

# Increasing Willingness to Vaccinate in Sub-Saharan Africa

Insights Report  
March 2022



*Johnson & Johnson*

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# 01 Background



Through a dedicated  
**Global Public Health  
(GPH)**

organization, we are a team of innovators who put the world's most vulnerable at the heart of everything we do—measuring our success in lives improved.

**170+**  
person team across  
**26**  
countries

**End-to-end**  
organization

- Research & Development
- Strategy & External Affairs
- Field-based teams

**100+**  
partners to  
deliver impact

**250 million+**  
lives impacted  
in 2021

**Executive-  
level  
leadership**

**Leverage full  
capabilities  
and resources**  
of Johnson & Johnson



# Our Mission

Make relevant innovations that  
save lives, cure patients and prevent disease  
**available – affordable – accessible**  
for the world's most vulnerable & underserved populations.

# Vaccine Uptake: Strengthening Vaccine Confidence

Vaccines do not guarantee vaccinations: As COVID-19 vaccines become more widely available, we must strengthen vaccine confidence to improve vaccine uptake.



J&J GPH is conducting **unbranded research** to improve understanding of vaccine confidence across Sub Saharan Africa and how it is changing over time. This research does not include any information about the J&J vaccine, nor any other vaccines from other manufacturers.



Vaccine Confidence Research is in service of **Vaccine Confidence Campaigns and Risk Communication Plans**. Donors and NGOs can use this research to increase the effectiveness of their Campaigns.

## ILLUSTRATIVE EXAMPLES OF RESEARCH:

### WHY

people aren't getting vaccinated



Insights Report, based on WHO/SAGE 3Cs model

### WHICH

Population segments are most resistant



Attitudinal/Behavioral Segmentation

### WHERE

to focus geographically within country



Geospatial Mapping of the 3Cs

### WHAT

to say to change attitudes and behavior

“ Getting the vaccine is like getting a sturdy umbrella and overcoat during a rainstorm. It makes sure that you avoid the worst of it. The idea is to keep you safe and dry from the rain ”

Message Testing

### WHO

should the communication come from



Influencer Plan

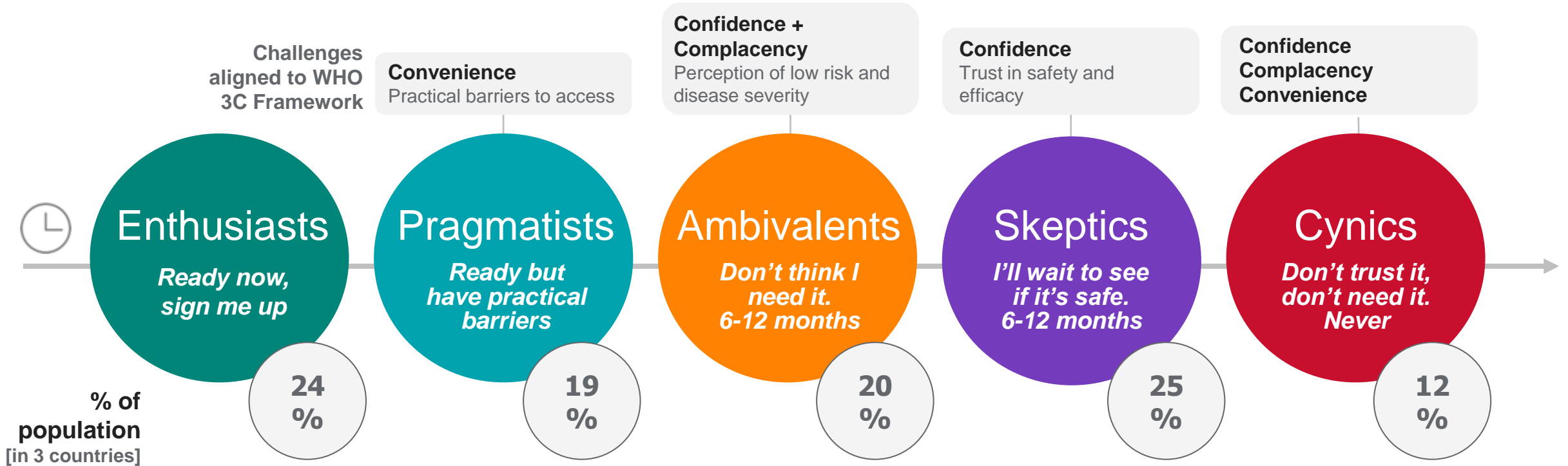
IEALTH

02

Can we increase  
willingness to vaccinate?



# Only 1 in 4 people are likely to get vaccinated as soon as possible. The rest intend to wait up to a year or never.



Segment #

1

4

5

2

3



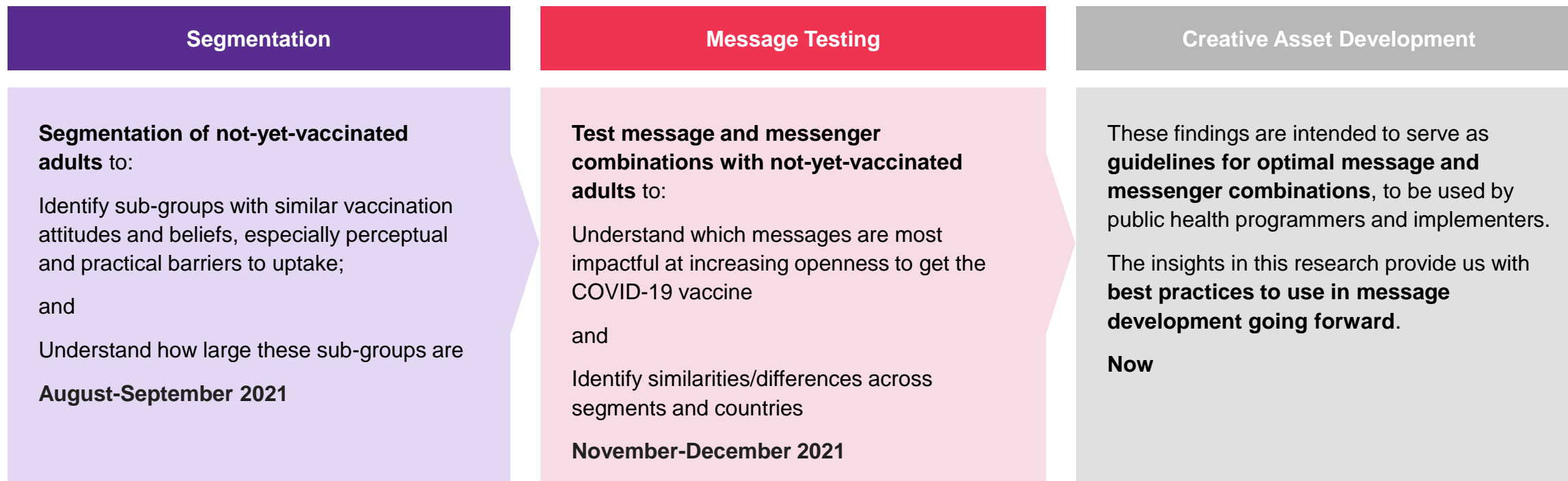
GLOBAL PUBLIC HEALTH



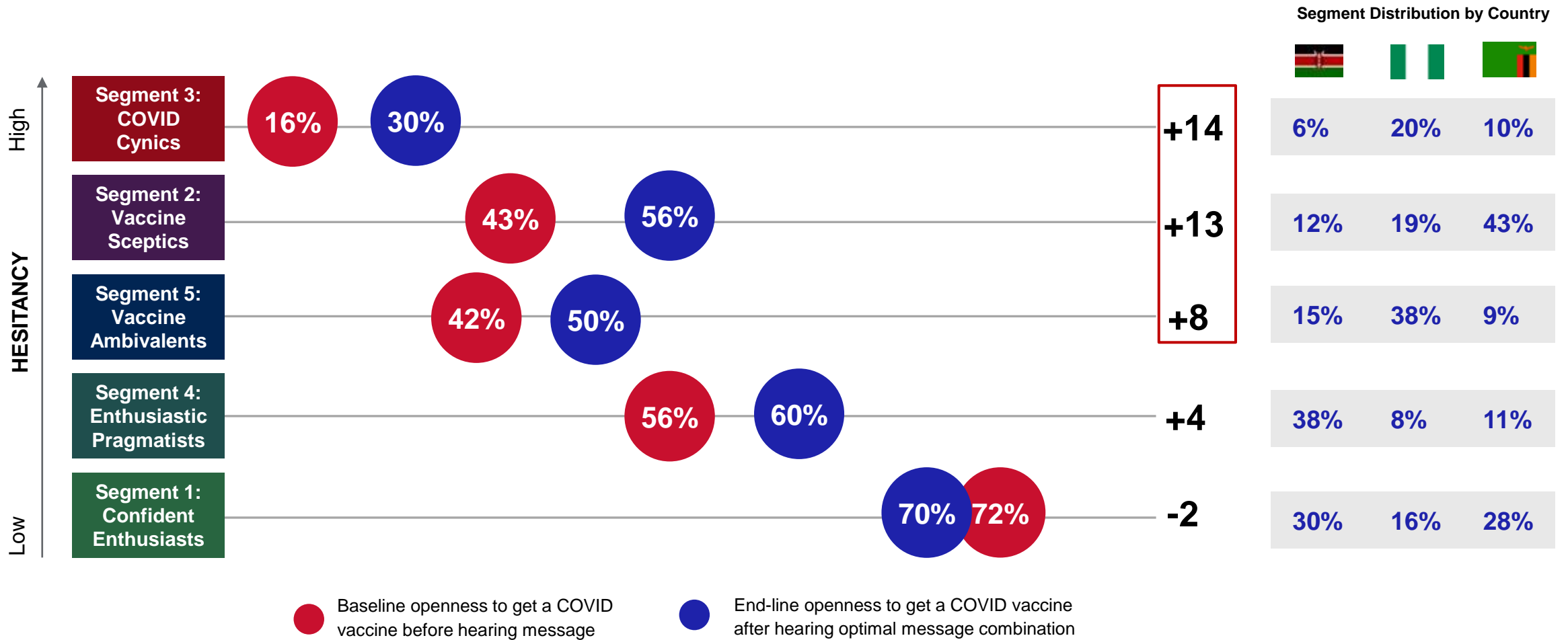
# Key question: Can willingness to vaccinate be increased?

We conducted two streams of research to understand if willingness to vaccinate can be increased, and how best to increase willingness through messaging.

We surveyed over **2400 people** in **Kenya, Nigeria and Zambia** from **Aug-Sep 2021** for the segmentation, and over **2400 people** from **Nov-Dec 2021** to test over **60 messages** via phone.



# Messaging increases openness to vaccinate among the most hesitant segments



# Messengers are just as important as the message itself



## Who are they willing to listen to?



WHO Official



Doctor

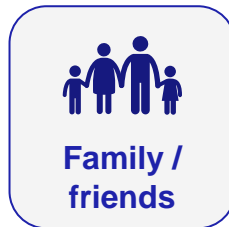


Nurse

Experts like doctors, International health authorities or nurses are most credible and trustworthy



Community Leader



Family / friends

Community leaders and also family/friends are credible messengers



Gov't Official

Gov't officials are not credible or persuasive source of information when it comes to vaccines. Also a sizeable portion of the population don't trust government when it comes to vaccinations



Sports / Music Celebrities

Neither credible, nor role models for health matters

# Zooming into the segments and messages that resonate

Which segment would you like to focus on as an example?

Confident  
Enthusiasts  
*Ready now*

“If there’s anything I can do to protect myself, I’ll do it!”

Enthusiastic  
Pragmatists  
*Ready now*

“In theory I would get it, but I’m uncertain about logistics.”

Vaccine  
Ambivalents  
*6-12 months*

“I’m not against it, I just don’t think I need it. I’ll wait and see.”

Vaccine  
Skeptics  
*6-12 months*

“I know it’s important, but I want to wait and see if it’s safe.”

COVID  
Cynics  
*Never*

“I don’t trust it and don’t need it. Stop telling me to get it.”

# 1 Meet the Confident Enthusiasts (*Global*)

## Segment 1 Confident Enthusiasts



Convinced of COVID threat and vaccine benefits. Would be quick adopters driven by social responsibility to protect their community.

% of population	24%
Likelihood to take a COVID-19 vaccine	Very high
Speed of uptake	As soon as possible
Perceived ease of getting the vaccine	Very easy
COVID disease perceptions	High perceived risk and severity

### Takeaways:

- NO Key barriers to vaccination
- Likely to take **vaccination as soon as possible**

<b>Gender</b>	♂ 51% ♀ 49%	<b>Level of motivation to get the vaccine</b>	✓ High															
<b>Age</b>	<table border="1"> <tr><td>18-24</td><td>16%</td></tr> <tr><td>25-34</td><td>39%</td></tr> <tr><td>35-44</td><td>24%</td></tr> <tr><td>45+</td><td>20%</td></tr> </table>	18-24	16%	25-34	39%	35-44	24%	45+	20%	<b>Level of perceptual barriers</b>	▬ Neutral							
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<b>Urban/ Peri-urban/ Rural</b>	<table border="1"> <tr><td>Urban</td><td>56%</td></tr> <tr><td>Peri-urban</td><td>7%</td></tr> <tr><td>Rural</td><td>37%</td></tr> </table>	Urban	56%	Peri-urban	7%	Rural	37%	<b>Level of physical barriers</b>	▬ Neutral									
Urban	56%																	
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Rural	37%																	
<b>Poverty Index</b>	<table border="1"> <tr><td>High</td><td>30%</td></tr> <tr><td>Medium</td><td>36%</td></tr> <tr><td>Low</td><td>34%</td></tr> </table>	High	30%	Medium	36%	Low	34%	<b>COVID-19 information channels</b>	<table border="1"> <tr><td>90%</td><td>📻</td><td>Radio</td></tr> <tr><td>87%</td><td>📺</td><td>TV</td></tr> <tr><td>74%</td><td>📱</td><td>Social media</td></tr> </table>	90%	📻	Radio	87%	📺	TV	74%	📱	Social media
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Self-Employed	38%																	
Full-Time	20%																	
Part-Time	10%																	
Unemployed	19%																	
Other	13%																	

# Messages for Confident Enthusiasts:

## Altruism



There are two reasons to get vaccinated: **to protect ourselves and protect those around us**. Because not everyone can be vaccinated including babies or those who have illnesses... they depend on others to be vaccinated to ensure that they are also protected.

The **simple act of taking the vaccine protects your family, friends and community** at large. Especially those who are weak with vulnerable immune systems. Play your part and protect the people you love.

## Connecting with values



All COVID-19 vaccines work with the **body's natural defenses to safely develop immunity to disease**. That means that if you get exposed to the virus after being vaccinated, **your body is ready to fight the virus and prevent you from getting sick**.

## Framing/Reframing



You deserve to chase your dreams, fall in love, start a family and see the world. You deserve to taste success and reap the fruits of your hard work. **COVID can stop your dreams from becoming a reality. Get vaccinated and protect your future.**

*The messages shown here are the top messages for Segment 1 across all countries.*



### MOVING THE NEEDLE:

The slight decline in open-ness for Segment 1 is likely due to how the end-line measure is calculated, adjusting for influence of message and messengers but not a meaningful difference, especially due to the already willing persona to uptake the vaccine as soon as possible

### OPENNESS TO VACCINATE:



# 2 Meet the Vaccine Skeptics (*Global*)

## Segment 2 Vaccine Skeptics

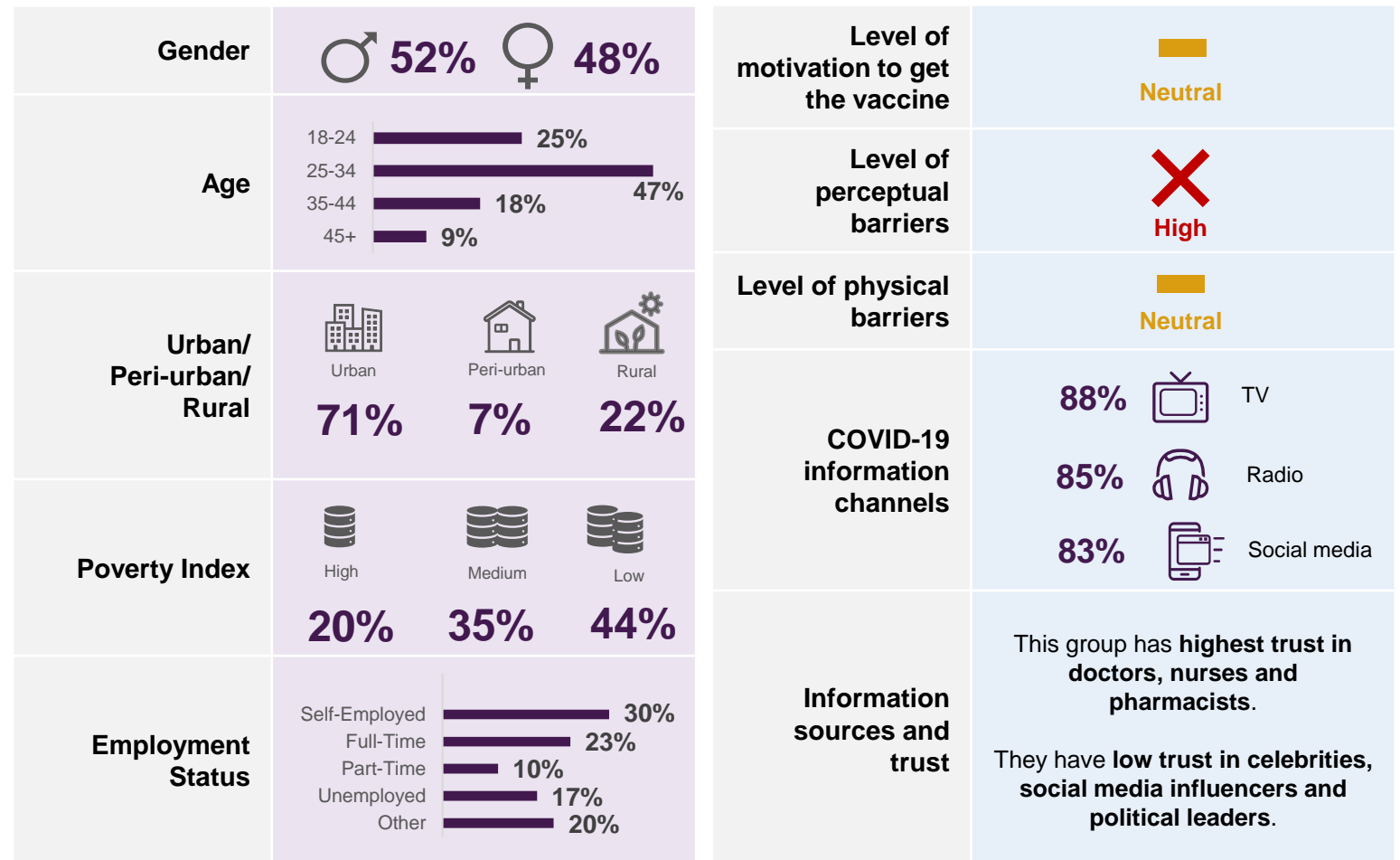


Convinced of COVID threat, but scepticism around vaccine safety and efficacy inhibits perceived benefit and quick uptake.

% of population	25%
Likelihood to take a COVID-19 vaccine	Moderately low
Speed of uptake	Wait at least 6-12 months
Perceived ease of getting the vaccine	Somewhat easy
COVID disease perceptions	High perceived risk and severity

### Takeaways:

- Key barriers to vaccination are **safety and efficacy concerns**
- Likely to wait at least **6-12 months** before vaccinating to see how others respond to the vaccine



# Messages should instill *confidence* in Vaccine Skeptics

## Altruism



There are two reasons to get vaccinated: **to protect ourselves and protect those around us**. Because not everyone can be vaccinated including babies or those who have illnesses... they depend on others to be vaccinated to ensure that they are also protected.

The **simple act of taking the vaccine protects your family, friends and community** at large. Especially those who are weak with vulnerable immune systems. Play your part and protect the people you love.

## Framing/Reframing



Community Leader

You deserve to chase your dreams, fall in love, start a family and see the world. You deserve to taste success and reap the fruits of your hard work. **COVID can stop your dreams from becoming a reality. Get vaccinated and protect your future.**

*The messages shown here are the top messages for Segment 2 across all countries.*



### MOVING THE NEEDLE:

These messages can be delivered in combination with any of the messengers shown to achieve an increase in willingness to vaccinate of 13%.

### OPENNESS TO VACCINATE:





# 3 Meet the Covid Cynics (Global)

## Segment 3 Covid Cynics



Strongly hesitant of COVID threat and a COVID vaccine. Mistrust in the vaccine's purpose and advocates means they will be slow to vaccine adoption, if at all.

% of population	12%
Likelihood to take a COVID-19 vaccine	Very low
Speed of uptake	Never
Perceived ease of getting the vaccine	Difficult
COVID disease perceptions	Low perceived risk and severity

### Takeaways:

- Key barriers to vaccination are **mistrust in the vaccine's purpose and institutions.**
- They also feel they are at **low risk of getting COVID** and of getting seriously ill, making them unlikely to get the vaccine.

<b>Gender</b>	♂ 54% ♀ 46%	<b>Level of motivation to get the vaccine</b>	✗ Low
<b>Age</b>	18-24: 18% 25-34: 40% 35-44: 21% 45+: 21%	<b>Level of perceptual barriers</b>	✗ High
<b>Urban/ Peri-urban/ Rural</b>	Urban: 79% Peri-urban: 6% Rural: 15%	<b>Level of physical barriers</b>	✗ High
<b>Poverty Index</b>	High: 27% Medium: 27% Low: 47%	<b>COVID-19 information channels</b>	79% TV 77% Radio 68% Social media
<b>Employment Status</b>	Self-Employed: 39% Full-Time: 20% Part-Time: 9% Unemployed: 13% Other: 19%	<b>Information sources and trust</b>	This group has <b>moderate to low levels of trust in information sources overall</b> , but prefer doctors, nurses and religious leaders.

# Messages should shake COVID Cynics out of *complacency*

## Altruism



WHO Official



Doctor

There are two reasons to get vaccinated: **to protect ourselves and protect those around us**. Because not everyone can be vaccinated including babies or those who have illnesses... they depend on others to be vaccinated to ensure that they are also protected.

## Framing/Reframing



Pharmacist



WHO Official



Doctor

The vaccination is just **one of many tools** that you can use to keep you and your loved ones protected from COVID-19. It gives you **an advantage when fighting the virus** after you've been by exposed by limiting your symptoms and reducing the chances of death. It is highly effective and **puts you in the driver's seat** when navigating exposure to COVID.



Community Leader

You deserve to chase your dreams, fall in love, start a family and see the world. You deserve to taste success and reap the fruits of your hard work. **COVID can stop your dreams from becoming a reality. Get vaccinated and protect your future.**

*The messages shown here are the top messages for Segment 3 across all countries.*



### MOVING THE NEEDLE:

**These messages can be delivered in combination with any of the messengers shown to achieve an increase in willingness to vaccinate of 14%.**

### OPENNESS TO VACCINATE:



Baseline

Endline

# 4 Meet the Enthusiastic Pragmatists (*Global*)

## Segment 4

### Enthusiastic Pragmatists



Convinced of COVID threat and merits of a vaccine, but inhibited by practical barriers. Cost-benefit analysis of the process could cause uptake delay.

% of population	19%
Likelihood to take a COVID-19 vaccine	High
Speed of uptake	As soon as possible
Perceived ease of getting the vaccine	Very difficult
COVID disease perceptions	High perceived risk and severity

### Takeaways:

- Key barriers to vaccination are **physical barriers to vaccination**.
- Likely to take **vaccination as soon as possible**

<b>Gender</b>	♂ 53% ♀ 47%	<b>Level of motivation to get the vaccine</b>	✓ High												
<b>Age</b>	<table border="1"> <tr> <td>18-24</td> <td>12%</td> <td>36%</td> </tr> <tr> <td>25-34</td> <td></td> <td></td> </tr> <tr> <td>35-44</td> <td>30%</td> <td></td> </tr> <tr> <td>45+</td> <td>22%</td> <td></td> </tr> </table>	18-24	12%	36%	25-34			35-44	30%		45+	22%		<b>Level of perceptual barriers</b>	✓ Low
18-24	12%	36%													
25-34															
35-44	30%														
45+	22%														
<b>Urban/ Peri-urban/ Rural</b>	<table border="1"> <tr> <td>Urban</td> <td>Peri-urban</td> <td>Rural</td> </tr> <tr> <td>38%</td> <td>9%</td> <td>53%</td> </tr> </table>	Urban	Peri-urban	Rural	38%	9%	53%	<b>Level of physical barriers</b>	✗ High						
Urban	Peri-urban	Rural													
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<b>Poverty Index</b>	<table border="1"> <tr> <td>High</td> <td>Medium</td> <td>Low</td> </tr> <tr> <td>35%</td> <td>31%</td> <td>34%</td> </tr> </table>	High	Medium	Low	35%	31%	34%	<b>COVID-19 information channels</b>	90%  Radio 83%  TV 66%  Social media						
High	Medium	Low													
35%	31%	34%													
<b>Employment Status</b>	<table border="1"> <tr> <td>Self-Employed</td> <td>41%</td> </tr> <tr> <td>Full-Time</td> <td>9%</td> </tr> <tr> <td>Part-Time</td> <td>9%</td> </tr> <tr> <td>Unemployed</td> <td>26%</td> </tr> <tr> <td>Other</td> <td>15%</td> </tr> </table>	Self-Employed	41%	Full-Time	9%	Part-Time	9%	Unemployed	26%	Other	15%	<b>Information sources and trust</b>	This group has <b>moderate levels of trust in doctors, nurses and religious leaders</b> .  They have <b>low trust in international organizations</b> such as WHO and UNICEF.		
Self-Employed	41%														
Full-Time	9%														
Part-Time	9%														
Unemployed	26%														
Other	15%														

# Messages for Enthusiastic Pragmatists

## Altruism



WHO Official

There are two reasons to get vaccinated: **to protect ourselves and protect those around us**. Because not everyone can be vaccinated including babies or those who have illnesses... they depend on others to be vaccinated to ensure that they are also protected.

The **simple act of taking the vaccine protects your family, friends and community** at large. Especially those who are weak with vulnerable immune systems. Play your part and protect the people you love.

## Connecting with values



WHO Official



Doctor

All COVID-19 vaccines work with the **body's natural defenses to safely develop immunity to disease**. That means that if you get exposed to the virus after being vaccinated, **your body is ready to fight the virus and prevent you from getting sick**.

## Framing/Reframing



Family and friends

You deserve to chase your dreams, fall in love, start a family and see the world. You deserve to taste success and reap the fruits of your hard work. **COVID can stop your dreams from becoming a reality. Get vaccinated and protect your future.**

*The messages shown here are the top messages for Segment 4 across all countries.*



### MOVING THE NEEDLE:

These messages can be delivered in combination with any of the messengers shown to achieve an increase in willingness to vaccinate of 4%.

### OPENNESS TO VACCINATE:



# 5 Meet the Vaccine Ambivalents (*Global*)

## Segment 5 Vaccine Ambivalents



Not convinced of the threat of COVID as a disease and lack motivation to seek a vaccine, but few barriers to uptake. Could be moved by social norms and strong messaging.

% of population	20%
Likelihood to take a COVID-19 vaccine	Moderate
Speed of uptake	Half will vaccinate now, half will wait up to 12 months
Perceived ease of getting the vaccine	Somewhat difficult
COVID disease perceptions	Low perceived risk and severity

### Takeaways:

- Key barriers to vaccination are not **being convinced of the threat of COVID**, as well as finding it **somewhat challenging** to get the vaccine.
- **Half would wait up to a year** to get the vaccine.

Gender	♂ 46% ♀ 54%	Level of motivation to get the vaccine	Neutral												
Age	<table border="1"> <tr> <td>18-24</td> <td>22%</td> <td rowspan="4">36%</td> </tr> <tr> <td>25-34</td> <td>36%</td> </tr> <tr> <td>35-44</td> <td>22%</td> </tr> <tr> <td>45+</td> <td>19%</td> </tr> </table>	18-24	22%	36%	25-34	36%	35-44	22%	45+	19%	Level of perceptual barriers	Neutral			
18-24	22%	36%													
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Urban/ Peri-urban/ Rural	<table border="1"> <tr> <td>Urban</td> <td>78%</td> <td>Peri-urban</td> <td>3%</td> <td>Rural</td> <td>19%</td> </tr> </table>	Urban	78%	Peri-urban	3%	Rural	19%	Level of physical barriers	Neutral						
Urban	78%	Peri-urban	3%	Rural	19%										
Poverty Index	<table border="1"> <tr> <td>High</td> <td>46%</td> <td>Medium</td> <td>32%</td> <td>Low</td> <td>22%</td> </tr> </table>	High	46%	Medium	32%	Low	22%	COVID-19 information channels	<table border="1"> <tr> <td>85%</td> <td>Radio</td> </tr> <tr> <td>84%</td> <td>TV</td> </tr> <tr> <td>72%</td> <td>Social media</td> </tr> </table>	85%	Radio	84%	TV	72%	Social media
High	46%	Medium	32%	Low	22%										
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Employment Status	<table border="1"> <tr> <td>Self-Employed</td> <td>47%</td> </tr> <tr> <td>Full-Time</td> <td>7%</td> </tr> <tr> <td>Part-Time</td> <td>15%</td> </tr> <tr> <td>Unemployed</td> <td>15%</td> </tr> <tr> <td>Other</td> <td>16%</td> </tr> </table>	Self-Employed	47%	Full-Time	7%	Part-Time	15%	Unemployed	15%	Other	16%	Information sources and trust	This group has <b>high trust in doctors, nurses and pharmacists</b> . They are also most likely to <b>trust celebrities and social media influencers</b> .		
Self-Employed	47%														
Full-Time	7%														
Part-Time	15%														
Unemployed	15%														
Other	16%														

# For Vaccine Ambivalents, messages should address *complacency* and prove vaccination is *convenient*

## Altruism



The **simple act of taking the vaccine protects your family, friends and community** at large. Especially those who are weak with vulnerable immune systems. Play your part and protect the people you love.

There are two reasons to get vaccinated:.. **to protect ourselves and protect those around us**. Because not everyone can be vaccinated including babies or those who have illnesses... they depend on others to be vaccinated to ensure that they are also protected.

## Connecting with values



All COVID-19 vaccines work with the **body's natural defenses to safely develop immunity to disease**. That means that if you get exposed to the virus after being vaccinated, **your body is ready to fight the virus and prevent you from getting sick**.

*The messages shown here are the top messages for Segment 5 across all countries.*



### MOVING THE NEEDLE:

These messages can be delivered in combination with any of the messengers shown to achieve an increase in willingness to vaccinate of 8%.

### OPENNESS TO VACCINATE:



**03**

**What doesn't  
work?**



# What doesn't work?

The messages shown were some of the worst performing across all three countries.

## ❌ Fear-based messaging

1 in 10 people experience long COVID. **My sister still struggles with how viciously the virus has physically devastated her body**, and it's been months since she had COVID. Avoid that by getting vaccinated.

Trying to frighten people into vaccinating with threats of serious illness or death can alienate people who already have concerns about the vaccine; it can also erode trust among people who has had an experience with mild COVID and finds the messaging to be overly alarmist.

## ❌ Messages that do not include any personal connection points

**Scientists in private companies** have been developing vaccines while unbiased, independent scientists review and approve the science. Approval from the World Health Organization means this process was followed without the local government.

Many **pharmaceutical companies** invested significant resources into quickly developing a vaccine for COVID-19 because of the worldwide devastation. The emergency made it necessary but that doesn't mean that the companies took shortcuts when it came to safety.

**Individuals** are not at the core of these messages – companies and processes are. These are unlikely to be salient and inspire personal connection or reflection.

## ❌ Sports / Music Celebrities are ineffective messengers across all segments



# What doesn't work?

The messages shown were some of the worst performing across all three countries.

⊗ **Messages framing vaccination as a pathway to getting back to having fun are not universally popular**

Remember **late night drives, live concerts, or public displays of affection**? Life can go back to normal without the fear of long-term effects since they are extremely rare.

These messages may be seen as trivialising by those with deeply-held concerns and fears around getting vaccinated (e.g., Segment 3) or who did not engage in these activities before the pandemic.

⊗ **Public information messages without a call to action or emotional appeal**

Quickly find out where the jab is available on the Ministry of Health's website.

Avoid long lines and wasting time by booking your vaccine online.

These types of messages have value but are not enough to motivate someone who has not already made the decision to get vaccinated.

# In summary: It's possible to address hesitancy

Getting those who are hesitant to reconsider vaccination requires:

- ① Acknowledging their unique barriers & concerns
- ② Addressing those concerns in a way that speaks to their values and makes the message personal to them
- ③ Having trusted figures deliver messages

**For consideration:** for those whose primary barrier is *convenience*, consider incentives or interventions to address these concerns (e.g., provide transport services, reassurance that the vaccine is free and/or available, reassurance that vaccination sites are safe).

[This Photo](#) by Unknown Author is licensed under [CC BY-NC-ND](#)

# Statement

Johnson & Johnson can provide web-based, virtual technical assistance for any non-governmental organization to learn more about these insights and tools for use in vaccine education campaigns. This information will not include any information about the J&J vaccine, nor any other vaccines from other manufacturers.

For further information, please contact:

Lauren Marks

Global Strategic Partnerships Lead

Email: [Lmarks3@its.jnj.com](mailto:Lmarks3@its.jnj.com)

# **04 Appendix Methodology**

# The data behind it (in partnership with IPSOS MORI + fraym)

## Segmentation

Vaccine awareness, uptake, attitudes, beliefs, drivers, barriers, optimal communication channels **Kenya**, **Zambia**, and **Nigeria**

- Over **n=800** per market
- Sampling quotas:
  - 50/50 male and female split
  - 33/33/33 split across low, medium and high poverty using Poverty Index scores
  - At least 10% self-reporting one or more comorbidities
  - Regional sampling proportional to country population

**Fieldwork conducted between August to September 2021**

**Respondents recruited using Ipsos' database of individuals 18+**

**Interviewers conducted 30-minute computer-aided telephone interviews**

## Message Testing

Force-choice experiment of messages, ideal messenger, and likelihood to impact behavior in **Kenya**, **Zambia**, and **Nigeria**

- Over **n=800** per market
- Similar sampling quotas to segmentation
- Must not have received the COVID-19 vaccine before
- Must not always avoid personal vaccinations

**Fieldwork conducted between November to December 2021**

**Interviewers conducted 30-minute computer-aided telephone interviews with conjoint analysis**

## Geospatial Mapping

Geospatial mapping of vaccine attitudes, media consumption, demographics, language, socioeconomics, communications, media, and health centers in **Kenya**, **Zambia**, and **Nigeria**

- 2021 Fraym Kenya field survey (May 2021)
- WHO health facilities mapping<sup>1</sup>
- Malaria Atlas Project walking and driving times to health facilities<sup>2</sup>
- Uses artificial intelligence and machine learning with proprietary software FUSEfraym™

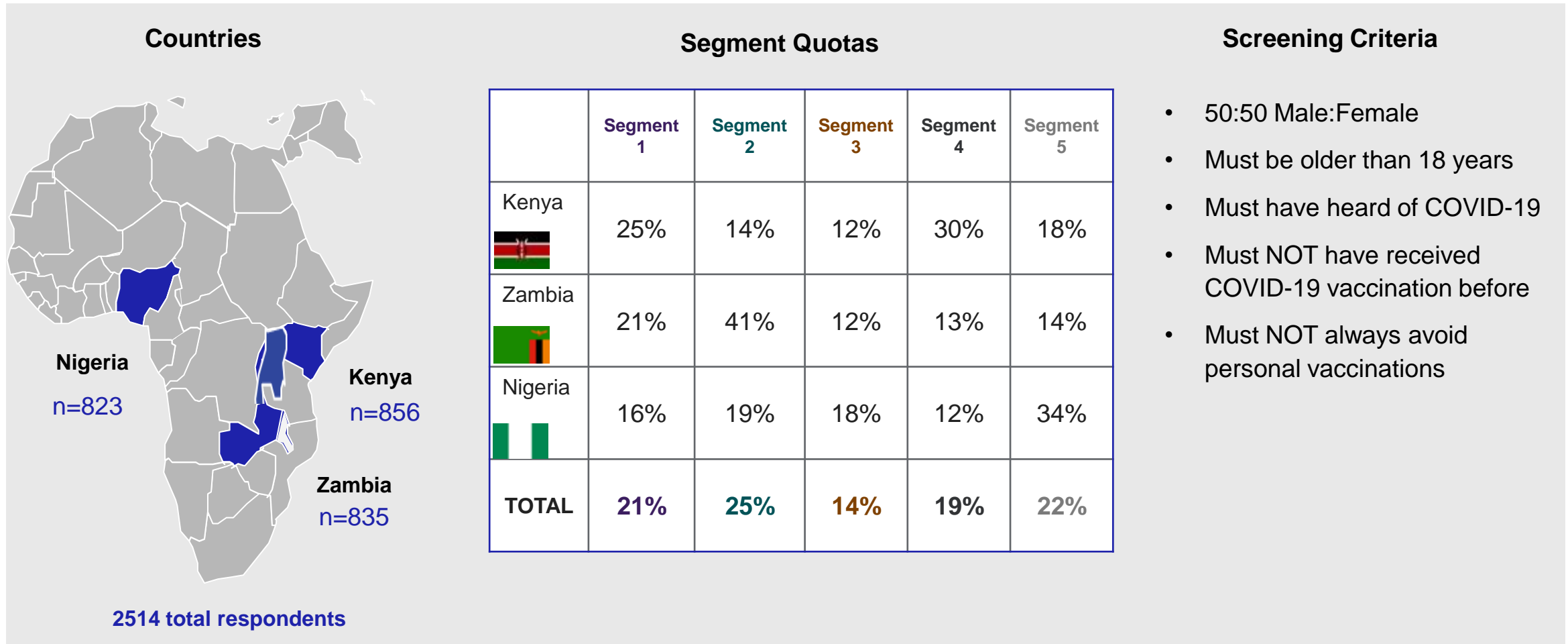


The segments reinforce the **WHO/SAGE** recommendations of the 3 C's Framework (**Confidence, Complacency, Convenience**) for vaccine engagement, with the backing of demographic data

**Note 1:** This master list of health facilities was developed from a variety of government and non-government sources from 50 countries in sub-Saharan Africa, accessible here: <https://data.humdata.org/dataset/health-facilities-in-sub-saharan-africa>

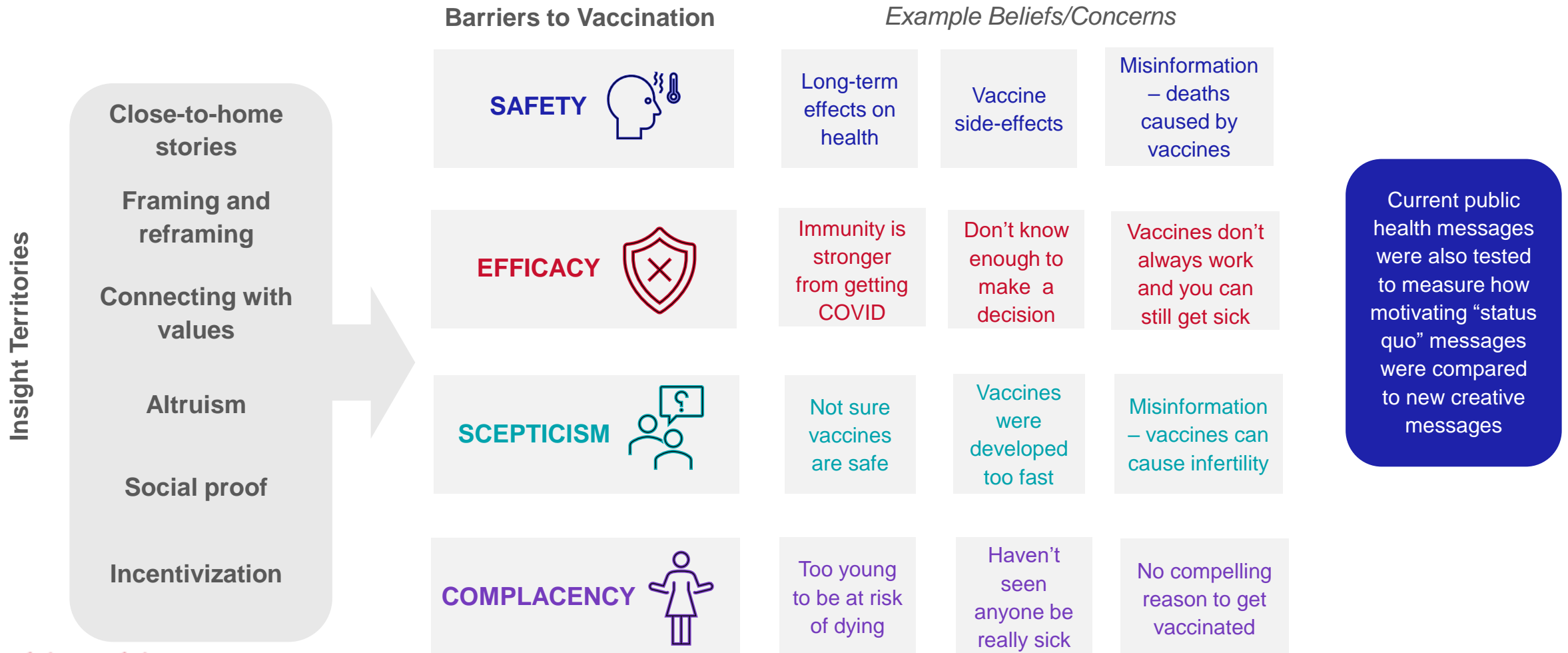
**Note 2:** Least-cost distance compensates for travel costs, such as slope and terrain, accessible here: <https://malariaatlas.org/research-project/accessibility-to-healthcare/>

# We tested messages with over 2,500 adults across 3 countries



# Message Design

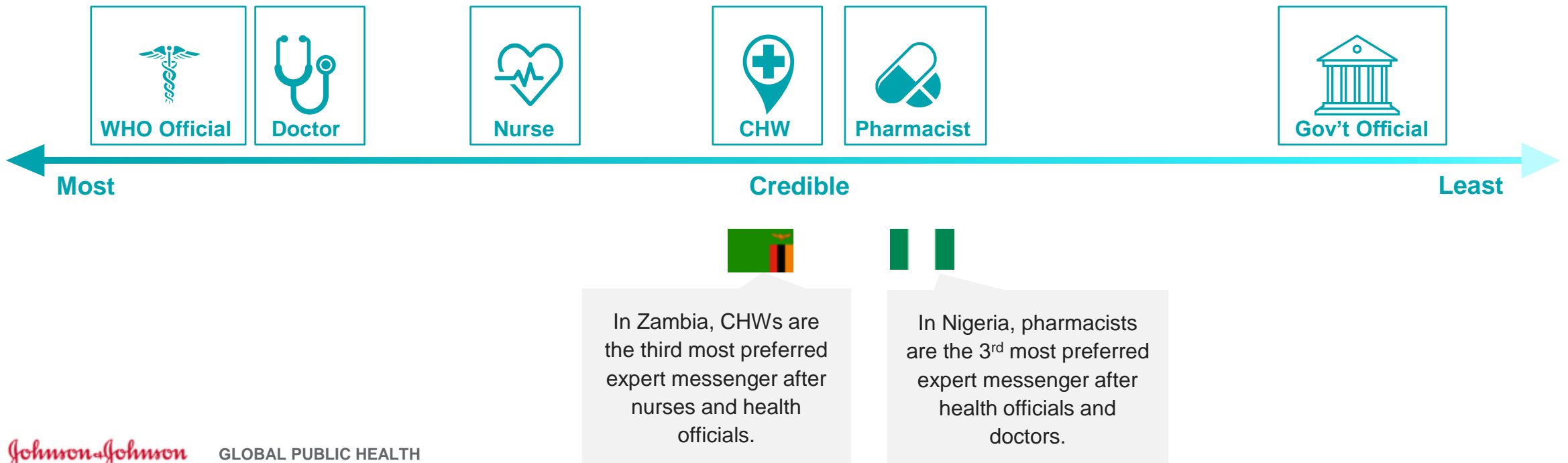
Creative agencies based in Kenya, Nigeria and Zambia developed over 50 messages addressing barriers to vaccination using different insight territories.



# Expert messengers

Messages from **expert health care** providers and officials lend credibility to messages. They should **emphasize the ability of vaccines to protect** individuals, their families, and communities from COVID.

The figure below represents the proportion each *expert* represented one of the top 100 optimal *expert message combinations*:

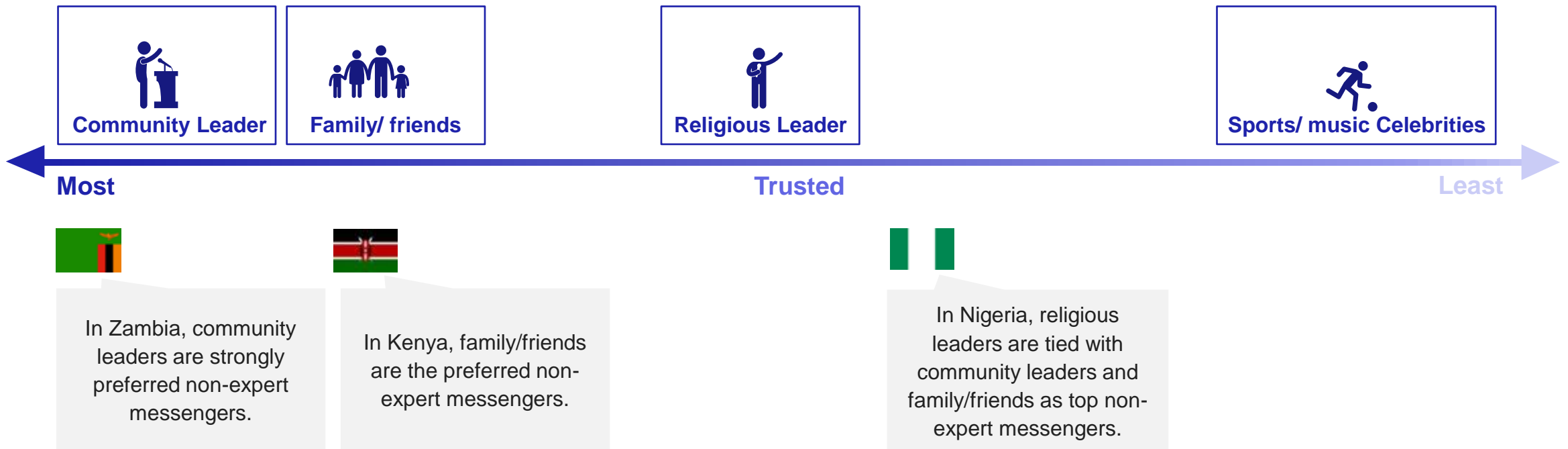




# Non-expert messengers

**Non-expert** messages should help people connect with **what matters to them, encourage future-thinking** and feel confident and supported in their decision to get vaccinated. Community leaders, family and friends and religious leaders are often the most relatable with these messages.

The figure below represents the proportion each *non-expert* represented one of the top 100 optimal *non-expert message combinations*:



# **05 Appendix**

## **Geospatial Mapping: Kenya**

# Hyperlocal Support of Vaccine Uptake: Overview

We aim to bring local understanding of uptake barriers across Kenya

## Goals



A **deeper understanding** of the 3C's occur locally and across entire countries to inform broad RCCE efforts.



A **detailed mapping of J&J's consumer segments** and media consumption patterns across the country to close the gap between data and action.



An **interactive tool to equip implementors with hyperlocal data** to overcome barriers to vaccine uptake faster.

## Outputs



**Comprehensive reports** containing overviews and detailed assessments of hyperlocal patterns of vaccine confidence, complacency, convenience, consumer segmentation, and media consumption patterns across the entire country.



**DATAfraym – an interactive web-based dashboard** – access, for custom data exploration, analysis, and exports, with mapping available at a 1 square kilometer level of granularity.



**Complete datasets** available regarding vaccine confidence, complacency, convenience, consumer segmentation, and media consumption patterns across the entire country, at a 1 square kilometer level of granularity.

# Paired with WHO's 3C Framework, we've mapped J&J's Consumer Segments to identify where vaccine uptake challenges are likely to occur



## The 3C's

**Confidence:** High confidence = *More* likely to take a Vx

**Convenience:** High convenience = *More* likely to take a Vx

**Complacency:** High complacency = *Less* likely to take a Vx

### Meet the segments: An introduction

	Segment 1 Confident enthusiasts	Segment 2 Vaccine sceptics	Segment 3 COVID cynics	Segment 4 Enthusiastic pragmatists	Segment 5 Vaccine ambivalents
Summary	Convinced of COVID threat and vaccine benefits. Would be quick adopters driven by social responsibility to protect their community.	Convinced of COVID threat, but scepticism around vaccine safety and efficacy inhibits perceived benefit and quick uptake.	Strongly hesitant of COVID threat and a COVID vaccine. Mistrust in the vaccine's purpose and advocates means they will be slow to vaccine adoption, if at all.	Convinced of COVID threat and merits of a vaccine, but inhibited by practical barriers. Cost-benefit analysis of the process could cause uptake delay.	Not convinced of the threat of COVID as a disease and lack motivation to seek a vaccine, but few barriers to uptake. Could be moved by social norms and strong messaging.
% of population	24%	25%	12%	19%	20%
Likelihood to take a COVID-19 vaccine	Very High	Moderately low	Very Low	High	Moderate
Speed of uptake	As soon as possible	Wait at least 6-12 months	Never	As soon as possible	Wait at least 6-12 months
Perceived ease of getting the vaccine	Very easy	Fairly easy	Fairly easy	Not easy/not at all easy	Fairly easy
COVID disease perceptions	High perceived risk and severity	High perceived risk and severity	Low perceived risk and severity	High perceived risk and severity	Low perceived risk and severity

## Consumer Segmentation

Different segments of people have different motivations and reasons to not get a COVID-19 vaccine (barriers)

# Data and Methods

We used **geospatial machine learning** methods to create local understanding of **barriers to vaccine uptake** across the entire country down to the square kilometer.

## Data

This report leverages the 2021 Fraym Kenya field survey (May 2021)

Health facilities in sub-Saharan Africa were sourced from the World Health Organization.<sup>1</sup>

Walking and driving time to health facilities were sourced from the Malaria Atlas Project.<sup>2</sup>

## Methods

**Machine Learning for Hyperlocal Mapping:** The localized maps seen in this report were produced using the proprietary software FUSEfraym™. This software uses artificial intelligence and machine learning (AI/ML) to weave together survey data with satellite imagery and geostatistical datasets.



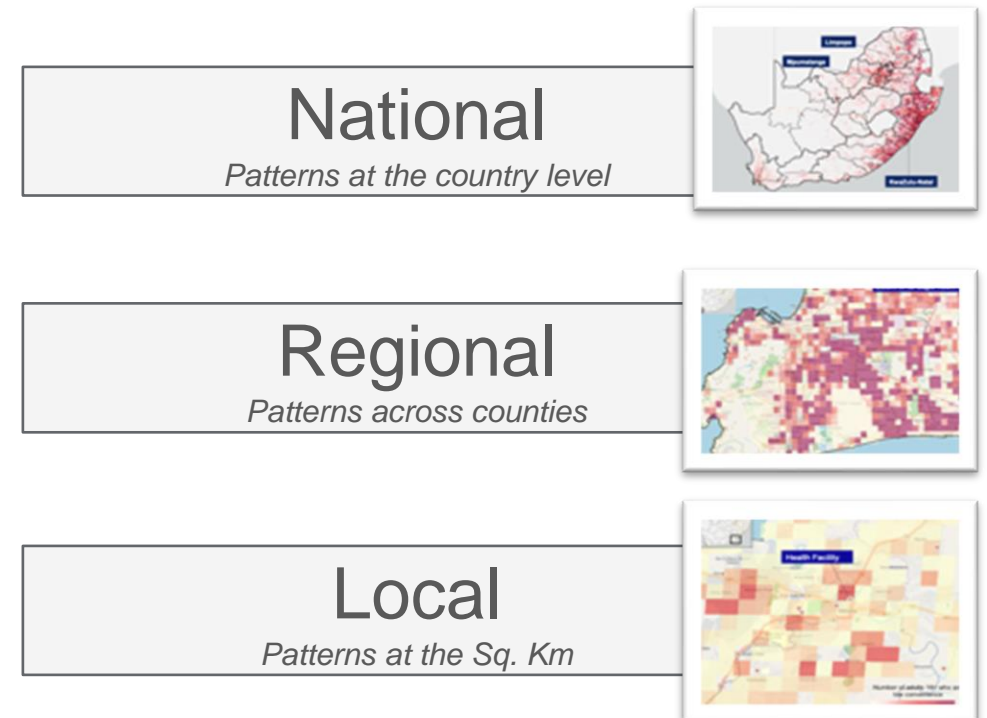
# How to use this analysis

Paired with WHO's 3C Framework, we've mapped J&J's Consumer Segments to identify where vaccine uptake challenges are likely to occur.

## Potential Use-Cases:

- Concentrate communication campaigns and media spending in specific geographic areas
- Target specific messages to niche audiences in prioritized geographies
- Optimize vaccine distribution
- Service & Product Delivery Planning

## 3 Levels of Views



# Ex. 1: Reaching ‘Vaccine Skeptics’ Near Nairobi

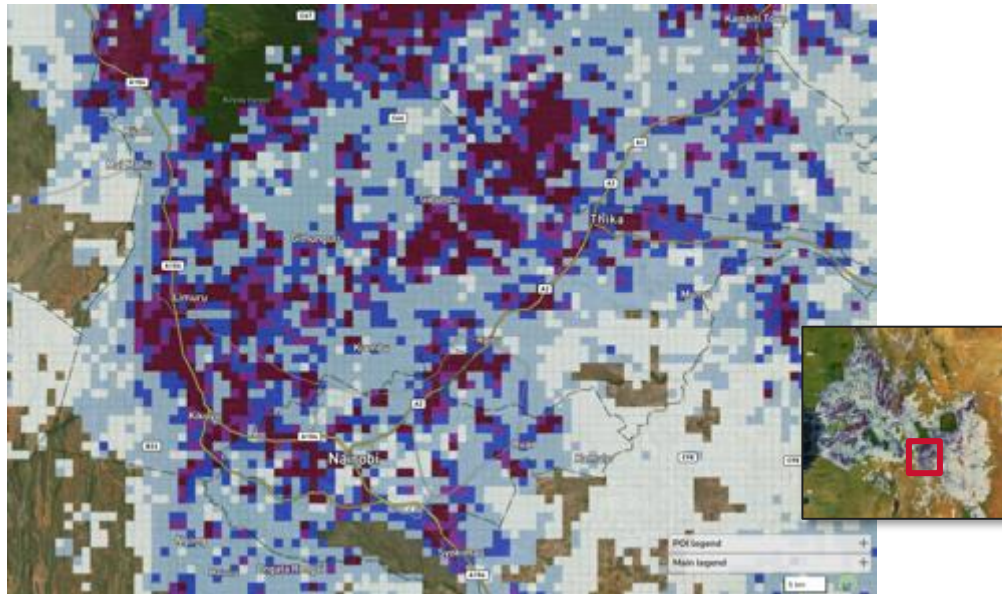
How do we reach those near Nairobi who are worried by COVID but have vaccine concerns?

## WHO are we looking for?

Segment 2 Vaccine skeptics	
Summary	Convinced of COVID threat, but scepticism around vaccine safety and efficacy inhibits perceived benefit and quick uptake.
% of population	25%
Likelihood to take a COVID-19 vaccine	Moderately low
Speed of uptake	Wait at least 6-12 months
Perceived ease of getting the vaccine	Fairly easy
COVID disease perceptions	High perceived risk and severity

## WHERE do we find them?

People in the **vaccine skeptics** segment can be seen in greater numbers in the dark red squares on the map below, around the Nairobi area. They aren't focused in one place.



## HOW do we reach them?

Given their **heavy social media use**, a digital programmatic RCCE campaign via WhatsApp and Facebook might be most effective to reach this Segment, using geolocations as target points.

Media consumption for Vaccine Skeptics around Nairobi


Social Media	
Facebook Users %	53
Twitter Users %	20
Operanews Users %	20
WhatsApp Users %	61
TV News	
Al Jazeera %	10
BBC %	9
CGTN %	4
Citizen TV %	73
CNN %	10
Newspapers	
Business Daily Africa %	2
Daily Nation %	26
People Daily %	6

**Putting it all together:** In order to reach Vaccine Skeptics near Nairobi, leverage Facebook and WhatsApp platforms to deliver digital communications near the north and north-west part of the city.

# Ex. 2: Finding ‘Enthusiastic Pragmatists’ Nationally

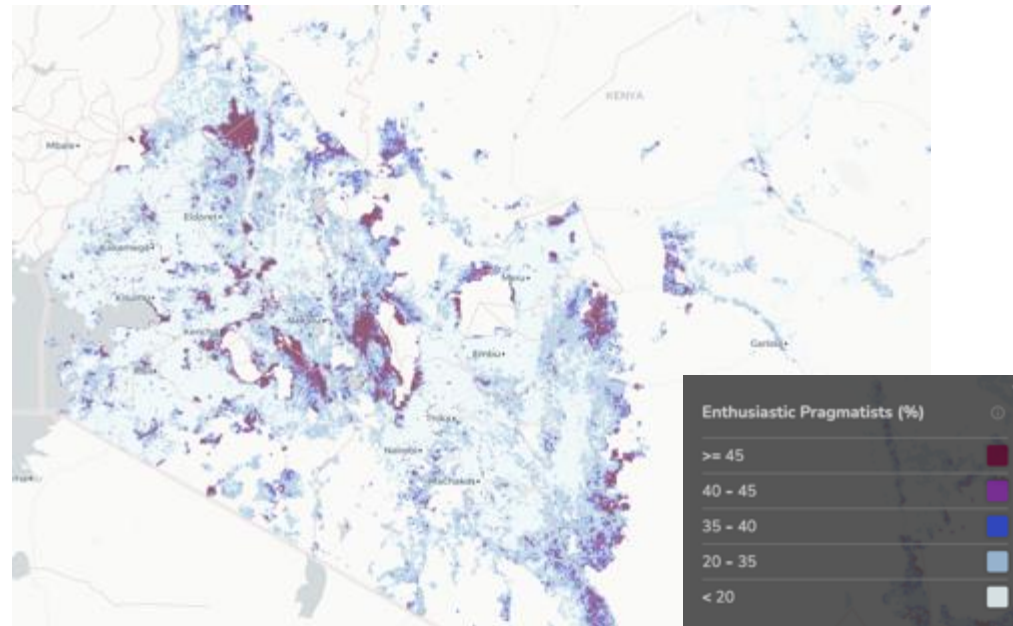
How do we reach those who *want* vaccines but don’t think they can get them?

## WHO are we looking for?

Segment 3 Enthusiastic pragmatists	
	
Summary	Convinced of COVID threat and merits of a vaccine, but inhibited by practical barriers. Cost-benefit analysis of the process could cause uptake delay.
% of population	19%
Likelihood to take a COVID-19 vaccine	High
Speed of uptake	As soon as possible
Perceived ease of getting the vaccine	Not easy/not at all easy
COVID disease perceptions	High perceived risk and severity

## WHERE do we find them?

People in the **enthusiastic pragmatists** segment are disproportionately located around Nyandarua, Samburu, and Lamu.



## HOW do we reach them?

Over 70% of adults report regular watching of **Citizen TV**. These viewers **primarily speak Swahili**.

<b>Social Media</b>	
Facebook Users %	50
Twitter Users %	16
Operanews Users %	19
WhatsApp Users %	55
<b>TV News</b>	
Al Jazeera %	6
CGTN %	3
Citizen TV %	72
<b>Language</b>	
English %	0
Somali %	0
Swahili %	31

**Putting it all together:** In order to reach Enthusiastic Pragmatists in Kenya, try reaching people watching Citizen TV in Nyandarua country first.



# Ex. 3: Understanding Complacency in Kenya

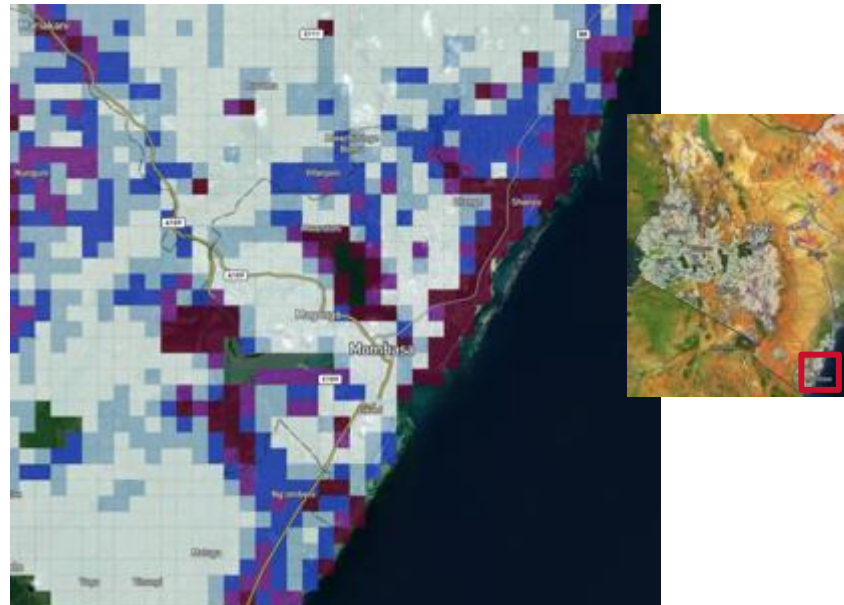
How do we reach those with no accessibility issues but would need to be convinced to get the vaccine?

## WHO are we looking for?

Segment 5 Vaccine ambivalents	
Summary	 <p>Not convinced of the threat of COVID as a disease and lack motivation to seek a vaccine, but few barriers to uptake. Could be moved by social norms and strong messaging.</p>
% of population	20%
Likelihood to take a COVID-19 vaccine	Moderate
Speed of uptake	Wait at least 6-12 months
Perceived ease of getting the vaccine	Fairly easy
COVID disease perceptions	Low perceived risk and severity

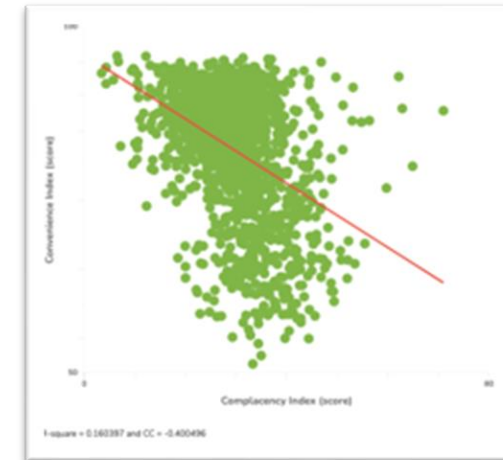
## WHERE do we find them?

People in **central Mombasa** tend to be **less complacent**, whereas those in the **suburbs** tend to be **more complacent**.



## HOW do we reach them?

Those who are more complacent *in this neighborhood* tend to also have convenience-related challenges



Pop-up vaccination sites north of Mombasa could be used to reach those in complacency 'hot spots' where the residents tend to be less motivated to travel for a shot.

**Putting it all together:** In order to reach complacent people near Mombasa, try in-person outreach in the Shanzu ward.

# **06 Appendix**

## **Geospatial Mapping: South Africa**

# Hyperlocal Support of Vaccine Uptake: Overview

We aim to bring local understanding of uptake barriers across South Africa

## Goals



A **deeper understanding** of the 3C's occur locally and across entire countries to inform broad RCCE efforts.



A **detailed mapping of J&J's consumer segments** and media consumption patterns across the country to close the gap between data and action.



An **interactive tool to equip implementors with hyperlocal data** to overcome barriers to vaccine uptake faster.

## Outputs



**Comprehensive reports** containing overviews and detailed assessments of hyperlocal patterns of vaccine confidence, complacency, convenience, consumer segmentation, and media consumption patterns across the entire country.



**DATAfraym – an interactive web-based dashboard** – access, for custom data exploration, analysis, and exports, with mapping available at a 1 square kilometer level of granularity.



**Complete datasets** available regarding vaccine confidence, complacency, convenience, consumer segmentation, and media consumption patterns across the entire country, at a 1 square kilometer level of granularity.

# Paired with WHO's 3C Framework, we've mapped J&J's Consumer Segments to identify where vaccine uptake challenges are likely to occur



## The 3C's

**Confidence:** High confidence = *More* likely to take a Vx

**Convenience:** High convenience = *More* likely to take a Vx

**Complacency:** High complacency = *Less* likely to take a Vx

**Meet the segments: An introduction**

	Segment 1 Confident enthusiasts	Segment 2 Vaccine sceptics	Segment 3 COVID cynics	Segment 4 Enthusiastic pragmatists	Segment 5 Vaccine ambivalents
Summary	Convinced of COVID threat and vaccine benefits. Would be quick adopters driven by social responsibility to protect their community.	Convinced of COVID threat, but scepticism around vaccine safety and efficacy inhibits perceived benefit and quick uptake.	Strongly hesitant of COVID threat and a COVID vaccine. Mistrust in the vaccine's purpose and advocates means they will be slow to vaccine adoption, if at all.	Convinced of COVID threat and merits of a vaccine, but inhibited by practical barriers. Cost-benefit analysis of the process could cause uptake delay.	Not convinced of the threat of COVID as a disease and lack motivation to seek a vaccine, but few barriers to uptake. Could be moved by social norms and strong messaging.
% of population	24%	25%	12%	19%	20%
Likelihood to take a COVID-19 vaccine	Very High	Moderately low	Very Low	High	Moderate
Speed of uptake	As soon as possible	Wait at least 6-12 months	Never	As soon as possible	Wait at least 6-12 months
Perceived ease of getting the vaccine	Very easy	Fairly easy	Fairly easy	Not easy/not at all easy	Fairly easy
COVID disease perceptions	High perceived risk and severity	High perceived risk and severity	Low perceived risk and severity	High perceived risk and severity	Low perceived risk and severity

## Consumer Segmentation

Different segments of people have different motivations and reasons to not get a COVID-19 vaccine (barriers)

# Data and Methods

We used geospatial machine learning methods to create a local understand of vaccination uptake barriers across the entire country down to the square kilometer.

## Data

This report leverages the 2021 Fraym South Africa field survey (May 2021)

Health facilities in sub-Saharan Africa were sourced from the World Health Organization.<sup>1</sup>

Walking and driving time to health facilities were sourced from the Malaria Atlas Project.<sup>2</sup>

## Methods

**Machine Learning for Hyperlocal Mapping:** The localized maps seen in this report were produced using the proprietary software FUSEfraym™. This software uses artificial intelligence and machine learning (AI/ML) to weave together survey data with satellite imagery and geostatistical datasets.



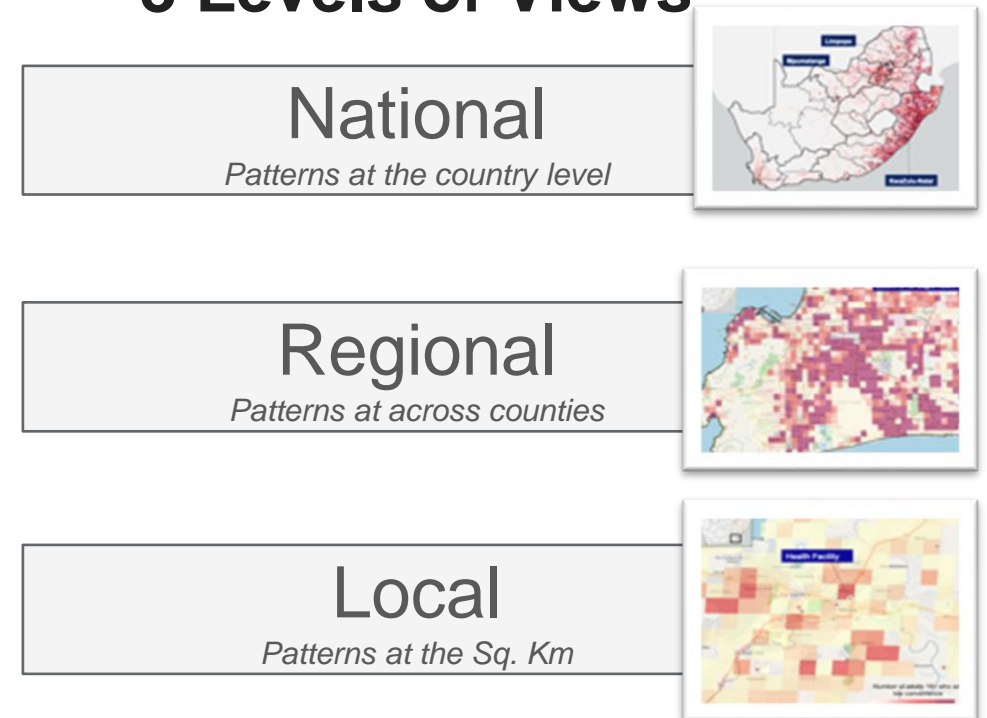
# Use this Document as Inspiration

Paired with WHO's 3C Framework, we've mapped J&J's Consumer Segments to identify where vaccine uptake challenges are likely to occur.

## Potential ways to use this analysis:

- Concentrate communication campaigns and media spending in specific geographic areas
- Target specific messages to niche audiences in prioritized geographies
- Optimize vaccine distribution
- Service & Product Delivery Planning

## 3 Levels of Views



# Ex. 1: Reaching ‘Vaccine Skeptics’ Near Cape Town

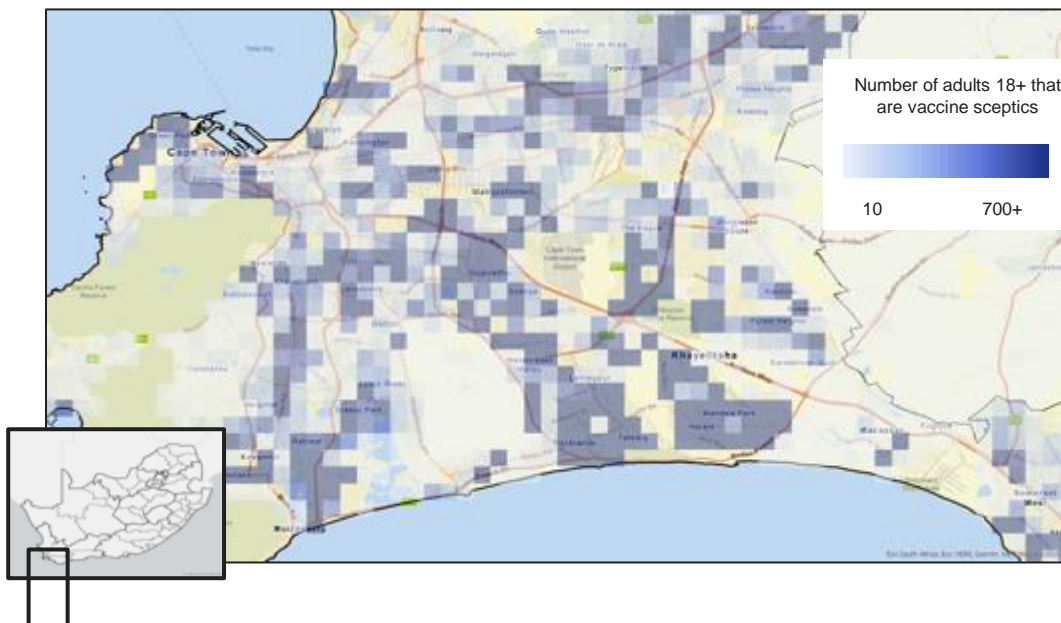
How do we reach those near Cape Town who are worried by Covid but have vaccine concerns?

## WHO are we looking for?

Segment 2	
Vaccine skeptics	
	
Summary	Convinced of COVID threat, but scepticism around vaccine safety and efficacy inhibits perceived benefit and quick uptake.
% of population	25%
Likelihood to take a COVID-19 vaccine	Moderately low
Speed of uptake	Wait at least 6-12 months
Perceived ease of getting the vaccine	Fairly easy
COVID disease perceptions	High perceived risk and severity

## WHERE do we find them?

People in the **vaccine skeptics** segment can be seen in greater numbers in the dark blue squares on the map below, around the Cape Town area. They aren't focused in one place.



## HOW do we reach them?

Media consumption patterns for Vaccine Skeptics around Cape Town can be seen in the chart below.

Given their heavy social media use, as well as their broad geographical distribution, a digital programmatic RCCE campaign via WhatsApp and Facebook might be most effective to reach this group, using geolocations as target points.


Media	% Vaccine Sceptic Adults
<b>Social Media</b>	
WhatsApp	95%
Facebook	85%
YouTube	77%
Instagram	47%
<b>Radio</b>	
Radio FM	26%
Jacaranda FM	18%
Radio RSG	16%
Ukhozi FM	12%
<b>TV</b>	
E TV	50%
SABC1	39%
BCC	31%
CNN	27%

**Putting it all together:** In order to reach Vaccine Skeptics near Cape Town, leverage Facebook and WhatsApp Platforms near Cape Town, Lansdowne and Claremont.

# Ex. 2: Finding ‘Enthusiastic Pragmatists’ Nationally

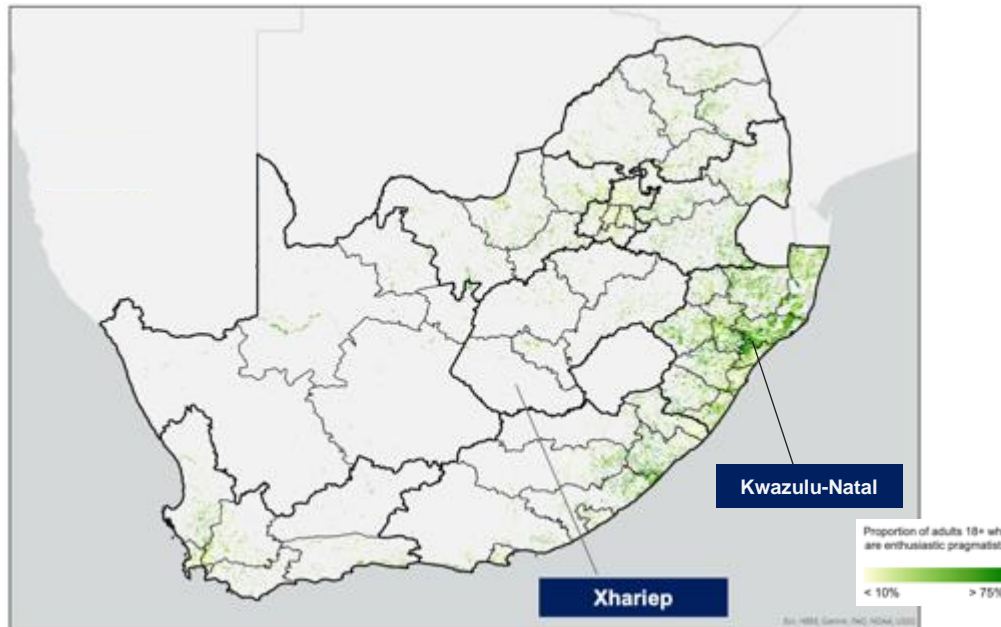
How do we reach those who *want* vaccines but don’t think they can get them?

## WHO are we looking for?

Segment 3 Enthusiastic pragmatists	
	
Summary	Convinced of COVID threat and merits of a vaccine, but inhibited by practical barriers. Cost-benefit analysis of the process could cause uptake delay.
% of population	19%
Likelihood to take a COVID-19 vaccine	High
Speed of uptake	As soon as possible
Perceived ease of getting the vaccine	Not easy/not at all easy
COVID disease perceptions	High perceived risk and severity

## WHERE do we find them?

People in the **enthusiastic pragmatists** segment are disproportionately located around Kwazulu-Natal and near Durban.



## HOW do we reach them?

Residents in KwaZulu-Natal mostly use social media, but most also watch regularly, primarily in Isizulu.

### Social Media

Facebook Users %	91
Instagram Users %	44

### Language

English %	12
Afrikaans %	1
Isixhosa %	7
Isizulu %	70

### Communications and Media

TV Viewers %	66
Mobilephone Ownership %	93
Radio Ownership %	61



# Ex. 3: Understanding Complacency in Johannesburg

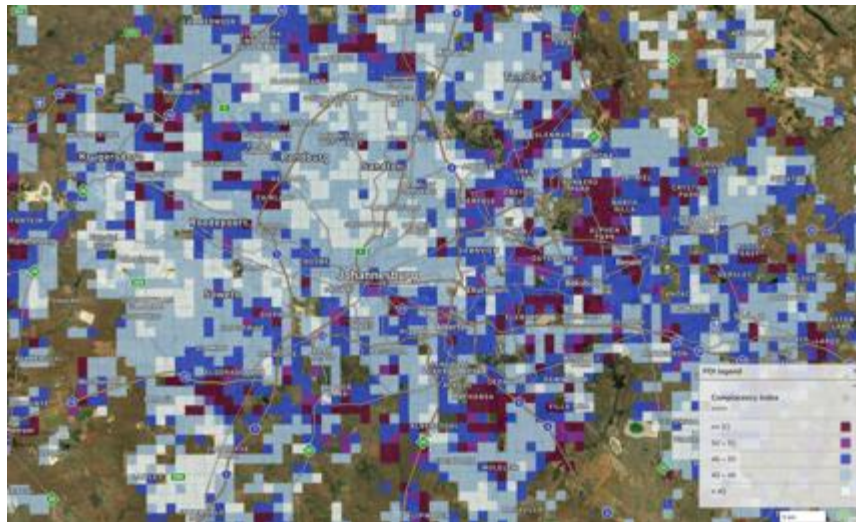
How do we reach those who *might* take a vaccine but don't see a risk in Covid, in Johannesburg?

## WHO are we looking for?

Segment 5	
Vaccine ambivalents	
	
Summary	Not convinced of the threat of COVID as a disease and lack motivation to seek a vaccine, but few barriers to uptake. Could be moved by social norms and strong messaging.
% of population	20%
Likelihood to take a COVID-19 vaccine	Moderate
Speed of uptake	Wait at least 6-12 months
Perceived ease of getting the vaccine	Fairly easy
COVID disease perceptions	Low perceived risk and severity

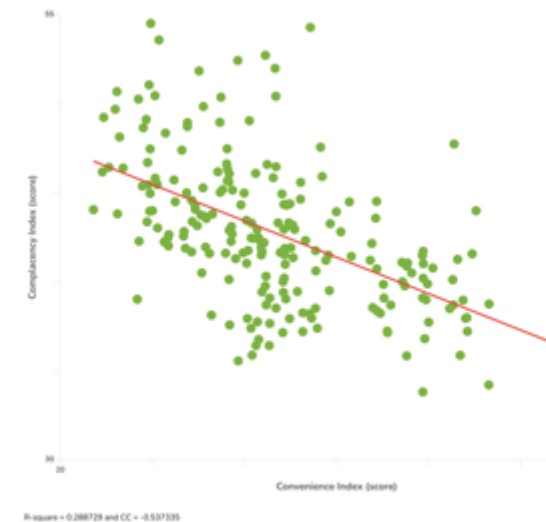
## WHERE do we find them?

People in central Johannesburg tend to be less complacent, whereas those in the suburbs – particularly to the south-east and east, tend to be more complacent.



## HOW do we reach them?

Pop-up vaccination sites in the east end of Johannesburg could be used to reach those in complacency 'hot spots' where the residents tend to be less motivated to travel for a shot.



We also know that those who are more complacent *in this neighborhood* tend to have more convenience-related challenges, so pop-up clinics would serve them well.

# **07 Appendix**

## **Geospatial Mapping: Nigeria**

# Hyperlocal Support of Vaccine Uptake: Overview

We aim to bring local understanding of uptake barriers across Nigeria

## Goals



A **deeper understanding** of how the 3C's occur locally and across entire countries to inform broad RCCE efforts.



A **detailed mapping of J&J's consumer segments** and media consumption patterns across the country to close the gap between data and action.



An **interactive tool to equip implementors with hyperlocal data** to overcome barriers to vaccine uptake faster.

## Outputs



**Comprehensive reports** containing overviews and detailed assessments of hyperlocal patterns of vaccine confidence, complacency, convenience, consumer segmentation, and media consumption patterns across the entire country.



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## The 3C's

**Confidence:** High confidence = *More* likely to take a Vx

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### Meet the segments: An introduction

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Speed of uptake	As soon as possible	Wait at least 6-12 months	Never	As soon as possible	Wait at least 6-12 months
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## Consumer Segmentation

Different segments of people have different motivations and reasons to not get a COVID-19 vaccine (barriers)

# Data and Methods

We used geospatial machine learning methods to create a local understand of vaccination uptake barriers across the entire country down to the square kilometer.

## Data

This report leverages the 2018 Nigeria Demographic and Health Survey.

Health facilities in sub-Saharan Africa were sourced from the World Health Organization.<sup>1</sup>

Walking and driving time to health facilities were sourced from the Malaria Atlas Project.<sup>2</sup>

## Methods

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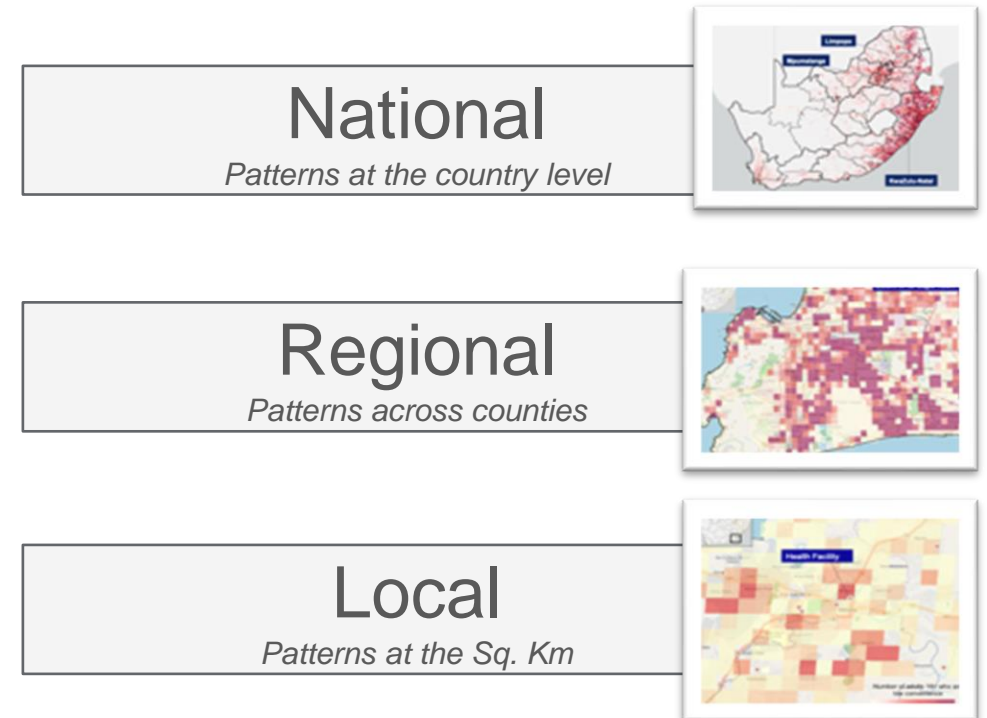
# Use this Document as Inspiration

Paired with WHO's 3C Framework, we've mapped J&J's Consumer Segments to identify where vaccine uptake challenges are likely to occur.

## Potential ways to use this analysis:

- Concentrate communication campaigns and media spending in specific geographic areas
- Target specific messages to niche audiences in prioritized geographies
- Optimize vaccine distribution
- Service & Product Delivery Planning

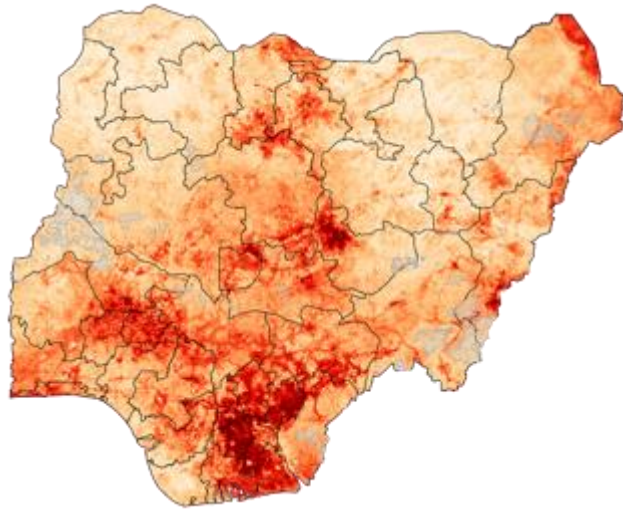
## 3 Levels of Views



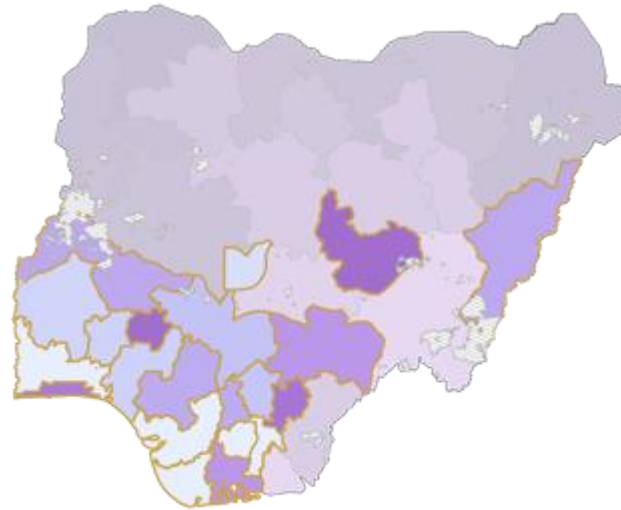
# Creating the Profile: Segment 2 “Vaccine Sceptics”

Low complacency, moderate convenience adults living in low confidence areas.

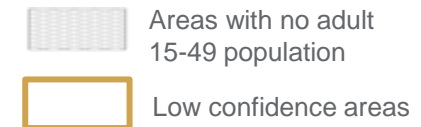
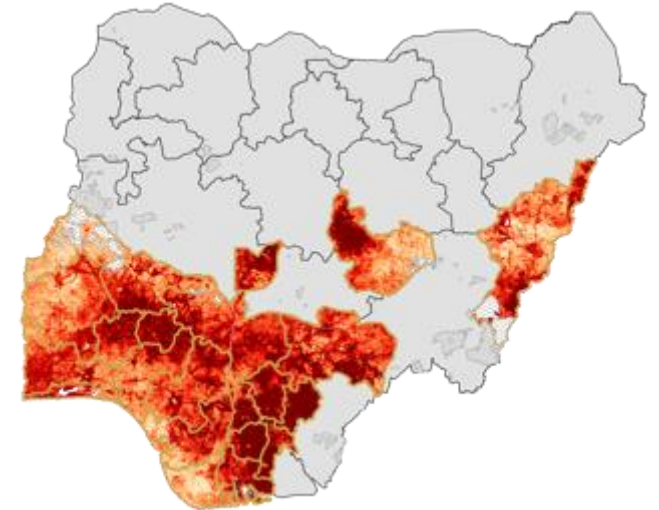
Proportion of adults 15-49 who are low complacency, moderate convenience<sup>1</sup>



Low confidence areas on the state-level confidence index<sup>2</sup>



Hotspots of “Vaccine Sceptics” at the National Level in Nigeria



**Note 1:** low complacency adults are adults who are in the first tercile of the complacency index, and moderate convenience in the second tercile of the convenience index.

**Note 2:** low government confidence areas are those that fall into the first tercile of the state-level confidence index. Areas that are not low confidence were made transparent.

**Source:** 2018 Nigeria DHS, 2021 Nigeria Afrobarometer, Fraym

# Reaching ‘Vaccine Sceptics’ in Imo

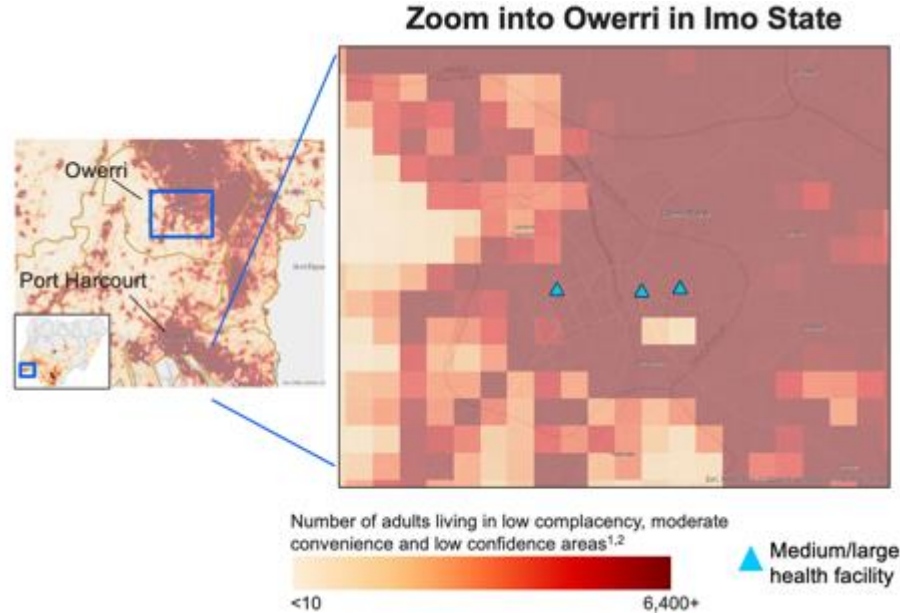
How do we reach those near Nairobi who are worried by Covid but have vaccine concerns?

## WHO are we looking for?

Segment 2 Vaccine sceptics	
	
Summary	Convinced of COVID threat, but scepticism around vaccine safety and efficacy inhibits perceived benefit and quick uptake.
% of population	25%
Likelihood to take a COVID-19 vaccine	Moderately low
Speed of uptake	Wait at least 6-12 months
Perceived ease of getting the vaccine	Fairly easy
COVID disease perceptions	High perceived risk and severity

## WHERE do we find them?

Vaccine sceptics are convinced of the COVID threat, but obstacles in health access and low confidence in the government may make vaccine outreach more challenging.



## HOW do we reach them?

Media consumption patterns for Vaccine Sceptics around Owerri can be seen in the chart below.

📰 Newspaper Readers %	📺 15
📺 TV Viewers %	📺 39
📱 Mobile Phone Ownership %	📺 96
📻 Radio Ownership %	📺 78

Given their heavy radio use, it may work be effective to communicate with Vaccine Sceptics via radio channels in Imo.

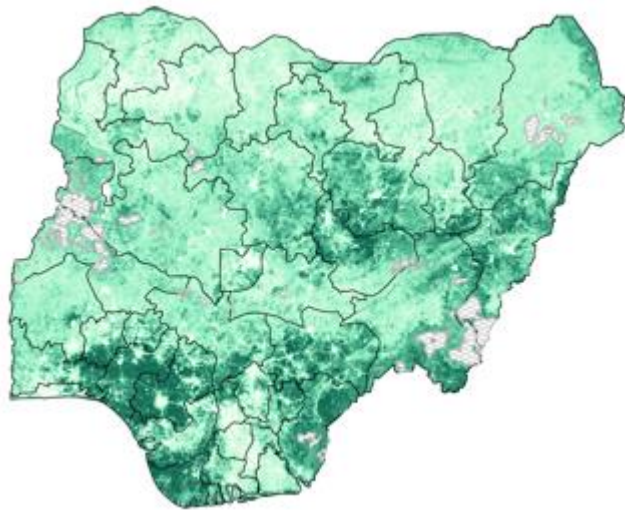
**Putting it all together:** In order to reach Vaccine Sceptics in Imo state, radio may be an effective channel.



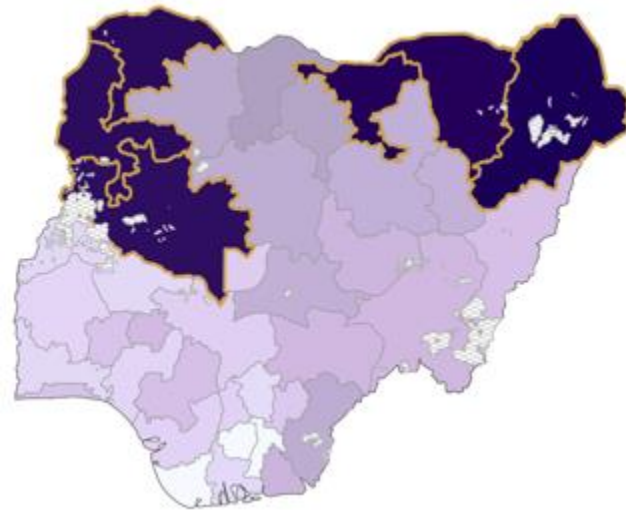
# Creating the Profile: Segment 4 “Enthusiastic Pragmatists”

We found low complacency, low convenience adults living in high confidence areas.

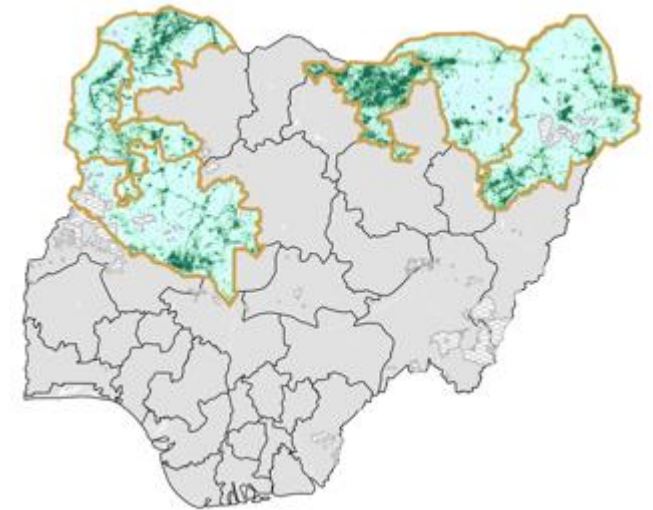
Proportion of adults 15-49 who are low complacency, low convenience<sup>1</sup>



High confidence areas on the state-level confidence index<sup>2</sup>



Hotspots of “Enthusiastic Pragmatists” at the National Level in Nigeria



**Note 1:** Low complacency, low convenience adults are adults who are in the first tercile of the complacency index, and in the third tercile of the convenience index.


**Note 2:** High government confidence areas are those that fall into the first tercile of the state-level confidence index. Areas that are not high confidence were made transparent.

Source: 2018 Nigeria DHS, 2021 Nigeria Afrobarometer, Fraym

# Reaching ‘Enthusiastic Pragmatists’ in Yobe State

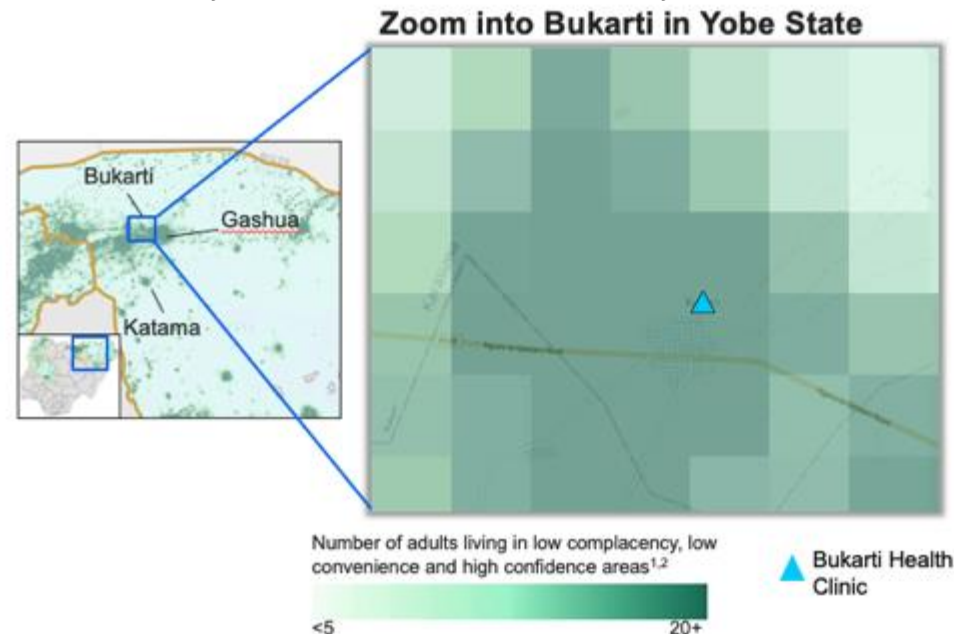
How do we reach those who *want* vaccines but don’t think they can get them?

## WHO are we looking for?

Segment 4 Enthusiastic pragmatists	
	
Summary	Convinced of COVID threat and merits of a vaccine, but inhibited by practical barriers. Cost-benefit analysis of the process could cause uptake delay.
% of population	19%
Likelihood to take a COVID-19 vaccine	High
Speed of uptake	As soon as possible
Perceived ease of getting the vaccine	Not easy/not at all easy
COVID disease perceptions	High perceived risk and severity

## WHERE do we find them?

12% of adults in Yobe state are expected to be enthusiastic pragmatists. Adults near less densely populated communities such as **Bukarti**, **Gashua** and **Katamma** are generally expected to take the vaccine but may be inconvenienced in some way.



## HOW do we reach them?

There are a **few health facilities** in the vicinity and adults may still face time-related trade-offs for getting vaccinated.

We also know that **81% of Enthusiastic Pragmatists have access to a mobile phone**.

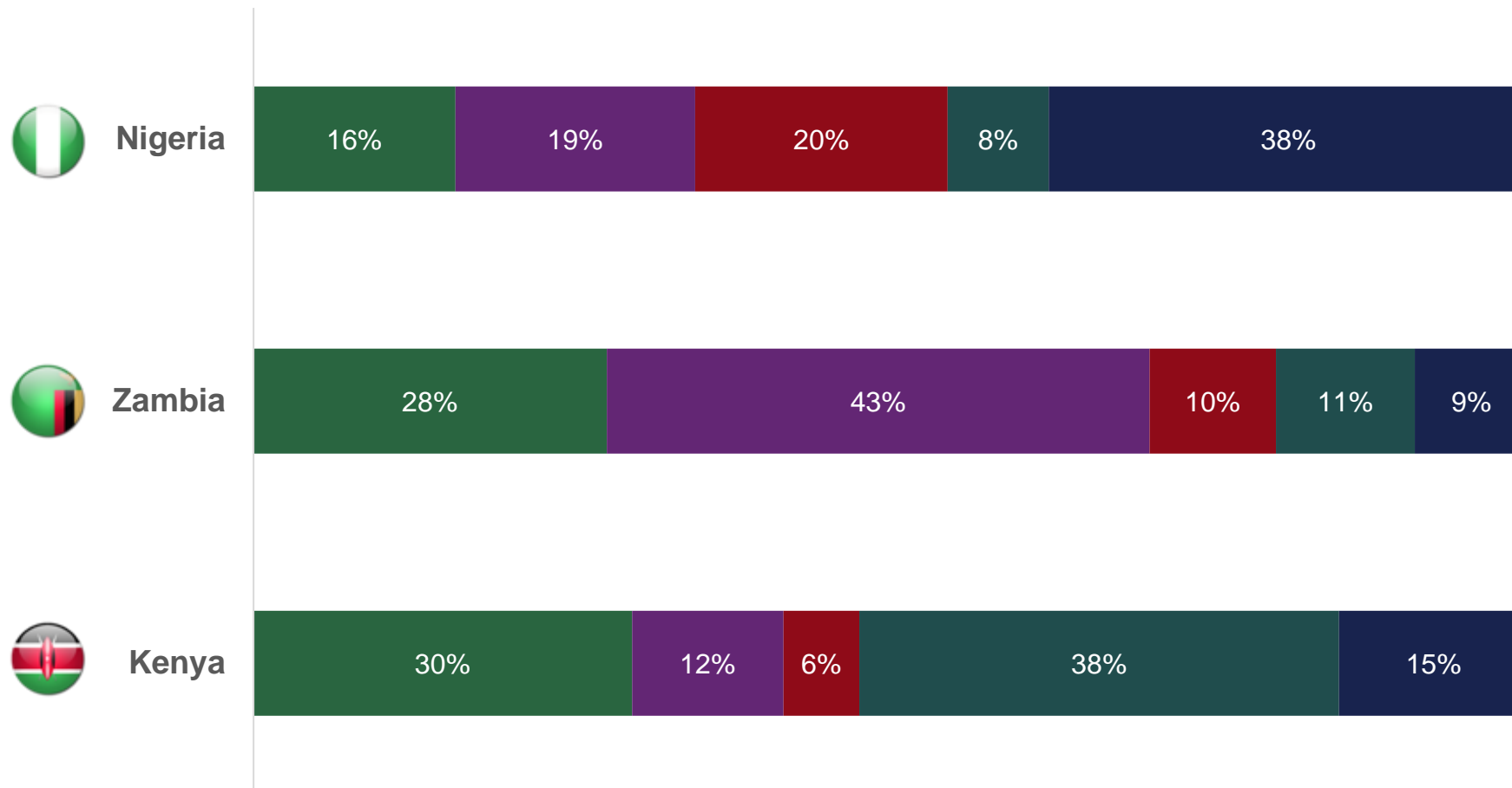
A combination of pop-up clinics and an SMS messaging campaign to inform pragmatists of their location may help increase vaccination rates.

**Putting it all together:** In order to reach Enthusiastic Pragmatists in Yobe state, a combination of pop-up clinics and mobile messaging may be an effective strategy.

# **08 Appendix**

## **Country Segmentation Distributions**

# Country segmentation distributions






Sum of high likelihood segments	Sum of moderate likelihood segment	Sum of moderately low or very low likelihood
24%	38%	39%
39%	9%	53%
68%	15%	18%

■ 1 Confident enthusiasts ■ 2 Vaccine sceptics ■ 3 Covid Cynics ■ 4 Enthusiastic Pragmatists ■ 5 Vaccine Ambivalents

# Population-level attitudes have some impact on segment distribution across countries

Observations at a population level:

	 Kenya	 Zambia	 Nigeria
Likelihood of taking a COVID vaccine	High	Moderate	Lower
Speed of COVID vaccine uptake	As soon as possible	Many as soon as possible, others 6+ months	Delay of 6-12 months anticipated
Perceptions of ease of vaccination process	Mix of attitudes – some easy, some difficult	General consensus that process will be easy	Mix of attitudes – some easy, some difficult

# Consistencies across segments

<b>Gender split</b> Segments have minimal male/female skew	<b>Religious beliefs</b> Strong agreement across segments that 'Faith protects me and my family from harm'	<b>COVID impact</b> Relatively, segments all state impact on their finances, health and social mobility opportunities	<b>Community focus motivating actions</b> Relatively, all segments are motivated by responsibility to their community
<b>Age distribution</b> All segments have good distribution across age groups	<b>Trust in doctors for health seeking advice</b> The most trusted source for general health and COVID Vx info	<b>Awareness of a COVID vaccine</b> High awareness of a COVID vaccine across segments	<b>Comms channels for COVID Vx info</b> All segments state they have received COVID Vx info via TV and radio

There are some nuances in sentiment strength and where relevant this is included in our persona summaries

# **09 Appendix**

## **Deep-Dive into Segment Personas**

# Segment 1: Confident enthusiasts



“I am a firm believer in the benefits of vaccines – from the protection it can provide to myself and my family, to its subsequent ability to protect the community and the elderly. I am also very wary of the severity of COVID-19, especially with the news around the new variants – if there’s anything I can do to protect myself from getting COVID-19, I will do it!”  
Imagined quote

## Attitudes towards COVID-19 vaccine

Awareness of vaccine	✓ High
Likelihood to take vaccine	✓ High
Perceived difficulty of getting the vaccine	✓ Low
Motivation level to get the vaccine	✓ High
Level of <b>perceptual barriers</b> to get the vaccine	▬ Neutral
Level of <b>physical/practical barriers</b> to get the vaccine	▬ Neutral
Speed of uptake	✓ Quick

Segment Size

24%

## Demographics



Proportion within Country



16% 30% 28%



Gender



Age: 55% 18-34 45% 35+



Occupation: Self-employed



Poverty Index Score

30%

High poverty

36%

Medium Poverty

34%

Low poverty



# Segment 1: Confident enthusiasts



## What are my COVID beliefs?

Top 3 per segment

“I believe that COVID is really severe so I follow the protocols in place to distance and protect myself, and the elderly, from COVID-19”

I follow social distancing rules and wear a mask to protect myself from COVID-19



I believe that COVID-19 can result in serious illness and/or hospitalisation



I am concerned about the elderly people in my community getting COVID-19



## What are my perceptions of COVID risk and severity?

“I feel that my community are at risk of COVID-19 which could become a serious infection”

I know somebody who close to me who was diagnosed with COVID-19



I believe COVID-19 is real and a threat to public health



I believe people in my community are at risk of getting COVID-19



I believe people in my community could become seriously ill or die infected with COVID-19



### Will I take the COVID-19 Vaccine?

Likely 98% ↑ S2,S3,S5

Unlikely 1% ↓ S2,S3,S5

### Perceived difficulty of getting the COVID-19 vaccine

Difficult 2% ▼

Easy 93% ▲

### When will I take the COVID-19 vaccine?

As soon as possible 96% ↑ S2,S3,S5

6-12 months 1% ↑ S3 ↓ S2,S5

12+ months 1% ↑ S3 ↓ S2,S5

Never 2% ↓ S2,S3,S5

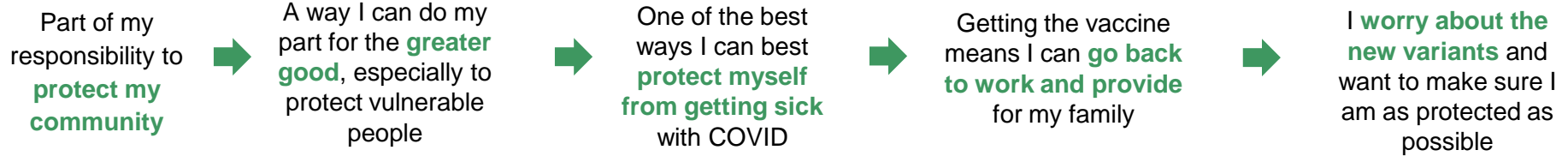
Base: All segment 1 (n=596). ↑ ↓ Significantly higher/ lower than other segments ▲ ▼ Significantly higher/ lower than all segments

# Segment 1: Confident enthusiasts

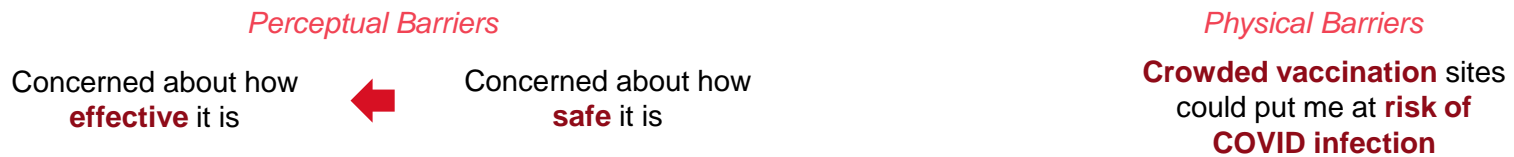


Segment 1 already have resolute morals and strong motivation to play their part to protect their community and safely continue to provide for their family. Their concern for new variants also drives their need for protection – which far outweighs their slight apprehension in the vaccine’s effectiveness and safety, especially when they’re re-assured by their doctor.

Motivation to get vaccinated



Barriers with vaccination uptake



## **i** Trusted information sources and channels

**Channel:**

TV usage (88%) – Trust a lot: **52%** ▲  
 Radio usage (85%) – Trust a lot : **53%** ▲

**Sources:**

Doctors (78%) ▲      Pharmacists (53%) ▲  
 Nurses (61%)      National medical associations (53%) ▲  
 Religious leaders (55%)      Community healthcare workers (53%) ▲

Base: All segment 1 (n=596). ↑↓ Significantly higher/ lower than other segments ▲ ▼ Significantly higher/ lower than all segments

# Segment 2: Vaccine sceptics



“I know there are lot of benefits to getting vaccinated and the process seems fairly easy. I’m worried about getting sick from the vaccine, and safety and efficacy in general. There’s a lot of information on social media and it’s hard to know what’s right. I’m planning to wait for a few months and see how others react to the vaccine.”

Imagined quote

## Attitudes towards COVID-19 vaccine

Awareness of vaccine	High
Likelihood to take vaccine	Moderately low
Perceived difficulty of getting the vaccine	Low
Motivation level to get the vaccine	Neutral
Level of perceptual barriers to get the vaccine	Neutral
Level of physical/practical barriers to get the vaccine	Neutral
Speed of uptake	Slow

Segment Size

25%

## Demographics

Proportion within Country



19% 12% 43%

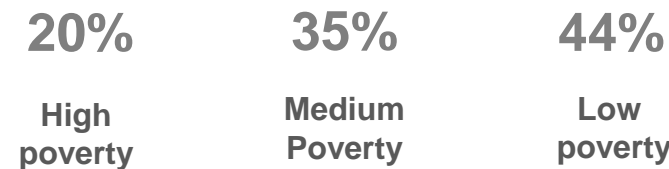
Gender



Age: 55% 18-34 45% 35+

Occupation: Office worker

Poverty Index Score



# Segment 2: Vaccine sceptics



## Will I take the COVID-19 Vaccine?

Likely **53%** ↑ S3 ↓ S1,S4

Unlikely **14%** ↑ S1,S4 ↓ S3

## Perceived difficulty of getting the COVID-19 vaccine

Difficult **33%** ↑ S1 ↓ S3,S4,S5

Easy **56%** ↑ S3,S4,S5 ↓ S1

## When will I take the COVID-19 vaccine?

As soon as possible **45%** ↑ S3 ↓ S1,S4,S5

6-12 months **23%** ↑ S1,S3,S4

12+ months **26%** ↑ S1,S3,S4

Never **6%** ↑ S1,S4 ↓ S3



## What are my COVID beliefs?

Top 3 per segment

“I believe that COVID is really severe so I follow the protocols in place to distance and protect myself, and the elderly from COVID-19 as I am really concerned for the community”

I believe that COVID-19 can result in serious illness and/or hospitalisation

**96%** ↑ S3,S5

I follow social distancing rules and wear a mask to protect myself from COVID-19

**96%** ↑ S3,S5

I am concerned about the elderly people in my community getting COVID-19

**91%** ↑ S3,S5



## What are my perceptions of COVID risk and severity?

“I believe COVID is a real threat to public health as I know many people who have been diagnosed with COVID. I believe that the disease is severe as people in my community are at great risk”

I know somebody who close to me who was diagnosed with COVID-19

**65%** ↑ S1,S3,S5

I believe COVID-19 is real and a threat to public health

**98%** ↑ S3,S4,S5

I believe people in my community are at risk of getting COVID-19

**76%** ↑ S3,S5

I believe people in my community could become seriously ill or die infected with COVID-19

**72%** ↑ S3,S5

# Segment 2: Vaccine sceptics



Segment 2 have a strong motivation generated by wanting to play their part to protect their community and do what's best for the greater good. Their concern for new variants also drives their need for protection. However, their concerns of how safe and effective the vaccine is are strong barriers. They are big users of social media although lack trust in this platform.

Motivation to get vaccinated

Part of my responsibility to **protect my community**

I **worry about the new variants** and want to make sure I am as protected as possible

A way I can do my part for the **greater good**, especially to protect vulnerable people

One of the best ways I can best **protect myself from getting sick** with COVID

Will allow me to **travel**



Barriers with vaccination uptake

Concerned about how **safe** it is

*Perceptual Barriers*

Concerned about its **side effects**

Concerned about how **effective** it is

*Physical Barriers*

**Crowded vaccination sites** could put me at **risk of COVID infection**

I **don't like needles** and injections

I **don't want to get two shots** to be fully protected

## i Trusted information sources and channels

Channel:

TV usage (94%) – Trust a lot: **52%**

Radio usage (86%) – Trust a lot : **41%**

Social media (83%) ▲ – Trust a lot : **12%** ▼

Sources:

Doctors (65%)

Nurses (51%)

Pharmacists (44%)

*To note: Significantly low trust in national celebrities, social media influencers, social media, political leaders and traditional healers*

# Segment 3: COVID cynics



“I have heard of COVID and know a lot about the disease but I am unwilling to receive a vaccination. What’s the point if it’s not a severe disease for me? I don’t trust the West, and I do not trust the government. Where have these vaccines even come from – are they safe? Being told to get vaccinated is an infringement on my freedom! I believe God offers me protection from COVID.” Imagined quote

## Attitudes towards COVID-19 vaccine

Awareness of vaccine	✓ High
Likelihood to take vaccine	✗ Low
Perceived difficulty of getting the vaccine	✗ Difficult
Motivation level to get the vaccine	✗ Low
Level of perceptual barriers to get the vaccine	✗ High
Level of physical/practical barriers to get the vaccine	✗ High
Speed of uptake	✗ Slow

Segment Size

12%

## Demographics

### Country



20% 6% 10%

### Gender



Age: 58% 18-34 42% 35+

Occupation: Self-employed

### Poverty Index Score

27% 27% 47%

High poverty Medium poverty Low poverty

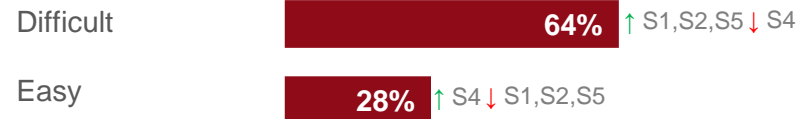
# Segment 3: COVID cynics



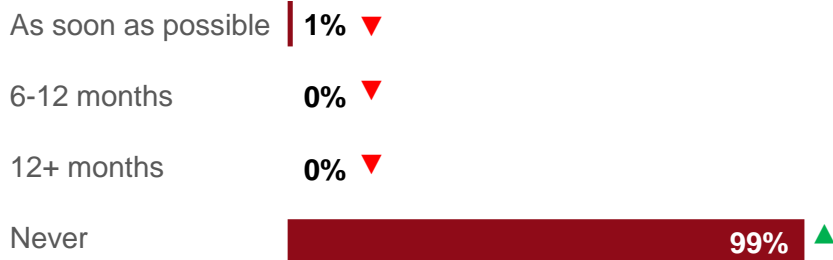
## Will I take the COVID-19 Vaccine?



## Perceived difficulty of getting the COVID-19 vaccine



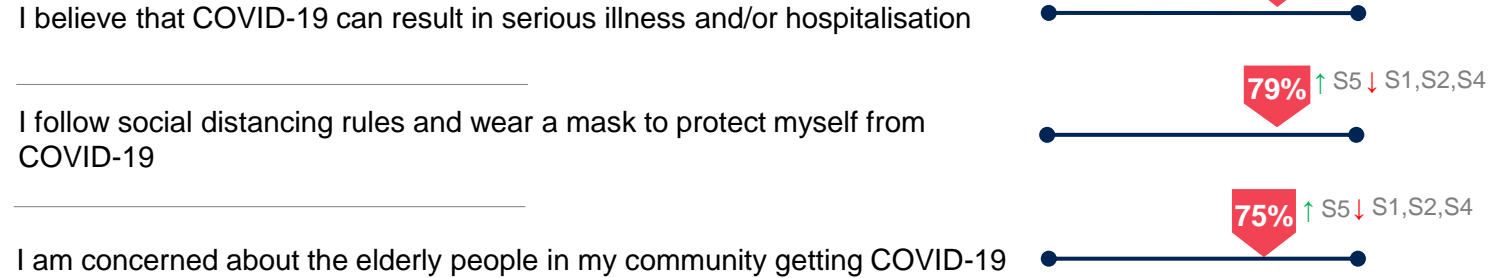
## When will I take the COVID-19 vaccine?



## What are my COVID beliefs?

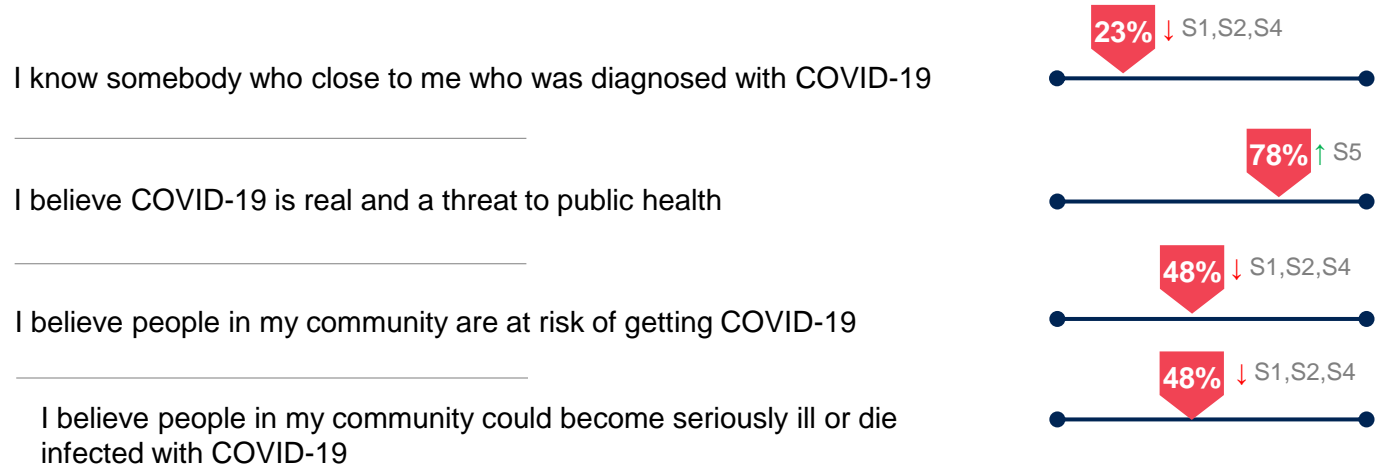
Top 3 per segment

“I try to follow the protocols in place to protect myself from COVID, partly because it’s what I see everyone else doing. I am worried about COVID but not to the extent that many other people I know are.”



## What are my perceptions of COVID risk and severity?

“I have heard a lot of people have been sick, but I don’t know many people who have had COVID and don’t feel my community is at much risk of getting this disease.”



# Segment 3: COVID cynics



There are many barriers preventing segment 3 from vaccination. Trust in where the vaccine has come from, how the vaccine will affect them and how safe the vaccine is are all key perceptual barriers. Segment 3 are concerned for new variants which drives a slight sense for need for protection – as well as their fear of judgement for not being vaccinated. But they would take a lot of convincing.

Motivation to get vaccinated

I worry about the new variants and want to make sure I am as protected as possible

Will allow me to travel

I do not want to be judged for being unvaccinated



Barriers with vaccination uptake



## i Trusted information sources and channels

**Channel:**

- TV usage (78%) – Trust a lot: 29% ▼
- Radio usage (77%) – Trust a lot : 28% ▼

**Sources:**

- Doctors (53%) ▼ – personal doctor (43%) ▼
- Nurses (43%) ▼
- Religious leaders (40%) ▼
- Pharmacists (40%) ▼

Base: All segment 3 (n=285). ↑↓ Significantly higher/ lower than other segments ▲ ▼ Significantly higher/ lower than all segments



# Segment 4: Enthusiastic pragmatists



“In theory I will take a COVID-19 vaccine as soon as one is available, but in practice I’m uncertain about the logistics of getting vaccinated. I know it is one of the best ways to protect my community, but I’m not sure I can justify the travel costs and loss of income for a day. I work hard to provide for my family, which is important to me. I already wear a mask and socially distance where possible, maybe that’s enough protection?” Imagined quote

## Attitudes towards COVID-19 vaccine

Awareness of vaccine	✓ High
Likelihood to take vaccine	✓ High
Perceived difficulty of getting the vaccine	▬ Neutral
Motivation level to get the vaccine	✓ High
Level of perceptual barriers to get the vaccine	✓ Low
Level of physical/practical barriers to get the vaccine	✗ High
Speed of uptake	✓ High

Segment Size

12%

## Demographics

### Country



8% 38% 11%

### Gender



### Age: 48% 18-34 52% 35+

### Occupation: Self-employed

### Poverty Index Score



# Segment 4: Enthusiastic pragmatists



## Will I take the COVID-19 Vaccine?

Likely **96%**

Unlikely **0%** ↓ S2,S3,S5

## Perceived difficulty of getting the COVID-19 vaccine

Difficult **84%** ▲

Easy **4%** ▼

## When will I take the COVID-19 vaccine?

As soon as possible **97%** ↑ S2,S3,S5

6-12 months **2%** ↓ S2,S5 ↑ S3

12+ months **1%** ↓ S2,S5 ↑ S3

Never **1%** ↓ S2,S3,S5



## What are my COVID beliefs?

Top 3 per segment

“I follow the protocols in place to distance and protect myself. I believe COVID is severe and I’m concerned about elderly people in my community”

I follow social distancing rules and wear a mask to protect myself from COVID-19



I believe that COVID-19 can result in serious illness or hospitalisation



I am concerned about the elderly people in my community getting COVID-19



## What are my perceptions of COVID risk and severity?

“COVID is a real threat to public health and my community is at great risk of getting this disease. I know many people close to me who has been diagnosed with COVID too”

I know somebody who close to me who was diagnosed with COVID-19



I believe COVID-19 is real and a threat to public health



I believe people in my community are at risk of getting COVID-19



I believe people in my community could become seriously ill or die infected with COVID-19



# Segment 4: Enthusiastic pragmatists



Segment 4 already have strong motivation to play their part to protect their community and do what's best for the greater good. They are highly concerned about lack of transportation, the costs of travelling to get the vaccine and the loss of salary that may occur when going to the vaccination site. Whilst they have intrinsic motivation, these practical barriers will hold them back.

Motivation to get vaccinated

Part of my responsibility to protect my community

A way I can do my part for the greater good, especially to protect vulnerable people

One of the best ways I can best protect myself from getting sick with COVID

I worry about the new variants and want to make sure I am as protected as possible

Will get it if it is free



Barriers with vaccination uptake

Practical / Physical Barriers

Crowded vaccination sites could put me at risk of COVID infection

I am worried the vaccination site will run out of doses of the vaccine

Distance needed to travel to get to vaccine

Cost of travelling to get to vaccine

Lack of transportation needed to get to vaccination site

## Trusted information sources and channels

Channel:

TV usage (83%) – Trust a lot: 40%

Radio usage (90%) ▲ – Trust a lot : 42%

Social media (66%) ▼ – Trust a lot : 14%

Sources:

Doctors (69%)

Nurses (57%)

Religious leaders (41%)

To note: Sig low trust in international non-govt organisations (NGO) eg WHO, UNICEF

Base: All segment 4 (n=453). ↑↓ Significantly higher/ lower than other segments ▲ ▼ Significantly higher/ lower than all segments

# Segment 5: Vaccine ambivalents



“I am not against the vaccine in general but also don’t really see the point? I don’t know many people who have been seriously ill because of COVID and I fancy my chances. I will wait and see what happens and if my peers at the church/ mosque vaccinate first.”

Imagined quote

## Attitudes towards COVID-19 vaccine

Awareness of vaccine	✓ High
Likelihood to take vaccine	▬ Neutral
Perceived difficulty of getting the vaccine	▬ Neutral
Motivation level to get the vaccine	✗ Low
Level of perceptual barriers to get the vaccine	▬ Neutral
Level of physical/practical barriers to get the vaccine	▬ Neutral
Speed of uptake	▬ Delayed

Segment Size

20%

## Demographics

### Country



38% 15% 9%

### Gender



### Age: 58% 18-34 42% 35+

### Occupation: Self-employed

### Poverty Index Score

46% 32% 22%

High poverty Medium poverty Low poverty

# Segment 5: Vaccine ambivalents



## Will I take the COVID-19 Vaccine?

Likely **57%** ↑ S3 ↓ S1,S4

Unlikely **13%** ↑ S1,S4 ↓ S3

## Perceived difficulty of getting the COVID-19 vaccine

Difficult **46%** ↑ S1,S2 ↓ S3,S4

Easy **41%** ↑ S3,S4 ↓ S1,S2

## When will I take the COVID-19 vaccine?

As soon as possible **52%** ↑ S2,S3 ↓ S1,S4

6-12 months **19%** ↑ S1,S3,S4

12+ months **22%** ↑ S1,S3,S4

Never **7%** ↑ S1,S4 ↓ S3



## What are my COVID beliefs?

Top 3 per segment

“Even though people in the community follow social distancing rules I don’t particularly like to wear a mask or follow these rules as I think COVID isn’t that serious.”

I follow social distancing rules and wear a mask to protect myself from COVID-19

**72%** ▼

I believe that COVID-19 can result in serious illness or hospitalisation

**70%** ▼

People around me in the community follow social distancing rules

**63%** ↑ S2



## What are my perceptions of COVID risk and severity?

“I have no one close to me who’s been diagnosed with COVID so I don’t think that people are really at risk or could get seriously ill.”

I know somebody who close to me who was diagnosed with COVID-19

**26%** ↓ S1,S2,S4

I believe COVID-19 is real and a threat to public health

**71%** ▼

I believe people in my community are at risk of getting COVID-19

**53%** ↓ S1,S2,S4

I believe people in my community could become seriously ill or die infected with COVID-19

**50%** ↓ S1,S2,S4

# Segment 5: Vaccine ambivalents



Segment 5 need support to overcome the mix of practical and perceptual barriers holding them back from vaccinating. Segment 5 think getting the vaccine might be a hassle due to distance and cost of travel to vaccination centres. They also think they are not at risk of getting COVID and have concerns over the side effects, safety and efficacy of the vaccine. Incentives, such as free vaccines or vouchers, and messaging emphasising the benefits of vaccination could help overcome their complacency.

Motivation to get vaccinated

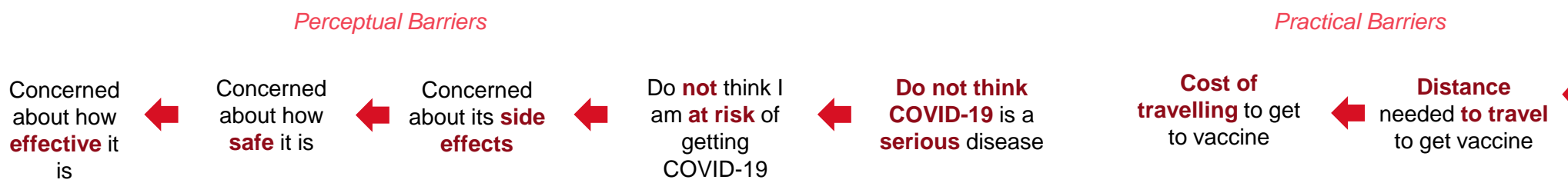
Will get it if it is free

Will allow me to travel

Will get it if the **doctors /nurses /health care workers** in my local facility **tell me I should**



Barriers with vaccination uptake



## **i** Trusted information sources and channels

**Channel:**

- TV usage (84%) – Trust a lot: **46%**
- Radio usage (85%) – Trust a lot : **44%**
- Social media (73%) – Trust a lot : **26%** ▲

**Sources:**

- Doctors (67%) – personal doctor (57%) ▲
- Nurses (57%) ▲
- Pharmacists (53%) ▲
- National celebrities (20%) ▲
- Social media influencers (23%) ▲

Base: All segment 5 (n=496). ↑↓ Significantly higher/ lower than other segments ▲ ▼ Significantly higher/ lower than all segments

*Johnson & Johnson*