

Combating COVID-19 Vaccine Hesitancy: Behaviorally Informed Campaigns in the Caribbean

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Abstract

This note provides insights into understanding and combating vaccine hesitancy in the Caribbean. We draw on both qualitative and quantitative evidence stemming from IDB analytical and operational work. First, a household survey implemented in Belize in 2021 finds that lack of trust in vaccines and fear of side effects are among the main reasons given by the people that had not yet received the COVID-19 vaccine. Second, we evaluate the correlation between five behaviorally informed campaigns and vaccine uptake and digital engagement (clicks, emojis) and the effect of randomizing the framing of messages within one of such campaigns. We find that messages about COVID-19 vaccine safety and positive framing of side effects were associated with better outcomes. Finally, we describe how these insights are used in vaccination campaigns in Barbados.

JEL classifications: D90, I12, I15

Keywords: COVID-19 Vaccine Hesitancy, Caribbean, Behavioral Economics

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Behavioral Insights:

- A national household survey on COVID-19 vaccination implemented in Belize by the end of 2021 pointed to fear of side effects and lack of trust in vaccines as some of the main reasons given by the people that had not received the COVID-19 vaccine.
- As a follow up to this survey, a series of behaviorally informed Facebook communication campaigns were implemented by the Ministry of Health and Wellness from Belize with support from IDB. The study showed that messages related to COVID-19 vaccine safety were associated with a higher uptake of a first, second or booster doses; and a randomized campaign showed that a positive framing (communicating no discomfort) seems to work better than a negative framing (communicating discomfort).
- Finally, the insights from both studies led to the deployment of digital and in-person behaviorally- informed campaigns to combat COVID-19 vaccine hesitancy in Belize and Barbados.

Context:

Increasing vaccination uptake and understanding the drivers underlying this behavior are vital to curbing the COVID-19 pandemic. In the Americas, ten out of the thirteen countries that haven't yet reached the WHO's vaccination target are in the Caribbean. Belize and Barbados are among the countries facing such challenges. Taking the example of Belize, by February 2022, the government had COVID-19 vaccines available for 110% of the eligible population, but only 60% had received at least one dose. The literature suggests vaccine hesitancy could be caused by accessibility to resources, information, and socio-cultural rejection issues. To understand this phenomenon in Belize, the IDB deployed a national household survey and a series of behavioral science-based Facebook campaigns. The results from both studies were later used to design a COVID-19 vaccination campaign in Barbados. The findings from these studies can guide policymakers and health authorities in designing and implementing future vaccination campaigns.

The project:

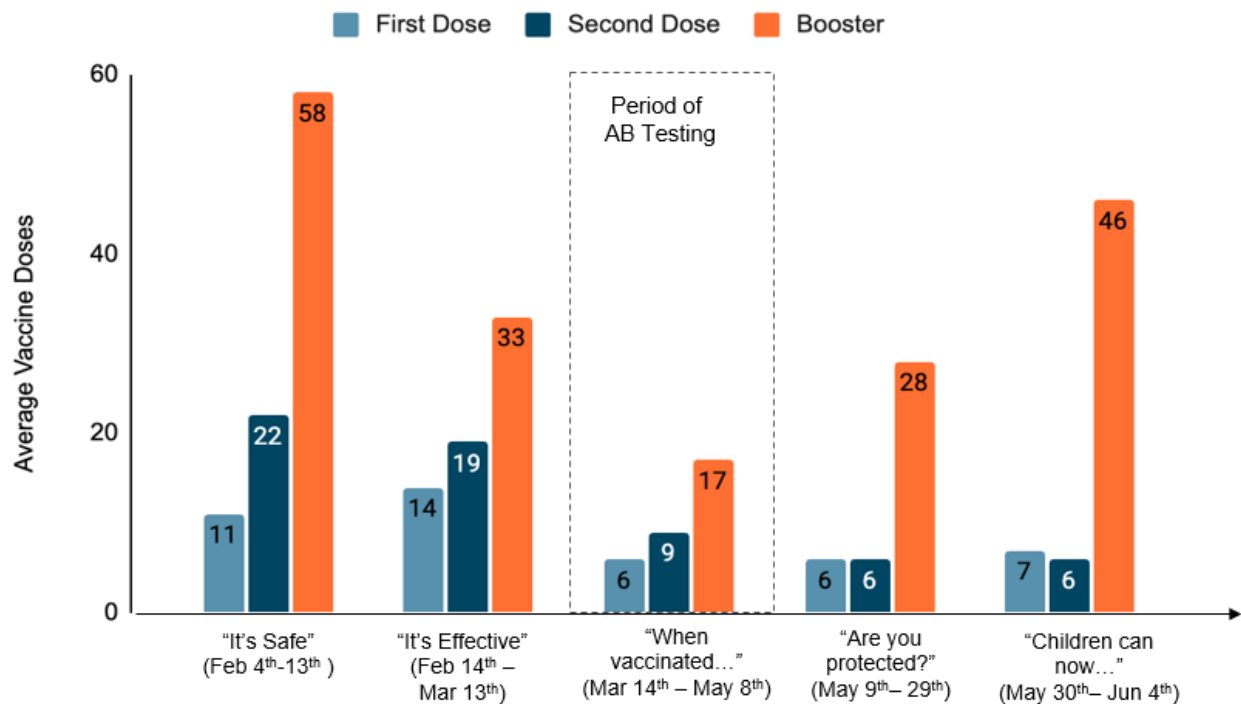
To gain insight into the drivers behind vaccine intention, uptake, and hesitancy in Belize, the IDB implemented a national household survey representative of the population 15 years and older based on the Integrative Model of Behavioral Prediction, which reached over 1,250 members of the population. The survey included questions related to vaccination intention, demographic factors, beliefs, attitudes, and perceived norms. From this sample, 20.7% of the participants declared that they had not been vaccinated, and from this group, 65.4% showed some degree of hesitancy. In another study in this country, the IDB also partnered with the Belizean Ministry of Health and Wellness to launch a series of five behaviorally informed Facebook campaigns to boost vaccine uptake.

These campaigns were directed at the entire population of Belizean Facebook users (260,000, which is more than half the total Belizean population). The objective was to test the effectiveness

of sequentially displayed messages related to vaccine safety ("It's Safe. Hundreds of thousands of Belizeans have taken the vaccine and are protected. What are you waiting for?"), effectiveness ("It's effective. Once vaccinated, you are less likely to catch COVID, less likely to be hospitalized, less likely to die. What are you waiting for?"), side effects ("When vaccinated..."), self-protection ("Are you protected? Vaccination helps protect you and your family."), and child vaccination ("Children can now get a Covid-19 vaccine."). To decrease the misperception of vaccine accessibility, all the messages included the sentence: "Click here to find your nearest vaccination site" at the end.

The average vaccine doses applied in the period within each campaign are shown in the figure below. The "It's safe" campaign is associated with 11, 22, and 58 additional first, second, and booster shots. This is a relevant finding, given that the campaign was run only for nine days (Feb 4th to Feb 13th, 2022) and the cost was almost zero. The figure also shows the much higher impact on booster shots, a meaningful result as the campaigns were run in early 2022 when boosters were only starting to be rolled out.

Figure 1: Average Daily Vaccine Doses Achieved by type of FB campaign



As a second step, an AB test experiment targeted at the same universe of Belizean Facebook users was embedded in the side-effects campaign. The Facebook AB Testing tool is a randomized experiment where two or more versions of a campaign are shown to random and mutually exclusive groups to determine which version performs best. In this context, we used it to test different ways of presenting information about COVID-19 side effects and people's understanding of probability considering biases such as overconfidence and availability bias.

In it, users were randomized into one of three messages (an example of which can be seen in Figure 1):

1. “When vaccinated...only 3 out of 100 reported discomfort”;
2. “When vaccinated...few people have discomfort”;
3. “When vaccinated...majority didn’t have discomfort”.

Figure 1: Facebook Campaign with AB embedded AB test



Source: Idealab Studios Digital Marketing

The results from this AB test showed a positive frame (majority of people did not report discomfort) which implies presenting the information with a positive connotation, rather than the use of probability probabilities (only 3 out of a 100 reported discomfort) was more effective at driving engagement with the campaign and encouraging people to get more information.

The results from these studies in Belize were later leveraged in Barbados to design a social media campaign called “Easy Vaxx” and an informational platform to promote COVID-19 vaccination. Both the campaign and the platform included persuasive messaging that addressed the hesitancy factors identified in the population in this country.

Key Concepts:

Descriptive Social Norms: These norms describe how a social group behaves, without regard for whether the behavior is good or bad. Presenting norms can help change behavior.

Integrative Model of Behavioral Prediction: The IMBP states that factors such as attitudes, perceived norms, and perceived behavioral control has an effect on a person’s intention to behave in a certain way.

Framing effects: the way that information is presented influences behavior.

Loss aversion: It is the cognitive bias that leads individuals to experience losses more intensely than equivalent gains.

Hassle Factors: Seemingly small inconveniences, such as having to read a lot of information or take an extra small step to complete an action, can hinder or disrupt decision-making processes.

Overconfidence: It is the tendency to overestimate or exaggerate our own capacity to perform a certain task.

Availability heuristic: Individuals tend to estimate the probability of a future event based on how readily representative examples of such an event come to mind.

Vaccine hesitancy: refers to refusing or postponing vaccination despite having access to vaccine and services.

Results:

- The survey implemented in Belize showed that among the 65.4% of the unvaccinated who expressed vaccine hesitancy, the fear of side effects, low trust on the vaccines, and doubts on vaccine efficacy were among the top reasons for not getting one.
- This same study also showed that some of the reasons that could motivate the unvaccinated to get the vaccine would be protecting their own health and those of others as well as being able to resume social activities and work.
- The Facebook campaigns showed that increasing public trust in the COVID-19 vaccine by highlighting its safety was the best predictor for getting the second and booster dose of the vaccine. The campaign announcing that children were now eligible for vaccines drove the most engagement, perhaps due to perceptions of safety and novelty of the news.
- The AB test embed in one of the campaigns showed that a positive framing could incentivize people to access more information about vaccines.

Policy implications

- Protecting one's own health and that of others remains the most important reason for vaccinating against COVID-19.
- Addressing the population's most pressing concerns regarding the vaccine could potentially encourage them to get vaccinated.
- Understanding citizens' concerns regarding a health issue can help develop more effective campaigns to encourage a particular behavior around this issue.
- Presenting a message in a positive way could be more effective than using its negative counterpart, especially regarding health issues.

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