

Digital Personas

Drivers and Barriers to Using Digital Solutions

A study in Kenya, Nigeria and Senegal

April 2026

This study was funded by the Gates Foundation.



Not actual participant

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 - Confidence and Skills
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 - Expanding knowledge
 - Access to health information

4 Learn More with Deep Dive Materials

Data Collection Overview

What we do

- Asynchronous interviews
- Pre-recorded local language-speaking voice actors (not AI generated voice questions)

But don't you need to probe?

- Well-tested questions turn what might sound as a disadvantage into a benefit.
- Not having a live interviewer meant no interruption or social bias.

The benefit

- Open-ended responses across 3,300.
- Long, meaningful answers. 3x longer responses than in a typical in person interview.¹

¹See Decodis & Brac University paper about enumerator interruptions in live phone interviews in Bangladesh. [Link here](#)

**3,500 people interviewed
across 3 countries**

Kenya, Nigeria and Senegal

5 survey modules
on avg for each country

1,600 total hours
of open-ended voice data
collected

**Mostly rural
population**

Only women

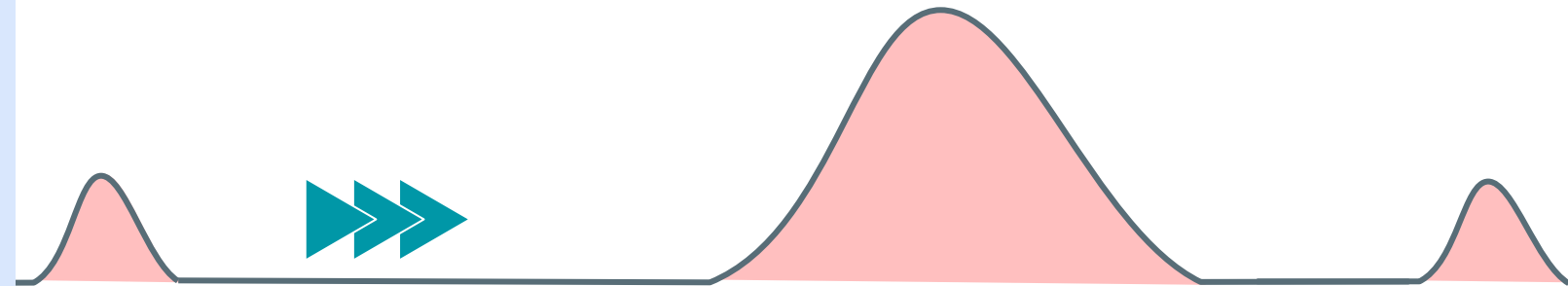
Women are being driven towards digital but face barriers

Women across Kenya, Nigeria, and Senegal are pulled toward digital by clear, practical needs — but a layered set of barriers slows them down at every step.

Drivers are remarkably consistent: women everywhere want to earn money, learn, and access health information.

Barriers are more uneven: they shift by country, by urban-rural setting, and by the specific norms women navigate at home and in their communities.

USING DIGITAL SOLUTIONS



DRIVERS

- Earning money
- Expanding knowledge
- Access to health information

BARRIERS

Discontinuous Use

- Data bundle management
- Charging outside the home
- Giving up the phone

Self-imposed Restriction

- When I can't control what I see
- When I have to control what I show

Confidence and Skills

- Learning how to use digital
- Protecting myself

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USING DIGITAL SOLUTIONS

BARRIERS

Discontinuous Use

- Data Bundle Management
- Charging outside the home
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Self-imposed restriction

- When I can't control what I see
- When I have to control what I show

Confidence and Skills

- Learning how to use digital (Shame)
- Protecting myself

AREAS MOST AFFECTED

Urban Kenya
Rural Senegal

Northern Nigeria
Rural Senegal

Lagos
Rural Northern Nigeria

Lagos
Rural Northern Nigeria

Urban Senegal
Rural Senegal

Urban Kenya

Access to smartphones may be less of a barrier than we think.

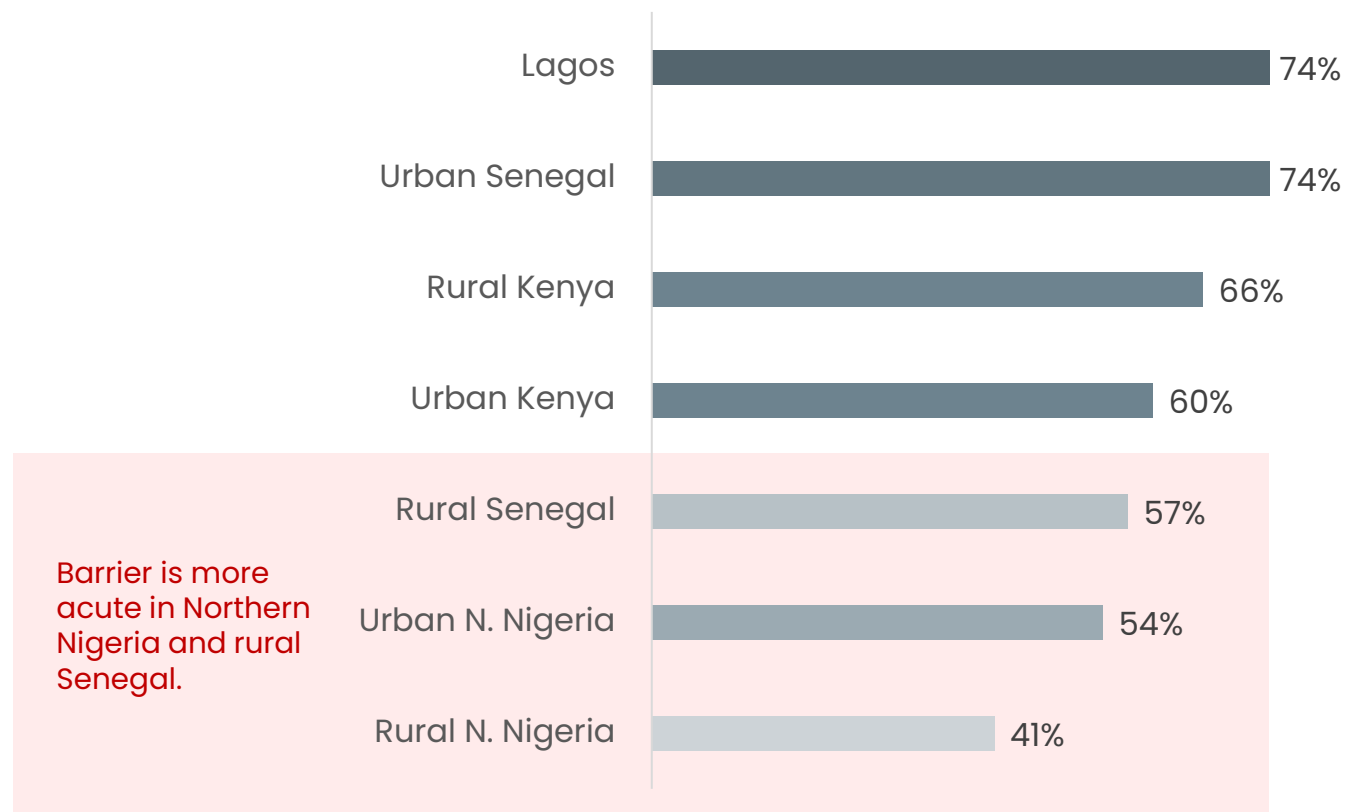
Only in Northern Nigeria and rural Senegal does access to a smartphone fall below one-third. This does not mean complete access as these phones are often shared.

One explanation for the difference in these numbers could be women misreporting the type of phone they have. In this study, we took photos of women's phones when we recruited them in person and then compared those photos to their self-reported type of phone.

The percent misreporting their phone are:

- 33% - 35% in Kenya
- 41% - 52% in Nigeria and Senegal

% of women with access to smartphones



People think their phone is more basic than it actually is

This is especially the case in Nigeria. The implications for this is that women might be using a smartphone but not to its full potential. Contributing to this is difficulty to buy data bundles, challenge to charge phone outside the home, and lack of digital literacy.

We identified this mismatch between the phone women hold versus the phone type they say they hold by comparing what they answered during the survey and the photos of the devices they shared during recruitment. (Not all women had their phones recorded in photos. Please see our [“Affordability”](#) deck to learn more.)



Phone is **better** than self-reported

Photo showed	Self-reported	Lagos	Urban NN	Rural NN
Smartphone	Basic phone	27%	20%	21%
Smartphone	Feature phone	42%	29%	20%
Feature phone	Basic phone	10%	27%	33%
N		161	154	221

¹A feature phone has a keypad but is internet-capable providing access to stripped down versions of Facebook and WhatsApp, for example.

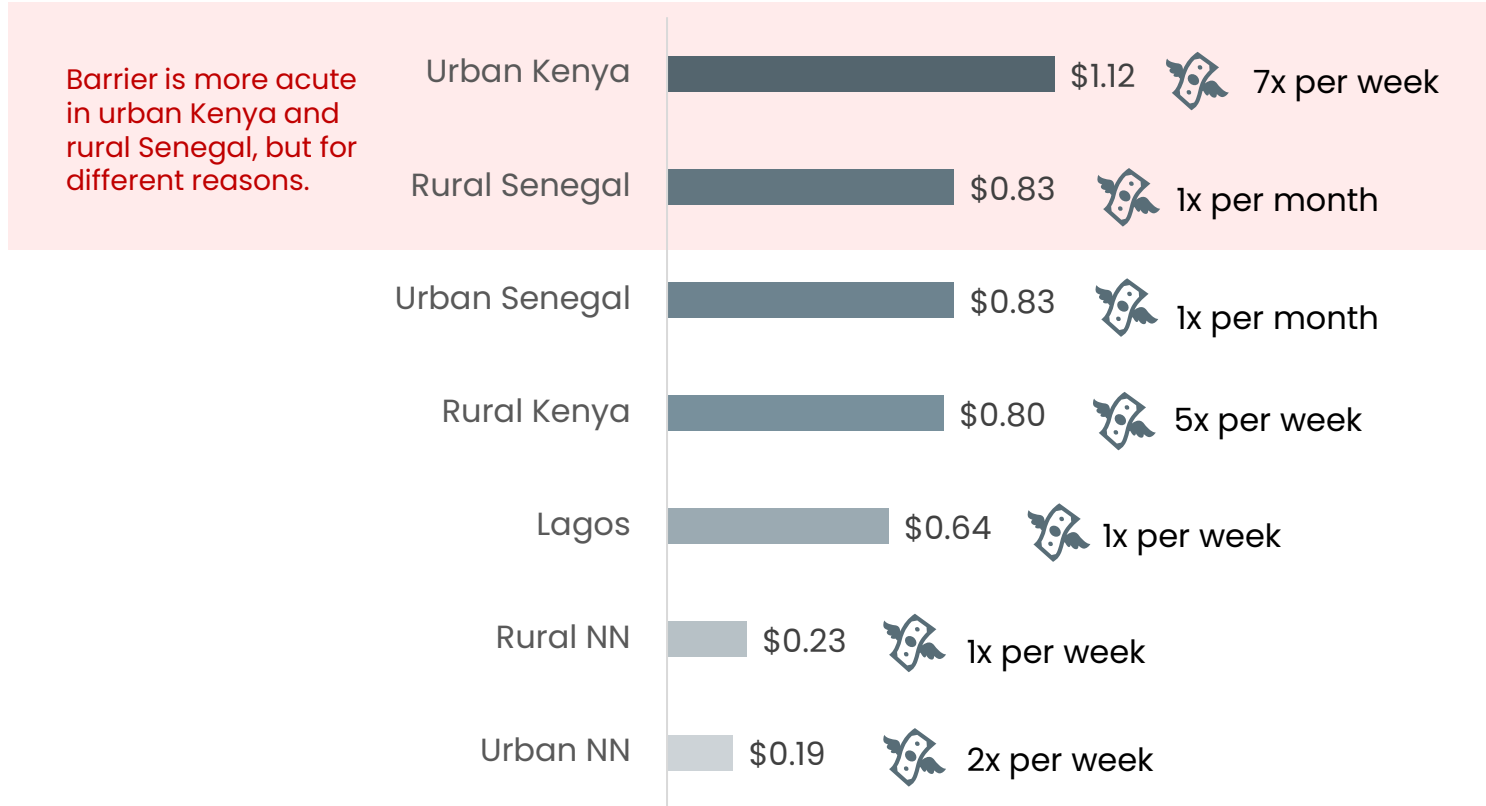
Managing data bundles is a constant disruptor.

Women turn data on and off to be able to make it last longer, balancing the need to buy food, pay for schooling, and other expenses with the need to buy data and stay connected to, for instance, run their businesses or selling online.

Patterns differ sharply by country. In Kenya, women buy data almost daily and manage their bundles continuously throughout the week — interrupting daily activities.

In Senegal, women buy a larger bundle once a month and ration it over the month. However, 61% of women in urban Senegal say they use WiFi suggesting they have an alternative to using data. Only 15% of women in rural Senegal have access to WiFi so they are more susceptible to the on/off again discontinuous access to digital.

Median amount spent per week (USD)



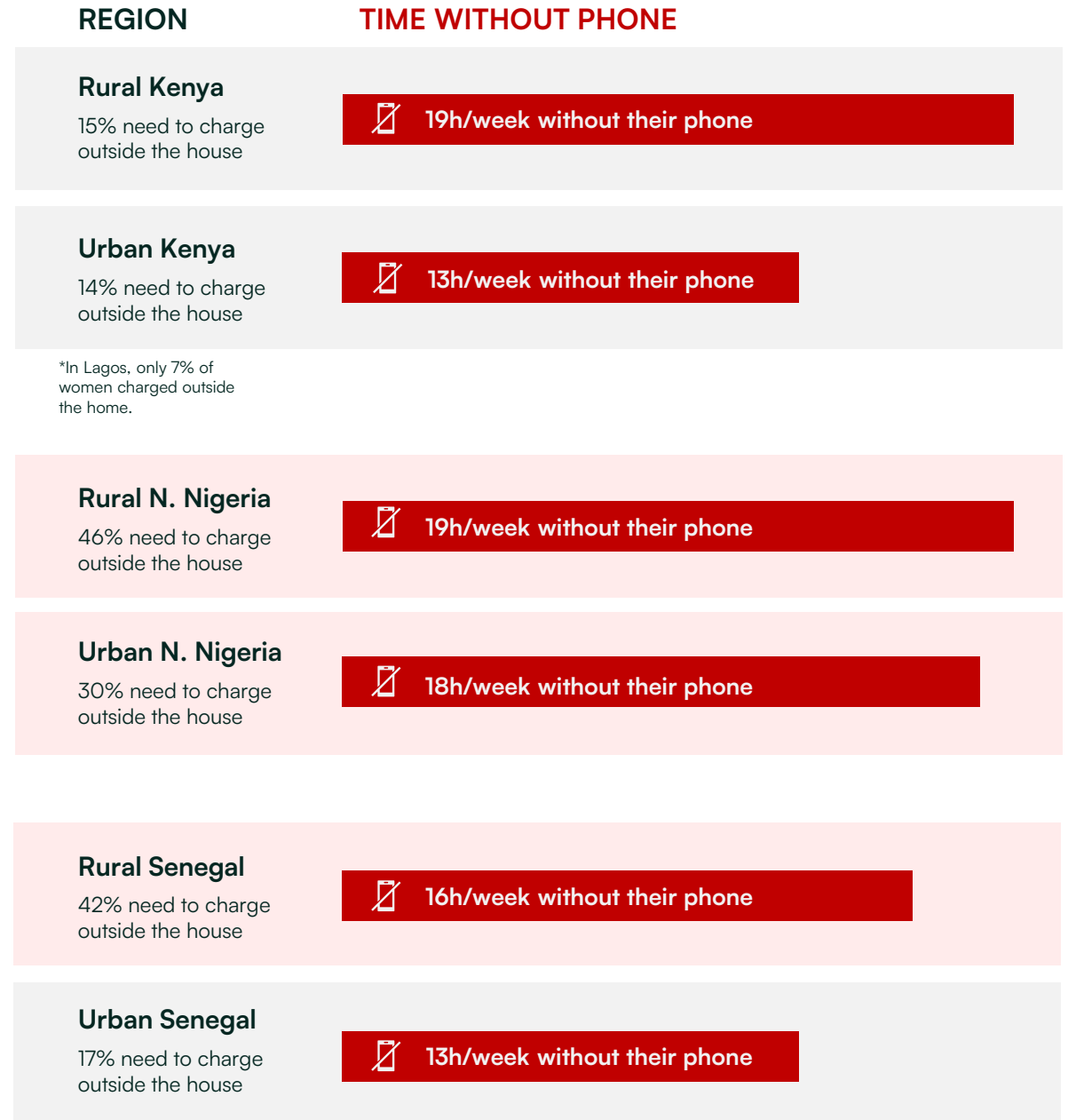
2 Barriers / Discontinuous Use

Charging outside the home leaves women without their phone for hours.

Charging is a hidden barrier to digital access. Where electricity is unstable, women rely on small businesses that charge phones for a fee – and their phones often wait in a queue for hours.

The result is extended periods of disconnection. In rural Northern Nigeria, women are separated from their phones for the equivalent of more than two working days every week, simply because the device is charging outside the home.

Barrier is most acute in Northern Nigeria and rural Senegal.

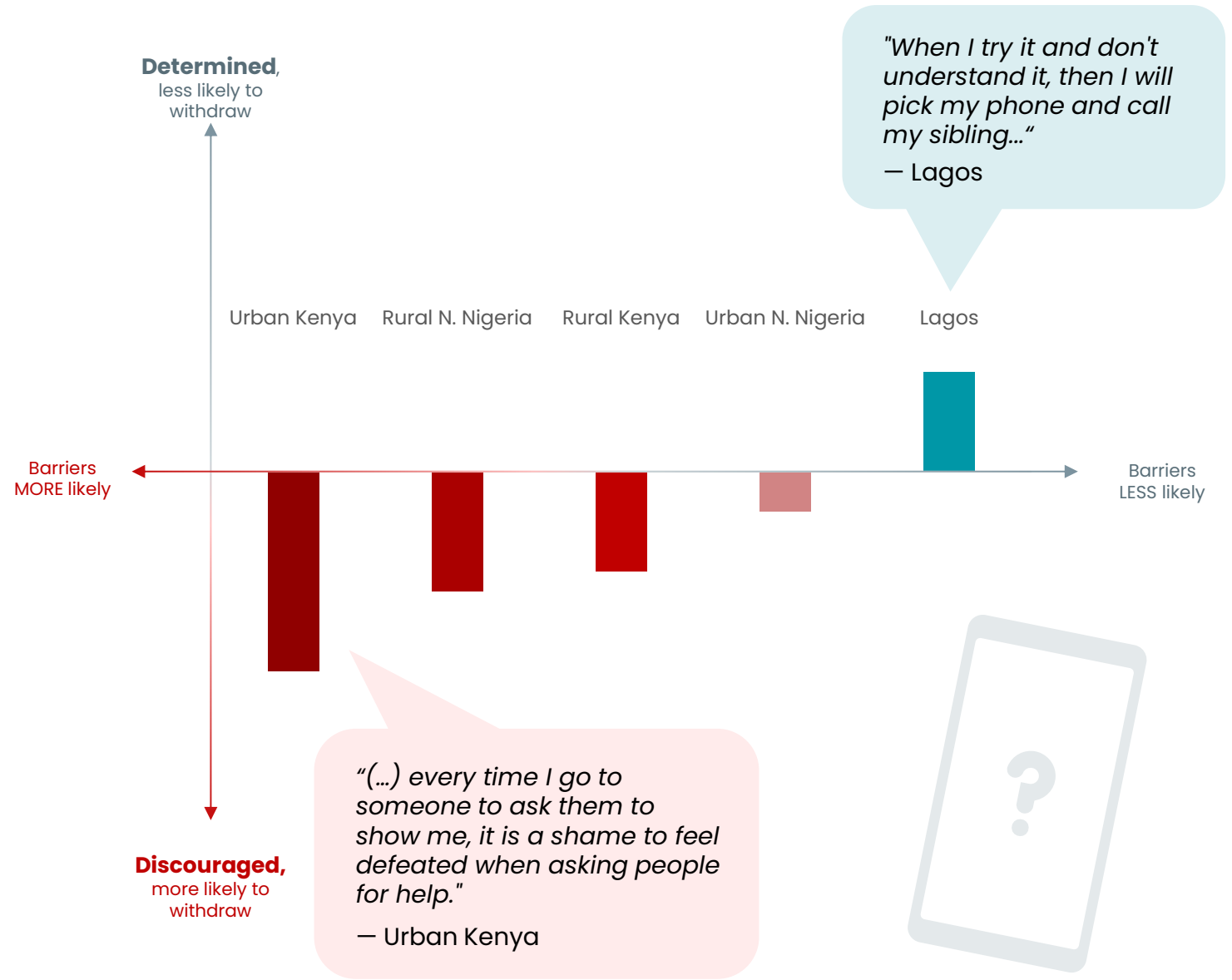


2 Barriers / Confidence and Skills

Urban Kenyan women show the strongest stigma around asking for phone-use help.

In all countries over half of women say they feel ashamed to ask for help using their phone.

When matters is how women how strongly women feel this shame. Voice analytics show us how discouraged women are. Women in urban Kenya are the most discouraged.



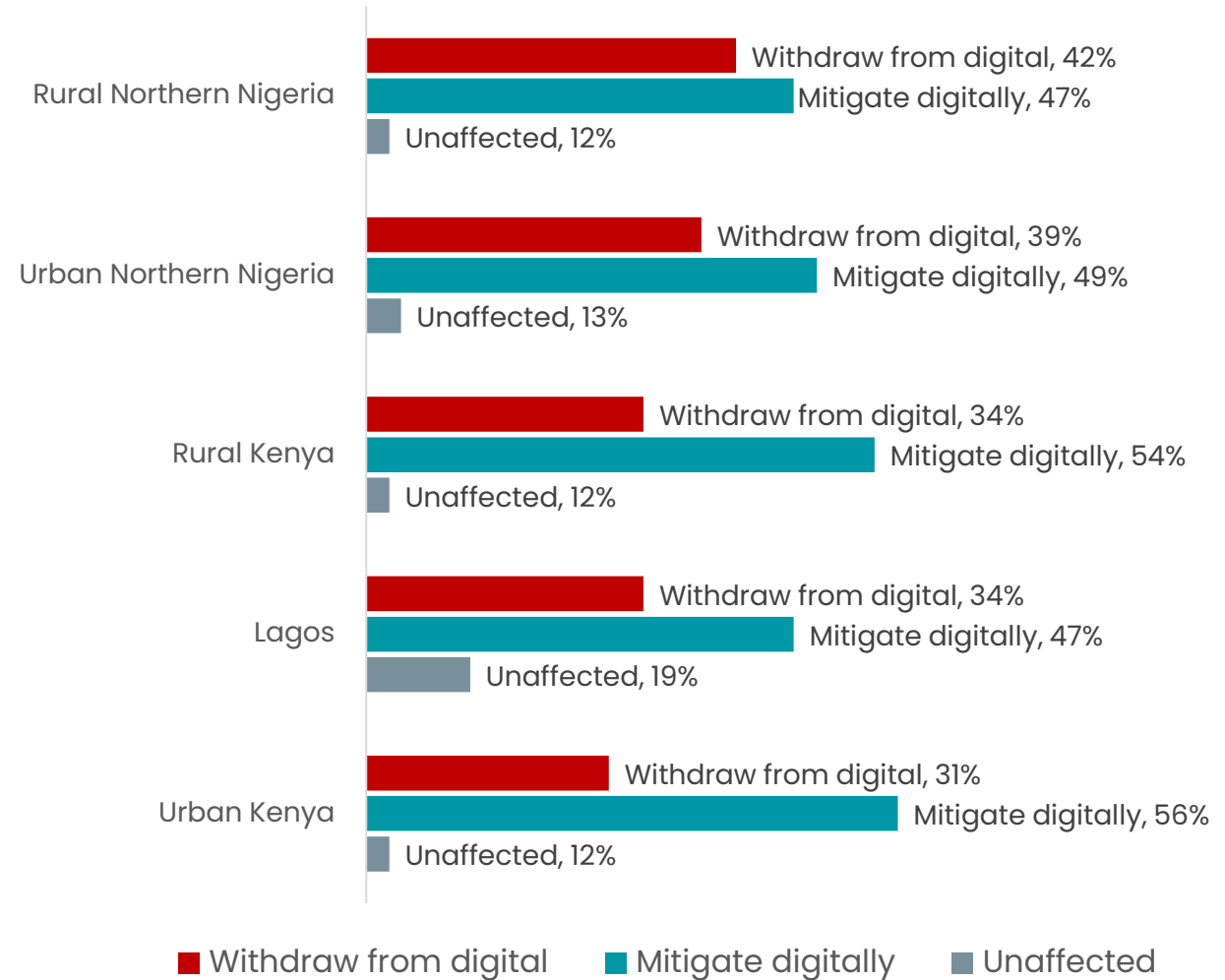
Self-imposed restrictions

Exposure to disturbing content and social pressure drive women off platforms

Across Kenya and Nigeria, 49–70% of women say they would withdraw from social media or messaging apps after exposure to violent or offensive content. The pattern is sharpest in rural Northern Nigeria.

Barrier is most acute in Rural Northern Nigeria.

How women deal with disturbing content



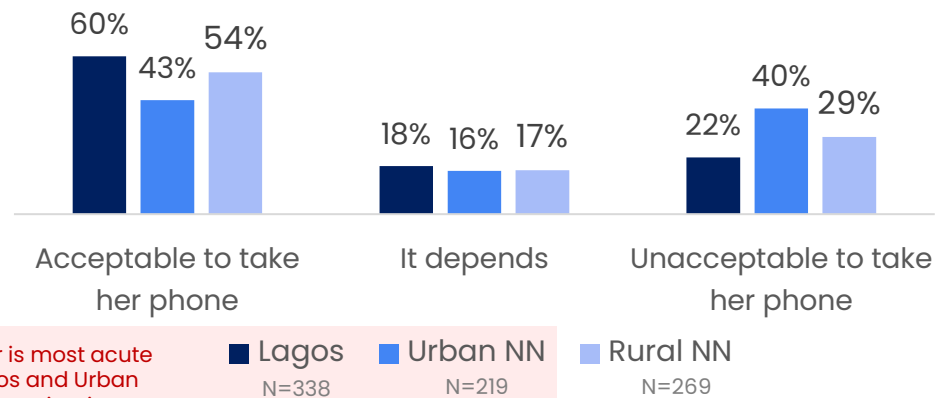
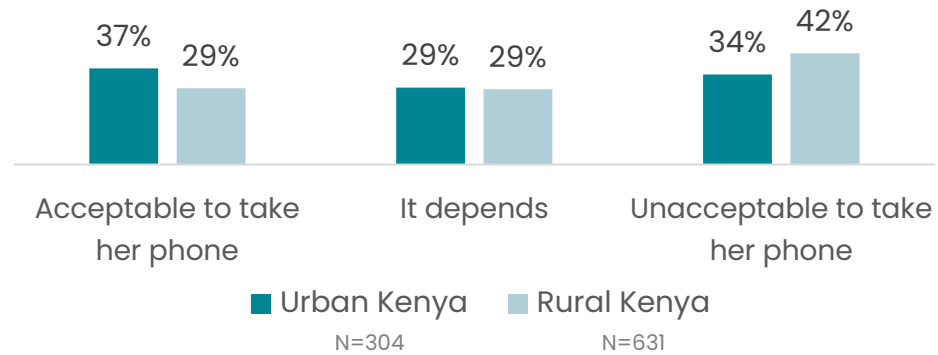
Gender norms play a big role in discontinuous use

When exposed to a skit about a woman whose husband took over her phone after his phone broke, the majority of women in Lagos and Rural Northern Nigeria thought this was acceptable.

Women who said this was an acceptable behavior mentioned that the husband needs the phone for work and downplayed their own need of the phone for income earning.

Is it acceptable for a woman give her partner her phone?

% of women in each region



Barrier is most acute in Lagos and Urban Northern Nigeria.

Note: This percentage is taken out of responses which were categorized. Some responses did not fall into a category, and some participants did not respond.

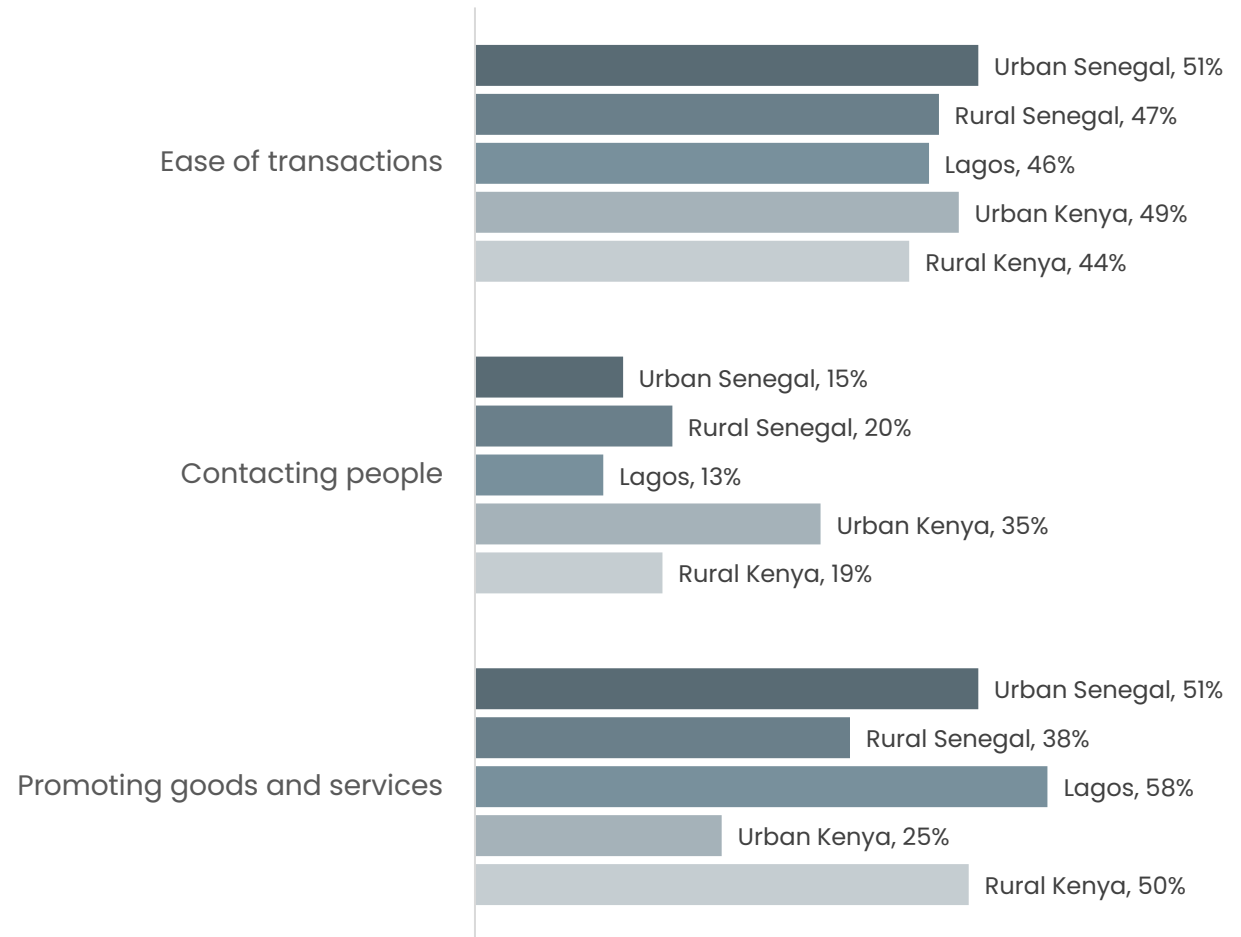
Women use their phones to run and grow their work

For women running businesses, phones are how customers are reached, transactions are made, and new ideas are learned. Across urban and rural Kenya, half of women in business say their phone helps them inform customers about goods and services.

Women in casual or wage work use phones differently – primarily to be contacted for jobs and to coordinate transactions. The line between "personal phone" and "work tool" effectively disappears for women who sell online, which makes data interruptions and forced phone-sharing especially costly.

Benefits to their businesses

% of women who have small businesses and mentioned benefit, multiple mentions



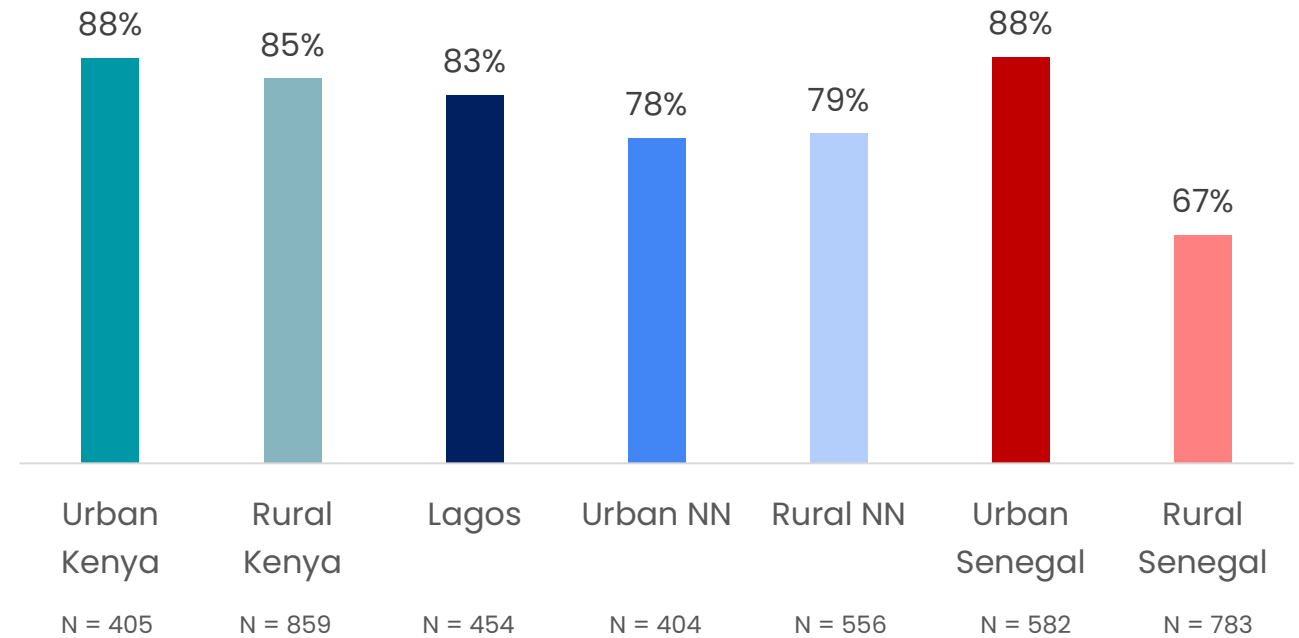
Women want to learn – phones give them the power to do so.

Across all regions, between 67% and 88% of women say they use their phones to access information – about news, decisions, family matters, and learning new things.

Senegal stands out at the lower end (urban 88%, rural 67%) – likely reflecting different patterns of phone access and use rather than disinterest. Where women do go online to learn, they describe videos and other women's comments as their most trusted sources, often watching repeatedly until something makes sense.

To get to these findings, we asked a series of open-ended questions about how women find information of various types: news, learning new things, looking things up, and health information.

Out of those in region, % who say they access any information



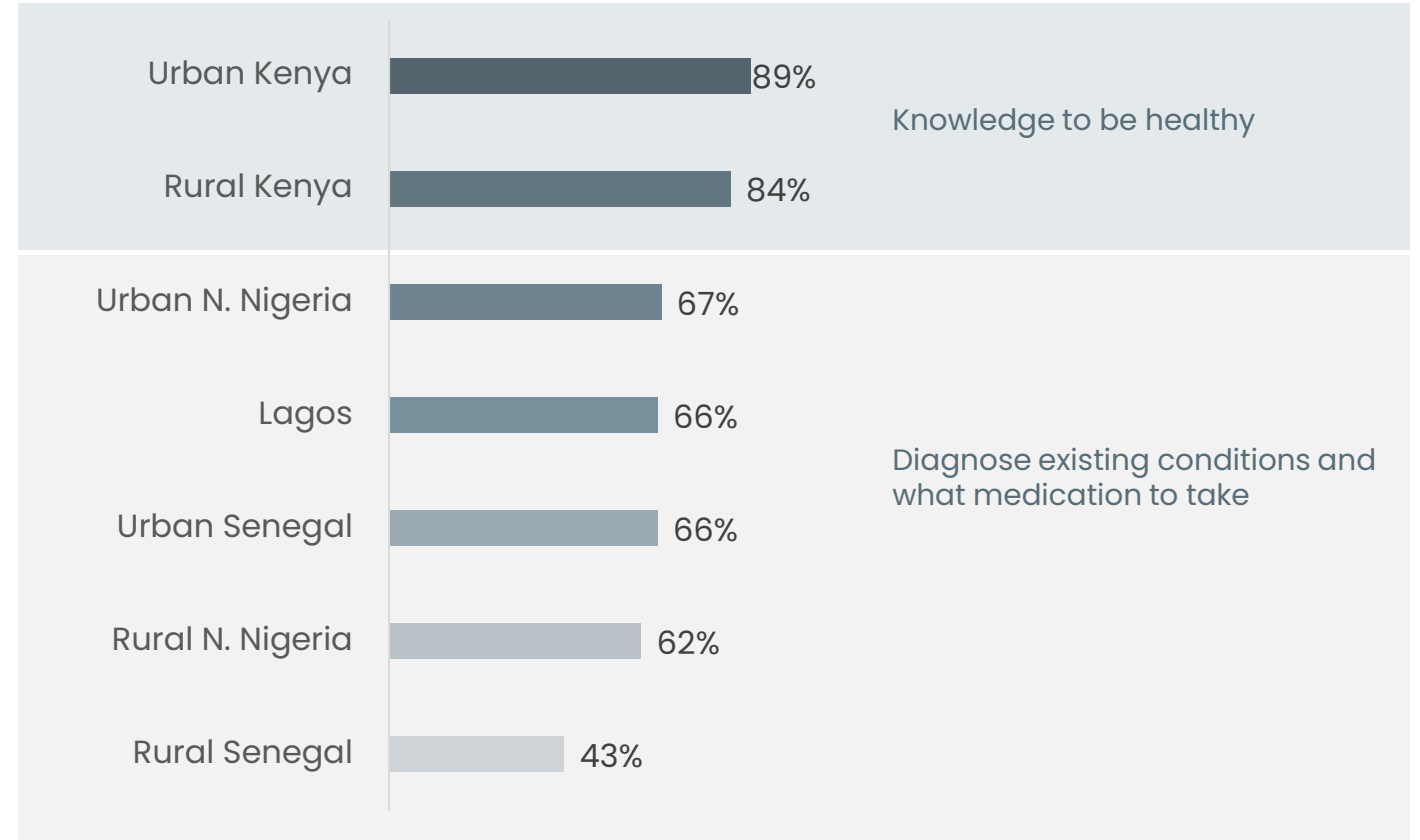
Women look for health information online for various reasons

Convenience, privacy, and a sense of empowerment pull women toward online health information

The type of information women seek differs by country. In Kenya, women look for preventative knowledge — nutrition, understanding diseases like cancer, TB, or HIV. In Nigeria and Senegal, women look for immediate, diagnostic information about current symptoms and what to do about them. Across all regions, the most striking finding is that women feel empowered by what they find: they can watch videos repeatedly, read comments from women like themselves, and arrive at appointments better prepared.



% who would seek health information online



Learn more

Visit our website to learn more about our work, download full reports by theme and country, listen to skits we used in the data collection and access the raw data we used in our analysis.

www.decodis.com/digitalpersonas

