From the Frontline: Better Prepared for This Pandemic & the Next
Survey and Qualitative Research with Health Workers

Doctors and nurses are committed to caring for patients during the COVID-19 pandemic, and despite increased personal risks and an exceptionally high work volume, they have met extraordinary demands for healthcare. In summer 2021, Pandemic Action Network partners conducted a study, including an online survey and qualitative interviews with doctors and nurses in the United States to learn what they need to feel more prepared for this pandemic and the next. The survey, conducted July 26-August 16, 2021, included a total of 532 completed responses (278 doctors and 254 nurses) from across the United States. In addition, qualitative interviews were conducted June 30-August 13, 2021 with 47 health officials, public health workers, doctors, and nurses.

Research findings highlight that nearly two years into the pandemic, frontline health workers still don’t have the tools they need to treat patients effectively and save lives while keeping themselves safe. The research also points the way toward better preparedness and response for a future pandemic.

Summary of Key Themes and Results

61 percent of doctors and nurses felt that they did not have sufficient early warning to prepare for the COVID-19 pandemic.

Access to Personal Protective Equipment (PPE)
- Even as of summer 2021, 32 percent did not feel they had sufficient access to PPE.
- When asked to prioritize areas for innovation to improve pandemic response, PPE ranked highest among doctors and nurses, but especially among nurses.
- Among the doctors and nurses that were interviewed, health workforce safety also emerged as a theme, many noting that they felt inadequately protected and cared for.

Changing Protocols
- While doctors and nurses felt their colleagues were informed (75 percent) and vigilant (74 percent) in minimizing spread of disease, a third felt it was challenging to follow changing workflows and protocols.
- Less than half of respondents felt that there was an effective surveillance system (46 percent) and effective contact tracing or exposure notification (36 percent) in their region.

Speed, Accuracy, and Availability of Testing
- Current tests have not been used broadly and suffer from shortcomings in accuracy, affordability, and lack of clarity on what actions to take with a positive result.
Patient oversight and education is a necessary component of ensuring at-home diagnostic test results are accurate, appropriately interpreted, and acted on.

- 41 percent did not feel patients know what actions to take after using an at-home test.
- 43 percent did not feel patients using at-home tests receive proper care.
- 50 percent did not feel comfortable with patients using at home diagnostic tests without healthcare provider review.

When asked to prioritize innovation in testing, both doctors and nurses ranked improving the speed and accuracy of tests as the top priority.

**Treatment**

- While most doctors largely believe new therapies for COVID-19 are best administered in-hospital, there was also desire for a broader range of clinical applications and solutions that would enable remote patient monitoring, suggesting an interest in new models of care.
  - 85 percent of doctors want therapies that can be used in a broad range of clinical settings.
  - 84 percent of doctors want therapies that can be used for early containment.
  - 82 percent of doctors want therapies that can be used as prophylaxis for populations at high risk.

**Vaccine Communication**

- 56 percent felt there was inadequate education about vaccines in development.
- 43 percent felt that paper vaccination cards are ineffective as proof of vaccination.
- Over 80 percent felt improvements to vaccine appointment notifications and tracking would have a positive impact.
- Both doctors and nurses ranked systems/processes to distribute vaccines to those at greatest risk when supply is limited as their top priority.

**Information Sharing**

- 88 percent agreed that a central platform containing all professional information related to their role would be valuable.
- Information sharing within was noted as central to a well-coordinated and informed response, but many doctors and nurses felt it was challenging to access information from outside their hospital system vs. within their system.
  - 63 percent felt they were able to easily access and receive pandemic related information internally.
  - 35 percent did not feel that they were able to easily access timely and accurate information.
  - 42 percent did not feel that they were able to easily access patient information external to their site.

**About the Research**
This Pandemic Action Network partner mixed-methods study was designed with two arms: a quantitative online survey and qualitative in-depth interviews.

A quantitative survey of 278 doctors and 254 nurses from across the United States was conducted from July 29-August 16, 2021. Potential respondents were invited to complete a screener by a fielding partner. Qualified respondents were then invited to complete the survey. The survey design included multiple question formats to capture a robust and nuanced data set. Survey results were then analyzed using a mixed-methods approach, including statistical analysis to identify initial themes and natural language processing to extract themes from open ends.

Qualitative, in-depth interviews of 14 health officials, 8 public health workers, 12 doctors, and 13 nurses from across the United States were conducted from June 30-August 13, 2021. Participants were recruited on a rolling basis through a network approach. Interviews were semi-structured, following a high-level topic guide. Interviews lasted an average of 30 minutes and were conducted virtually. A combined inductive and deductive approach was used to code interview data and identify key themes.

Once the two arms of this study were independently conducted, a high-level synthesis of all findings to identify key insights across analyses was completed.

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