

## Primary Care Evolution: Clinic Staff and Patient Perspectives of the Rapid Upscale of Virtual Primary Care during the COVID-19 Pandemic

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**Research Objective:** The Veterans Health Administration (VA) offers virtual care options including telephone and video-based care to supplement face-to-face visits, with the goal of expanding access to care for Veterans. Across the Rocky Mountain Regional (RMR) VA Health Care System, virtual care had been used selectively prior to the COVID-19 pandemic, but since March 2020, it has been systematically expanded. Perceptions of this rapid implementation from patients, providers and primary care clinic staff, are largely unknown. The objective of this evaluation is to better understand these perspectives.

**Study Design:** We conducted a rapid exploratory qualitative evaluation to understand perceptions and impact of the swift upscale of virtual care on local primary care clinic staff and patients who received virtual care. Five-question structured surveys were distributed to clinic staff electronically prior to participation in a semi-structured focus group. Focus groups were scheduled, facilitated, recorded, transcribed, and analyzed by the research team, utilizing rapid analysis process with modified consensus review. Ten-question semi-structured patient interviews were conducted among a cohort of patients who received virtual primary care from four identified clinics. Guides were created by the research team and informed by Practical Robust Implementation and Sustainability Model (PRISM) to focus on clinic staff and patient perspectives of virtual care and the rapid upscale and on contextual factors. Data were analyzed descriptively and thematically.

**Population Studied:** We studied four primary care clinics delivering virtual care within RMR. Clinical staff included providers, nurse care managers, licensed practical nurses, and medical support assistants. Out of the 47 focus group participants, 45% also participated in electronic surveys. All patients were men aged 33 to 76. 40% self-identified as “White, not Hispanic or Latino”, 40% declined to identify, and 20% identified as “Black or African American, not Hispanic or Latino”.

**Principal Findings:** Preliminary survey data from clinic staff suggest expanded virtual care options provide the same or slightly higher quality of care, efficiency and patient-centeredness when compared to face-to-face care (3.1, 3.4, and 3.1 respectively on 1–5 Likert scale). Themes from clinic staff focus groups included (not limited to):

unintended consequences of rapid upscale, concerns with workload increase, and uncertainty with patient suitability for virtual care. Data from patient interviews suggest satisfaction with both virtual and face-to-face care, with concerns regarding uncertainty of network privacy with virtual care usage and interest in self-scheduling to improve patient satisfaction.

**Conclusions:** Primary care clinic staff perceive virtual care as providing the same or higher quality of care, efficiency and patient-centeredness when compared to face-to-face but remain concerned about potential unintended consequences of the rapid scale up of virtual care implementation. Patients report satisfaction with both virtual and face-to-face primary care, with questions regarding network safety and self-scheduling to improve experience.

**Implications for Policy or Practice:** Virtual Care is an important option for primary care, however perceptions of utilization during a rapid scale up from patients and clinic staff should be considered in future planning. This study provides insight into the impact of the rapid upscale of virtual care and adds perspectives on usage to further inform future program development with appropriate contextual factor consideration.

## COVID-19-Related Knowledge, Protective Behaviors and the Moderating Role of Primary Sources of Information: Findings from a Cross-Sectional Online Survey in the United States

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**Research Objective:** To assess the moderating effects of primary sources of COVID-19 information on the association between knowledge and protective behaviors against COVID-19.

**Study Design:** This is a secondary analysis of data from a cross-sectional online COVID-19 survey conducted among US adults in April 2020 using advertisement-based recruitment on social media. A total of 6518 people completed the survey. Linear regression analysis was performed on COVID-19 knowledge and protective behavior scores. An interaction term between knowledge and primary source of information was included in order to examine any moderating effects of the information source on the relationship between knowledge and protective behaviors. The analysis was adjusted for demographic and socio-economic factors and was conducted using R software (version 3.6.3).

**Population Studied:** Adult population (age > 18) living in the United States.

**Principal Findings:** Overall, higher level of COVID-19-related knowledge was associated with higher level of self-reported engagement in

protective behaviors. More specifically, our results indicate that the primary source of information modified the association between knowledge and protective behaviors. The most effective sources of information to translate incremental knowledge into higher engagement in protective behaviors were interpersonal communication and social media. Official sources such as US government, CDC, and WHO websites had significantly weaker effects. Our results also showed that respondents with lower knowledge scores preferred social media or interpersonal communication as their primary source for seeking COVID-19-related information.

**Conclusions:** This study shows the important role that the different COVID-19 information sources can play on influencing people's engagement in protective behaviors while delivering the COVID-19-related knowledge.

**Implications for Policy or Practice:** Overflowing information and misinformation are influencing people's degree of engagement in protective behaviors against COVID-19. Policy makers should carefully monitor the use of different information sources by the public so that they can effectively target, influence decision-making, and promote behavior change to fight the current pandemic and the infodemic concurrently.

## Creation and Translation of IMPACT (Illinois Medical Professional Action Collaborative Team) to Amplify and Address Disparities in COVID-19: The Case of Vaccine Delivery

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**Research Objective:** During the COVID-19 pandemic, novel infrastructure is needed to 1) assess disparities in care delivery 2) address these needs through rapid dissemination of rapidly-evolving, evidenced-based information 3) connecting people to resources and 4) advocating for policy change.

**Study Design:** An interdisciplinary coalition of health care professionals on social media created the organization IMPACT. IMPACT ([www.impact4hc.com](http://www.impact4hc.com)) leverages social media and novel non-profit/for-profit partnerships to 1) identify and amplify public health needs and disparities in care delivery 2) address needs and gaps by rapidly disseminating evidence-based information, 3) connecting groups to resources, and 4) advocating for science-based policy. IMPACT and

Oak Street Health (OSH) [a value based primary care system for low income seniors and medicare enrollees] identified a critical gap in Phase 1a vaccinations in Illinois: limited access to COVID-19 vaccination for health care workers not affiliated with health systems. IMPACT worked with OSH to 1) identify the gap 2) leverage the partnership to vaccinate 3) amplify the messaging to disseminate resources for vaccine sign ups and 4) approach city leadership for policy change.

**Population Studied:** A case study of healthcare workers in Illinois awaiting vaccination in 01/2021.

**Principal Findings:** Disparities in vaccination needs were rapidly identified through multiple sources (twitter, Chicago facebook groups for healthcare workers, emails and messages to IMPACT) for health care workers (HCWs1a) not affiliated with health systems. An IMPACT clearinghouse for vaccine information (registration, interest surveys) was created procuring information rapidly through social media and professional networks. Given high levels of interest (1342 views/10 days, avg 127/daily), IMPACT-OSH partnered to highlight need (twitter, facebook, policy statement), while OSH created a vaccination clinic with web-based vaccine registration for non-system affiliated HCWs. Targeted posts on facebook (2 closed HCW groups [2.2 K members/each], 1 closed general group [15.1 K]) were used to disseminate clearinghouse and OSH vaccine clinic information. Facebook posts alone reached 1650 HCWs, general member group posts reached >3.2 K in 7 days. In the first 7 days of the campaign, 5800 HCWs signed up for the OSH vaccine clinic, with >1800 vaccinated. In the first 48 hours of the social media campaign (over weekend) approx. 2000 HCWs signed up. Of a subgroup of OSH vaccinated HCWs (N = 1500), 50% reported receiving information through social media or web-based link. In response to these concerns, the local health departments encouraged all health care entities to vaccinate non-system affiliated HCWs, and the work was highlighted in the mayor's weekly press conference.

**Conclusions:** By leveraging novel methods of communication and dissemination (social media, partnerships), IMPACT and Oak Street Health were able to assess and address the gap in care delivery of vaccinations to HCWs in a rapid time frame.

**Implications for Policy or Practice:** Novel partnerships and utilization of social media made it possible to identify and then rapidly address a critical gap in HCW vaccination in the short term while laying groundwork for longer-term policy solutions. These findings have future implications for further vaccine rollout.