PAN AMERICAN JOURNAL OF PUBLIC HEALTH 100 YEARS

Original research

# Facilitators of and barriers to COVID-19 vaccination in Grenada: a qualitative study

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**Suggested citation** Herry AM, Greaves D, Smith P, Toledo NA, Wildman A, Wildman T, et al. Facilitators of and barriers to COVID-19 vaccination in Grenada: a qualitative study. Rev Panam Salud Publica. 2023;47:e44. https://doi.org/10.26633/RPSP.2023.44

**ABSTRACT**

**Objectives.** To identify the factors contributing to coronavirus disease 2019 (COVID-19) vaccine hesitancy in Grenada.

**Methods.** A phenomenological study was conducted using semi-structured interviews at vaccination and pop-up testing clinics during a spike in COVID-19 cases on the island. Interview questions were developed using the health belief model related to perceived threat of COVID-19, perceived benefits of and barriers to COVID-19 vaccination, and cues to action. Data were analyzed using a deductive approach to identify themes, categories, and subcategories.

**Results.** Twenty-five interviews were transcribed and coded. In all, 68% of participants were unvaccinated, 12% were partially vaccinated, and 20% were fully vaccinated. Data analysis revealed two main themes: facilitators and barriers. Factors more likely to encourage vaccination (facilitators) included trust in medical advice and vaccine efficacy, social responsibility, and vaccine mandates for travel, employment, and social activities. Factors hindering vaccination (barriers) included: perceived low threat of COVID-19; preference for natural remedies; concerns about contraindications because of underlying health conditions; fear; mistrust of vaccines and related messaging; vaccine accessibility; and the many different information sources.

**Conclusions.** Overcoming vaccine hesitancy is key to combating the detrimental effects of COVID-19 in Grenada. Public health interventions and policies that address barriers and capitalize on facilitators can increase vaccine uptake.

**Keywords** COVID-19; COVID-19 vaccines; vaccine hesitancy; qualitative research; Grenada.

The coronavirus disease 2019 (COVID-19) pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has resulted in millions of infections, deaths, and social, psychological, and economic problems (1–3). Various measures were implemented to curb the spread of the virus, including social distancing, isolation, and handwashing. However, even with these measures in place, many countries continued to see a rise in COVID-19 cases. Consequently, several COVID-19 vaccines were developed and proved to be one of the most successful ways to limit the pandemic's deadly effects (4, 5).

In 2019, the World Health Organization (WHO) cited vaccine hesitancy as one of the top 10 threats to global health, and this remains true today (6, 7). Vaccine hesitancy is defined as "delay in acceptance or refusal of vaccination despite its availability" (8), and the WHO's Strategic Advisory Group of Experts on Immunization (SAGE) described it as a "behavioral phenomenon that is vaccine and context specific and measured against an expectation of reaching a specific vaccination coverage goal, given the immunization services available" (9). Since their initial release in December 2020, the COVID-19 vaccines (AstraZeneca,

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Moderna, and Pfizer-BioNTech) have been regarded by healthcare professionals and governments as essential to reduce the morbidity and mortality associated with the global spread of the virus (10). Despite this, COVID-19-related vaccine hesitancy has become a public health concern.

Vaccine acceptance is a complex decision influenced by numerous facilitators and barriers rooted in personal beliefs. Therefore, it is not exclusively based on vaccine availability (10). The relationship between health-related behaviors and health beliefs, as suggested by the health belief model, is based on an individual's perception of threat (susceptibility and severity), benefits, barriers, and cues to action (11). Formation of health beliefs begins with acquiring information, synthesizing an understanding of the information, and deciphering if this information is complete and trustworthy. Information can come from various sources such as scientific evidence, healthcare professionals, government officials, local or international news outlets, family or friends, and social media, for example, WhatsApp, Facebook, and YouTube (10, 12, 13). According to the 2021 USAID/CADRES/UNICEF COVID-19 vaccine hesitancy survey report for Grenada (14), Grenadians' primary sources of information were government or official communications and social media, with the preferred medium being via local or cable television. However, some respondents also noted a lack of trust in government and public health authorities (14), a sentiment echoed in other studies (12, 15–17).

Despite the amount of credible information available, incomplete or false information is often shared because of its controversial and sensational nature, resulting in an "infodemic" (8, 13, 16). Individuals may gravitate towards more convenient sources of information or ones that confirm pre-existing beliefs, which can negatively influence vaccine acceptance (18). Furthermore, the capability and ease with which information is rapidly updated or changed can disorient people who are not necessarily opposed to vaccination but are simply seeking further information (15). When the amount of information becomes overwhelming and seems contradictory, many people claim to feel distressed, confused, and unsure about which sources to trust and what to believe (8). These feelings predispose individuals to be more susceptible to misinformation, thus losing confidence in the COVID-19 vaccine and becoming hesitant (8, 13). It is noteworthy that the spread of misinformation flourishes in settings of anxiety and uncertainty, and fear functions as a major influence on behavior. A study on the role of social media in perpetuating vaccine hesitancy found that vaccine-resistant users who shared anti-vaccination campaigns partially contributed to social media use as an influential factor (13). This is a growing concern among healthcare providers because they have inadequate capacity to respond to and dispute such misinformation (13). Other studies suggest that although individuals could discriminate between truth and conspiracy, they had trouble ignoring negative propaganda on extreme adverse effects, harmful vaccine contents, and depopulation agendas when exposed to large amounts of such misinformation (8, 13).

Other barriers associated with vaccine hesitancy can be directly attributed to an individual's personal beliefs about their overall health. The perceived threat of COVID-19 is both a facilitator of and barrier to vaccination. When the perceived threat is high, particularly among people who view themselves as vulnerable to severe illness, vaccine uptake increases (16). This was illustrated in research showing that participants were less hesitant of COVID-19 vaccination if they had underlying health conditions, because they believed the vaccine was necessary to protect them against severe infection (19). In contrast, low perceived risk coincides with lower reports of active cases, the belief that younger people are not at risk, or that protection by herd immunity or acquired natural immunity is sufficient; thus, vaccination is seen as unnecessary (12, 20).

Conversely, many studies have suggested that perceived benefits promote vaccine acceptance. Although this varied by the individual, such facilitators contribute to higher vaccination rates among groups who reported high self-efficacy in managing their own health (21). The view that vaccination is a social norm that contributes to social responsibility encouraged confidence in the COVID-19 vaccine as a routine health protocol (21). This belief facilitated vaccine uptake among healthy individuals with the intention of protecting others at risk of COVID-19 (21).

Furthermore, vaccine acceptance can be triggered by cues to action, such as external factors endorsing vaccination. In India, healthcare providers who advocated directly with patients and used signs promoting vaccination contributed to rising vaccination rates (22). The amount of knowledge healthcare providers have about vaccines and their confidence in communicating effectively with patients can instill trust and vaccine acceptance (13). Other people are motivated by factors related to employment status and economic security. Vaccine mandates were a common catalyst for those reluctant to be vaccinated, who stated they would opt in if vaccine passports were instituted for travel or employment (21).

In 2021, numerous spikes in COVID-19 cases occurred across the Caribbean region because of the Delta and Omicron COVID-19 variants; as of July 2022, Grenada has reported 18 531 cases and 233 deaths (23). Four vaccines are available on the island (AstraZeneca, Johnson & Johnson, Moderna, and Pfizer-BioNTech), and the success of mass vaccination and herd immunity depends on acceptance. Despite vaccine availability and efficacy, a portion of the eligible population continues to refuse or delay vaccination; only 34.1% of the population in Grenada is fully vaccinated (23).

The purpose of this study was to identify the factors contributing to COVID-19 vaccine hesitancy in Grenada using the health belief model as the theoretical framework.

## METHODS

### Study design

This was a cross-sectional study using a qualitative method and a phenomenological approach to better understand vaccine hesitancy in the Grenadian population. An interview guide with 14 open-ended questions was developed using core constructs of the health belief model: perceived susceptibility; perceived severity; perceived benefits; perceived barriers; and cues to action. The study was approved by the St George's University Institutional Review Board (reference #21032). The sample size for the study was 25 participants. The rationale for this size was based on recommendations from similar qualitative studies where 20 to 25 participants were used (24, 25). Additionally, saturation, a key concept used in sample determination in qualitative research, was taken into consideration in this study.

## Data collection

The inclusion criteria for this study were adults older than 18 years who lived in Grenada. Semi-structured face-to-face interviews were conducted from October 2021 to February 2022. Participants were recruited through purposive sampling from COVID-19 vaccination and pop-up testing clinics around the island. All interviews were recorded using a digital recorder; to maintain confidentiality, no identifying information was included.

## Data analysis

The interview recordings were transcribed verbatim and analyzed using Dedoose software. A deductive approach to data analysis was used where predefined codes were established using the constructs of the health belief model. The steps used in the data analysis included the preparation phase, organization phase, and reporting phase (26). Preliminary codes were derived from the transcripts, and main categories and subcategories were defined theoretically. The predetermined codes were assigned to the data. The final results were reviewed and validated by all authors.

All participants provided written informed consent before the interviews were conducted. No identifying information was included to ensure participant anonymity. Instead, alphanumeric codes were used to assign data to participants.

# RESULTS

The study included 25 participants between the ages of 18 and 65 years (Table 1). From the data, two main themes emerged: 1) facilitators and 2) barriers (Table 2). Theme 1 summarized the factors that encouraged participants to get vaccinated or consider getting vaccinated. Theme 2 reflected the obstacles or challenges that prevented the participants from being vaccinated.

## Theme 1: facilitators

**Category: Cues to action.** Participants noted several factors that would positively influence them to accept the COVID-19 vaccine. Professional advice from a physician played an important role in the participants' decision to be vaccinated. Participants also mentioned that returning to a sense of normalcy, such as being able to travel and engage in social activities, acted as a motivator.

**Category: Perceived benefits.** Subcategory: awareness of vaccine necessity. Most participants understood the importance of

**TABLE 1. Characteristics of participants**

| Participant ID | Sex | Age group, in years | Education | Occupation | Location (parish) | Vaccination status |
|---|---|---|---|---|---|---|
| P1 | Female | 18–25 | Secondary | Domestic worker | St Patrick | Partially vaccinated |
| P2 | Male | 36–45 | Tertiary | Bus driver | St Patrick | Unvaccinated |
| P3 | Female | 46–55 | Tertiary | Public service (cook) | St Patrick | Unvaccinated |
| P4 | Female | 46–55 | Tertiary | Public service | St Patrick | Unvaccinated |
| P5 | Female | 36–45 | No answer | Unemployed | St Andrew | Unvaccinated |
| P6 | Female | 18–25 | None | Self-employed (seamstress) | St Andrew | Unvaccinated |
| P7 | Female | > 65 | Primary | Nurse | St Mark | Unvaccinated |
| P8 | Female | 26–35 | Tertiary | Cashier | St Mark | Unvaccinated |
| P9 | Male | 36–45 | Tertiary | Private sector | St Andrew | Partially vaccinated |
| P10 | Male | 36–45 | Primary | Gardener | St Andrew | Unvaccinated |
| P11 | Female | 56–65 | No answer | Unemployed | St Mark | Unvaccinated |
| P12 | Male | 36–45 | Primary | Construction worker | St Patrick | Fully vaccinated |
| P13 | Male | 46–55 | Primary | Construction worker | St Patrick | Partially vaccinated |
| P14 | Female | 36–45 | Secondary | Hairdresser | St Patrick | Fully vaccinated |
| P15 | Female | 18–25 | Tertiary | Public service (child protection) | St Andrew | Unvaccinated |
| P16 | No answer | 46–55 | Primary | Sanitizer | St Andrew | Unvaccinated |
| P17 | Male | 25–35 | Primary | Security guard | No answer | Unvaccinated |
| P18 | Male | 46–55 | Primary | Construction worker | No answer | Unvaccinated |
| P19 | Male | 18–25 | Tertiary | Self-employed | No answer | Unvaccinated |
| P20 | Female | 18–25 | No answer | Self-employed | No answer | Unvaccinated |
| P21 | Female | 26–35 | Tertiary | Legal assistant | No answer | Fully vaccinated |
| P22 | Male | 26–35 | Secondary | Insurance claims officer | No answer | Unvaccinated |
| P23 | Male | 26–35 | Tertiary | Musician | No answer | Fully vaccinated (plus booster) |
| P24 | Male | 46–55 | Tertiary | Accountant | No answer | Fully vaccinated |
| P25 | Male | No answer | Tertiary | Self-employed (business owner) | No answer | Unvaccinated |

***Source:*** Prepared by authors based on the study data.

**TABLE 2. Summary of themes, categories, and subcategories**

| Themes | Category | Subcategory | Selected quotes from participants |
|---|---|---|---|
| **Facilitators** | *Cues to action* | – | "I can do the other things I used to do before like go to restaurant or bowling" |
| | | | "I think the only thing that would make me get the vaccine would be if they make it necessary for traveling" |
| | *Perceived benefits* | Awareness of vaccine necessity | "Well, from what I've heard, especially if you have underlying health issues, it would be best for you to take the vaccine because it would prevent you from being hospitalized and what not." |
| | | | "The vaccine it the only thing there is to stop the pandemic" |
| | | Employment status and income | "It will put me in a position to be able to be employed" |
| | | | "In terms of job, I wouldn't be able to be on the job, and well, I work with my wife, so help with my wife as much as possible" |
| | | Vaccine efficacy | "For me, I see that probably the symptoms of COVID, they may not be as harsh as they would be without the vaccine, just from my circumstances. I do know people who haven't had it and their symptoms have lasted for like probably months and so, without having the vaccine." |
| | | | "Not spreading the virus or having a bad impact on your health if you do get the virus" |
| | | Social responsibility | "I know that the vaccine can reduce the risk of getting COVID and I wanted to do my part to not spread it to her [his pregnant wife] or my parents or grandmother." |
| **Barriers** | *Perceived susceptibility* | Risk of infection | "My body should be able to fight covid without the vaccine" |
| | | | "I feel that my immune system could probably fight it off" |
| | | | "So, I don't think my immune system is that weak, so that even if you get it the severity will not be as bad" |
| | *Perceived severity* | Mortality and morbidity beliefs | "I don't think it will be very bad" |
| | | | "Most people that I know that got covid were not very much sick" |
| | | | "I do not think it would be severe because doctor checks show that I am healthy physically and mentally" |
| | *Perceived barriers* | Use of natural remedies | "I also use a lot of ginger, lemon, and honey. I boil them" |
| | | | "I take ginger and spices daily, and drink lemongrass" |
| | | Underlying health conditions | "I will not take the vaccine until I see after my leg. I have to do some kind of hip surgery, for circulation." |
| | | | "Impossible due to hemophilia" |
| | | Fear and concern about the vaccine | "At first heard it's dangerous, it kills people. I did not want to get it" |
| | | | "It can make you sick, paralysis, stroke, heart attack, menstruation stops." |
| | | Vaccine efficacy | "I don't know what's inside the vaccine" |
| | | | "They make vaccine to give people, I am concerned that it developed quickly" |
| | | | "If you take the vaccine and then get the virus you still have to go through the natural course of the illness just as someone that doesn't have the vaccine, because if you get it, you still can spread it. I know people that did get the vaccine and got COVID-19 and still there is a negative experience on their body, so I don't see the benefit of it" |
| | | | "I am worried mostly about having a reaction to it and dying" |
| | | Mistrust | "Some doctors wouldn't even take it. Some nurses aren't taking it. So, who am I, somebody who doesn't even know about vaccines, to say well this makes sense or not?" |
| | | | "I was scared because of what people were saying. I was getting advice not to get vaccine." |
| | | | "I don't trust any of the sources. I try to get all the information and then analyze it myself" |
| | | Accessibility of vaccine sites | "The biggest thing was access; it was more convenient to wait for a pop-up clinic to come versus travelling to go and find the vaccine and wait in lines" |
| | | Information source | "They're forcing and they're pushing, and they're making people get more negative. That's my opinion" |
| | | | "Lots of people say bad things" |

***Source:*** Prepared by authors based on the study data.

the vaccine and viewed it as being necessary. Some said that the vaccine was required for specific jobs, public transport, or entering certain institutions. Others said that the vaccine would reduce the spread of the virus and slow down the pandemic.

Subcategory: employment status and income. Finding or keeping employment and earning an income were significant perceived benefits of the vaccine. Participants noted that vaccination was beneficial for meeting new job requirements.

Subcategory: vaccine efficacy. A few participants voiced their belief in the effectiveness of the vaccine and its ability to protect their health. One participant noted that vaccination could prevent severe illness, while another participant added that the vaccine was important because it contained the spread of the virus.

Subcategory: social responsibility. Participants felt that they had a social obligation to take the vaccine to protect not just themselves, but also the people around them. Two expressed concern for their elderly and pregnant family members.

### Theme 2: barriers

**Category: perceived susceptibility.** Subcategory: risk of infection. Several participants believed that they had a low likelihood of getting COVID-19. One participant felt that building their immunity was the only way to prevent SARS-CoV-2 infection.

**Category: perceived severity.** Subcategory: morbidity and mortality beliefs. Feelings about the seriousness of COVID-19 were expressed in terms of morbidity and mortality. Some participants were aware that substantial illness would occur if infected, yet did not see the need to be vaccinated. Other participants perceived their risk of severe COVID-19 was negligible and a reason to avoid vaccination. Some believed they were generally healthy and unlikely to get sick, while others referenced people they knew who had been infected and experienced mild symptoms.

**Category: perceived barriers.** Subcategory: use of natural remedies. Natural remedies, such as vitamin C supplements, boiled ginger, lemongrass, and honey, were widely seen as a vaccine substitute. One participant said they used these to "build [their] immune system".

Subcategory: underlying health conditions. Participants' health conditions emerged as barriers to vaccination. One participant thought that getting vaccinated was "impossible" because they were a hemophilia carrier. Another participant stressed that they needed to consult with their doctor and get a wellness check before getting vaccinated.

Subcategory: fear and concerns about the vaccine. Widespread fear and concern about the vaccine were apparent. Several participants mentioned that they felt they would die or experience adverse side-effects if they took the vaccine. The fear of stigmatization and fear of needles also emerged as barriers to vaccination.

Subcategory: vaccine efficacy. Major concerns about the vaccine's potential side-effects, safety, and overall effectiveness were expressed by many participants. Participants questioned the vaccine's efficacy because they did not know its components or believed it was developed too quickly. Others were concerned about the rate of symptomatic infection among vaccinated people. The fear of death and severe reactions were also mentioned.

Subcategory: mistrust. An apparent obstacle to vaccine uptake was a lack of trust in the information received from multiple sources – government, media, healthcare, and social circles. Participants said that they did not trust the government and felt it was withholding information. Participants also found that information from the media was overwhelming or confusing. The decision of some health professionals not to get vaccinated themselves also added to participant mistrust.

Subcategory: accessibility of vaccine sites. Another barrier to vaccine uptake was accessibility of the vaccine sites. Participants noted that the current locations were inconvenient or that there were no clinics in their area. Most had to wait for pop-up clinics to reach the outer districts.

Subcategory: information sources. Information from various sources was a barrier to vaccination. Some participants were hesitant to get vaccinated because of negative testimonials from relatives, friends, or people in their community. Several participants thought that not enough information on vaccination was being disseminated or was not being explained clearly enough. There was also the notion that the government was "forcing" and "pushing" people to get vaccinated.

## DISCUSSION

This study provides evidence of factors that both facilitated and inhibited the uptake of COVID-19 vaccines in Grenada, a small island developing state. The categories and subcategories we describe are all determinants of vaccine hesitancy and are aligned with the current view that vaccination acceptance is an outcome behavior rooted in a complex decision-making process influenced by wide-ranging factors (27).

### Facilitators

Several facilitators that influenced vaccine uptake emerged in our study. In the context of Grenada, the awareness of vaccine necessity was related to job security and having access to public transportation, restaurants, and other institutions. A belief in vaccine efficacy and its ability to protect their health, and a feeling of social obligation to protect vulnerable people encouraged vaccination. Capitalizing on these feelings of social responsibility can be a useful way to overcome vaccine hesitancy. Studies show that framing information to show how vaccines will reduce the risk to vulnerable populations (older adults and immune-compromised individuals) can be effective in increasing vaccine uptake (28). Focusing on pro-social emotions of the public may motivate individuals who previously declined vaccination (29). Furthermore, cues to action also enhanced vaccine acceptance. For example, physicians' advice played an important role in the decision to take the vaccine, as did the need for vaccination to travel outside of the country. These findings are supported by other studies that reported similar reasons for being vaccinated, such as the perceived safety of vaccines, national duty to eradicate COVID-19, freedom from imposed restrictions, and vaccine mandates for travel and employment (10, 12, 14).

### Barriers

A number of barriers contributed to Grenadians' hesitancy to access the available vaccines. For example, some participants perceived themselves as having a low likelihood of contracting COVID-19. This low perceived susceptibility is reported in other studies as a reason for vaccine hesitancy. When the perceived risk of infection is low, it results in complacency and the belief that vaccination is unnecessary (17). The perceived potential for illness as a result of vaccination also contributed to vaccine hesitancy, which concurs with other studies (30, 31).

Some participants preferred to use non-traditional medicine rather than get vaccinated. Johns Hopkins University analyzed active social media users in the Caribbean and found that 8.6% of participants preferred to use "local or natural remedies" to prevent and treat COVID-19 infection (32). Another study in Switzerland found that protective measures, such as physical distancing, proper hand hygiene, and wearing masks, were perceived as sufficient to avoid infection, or even more protective than vaccination (6).

Vaccine-related information is accessible from multiple sources. In line with studies showing poor perception of government and public health responses and distrust of their information (12, 15–17), some participants said that they lacked trust and confidence in the government, and believed that not all the necessary information was being released. This mistrust was particularly of the government news broadcasts that included public service announcements intended to encourage vaccination. Many Grenadians felt inadequately informed about vaccination and may have misunderstood the information available. Thus, a lack of information within the population and the spread of misinformation on COVID-19 and COVID-19 vaccines contribute to vaccine hesitancy (17). As such, it is imperative that health policy-makers include community stakeholders in the decision-making process. Participation from community leaders, religious leaders, and various health workers (nurses, physicians, and community health workers) can help engage and empower the community (33). Training these participants using trustworthy, non-technical information on vaccine efficacy and safety is crucial to address the population's concerns. Creating opportunities to engage the community to address their concerns in a COVID-safe manner is paramount.

Other information sources that our participants mentioned included social media, family, and friends. Groups dependent on information gathered from social media, local news, or family and friends such as senior citizens, young adults, and housewives had less accurate information about the COVID-19 vaccine (12). Participants of another study were found to have an increased likelihood of seeking information from institutional websites and a lower risk of vaccine hesitancy (15). However, even information disseminated by government officials encouraging vaccination was refuted, as it was considered too forceful, resulting in suspicion and less intention to get vaccinated (16, 19). Therefore, vaccine messaging should tackle misinformation, provide scientific evidence, and communicate facts about the vaccine, such as side-effects, mortality risk, and benefits, in a clear and transparent way to lessen hesitancy (14).

Fear was also a barrier to vaccine uptake, including fear of its negative effects and of needles, and concerns about stigmatization and vaccine efficacy. Many individuals expressed concerns about the vaccine's potential side-effects, safety, and overall effectiveness. Previous studies noted concerns about the safety and efficacy of the COVID-19 vaccine, specifically about the speed of its development and production, and the possible lack of insight into the long-term side-effects yet (8, 13). The USAID/CADRES/UNICEF report also alluded to efficacy concerns of Grenadians, with 16% expressing that they did not trust the vaccine, questioning its safety and development speed, and lack of knowledge of its composition (14). Our study also identified barriers related to accessibility of vaccine sites. Participants noted that the available locations were inconvenient, and they needed to wait for pop-up clinics to reach the rural parts of the country. They thought wider deployment of vaccine distribution sites was needed for improved accessibility and equity. At the time of this study, people relied on scarce public transportation to access vaccination sites, which made distances from and physical access to these sites a real problem. In a recent newsletter, the Pan American Health Organization's Director, Dr Carissa Etienne, observed that the lack of vaccination centers in remote areas remains a significant barrier to vaccine uptake in the Caribbean (34). Grenada has accessible medical clinics in every parish, so making vaccines available at these clinics would be a convenient way to overcome this problem.

## Limitations

This study was conducted at vaccination and pop-up testing sites and may not adequately represent all the issues the Grenadian population has regarding vaccine hesitancy. However, the study provides a framework from which to tackle vaccine hesitancy in Grenada. The study would also have benefited from exploring the perspectives of healthcare providers and representatives from the Ministry of Health, but this was not possible given the time constraints of these individuals during the pandemic. Finally, the data were collected during an active, earlier phase of the COVID-19 pandemic which may have influenced what facilitators and barriers were reported. Therefore, future studies are needed to explore how these factors may have changed over time.

## Recommendations

To address vaccine hesitancy, health policy-makers in Grenada should involve community stakeholders in decision-making and training initiatives. Collaboration between community leaders and government officials would allow for greater community empowerment, tailored campaigns that respond to the population's concerns, a stronger appeal to pro-social and social responsibility, and better utilization of community clinics to increase vaccine accessibility and uptake.

## Conclusion

This study identified factors that contributed to vaccine hesitancy in Grenada in late 2021 to early 2022. Two main themes emerged: facilitators and barriers. The facilitators were cues to action (physicians' advice and travel requirements) and perceived benefits (awareness of vaccine necessity, employment status, vaccine efficacy, and social responsibility). The barriers included perceived low susceptibility to and severity of COVID-19, health concerns, fear and concerns about the vaccine and vaccine efficacy, mistrust of information, accessibility of vaccine sites, and varying information sources. These key findings can inform future health policies, particularly related to vaccination programs. Overall, this study highlighted the need for stakeholders to not only deal with potential barriers, such as communication about vaccine necessity and efficacy and accessibility of vaccines, but to also capitalize on facilitators, such as perceptions of social responsibility.

**Author contributions.** AMH, PS, and DG designed the study. NAT supervised data collection. MC, MJ, and SA collected and

transcribed data. PS and TW analyzed and interpreted the data. RB, AW, MC, and MJ wrote the introduction and literature review. PS, TW, and AW wrote the methods and results sections. AMH, DG, and AW wrote the discussion, limitations, conclusions, and recommendations. AMH, PS, RB, and AW revised the final draft. All authors reviewed and approved the final version.

**Acknowledgements.** The authors thank the study participants and Sharmila Upadhya, Carol McIntosh, Jennifer Solomon, Frances McGill, Arlene Goodridge-Dudley, Neila Fletcher, Brooke Norton, Yousaf Bashir, Damian Besada, Inioluwa Dada, Sanamveer Dhillon, and Taki Yasir.

**Conflicts of interest.** None declared.

**Disclaimer.** The authors hold sole responsibility for the views expressed in the manuscript, which may not necessarily reflect the opinion or policy of the Revista Panamericana de Salud Pública / Pan American Journal of Public Health and/or those of the Pan American Health Organization.

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Manuscript received on 29 September 2022. Revised version accepted for publication on 24 October 2022.

## Factores que facilitan u obstaculizan la vacunación contra la COVID-19 en Granada: estudio cualitativo

**RESUMEN**

**Objetivos.** Determinar cuáles son los factores que contribuyen con la reticencia a la vacunación contra la enfermedad por el coronavirus del 2019 (COVID-19) en Granada.

**Métodos.** Se realizó un estudio fenomenológico utilizando entrevistas semiestructuradas realizadas en puestos transitorios de prueba y vacunación durante un aumento en el número de casos de COVID-19 en la isla. Se elaboraron las preguntas de la entrevista según el modelo de creencias de salud en relación con la amenaza percibida respecto de la COVID-19, los obstáculos y los beneficios percibidos respecto de la vacunación contra la COVID-19 y los incentivos para la acción. Los datos se analizaron mediante un enfoque deductivo con el fin de determinar los principales temas, categorías y subcategorías.

**Resultados.** Se transcribieron y codificaron veinticinco entrevistas. En total, el 68% de los participantes no estaban vacunados, el 12% estaban parcialmente vacunados y el 20% tenían el esquema completo de vacunación. El análisis de los datos reveló dos temas principales: los factores facilitadores y los obstáculos. Entre los factores con mayores probabilidades de incentivar la vacunación (factores facilitadores) se encuentran la confianza en el asesoramiento médico y la eficacia de la vacuna, la responsabilidad social y los mandatos de vacunación para viajes, empleo y actividades sociales. Entre los factores que obstaculizan la vacunación (obstáculos) se encuentran la percepción de que la COVID-19 no es una amenaza grave; la preferencia por los remedios naturales; las preocupaciones por las contraindicaciones debido a afecciones de salud subyacentes; el miedo; la desconfianza en las vacunas y los mensajes relacionados; la accesibilidad a las vacunas; y las muy diferentes fuentes de información.

**Conclusiones.** Es necesario superar la reticencia a la vacunación para combatir los efectos nocivos de la COVID-19 en Granada. Las políticas e intervenciones de salud pública que abordan los obstáculos y capitalizan los factores facilitadores pueden aumentar el uso efectivo de las vacunas.

**Palabras clave** COVID-19; vacunas contra la COVID-19; vacilación a la vacunación; investigación cualitativa; Grenada.

# Facilitadores e barreiras para a vacinação contra a covid-19 em Granada: um estudo qualitativo

**RESUMO**

**Objetivos.** Identificar os fatores que contribuem para a hesitação em relação à vacina contra a doença por coronavírus 2019 (covid-19) em Granada.

**Métodos.** Realizou-se um estudo fenomenológico com entrevistas semiestruturadas em clínicas de vacinação e testagem rápida durante um pico de casos de covid-19 na ilha. As perguntas da entrevista foram elaboradas com base no modelo de crenças em saúde relacionado à percepção de ameaça da covid-19, à percepção de benefícios e barreiras relativos à vacinação contra a covid-19, e aos estímulos para ação. Os dados foram analisados por um método dedutivo para identificar temas, categorias e subcategorias.

**Resultados.** Vinte e cinco entrevistas foram transcritas e codificadas. No total, 68% dos participantes não eram vacinados, 12% eram parcialmente vacinados e 20% eram totalmente vacinados. A análise dos dados evidenciou dois temas principais: facilitadores e barreiras. Os fatores mais propensos a incentivar a vacinação (facilitadores) foram confiança na orientação médica e na eficácia da vacina, responsabilidade social e exigência de vacinação em viagens, no emprego e em atividades sociais. Entre os fatores que impediam a vacinação (barreiras) estavam: percepção de baixa ameaça da covid-19; preferência por remédios naturais; preocupação com contraindicações em razão de problemas de saúde preexistentes; medo; desconfiança das vacinas e mensagens relacionadas; acessibilidade da vacina; e as muitas diferentes fontes de informação.

**Conclusões.** Superar a hesitação vacinal é imprescindível para combater as consequências negativas da covid-19 em Granada. As intervenções e políticas de saúde pública que afastam barreiras e promovem facilitadores podem aumentar a aceitação da vacina.

**Palavras-chave** COVID-19; vacinas contra COVID-19; hesitação vacinal; pesquisa qualitative; Granada.