

Maternal Immunization Decision-Making for COVID-19 Vaccines

Maternal Immunization Readiness Initiative (MIRI) - Demand and Communication Team
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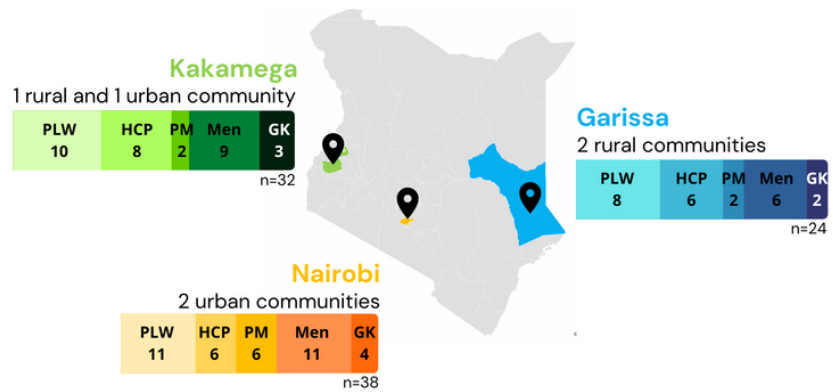
Background & Objectives

Pregnant women are at increased risk for severe disease and poor health outcomes from COVID-19¹. Despite being mostly excluded from COVID-19 vaccine trials, real-world evidence suggests that COVID-19 vaccines are safe and effective for pregnant and lactating women (PLW)². However, the vaccine decision-making process for this group is complex, as these persons are influenced by numerous social, psychological, and structural factors³.

In this study, we used a socio-ecological approach⁴ to explore and compare factors influencing the decision-making process for COVID-19 vaccination among PLW in Kenya.

Methods

We conducted 94 in-depth interviews with a variety of stakeholders across urban and rural settings in Kenya including 29 PLW; 20 healthcare providers (HCP), including nurses, midwives, doctors, frontline workers; 35 community members (CM), including family members of PLW and community gatekeepers (GK); and 10 policymakers (PM). We applied a grounded theory approach to identify emerging themes.

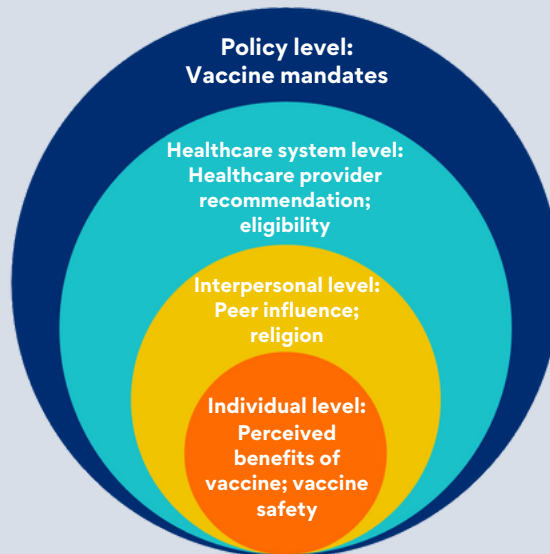


INDIVIDUAL LEVEL

- COVID-19 vaccines were perceived to benefit both the mother and baby
- Concerns and myths related to vaccine safety were present
- Myths that the COVID-19 vaccine would impact fertility were present

HEALTHCARE SYSTEM LEVEL

- Participants exhibited confusion over eligibility of pregnant and lactating women
- Confusion focused on general eligibility (i.e. whether or not PLW should be vaccinated at all)
- 8 out of 20 healthcare providers interviewed were hesitant to recommend the COVID-19 vaccine to PLW



INTERPERSONAL LEVEL

- The top three vaccine information sources were:
 1. Healthcare providers
 2. Traditional media
 3. Community members
- Religion impacted attitudes and acceptability of the COVID-19 vaccine

POLICY LEVEL

- The threat (real or perceived) of being denied access to resources if unvaccinated was a motivating factor to receive the COVID-19 vaccine
- Pregnant women were excluded from COVID-19 vaccine mandates and campaigns for a part of the data collection period in 2021

Results

At the individual level, women in our study overwhelmingly believed that the vaccines were able to prevent disease and the negative effects of COVID-19 for both mothers and babies. Concerns and myths related to vaccine safety for the baby were present among women and their partners, with partners also focused on potential impacts to fertility.

At the interpersonal level, PLW were most likely to trust healthcare providers (HCPs) for information on the COVID vaccine, and religion impacted attitudes and acceptability of the vaccine across all groups.

At the healthcare system level, the recommendation of HCPs was crucial in informing PLW's decision-making process. However, HCPs themselves exhibited confusion about PLW's eligibility, with some of them hesitating to recommend the COVID vaccine for PLW.

At the policy level, vaccine mandates were important influences.

Conclusions

This study demonstrates how vaccine decision-making among PLW comprises both shared experiences and unique challenges.

Understanding these experiences and challenges is essential to inform immunization policy and demand generation activities for future vaccines.

For communication strategies to create demand for vaccines, they must address concerns specific to communities.

The results derived from this study can aid to tailor communication efforts to increase vaccine acceptance and inform future maternal vaccine delivery strategies.

Read more about our findings below:



Acknowledgements

The Maternal Immunization Readiness Initiative (MIRI) project was funded by the Bill and Melinda Gates Foundation

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Maternal Immunization Decision-Making for RSV Vaccines

Maternal Immunization Readiness Initiative (MIRI)-Demand and Communication Team
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Background & Objectives

Respiratory syncytial virus (RSV) is a significant cause of acute lower respiratory tract infection (LRTI) among infants globally.¹ In sub-Saharan Africa and Asia, RSV may be responsible for approximately 40% of all hospital admissions with severe or very severe pneumonia among infants under 1 year.² The greatest burden of severe RSV disease is during the first 3 months of life.³ As such, maternal immunization is one key strategy to protect young infants.⁴

In this study, we sought to understand factors that could influence the decision-making process for maternal RSV vaccine acceptance in pregnant and lactating women in Kenya to inform future demand generation strategies.⁵

Methods

We conducted 60 in-depth interviews with a variety of stakeholders across urban and rural settings in Kenya, including 6 pregnant women (PW); 18 lactating mothers (LM); 16 healthcare providers (HCP), including nurses, midwives, doctors, and frontline workers; 10 community members (CM), including family members of PLW; and 10 policymakers (PM). We also conducted 401 surveys among pregnant and lactating women. We applied a grounded theory approach to identify emerging themes.

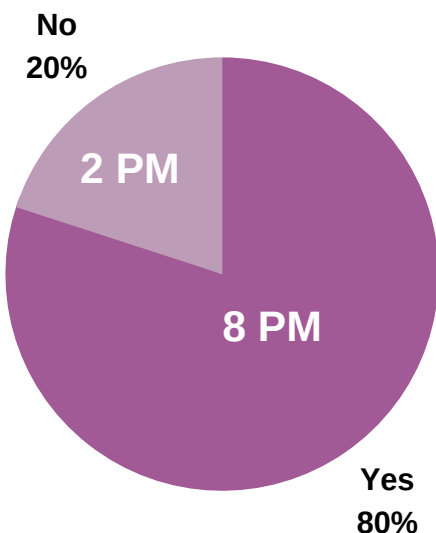


Results

RSV Awareness

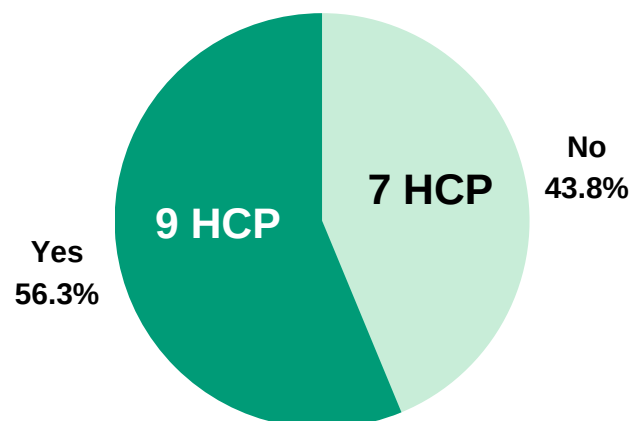
17 out of 60 participants had heard of the term "RSV" (28.3%)

- All were healthcare providers (HCP) or policymakers (PM)
- The majority of HCPs and policymakers knew the term "RSV"

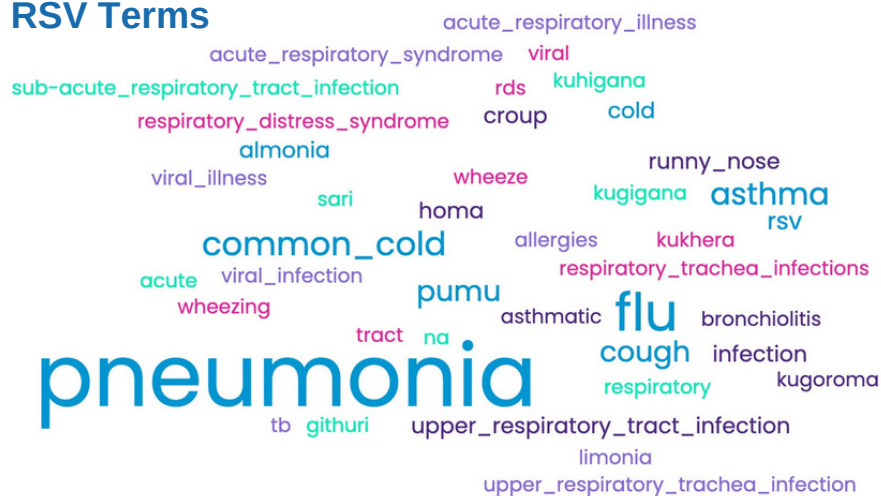


We also showed participants a video of baby with RSV wheezing and asked if they had seen or heard it before

- **57 out of 60** participants said yes (95%)
- 1 PW, 1 LM, 1 CM said no



RSV Terms



RSV Vaccine Decision-Making

- 27 out of 34 PW, LM, and CM believed that the mother herself should be the primary decision-maker about maternal vaccination.
- 66% of PW, 89% of LM, and 70% of CM said the mother should decide.
- 55% of this sub-sample reported that HCPs should be involved in maternal vaccine decision-making, while 35% reported involvement of male partners.

Vaccine Confidence and RSV Vaccines

- Women that were multigravida (pregnant with subsequent child) or breastfeeding a subsequent child had higher perceived prevalence and risk of RSV compared to primigravida (pregnant with first child) women or those breastfeeding their first child.
- Being in the third trimester and having lower supportive norms were associated with higher vaccine hesitancy among those who were primigravida or breastfeeding their first child.
- Having fewer children and lower self-efficacy were associated with higher vaccine hesitancy among those who were multigravida or breastfeeding a subsequent child.

Top 5 Questions about RSV Vaccines from Participants

1. What are potential side effects/risks of the vaccine for the mother and/or baby?
2. How does the vaccine work protect the baby if it is given to the mother? Why is the mother given the vaccine and not the baby?
3. What will the vaccination schedule be?
4. What are the benefits of the RSV vaccines?
5. How effective will the vaccines be? Do they prevent infection or reduce the severity of the disease?

Conclusions

A maternal RSV vaccine is on the horizon. Because vaccines do not save lives, but vaccination does, it is critical to implement demand generation approaches for maternal RSV vaccine acceptance. Perceived prevalence of RSV, risk of RSV, and vaccine hesitancy among pregnant and lactating people were associated with number of children. Lower supportive norms and lower self-efficacy in primigravida and multigravida participants, respectively, led to increased vaccine hesitancy.

Acknowledgements

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Maternal Immunization Decision-Making for GBS Vaccines

Maternal Immunization Readiness Initiative (MIRI)-Demand and Communication Team
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Background & Objectives

Group B Streptococcus (GBS) is a bacterial pathogen that exists in the bodies of 10-40% women of reproductive age¹, but can lead to morbidity and mortality in pregnant women and newborns.² GBS can be vertically transmitted to the baby during birth, which may lead to infant death, sepsis, meningitis, or pneumonia.² Maternal immunization for GBS may be an effective strategy to reduce disease burden by the vertical transfer of antibodies from the mother to baby in utero.¹ Administering GBS vaccination during pregnancy can protect the mother and the baby, both in utero and after birth.¹

We sought to explore knowledge about GBS disease and attitudes towards future GBS vaccines to inform demand generation strategies.

Methods

We conducted 50 in-depth interviews with a variety of stakeholders across urban and rural settings in Kenya including 10 pregnant women (PW); 10 lactating mothers (LM); 12 healthcare providers (HCP), including nurses, midwives, doctors, and frontline workers; 8 community members (CM) including family members of PLW; and 10 policymakers (PM). We also conducted 100 surveys among healthcare providers. We applied a grounded theory approach to identify emerging themes.

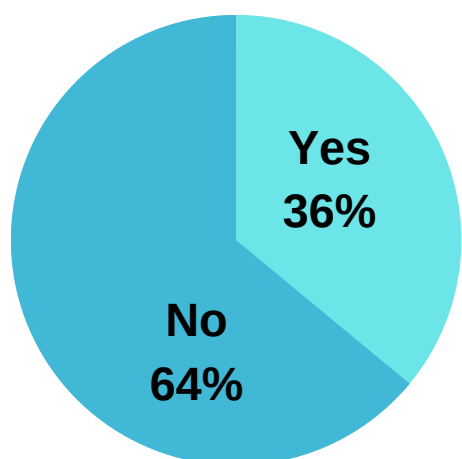


Results

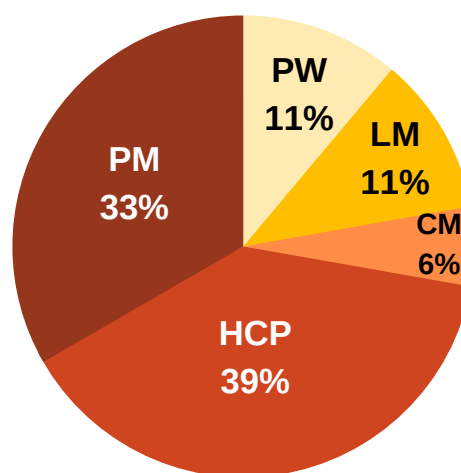
GBS Awareness

After being given a short explanation of GBS and associated symptoms, participants were asked if they had ever heard of GBS.

Participants that stated they were aware of GBS:



Among those aware of GBS, the distribution across participant groups is as follows:



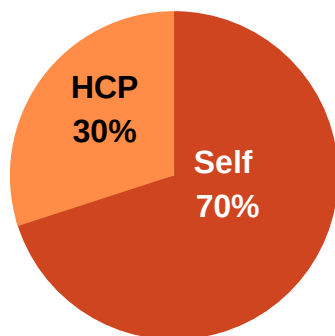
Vaccine Confidence and GBS Vaccines

- **100%** of healthcare providers were confident that vaccines recommended for pregnant women during pregnancy were safe for the pregnant woman.
- **99%** of healthcare providers were confident that vaccines recommended for pregnant women during pregnancy were safe for the fetus and baby.
- When asked about recommending a new vaccine to be administered during pregnancy that was approved for pregnant women and recommended by the head doctor at their facility, **89%** of healthcare providers were likely to recommend the vaccine to their clients.
- **43%** of healthcare providers were characterized as having higher vaccine hesitancy, defined as indicating past delay of vaccination when not pregnant and/or a preference for infection-acquired immunity (vs. immunization).

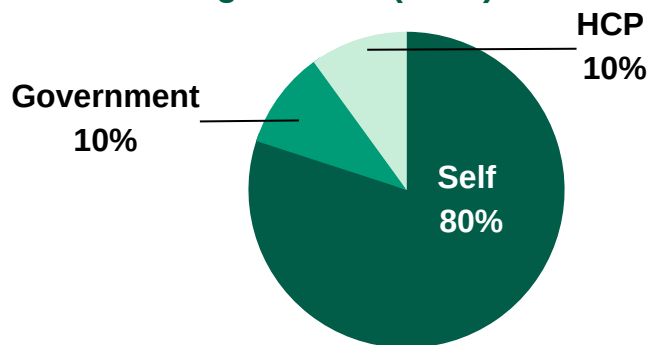
GBS Vaccine Decision-Making

Participants were asked who they believe should be in charge of making the decision for a pregnant woman to receive a GBS vaccine:

Pregnant Women (n=10)



Lactating Mothers (n=10)



Top 5 Questions about GBS Vaccines from Participants

1. What are the side effects of the GBS vaccine?
2. What are the benefits of the GBS vaccine?
3. How does the GBS vaccine work, for the mother and baby?
4. Who will receive the GBS vaccine, and when?
5. How effective is the GBS vaccine?

Conclusions

Given that GBS awareness among our participants was low, with many having similar questions about the vaccine, increased education will likely need to occur prior to introduction of the GBS vaccine. Despite showing confidence in recommending the GBS vaccine, there was a portion of healthcare providers that have exhibited vaccine hesitancy in the past, highlighting the importance of targeting all relevant audiences in demand generation strategies, not just mothers.

Acknowledgements

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