

A Shot in the Arm: New Evidence from the World Bank High Frequency Surveys on COVID-19 Vaccine Acceptance and Uptake in the Caribbean

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Key takeaways

- 1 The Caribbean has the lowest COVID-19 vaccination rate in the LAC region
- 2 Low vaccine supply is no longer the primary reason for low vaccination rates
- 3 COVID-19 vaccine utilization rates in much of the Caribbean is lower than in many other parts of Latin America
- 4 Key barriers to COVID-19 vaccine acceptance and uptake are concerns over safety and a lack of trust in vaccine effectiveness
- 5 Rapid phone surveys can be an effective way to gather information on vaccine acceptance and uptake and monitor changes over time in a timely and cost-effective way under rapidly changing circumstances



This brief reports the findings from innovative high-frequency phone surveys (HFPS) on the drivers of COVID-19 vaccine acceptance and uptake in the Caribbean among the adult population.

Despite some countries are lifting mask mandates, many are still struggling to vaccinate their population against COVID-19. In Latin America and the Caribbean (LAC), a striking difference in vaccination progress can be observed between Caribbean states and other countries in the region, with Caribbean countries having a lower overall vaccination rate. Caribbean countries were also among the hardest hit economically by the pandemic: in 2020, the Caribbean region gross domestic product (GDP) contracted by 9.8 percent in comparison with a 7.4 percent decline in LAC.¹ Progress on COVID-19 vaccination uptake is important for economic recovery in a tourism-dependent region. Understanding the barriers to and drivers of vaccine acceptance and uptake in the Caribbean is paramount to identifying effective interventions to improve vaccination coverage. However, diminishing concern over COVID-19 is a challenge for ongoing efforts to encourage vaccination uptake. For instance, in the Dominican Republic, the percentage of people who were very concerned about COVID-19 decreased from 50 to 36 percent (January–April 2022), and in Haiti it fell from 41 to 35 percent (January–March 2022).²

The Caribbean region’s demographic and health profile puts the population at heightened risk for severe COVID-19 infections. Caribbean countries have the fastest aging population in the developing world (PAHO/WHO, 2019). The region also has one of the highest levels of global inequalities in health outcomes and is characterized by a rapidly increasing burden from non-communicable diseases (NCDs), such as cardiovascular diseases and diabetes, which put the population at higher risk of severe COVID-19 disease. In such context, increasing vaccine acceptance and uptake is even more critical.

The World Health Organization (WHO) COVID-19 immunization target will be difficult to achieve in the Caribbean, where eight countries (out of 20)³ are still below a 50 percent full vaccination rate. The WHO goal is to achieve 70 percent COVID-19 immunization coverage by June 2022.⁴ This vaccination target is guided by a values framework⁵ which states that vaccines should be distributed equitably,

1. IMF. 2021. <https://blogs.imf.org/2021/02/08/latin-america-and-caribbeans-winding-road-to-recovery/>. This figure excludes commodity-producing countries.

2. Babalola, S., et al. 2021. COVID Behaviors Dashboard. Johns Hopkins Center for Communication Programs, Facebook Data for Good, Carnegie Mellon University and University of Maryland. <https://covidbehaviors.org/>.

3. According to the World Bank categorization: <https://www.worldbank.org/en/country/caribbean/overview#1>.

4. COVAX Statement. 23 December 2021. World Health Organization. <https://www.who.int/news/item/23-12-2021-achieving-70-covid-19-immunization-coverage-by-mid-2022>.

5. WHO SAGE values framework for the allocation and prioritization of COVID-19 Vaccination. 13 September 2020. <https://www.who.int/publications/i/item/who-sage-values-framework-for-the-allocation-and-prioritization-of-covid-19-vaccination>.

including prioritizing high-risk groups (older adults, health workers, vulnerable groups of all ages). Only Aruba, Turks and Caicos, and the Cayman Islands are on track to meet this target—all countries classified as high-income.⁶ While limited vaccine supply initially was a primary reason for low vaccination rates, over the course of the pandemic the situation has changed considerably. Vaccine supply to the region is now less problematic, but vaccine acceptance and uptake⁷ remains a daunting challenge. The WHO target will remain out of reach if vaccine challenges to vaccine acceptance and uptake are not addressed.

This brief reports the findings from innovative high-frequency phone surveys (HFPS) on the drivers of COVID-19 vaccine acceptance and uptake in the Caribbean among the adult population.

The LAC HFPS were conducted by the World Bank and the United Nations Development Programme (UNDP) in 2021 to monitor the impacts of the COVID-19 pandemic on household welfare in LAC and inform policies to support their recovery. The HFPS collected information on the welfare impacts that households experienced during the pandemic along multiple dimensions, including changes in employment and income, coping mechanisms, access to health and education services, gender inequalities, food insecurity, and vaccine acceptance and uptake. HFPS data are designed to facilitate comparisons across countries with the use of a common methodology. Globally comparable indicators are made available through an interactive online dashboard.⁸ The data presented here are from June–August 2021 (wave 1) and November–December 2021 (wave 2) and the surveyed countries include Guyana, Dominica, Belize, Saint Lucia, Haiti, and Jamaica (for more information, please see [Annex 1](#)).

COVID-19 Vaccination in the Caribbean

The Caribbean has the lowest vaccination rates in the Americas. Vaccination coverage in the Caribbean (35.7 percent) is low compared to Latin America as a whole (77.2 percent).⁹ Within the Caribbean, vaccine coverage has a startlingly wide range. For example, the Cayman Islands has vaccinated 92 percent of their population. On the other extreme, Haiti has very low vaccine coverage (1.6 percent), or only 1.1 completed vaccine schedules per 100 people.¹⁰ Eight countries have less than 50 percent of the population fully vaccinated. In most Caribbean countries, the share of people that were only partially vaccinated ranged from 0.5 to 7.5 percent. Guyana (14 percent partially vaccinated) and the Dominican Republic (11 percent partially vaccinated) are exceptions, with higher overall partial vaccination rates (OWID, 6/27/22).

There is generally universal eligibility for vaccination in the Caribbean and none of the countries appear to have significant supply constraints. A cumulative total of approximately 67 million doses

6. Hannah Ritchie, Edouard Mathieu, Lucas Rodés-Guirao, Cameron Appel, Charlie Giattino, Esteban Ortiz-Ospina, Joe Hasell, Bobbie Macdonald, Diana Beltekian and Max Roser (2020) — Coronavirus Pandemic (COVID-19). Published online at OurWorldInData.org.

7. **Vaccine uptake** is the proportion of a population that has been vaccinated; vaccine acceptance is the belief, confidence and intention to receive a vaccine and is affected by factors such as confidence. Uptake does not guarantee acceptance, as people may receive a vaccination due to a mandate, for example.

8. COVID-19 HFPS Dashboard. <https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard>.

9. Regional vaccination rates were estimated using publicly available data from Our World in Data (OWID). Definition of Latin America and Caribbean regions are per World Bank standard definitions. Vaccination coverage calculations are inclusive of partial doses.

10. Pan-American Health Organization. May 2022. COVID-19 Dashboard (https://ais.paho.org/imm/IM_DosiosAdmin-Vacunacion.asp).

The main reasons for not planning to vaccinate or being unsure about it were (i) the relationship between benefits and risks of the vaccines and (ii) a lack of trust.

have been administered in the Caribbean, reaching 22 million completed schedules. The Pfizer BioNTech vaccine is the most commonly utilized vaccine in the Caribbean and is also available in the greatest number of countries in the subregion (25 countries). However, other vaccine types such as AstraZeneca (20 countries), Johnson and Johnson (Janssen) (15 countries) and Serum Institute of India (SII) (14 countries) are also available to a wide range of countries. Other vaccines include Beijing CNBG, Moderna, Sputnik and Soberana, a vaccine developed by Cuba.

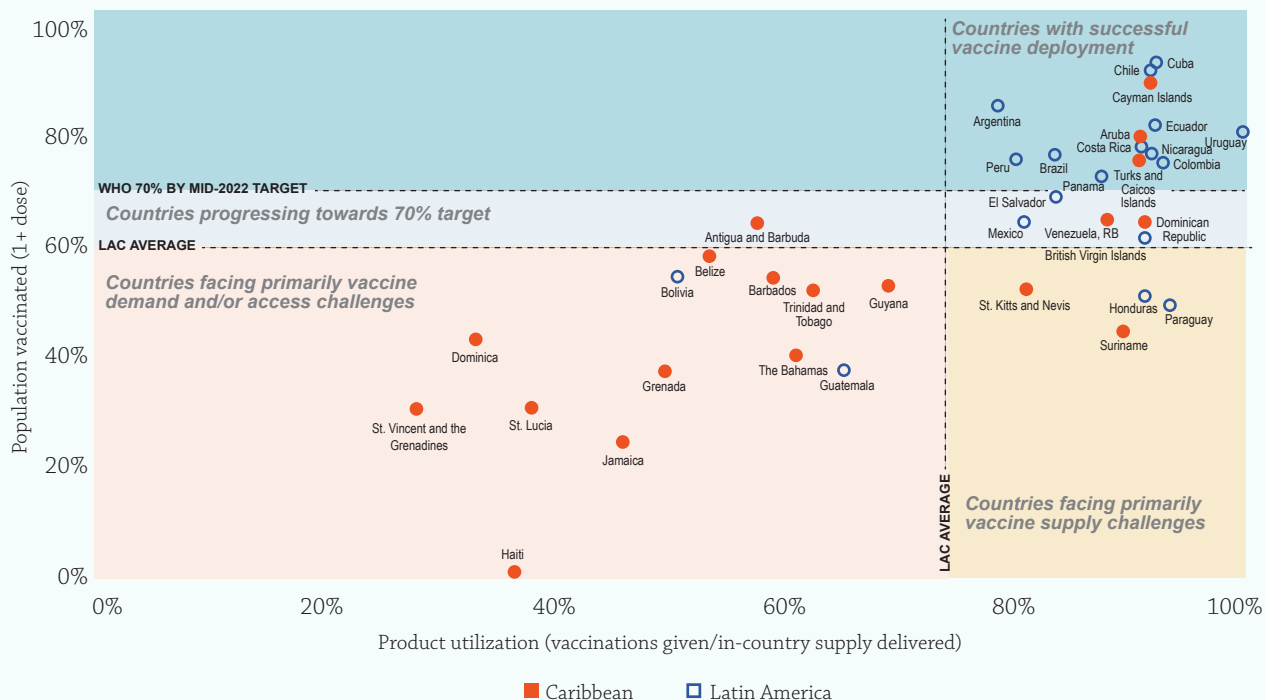
The vaccine supply to the region had a slow start but is now adequate. Initially, Caribbean states encountered challenges with accessing sufficient supply, with small island states struggling to obtain contracts with manufacturers as opposed to some larger countries in the LAC region that signed direct procurement contracts. Delays in vaccine delivery from the COVID-19 Vaccines Global Access Facility (COVAX) initially constituted a major supply challenge.¹¹ With the increasing number of donations from countries such as the United States and from COVAX, vaccine availability is no longer a major constraint. By early 2022, COVAX delivered 7.9 million doses in the Americas. The U.S. is currently delivering 5.5 million doses to CARICOM countries, 3 million of which have already arrived (Congressional Research Service, 2022). Countries like Argentina, Cuba, Chile, Brazil and Mexico are working towards regional vaccine production to overcome barriers to rapid access to vaccines in the future. Such investments could accelerate access to vaccines in the LAC region for future epidemics.

To date, however, despite vaccines being available, not enough people in the Caribbean are vaccinated.¹² To assess differences in vaccine uptake across countries, we consider both the supply side (i.e., whether vaccines are available in country) and the demand side (vaccine usage/acceptance of the population) (Thomson et al 2016). Most of the eastern Caribbean countries fall below the average for the LAC region both in terms of percentage of the population that is vaccinated and in terms of the proportion of vaccines administered relative to in-country vaccine availability (Figure 1). Two examples of below-average vaccination with low utilization of supply include Saint Lucia and Saint Vincent and the Grenadines. There may be several reasons for low vaccine utilization, including low vaccine acceptance rates and/or logistical and financial challenges to access vaccination sites. Overall, however, the data show that neither low vaccine supply nor access challenges are the primary reason for low vaccination rates in the region.

11. WHO COVID-19 Dashboard.

12. Exceptions include St. Kitts and Suriname that have high product utilization but moderate uptake.

Figure 1. COVID-19 Vaccines Utilization and COVID-19 Immunization Rates by Country in LAC



Source: WHO vaccination data and UNICEF COVID-19 Vaccine Market Dashboard deliveries data

The State of Vaccine Acceptance in the Caribbean

In 2019, vaccine hesitancy was recognized as one of the ten greatest threats to global health (WHO, 2019). The concept itself is subject to controversy, as it is often incorrectly used as a synonym for vaccine refusal, to label people as “anti-vaxxers” (Dubé 2021) or to invalidate the legitimate concerns people may have about vaccination. We define vaccine hesitancy below in Box 1. However, due to the controversial nature of the term, we use the alternate phrasing “challenges to vaccine acceptance and uptake”.

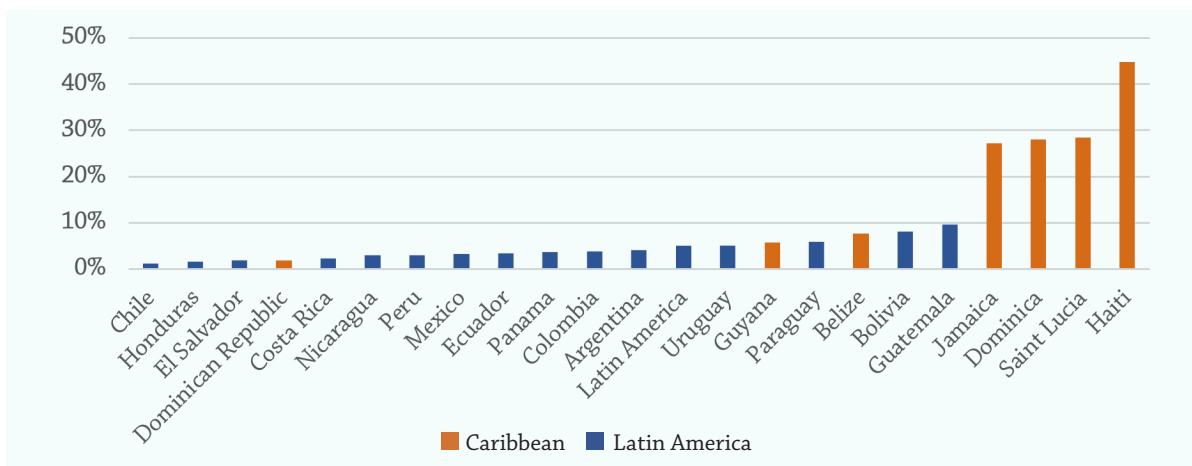
The HFPS results show that lack of vaccine acceptance is a significant barrier to vaccine uptake in the Caribbean as compared to the rest of Latin America. Among the unvaccinated, many Caribbean countries have a higher percentage of people who are unsure or who do not plan to be vaccinated as compared to other countries in LAC (Figure 2). Haiti, Saint Lucia, Dominica and Jamaica particularly stand out for low acceptance of COVID-19 vaccines.¹³

Box 1. What is Vaccine Hesitancy?¹⁴

“Persons who are vaccine hesitant can be said to lie on a continuum between complete acceptance and refusal and should be diagnosed for the specific determinants of their hesitancy.”

- Vaccine hesitancy is described as a lack of vaccine acceptance or uptake or a delay in acceptance or refusal of vaccines, even if vaccines are available
- The reasons for hesitancy vary by context and over time, as people have different motivations, fear and concerns related to vaccines
- Motivations are also influenced by factors like complacency (low perceived disease risk), convenience (ease of access to vaccines) and confidence (trust in vaccines and messengers)
- People may have multiple reasons to be unsure or not interested in being vaccinated

Figure 2. Share of Population Who Is Unsure or Does Not Plan to Be Vaccinated against COVID-19 (Among the Unvaccinated Population) (Wave 2)

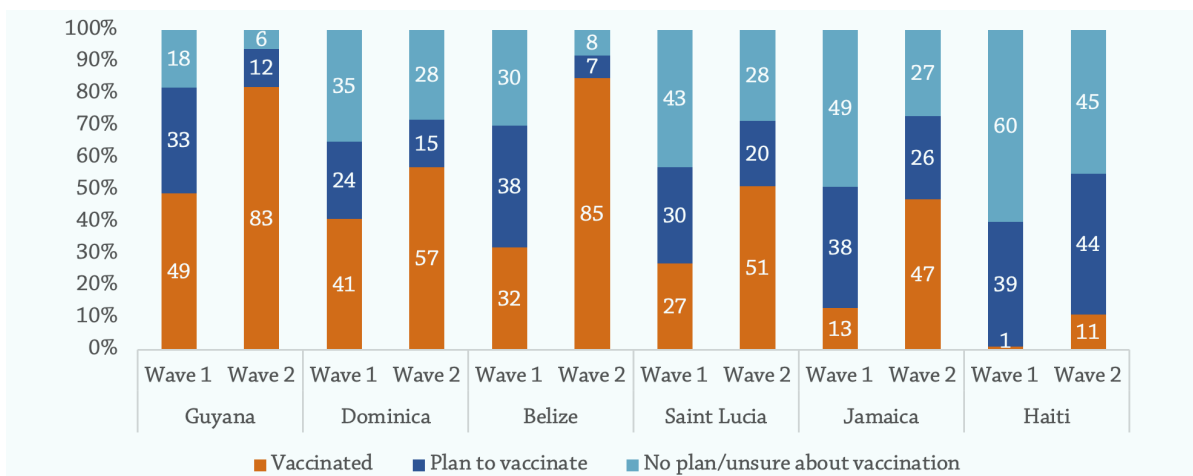


Source: HFPS/World Bank

Vaccination rates and vaccine acceptance significantly improved in 2021 among the adult population who responded to the survey. However, vaccine acceptance remains a challenge (Figure 3). For example, in Guyana, vaccination increased from 49 to 83 percent among the respondents to the HFPS, while in Belize it increased from 38 to 85 percent. Vaccination significantly increased across respondents of all age groups, with the largest increase among the elderly aged 65 and above (+ 24 percent). Positively, many unvaccinated respondents stated an intention or plan to eventually vaccinate. On the whole, by the end of 2021, countries with the highest proportions of adults unvaccinated or people with vaccination concerns (no plan or unsure about vaccination) were Haiti (45 percent), Saint Lucia (29 percent) and Dominica (28 percent).

14. World Health Organization. 2014. Report of the SAGE Working Group on Vaccine Hesitancy.

Figure 3. Changes in COVID-19 Vaccine Acceptance and Uptake among Adult Respondents (Waves 1–2), 2021



Source: HFPS. Note: the HFPS sample is limited to people 18 years old and older. As consequence, the vaccination rates reported here differ from the national vaccination rates using the total population as denominator (such as OWID).

Why Are People Concerned about Being Vaccinated?

We categorized vaccination concerns of respondents into five broad themes: (i) perceptions of risk vs. benefit, (ii) trust issues with the vaccine and/or government, (iii) general concerns related to vaccination, (iv) issues related to agency (personal or religious beliefs), and (v) issues with vaccine access (Figure 3). The ‘other’ category included responses that did not fit these categories. Concerns were gathered only from the unvaccinated.

Table 1. Categorization of Reported COVID-19 Vaccination Concerns

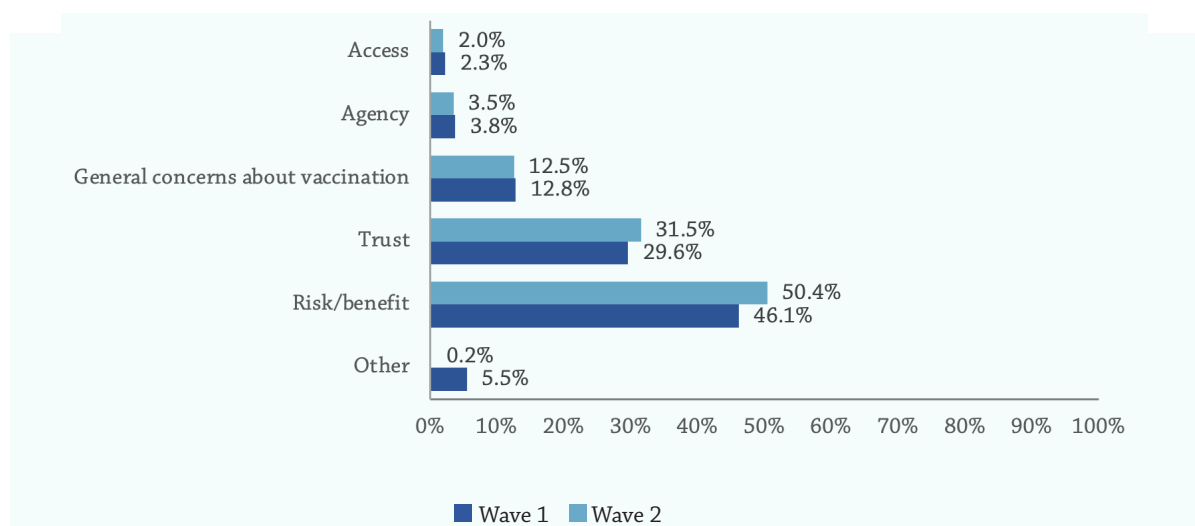
Perceptions of risk vs. benefit	Trust issues with the vaccine and/or government	General concerns about vaccination	Issues related to agency	Issues with vaccine access
Side effects	Authorities should take the vaccine first	Don't like vaccination in general	Personal reasons	Vaccine not available/barriers
Don't need vaccine	Lack trust in vaccine/Government	General fear	Not my decision	Priority/age groups
COVID is not a problem in my country	Misinformation/conspiracies	Fear of shots	Religious reasons	Want different vaccine type
I will get COVID anyway	Lack vaccine information	-	-	Don't have time
Already had COVID	Wait to see how it affects others	-	-	Health facility is too far
I am pregnant/breastfeeding	Vaccine doesn't cure illness/ vaccine not effective	-	-	-

The main reasons for not planning to vaccinate or being unsure about it were concerns about (i) the relationship between benefits and risks of the vaccines and (ii) a lack of trust (Figure 4).

Specifically, these concerns centered most prominently around side effects and a perceived lack of vaccine effectiveness. Concerns around risk and trust align with the primary categories of vaccine concerns identified in the literature: distrust in health authorities and healthcare providers, low perceived threat of disease, lack of vaccine effectiveness or safety, and alternatives to vaccines (Dubé 2021).

The main reasons for concern about the vaccination were consistent over time. The most common concerns centered around perceptions of risk versus benefits of taking the vaccines (46 percent of the unvaccinated in wave 1, 50 percent of the unvaccinated in wave 2), followed by issues related to trust (30 and 32 percent in wave 1 and wave 2, respectively), including concerns around vaccine effectiveness and a lack of information. Concerns about vaccination in general were also mentioned (13 percent in wave 1 and wave 2). Issues related to access and personal agency were the least commonly given responses. To gain more insight, we break down these categories into more detailed responses. Details for the less common responses including general concerns related to vaccination, access, and agency are reported in [Annex 4](#).

Figure 4. Main Reasons for Being Unsure or Unwilling to Take a COVID-19 Vaccine, by Theme¹⁵



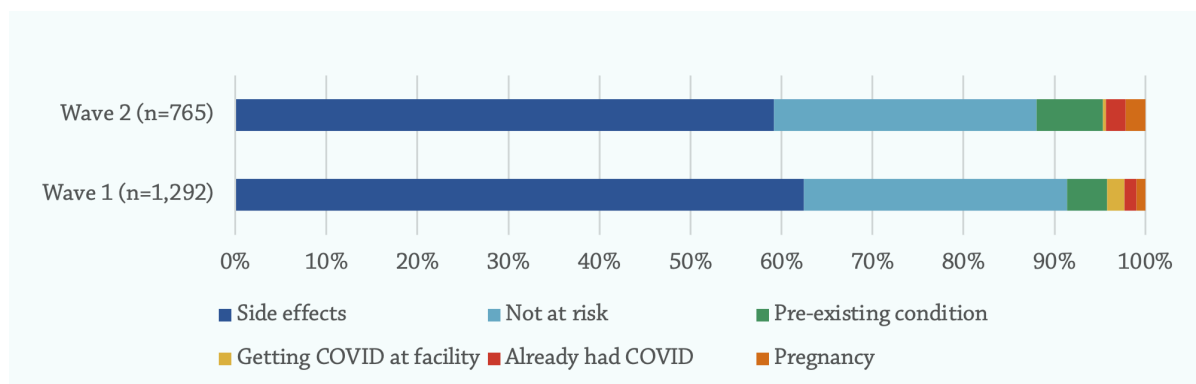
Source: [HFPS](#)

Side effects and a low perceived risk of COVID are the most common concerns (Figure 5). These concerns fall within the risk/benefit category. Side effects were the greatest concern in this category for both periods of 2021, with a slight drop over time (62 percent to 59 percent). This was followed by people’s beliefs that they were not at risk for COVID (29 percent for both periods). Vaccination decisions involve weighing the perceived risk of vaccination with the risk of disease. Perceived risk of vaccination may be based on beliefs, experience, or misinformation. Other reasons may include past and current inequities, including historical medical malfeasance. Distrust and suspicion of the biomedical industry and a lack of vaccine acceptance in the region has been documented prior to the arrival of COVID-19, with the HPV

15. Figures 3–5 and Annex 4 are averages of all unvaccinated respondents.

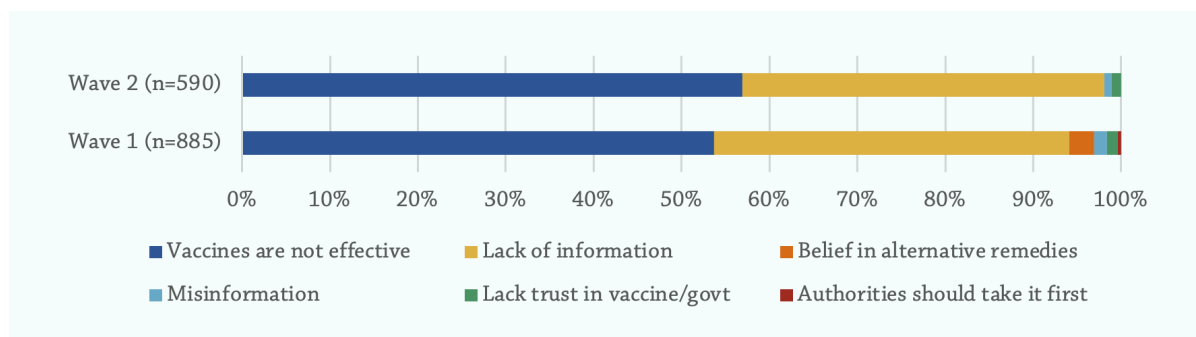
vaccine for adolescents (Charles 2021; Nogueira-Rodrigues 2019). However, the region has historically had high acceptance and uptake for childhood vaccinations.

Figure 5. Vaccination Concerns, Responses by Theme—Risks and Benefits (%)



Concerns about vaccine effectiveness and a lack of information were the prominent issues related to trust (Figure 6). Concerns about vaccine effectiveness were consistent across both waves (54 percent and 57 percent), as were complaints of not having enough information about the vaccines (40 percent and 41 percent). A very small percentage of remaining issues focused on alternative remedies to vaccines, misinformation, lack of trust in vaccines/government.

Figure 6. Vaccination Concerns, Responses by Theme—Trust (%)



The findings from the LAC HFPS confirm those of previous studies in the Caribbean, with issues of trust and perceived risk/benefits being key drivers of vaccine acceptance and uptake. Two separate six-country studies across the Caribbean found fear of side effects due to rapid vaccine development, with some respondents wanting more information to inform their vaccination decisions (CARPHA, 2021; UNICEF, 2021). A study in Jamaica revealed concerns with vaccine efficacy as well as a lack of trust in institutions (CAPRI, 2022). Another recent study found general vaccine information was widely available but noted critical information gaps regarding testing, treatment, and mental health support (IFRC, 2022). In that study, for example, 31 percent of Jamaicans did not know where to get vaccinated.¹⁶

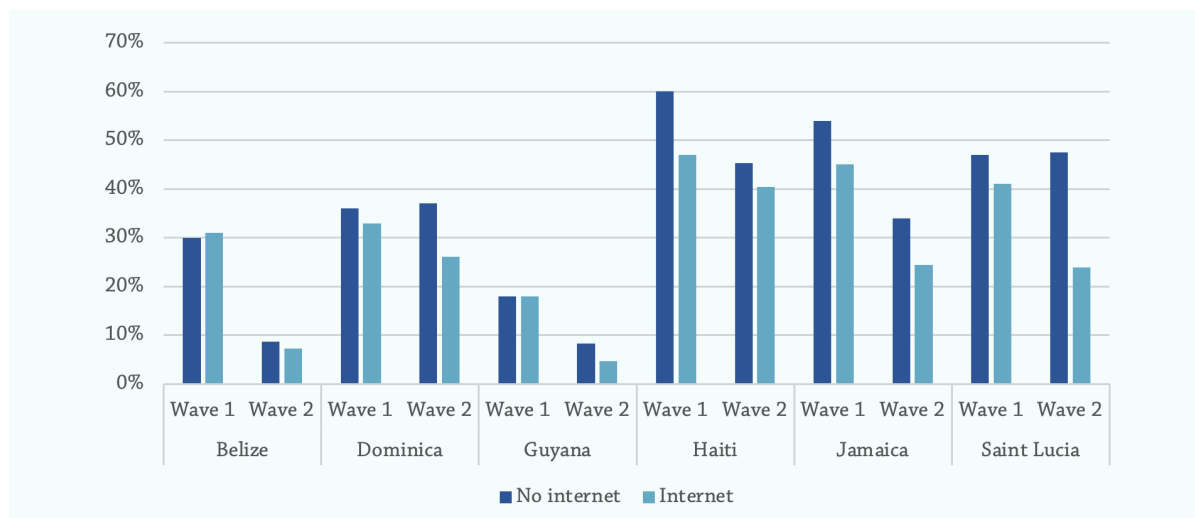
16. International Federation of Red Cross (IFRC). <https://go.ifrc.org/emergencies/4379#surveys>.

Who Is Unsure about Vaccination?

Vaccine acceptance improved among the unvaccinated across all age categories from wave 1 (mid-2021) to wave 2 (end of 2021). The largest improvement in acceptance occurred among older adults (55–64 age group), which was reflected in higher vaccination rates in this group. The knowledge of how to get vaccinated also increased with the most notable improvements in Jamaica and Belize (22 percent). By the end of 2021, Belize and Guyana had the largest percentage of people who knew how to access vaccines (88 percent and 84 percent), contrasting with Haiti at 15 percent ([Annex 2](#)). There also was an association between access to knowledge of how to get vaccinated and vaccine acceptance ([Annex 3](#)).

People living in a household without internet access were more likely to have concerns about COVID-19 vaccination (Figure 7). The difference between those with and without internet access slightly increased on average from mid-2021 to the end of the year (from 5 percent to 9 percent). At year’s end, Saint Lucia had the greatest difference in concerns by internet access (24 percent of those with internet expressing concerns versus 48 percent of those without). This might suggest that concerns about vaccination may be more common in households that are isolated from easy access to information.

Figure 7. People with Concerns about COVID-19 Vaccination Based on Access to Internet



We did not find notable differences in vaccine acceptance by other socio-economic characteristics.

There was some difference in vaccine acceptance by sex: initially women were more unsure about vaccination (mid-2021), but this difference mostly diminished by the end of the year. We also looked at vaccine acceptance by households that received in-kind or cash support before or during the pandemic. However, we did not see differences in vaccine acceptance between those households who received government support prior to or during the pandemic as compared to those who did not. We also examined vaccine acceptance by the education of the head of the household, pre-COVID employment income, formal employment, and household food security status, but did not see notable differences.

Conclusion and Summary of Results



Without progress on vaccination uptake, COVID-19 could continue to affect the health of the population—especially among the elderly and people with co-morbidities—and plague the economic recovery of the Caribbean. The pandemic continues to represent a significant health risk, especially among the population at risk of severe COVID. Most countries are reopening to tourism and international business, which will increase possibilities for virus transmission. For example, Guyana fully reopened in March 2022 and other Caribbean countries are following suit. This poses unknown outcomes for possible future variants and outbreaks. Low vaccination rates could represent a deterrent for travelers to visit the region, further slowing the recovery of the tourist sector, which would also have important economic implications. Moreover, suboptimal vaccination rates mean that high-risk and vulnerable population groups remain at risk of severe illness from COVID-19. There are serious health risks for the elderly, people with comorbidities, and other vulnerable groups. Per capita death rates from COVID in the Caribbean have been relatively high, even if the absolute number of deaths has been relatively low due to smaller populations.



This brief presents information on the levels and drivers of vaccine acceptance and uptake in the Caribbean based on new data from nationally-representative phone surveys. While Caribbean countries are falling behind on COVID-19 vaccination targets, there is great variation between countries, with unique opportunities and challenges for scaling up vaccination. Vaccine uptake for vulnerable priority populations is a continued concern. Haiti is a concerning outlier for vaccine acceptance and uptake.



Positively, vaccination rates and vaccine acceptance improved over time as did access to knowledge of how to get vaccinated. Access to information on how to be vaccinated was associated with vaccine acceptance. However, more research is needed to determine the nature and direction of this relationship. For example, it is unclear if people with knowledge about how to access COVID-19 vaccines have greater acceptance and uptake of COVID-19 vaccines, or vice versa.



There were various reasons for concern about vaccines, but safety and vaccine effectiveness issues have remained predominant over time. These findings are consistent with studies in the Caribbean and point to recurrent concerns that must urgently be addressed by the global community.



Access to information from the internet seems to play a role in increasing COVID-19 vaccine acceptance and uptake. This may point to the need to deploy targeted digital interventions in communities without access to internet or broader information sources, such as those living in rural, isolated and/or impoverished areas.



On the positive side, the data suggests that no particular socio-economic group is left behind by efforts to address concerns related to COVID-19 vaccines. COVID-19 vaccine acceptance and uptake does not vary systematically with other common socio-economic characteristics such as job status, income level, food security, education level or sex.



Moreover, country vaccine delivery efforts appear to be effective in ensuring vaccines are available to the majority of the population. COVID-19 vaccine acceptance and uptake does not vary systematically with other common socio-economic characteristics such as job status, income level, food security, education level or sex.



The HFPS data have important benefits as well as limitations. The HFPS generate data in a rapid and cost-effective way which is essential for monitoring vaccine acceptance under a rapidly changing environment. Another benefit of the HFPS is that responses are disaggregated by sex. This is essential as many COVID-19 analyses have not featured disaggregated analyses. The lack of disaggregated analyses is problematic as the pandemic has had gendered impacts due to women's prominent roles in health and care work (PAHO, 2021). The production and use of gender-disaggregated data is the first step toward addressing gender gaps. The three main data limitations of the HFPS include: (i) the survey was administered only to people 18 years or older who have access to phones, (ii) the survey design did not allow for in-depth qualitative discussions, and (iii) multiple responses to questions around vaccination concerns were not permitted. As consequence, we lack greater detail on individual motivations are only able to report the main reason for concern.

COVID-19 vaccine acceptance and uptake does not vary systematically with other common socio-economic characteristics such as job status, income level, food security, education level or sex, suggesting that no particular socio-economic group is left behind by efforts to address concerns related to COVID-19 vaccines.

What Is the Way Forward?

Safety concerns around vaccination are urgent to address to improve the uptake of COVID vaccines. The perceived relationship between benefits and risks from the COVID-19 vaccines is a key driver in people's decision-making. Fear of side effects, concerns about vaccine effectiveness, and a low perceived risk of illness due to COVID were all key responses given for not being willing to get vaccinated.

There is an urgent need to combat the 'infodemic' by providing accurate information on legitimate concerns about vaccination, such as on side effects and the risks of disease. This will help address the concerns of unvaccinated people and will also help counter popular false narratives in the region (Maharaj et al., 2021). Provision of accurate information must be provided through various communication mediums to reach populations, including those without internet, and should include in-person communications from health workers or other trusted sources of information.

In broader context, concerns around vaccine safety could potentially extend to other types of vaccination. The region has seen declines in routine childhood immunization coverage since the pandemic began. Looking forward to future challenges, preventing a decline in basic immunizations is critical to avoid undoing years of public health progress achieved in the LAC region.

Caribbean governments have taken up the challenge. Ministries of Health and their dedicated communication teams developed and implemented a multitude of targeted communication and outreach efforts to increase COVID vaccine acceptance and uptake. However, these efforts are often constrained by the human and financial constraints of overburdened health systems, lack of in-depth socio-behavioral data and insufficient evidence on the impact of different interventions.

We need to know more about socio-behavioral motivations and constraints to vaccination. The World Bank's eMBED¹⁷ team is currently preparing social media surveys to address these gaps in knowledge in several countries in the Caribbean. This will aid in the appropriate targeting and crafting of effective messages as well as the identification of trusted messengers to deliver them.

There is a continued need for in-depth qualitative research to explain why people are unsure or unwilling to be vaccinated and who these sub-populations are. This information is key to the development of effective interventions to address peoples' concerns about COVID-19 vaccines and to ultimately increasing vaccine acceptance and uptake in the Caribbean.

In-depth socio-behavioral work can help explore the relationship between access to accurate information and vaccine acceptance. Learning more about the populations and sub-populations that are unsure about vaccination and their motivations can help determine intervention delivery mechanisms (i.e., how to reach those without internet access via other means) and to better understand the segmentation of small island populations to effectively target specific groups. It is important to see if vaccine acceptance changes as vaccine acceptance and uptake interventions such as communication campaigns are deployed in the region. Additionally, evaluating those interventions will aid in understanding which campaigns work best in the diverse contexts of the Caribbean. This moment is critical particularly to engage unvaccinated individuals who are still unsure or undecided about vaccination.

17. Mind, Behavior and Development Unit. The World Bank. <https://www.worldbank.org/en/programs/embed#1>.

Building the evidence on ‘what works’ is another critical step to inform efforts to address vaccination concerns. There is a paucity of evidence on what interventions have proven effective in convincing those who are unsure or unwilling to actually get shots. The inclusion of nimble evaluations into country efforts can help better target limited resources to efforts that bring the highest benefits to the vaccination agenda.

Demand promotion strategies have shown to be effective when they target identified barriers to vaccine acceptance and uptake—drawing on local data on behavioral and social drivers and from local understanding of the context, concerns and needs of communities. It will be extremely important to mitigate the impacts of dis/misinformation on vaccine decisions and increase trust in health systems, especially with the negative impact of the COVID-19 pandemic on vaccination coverage of routine childhood immunizations.¹⁸

18. Evans, WD and French, J. 2021. Demand Creation for COVID-19 Vaccination: Overcoming Vaccine Hesitancy through Social Marketing. *Vaccines*: 9, 319.

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Annex

Annex 1. LAC High-Frequency Phone Surveys (HFPS) 2021

The World Bank and UNDP conducted multi-wave High-Frequency Phone Surveys (HFPS) in 2021 to assess the impact of the coronavirus pandemic on the welfare of Latin American and Caribbean households. The HFPS provides information on the welfare impacts that households experienced during the pandemic along multiple dimensions, including changes in employment and income, coping mechanisms, access to health and education services, gender inequalities, and food insecurity. The first wave was collected between May and July 2021, and included 24 countries: Antigua & Barbuda, Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia and Uruguay. The data for Brazil was collected between July 26 and October 1. Data for the second wave was collected between October and December 2021 and included all countries except for Antigua & Barbuda and Brazil. Survey estimates for each country are representative at the national level for households with a landline and households in which at least one member has a cellphone. Similarly, the survey is representative of individuals of ages 18 and above who have an active cellphone number or a landline at home.

Eligible respondents for the HFPS were adults of ages 18 and above. Only one respondent per household was interviewed. Respondents answered both individual and household-level modules, including a module on education of children in school age living in the household. In the countries of focus of this note, the HFPS followed a panel format over the two waves of data collection. The same respondent who had been interviewed in wave 1 was contacted and interviewed in the second wave. About 800 interviews were completed per country in the first wave, except for Haiti, where 2,814 interviews were collected to allow for deeper disaggregation of results. In wave 2, sample sizes were similar, but only partially composed of panel respondents, due to attrition.

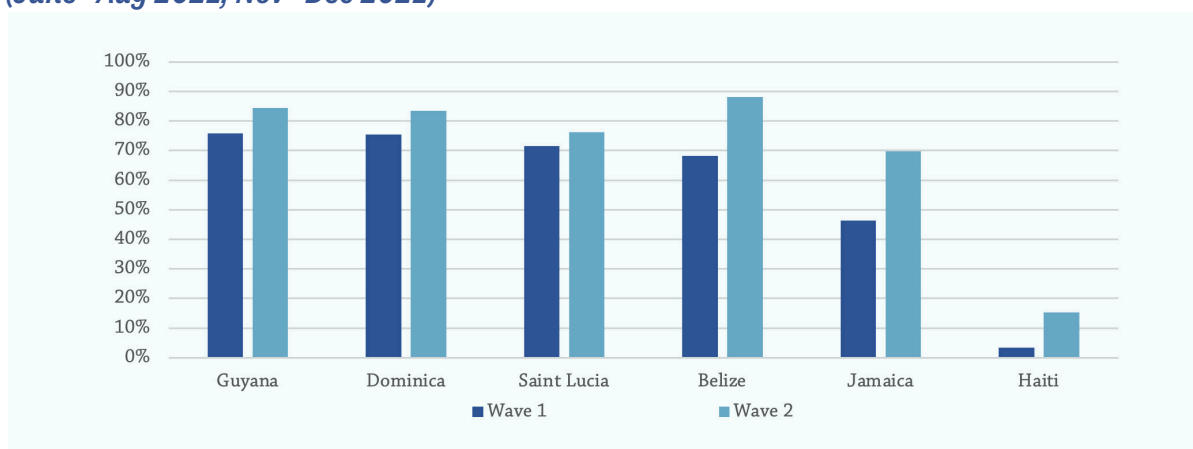
The HFPS followed a Random Digit Dialing (RDD) sampling methodology using a dual sampling frame of cellphone and landline numbers that consisted of all possible phone numbers in each country under the national phone numbering plan. Numbers were screened through an automated process to identify active numbers and cross-checked with business registries to identify business numbers not eligible for the survey. This method ensures coverage of all landline and cellphone numbers active at the time of the survey. In the first wave, for each country, a random sample of numbers was drawn with an allocation ranging from 0 percent landlines and 100 percent cellphones to 20 percent landlines and 80 percent cellphones. Sizes of the samples drawn from the frames were determined based on the assumption of a 10 percent response rate for both landline and mobile phones, and a target of 800 completed interviews in each country, except for Haiti, where the target was 3,000 completed interviews.). The samples for wave 2 included two components: (i) a panel formed by respondents of wave 1, and (ii) a supplement sample of fresh phone numbers to compensate for attrition between wave 1 and wave 2. Attrition ranged from 45 percent in Guyana to 55 percent in Jamaica. Sampling weights were computed for households and individuals and included adjustments for non-response, calibration of individual and household weights, using external demographic data from official sources (adjusted by the national phone coverage), and adjustments for attrition in the second wave.

Country	Attrition
Belize	47%
Dominica	48%
Guyana	45%
Haiti	47%
Jamaica	55%
Saint Lucia	50%

More information on the HFPS, is made available here: <https://www.worldbank.org/en/region/lac/brief/monitoring-covid19-impacts-latin-american-caribbean-households-surveys#1>. Key indicators from the HFPS are made available at the [COVID-19 monitoring global dashboard](#).

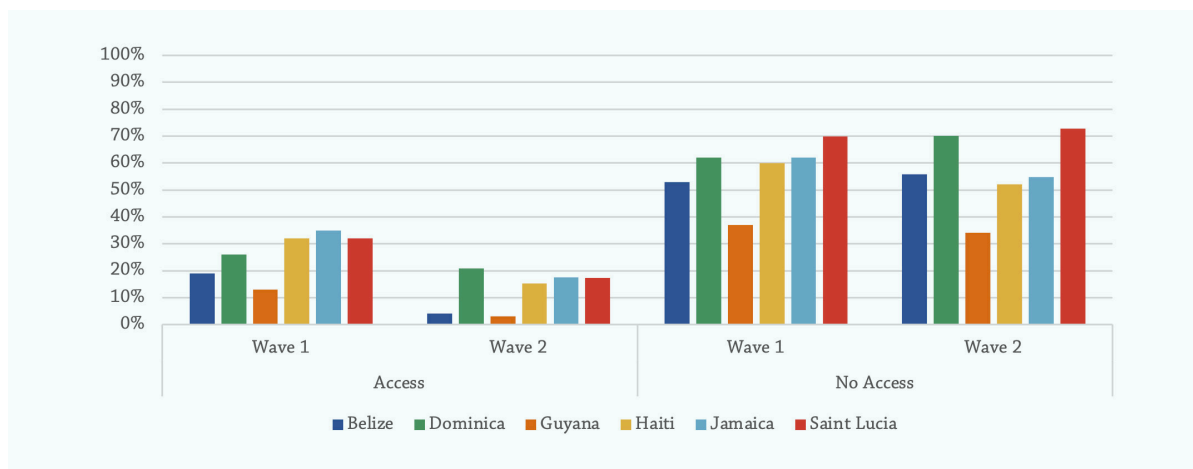
Wave 1		Wave 2
JUNE	JULY – AUG	NOV / DEC
ATG – BLZ – DMA – GUY – JMA – LCA	HTI	BLZ – DMA – GUY – HTI – JMA – LCA

Annex 2. Households with Knowledge of How to Access or Register for COVID-19 Vaccination (June–Aug 2021, Nov–Dec 2021)



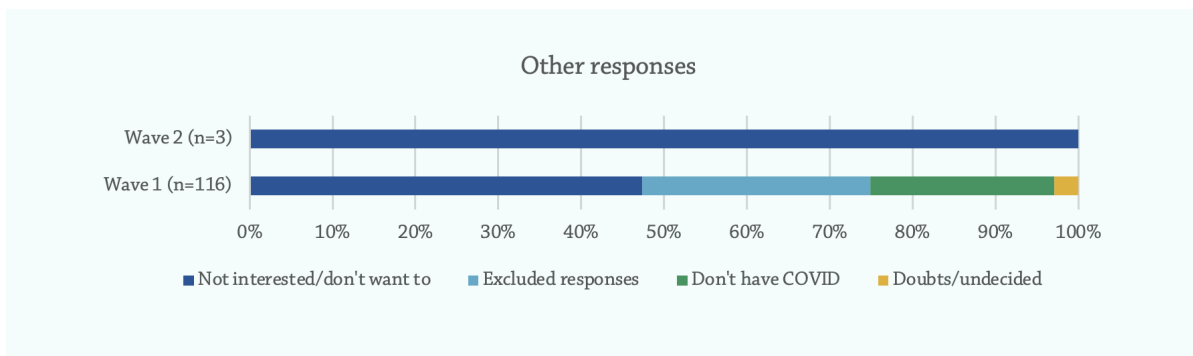
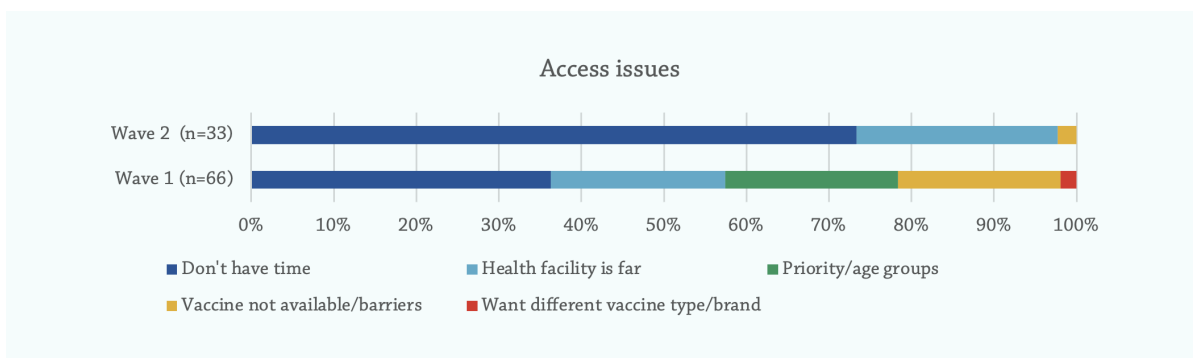
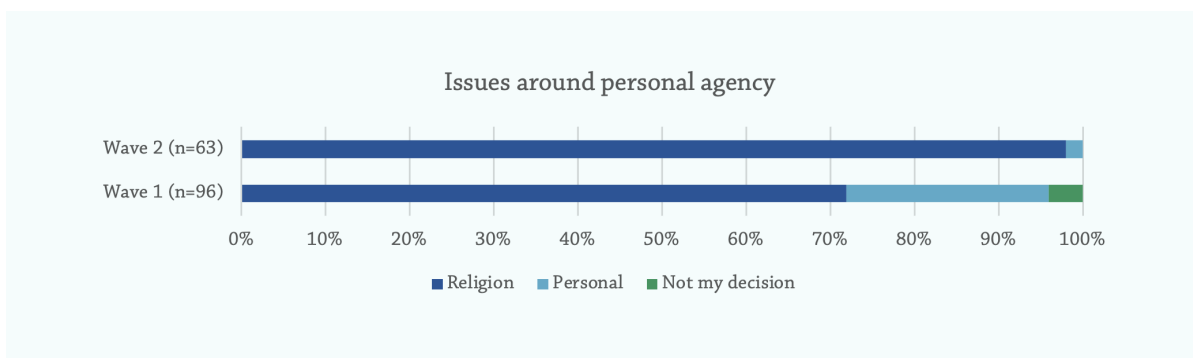
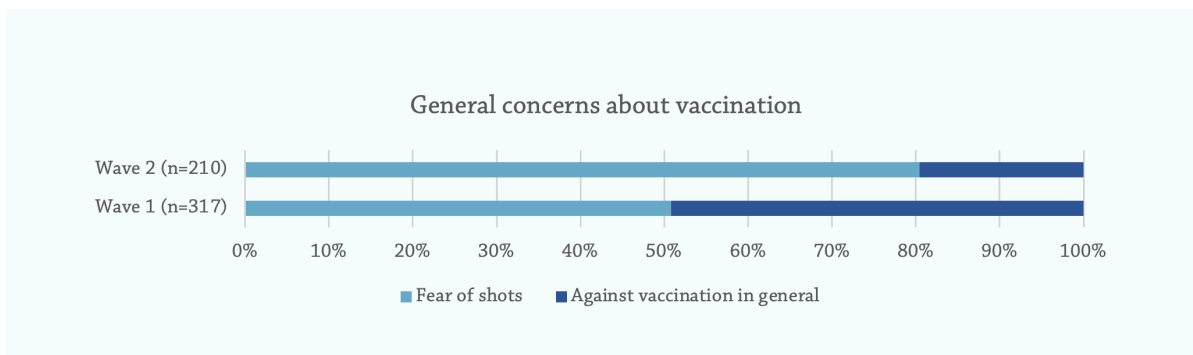
Source: [HFPS](#)

Annex 3. Vaccine Concerns (Unsure/No Plan to Vaccinate) Of the Unvaccinated, by Whether They Have Access to Information about How to Get Vaccinated, 2021



Source: [HFPS](#)

Annex 4. Other Vaccination Concerns by Theme (Waves 1–2), 2021



Source: [HFPS](#)

[worldbank.org](https://www.worldbank.org)

