A socio-ecological comparison of the COVID-19 vaccine decision-making processes among pregnant and lactating women: Findings from Kenya and Bangladesh

Prachi Singh BA[1], Berhaun Fesshaye MSPH[1], Eleonor Zavala MSPH[1], Clarice Lee MSPH[1], Ruth A. Karron MD[1], Rupali J. Limaye MPH PhD[1]

[1]Johns Hopkins Bloomberg School of Public Health
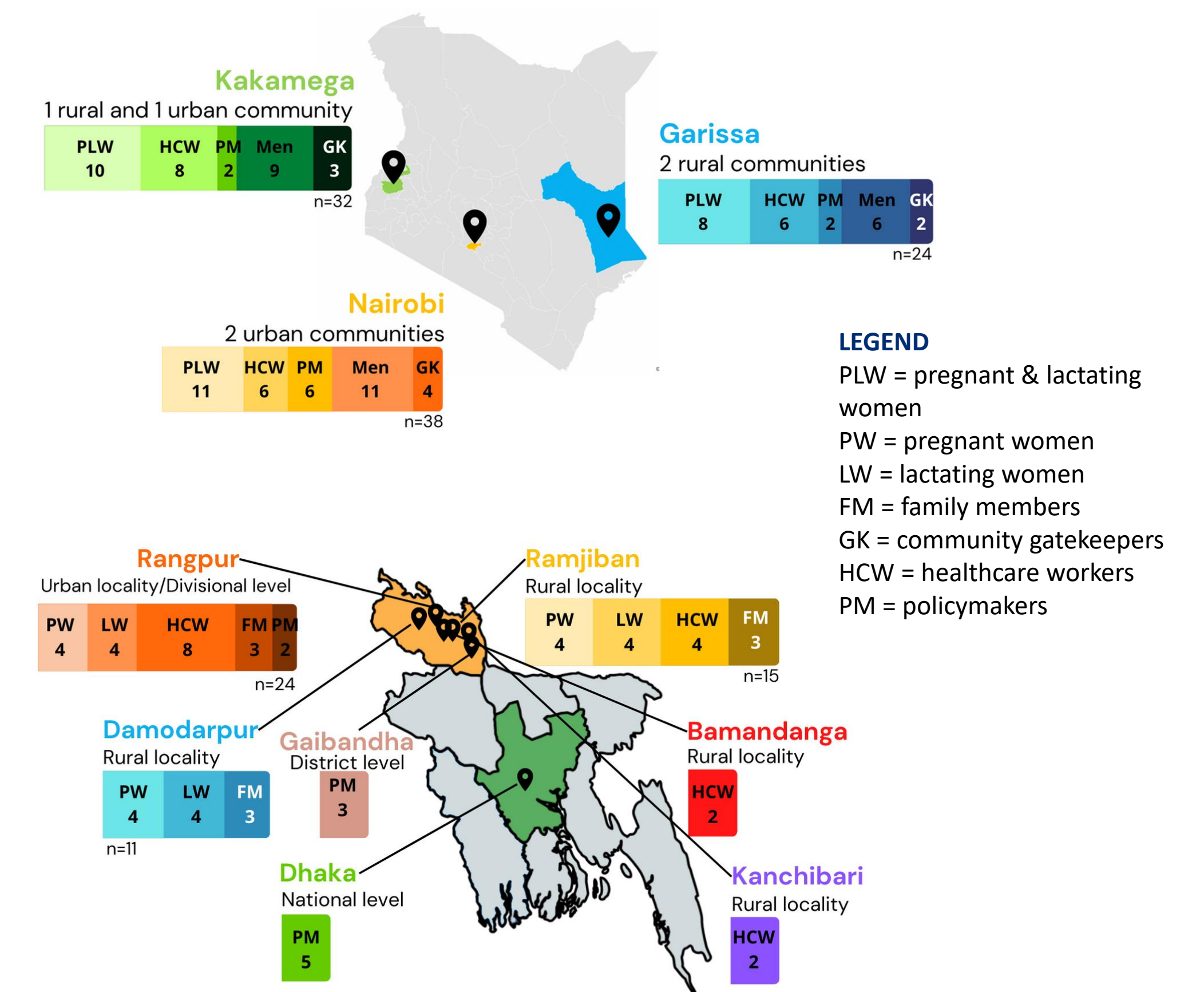
Background & Objectives

Pregnant women are at increased risk for severe disease and poor health outcomes from COVID-19[2]. 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)[3]. However, the vaccine decision-making process for this group is complex, as these persons are influenced by numerous social, psychological, and structural factors[4].

In this study, we used a socio-ecological approach[5] to explore and compare factors influencing the decision-making process for COVID-19 vaccination among PLW in Kenya and Bangladesh.
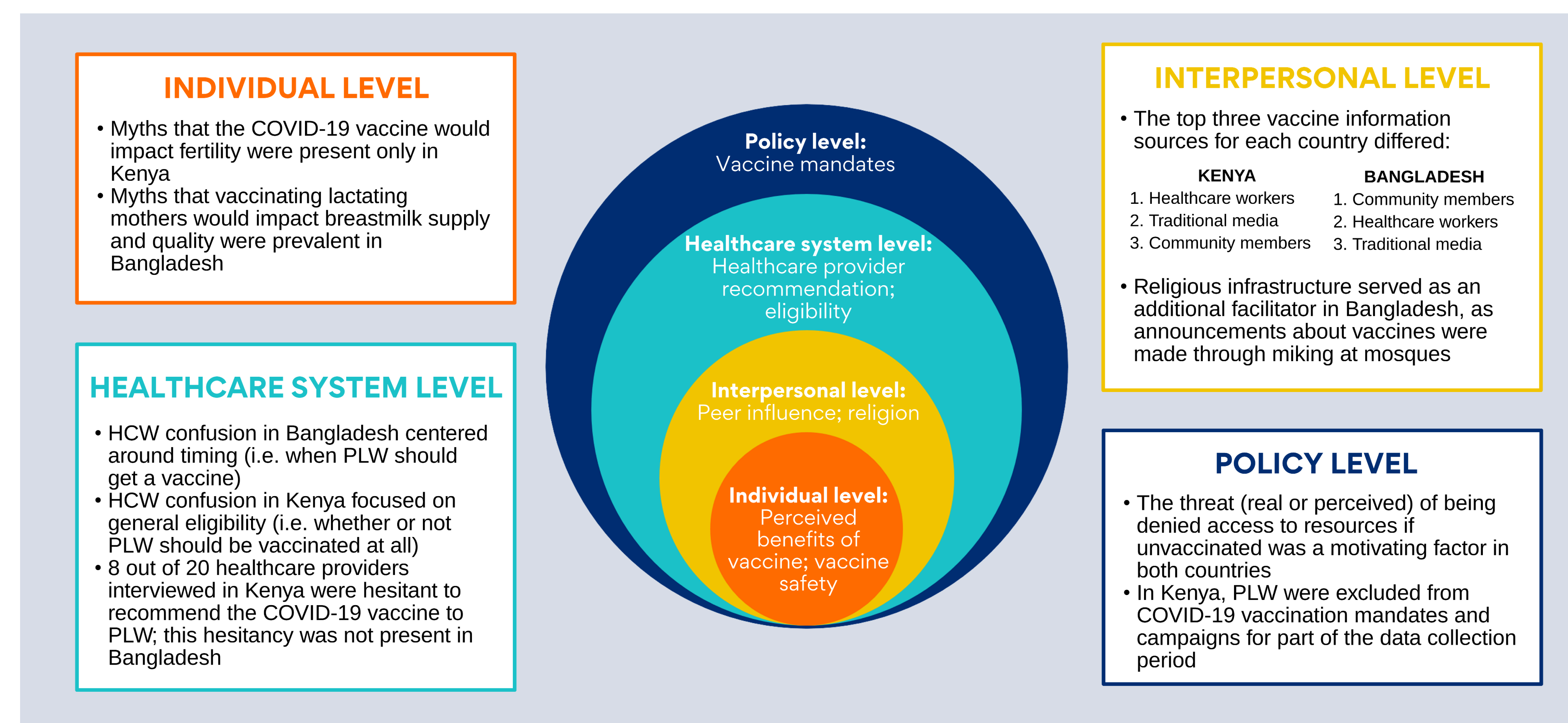
Methods

We conducted 133 in-depth interviews with a variety of stakeholders across urban and rural settings in Kenya (n = 84) and Bangladesh (n = 49), including 53 PLW; 36 healthcare workers, including nurses, midwives, doctors, and frontline workers; 34 community members including family members of PLW; and 10 gatekeepers including community and faith-based leaders. We applied a grounded theory approach to identify emerging themes.

Maps

Kakamega
1 rural and 1 urban community

| PLW | HCW | PM | Men | GK |
| 10 | 8 | 3 | 8 | 3 |
n=32

Garissa
2 rural communities

| PLW | HCW | PM | Men | GK |
| 8 | 6 | 2 | 6 | 2 |
n=24

Nairobi
2 urban communities

| PLW | HCW | PM | Men | GK |
| 11 | 6 | 3 | 11 | 4 |
n=38

LEGEND
PLW = pregnant & lactating women
PW = pregnant women
LW = lactating women
FM = family members
GK = community gatekeepers
HCW = healthcare workers
PM = policymakers

Rangpur
Urban locality/Divisional level

| PW | LW | HCW | FM | PM |
| 4 | 4 | 8 | 3 | 2 |
n=24

Ramjiban
Rural locality

| PW | LW | HCW | FM |
| 4 | 4 | 3 | 2 |
n=15

Damodarpur
Rural locality

| PW | LW | FM |
| 4 | 4 | 3 |
n=11

Gaibandha
District level

| PM |
| 3 |

Dhaka
National level

| PM |
| 5 |

Bamandanga
Rural locality

| HCW |
| 2 |

Kanchibari
Rural locality

| HCW |
| 2 |

Graphs/Figures

INDIVIDUAL LEVEL
- Myths that the COVID-19 vaccine would impact fertility were present only in Kenya
- Myths that vaccinating lactating mothers would impact breastmilk supply and quality were prevalent in Bangladesh

HEALTHCARE SYSTEM LEVEL
- HCW confusion in Bangladesh centered around timing (i.e. when PLW should get a vaccine)
- HCW confusion in Kenya focused on general eligibility (i.e. whether or not PLW should be vaccinated at all)
- 8 out of 20 healthcare providers interviewed in Kenya were hesitant to recommend the COVID-19 vaccine to PLW; this hesitancy was not present in Bangladesh

Policy level:
Vaccine mandates

Healthcare system level:
Healthcare provider recommendation; eligibility

Interpersonal level:
Peer influence; religion

Individual level:
Perceived benefits of vaccine; vaccine safety

INTERPERSONAL LEVEL
- The top three vaccine information sources for each country differed:

KENYA	BANGLADESH
1. Healthcare workers	1. Community members
2. Traditional media	2. Healthcare workers
3. Community members	3. Traditional media

- Religious infrastructure served as an additional facilitator in Bangladesh, as announcements about vaccines were made through miking at mosques

POLICY LEVEL
- The threat (real or perceived) of being denied access to resources if unvaccinated was a motivating factor in both countries
- In Kenya, PLW were excluded from COVID-19 vaccination mandates and campaigns for part of the data collection period

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 were present in both countries, but the specific myths differed. At the interpersonal level, religion impacted attitudes and acceptability of the vaccine in both countries, and the entities with the greatest influence on PLW's vaccine decision-making were similar. At the healthcare system level for both countries, the recommendation of healthcare workers (HCW) was crucial in informing PLW's decision-making process. However, HCWs exhibited confusion about PLW's eligibility in both countries, with some in Kenya hesitant to recommend the COVID vaccine for PLWs. At the policy level, vaccine mandates were important influences.

Conclusions

This study demonstrates how vaccine decision-making among PLW across global regions 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:
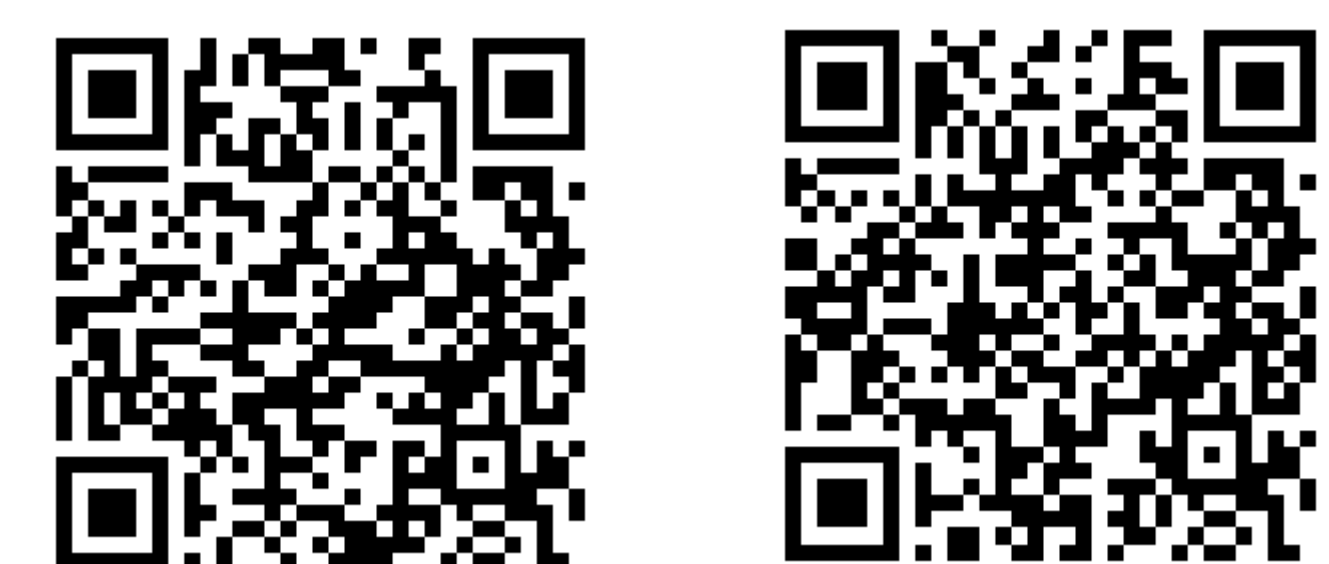
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