Household Pulse Survey (source: National Center for Health Statistics and the Census Bureau) is a 20-minute online survey designed to assess the impact of the COVID-19 pandemic on American residents. The overall survey covers three phases, from April 23 2020 to present. Phase 1 Household Pulse Survey data was collected between April 23, 2020 and July 21, 2020. Phase 2 Household Pulse Survey data was collected between August 19, 2020 and October 26, 2020. Phase 3 data Household Pulse Survey data was collected between October 28, 2020 and March 29, 2021. Data collection for Phase 3.1 of the survey began on April 14, 2021 and will continue through July 5, 2021. Table 1 presents a detailed table of this study’s data waves.

The Household pulse survey from the Census was analyzed by phase as described in Table 1. Data was accessed from <https://www.cdc.gov/nchs/covid19/pulse/reduced-access-to-care.htm>.

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| --- | --- | --- |
| Phase 1 | Week1 April 23-May 5 2020 | Week 6 June 4- June 9 2020 |
| Phase 2 | Week 13 Aug 19 - Aug 31 | Week 18 Oct 28 - Nov 9 |
| Phase 3 | Week 23 Jan 20 - Feb 1 2021 |  |
| Phase 3.1 | Week 28 Apr 14 – Apr 26 2021 |  |

Table 1

**Results**

The construct of access to medical care was defined as a response to either item ‘delay getting medical care due to COVID-19 for the last 4 weeks’ or ‘Not getting medical care due to COVID-19 for the last 4 weeks’. We conducted cross sectional analyses within respondents who responded to “delay or not to getting medical care due to COVID-19 for the last 4 weeks” from week 1, week 6, week 13, week 18, week 23 and week 28. Weighted response rates ranged from 3.8% to 9.2%.

Changes between groups with regard to age, education, gender and week, from week 1 to week 28, were analyzed using generalized linear models. Interactions between week and groups were also tested.

Of all 418,221 unique responses, 24 percent of respondents suggested they did not get or delayed getting medical care due to the COVID-19 pandemic during the week of 28 (April 14, 2021), which declined from 42% in the first week of April 23, 2020 when the survey was initiated (p<0.001).

Figure 1 presents the trend of the proportion of people who chose to delay accessing medical support or did not get medical support due to COVID-19 since 2020 April 23 to 2021 April 14. Six waves of data were used to see the overall trends.

Figure 1

Six waves of data were analyzed from week 1 to week 28. Results showed that women, younger individuals, Hispanic descendants and those identifying as mixed race, experienced higher rates of delaying or not accessing medical care during COVID-19.

Table 2 provides the generalized linear model, with a gamma distribution and a log link function.

Although responses suggest a significant decrease in those who delayed or did not access medical support during COVID-19, women (mean = 39.7, SE= 0.26) were found to have more difficulty obtaining medical support compared to men (mean= 32.8, SE =0.22). Further, younger adults (18-29 years of age) were found to have a higher percentage of delaying and not accessing medical support (mean=37.1,SE=1.41), compared with the older cohort (older than 80 years of age) (mean = 25.8, SE=0.98). Hispanic/Latino respondents (mean = 40.3, SE= 1.39) were found to have a higher proportion of accessing medical care than White respondents (mean = 35.3, SE= 1.22), Black (mean = 36.1, SE= 1.25) and Asians (mean = 35.3, SE= 1.39). Respondents with a high school diploma or GED were more likely to obtain medical care (mean = 32.02, SE= 0.85) than those with a bachelor’s degree or higher (mean = 37.69, SE = 1.00).

Medical care access during weeks 18, 23 and 28 were found to be significantly reduced from week 1, whereas weeks 6 and 13 had no significant decrease in the proportion of people who did not receive medical support. Generalized linear model with an interaction term week\*subgroup were tested. No significant interactions were found.

Figure 2

Table 2

**Discussion**

Our findings indicate rates of access to medical support due to COVID-19 worsened in the summer of 2020, but improved after October 2020. Health service disparities are an issue to address for practitioners and health systems, especially for patients with chronic illness or vulnerable groups such as pregnant women in need of evaluation and care.