




Improving  
Vaccine Uptake

BILL & MELINDA  
GATES *foundation*

**finalmile.**  
a fractal company



Designing  
Segment-Targeted  
Interventions for  
Improving COVID 19  
Vaccine Uptake

Psycho-behavioral  
Segmentation in Kenya  
April 2023

## Content

1. About Segmentation
2. Objectives and Methodology
3. Segmentation Frameworks
4. Segment Profiles
5. Using Segmentation



# About Segmentation



# Segmentation Origins and Purpose

## Segmentation involves clustering individuals by shared characteristics

First developed in private sector for three key purposes:

1. **Prioritization** – niche, ease of engagement
2. **Customization** – higher engagement, better subjective experiences and market expansion
3. **Targeting** – efficiency in distribution and supply



### **DINK** (Double/Dual Income, No Kids)

Both partners in a household earn an income and have no children. They tend to exhibit discretionary expenditure on luxury goods and entertainment, as well as dining out.



### **GLAM** (Greying, Leisured and Moneyed)

Retired rich older people. They tend to exhibit higher spending on recreation, travel, and entertainment.



### **(American) Preppy**

Well-educated, wealthy, upper-class young people. Often, graduates of expensive schools. They can be distinguished by a style of dress.



### **SITKOM** (Single Income, Two Kids, Oppressive Mortgage)

They have very little discretionary income to spend and struggle to make ends meet.



### **YUPPY or YUPPIE** (Young, Upwardly-Mobile Professional)

Well-educated and career-minded. They are ambitious and affluent. They also spend their money freely.

# Activating Demand

## Latent Demand

In contrast to the traditional demand generation approach which is heavy touch, a **behavioral psychology**-driven approach posits that **demand isn't 'generated', but exists in the form of needs, preferences and tendencies of individuals**, which can be converted into actual demand, given the right context and cues. We call this **latent demand**.

## Self-Selected Attention

When the **design** of products, services and communications is **aligned to the behavioral drivers and latent demand** of the target population, they are **intrinsically driven** to engage with the product/service, without any external pushes or influences. This outcome is known as 'self-selected attention'.

# Latent Demand

## Assumed Demand for Vaccine

[X] is a dangerous disease,...

Vaccine can protect me from [X].....

Without serious side-effects.

## Latent Demand for Vaccine

I want to follow the vaccination norm in my community

I am safe but I want to protect my vulnerable family members

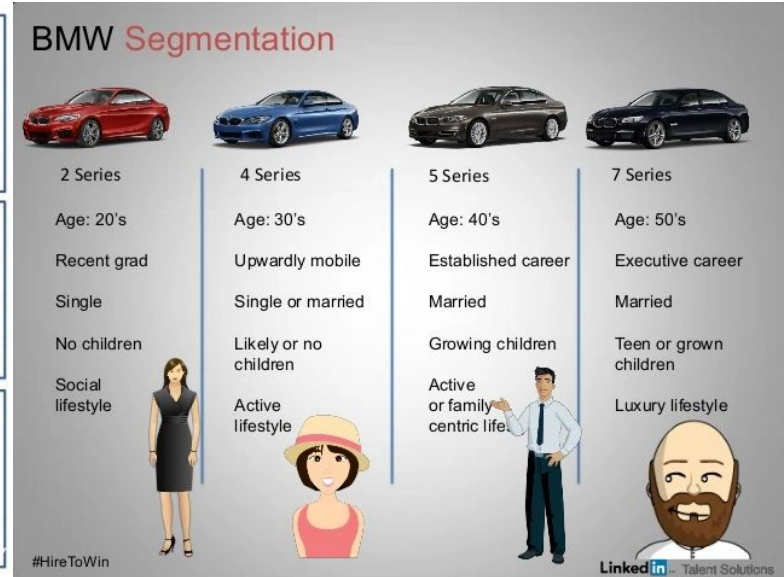
Free vaccine must be low quality, I will go to a private clinic and get [Y] brand

I trust [Z] and they told me to get vaccinated

Latent demand is often **non-conscious and inexplicit**, therefore it has to be **inferred and decoded**

# Self-Selected Attention

 <p>Mini Seg. A (10%)</p> <ul style="list-style-type: none"> <li>Hyundai i10</li> <li>VW up!</li> <li>Suzuki Alto</li> </ul>	 <p>Supermini Seg. B (26%)</p> <ul style="list-style-type: none"> <li>Ford Fiesta</li> <li>Opel Corsa</li> <li>VW Polo</li> </ul>	 <p>Lower medium Seg. C (31%)</p> <ul style="list-style-type: none"> <li>Ford Focus</li> <li>VW Golf</li> <li>Opel Astra</li> </ul>
 <p>Upper medium Seg. D (10%)</p> <ul style="list-style-type: none"> <li>BMW 3 Series</li> <li>Opel Insignia</li> <li>Audi A4</li> </ul>	 <p>Executive Seg. E (3%)</p> <ul style="list-style-type: none"> <li>BMW 5 Series</li> <li>Audi A6</li> <li>Mercedes-Benz E-Class</li> </ul>	 <p>Luxury Seg. F (0.2%)</p> <ul style="list-style-type: none"> <li>BMW 7 Series</li> <li>Jaguar XJ</li> <li>Mercedes-Benz S-Class</li> </ul>
 <p>Specialist sports Seg. G (1%)</p> <ul style="list-style-type: none"> <li>VW Scirocco</li> <li>Audi TT</li> <li>Mercedes-Benz SLK</li> </ul>	 <p>Dual purpose Seg. H (18%)</p> <ul style="list-style-type: none"> <li>Ford Kuga</li> <li>Kia Sportage</li> <li>Range Rover Evoque</li> </ul>	 <p>MPV Seg. I (1%)</p> <ul style="list-style-type: none"> <li>Citroen C4 Picasso</li> <li>Ford C-Max</li> <li>Opel Zafira</li> </ul>



**Diversity and variability** of latent demand necessitates **multiple, differentiated solutions** for self-selected attention

## Unique Benefits in Development Sector

When used in activating latent demand for public health and development programs, many of the benefits of this approach in private sector, like **higher engagement and efficiency**, translate well to the sector. Others, like prioritization, do not align with the needs of the sector.

Beyond its purpose in private sector, segmentation provides some **unique benefits in the development sector**.

1. **More inclusive and equitable outcomes**
2. **Reduced externalities and collateral impact**
3. **Reduced resource and time requirements**
4. **Managing complexity**
5. **Universalization**



# Objectives and Methodology



# Overall Project Objective

## Identify

Identify the **conscious and non-conscious drivers** of hesitancy or aversion towards COVID-19 vaccines and **barriers** to vaccine confidence and uptake.

## Assess

Assess the **prevalence and clustering of the drivers and barriers** in different segments of the population, profiling those segments for effective and actionable solution-targeting.

## Strategize

Strategize on **effective levers of behavior change** to boost confidence in an willingness to receive COVID vaccines for each segment.

## Co-develop

Co-develop **segment-targeted solution concepts** with governments, implementing partners and local stakeholders supporting vaccine demand and uptake.

## Support

Build **guidance materials and tools** to support implementers and public health authorities to comprehensively **understand and use** the segment profiles, solutions strategy, and to help them effectively **adapt and deploy localized interventions** to address the barriers.

# Project Process

Psycho-behavioral segmentation enables us to identify the most vulnerable individuals, who they are, how they vary across key dimensions in order to better address their needs and mitigate risks, allowing for more actionable and relevant interventions and solutions.



## Qualitative Research Planning

- Secondary research review
- Stakeholder immersion
- Hypothesis building
- Research tools
- IRB



## Research Execution

- Moderator training
- Qualitative formative research



## Analysis and Synthesis

- Transcripts analysis
- Sensemaking
- Data synthesis to inform quant survey instrument



## Quantitative Research Planning

- Quantitative survey instrument
- Quantitative sampling design
- In-country localization
- IRB amendment
- Coding survey into platform - survey, data checks, GPS, audio



## Pretest/Pilot

- Elite team training
- Pre-test
- Feedback and iteration
- Elite team trains enumerators
- Pilot with enumerators
- Feedback and iteration



## Main Field Work

- Field work execution
- Ongoing quality checks for data quality audit, audio audit and physical back checks
- Daily feedback to enumerators



## Data Analysis

- Preparing final data set
- Cluster modelling

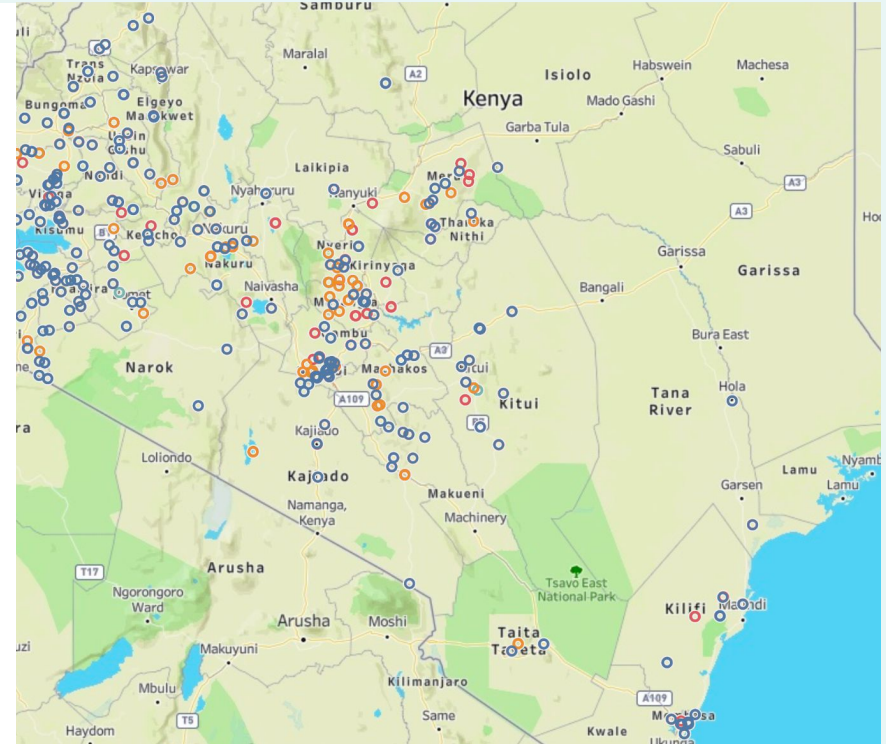


## Data Synthesis

- Variable level analysis
- Journey sense making
- Barrier mapping
- Segmentation Description



- The target sample size in the **qualitative research** was 40 participants across various geographic and demographic criteria
- The target sample size in the **quantitative research** was specifically 3000 adult (18+) respondents in Kenya.
- For the quantitative survey, the main sample was drawn from a probability-based stratified random cluster design.
- The sampling frame was a listing of micro-areas that provide comprehensive coverage of the entire country.
- Each micro-area served as a primary sampling unit (PSU). 300 PSUs will be randomly selected with probability proportional to size (PPS) within urban/rural strata. Within each PSU, rapid household listings will be conducted.
- Each selected PSU to permit random sampling of 10 households within each PSU.



# Psycho-Behavioral Approach - Stability, Scalability and Predictive Value

## Typical KAP Surveys

- Based on self-reports of individuals' attitudes, beliefs, preferences and intentions
- Self-reports **don't capture non-conscious tendencies**, therefore insufficient for latent demand
- Attitudes and preferences are **unstable and context dependent**, therefore not predictive of real-world behavior
- Gives us the current preferences but **not the strategies to change them**

## Psycho-Behavioral Survey

- **Deconstruct** decision-making, intent formation and preference construction
- Capture the **components and processes**
- Build a **psycho-behavioral model** to not only understand current preferences, but also **predict preferences in other contexts**
  - Future scenarios
  - Other geographies
  - Response to programmatic interventions

# Quantitative Survey Design Overview



## Screener

- Respondent age
- COVID beliefs
- Vaccination status



## COVID Risk Appraisal

- Risk perceptions
- Testing experiences
- Sickness experiences
- Personal COVID impacts
- Disease comparison



## COVID Vaccine Experiences

- When does received
- Vaccine intentions
- Vaccine experiences
- Vaccine safety & efficacy perceptions
- Vaccine emotions
- Needle fear



## Other Enablers & Barriers

- Trust in authorities
- Virus & vaccine myths & beliefs
- Decision autonomy
- Inertia & procrastination
- Vaccine benefits
- Process awareness
- Constraints & resources
- Sources of information



## General Health Status & Access

- Overall health
- Doctor influence
- COVID symptoms
- Care seeking
- Access to care



## Knowledge Quiz / Coping Actions

- Actions to protect against COVID
- Frequency of actions vs. 12 months ago



## Socio-demographics

- Household type
- Occupation
- Gender
- Education
- Religion

## Sampling - Probability-based stratified random cluster design

1. Randomized selection of primary sampling unit (PSU) with probability proportional to size within urban/rural strata
2. Random sampling of 10 households within each PSU
3. Random selection of adult household member to interview

## Quality Control

- Screening and in-person training of moderators, including live pilots in the field
- Standardized surveys and tablet-assisted interviewing
- Audits - data quality flags, audio backchecks, physical backchecks

# Segmentation Modelling -

## Semi-Supervised AI/ML-Driven Iterative Exploratory Approach

### Qual Insights

Journey framework with enablers & barriers

### Factor Analyses

Latent factors identified in quant data

### Regression Analyses

Factors identified as sig. associated with vaccine uptake

### Segmentation Analyses

Competing Models  
Factors which have significant variation & produce differentiated segments

These segmentation variables were not “pre-determined”\*. The iterative analytic process and competing models identified them as existing in the data to use in a final model

#### Core Variables Used to Segment Across Countries

##### General variables

- Trust in government, health system
- Economic hardship
- Health system engagement

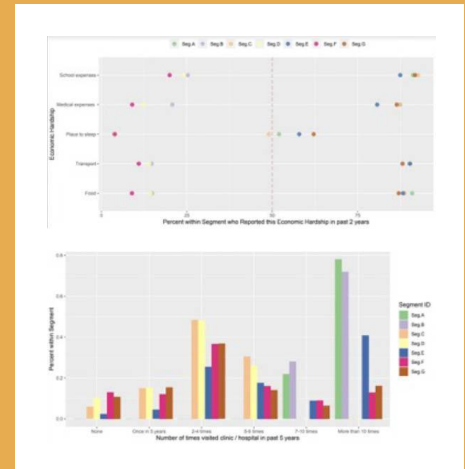
##### COVID specific variables

- COVID vaccinations rates for zero dose, one dose, 2 doses and booster shots
- COVID perceptions
- Risk appraisals
- COVID vaccine perceptions

\* Predictive modeling using cluster segmentation is an iterative exploratory approach vs. a hypothesis-testing approach to identifying and building actionable predictive models

#### Variables Used to Profile Segments

All variables in quant survey which show differentiation between segments, including outcome indicators





# Segmentation Frameworks

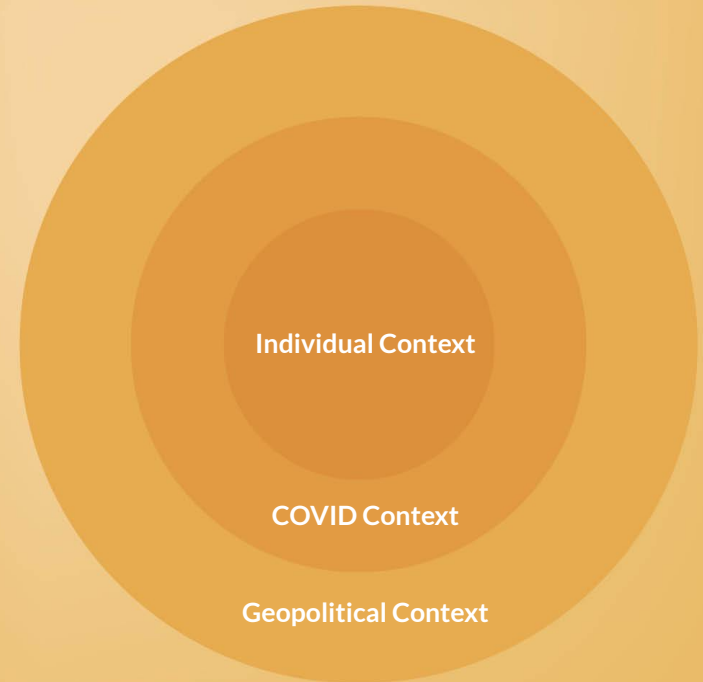


# Context Impacts the Decision Journey to COVID-19 Vaccine Uptake

The individual decision making journey exists within the larger dynamic context, which has a large impact on the cognitive appraisal of vaccine and decision and behavior for uptake.







The context impacting the COVID-19 vaccination uptake decision include:

- **The larger geopolitical context:** international relations and perceptions, government stability, hierarchical structure
- **The dynamic COVID context:** COVID rates, COVID hospitalization and death rates, reinstatement of mask mandates, vaccine mandates
- The individual context, as COVID is more than a disease context, but includes large lockdowns/restrictions and disruption to economic and social dimensions as well, that has a larger impact on the subsequent appraisals
  - The information and misinformation
  - Influencer landscape
  - Socio-Economic
  - Priors-trust in government and health systems, health system access



# Journey to COVID Vaccine Uptake Framework

As individual navigate through the decision stages, evaluation that leads to unfavourable assessment of COVID-19 vaccine can deter them off the positive pathway and lead them to **drop off** the decision stage.

Internalization of COVID-19 Risk	Vaccine enters consideration set	Perceived need for vaccine	Acceptance of vaccine	Getting 1st vaccine jab	Complete COVID-19/boosters vaccine
 <p><b>COVID-19 Disease Appraisal</b> What do I feel about the COVID-19 disease?</p>	 <p><b>Seeking Mitigation Strategies</b> How can I cope with the COVID-19 disease?</p>	 <p><b>COVID-19 Vaccine Appraisal</b> How do I feel about the COVID-19 Vaccine?</p>	 <p><b>Coping with Vaccine Risk</b> How can I cope with vaccine risk?</p>	 <p><b>Vaccination Uptake</b> How can I get this vaccine?</p>	 <p><b>Vaccination Adherence</b> Should I get the second dose?</p>
<p>Negligible COVID-19 risk Vaccine information and decision avoidance</p>	<p>Confidence in current mitigation measures Vaccine decision avoidance</p>	<p>Unfavorable vaccine appraisal and favorable status quo appraisal Selective engagement with information</p>	<p>Unfavorable vaccine and favorable status quo appraisal Procrastination and reappraisal</p>	<p>Ability/access gaps Inaction and rationalization</p>	<p>Lack of coping expectation discrepancy or poor intent Second dose avoidance</p>

# Enablers and Barriers in Vaccine Uptake Journey

## Enablers:

Facilitate a person to move forward in their COVID-19 vaccine uptake journey through the different decision stages

## Barriers:

Impede the forward movement of a person through the decision stages resulting in either regression to previous stage(s) or drop off from their COVID-19 vaccine uptake journey

	High Trust And Interaction With Healthcare System		Perceived Codependency		
High Covid Risk Perception	High Trust In Govt. Manage Covid	Perceived Need And High Reward For Covid Vaccine	Consulting Trusted Source Of Urgency	Hight Process Awareness	Positive Experience At Vaccine Center
Likelihood Of Future Illness	Engage In Cab But Perceive Need Of Vaccine	Low Risk Of Vaccine	High Social Proof	High Vaccine Access	Low Side Effect Prior Vaccine
<b>COVID-19 DISEASE APPRAISAL</b>	<b>COPING WITH COVID</b>	<b>COVID-19 VACCINE APPRAISAL</b>	<b>COPING WITH VACCINE RISK</b>	<b>VACCINE UPTAKE</b>	<b>VACCINE ADHERENCE</b>
Inadequate Covid Risk Perception	Low Engagement In Health System	High Vaccine Risk	Hot State Hesitancy / Lack Of Coping	Low Perceived Access	Lack Of Coping With Side Effects
	High Coping Outside The Vaccine	Low Vaccine Reward Perception	Low Urgency		
	Distrust In The System	Low Adult Vaccine Mental Model	Too 'Costly'		

# Country Context and Segments

## Kenya

### Geopolitical Context

- Higher trust in their government
- Recent elections - 'All is right' Campaign
- Seek information leading to large impact of misinformation

### COVID Context

- More cases and casualties in comparison to other African countries
- COVID not only a health risk, but more a socio-economic risk and disruption
- Risk perception peaks as cases, lockdown, restrictions and mask mandates are imposed, and reduce when things 'get back to normal' such as during elections
- Belief that virus is getting weaker

### COVID Vaccination Context

- Covid single dose vaccination rate of 36%
- High information-seeking leads to exposure to misconceptions and misinformation
- Widespread belief that vaccine is not safe for sickly, pregnant, breastfeeding mothers and children

SEGMENT NAME	SEGMENT SIZE	ZERO DOSE	1 DOSE	2+ DOSE
The Hopeful	16%	34%	29%	37%
The Relieved	12%	36%	26%	38%
The Indifferent	18%	43%	25%	31%
The Doubtful	21%	40%	27%	33%
The Anxious	11%	51%	22%	26%
The Skeptic	10%	59%	22%	19%
The Distrustful	12%	62%	19%	18%

- As we see lower overall vaccination uptake (25%), we see 2 high uptake, 2 moderate uptake potential, 1 moderator-low uptake potential and 2 low uptake potential segments
- In an election year, individuals were exposed to multiple sources of information and multiple perspectives on the vaccine, and the decision got intertwined with other issues such as trust in institutions.



## SEGMENT NAME AND POPULATION SIZE

**The Hopeful**

16%

**The Relieved**

12%

**The Indifferent**

18%

**The Doubtful**

21%

**The Anxious**

11%

**The Skeptic**

10%

**The Distrustful**

12%

The Hopeful comprises of a majority of women with high health engagement, trust and risk perception of COVID. They have suffered from substantial economic distress during the pandemic and therefore hope that things can get back to normal soon.

The Relieved is skewed towards an older cohort of women who are educated and have a higher number of dependents. They have a high risk perception of the disease despite facing low economic hardships.

The Indifferent has the most young and educated populace with high accessibility and trust in health facilities but low engagement with the same. Family plays a big role in influencing them.

The Doubtful has a high number of people in the reproductive age. They have high access but low engagement with health facilities and believe that COVID is serious but not risky for themselves.

The Anxious comprises of mostly uneducated mothers who have strong institutional trust which is offset with some COVID context doubt. They also suffered from severe economic hardship.

The Skeptic is mostly young people with low interaction with the health system and low trusting behaviors coupled with low economic hardship. They have low risk perception of the disease and endorse COVID related myths.

The Distrustful have low access to health facilities and the lowest risk perception of COVID. They have very low trust in government and mandates laid out by them. They also think that the health system is inefficient.

## ZERO DOSAGE

34%

36%

43%

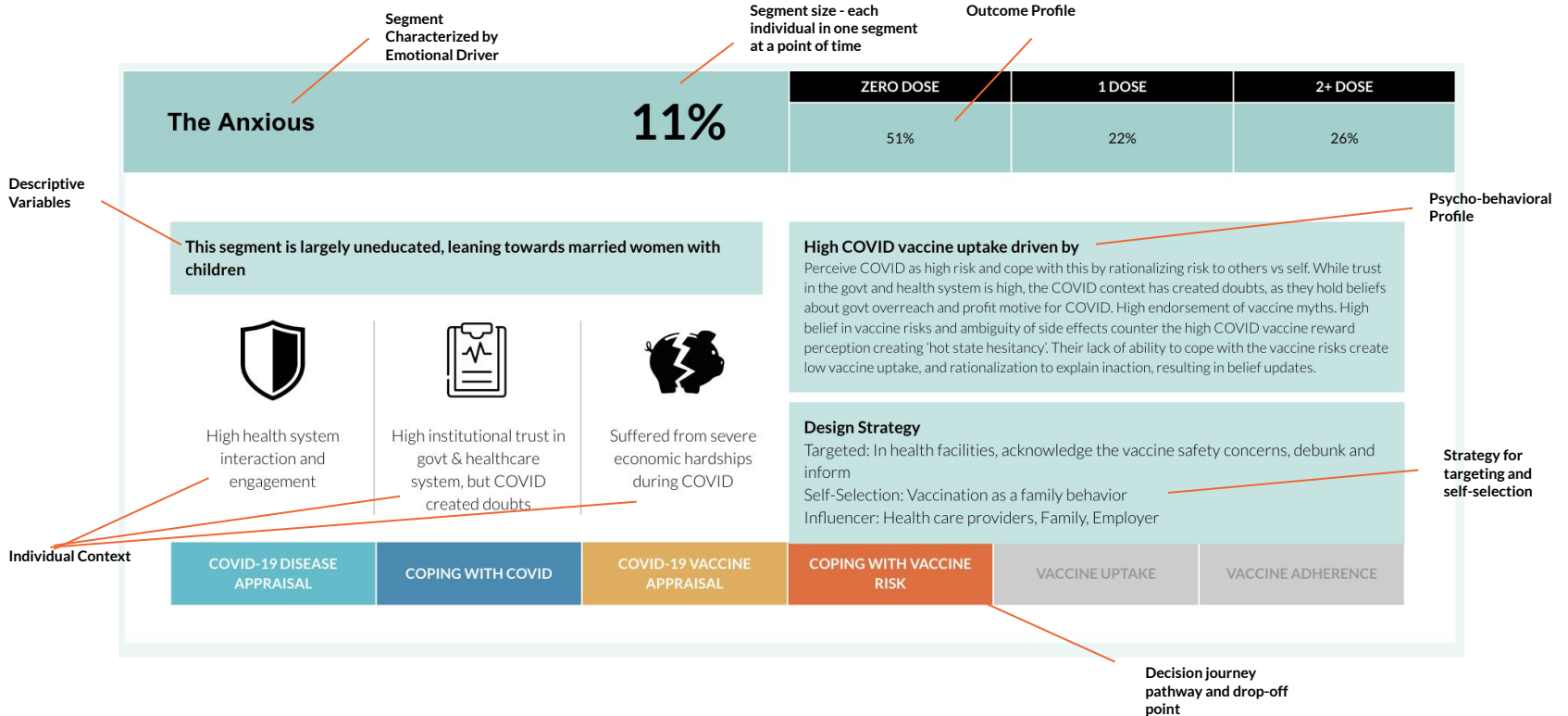
40%

51%

59%

62%

# Understanding Segment Profiles



# Example of Segment-Targeted Strategy

## SEGMENT DESCRIPTORS

**Drop off Point in Journey:** Coping with vaccine risk

**Drivers of Uptake:**

- Vaccine Efficacy
- Vaccine Safety
- Vaccine Reward / Risk

## TOUCHPOINTS & INFLUENCERS

- Leverage family
- Very high engagement with healthcare system
- Trust in government, healthcare providers, family
- Radio and TV key sources

## APPROACH

**Reinforce efficacy and safety of vaccine for themselves**

- Avoid mentioning for at-risk
- Highlight small side effects and large safety benefits
- Share social proof stories of people like them who have gotten the vaccine

**Address uncertainty and help cope with side effects**

- Create the right expectation of 'small side effects' (what is normal and when to seek care) prior and right after vaccination
- Provide a sense of control over the potential consequences of the vaccine (eg. providing 2 paracetamol post vaccination)
- Encourage open dialogue for addressing doubts about vaccination and misinformed beliefs with trusted influencers (e.g. doctors)

**Goal alignment / identity frame**

- Reminders of Previous CAB - Messaging stating that they already have taken care of themselves and others by wearing masks and social distancing, vaccine is next step

**Ease of access to vaccine**

- Clear instructions on how to get vaccinated - from government, healthcare workers
- Leverage high engagement with healthcare system interactions - offer vaccine as a quick option during visits

**Reward framing linked to socioeconomic benefits**

- Vaccine helps in maintaining jobs / avoiding potential economic hardship in a scenario where COVID hits back
- "Employers prefer healthy people"
- "Future employers prefer people with vaccines"



# Detailed Segment Profiles



**The Hopeful**

**16%**

ZERO DOSE

1 DOSE

2+ DOSE

34%

29%

37%

This segment has a majority of women with half of the segment lying in the 26-45 yr bracket



Suffer severe health issues & have very high engagement with the health system



High trust in doctors & government



Suffered from severe economic hardships during COVID

**High COVID vaccine uptake driven by**

High COVID risk perception (which is decreasing with time), high trust in doctors & government, desire to return to normal and possibly personally knowing more people impacted by the disease.

**Design Strategy**

Targeted: At health facilities address concerns with vaccine side effects  
 Self-Selection: Highlight safety, efficacy and relief of economic hardship framing  
 Trusted Influencers: Government, Family, Health care providers

COVID-19 DISEASE APPRAISAL

COPING WITH COVID

COVID-19 VACCINE APPRAISAL

COPING WITH VACCINE RISK

VACCINE UPTAKE

VACCINE ADHERENCE

## TOUCHPOINTS & INFLUENCERS

- Leverage high engagement with healthcare system
- Trust in government, healthcare providers, family
- Radio and TV key sources

### TARGETED COMMUNICATION

**Locate:**

HCP use the typing tool to locate users in The Hopeful segment

**Communication script:**

*"Side effects can be a big concern for people when they are trying to decide whether to take the COVID vaccine or not. Here are some of the common side effects you might experience [share side effects ie fatigue, slight fever]. You can help with these side effects by [simple coping mechanisms ie pain reliever, extra rest]. If you are one of the few who experiences something like [more severe side effects], please come back or give me a call and we will address this. Do you have any questions about the vaccine?"*

### SELF SELECTED ATTENTION CAMPAIGNS

**Framing:**

Safety, efficacy, relief of economic hardship

**Illustrative Messaging:**

It is safe. It works. And it can help you get back

**Illustrative Creative:**

Group of people (family, community) standing together in their community smiling.  
Could be showing bandaids on arms

### SERVICE DELIVERY INTERVENTION

Protocol for doctors to inquire about COVID vaccination status and proactively provide a recommendation during other health visits

Signage in health facilities - ex: *COVID vaccine is available here. Talk to your doctor now!*

**The Relieved**

**12%**

ZERO DOSE	1 DOSE	2+ DOSE
36%	26%	38%

**This segment has educated, financially secure, healthy mothers and older aging segment**



Very high engagement with public health system. Highest breastfeeding mothers and older cohort with health conditions



High institutional trust in govt and health system



Low economic hardships during COVID

**High COVID vaccine uptake driven by**

High COVID risk perception (but diminishing concern). Their high trust in govt and engagement with public health facilities helps drive vaccine rewards and offset vaccine risks. While they have not experienced financial strain, urgency is driven by their their risk status, high perceived responsibility over dependents.

**Design Strategy**

Targeted: Health Care Provider to address the perceived contraindication to existing conditions or current medication.  
 Self-Selection: Highlight Vaccine safety for conditions and medication  
 Trusted Influencers: Health care providers

COVID-19 DISEASE APPRAISAL

COPING WITH COVID

COVID-19 VACCINE APPRAISAL

COPING WITH VACCINE RISK

VACCINE UPTAKE

VACCINE ADHERENCE

## TOUCHPOINTS & INFLUENCERS

- Very high engagement with healthcare system
- TV and radio are key info sources, followed by HCPs and religious leaders
- Family a key source of info, followed by friends and FB

### TARGETED COMMUNICATION

#### Locate:

Health care providers use the typing tool to locate users in The Relieved segment

#### Communication script:

*[If already aware of a pre-existing condition, reference it here and use 'you'] It is a good idea to consult with your health care provider about the vaccine, especially when someone has a health condition like diabetes or high blood pressure. Someone with a condition like this may have heard about and are worried that the vaccine will interfere with their treatments or make their condition worse. But actually, it is really important that people with these conditions take the vaccine because unfortunately these people may experience really severe complications from COVID. It is almost more important for these people to take the COVID vaccine.*

### SELF SELECTED ATTENTION CAMPAIGNS

#### Framing:

Safety for those with medical conditions

#### Illustrative Messaging:

I was worried my condition would not allow me to take the vaccine. Now I know that I need the vaccine protection the most.

#### Illustrative Creative:

Older adult and/or someone with experienced medical condition getting the jab

### SERVICE DELIVERY INTERVENTION

Protocol for doctors to inquire about COVID vaccination status and proactively provide a recommendation with a reference to vaccine being safe for their condition

Signage in health facilities - ex: *COVID vaccine is available here. Talk to your doctor now!*

Protocol and Communication prompts for COVID-19 vaccine into routine immunization schedule for pregnancy

**The Doubtful**

**21%**

ZERO DOSE	1 DOSE	2+ DOSE
40%	27%	33%

This segment is predominantly young and within the reproductive age



Lower engagement with the health system possibly owed to the fact that they do not fall ill that frequently



High trust in government and healthcare experts



High level of economic hardship during COVID

**High COVID vaccine uptake driven by**

Low levels of COVID myth belief. Consider COVID to be a dangerous disease but may not be seen as a high risk to self. They have strong reward perceptions of vaccines however lack an urgency for uptake, as they feel the vaccine is too 'costly' for them in terms of side effects and high economic cost already faced due to the pandemic.

**Design Strategy**

Targeted: Reinforce vaccinated populations experienced rewards and control  
 Self-Selection: Experienced vaccination rewards - control, travel, economic stability  
 Influencers: Government

COVID-19 DISEASE APPRAISAL

COPING WITH COVID

COVID-19 VACCINE APPRAISAL

COPING WITH VACCINE RISK

VACCINE UPTAKE

VACCINE ADHERENCE

## TOUCHPOINTS & INFLUENCERS

- Doctors and health experts
- Government
- Family
- Information sources: TV and Radio

### TARGETED COMMUNICATION

#### Locate:

Use community health workers to use the typing tool to locate The Doubtful segment

#### Communication script:

*A lot of people in your community have already taken the COVID vaccine and so far I have not had anyone report any severe side effects. [Only state this if true] They may have had minimal side effects like feeling tired or a slight fever [change with what has been observed], but in the long run, the vaccine protects us against the severe illness from COVID. So we won't have to miss out on several days of work or worry about hospitalization. Getting vaccinated is another way to take care of our families and our community.*

### SELF SELECTED ATTENTION CAMPAIGNS

#### Framing:

Vaccination rewards - control, travel, economic stability

#### Illustrative Messaging:

Now I am able to work and travel again.

#### Illustrative Creative:

Younger adults showing vaccination card in travel location

### SERVICE DELIVERY INTERVENTION

Target at market places, workplaces, universities through 'protector' framing

Use travel related touchpoints to prompt vaccination for 'easier and safer' travel

Employers communication prompts 'XX% of our employees are vaccinated' and signage in office to promote vaccination

**The Indifferent**

**18%**

**ZERO DOSE**

43%

**1 DOSE**

25%

**2+ DOSE**

31%

**This segment has the youngest and most educated group. with the highest never married population and least employed**



High means and access to health facilities but lower engagement possibly owed to the fact that they are relatively younger



High trust in government and healthcare experts



Low level of economic hardship during COVID

**High COVID vaccine uptake driven by**

This young group possibly living with parents/caregivers have less responsibility for themselves or others. This population is mostly healthy and believes that COVID could be cured at home. It is likely that they do not perceive COVID to be a personal risk.

**Design Strategy**

Targeted: Communicate vaccination for family protection - 'don't bring COVID home'

Self-Selection: Frame vaccination as community protection

Influencers: Family

COVID-19 DISEASE APPRAISAL

COPING WITH COVID

COVID-19 VACCINE APPRAISAL

COPING WITH VACCINE RISK

VACCINE UPTAKE

VACCINE ADHERENCE



## TOUCHPOINTS & INFLUENCERS

- Government
- Doctors and health experts
- Family
- Information sources: TV and Radio

### TARGETED COMMUNICATION

**Locate:**

Use community health workers or employers to use the typing tool to locate The Indifferent segment

**Communication script:**

*The COVID vaccine is another great way to take care of your family. The last thing you want to do is to accidentally bring COVID into your home.*

### SELF SELECTED ATTENTION CAMPAIGNS

**Framing:**

Community protection / Community behavior

**Illustrative Messaging:**

The vaccine is another way to take care of my community. We are in this together.

**Illustrative Creative:**

Younger adults with older adults together in a community setting

### SERVICE DELIVERY INTERVENTION

Target at market places, workplaces, universities through 'protector' framing

Use travel related touchpoints to prompt vaccination for 'easier and safer' travel

**The Anxious**

**11%**

ZERO DOSE

1 DOSE

2+ DOSE

51%

22%

26%

This segment is largely uneducated, leaning towards married women with children



High health system interaction and engagement



High institutional trust in govt & healthcare system, but COVID created doubts



Suffered from severe economic hardships during COVID

**High COVID vaccine uptake driven by**

Perceive COVID as high risk and cope with this by rationalizing risk to others vs self. While trust in the govt and health system is high, the COVID context has created doubts, as they hold beliefs about govt overreach and profit motive for COVID. High endorsement of vaccine myths. High belief in vaccine risks and ambiguity of side effects counter the high COVID vaccine reward perception creating 'hot state hesitancy'. Their lack of ability to cope with the vaccine risks create low vaccine uptake, and rationalization to explain inaction, resulting in belief updates.

**Design Strategy**

Targeted: In health facilities, acknowledge the vaccine safety concerns, debunk and inform

Self-Selection: Vaccination as a family behavior

Influencer: Health care providers, Family, Employer

COVID-19 DISEASE APPRAISAL

COPING WITH COVID

COVID-19 VACCINE APPRAISAL

COPING WITH VACCINE RISK

VACCINE UPTAKE

VACCINE ADHERENCE

## TOUCHPOINTS & INFLUENCERS

- Leverage high engagement in the healthcare system
- Government communications
- Trust in government, healthcare providers, family more than religious or community leaders
- Employers
- Radio and TV key sources

### TARGETED COMMUNICATION

**Locate:**

Use health care providers to use the typing tool to locate The Anxious segment

**Communication script:**

*People have concerns about the safety of the COVID vaccine and that is natural. It is a new vaccine and it has been difficult living in a pandemic.*

*Can you let me know what concerns you have about the vaccine? [Address any of these concerns, explaining in terms easy to understand. Be certain to listen for and address any misinformation about the vaccine, especially side effects, that they may share]*

### SELF SELECTED ATTENTION CAMPAIGNS

**Framing:**

Vaccination as a family behavior

**Illustrative Messaging:**

We take care of each other because we are a family. We also get vaccinated together.

**Illustrative Creative:**

Multi-generational family together

### SERVICE DELIVERY INTERVENTION

Use the rumor tracking tool to understand the prevalent misinformation and design interventions for limiting the supply and debunking

Protocol for doctors to inquire about COVID vaccination status and proactively provide a recommendation

Community vaccination camp or vaccinations available at event to provide ease of access to vaccines with similar groups

**The Skeptical**

**10%**

ZERO DOSE	1 DOSE	2+ DOSE
59%	22%	19%

Majority of them are young people, most of whom are living in nuclear families and have never been married.



Low interaction and engagement with the health system



Low trust in doctors & government



Low economic hardships during COVID

**High COVID vaccine uptake driven by**

Low risk perception as COVID is perceived as just a flu. They endorse COVID myths and misinformation which drive their hesitancy for COVID vaccine uptake. Lack of trust in the government or health system on any information shared by them and show overall low trusting behaviors. Low health system engagement, low social proof and low economic urgency as further barriers to take action.

**Design Strategy**

Targeted: Drive vaccine relevance and address myth through employers  
Self-Selection: Vaccination as a community behavior, and reinforce decision autonomy

COVID-19 DISEASE APPRAISAL	COPING WITH COVID	COVID-19 VACCINE APPRAISAL	COPING WITH VACCINE RISK	VACCINE UPTAKE	VACCINE ADHERENCE
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## TOUCHPOINTS & INFLUENCERS

- Doctors and religious leaders
- Employers

### TARGETED COMMUNICATION

#### Locate:

Use community health workers to use the typing tool to locate The Skeptical segment

#### Communication script:

*It may not seem like the COVID vaccine is for someone like you, young and healthy. However it is good for you and your community to get vaccinated. It can also help with future employers and make it easier to travel. [Address any of these concerns, explaining in terms easy to understand. Be certain to listen for and address any misinformation about the vaccine, especially side effects, that they may share]*

### SELF SELECTED ATTENTION CAMPAIGNS

#### Framing:

Community protection / Community behavior

#### Illustrative Messaging:

The vaccine is another way to take care of my community. We are in this together.

#### Illustrative Creative:

Younger adults with older adults together in a community setting

### SERVICE DELIVERY INTERVENTION

Use the rumor tracking tool to understand the prevalent misinformation and design interventions for limiting the supply and debunking

Target at market places, workplaces, universities through 'protector' framing

Share stories of people like them getting the vaccine during events or signage

Protocol for doctors to inquire about COVID vaccination status and proactively provide a recommendation

**The Distrustful**

**12%**

ZERO DOSE

1 DOSE

2+ DOSE

59%

22%

19%

*This segment ranks first in overall low uptake of vaccine with a majority of 25-36 yrs old married, fairly educated population.*



Low interaction and engagement with the health system



Low trust in govt, health system, religious leaders and community



High economic hardships during COVID

**High COVID vaccine uptake driven by**

They have low-no risk perception for COVID, think its as a sham and a mere common cold. With high numbers in manual labor this segment faced high economic hardship during lockdown, fueling their distrust. They have high distrust in the government, seek one-sided negative information that endorse COVID conspiracy theories and vaccine related myths, misinformation which justifies their inaction. With little interaction with health care facilities doctors/HCW, and low norm of vaccination in community and household fear such as deaths post the vaccine, unbearable side effects and impotence remain.

**Design Strategy**

Targeted: Indirect targeting by building capacity of vaccinated population to have conversations with strong ties  
 Self-Selection: Vaccination as a community behavior, and reinforce decision autonomy  
 Influencers: Family

COVID-19 DISEASE APPRAISAL

COPING WITH COVID

COVID-19 VACCINE APPRAISAL

COPING WITH VACCINE RISK

VACCINE UPTAKE

VACCINE ADHERENCE

## TOUCHPOINTS & INFLUENCERS

- Family
- Employers
- Healthcare interactions

### TARGETED COMMUNICATION

*[This segment is especially distrustful and there is not a direct targeting message for this group.]*

*We recommend trying to identify and leverage people in their community who share a common identity who can be an advocate for vaccines and directly engage with this segment.]*

### SELF SELECTED ATTENTION CAMPAIGNS

#### **Framing:**

Community protection / Community behavior

#### **Illustrative Messaging:**

The vaccine is another way to take care of my community. We are in this together. This is your decision.

#### **Illustrative Creative:**

Younger adults with older adults together in a community setting

### SERVICE DELIVERY INTERVENTION

Use the rumor tracking tool to understand the prevalent misinformation and design interventions for limiting the supply and debunking

Indirect targeting by building capacity of vaccinated population to have conversations with strong ties

# Using Segmentation





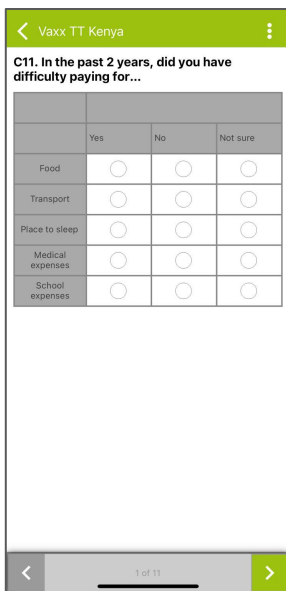


# How to Use Segmentation – Customizing and Targeting

**TYPING TOOL** Short, simple **questionnaire** and response-based **classification tree** to identify the segment profile of individuals

## Q1 Economic hardship:

*In the last 2 years, Did you have difficulty paying for food, shelter, healthcare, education, transport?*



← Vaxx TT Kenya

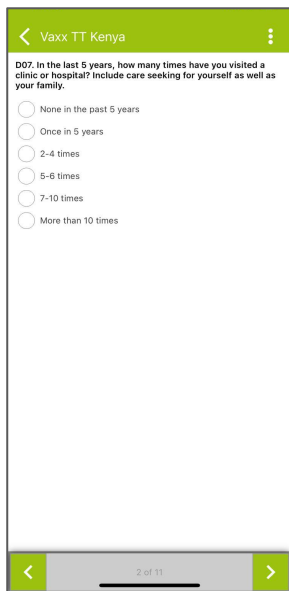
**C11. In the past 2 years, did you have difficulty paying for...**

	Yes	No	Not sure
Food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Place to sleep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical expenses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School expenses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1 of 11

## Q2 Health system

**engagement:** *In the last 5 years how many times have you visited a clinic or doctor?*



← Vaxx TT Kenya

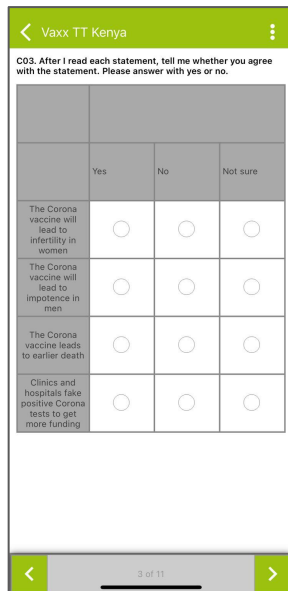
**D07. In the last 5 years, how many times have you visited a clinic or hospital? Include care seeking for yourself as well as your family.**

- None in the past 5 years
- Once in 5 years
- 2-4 times
- 5-6 times
- 7-10 times
- More than 10 times

2 of 11

## Q3 COVID myth

**endorsement:** *Choose the statements about COVID you believe to be true.*



← Vaxx TT Kenya

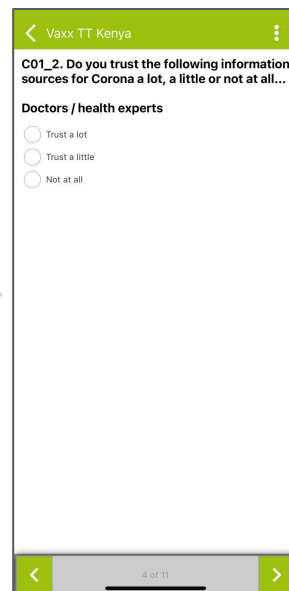
**C03. After I read each statement, tell me whether you agree with the statement. Please answer with yes or no.**

	Yes	No	Not sure
The Corona vaccine will lead to infertility in women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Corona vaccine will lead to impotence in men	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Corona vaccine leads to earlier death	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinics and hospitals fake positive Corona tests to get more funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3 of 11

## Q4 Institutional trust: Do

*you trust government and doctors as sources of information for COVID?*



← Vaxx TT Kenya

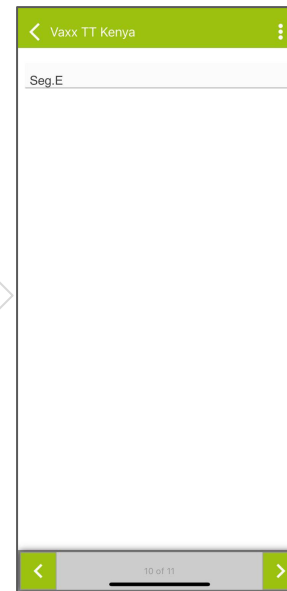
**C01\_2. Do you trust the following information sources for Corona a lot, a little or not at all...**

**Doctors / health experts**

- Trust a lot
- Trust a little
- Not at all

4 of 11

## Segmentation Assigned



← Vaxx TT Kenya

Seg.E

10 of 11

# How to Use Segmentation – Example of Customized Communication at Point of Service Delivery



This is for one segment - details for other segments in the appendix

## Typing Tool Script

“Hello, I’d like to take a few minutes of your time to learn more about you so that I can provide you with some information about the COVID-19 vaccine that could be relevant for you.

To begin, **could you share how many times you have visited a doctor or clinic within the last five years?**

The past few years have been difficult for a lot of us with COVID. Could you tell me a little bit about your experience over the last two years? **Did you have any difficulty paying for your basic needs?**

Thank you for sharing. We have received a lot of information about COVID from many sources. **Now if you could think about government and doctors as sources of information for COVID, do you trust them a little, a lot or not at all?**

Thank you. Finally, could you let me know **which of the following statements about COVID you agree with?**  
*[read through the four statements] “*

## Segment: Anxious Customized Communication

“Thank you again for your time and answering my questions. I’d like to talk to you about the COVID vaccine. Can you tell me a little bit about your thoughts about the COVID vaccine?”

A lot of people have concerns about the safety of the COVID vaccine and that is natural. It is a new vaccine and it has been difficult living in a pandemic. Can you let me know what concerns you have about the vaccine?

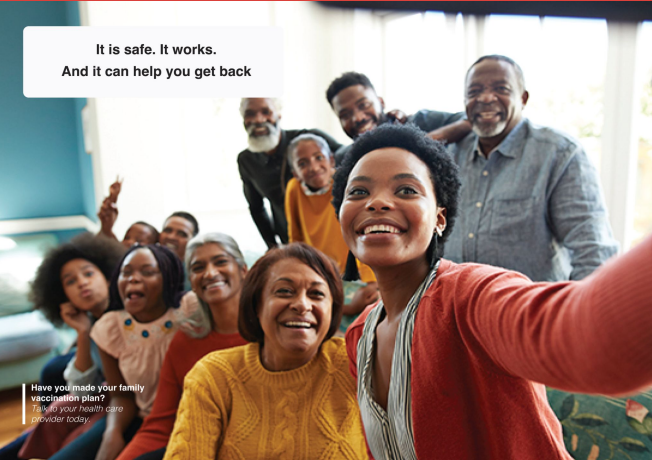
*[Address any of these concerns, explaining in terms easy to understand. Be certain to listen for and address any misinformation about the vaccine, especially side effects, that they may share]*

Thank you for letting me share a bit about the COVID vaccine. Do you have any questions for me?”

## How to Use Segmentation – Self-Selected Attention

TARGET	SEGMENTS	MESSAGING	IMAGE
Safety, efficacy, relief of economic hardship	The Hopeful	It is safe. It works. And it can help you get back	Group of people (family, community) standing together in their community smiling. Could be showing bandaids on arms
Safety for those with medical conditions	The Relieved	I was worried my condition would not allow me to take the vaccine. Now I know that I need the vaccine protection the most.	Older adult and/or someone with experienced medical condition getting the jab
Vaccination rewards - control, travel, economic stability	The Doubtful	Now I am able to travel again.	Younger adults showing vaccination card in travel location
Community protection / Community behavior	The Indifferent, The Skeptical, The Distrustful	The vaccine is another way to take care of my community. We are in this together.	Younger adults with older adults together in a community setting
Vaccination as a family behavior	The Anxious	We take care of each other because we are a family. We also get vaccinated together	Multi-generational family together

# How to Use Segmentation - Self-Selected Attention

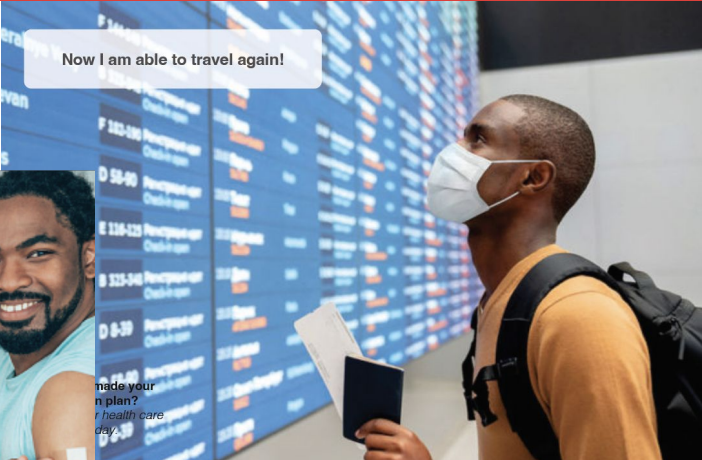


It is safe. It works.  
And it can help you get back

Have you made your family  
vaccination plan?  
Talk to your health care  
provider today.

*The Hopeful*

*The Doubtful*



Now I am able to travel again!




Have you made your family  
vaccination plan?  
Talk to your health care  
provider today.


Have you  
made your  
vaccination  
plan?  
Talk to your  
health care  
provider today.

We take care of each other  
because we are a family.

We also get vaccinated together!



The vaccine is another way to  
take care of my community.  
We are in this together.



Have you made your  
vaccination plan?  
Talk to your health  
care provider today.

I was worried my condition would  
not allow me to take the vaccine.  
Now I know that I need the vaccine  
protection the most.

*The Anxious*

*The Relieved*

*The Indifferent*  
*The Skeptic*  
*The Distrustful*

Have you made your family  
vaccination plan?  
Talk to your health care  
provider today.

# How to Use Segmentation - Service Delivery Design

## Where and how to deliver services and incentives

### At health facilities

- Integrate with routine health services
- Leverage provider interactions

### In public spaces

- Travel-related touchpoints
- Educational and professional spaces
- Community spaces
- Recreational spaces
- Champions and advocates

### Mandates and incentives

- Travel mandates
- Workplace mandates
- Economic incentives

# Vulnerability

Vulnerability Measures	High Uptake Segments The Hopeful & The Relieved	Moderate Uptake Segments The Doubtful & The Indifferent	Mid-Low Uptake Segments The Anxious	Low Uptake Segments The Skeptic & The Distrustful
Populations whose COVID-19 vaccine perception, mental models, barriers and decision making are not well-understood, as they are difficult to engage due to their <b>remoteness and lack of access to media technology</b> , internet and smartphones		Low vehicle ownership among doubtful	Lowest smartphone ownership Low vehicle ownership Low bank account ownership	Low bank account ownership among skeptical Low vehicle ownership among distrustful
Populations that are at <b>high risk of COVID-19 infection, hospitalization, complication and fatality</b> (e.g. persons with co-morbidities, elderly, immunocompromised)	Both segments have older 60+ age group, more existing health conditions. Both segments have high pregnant and breastfeeding women		More existing health conditions (like Blood Pressure)	
Populations whose vaccination status will have a <b>disproportionate impact on others</b> (e.g. essential workers, sole breadwinners, caregivers for high dependants ie children and elderly))	Both segments have high breadwinners for the family, High dependants to care for	The Doubtful segment have high dependants	High dependants to care for	The Distrustful has more breadwinners
Populations that have been <b>historically disadvantaged and marginalized</b> (e.g. women, minorities, tribes and urban poor)	Both segments have more women The Hopeful experienced highest economic hardship	The Doubtful segment have experienced high hardship	More women, lower education More from pastoral communities such as the Turkana and Maasai High experience of economic hardship	Comprise of a majority of the Luo, a majority ethnic group with an inclination towards to oppose the government  More from minority religious communities (Muslim)
Economic Hardship	The Hopeful have experienced severe economic hardship	The Doubtful has suffered from economic hardship	The Anxious has suffered from economic hardship	The Distrustful have experienced economic hardship including having difficulty paying for a place to sleep

Prioritization Factors	High Uptake Potential Segments The Hopeful & The Relieved	Moderate Uptake Potential Segments The Doubtful & The Indifferent	Mid-Low Uptake Potential Segments The Anxious	Low Uptake Potential Segments The Skeptic & The Distrustful
<b>Impact</b>	<b>Moderate impact</b> as they are higher uptake potential segments	<b>High impact</b> as they are moderate uptake potential segment, but large segment sizes to drive uptake	<b>High impact</b> as it is a low uptake potential segment	High impact as they are low uptake potential segment
<b>Behavioral Barrier Type</b>	<b>Relatively easier barrier</b> While this is a high uptake potential segment, there is a need to push uptake to resolve the hot state hesitancy and drive adherence for all. As vaccine is relevant, this is relatively easier barrier to overcome.	<b>Moderately difficult barrier</b> While the vaccine is considered safe by the moderate uptake potential segments, there is need to drive risk internalization and urgency for all. There is a need to reframe vaccine, this is a moderately difficult barrier to overcome.	<b>Moderately difficult barrier</b> While vaccine is relevant, it is critical to reduce hot state hesitancy, and provide coping for the emotional barrier preventing uptake. The belief update has happened to rationalize the inaction. This is a moderately difficult barrier to overcome.	<b>Hard barriers</b> For the low uptake potential segments it is critical to tackle the barriers of distrust, low risk perception and vaccine irrelevance. This requires a reframe for the vaccine and therefore a hard barriers to overcome.
<b>Perceived Access Barrier</b>	<b>Moderate</b> Awareness of and access to the vaccine. Low awareness of SMS/online registration	<b>Moderate</b> Awareness of and access to the vaccine. Low awareness of SMS/online registration	<b>Moderate</b> Awareness of and access to the vaccine. Low awareness of SMS/online registration	<b>High</b> Awareness of the vaccine facility but perceived distance and difficulty to access vaccine
<b>Implication on Other Programs</b>	<b>Moderate implications</b> Given the hot state hesitancy, might create a new decision point for otherwise defaulted health decisions and behaviors like RI	<b>Moderate implications</b> Given the smaller safety issue with vaccine, might create a new decision point for otherwise defaulted health decisions and behaviors like RI	<b>Highest implications</b> This segment has high institutional trust in government and the health system, but COVID has seemed to have created a doubt, which has the potential to impact other behavior	<b>High implications</b> The COVID vaccine has reinforced the distrust, misinformed conspiracy theories and distance from the health system which might have an impact on other programs as well
<b>Health System Reach</b>	<b>Easier to reach</b> Already have engagement with the health system and higher trust in government	<b>Moderately hard</b> Lower in engagement in the health system, but trust in government and the health system	<b>Moderately hard</b> Higher engagement in the health system, but low trust in government and the health system related to vaccine	<b>Harder to reach</b> Low engagement in the health system distrust with government, health system and community leaders



# For More Information:

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