



mHealth

**Understanding the
needs and wants of
pregnant women
and mothers**

South Africa, July 2014

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Overview and research objectives



Maternal, perinatal and under-5 mortality in South Africa remain high. It is estimated that 40% of all deaths are avoidable. With the ubiquity of mobile services in developing markets, value-added services such as mobile money and mobile health (mHealth) are increasingly offered as a more convenient and cheaper solution for people to access not only information but also actual financial and healthcare services.

An initial landscape study in South Africa identified 101 mHealth services. 18 focused on maternal, newborn and child health (MNCH), 42 addressed HIV and AIDS, 31 focused on community healthcare worker data collection and 27 delivered targeted demand generation messaging. Despite the plethora of mHealth services, there are a number of barriers that need to be overcome to successfully integrate mHealth into the country's health system: (1) fragmentation of services amongst multiple service providers; (2) the inability to grow projects beyond the pilot phase and achieve sustainable economies of scale, allowing the creation of sustainable financing structures through robust public-private partnerships; and (3) the lack of technical, clinical and inter-organisational interoperability.

The GSMA has undertaken this consumer research across South Africa to address the barriers and attain a better understanding of the “needs and wants” of pregnant women and mothers of infants up to the age of two. The aim has been to identify ways that existing maternal, newborn and child health (MNCH) messaging services can be improved and made more relevant for these consumers, especially for those who are at the bottom of the pyramid (BoP). Concept tests of other mHealth services such as health hotlines and health insurance, which can be purchased using mobile top-up, were also conducted to explore ways on how mobile technology can be used to strengthen the delivery of basic healthcare services.

About the GSMA



The **GSMA** represents the interests of mobile operators worldwide. Spanning more than 220 countries, the GSMA unites nearly 800 of the world's mobile operators with 250 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and Internet companies, as well as organisations in industry sectors such as financial services, healthcare, media, transport and utilities. The GSMA also produces industry leading events such as Mobile World Congress and Mobile Asia Expo.

For more information, please visit the GSMA corporate website at www.gsma.com. Follow the GSMA on Twitter: @GSMA

GSMA Mobile for Development brings together our mobile operator members, the wider mobile industry and the development community to drive commercial mobile services for underserved people in emerging markets. We identify opportunities for social, economic and environmental impact and stimulate the development of scalable, life-enhancing mobile services.

For more information, please visit the GSMA Mobile for Development website at www.gsma.com/mobilefordevelopment. Follow GSMA Mobile for Development on Twitter: @GSMAm4d

The **GSMA Mobile for Development mHealth** programme connects the mobile and health industries, with the aim of developing commercially sustainable mHealth services that meet public health needs. In June 2012, the GSMA mHealth programme launched the Pan-African mHealth Initiative (PAMI) to support the scale-up of mHealth in nutrition and maternal and child health. PAMI is closely aligned to the UN's Every Woman Every Child Initiative, Scaling Up Nutrition (SUN) and the Global Nutrition for Growth Compact.

For more information, please visit <http://www.gsma.com/mobilefordevelopment/programmes/mhealth>

Research summary and implications

Key findings

- As the health decision-maker, most women are generally “self-aware” of their personal health needs.
- Broadening scope (e.g. job tips) can make the service more relevant and impactful especially among BoP women.
- The business case for using phones to reach out to BoP women remains compelling although women rely mostly on “traditional media” and experts for health advice.
- About 40% of target users are aware of existing MNCH messaging services but only half of them use the service.
- MNOs are gaining trust as an mHealth service provider but they need the support of the government and health establishments to further improve credibility.
- There is a strong interest for mHealth and mVAS but only half of the respondents are willing to pay for the service. Non-BoPs are more willing to pay.

Considerations for service design

- How should the scope and content of MNCH be broadened to make it more relevant and impactful to the lives of BoP women?
- Can making the service more humanised or personalised improve its relevance and impact?
- What unique value proposition can be added to differentiate mHealth from other sources of health information?
- How can the growing number of consumers upgrading to smartphones be taken into account in product design and development?
- What promotional and marketing activities should be carried out to improve awareness levels?
- How should stakeholders collaborate and which stakeholder assets can be utilised in order to market and demonstrate how the service works?
- What kind of premium services can be offered in order to make the service more appealing to those who are “willing to pay” in order to develop a “freemium business model”?
- Could bundling (e.g. combining health hotline with MNCH messaging) be a potential approach to a freemium model?

Recommendations

Awareness, familiarity and credibility

- Use attractive promotional activities (e.g. incentive schemes for recruiting fellow pregnant women/mothers): Cell broadcasting should not only inform but should lead to an “action”
- Use CHWs to promote and demonstrate how the service works
- “Humanise” the service by using health experts and/or celebrities as endorsers
- A government seal of approval will help strengthen mobile operator credibility

User experience and unique value proposition

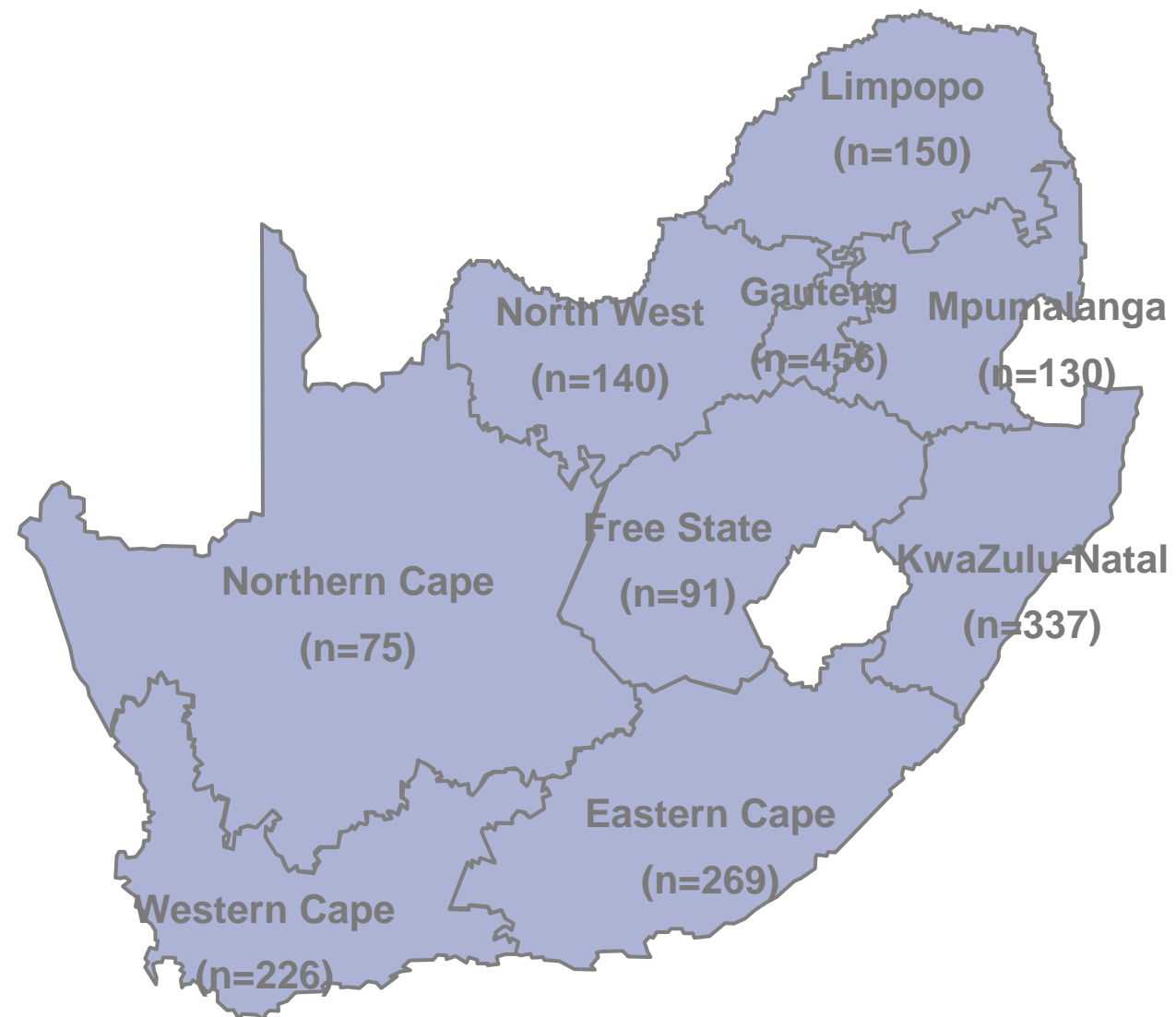
- Explore new topic areas beyond MNCH to broaden service appeal and interest across age and socio-economic status
- “Personalise” the service, potentially allowing interactive and two-way communication, especially for feature and smartphone users

Potential revenue streams

- Consider bundling existing or new mVAS offerings, creating opportunities for “freemium business modelling”
- Consider a value chain offering of health services (e.g. bundling health content with health registration, healthworker services, remote monitoring, health financing, other)
- An addressable market of 2.5 million women, all household decision makers, could potentially represent a significant and receptive market segment for FMCG, pharmaceutical, healthcare and other diverse brands, for targeted, consent driven advertising

Research overview

2,000+ mothers and pregnant women were interviewed across South Africa



Total sample size: n=2,056 (of which 1,874 from the main interview and 182 from the booster interviews)

Organisations

- Donor: **UK aid from the Department for International Development (through Mott MacDonald)**
- Project oversight: **GSMA**
- Data collection: **Ask Afrika**

Respondents

- 15 – 49 years old
- Pregnant women or mothers/caretakers of children up to the age of two
- Booster: users of MNCH messaging services

Methodology

- 50-minute nationally representative quantitative research
- Face-to-face
- Tablet PCs

Fieldwork dates

- 10th Feb – 8th April, 2014

Research topics

Demographics

Age & marital Status

Education & employment

Media ownership and usage

Personal / household income & savings

Household appliance ownership

Pregnancy / motherhood

Steps to confirm pregnancy

Ever visited a healthcare facility? Ever visited by a CHW?

Experience in hospitals/clinics and with CHWs

Reasons for not visiting a healthcare facility

Mobile usage and habits

Phone or SIM ownership, operator being used

Reasons for using mobile operator or for switching

Type of subscription; who, where and how much top up

Brand and type of handset used

Concept testing: 4 concepts

Overall impression / likes and dislikes

Interest in service: free vs. not free; reasons why not interested

Likelihood to switch mobile operator

Organisation suitable to offer service

MNCH messaging experience

Awareness of MNCH messaging services

Which MNCH service being used

Experience in using MNCH service

Reasons for not using or unsubscribing

Respondent and household profiles



Women play an important role in the South African society. They account for 40% of the household income. 4 in 5 women are the household decision-makers in health matters. The majority are, therefore, generally cognizant of their personal health needs and also value the importance of securing the health of their family or their children.

Being less educated and because they tend to get pregnant much earlier in life, many South African women at the BoP have fewer job prospects compared to non-BoP women and are unable to move up the social ladder. As they are likely to raise their babies or children on their own, as single parents, looking for job opportunities becomes more challenging unless they have a family member or a friend who can look after the babies or children while they are away.

Providing BoP women, especially those who became pregnant for the first time, with relevant health education, especially maternal, newborn and child health (MNCH), is thus critical in order to help them become better prepared to manage their own health as well as that of their babies.

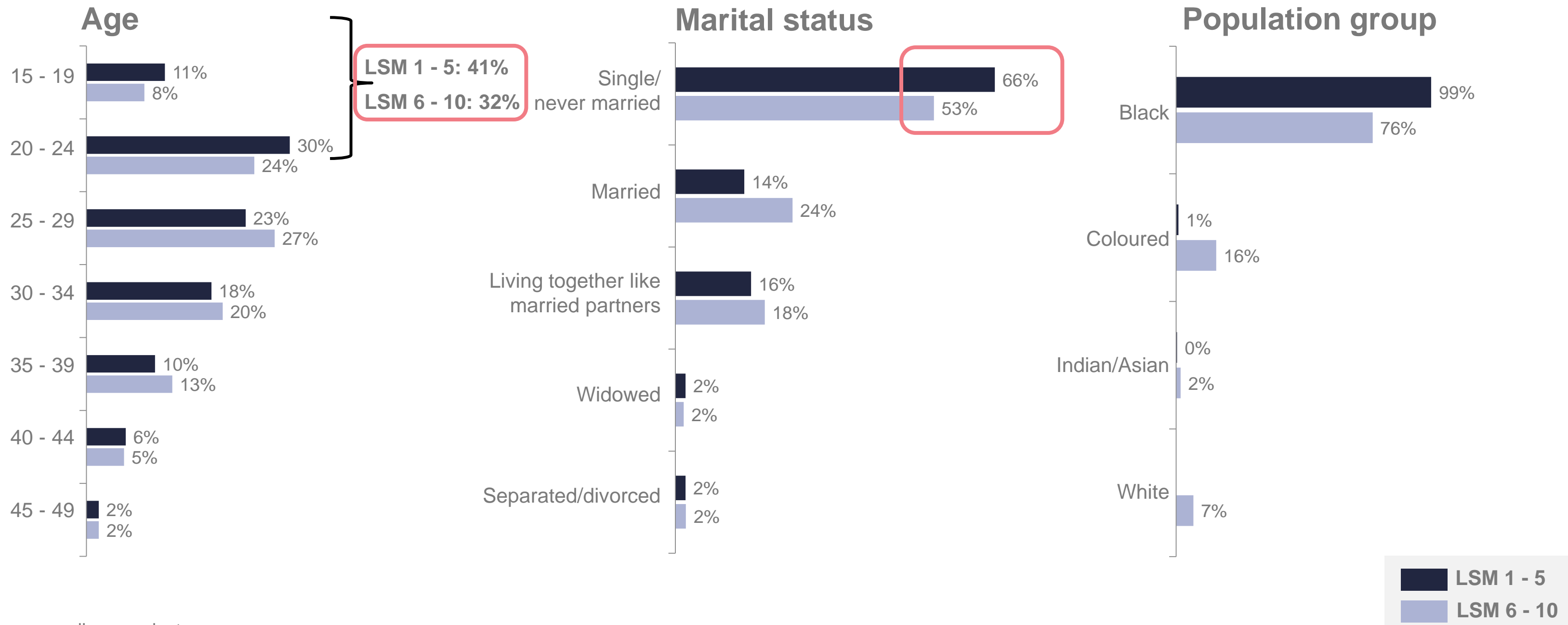
Based on this research, nearly all households (98% mobile penetration) in South Africa have access to a mobile phone just like in developed markets. The case for using mobile phones to reach out to everyone, including South African BoP women (94% ownership among BoP women) especially for health education, remains compelling.

The GSMA is conscious that there are currently more than 100 mHealth services in South Africa and that there is significant fragmentation with a desire to create more efficient, interoperable and sustainable services that impact the lives of BoP users. In an effort to increase the adoption, use and relevance of MNCH messaging services, a number of bundled mHealth service concepts have been tested using this research:

1. A broadening of scope, to include additional content such as job information, in an effort to increase the “stickiness” of MNCH messaging
2. The provision of valuable support to users, such as moderated support group discussions or social networks, especially for those who have no other support mechanisms

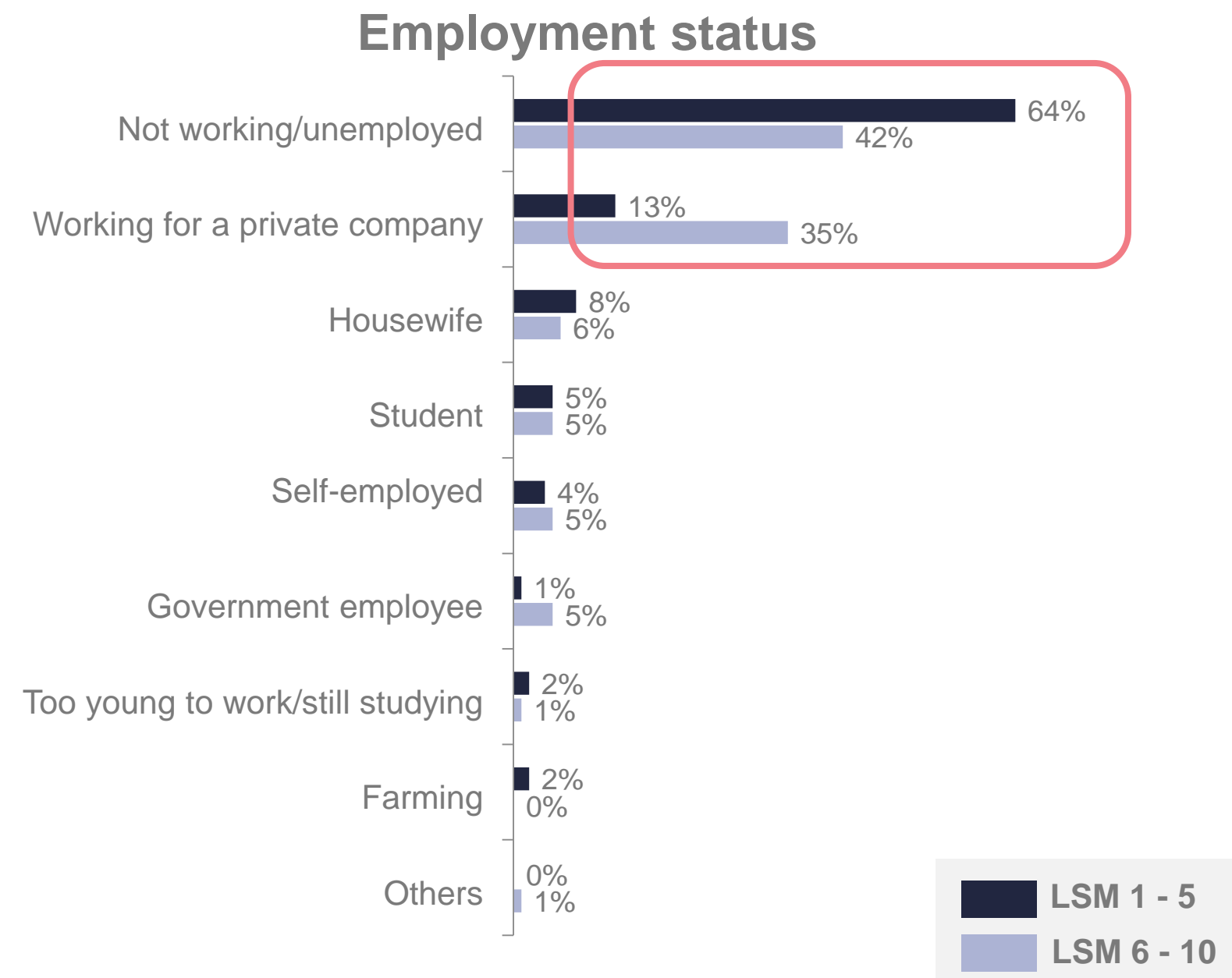
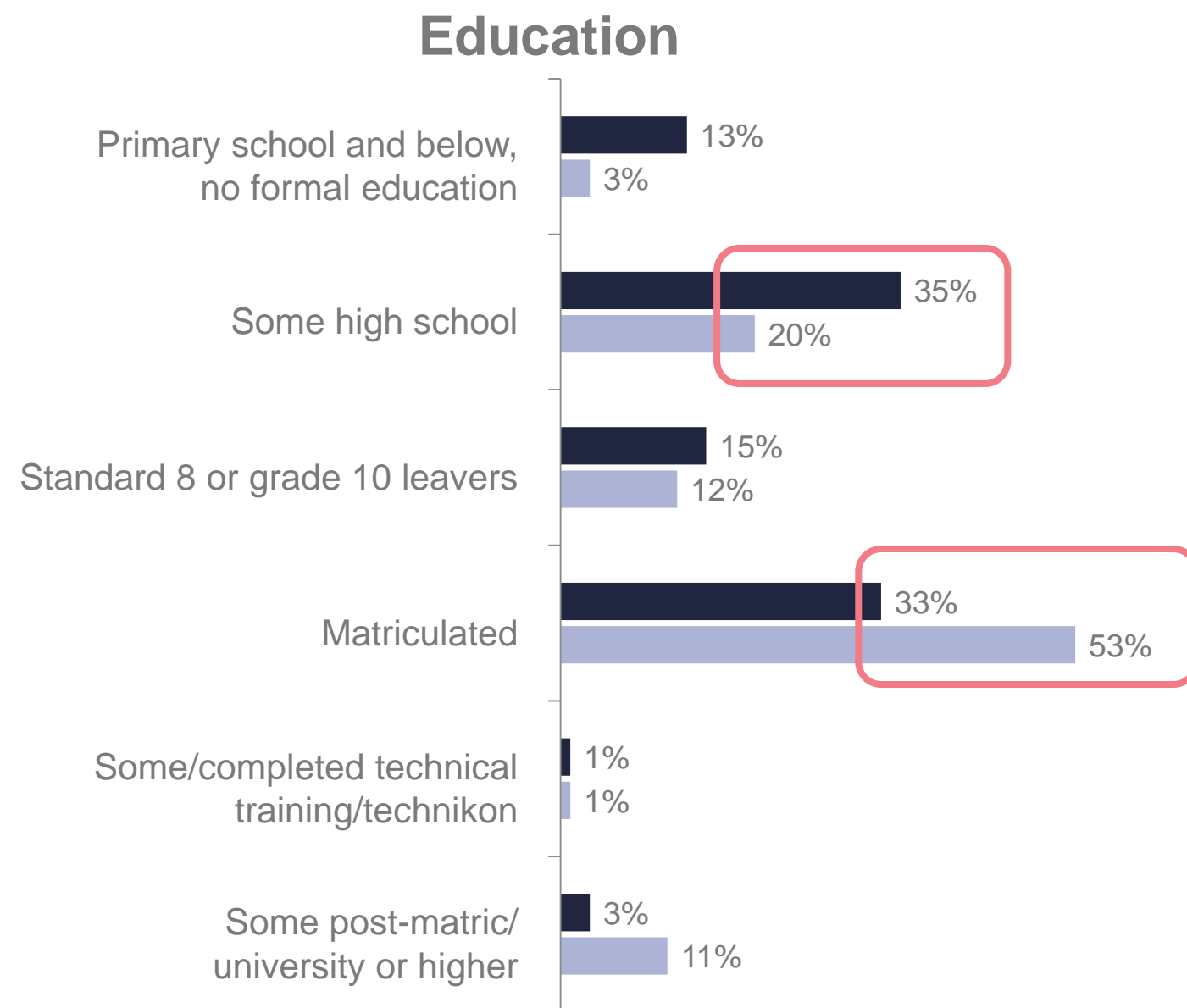
BoPs: early pregnancy and single motherhood

MNCH messaging can be impactful, especially among young BoP women who get pregnant much earlier in life and are likely to raise their children alone



Education: crucial for better job prospects

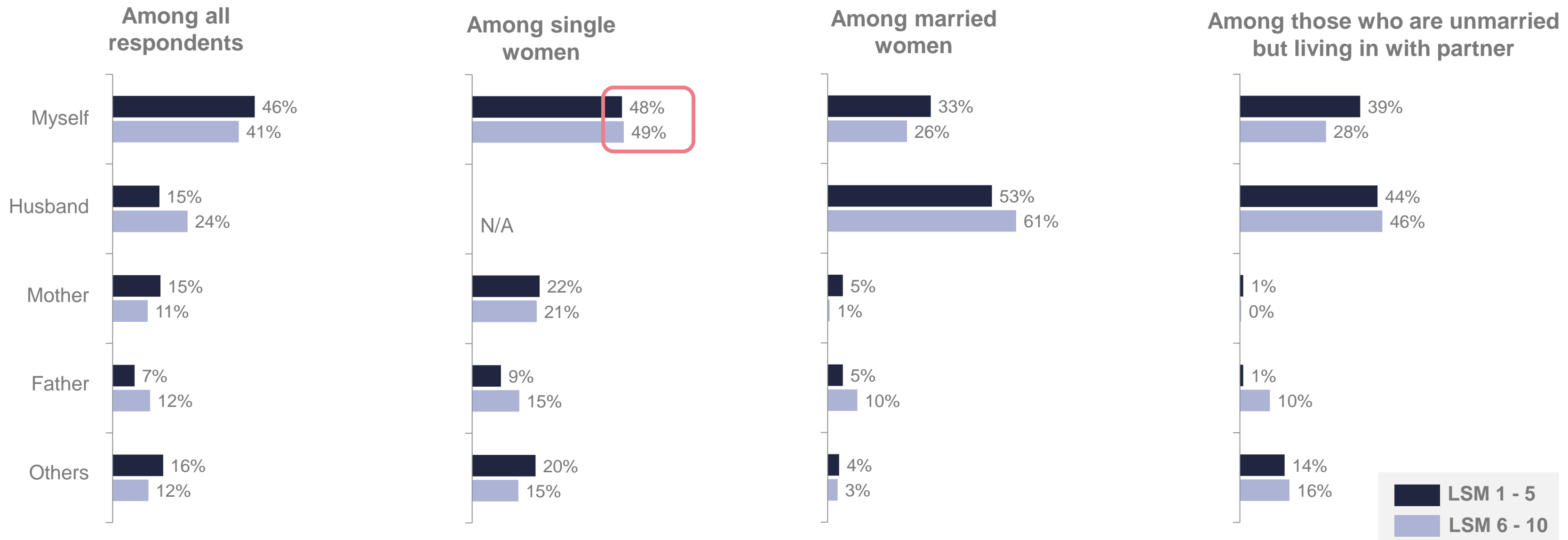
Being less educated, BoP women's job prospects are limited compared to those of non-BoP women. Widening the scope beyond health (e.g. job information) will add more value to mHealth services



Social support is essential

Moderated support group discussions or social networks may offer valuable support to single mothers or pregnant women, especially to those who have no one else to rely on

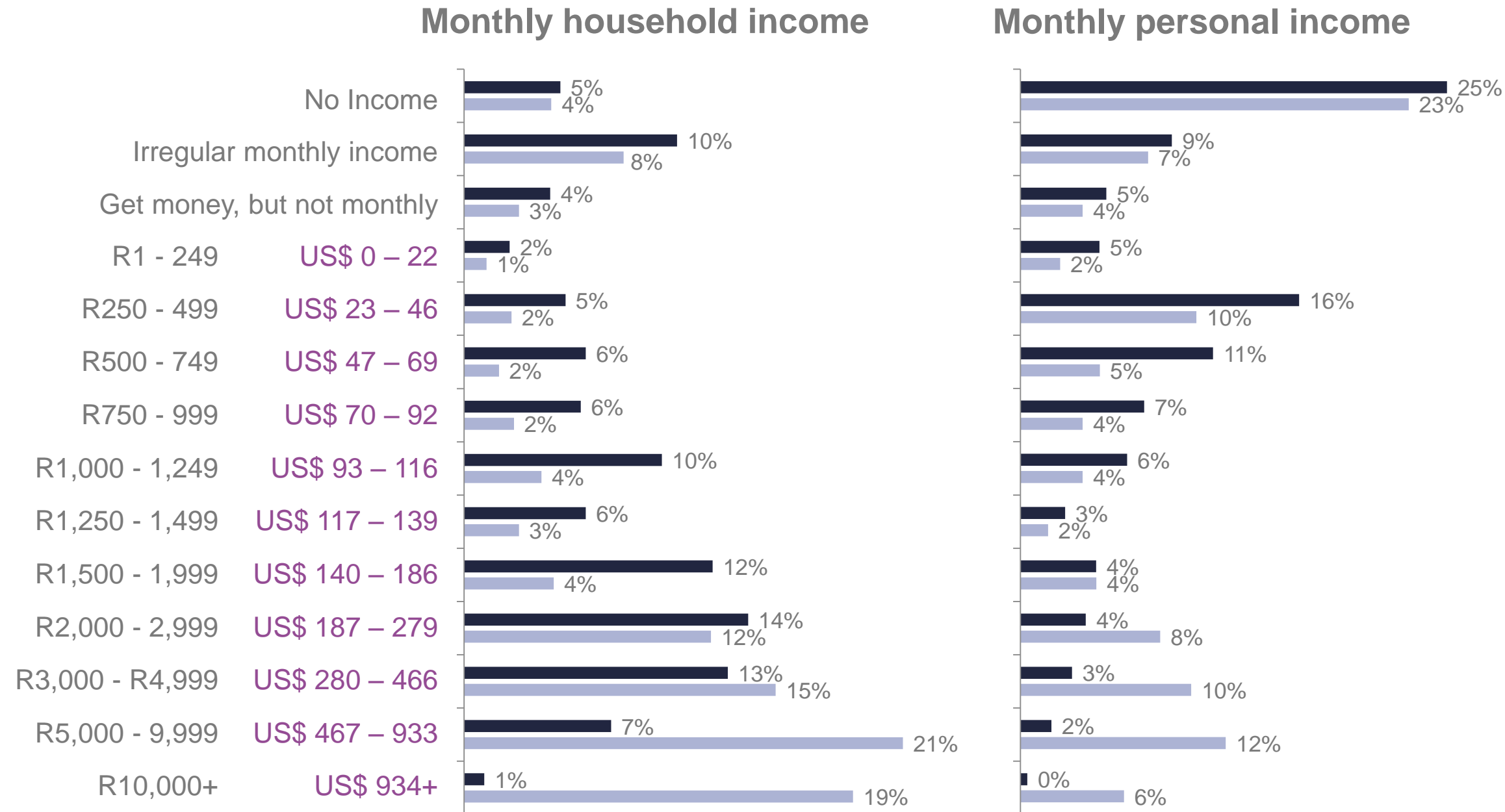
Who is the head of household?



Women account for 40% of household income



With increasing economic influence in the household, even though many women earn less than the minimum wage, they are the most relevant target for marketing and social campaigns



	Ave. monthly household income		Ave. monthly personal income	
	ALL	With income only	ALL	With income only
ALL HH/individuals	R 5,950 (\$ 556)	R 6,260 (\$ 585)	R 2,420 (\$226)	R 3,290 (\$307)
LSM 1 - 5	R 2,500 (\$ 234)	R 2,640 (\$ 247)	R 930 (\$87)	R 1,310 (\$122)
LSM 6 - 10	R 7,570 (\$ 707)	R 7,940 (\$ 742)	R 3,140 (\$293)	R 4,200 (\$392)

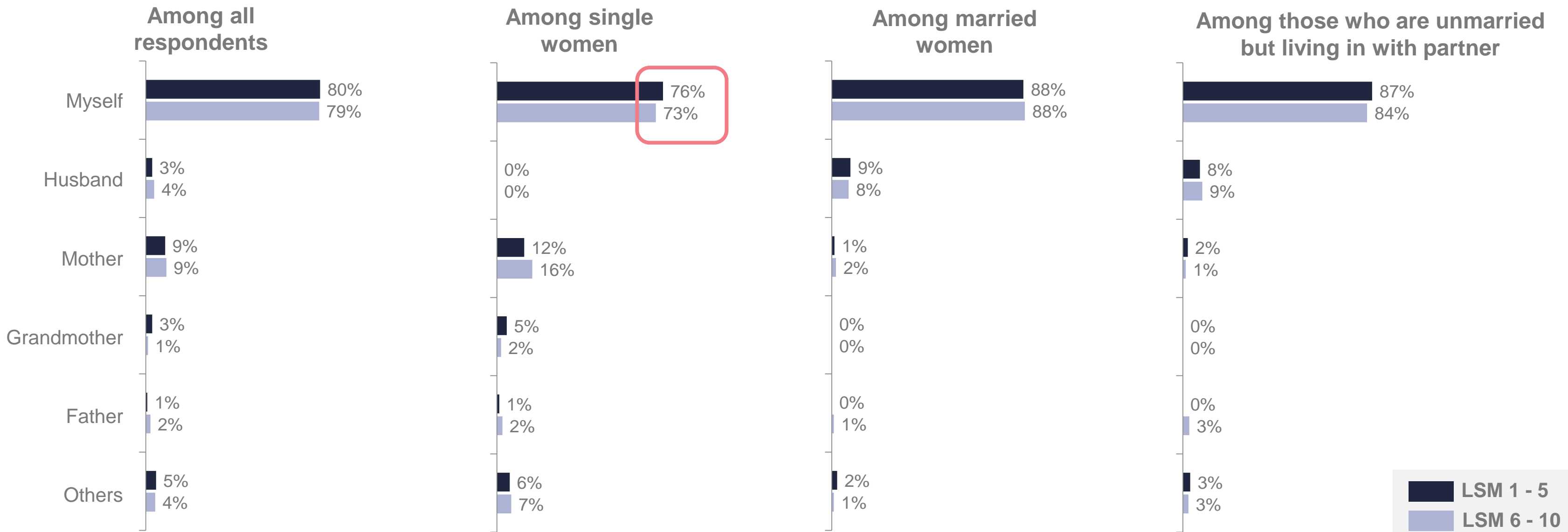
Exchange rate used: 1 US\$ = R 10.71

Base: among all respondents

Women play a key role in health management

For general health messaging services in South Africa, women are clearly the most appropriate target as the majority are the household decision-makers in health matters

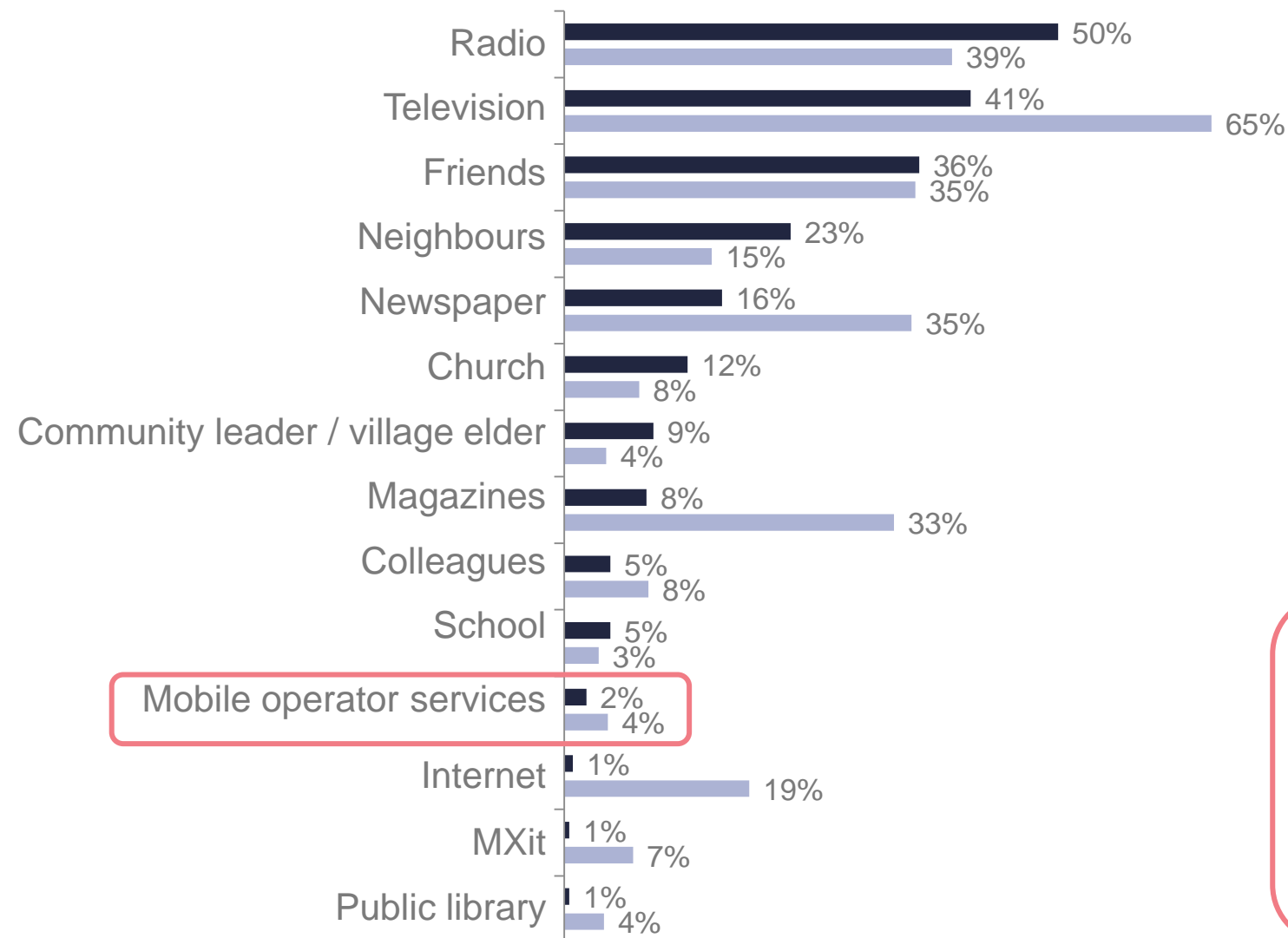
Who is the health decision maker?



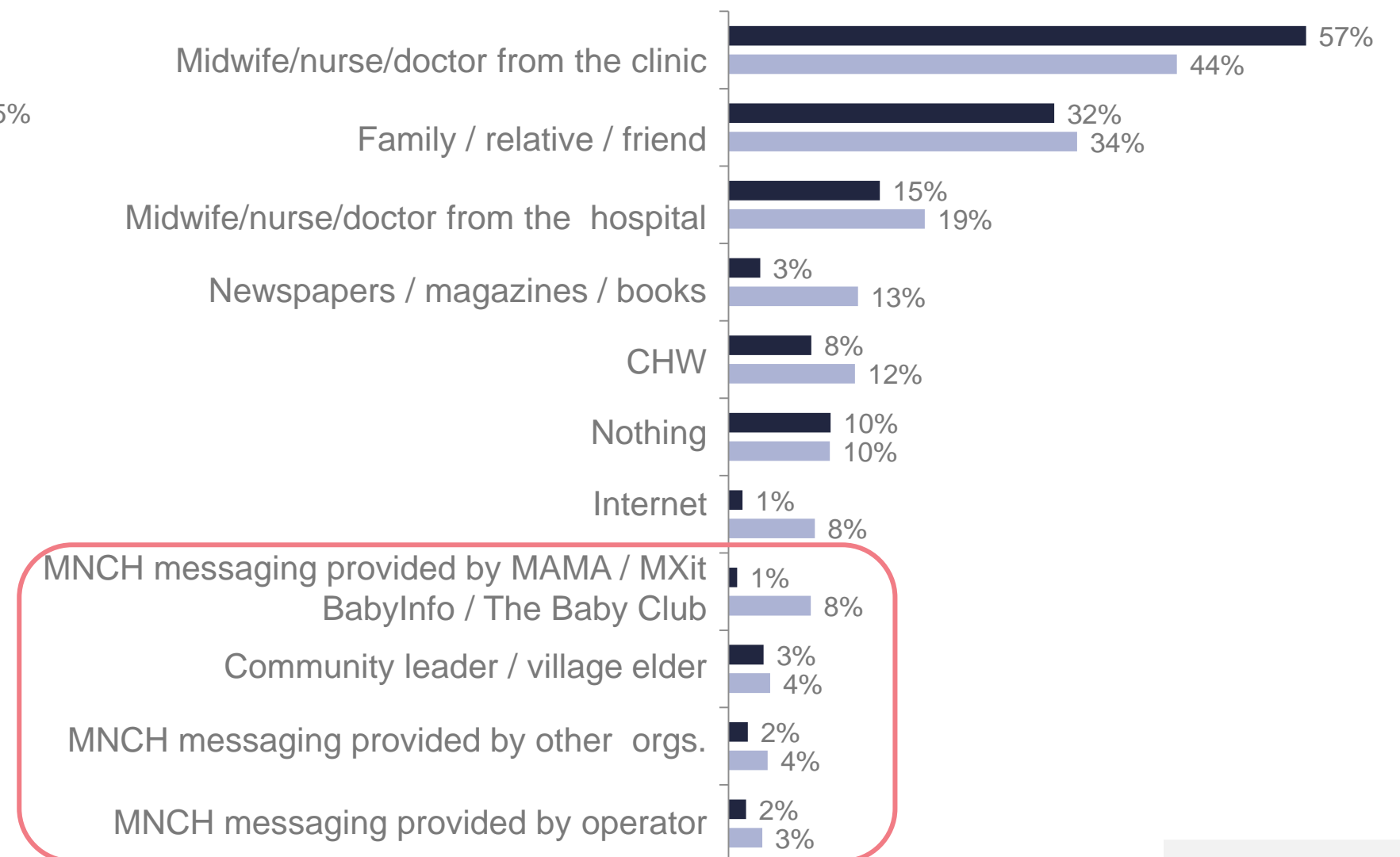
Strong reliance on traditional media/experts

Health messaging needs to be “humanised” and “personalised” in order to differentiate it versus traditional media

Source of information on fitness/ healthcare/ government services



Source of information on pregnancy and childcare

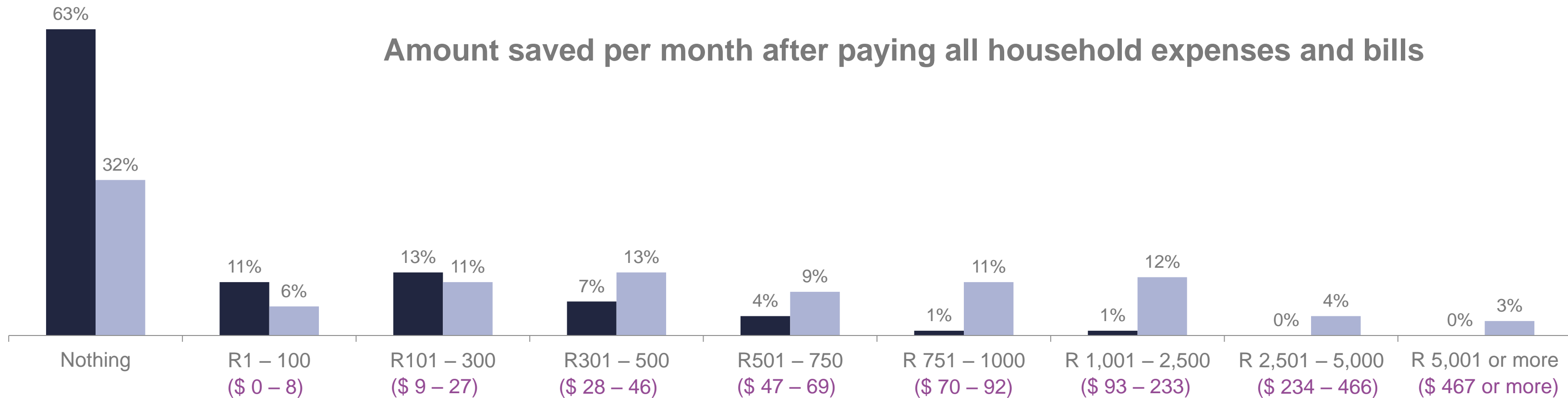


■ LSM 1 - 5
■ LSM 6 - 10

BoP consumers struggle to save

Highlighting the potential savings of using mVAS/mHealth and offering flexible payment options are key to strengthening their appeal and adoption, especially among BoP consumers

Amount saved per month after paying all household expenses and bills



	Ave. amount saved/month
ALL households	R 550 (\$51)
LSM 1 - 5	R 130 (\$12)
LSM 6 - 10	R 760 (\$71)

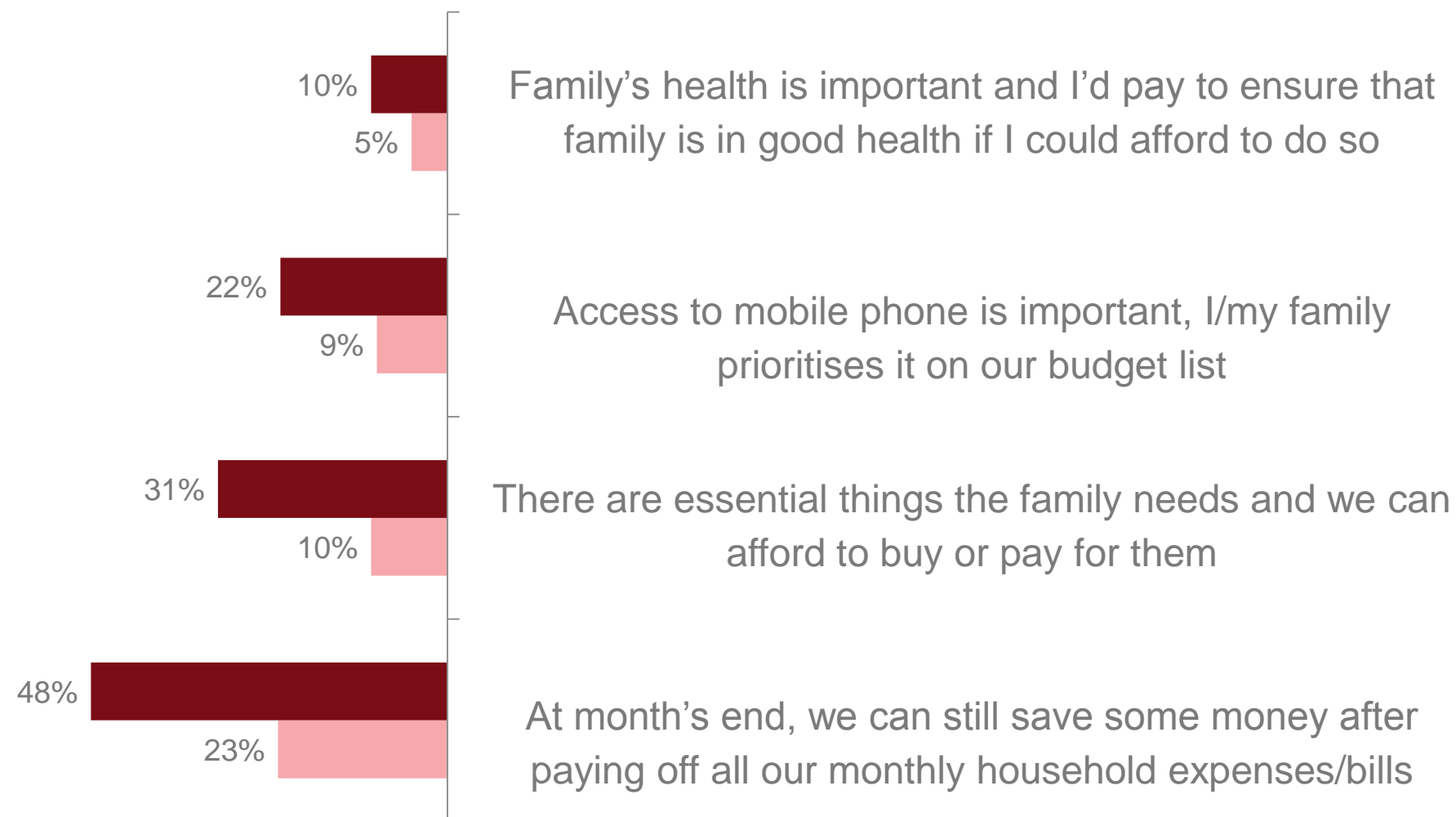
Exchange rate used: 1 US\$ = R 10.71

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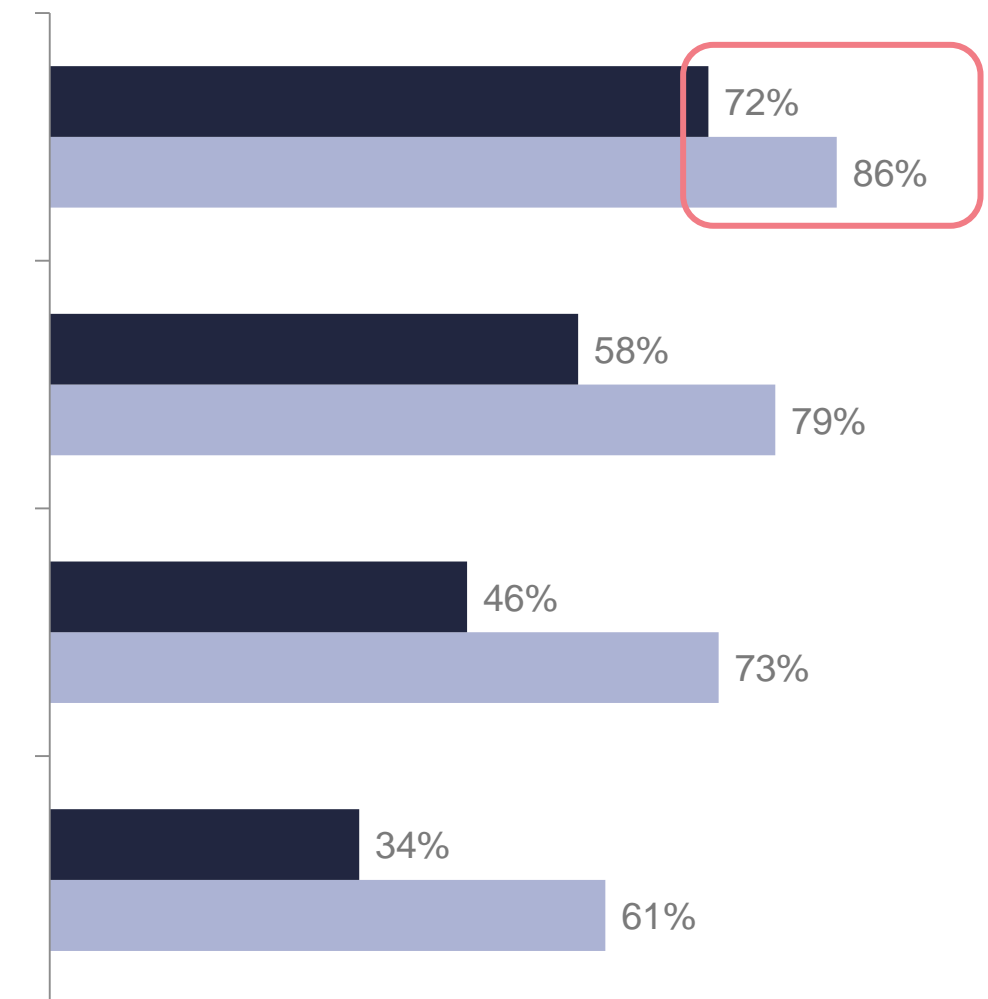
Health is family wealth

Appreciating that prevention is likely less expensive than cure, women know the value of investing to secure family's health

Disagree/ somewhat disagree



Agree/ somewhat agree



LSM 1 - 5
LSM 6 - 10

Pregnancy, motherhood, healthcare facility and CHW experience

Less than 1 in 20 pregnant women have yet to go to a healthcare facility for antenatal care. Aside from being the first point of contact for the society's healthcare needs, clinics are more frequented than hospitals because it takes a shorter time to get to clinics than hospitals.

Women's experience of hospitals and clinics is generally positive. However, given stronger reliance on publicly-funded healthcare facilities even among non-BoP consumers, it is not unsurprising for government-managed facilities to reach their full-capacity, which can have an impact on the quality of care and service. 63% had an excellent experience with private hospitals while only 40% had a similar experience with public hospitals. For clinics, 53% rated their experience in privately-managed clinics as excellent while the proportion for public clinics is only 39%.

As noted already in this report, women generally tend to be self-aware of their health needs. Therefore, the majority of women understand the need to visit a healthcare facility for antenatal care. 2 in 5 confirm their pregnancy primarily through the natural cycle (i.e. delay of monthly period). As they can afford to do so, non-BoP women confirm their pregnancy by purchasing their own pregnancy test kits. Most BoP women, however, can only confirm their pregnancy when they consult with a healthcare practitioner at a government-managed clinic, limiting their ability to confirm pregnancy status as early as possible.

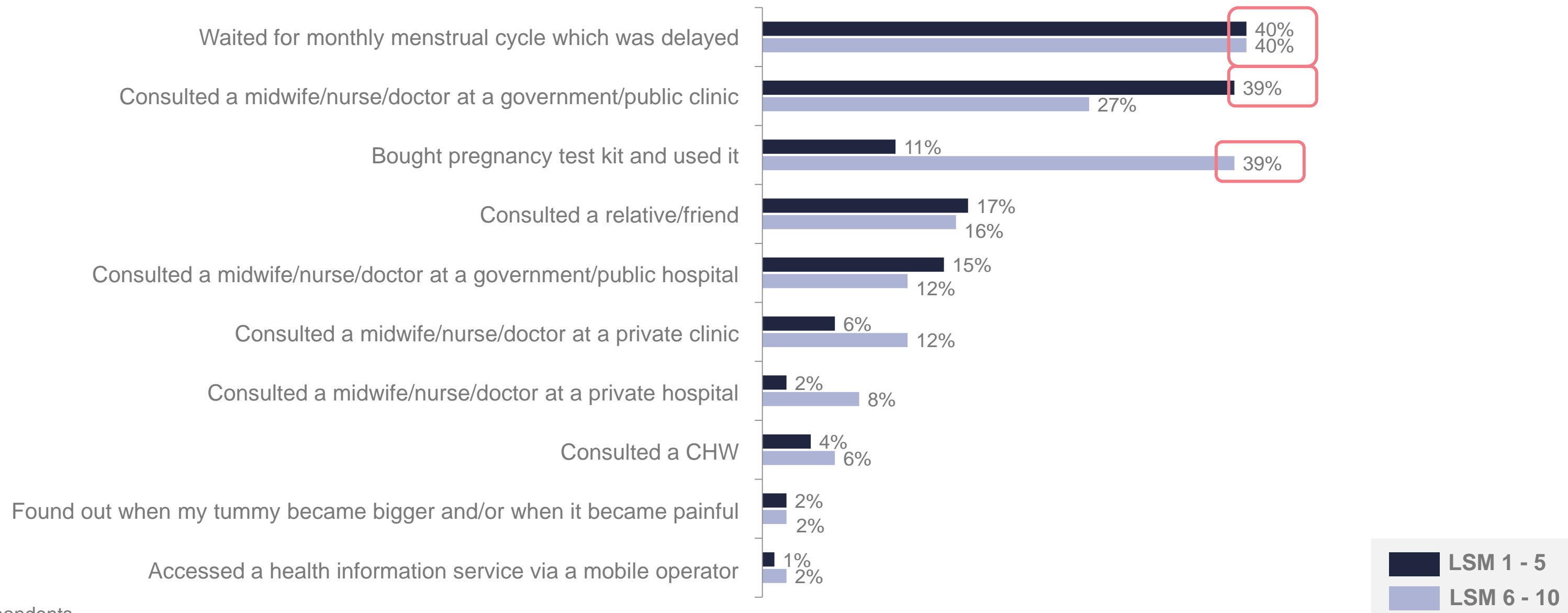
While MNCH messaging can be crucial in prompting women to go to a healthcare facility, there are factors that healthcare stakeholders should consider in order to further improve the experience for, especially BoP women:

- There is a relative lack of available Point of Care Diagnostics amongst BoP women, that higher LSM groups have access to and use to confirm pregnancy
- The total cost of attending a health facility for ANC is prohibitive
- Early and regular ANC visits at a health facility can be improved through better user experience and direct promotion through non-traditional channels
- The overall experience of patients having been visited by CHW's is generally positive but the consistency of visits and level of care should be improved

Confirming pregnancy and early ANC

A skewed level of access to Point of Care Diagnostics is a barrier for BoP women to confirm pregnancy and seek early ANC

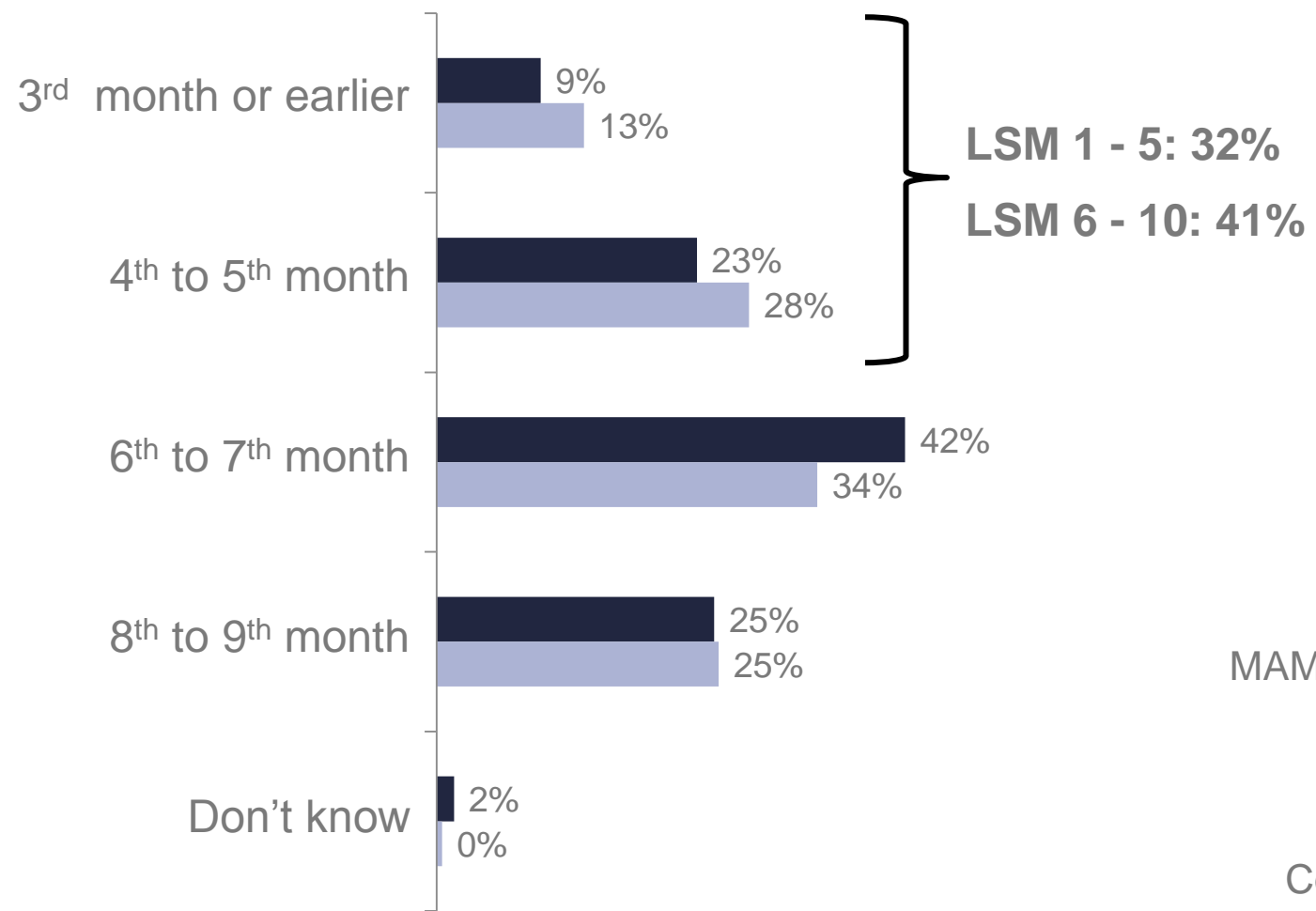
Steps taken to confirm pregnancy



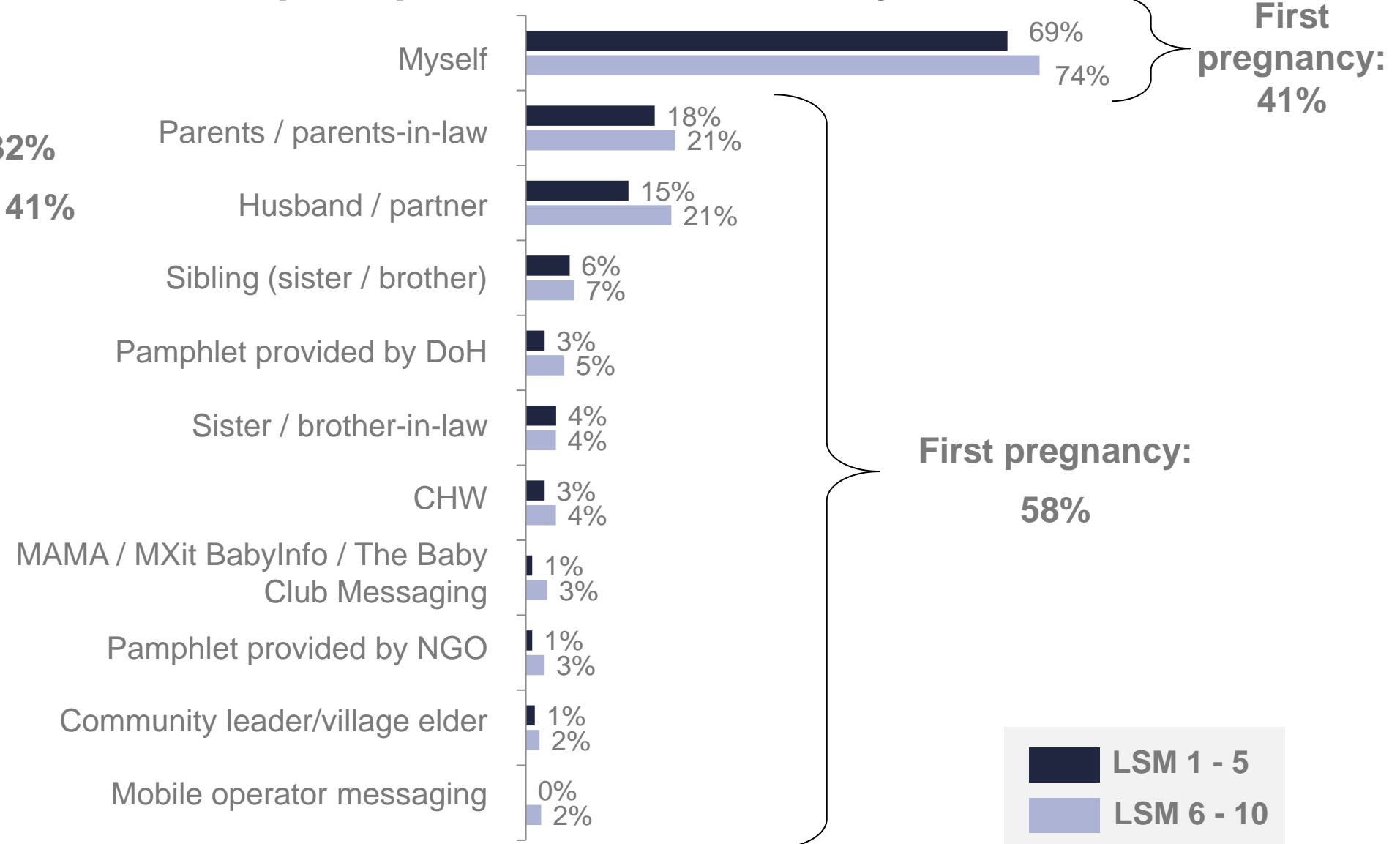
Influencing health facility attendance

Women generally go to healthcare facilities on their own accord. MNCH messaging may be valuable to drive earlier (and more regular) attendance especially among those on their first pregnancy

Status of current pregnancy



Who prompted healthcare facility visit



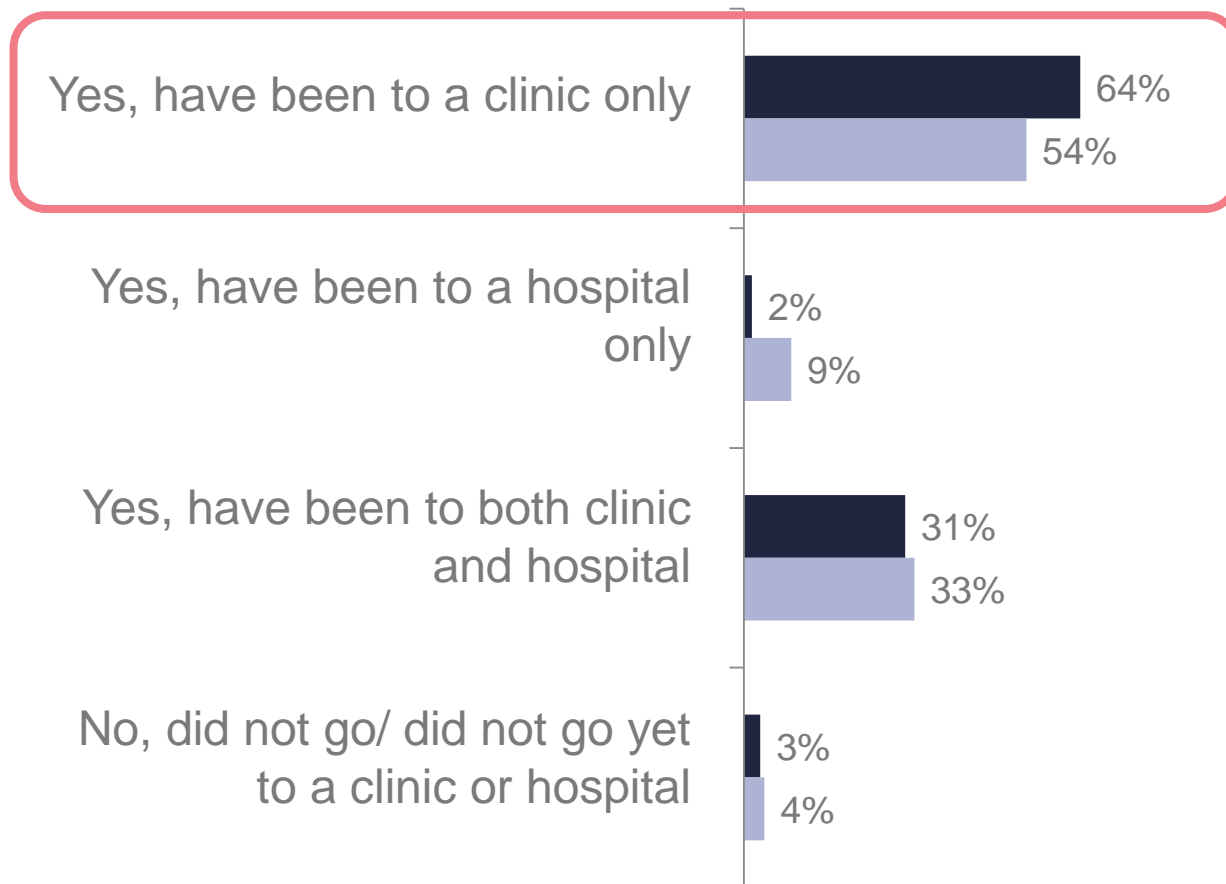
- LSM 1 - 5
- LSM 6 - 10

Base: among pregnant women

Poor ANC at health facilities

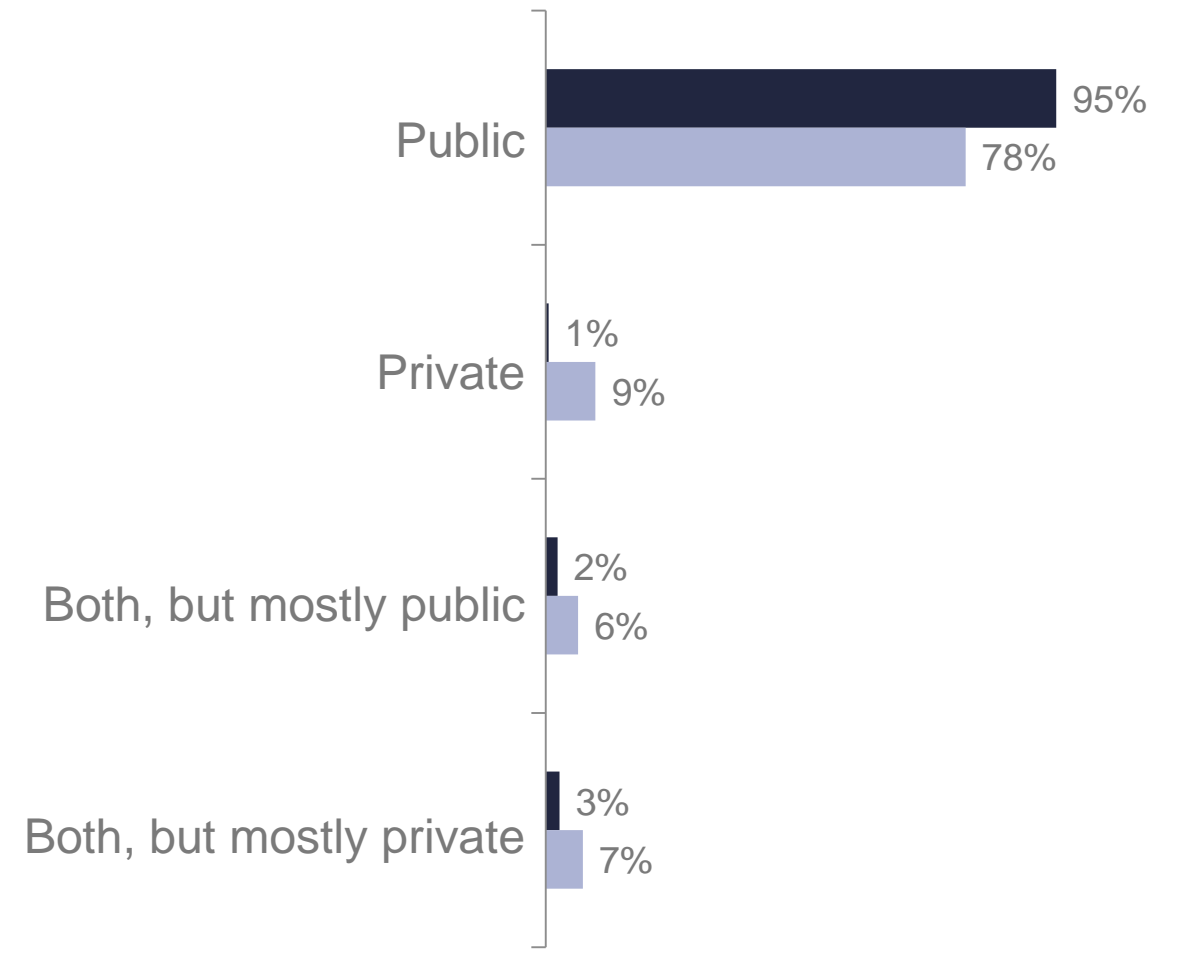
Improving the relatively weak facility based antenatal care should be a key objective for mHealth messaging and bundled services

Ever visited a clinic/hospital for pregnancy consultation



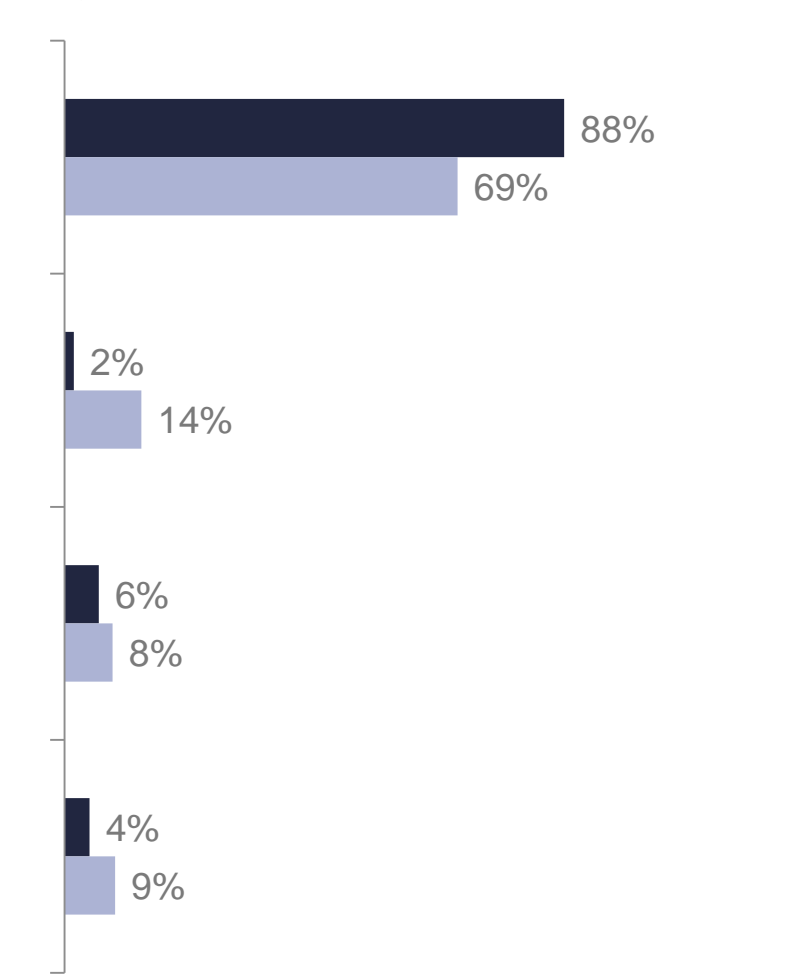
Base: among all respondents

Type of clinic visited



Base: among those who visited a clinic

Type of hospital visited



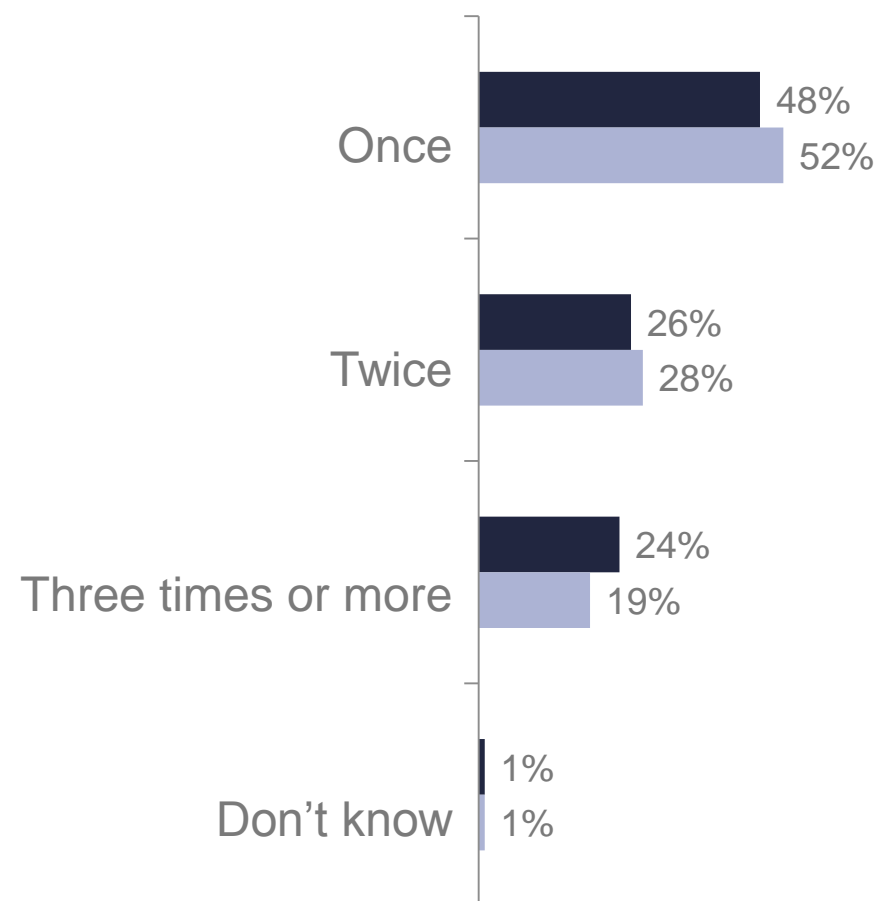
Base: among those who visited a hospital

Using statistics to influence early and regular ANC

Messaging that includes statistical information has proven to be effective. MNCH-related statistical facts may help emphasise the importance of having early ANCs to ensure a baby's or child's health

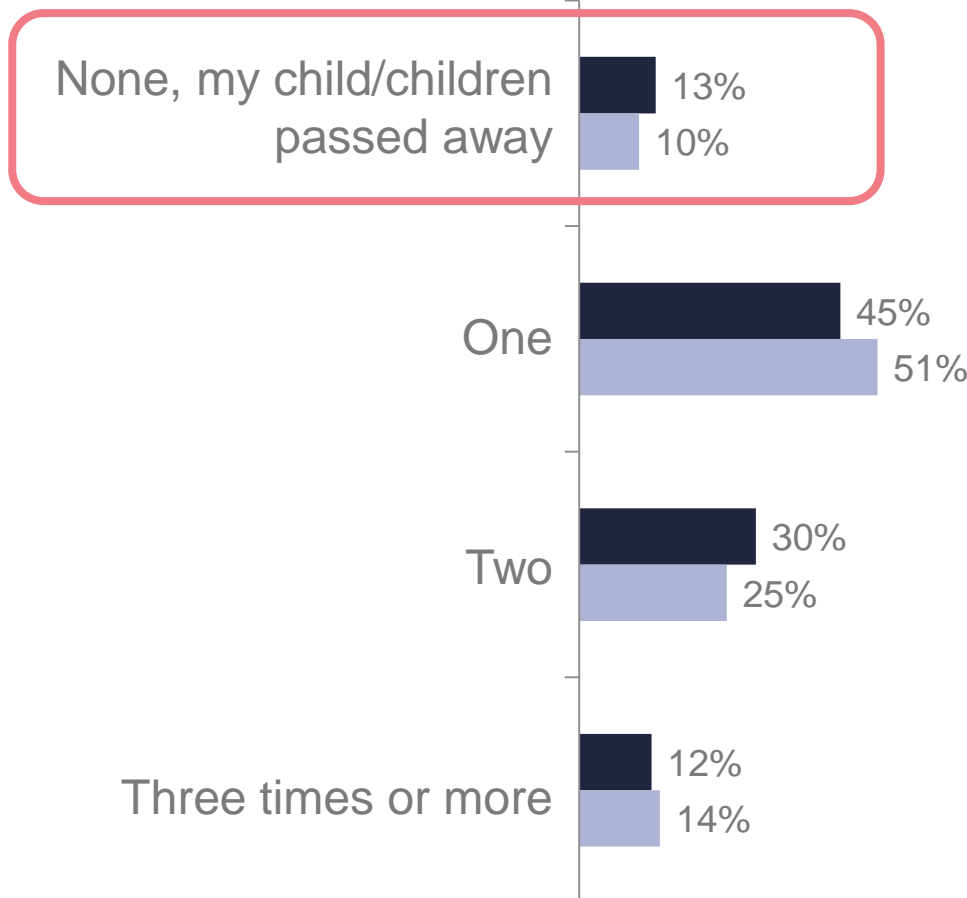
Number of times have been pregnant

Among all respondents

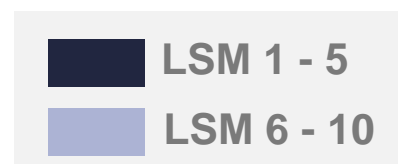
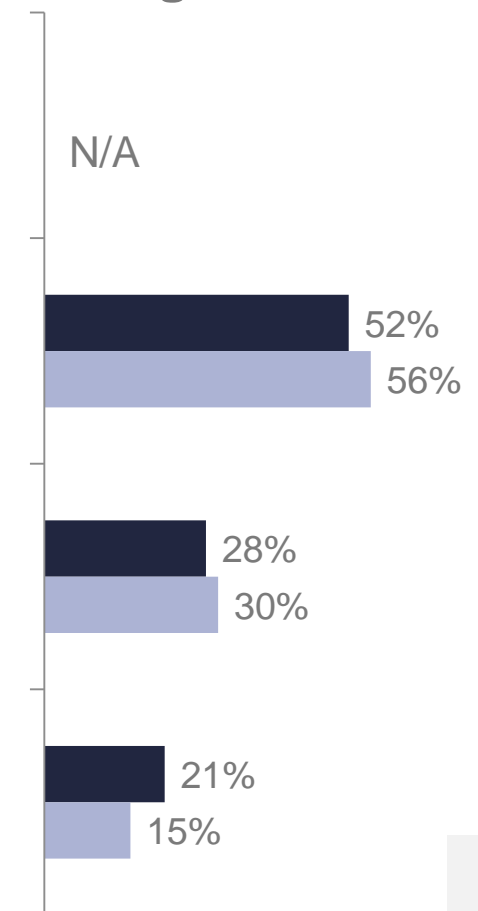


Number of children

Among pregnant women



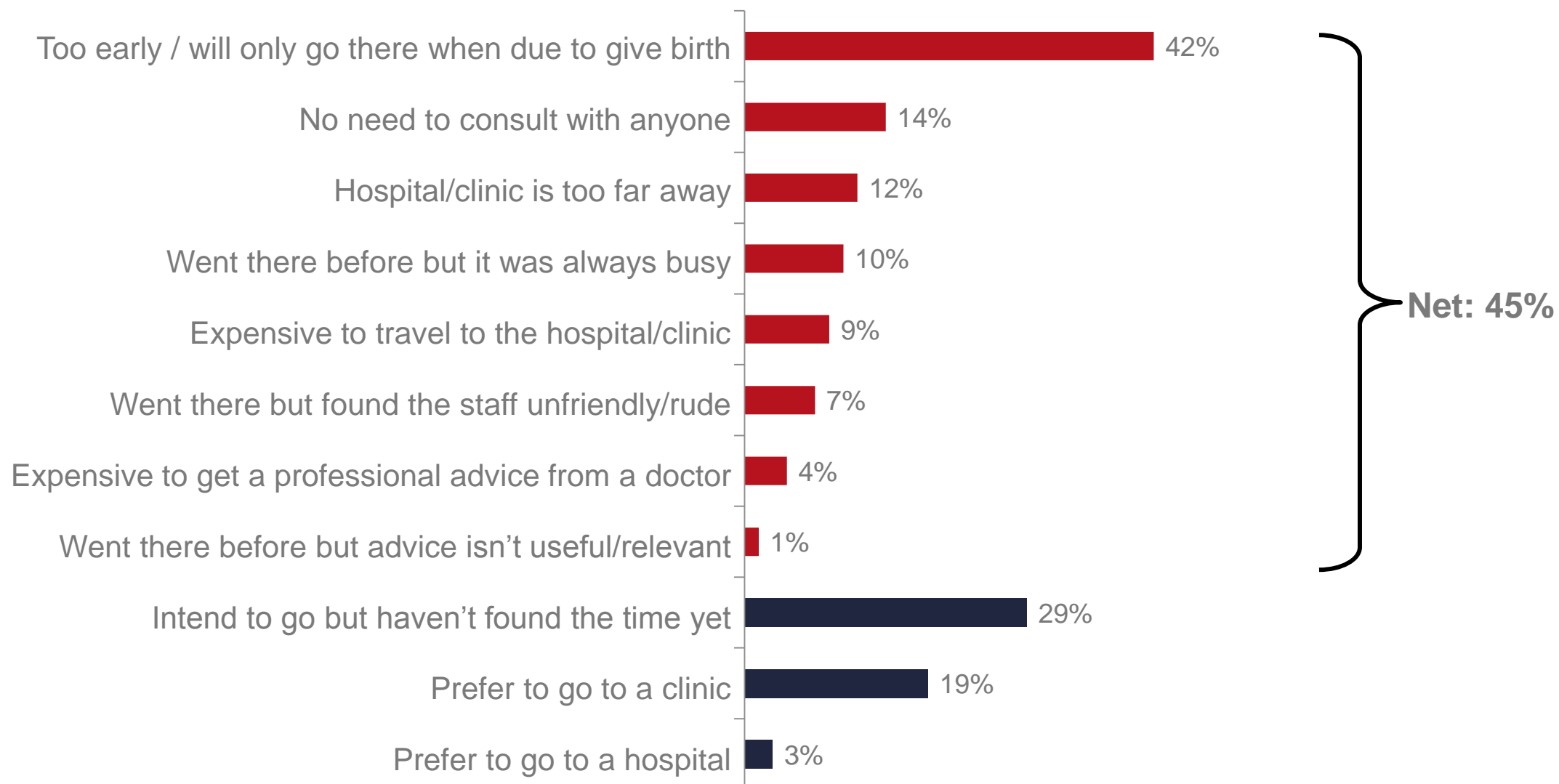
Among mothers



2 in 5 only intend to go for ANC when due

Stimulating early demand for ANC at primary healthcare facility level should be a key objective for mHealth stakeholders

Reasons for not visiting a healthcare facility



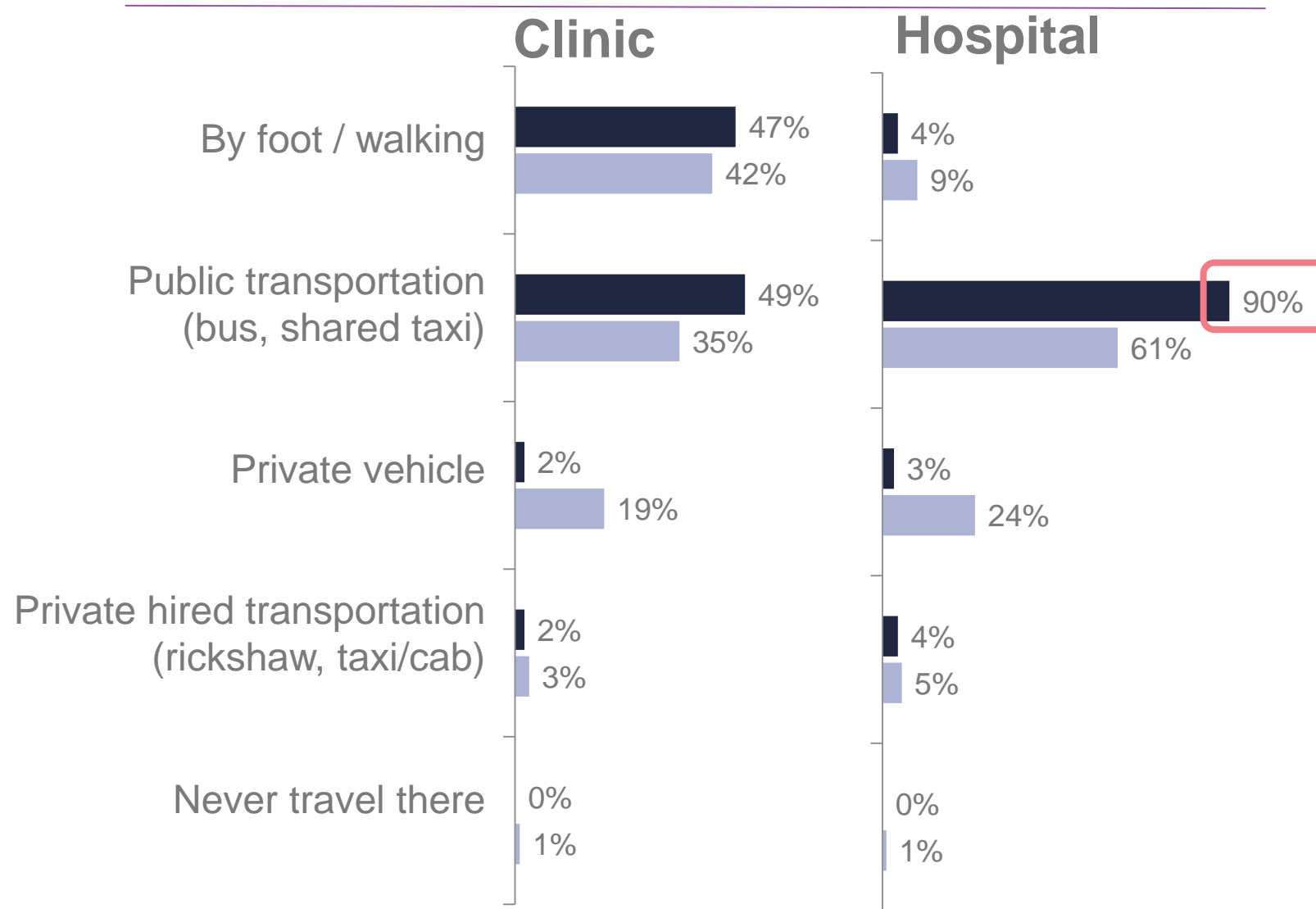
“It is difficult to convince mothers to go to a clinic for antenatal care or to deliver their baby at a healthcare facility when they say they have survived giving birth four times at home already or without having done antenatal care before.”

(36 – 50 years old CHW, Cape Town)

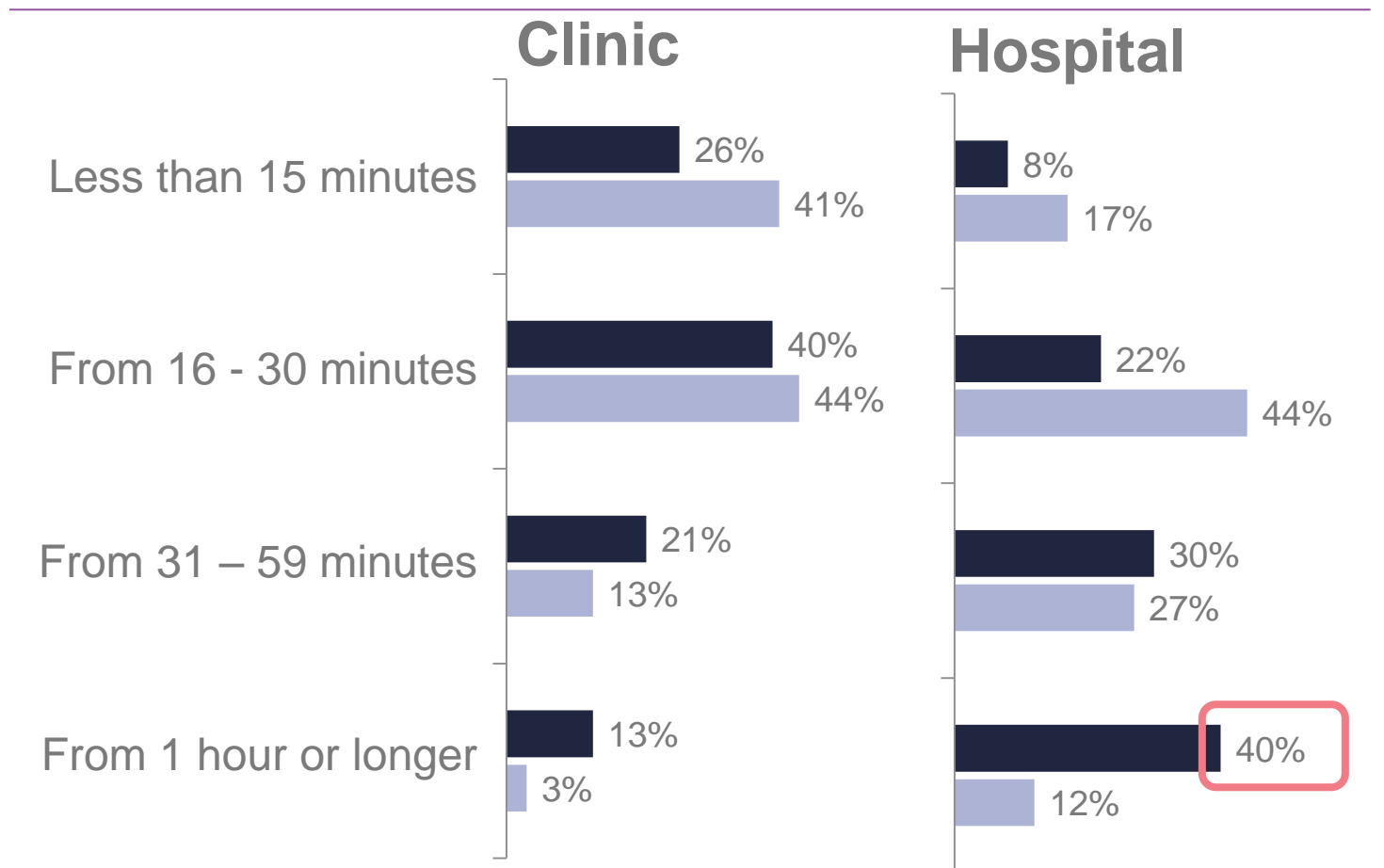
BoPs take longer to travel to a health facility

The total cost of accessing traditional healthcare services is prohibitive. mHealth services have a role to play with the 90% who use public transport and the 40% who take over 60 minutes to get to a healthcare facility

Means of transport



Travel time



Average time	Clinic	Hospital
LSM 1 - 5	36 minutes	68 minutes
LSM 6 - 10	22 minutes	38 minutes

Base: among all respondents

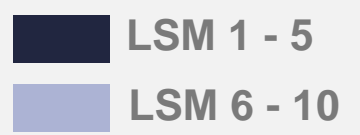
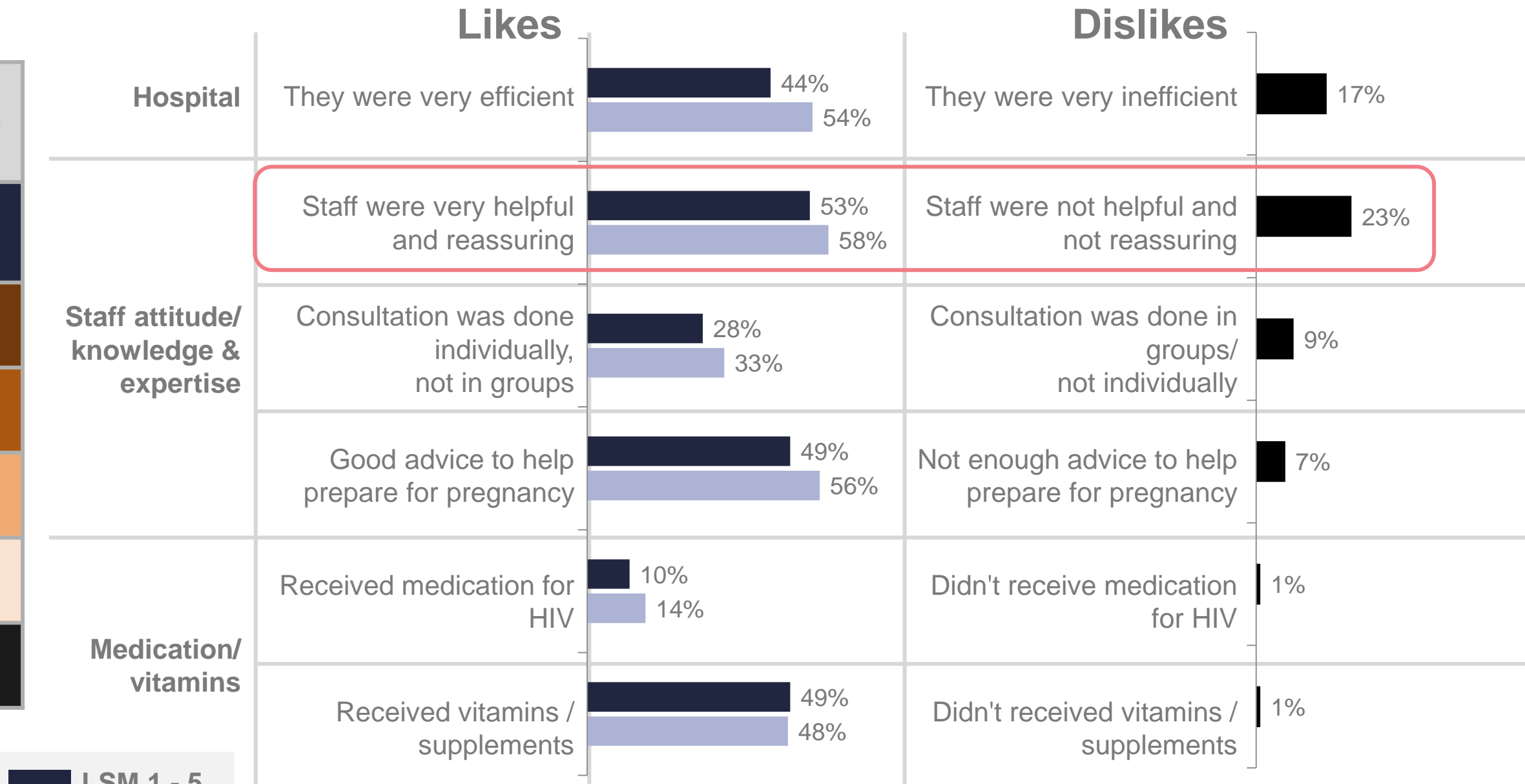
Staff's ability to empathise is important

Pregnancy support through mHealth, in the form of a hotline or interactive communication health messaging, can be valuable to health system strengthening

Experience with hospital

	Both public & private	Public	Private
Sum of excellent/very good	86%	85%	93%
Excellent	44%	40%	63%
Very good	42%	45%	30%
Good	10%	12%	5%
Fair	2%	2%	1%
Poor	1%	1%	1%

Base: among who visited a hospital for ANC



Base: among who visited a Hospital for ANC and rated their experience excellent/very good/good

Base: among who visited a Hospital for ANC and rated their experience fair/poor/very poor

BoPs value the expertise of clinic staff the most

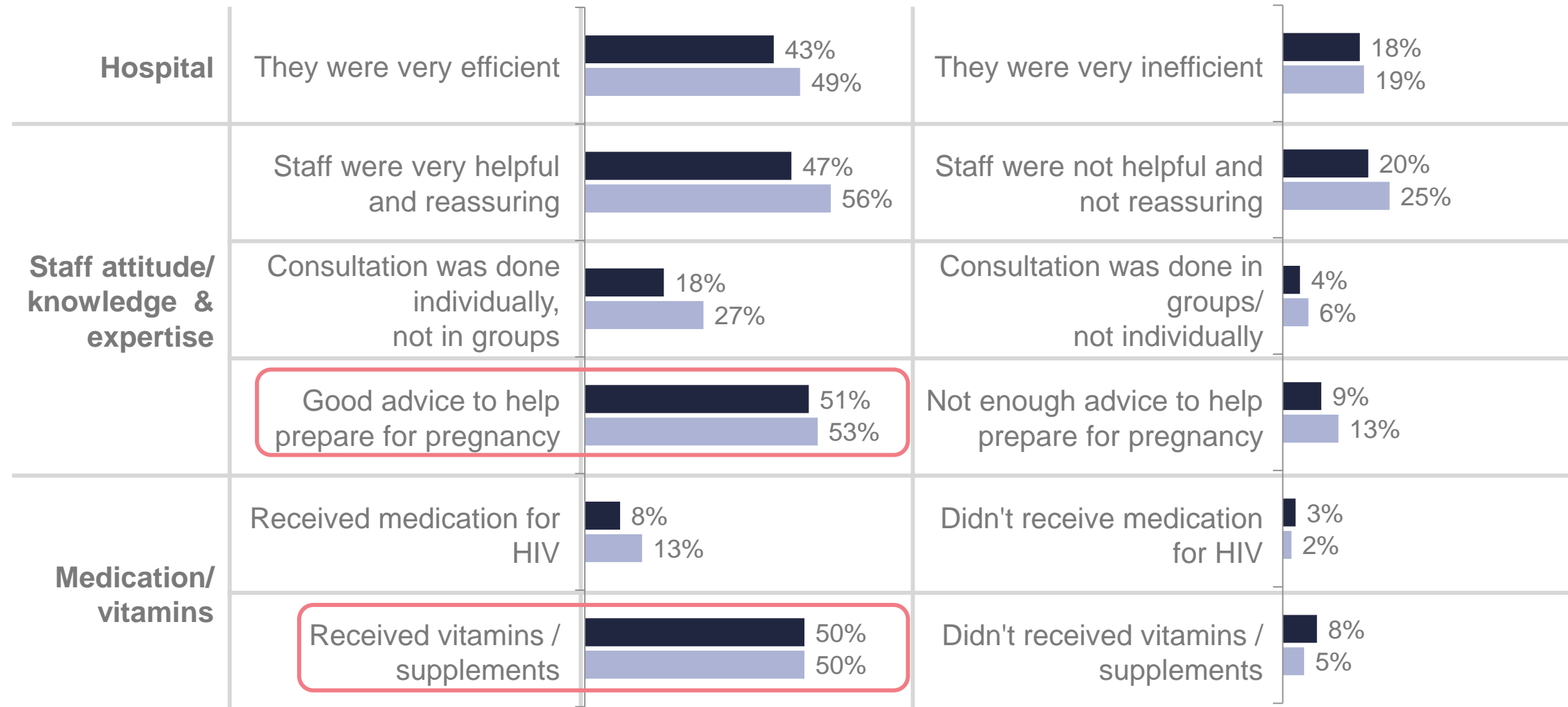


Promoting, for example, that vitamins/supplements are provided for free may help encourage early or frequent ANC visits

Experience with clinics

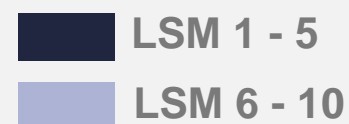
	Both Public & Private	Public	Private
Sum of excellent/very good	84%	83%	88%
Excellent	41%	39%	53%
Very good	43%	44%	35%
Good	12%	12%	9%
Fair	3%	3%	1%
Poor	2%	2%	1%

Likes



Dislikes

Base: among who visited a clinic for ANC

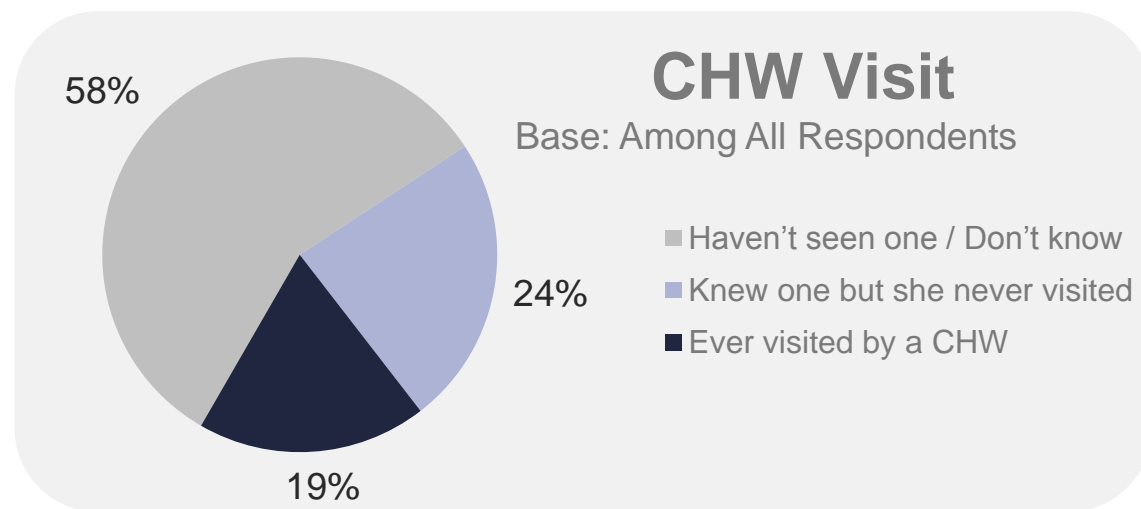


Base: among who visited a clinic for ANC and rated their experience excellent/very good/good

Base: among who visited a clinic for ANC and rated their experience fair/poor/very poor

Experience with CHWs is generally positive

Based on separate research* conducted by the GSMA, there is anecdotal evidence that technology can improve patient experience as CHWs can focus on more essential tasks and potentially increase visit-frequency and households visited



Frequency of Visit (Ave. per month = 2)



Base: among those who have been visited by a CHW

Experience with CHW

	South Africa	E. Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	North West	Northern Cape	Western Cape
Sum of excellent/very good	57%	48%	52%	65%	45%	74%	52%	69%	40%
Excellent	18%	12%	44%	17%	11%	23%	31%	13%	0%
Very good	39%	36%	8%	48%	34%	51%	21%	56%	40%
Good	34%	30%	36%	32%	45%	17%	48%	25%	40%
Fair	8%	18%	12%	2%	11%	6%	0%	6%	17%
Poor	1%	3%	0%	1%	0%	2%	0%	0%	3%

Base: among those who have been visited by a CHW
Note: Base size too small to analyse data for Mpumalanga

* Community Healthcare Worker research – published July 2014

Mobile usage and habits



In South Africa nearly all pregnant women and mothers of children up to the age of two, including those at the bottom of the pyramid, have access to a mobile phone. Only 6% of BoP women do not own a mobile phone and the majority of these women can access a mobile phone through a family member. While the two leading operators, Vodacom and MTN, account for close to 90% share of pregnant women and mothers of children up to the age of two, the involvement of the two other market players, Cell C and Telkom Mobile, is also important to reach out to a broader consumer base of the population.

Smartphone penetration is growing fast in South Africa. According to a Google-commissioned research, smartphone penetration in South Africa has more than doubled from 15% in 2011 to 40% at the end of 2013. Based on GSMA's own research, smartphone penetration among pregnant women and mothers of children up to the age of two is 37% as of the first quarter of 2014. This research also shows that about 70% of BoP women continue to own basic phones.

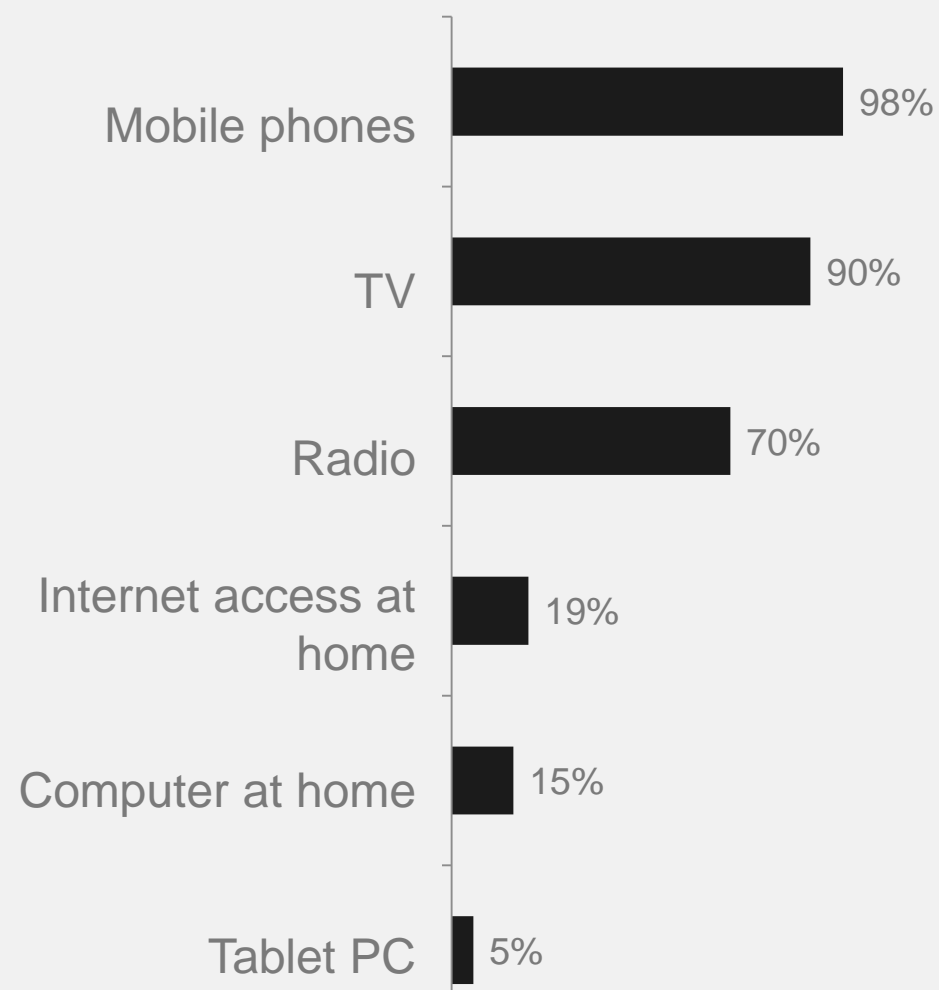
As more low-priced smartphone models are launched globally, BoP consumers will find it more affordable to upgrade from basic phones to smartphones in the near future. It is important, therefore, to develop a “transition plan” to account for growing smartphone share, while taking into consideration that most BoP women continue to use basic phones at the moment, when designing any mVAS or mHealth services. While good network coverage and affordable rates/tariffs remain the primary driver for choosing certain mobile operators, using mVAS as a service differentiator will grow in importance. In fact, as shown in the succeeding section of this report, 3 in 5 consumers say they are likely to switch to an operator that offers, for example, a health hotline service.

To ensure a stronger adoption of mVAS, it is important to take into consideration consumer usage and habits for product design and marketing. Nearly all BoPs use prepaid SIMs with flexible payment options. Given the relative amounts that BoP consumers use on mobile on a monthly basis and how little disposable income there is available, there should be consideration for how subsidised messages can be delivered through bundling of mobile and/or health services. As 60% top-up their accounts via small local shops and a similar proportion purchase from specialist mobile phone shops or consumer electronic stores, there should be a greater focus on how to leverage these touch points as distribution channels for health broadcasts, messaging, products and/or services.

The case for mHealth remains compelling

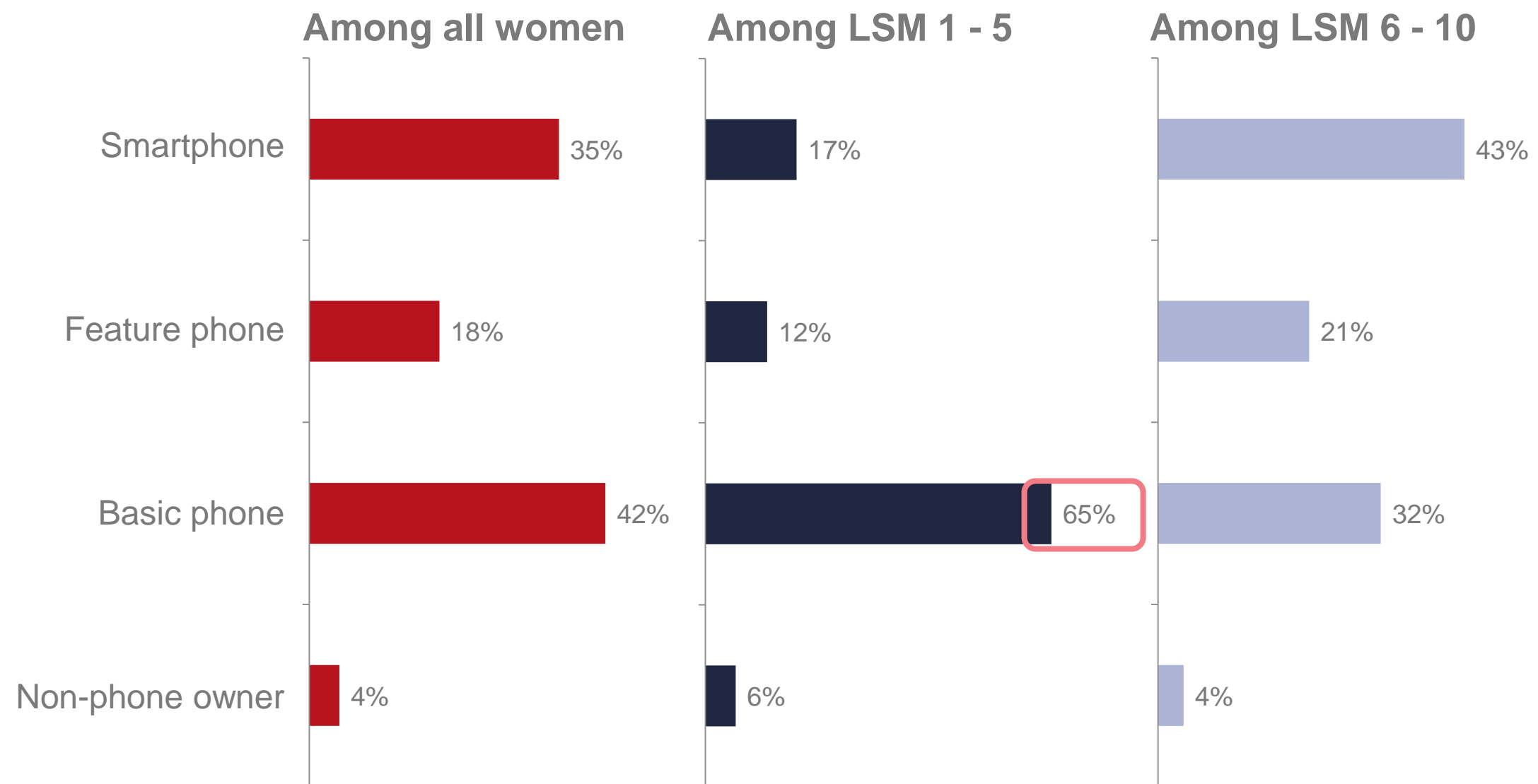
Almost everyone has mobile phone access. Reaching out to almost everyone, including South African BoP women, via mobile phones, is feasible

Household consumer electronics ownership and internet access



Base: among all respondents

Mobile phone type ownership among women

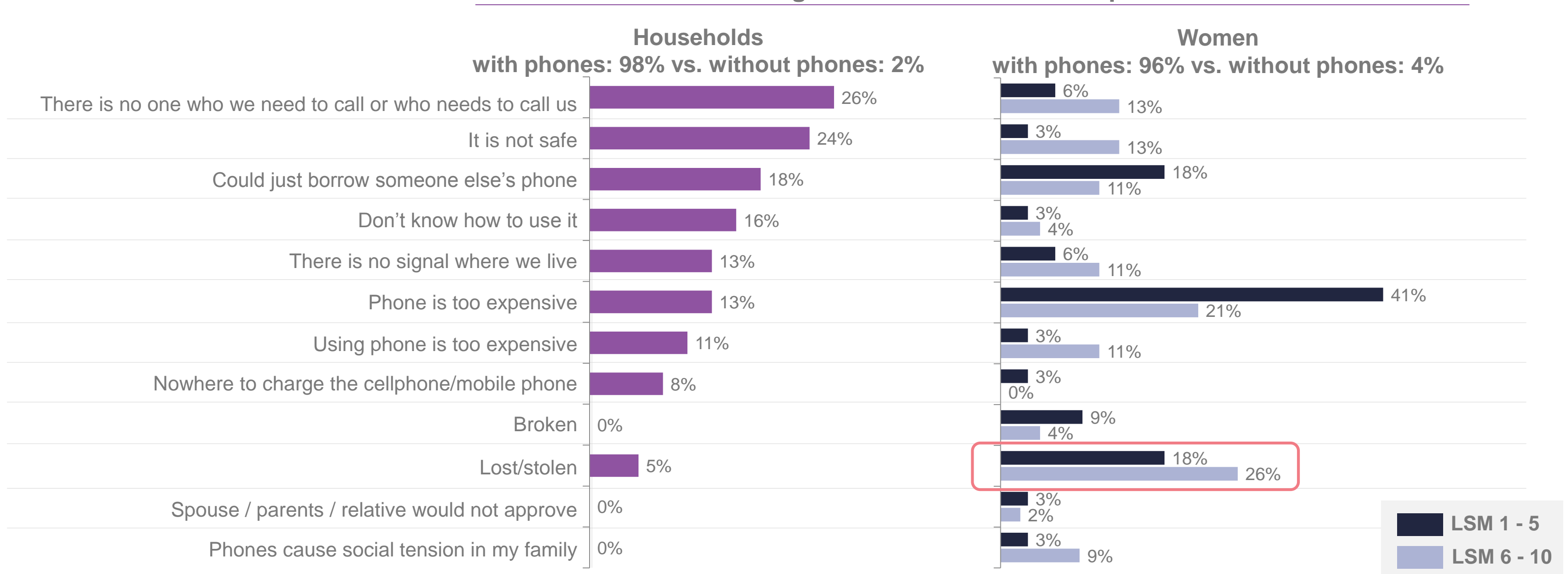


BoP women: price is main barrier to ownership



The adoption of mobile money and mVAS may be negatively impacted due to a high incidence of mobile phone loss and robbery

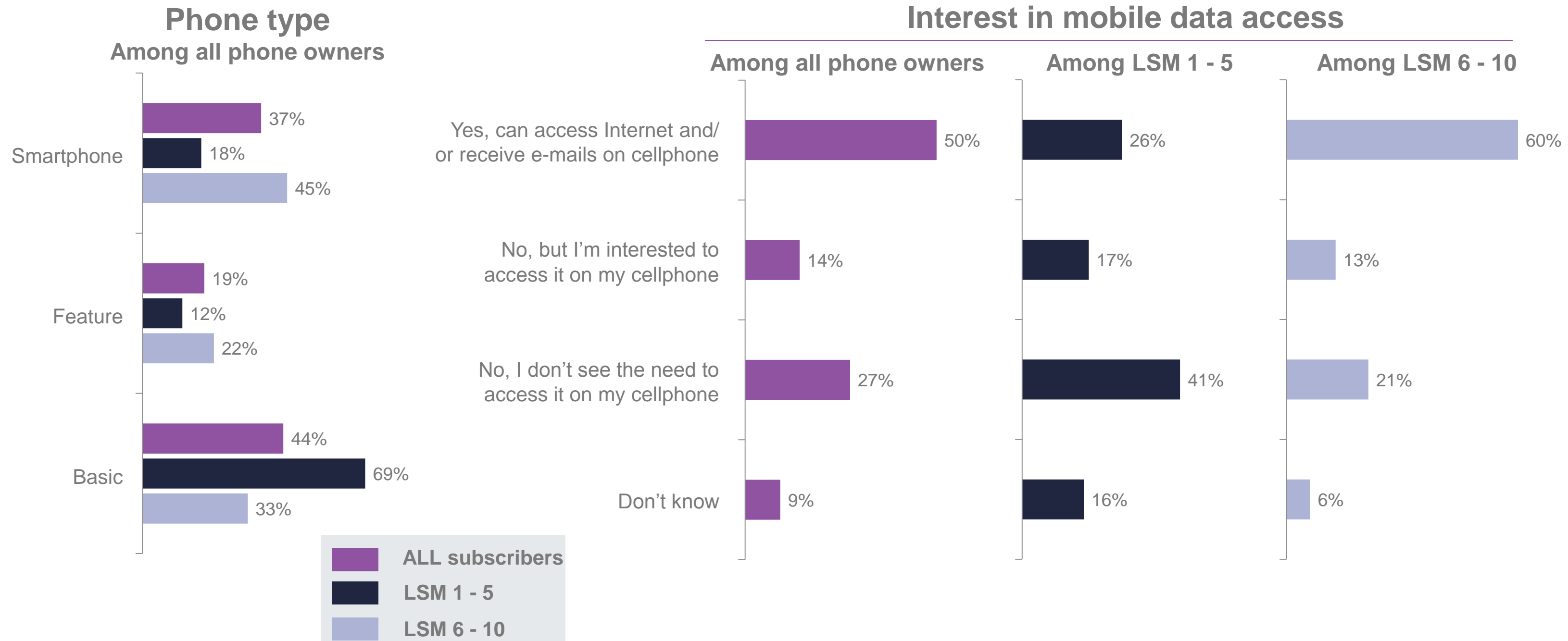
Barriers to phone ownership among those who do not own a phone



Base: among who do not own a phone

Smartphone ownership is growing

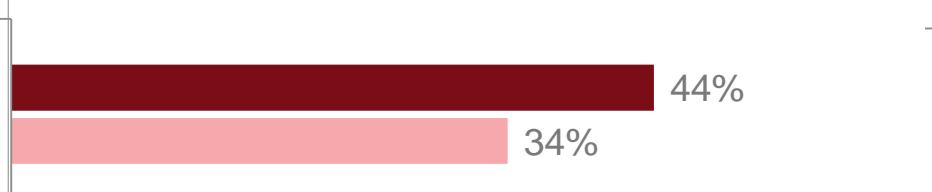

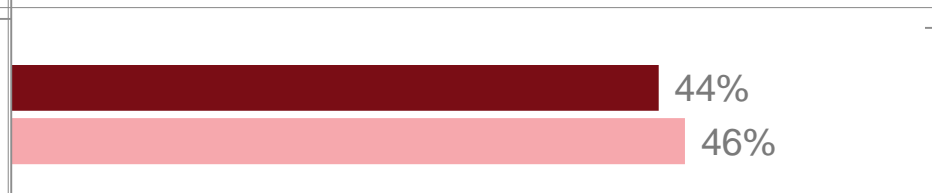
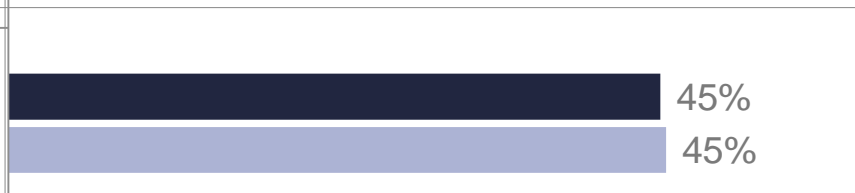
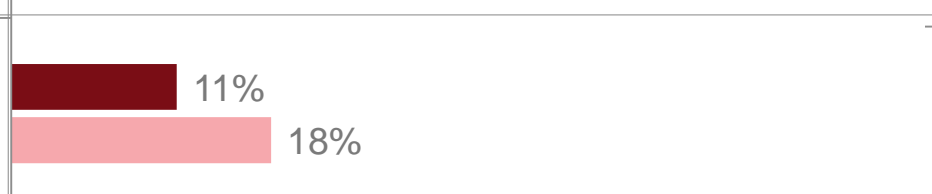
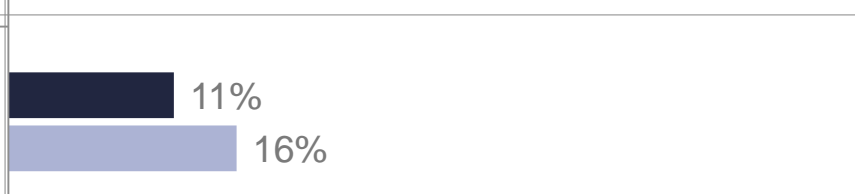
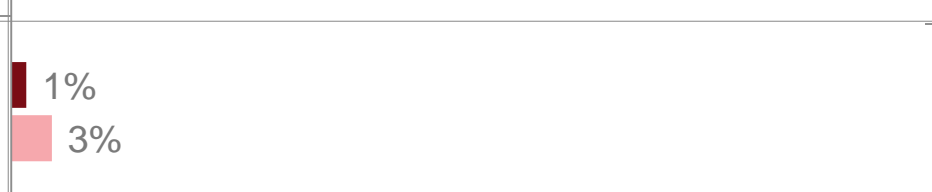
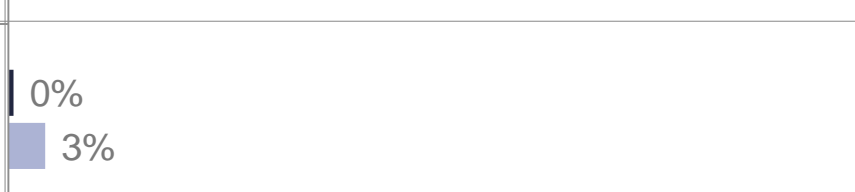
Service design needs a “transition plan” to account for a growing smartphone market share, while taking into consideration that most BoPs currently use basic phones



Vodacom and MTN lead equally among BoPs

The involvement of all four mobile operators is critical to reach a broader consumer base

Market share by mobile operator

	Mothers vs. pregnant women (Q1 2014)	LSM 1 - 5 vs. LSM 6 - 10 (Q1 2014)	ALL population (Q4 2013)	ALL population (Q4 2013)	Mothers * (Q4 2013)
Source	Consumer research	Consumer research	GSMA intelligence	AMPS**	AMPS**
Vodacom			44%	45%	39%
MTN			35%	42%	50%
Cell C			18%	10%	10%
Telkom Mobile/ 8ta			2%	3%	0%

■ Mothers
■ Pregnant Women

■ LSM 1 - 5
■ LSM 6 - 10

Base: among SIM owners

Base: among SIM owners

*Mothers of children up to the age of 2

**Source: South African Audience Research Foundation's All Media and Products Survey (AMPS)

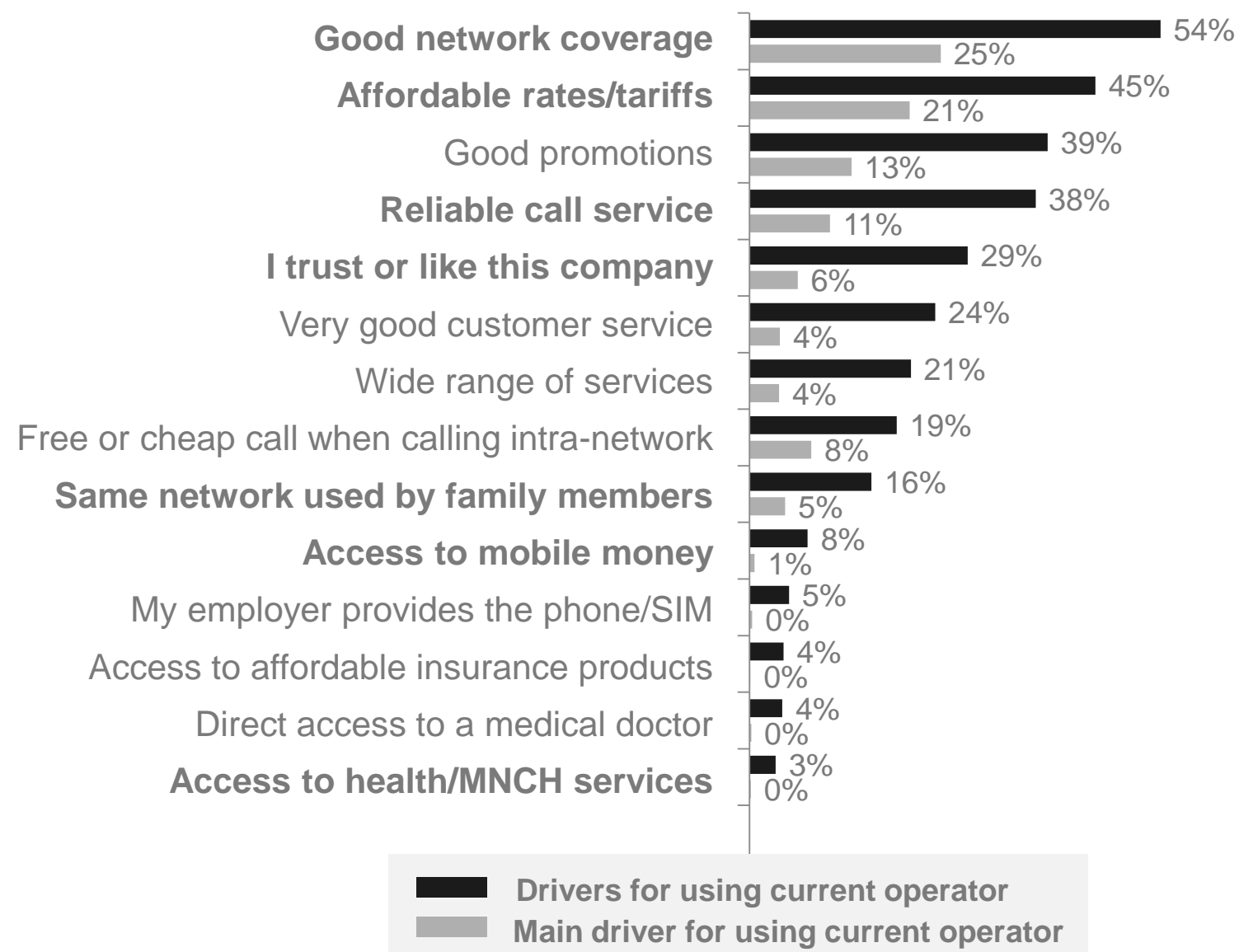
Network coverage and cheap tariff drive preference



Using mVAS to differentiate a service offering remains untapped, but may become important as more consumers switch to smartphones

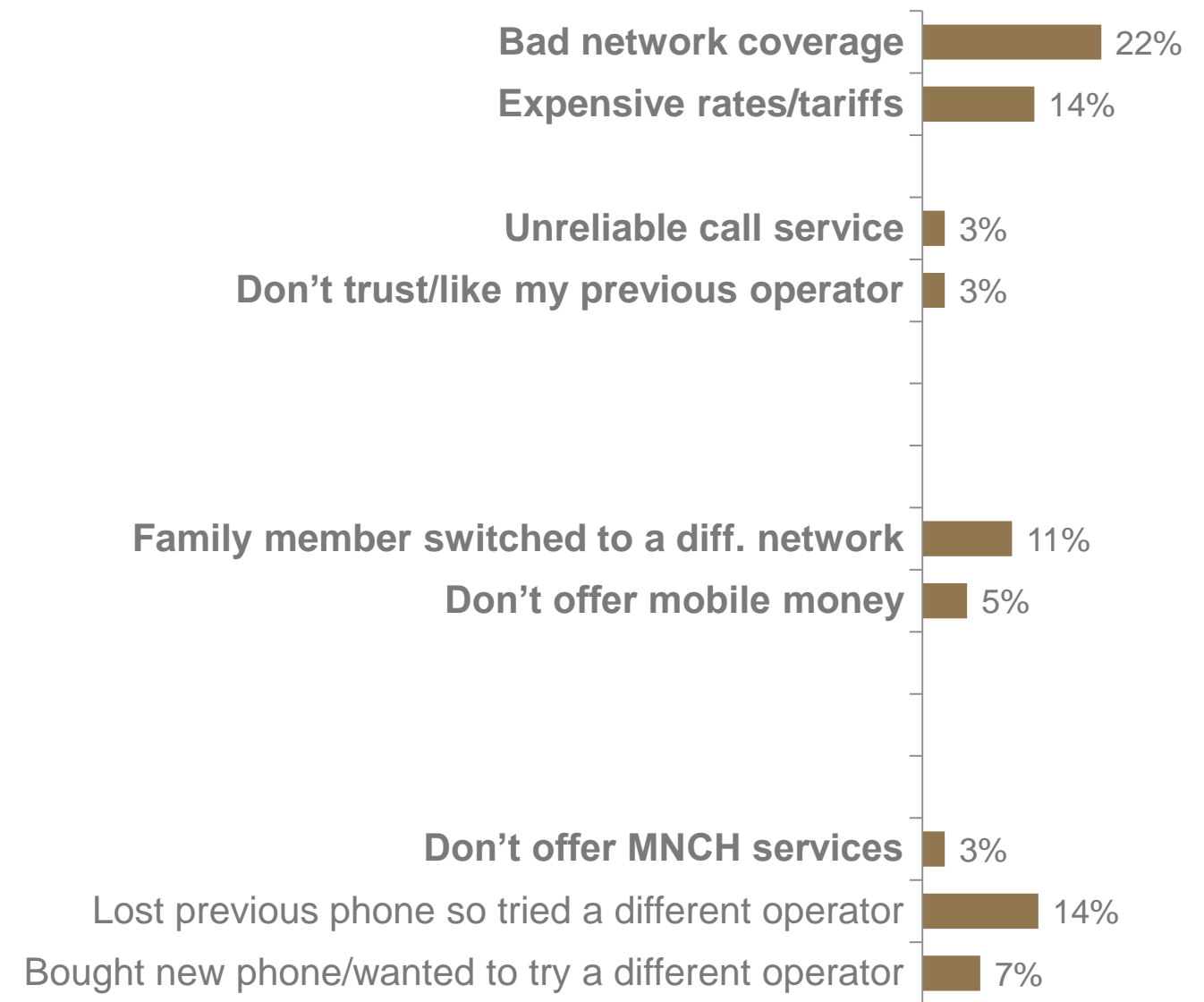
Drivers for using current mobile operator

Base: among SIM owners



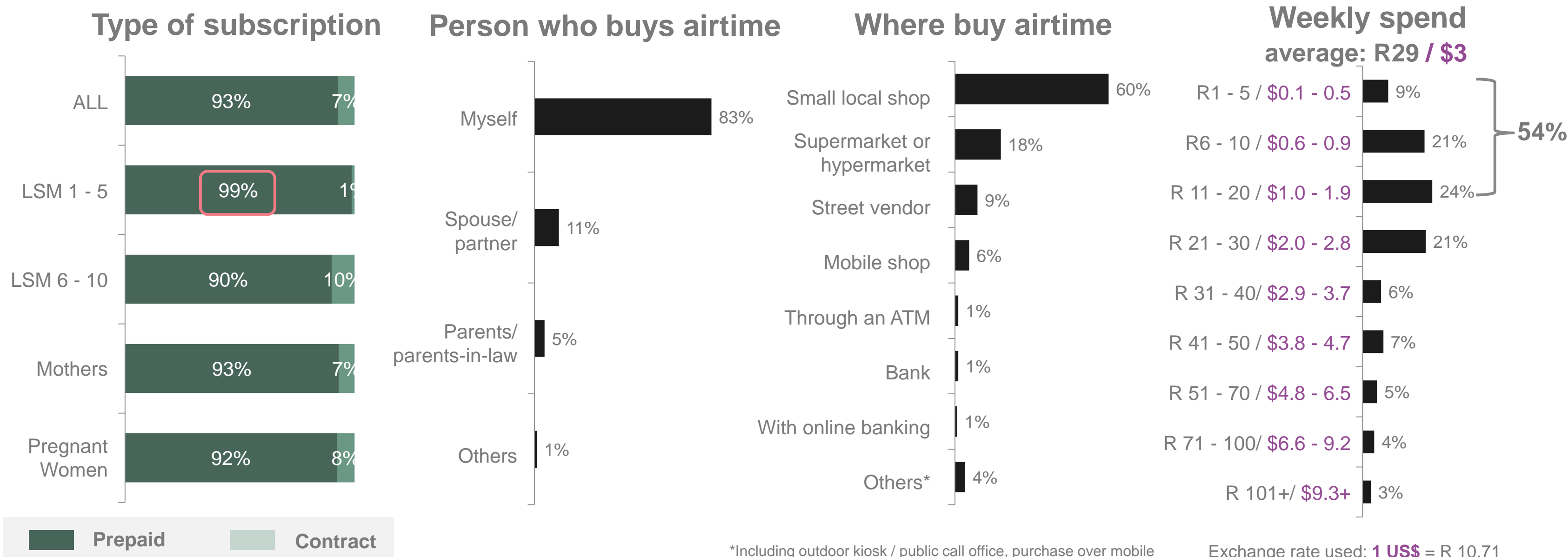
Drivers for switching to a different operator

Base: among switchers in the past 3 months



Nearly all BoPs use prepaid SIMs

Prepaid or “pay as you use” pricing options predominate in South Africa with relatively low weekly spend. BoP users have little/no disposable income to pay for services.

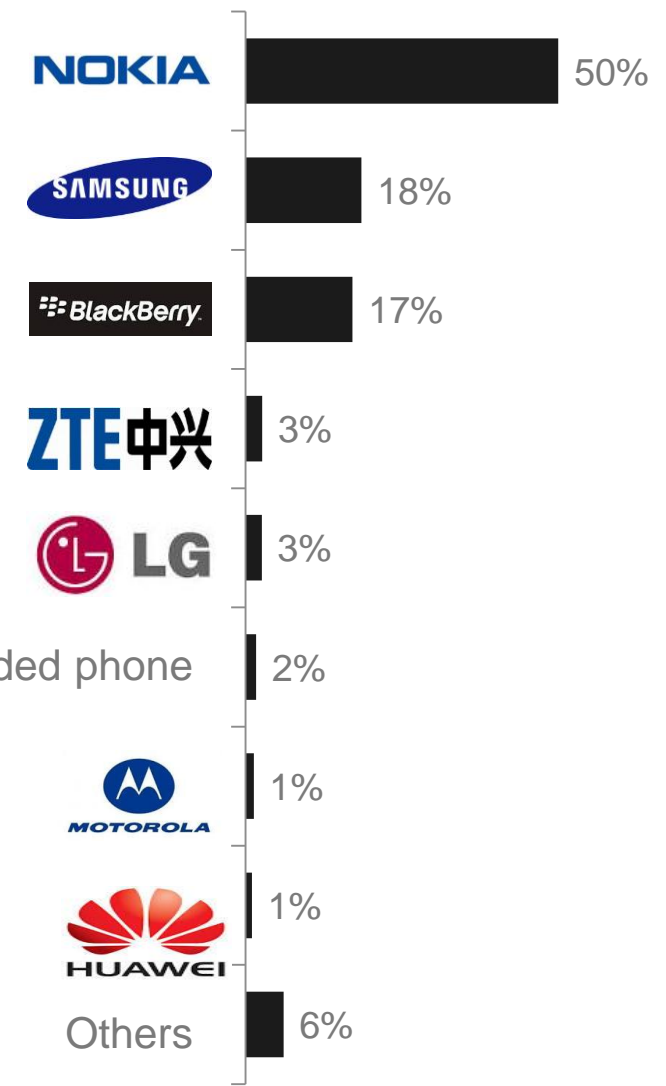


Base: among SIM owners

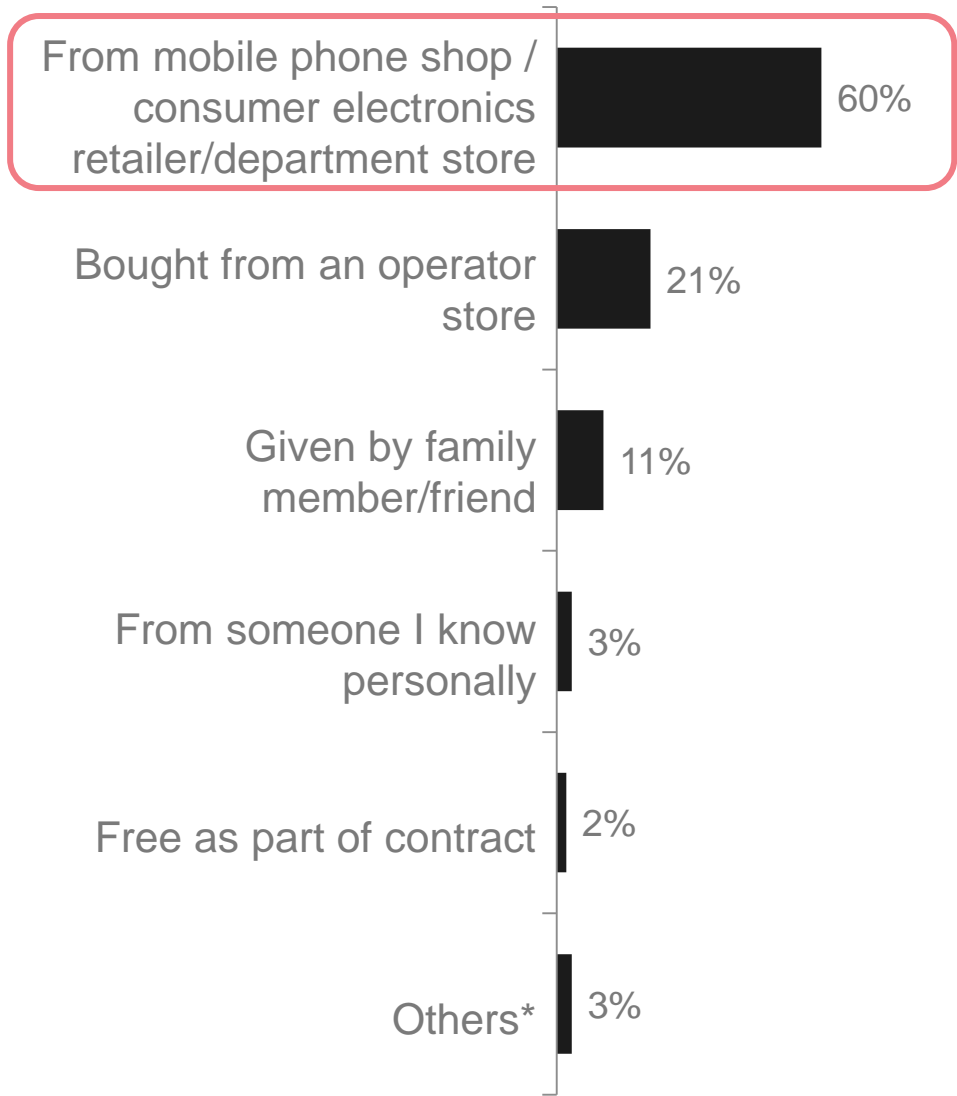
Phone shops: useful for promoting mVAS value

Traditional channels still dominate mobile use but, in lieu of smart phone growth, additional channels, such as social networks and messaging applications should be utilised more effectively

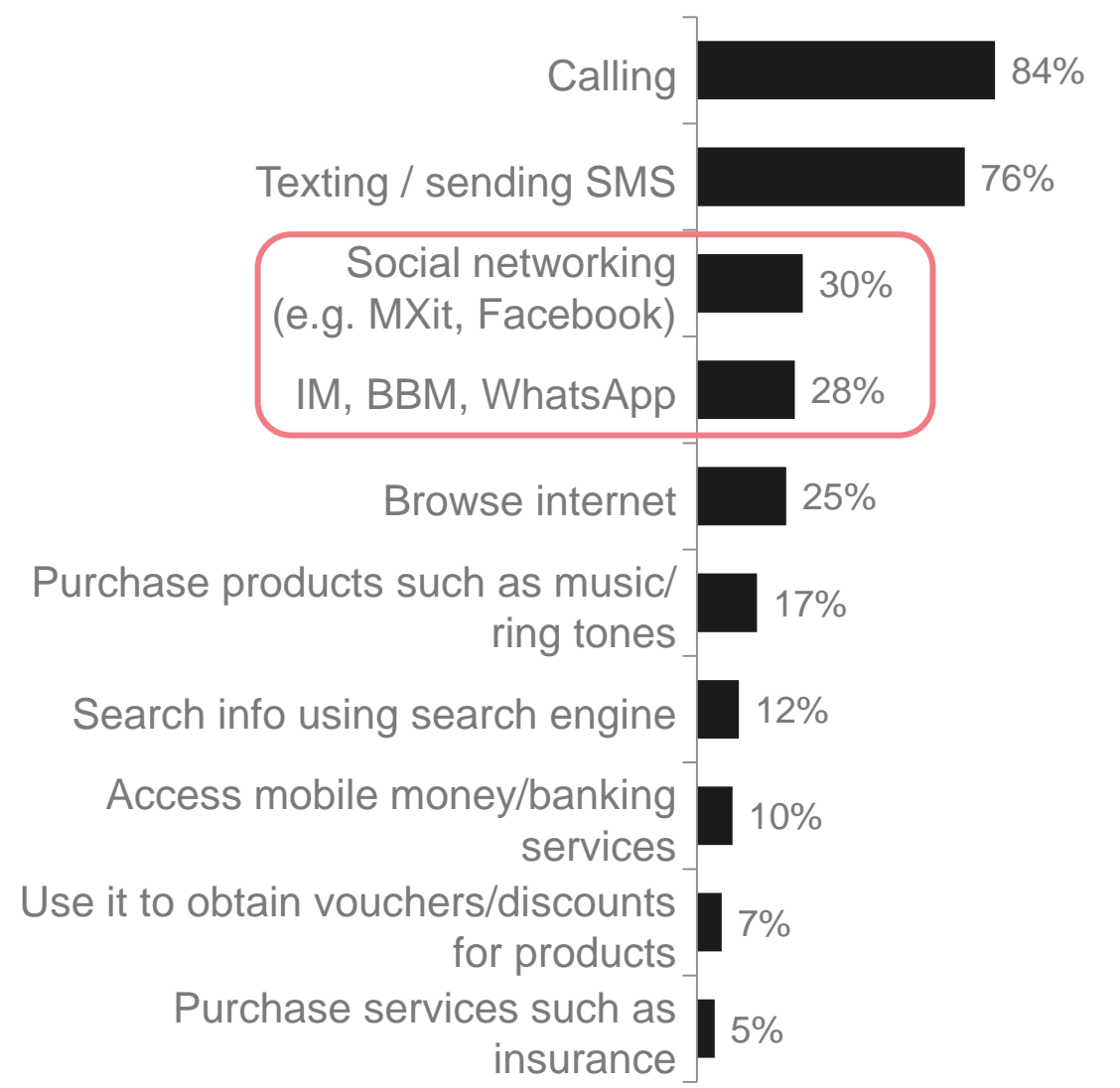
Brand ownership



Where purchased phones



Services/features used



Base: among phone owners

Perception towards mVAS



Four mVAS concepts were tested as part of this research: (1) Maternal, newborn and child health (MNCH) messaging; (2) Health hotlines; (3) Health insurance which can be purchased using mobile phone credits and (4) Mobile money.

There is strong interest in all four concepts, although consumers have the best appreciation of health hotlines. “Being able to consult with a doctor anytime, anywhere at an affordable price” sums up the key benefits that consumers value.

Interest in MNCH messaging is slightly lower than interest in health hotlines. While 44% of the women surveyed are willing to pay some amount for health hotlines, the figure is only 37% for MNCH messaging. The comment “to be given advice by someone who does not care and you cannot see” best describes partial dislike towards MNCH messaging. The bundling of MNCH messaging and a health hotline increases BoP consumers’ willingness to pay by 9 percentage points from 38% to 47% for the bundled service.

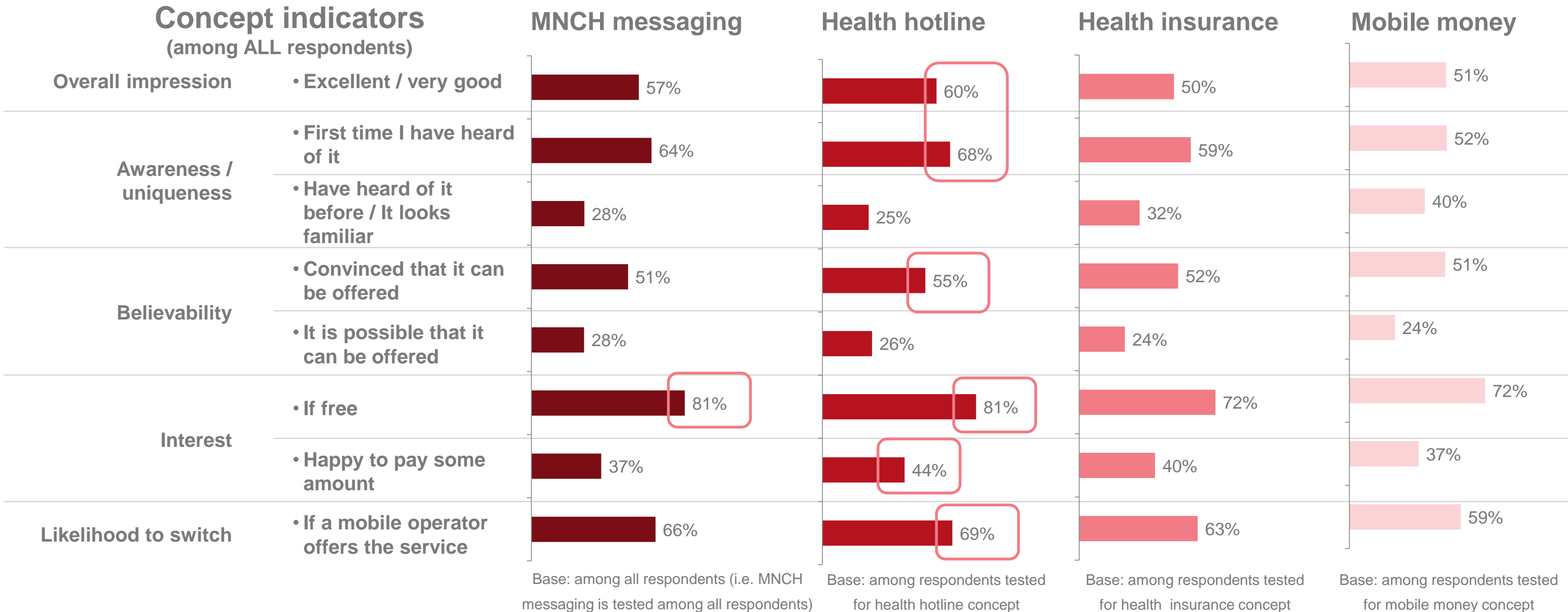
While BoP consumers may be willing to pay for certain mVAS because they see the benefit in using them, some of them simply could not afford to do so. As mentioned previously, mHealth stakeholders should consider innovative ways of making MNCH messaging and services accessible to BoP users through, for example, bundling of services. This will allow for subsidisation of messaging to BoP users along the lines of a typical “freemium” and premium mobile business case.

Coupled with the availability and access of services, trust is a major factor in consuming health care services. 1 in 3 women already trust mobile operators to provide mHealth-related services. As highlighted in this report, mobile network operator credibility could be further strengthened through endorsement, co-branding and/or partnership with credible health providers.

Interest in mHealth services is strong

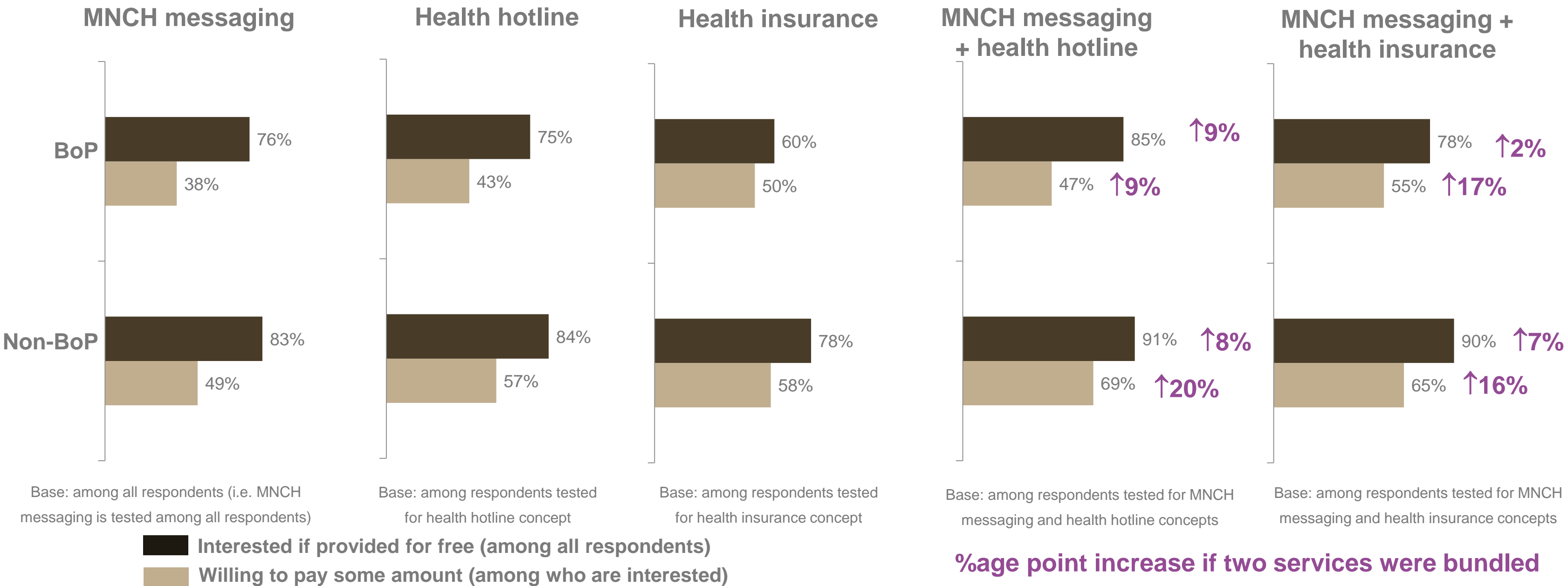


Consumers best appreciate the benefits of health hotlines among all the concepts tested



Bundling can strengthen consumer interest

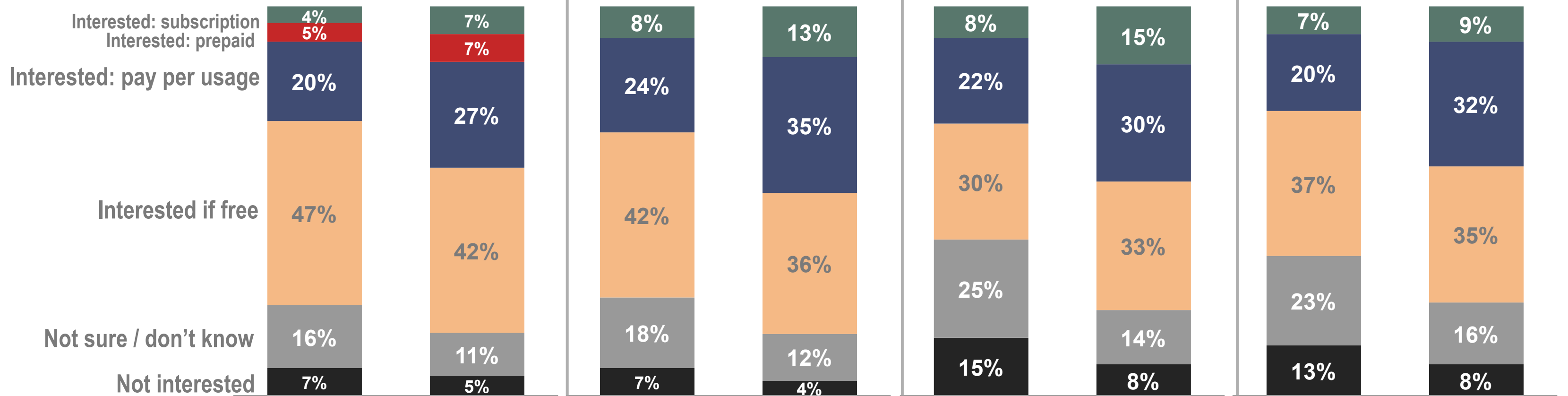
Creating a strong value proposition, potentially through bundling, can help improve the appeal of mHealth and strengthen consumers' willingness to pay



Targeting non-BoPs is an option for commercial viability

The bundling of services to reach a broader target market is an option for scale and sustainability

	MNCH messaging		Health hotline		Health insurance		Mobile money	
	BoP	Non-BoP	BoP	Non-BoP	BoP	Non-BoP	BoP	Non-BoP
Total: interested	76%	83%	74%	84%	60%	78%	64%	76%
Total: willing to pay	29%	41%	32%	48%	30%	45%	27%	41%



Base: among all respondents (i.e. MNCH messaging is tested among all respondents)

Base: among respondents tested for health hotline concept

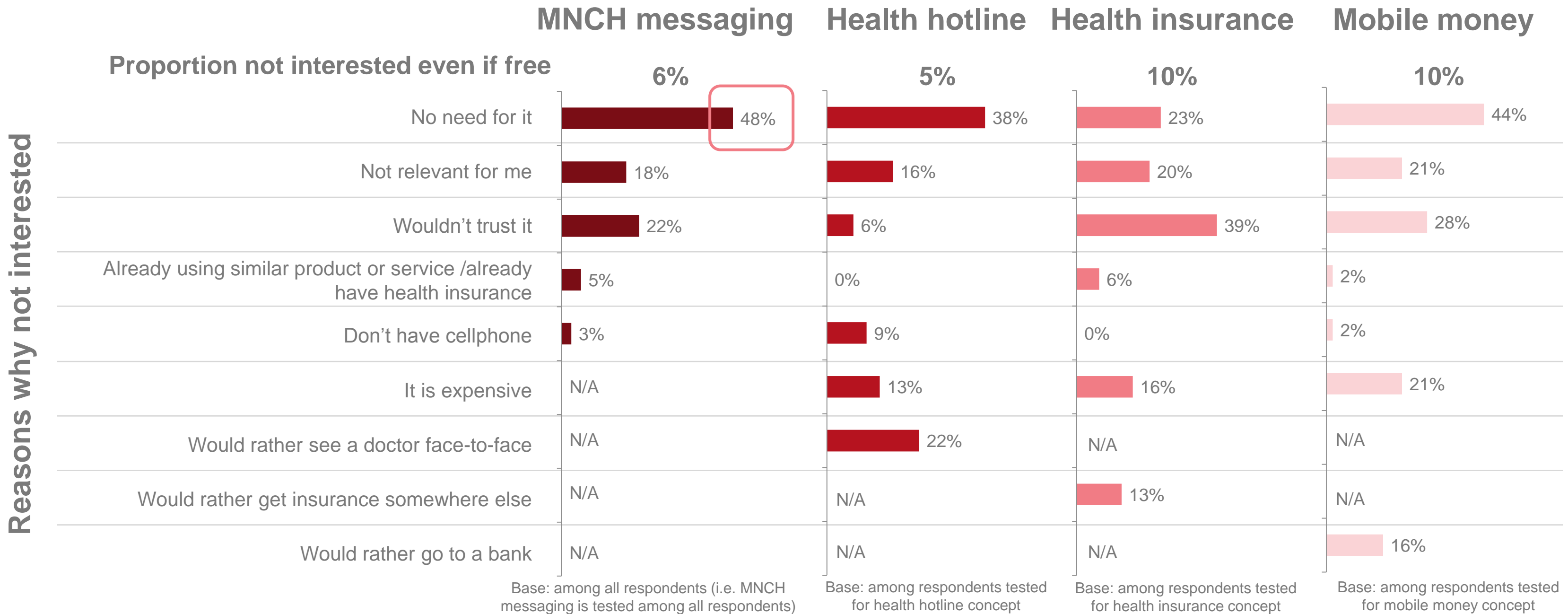
Base: among respondents tested for health insurance concept

Base: among respondents tested for mobile money concept

Proportion of not interested is generally low



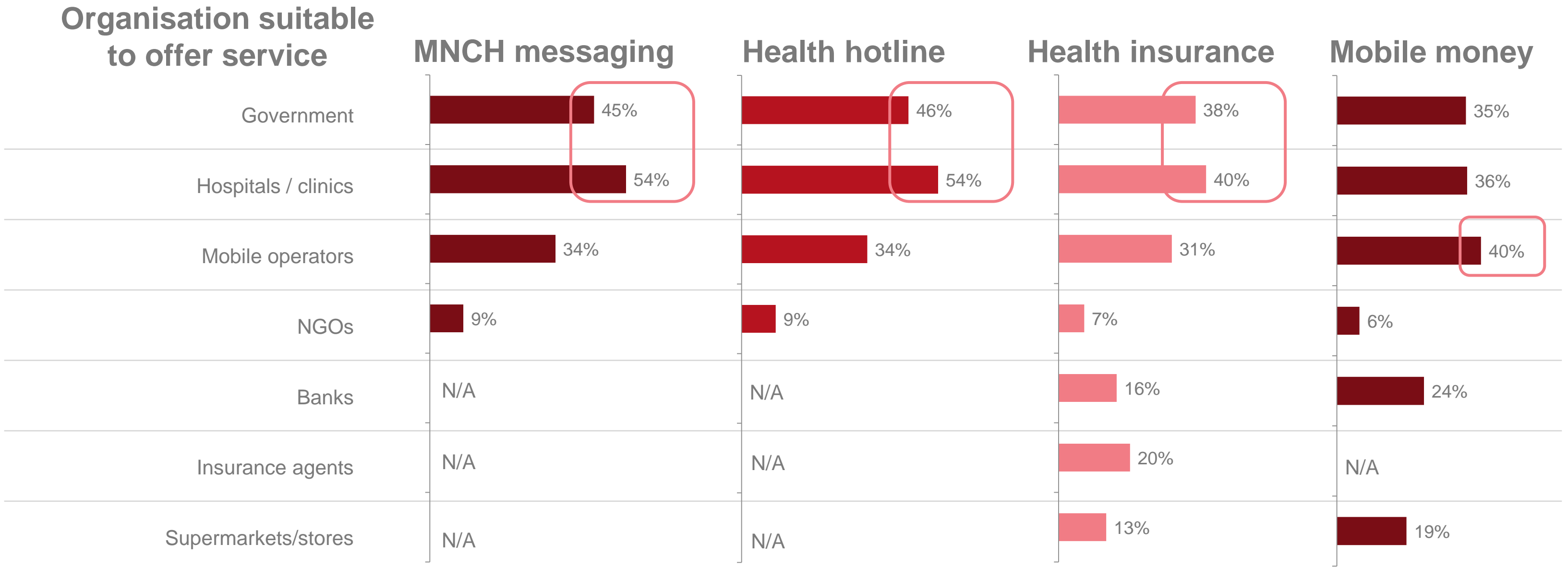
Highlighting impactful health benefits and how these translate to potential financial savings are crucial in emphasising the value of consumer-targeted mHealth service



Vital role for health facilities and government



1 in 3 already trust mobile operators to provide mHealth. Trust could be strengthened through validation, endorsement and/or co-branding from trusted health providers



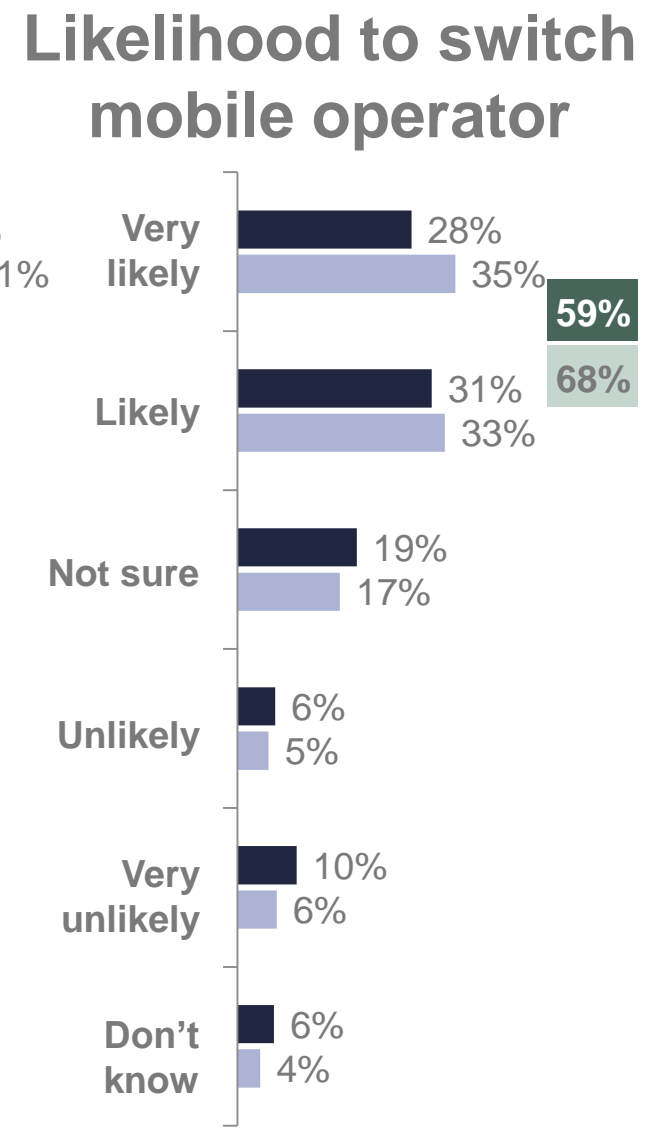
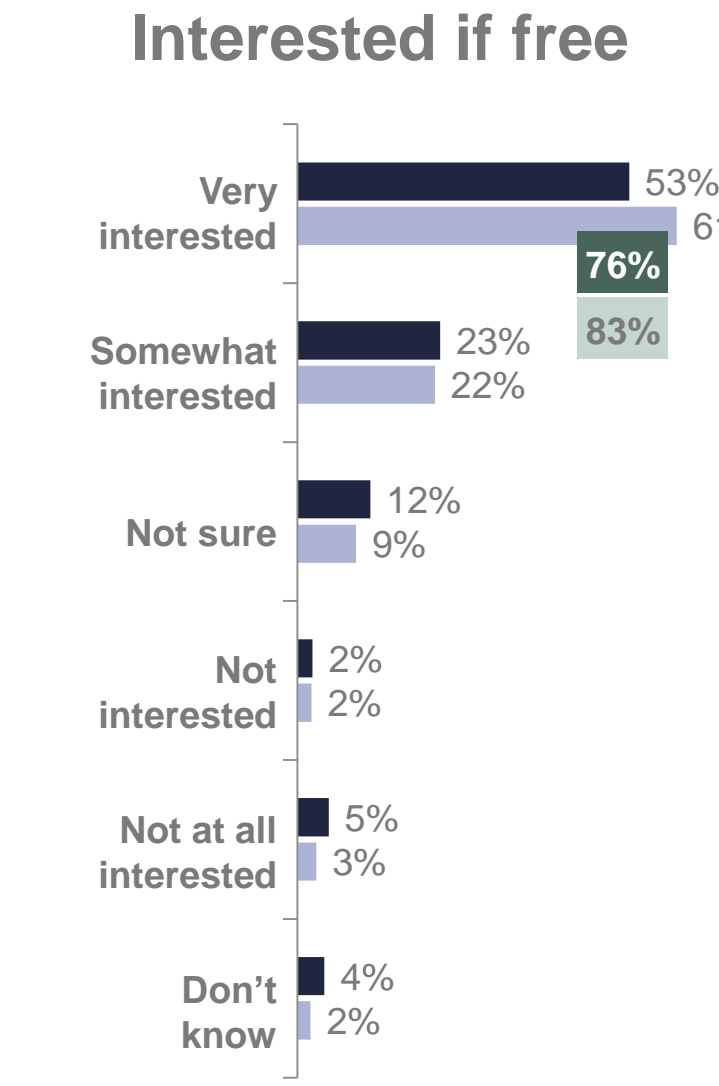
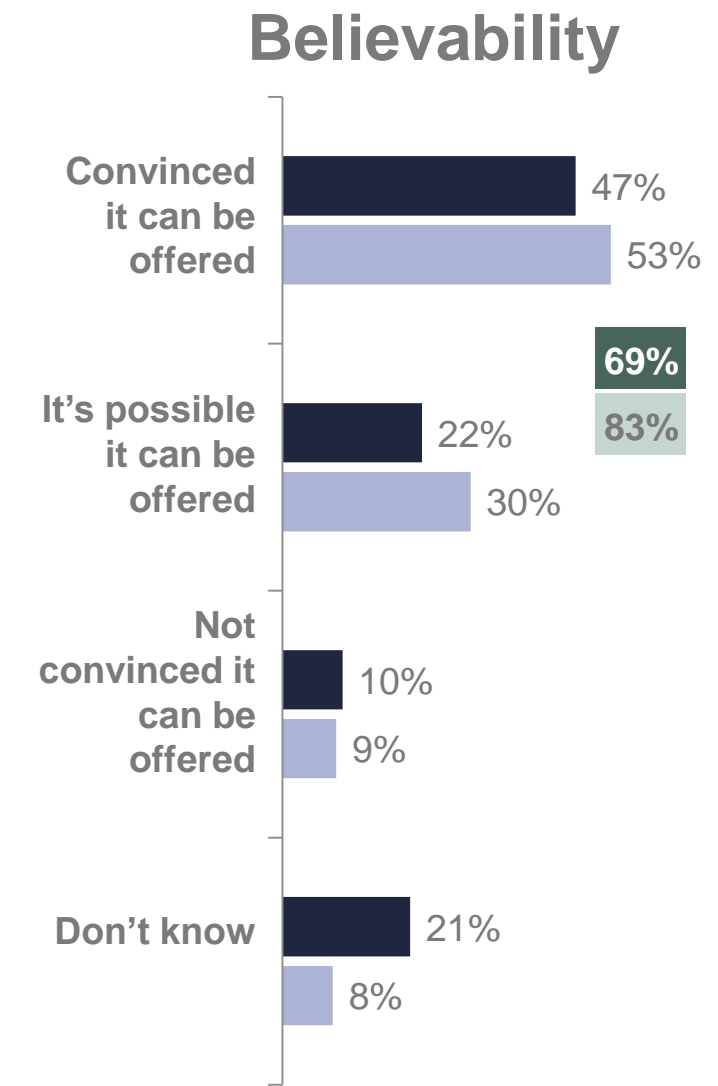
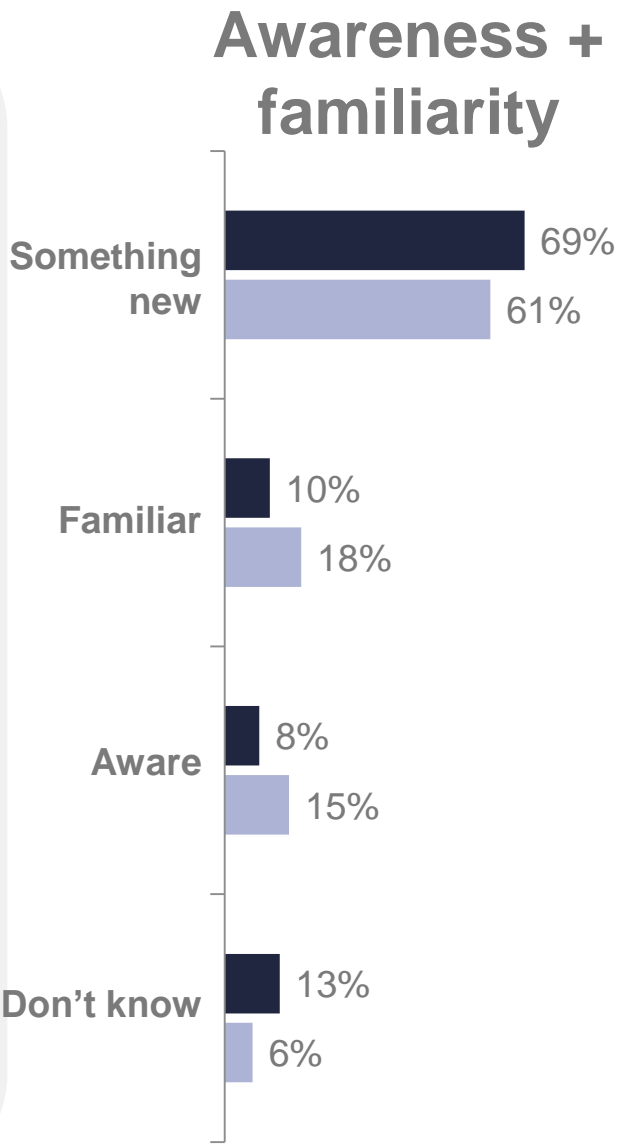
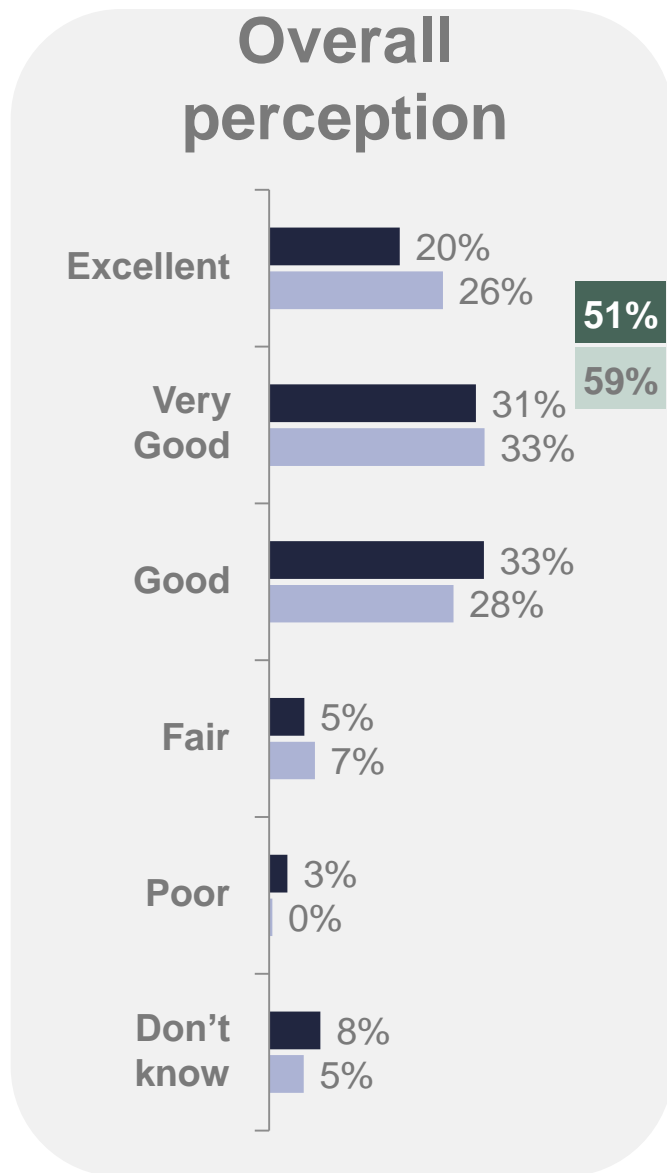
Base: among all respondents (i.e. MNCH messaging is tested among all respondents)

Base: among respondents tested for health hotline concept

Base: among respondents tested for health insurance concept

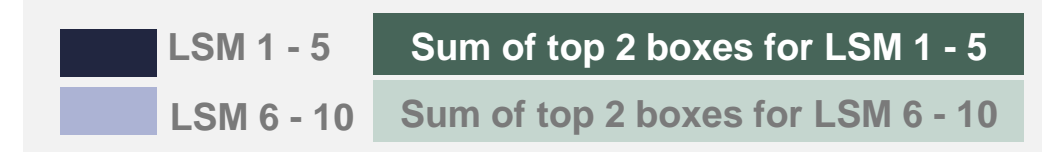
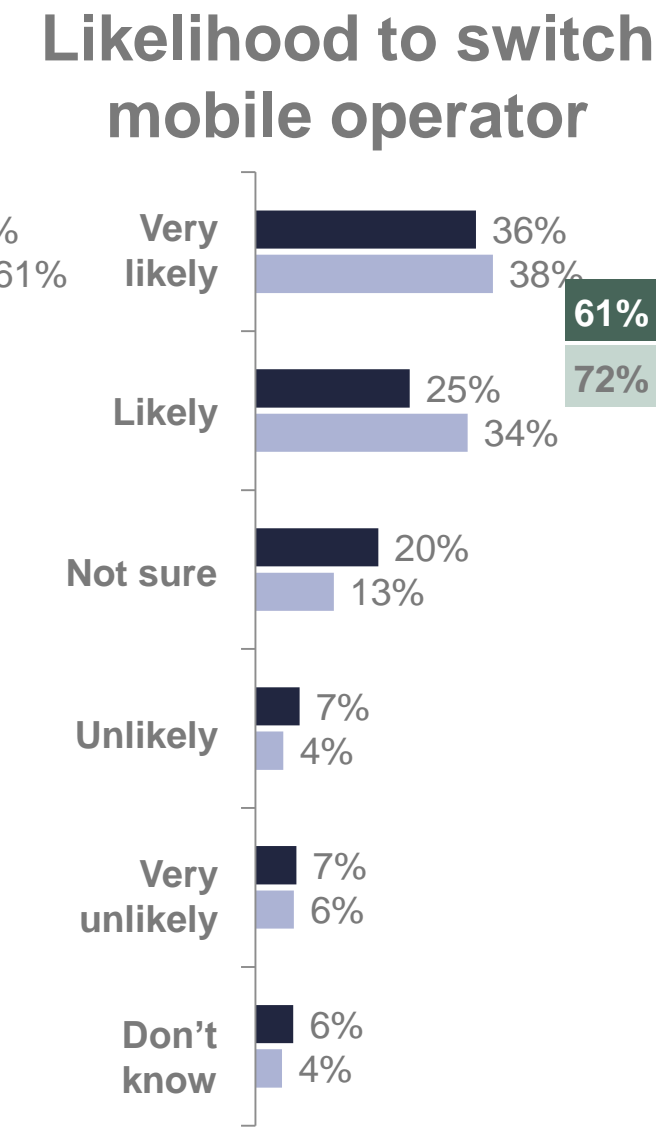
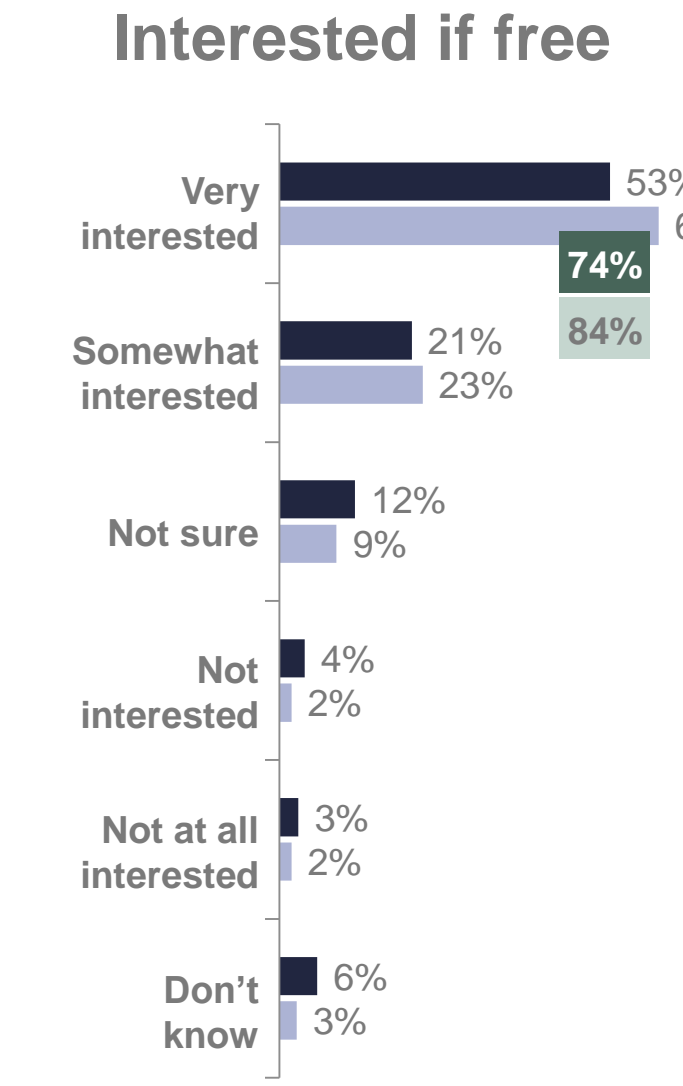
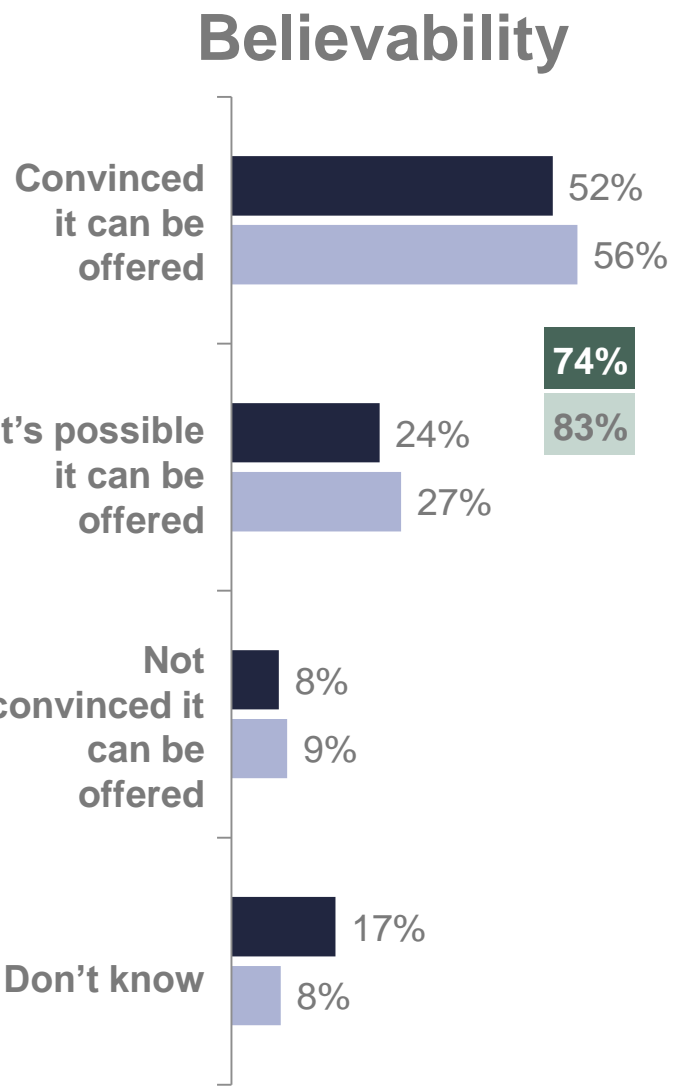
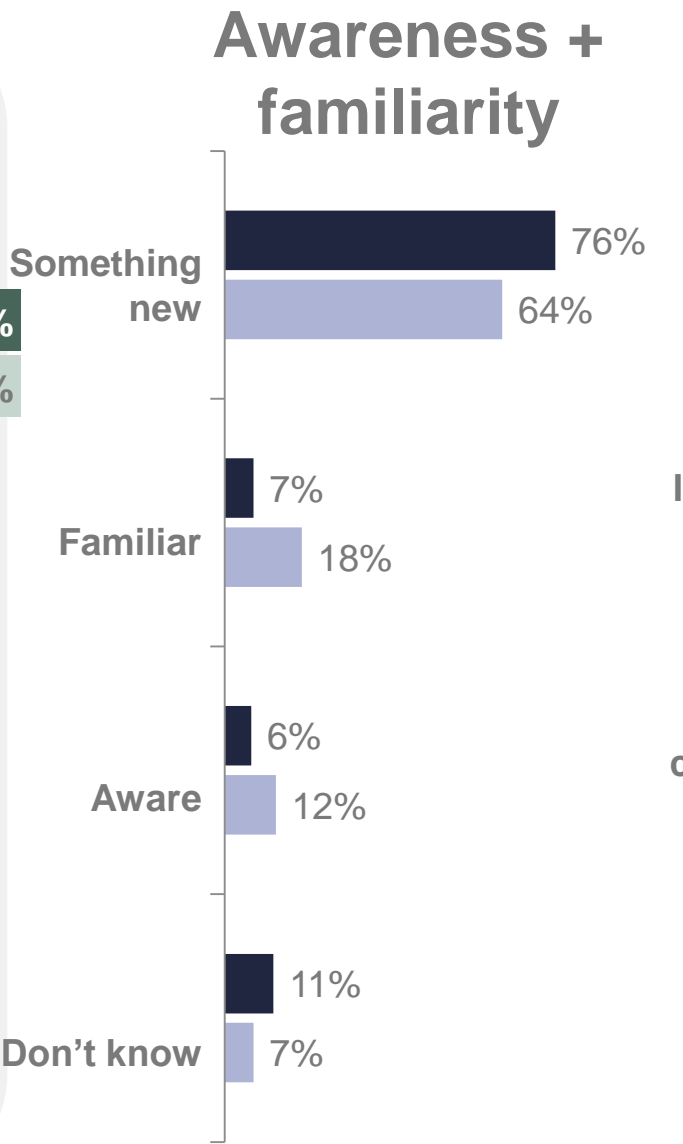
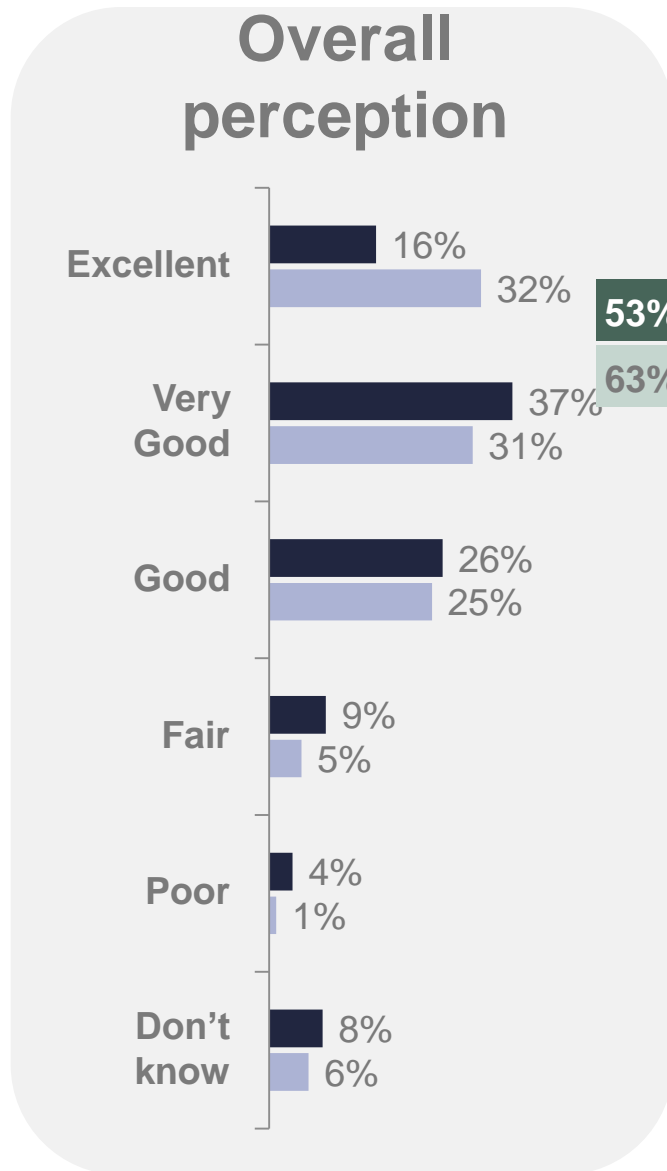
Base: among respondents tested for mobile money concept

Concept key indicators: MNCH messaging



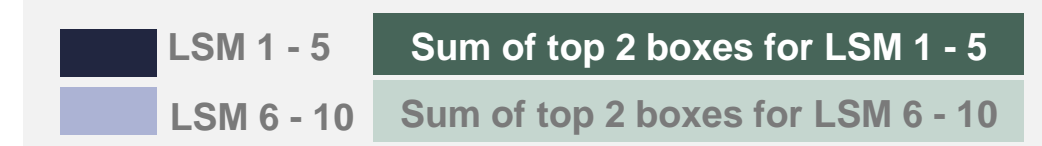
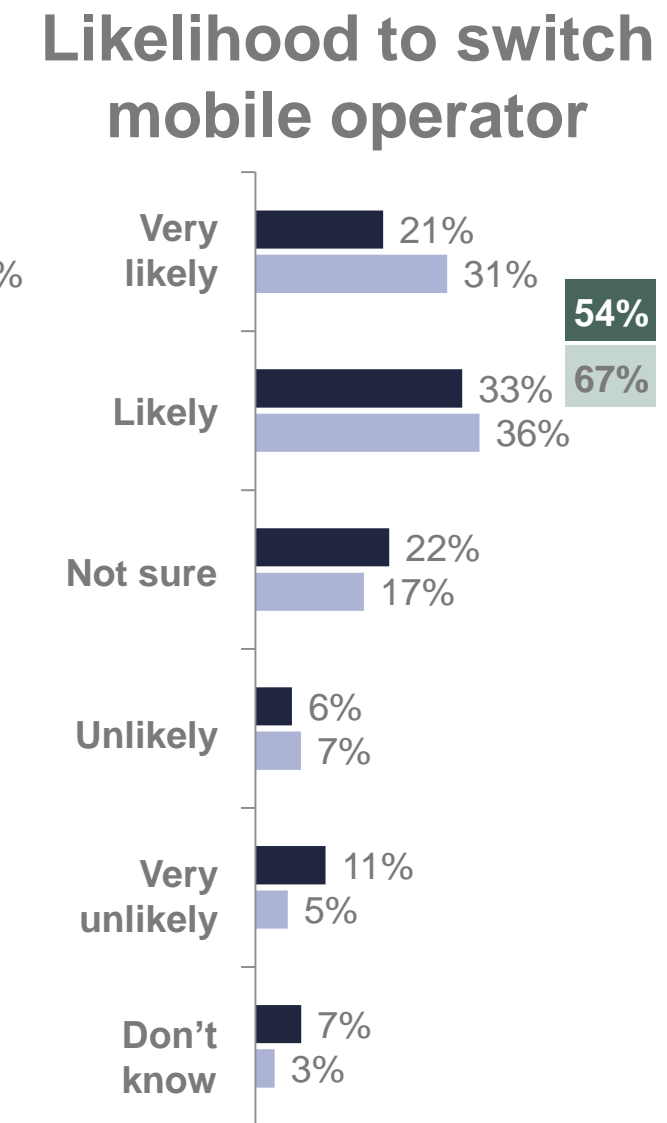
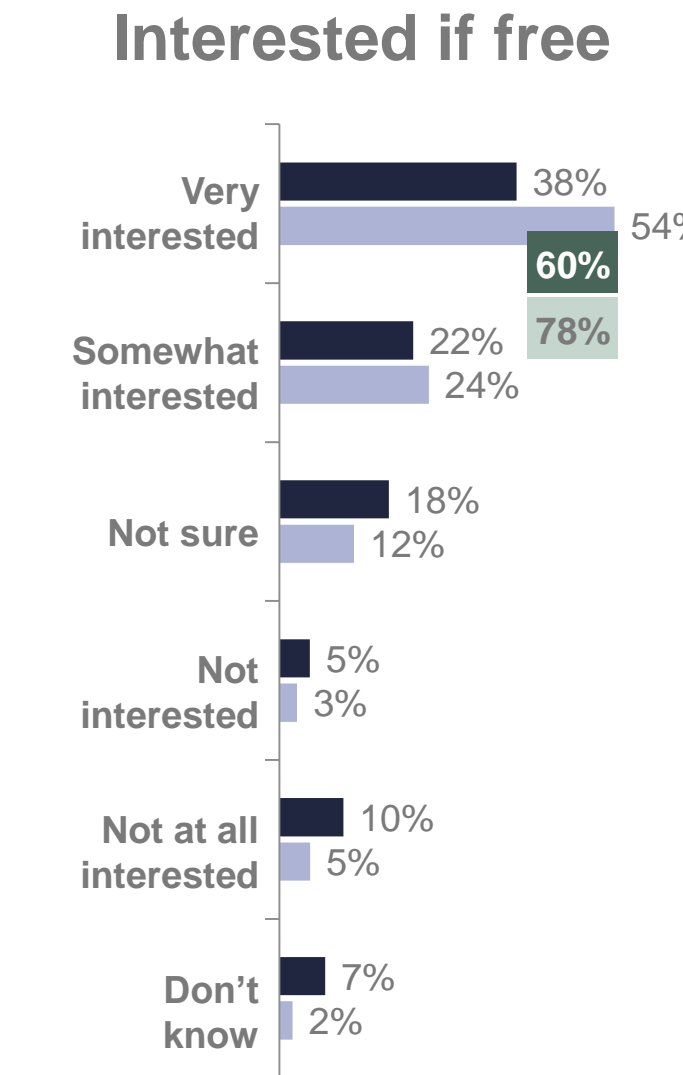
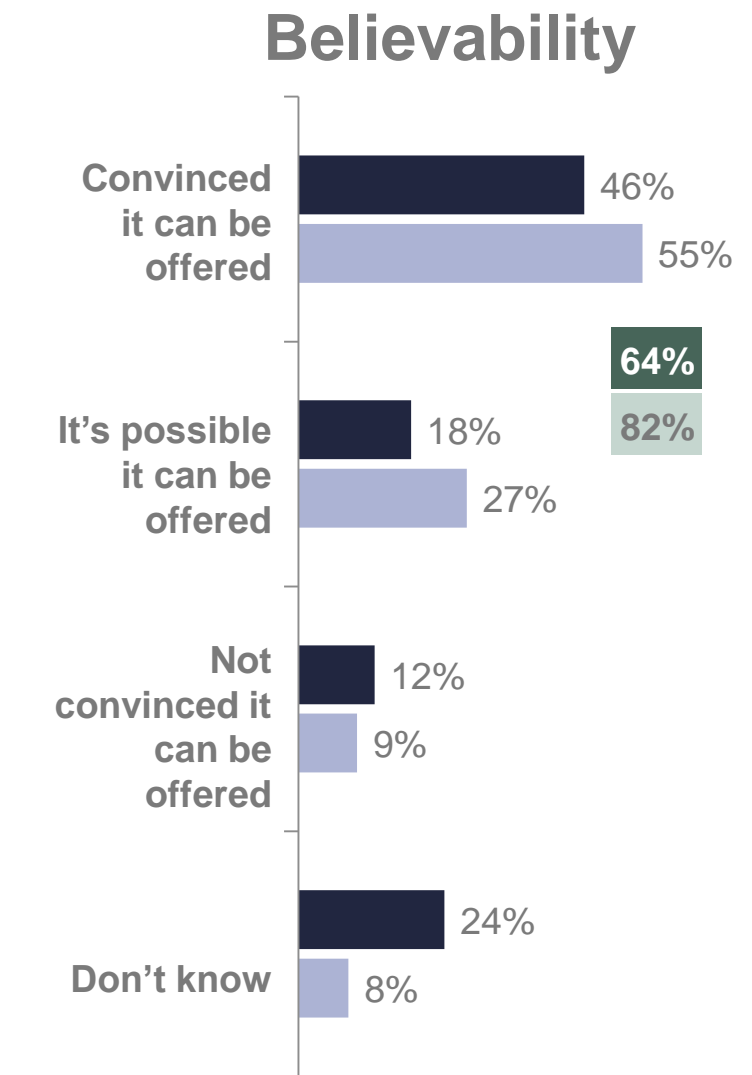
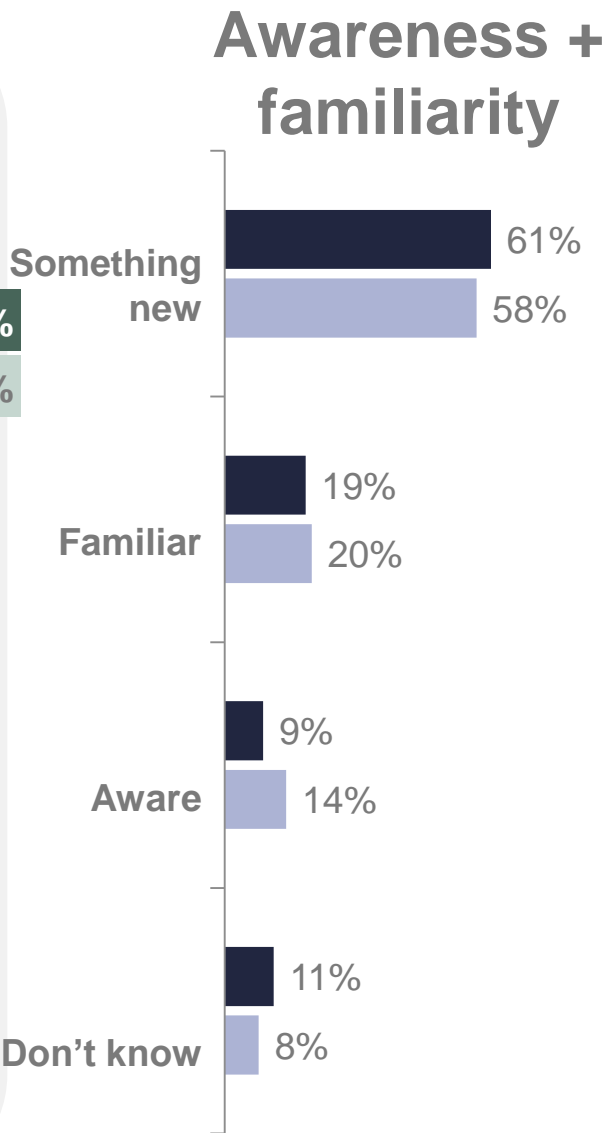
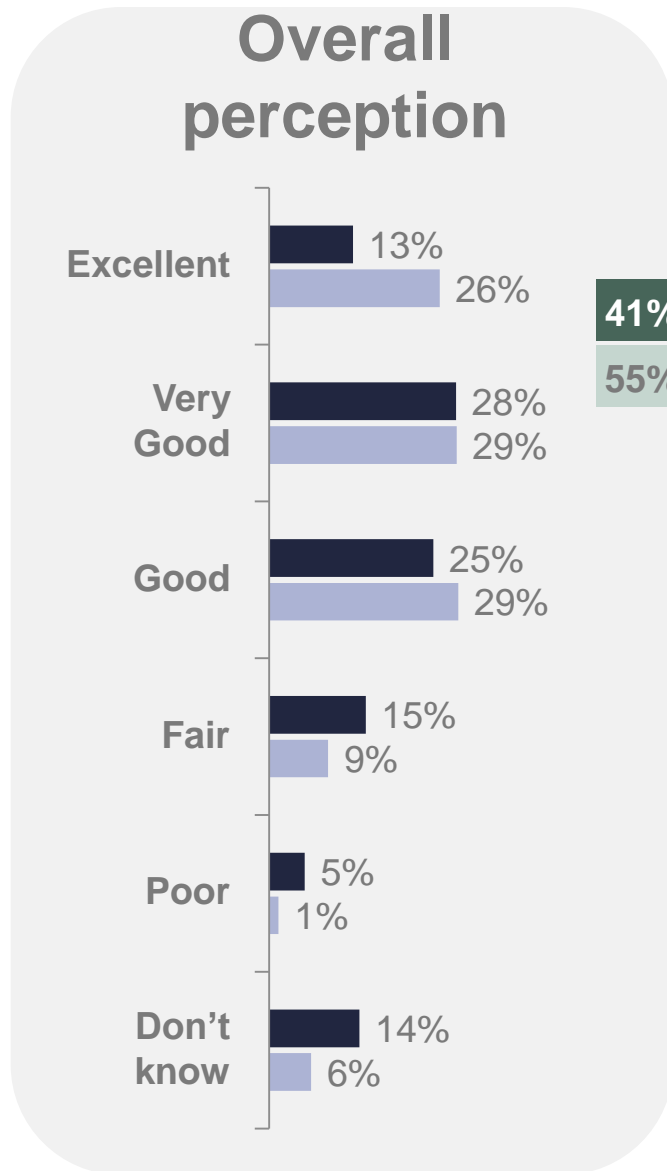
Base: among all respondents (i.e. MNCH messaging is tested among all respondents)

Concept key indicators: health hotline



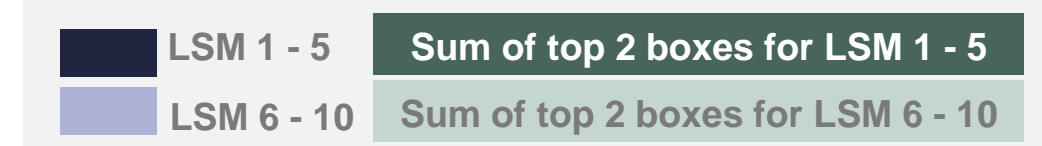
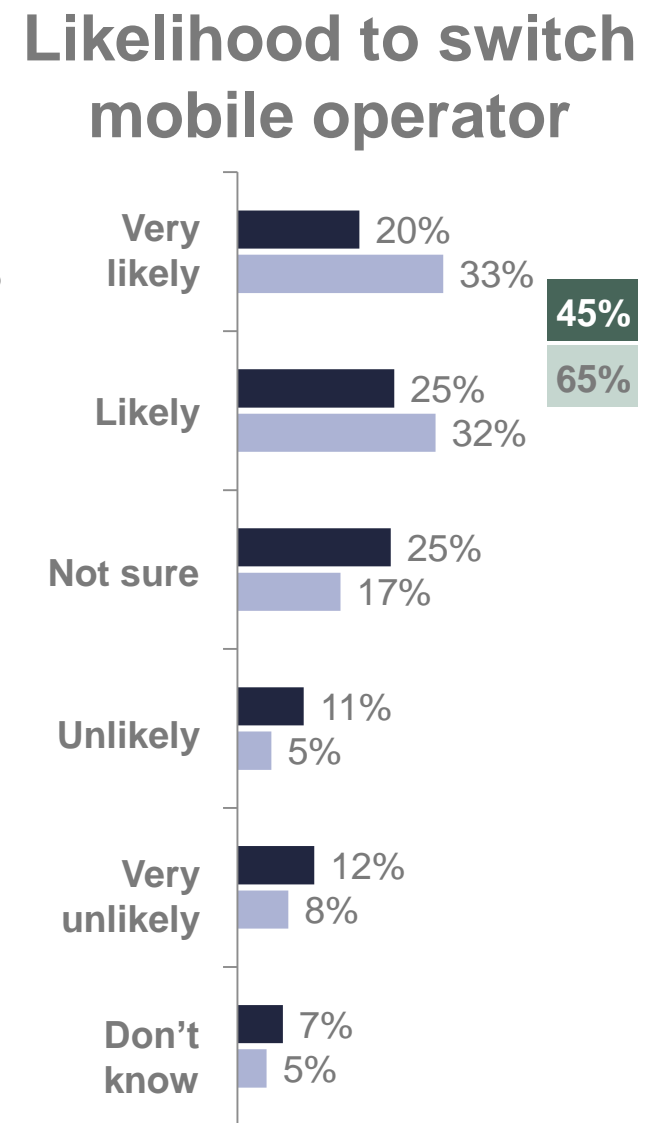
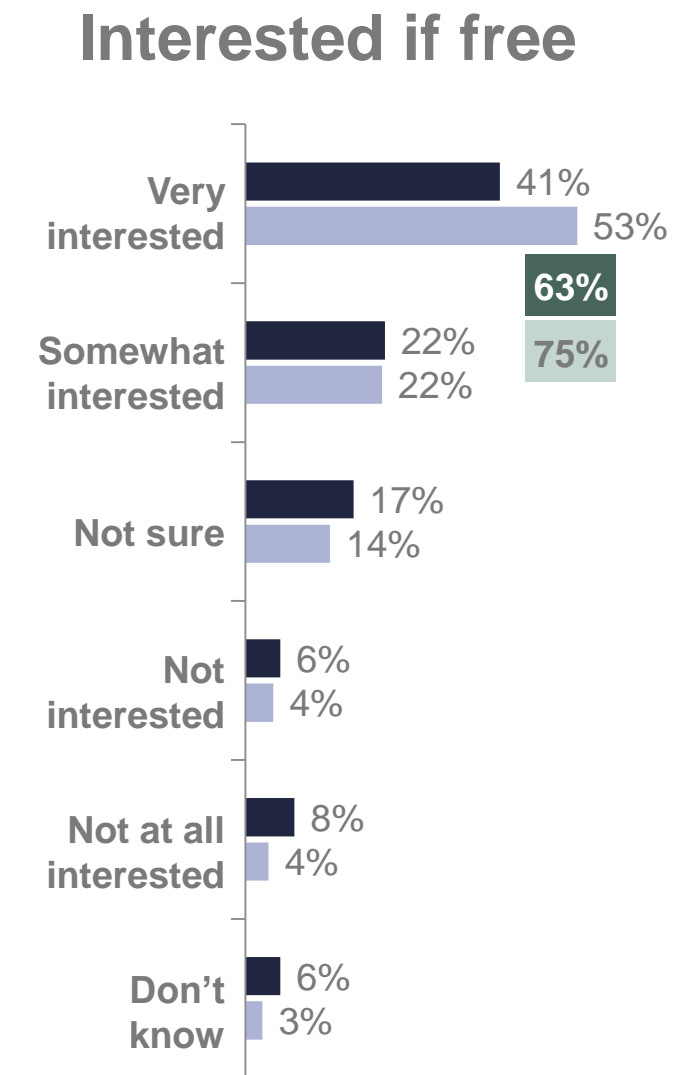
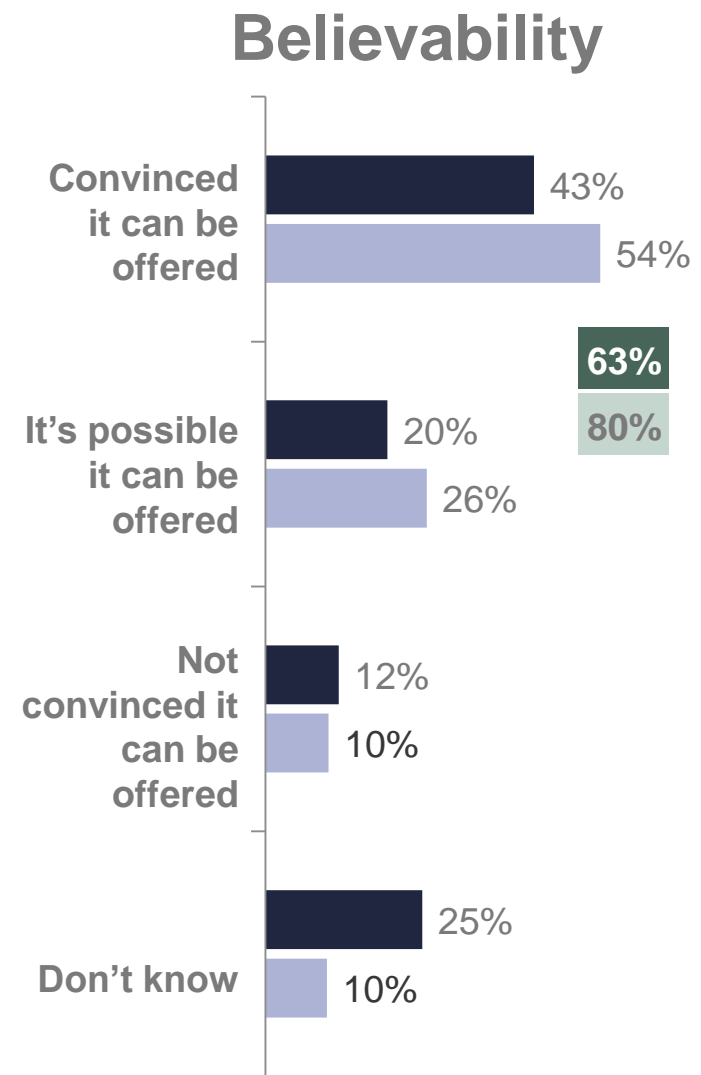
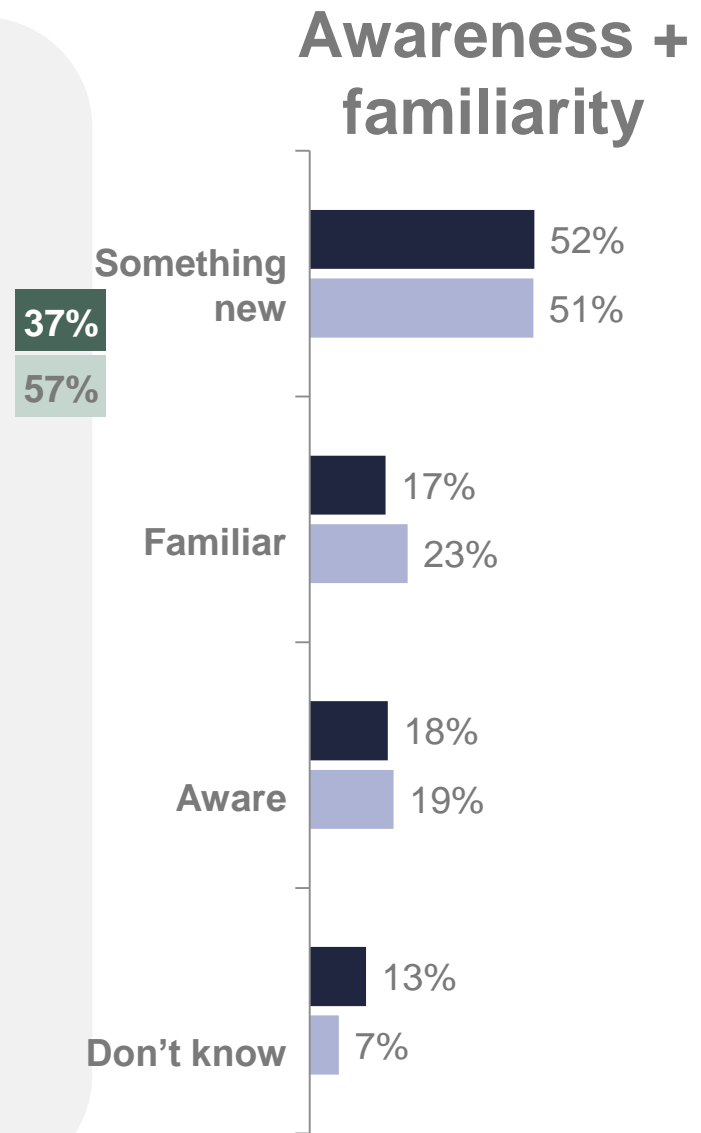
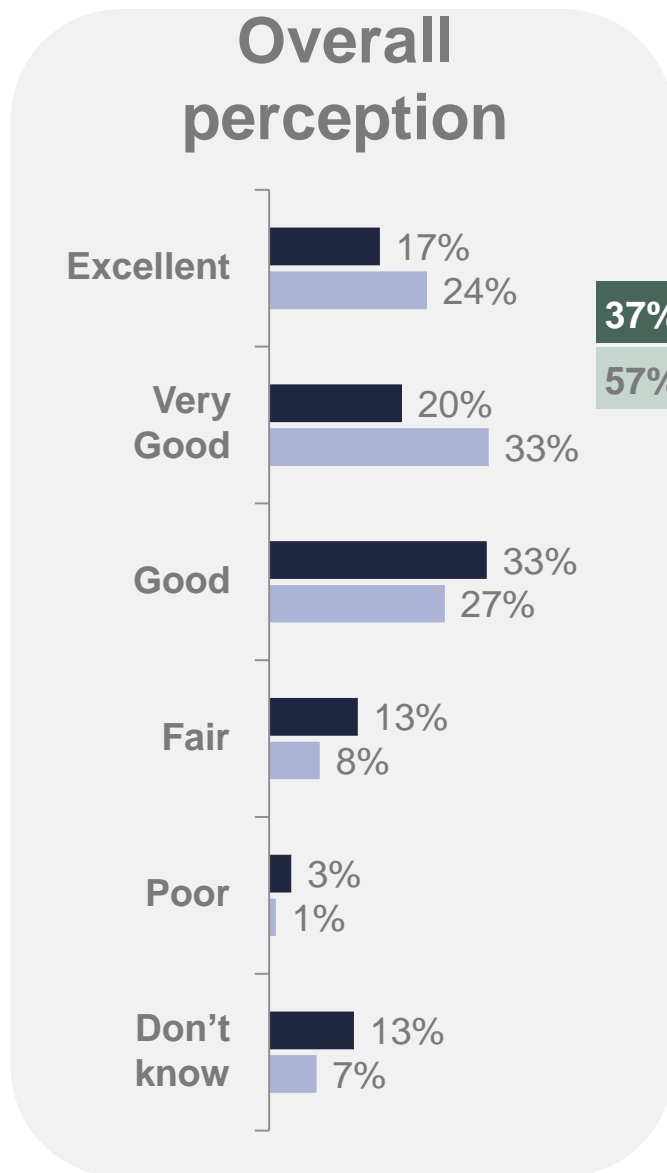
Base: among respondents tested for health hotline concept

Concept key indicators: health insurance



Base: among respondents tested for health insurance concept

Concept key indicators: mobile money



Perception and experience towards existing MNCH messaging services

About 2 in 5 pregnant women and mothers with children under the age of two claim they are aware or have heard of MNCH messaging services like those being offered by MAMA, The Baby Club, BabyInfo and MomConnect. Word of mouth is the primary means how women learned of these messaging services. There is no doubt that if mobile operators assist in promoting these services, possibly using cell broadcast, the awareness levels could be much higher.

Among those women who are aware, only half have actually subscribed to the service. Key barriers to subscription are “don’t know how to subscribe”, “it is expensive” and “advice from family, friends and CHWs are sufficient”.

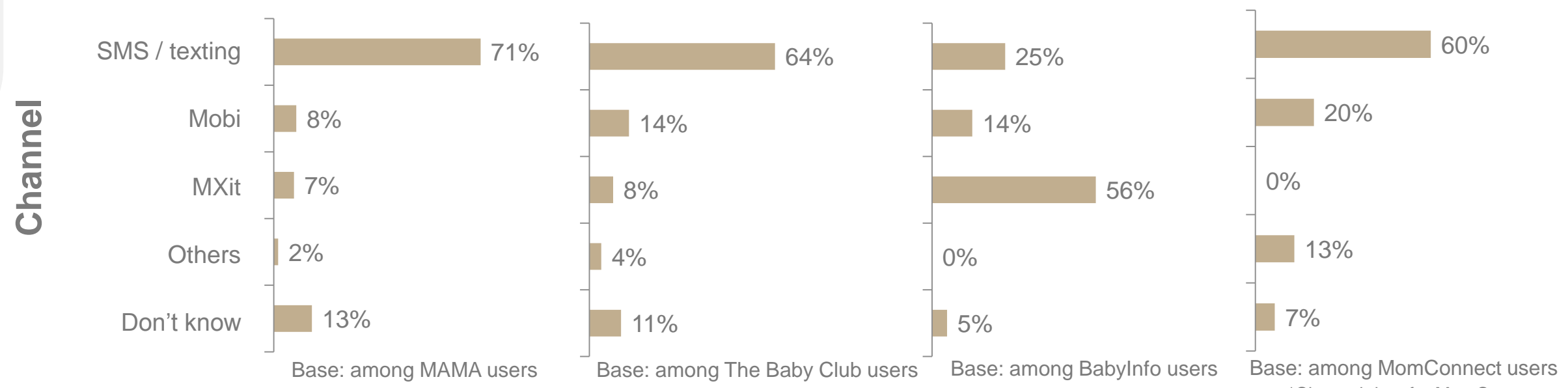
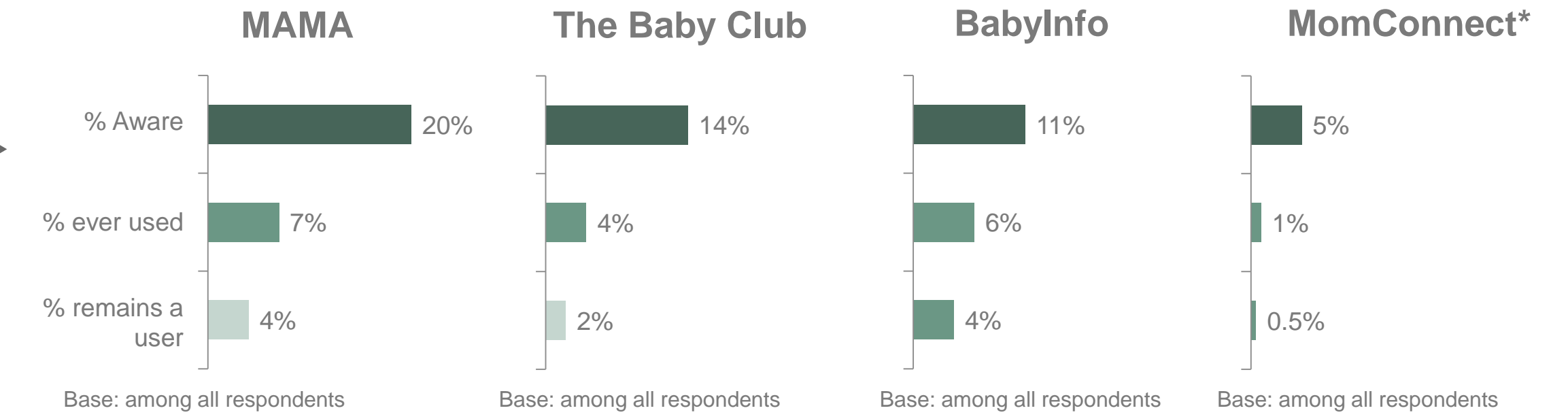
Of the 20% who have subscribed, only half have continued to use the service. Those who have unsubscribed cite that the service “costs a lot of money” or “is difficult to use” as the main reasons for opting out. The pricing barrier is, obviously, a misconception as the current MNCH messaging services are offered for free. However, accessing them via feature phones or smartphones, while offering better user-experience, is not free because of data usage consumption.

In general, the experience of existing users is positive. 55% rated their experience as either excellent or very good. However, only 37% of past subscribers had a similar positive experience, indicating there are some areas that need to be addressed in order to improve the overall user experience.

Throughout the report, various recommendations have been identified on how to drive adoption and improve overall experience. It seems that “impact and relevance” have the strongest opportunity for improvement after considering the various factors that drive user experience. As noted earlier, broadening the scope beyond health (to include job information, for example) is one potential way on how the service can be made more relevant. Already knowledgeable about their own health, women will also find the service more relevant if the central subject can be shifted from the woman to the baby/children. It is, therefore, essential to link any message or advice to how it can affect the baby’s overall growth and wellbeing.

Awareness of MNCH messaging is growing

A competitive MNCH messaging market can help increase overall awareness of the service, but needs to aim towards a standard message and call to action

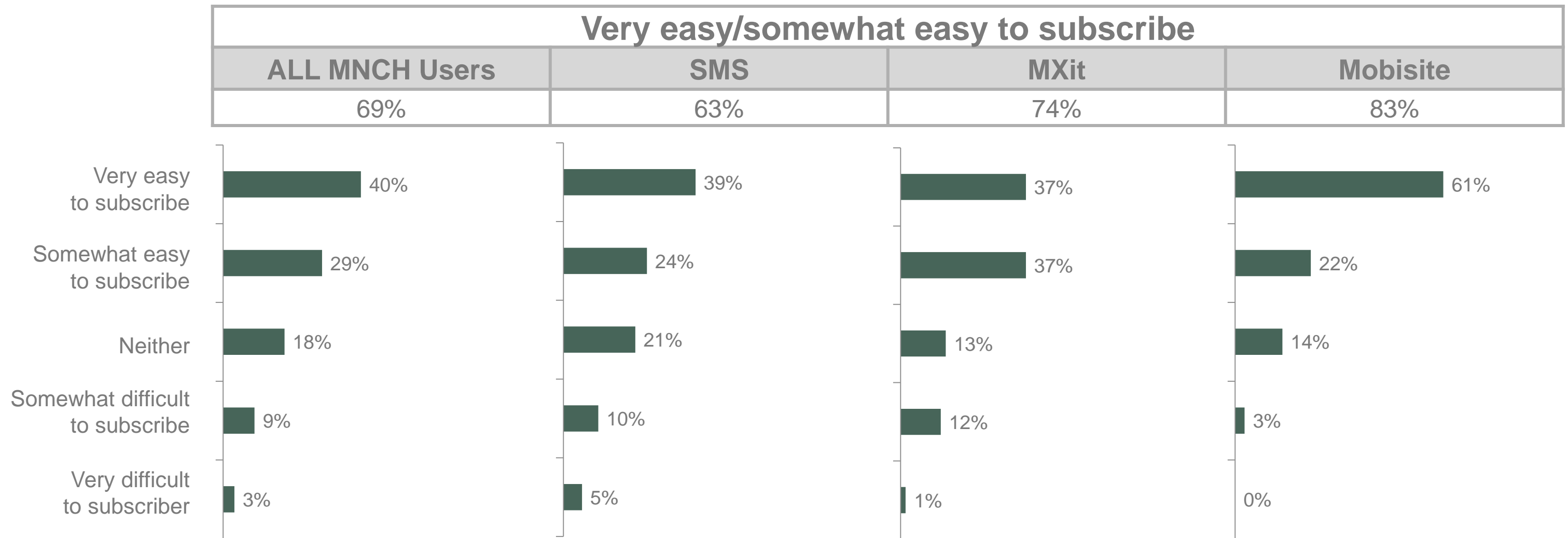


*Channel data for MomConnect directional as base size is n<30

Mobisite: easiest to subscribe among all channels

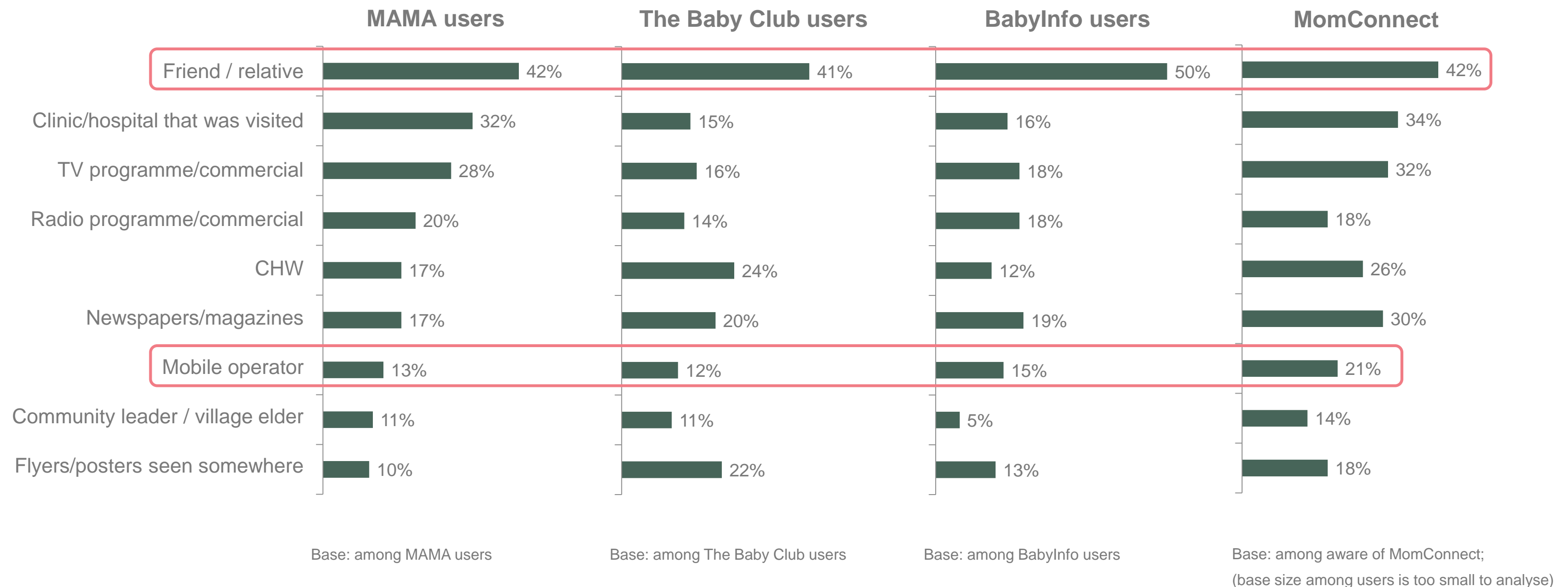


With growing smartphone penetration, Mobisite and/or native apps should be explored and developed for MNCH messaging services



Greater opportunity to engage mobile operator to drive awareness

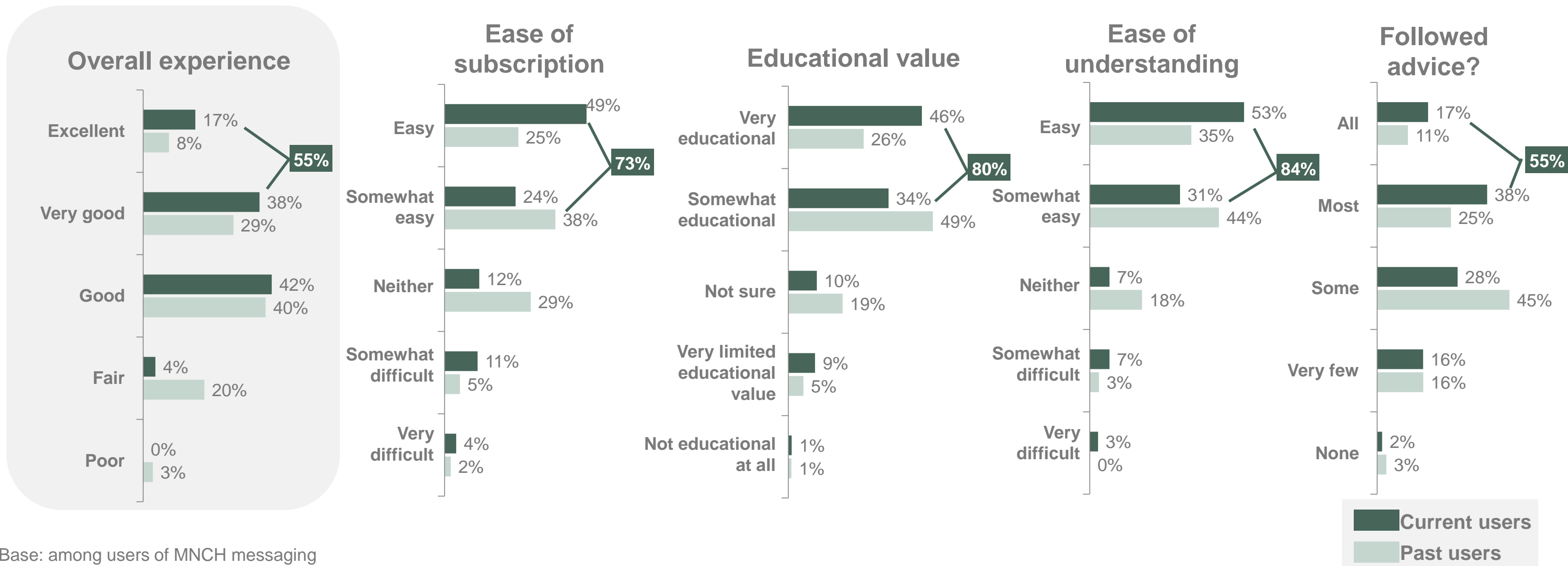
Word of mouth predominates and should be leveraged through attractive promotional incentives for women to recruit fellow pregnant women/mothers



MNCH messaging experience is positive

Women find existing messaging services interesting but broadening their scope can add relevance beyond MNCH

Experience overview: among all MNCH messaging users

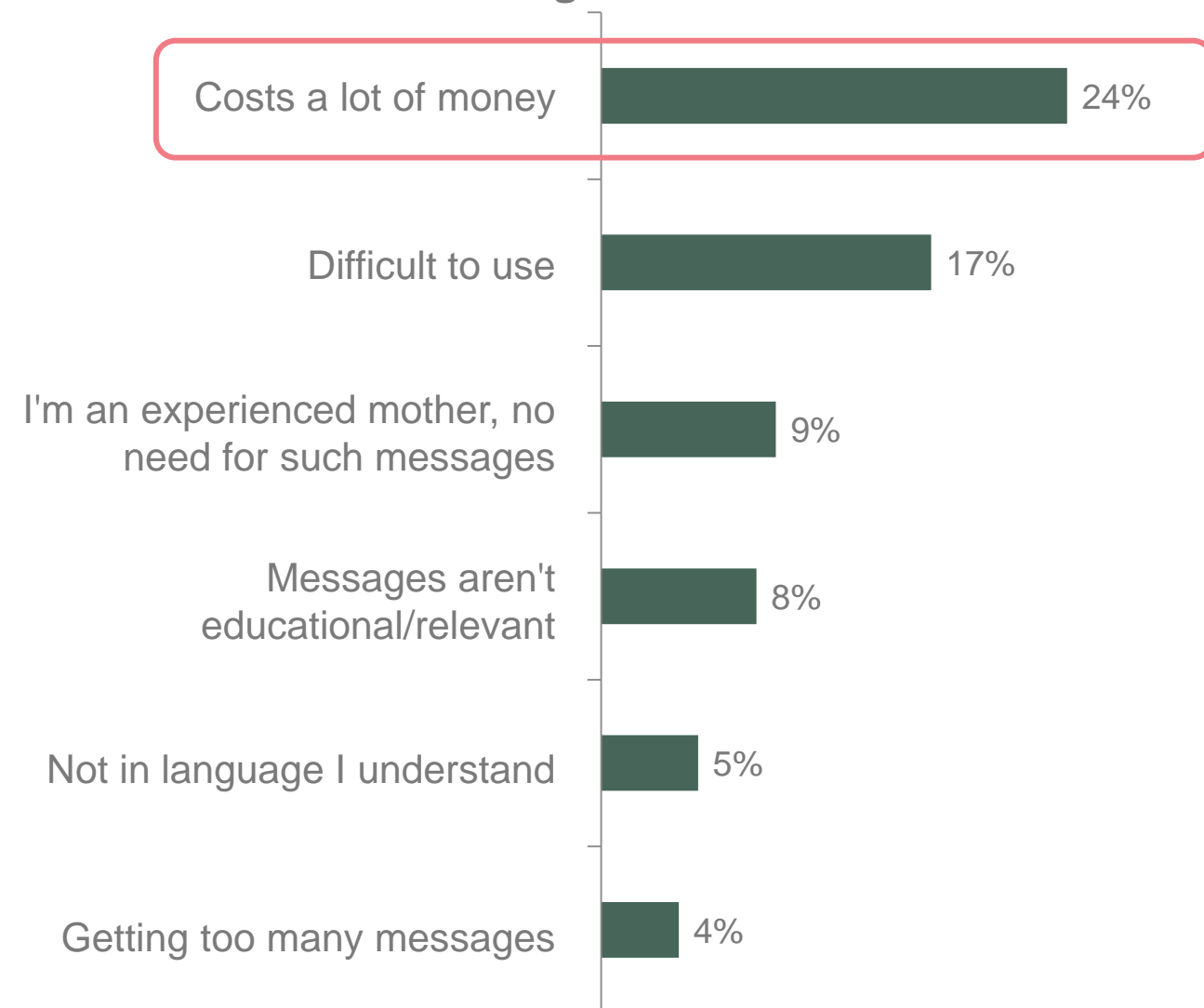


Base: among users of MNCH messaging

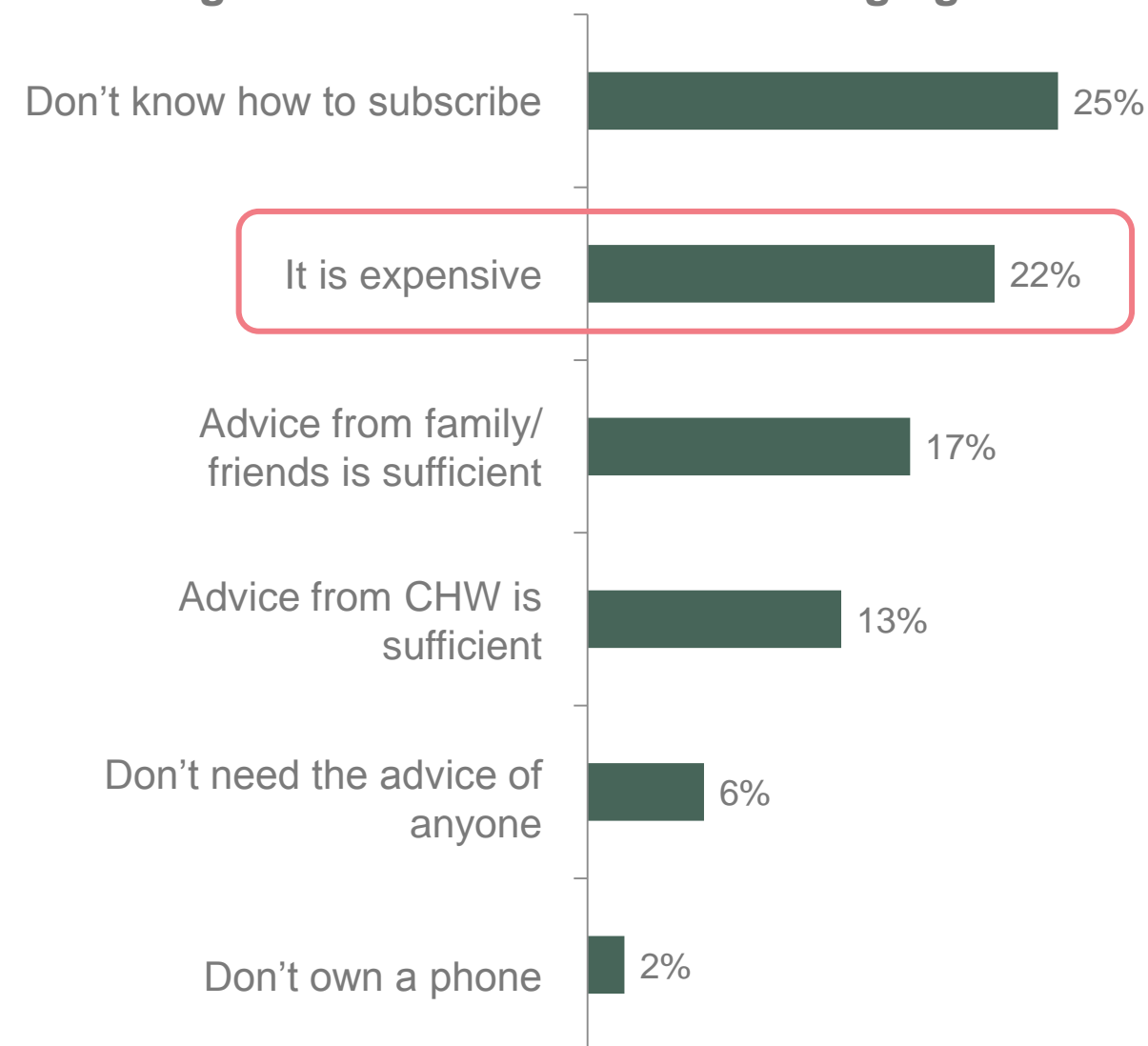
Key adoption barriers: price misconception, ease of use and subscription

CHWs and healthcare facility staff are essential to the subscription process, helping less tech-savvy women avoid potential challenges when registering for the service

Reasons for unsubscribing
among former users of MNCH messaging



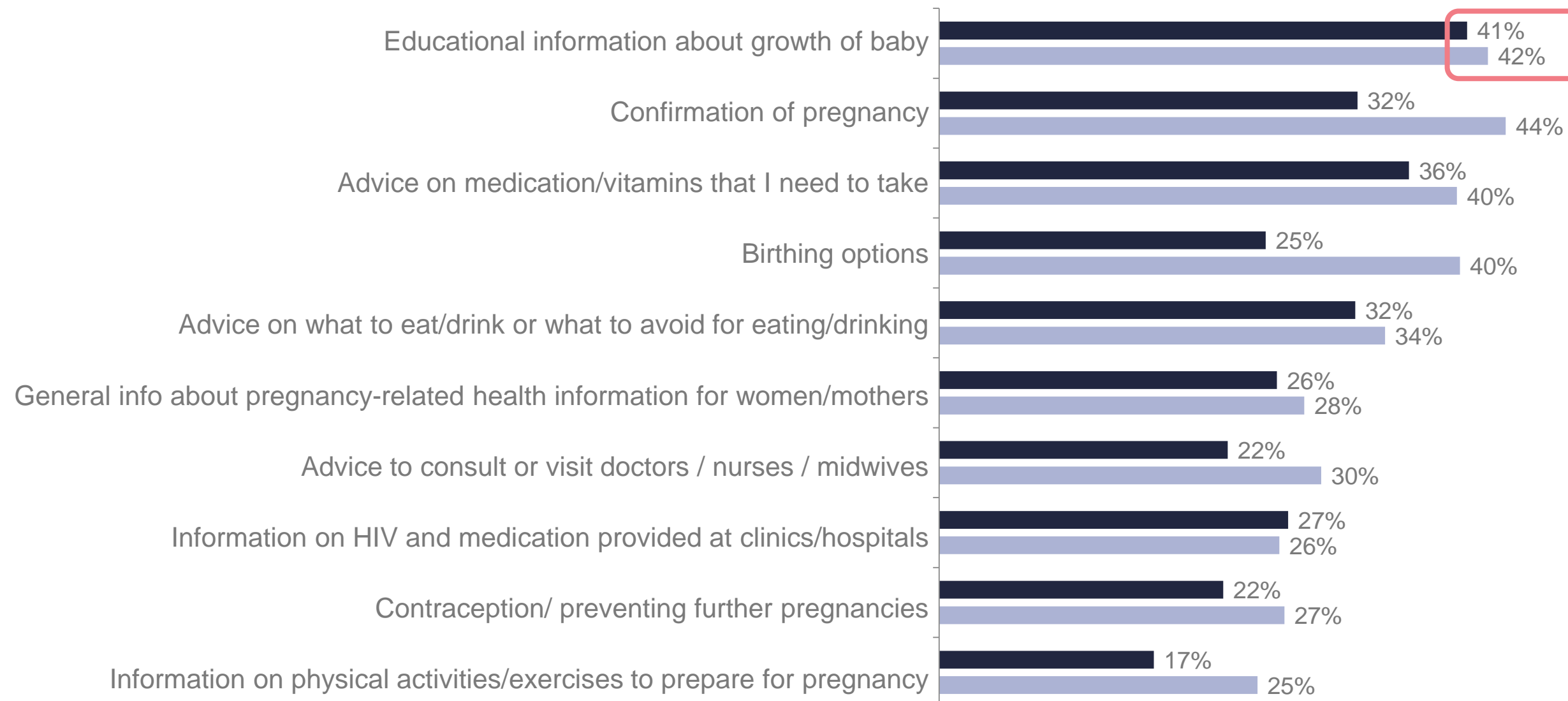
Reasons for NOT subscribing
among those aware of MNCH messaging but never subscribed



Baby's growth is the most relevant for BoPs

Ensuring that babies and children are the central subject of MNCH messaging makes the service more impactful to women

Topics women find relevant regarding MNCH



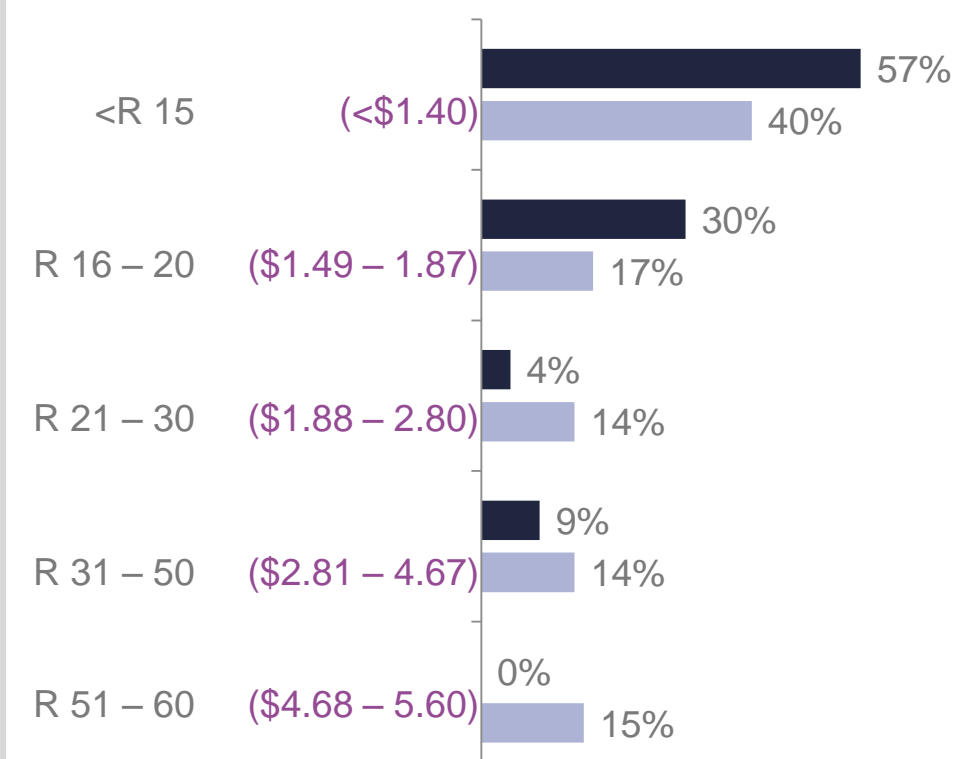
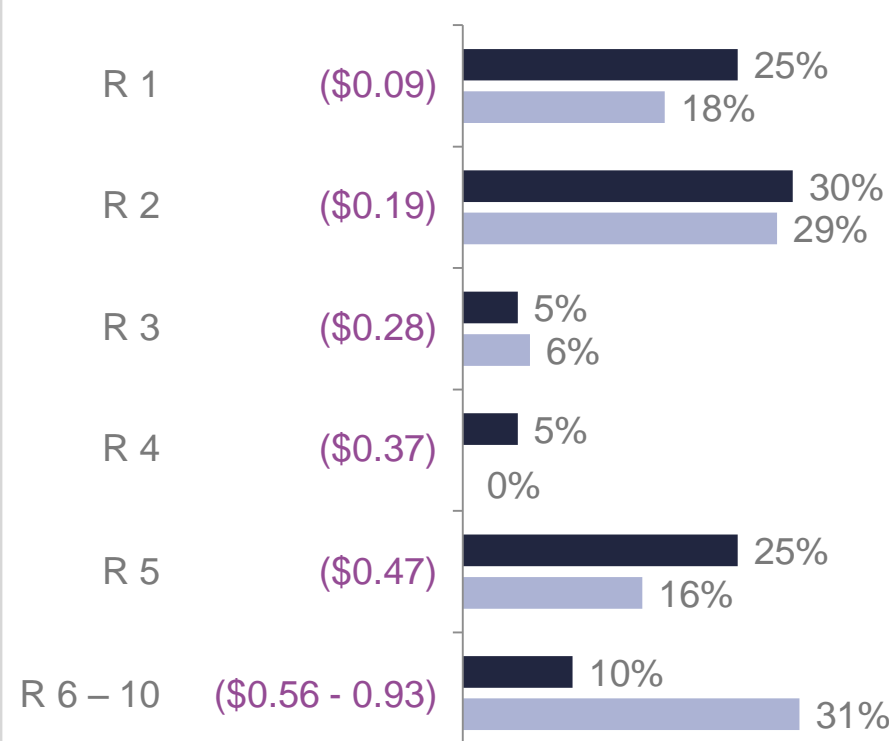
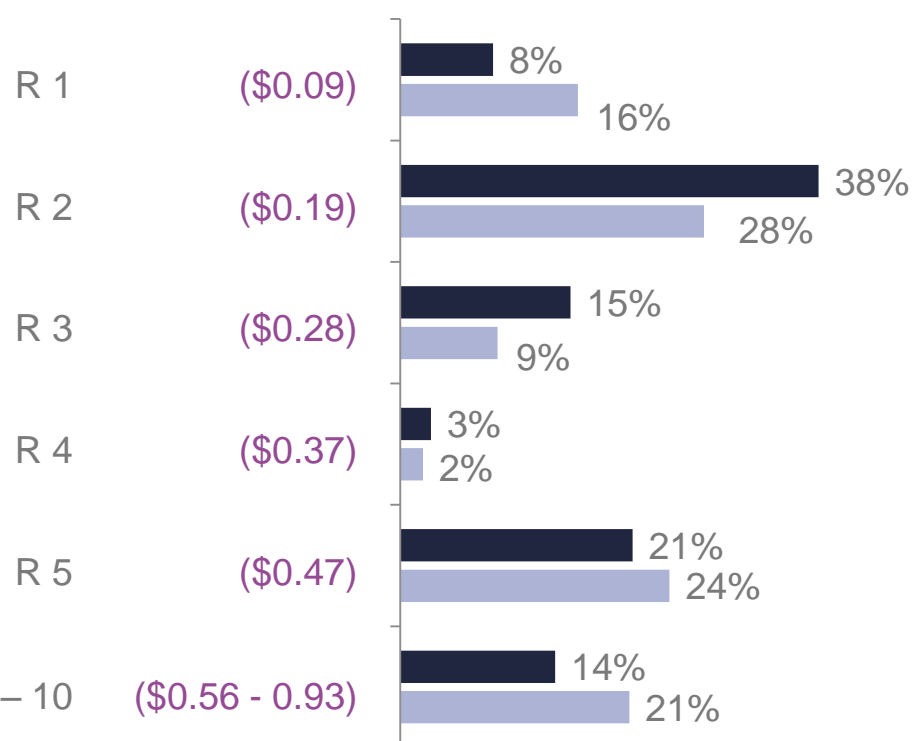
Willingness to pay does not equate to ability to pay



Low LSM place a similar or higher value on MNCH messaging, as indicated by their willingness to pay of services. Caution should be exercised due to the relative lack of disposable income and an inability to actually pay for these value services

Preferred payment option

	Pay per usage		Prepay for fixed number of message		Subscription	
	LSM 1 - 5	LSM 6 - 10	LSM 1 - 5	LSM 6 - 10	LSM 1 - 5	LSM 6 - 10
Proportion	20%	27%	5%	7%	4%	7%
Ave. amount willing to pay	Per message: R 3.60 (\$0.34)	Per message: R 4.00 (\$0.37)	Per message: R 3.30 (\$0.31)	Per message: R 4.20 (\$0.39)	Per month: R 14.60 (\$1.36)	Per month: R 23.90 (\$2.23)



LSM 1 - 5
 LSM 6 - 10

Exchange rate used:

1 US\$ = R 10.71

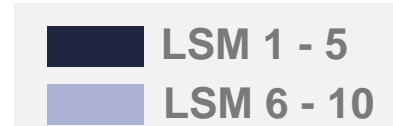
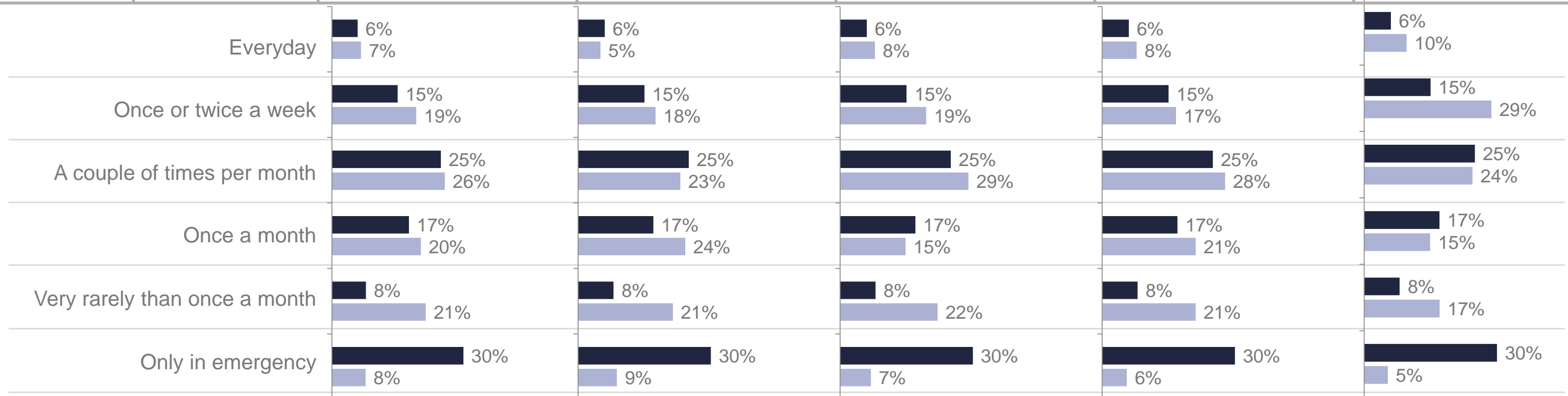
Base: among all respondents (i.e. MNCH messaging is tested among all respondents)

Ideal number of messages per month is 4 to 5



A key driver to increasing adoption and frequency of engagement is being able to stimulate an action from the target user

		Frequency of usage (based on concept testing)				
		Among ALL interested	Among interested only if free	Among interested with pay per usage	Among interested with prepay	Among interested with subscription
Ave. no. of messages/month	LSM 1 – 5	3.7	3.2	4.7	3.8	4.2
	LSM 6 – 10	4.3	3.7	4.8	4.6	5.9



Base: among all respondents (i.e. MNCH messaging is tested among all respondents)

Adoption and usage of CHW mHealth services



Based on additional research conducted by the GSMA on Community Healthcare Workers (CHW), communication and data surveillance predominate mobile use with the potential to vastly increase the service offering and ability to use these mobile devices as a channel for communicating directly to the end user.

Gauging the interaction between CHW's and end users, 1 in 7 respondents who have been visited by a CHW claim that their information was captured by a mobile phone. Extrapolated across the whole country, this translates to 2% to 3% of all households. The prevalence of using mobile phone in health care facilities is similar. "Paper and pen" is still the dominant method used, particularly at clinics.

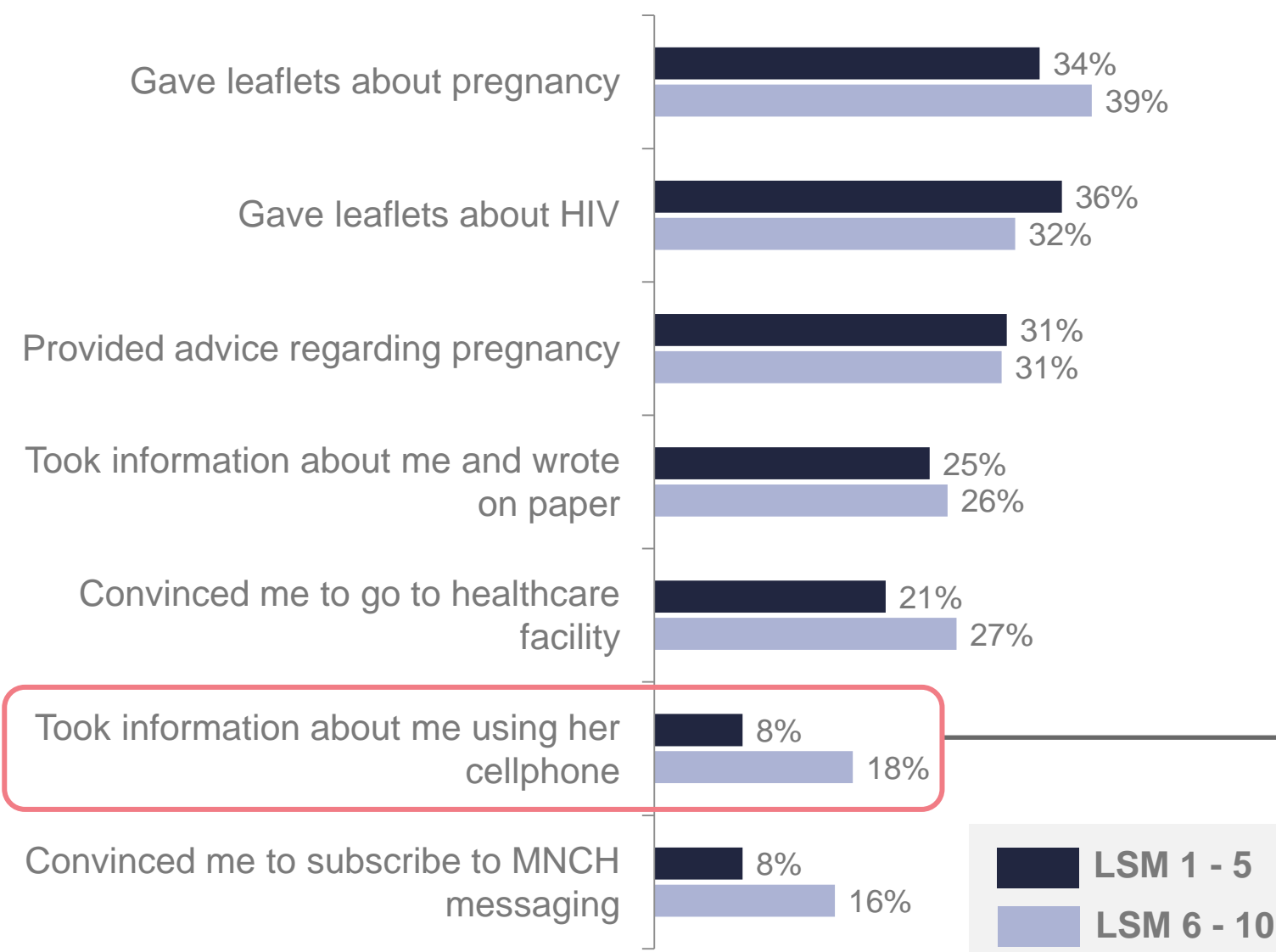
There is a growing body of evidence that highlights the benefit of data collection via mobile phone over traditional pen and paper. These benefits translate into more effective and efficient delivery of health services and should be implemented through more robust ecosystem partnerships that are able to achieve economies of scale and sustainability.

As discussed in the CHW research, there are many ways that mHealth products and services can be improved to make them more relevant to CHWs and the patients that they serve. One of the key insights from this consumer research is that, to avoid patient distraction, there is a need to explain and demonstrate why a mobile phone is being used. There are alternate strategies in the short to medium term to address patient education and capacity development constraints. For example, CHWs could continue using paper and pen and the information that they gather could be captured with a phone's camera and converted to a digital format using a character recognition software. In any case, the usage of technology could certainly improve both the CHW and patient experience.

1 in 7 had their information noted by phones

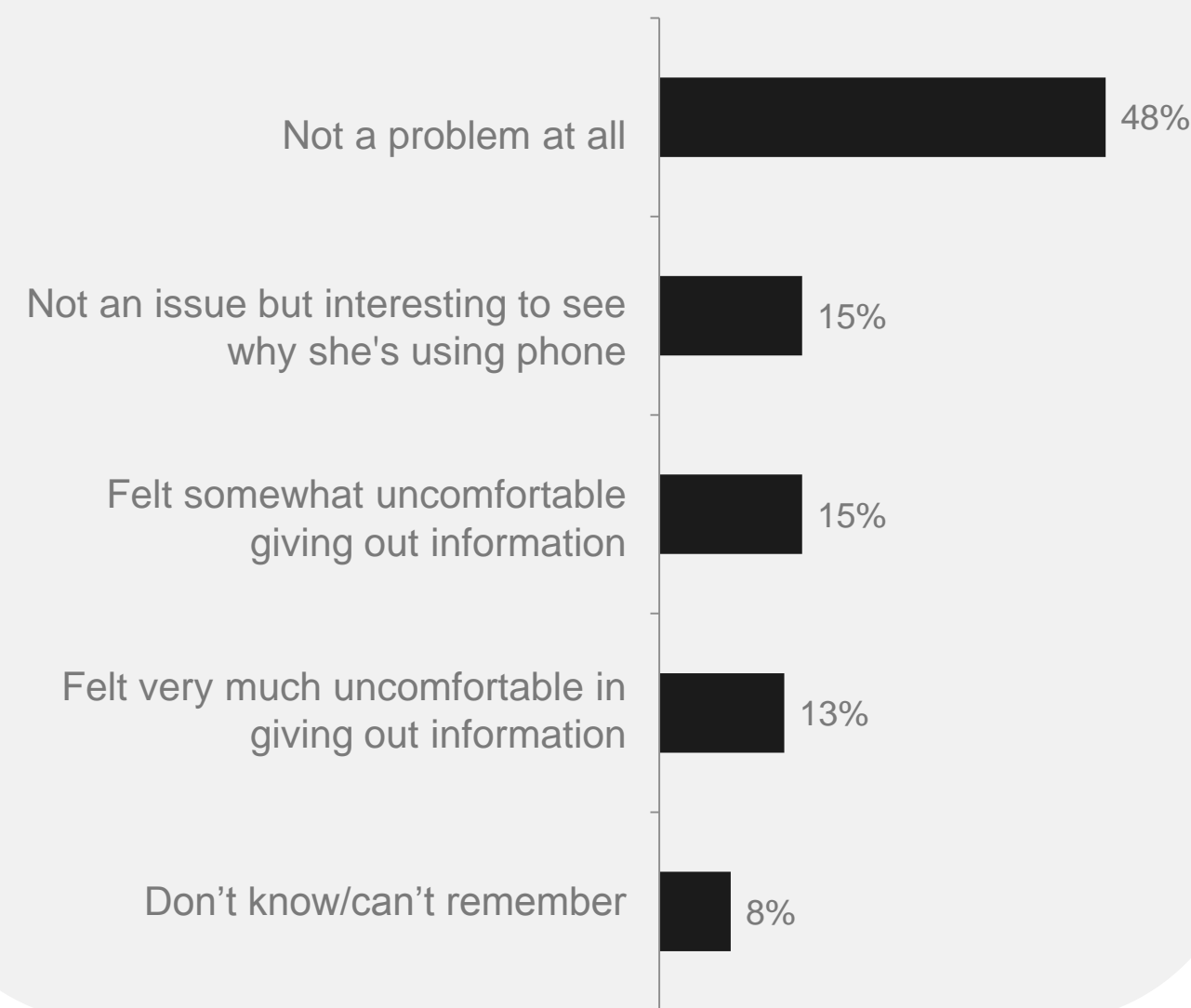
The potential of using CHWs to promote ANC should be exploited

What CHW did when visited



Base: among those who have been visited by a CHW

Perception towards CHW's use of mobile-based job aid tools

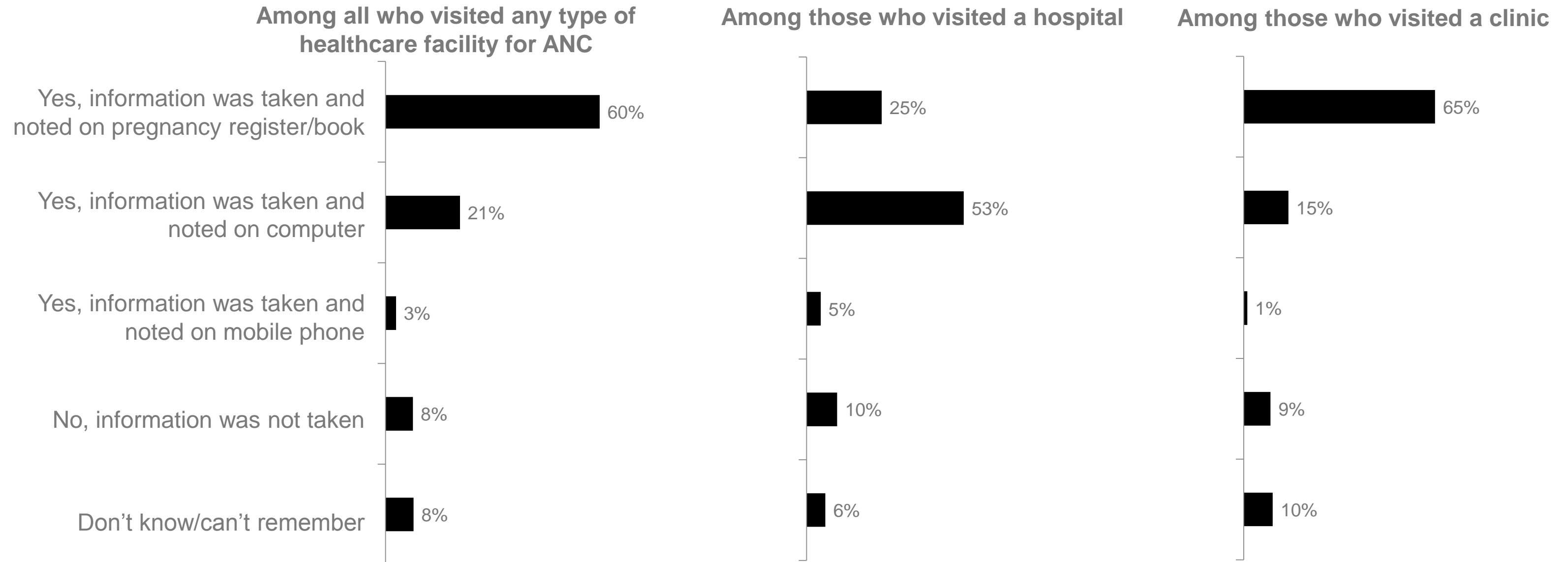


Base: among those whose information was taken using a mobile phone

Paper and pen: main method for registration

Around half of hospitals already record information using computers. Given the ubiquity of mobile, there are significant opportunities for using mobile phones for data collection and reporting

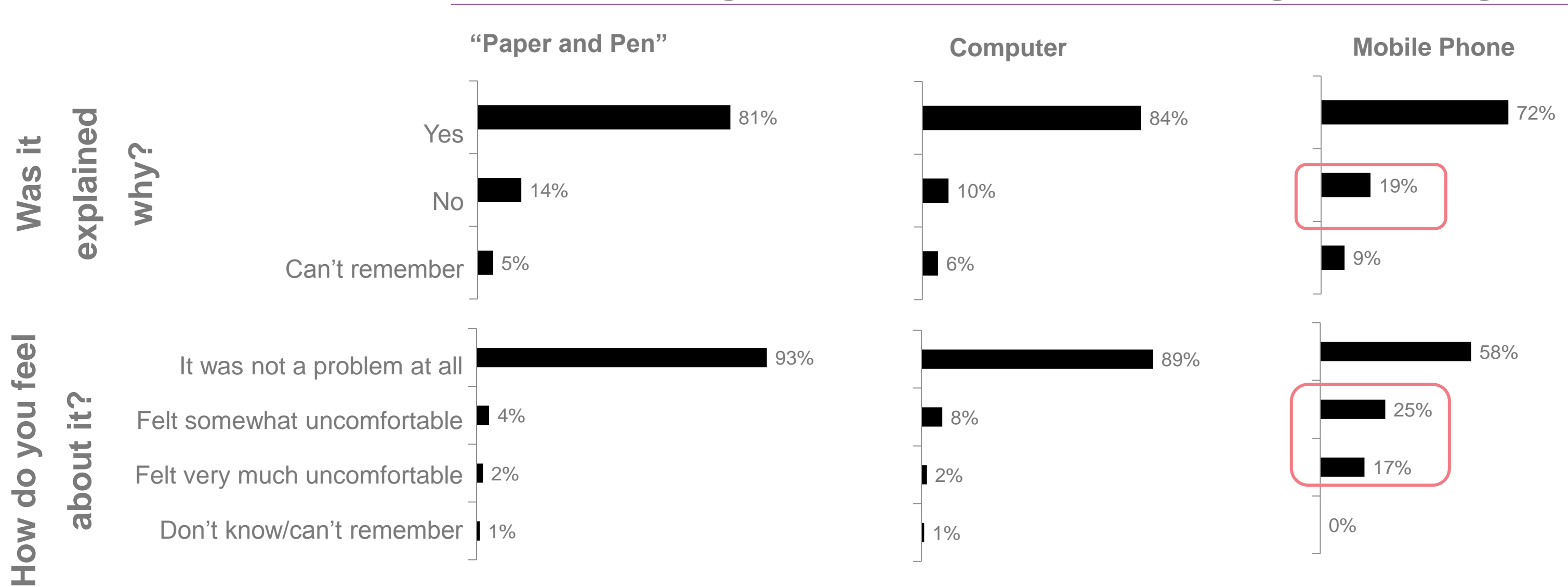
Was information taken and if yes, how?



Mobile phone method causes some discomfort

Demonstrating why a phone is being used can help avoid patient distraction. Using a phone with a camera and character recognition software may be a good alternative to digitalise information

Among those whose information were registered using...



Appendix: glossary of terminologies



ANC	A ntenatal C are
BoP	B ottom of the P yramid consumers, also sometimes known as underserved consumers or essentially the poorest socio-economic group of society
CHW	C ommunity H ealthcare W orker, also sometimes known as community care giver, lay health advisor, village health worker, community health aide or community health promoter, A healthcare system front-liner who provides health or medical information as well as basic care to the communities in which he/she resides
LSM	L iving S tandards M eaure is a market segmentation methodology developed by the South African Audience Research Foundation (SAARF) which divides the population into 10 groups. There is no defined way on which groups should be classified as BoP, with some organisations including only the bottom three (LSM 1 – 3) and the others including the bottom four (LSM 1 – 4) in their respective socio-economic class segmentation Accounting for 31% of the total sample, the bottom five LSM groups (LSM 1 – 5) are classified as BoP for this research in order to make a more robust analysis when the group is segmented further. The upper five LSM groups (LSM 6 – 10), which account for the remaining 69% of the sample, are classified as non-BoP consumers
mHealth	M obile H ealth or health services delivered using mobile phones or supported by mobile devices
MNCH	M aternal, N ewborn, and C hild H ealth
mVAS	M obile V alued- A dded S ervices are services offered by mobile operators to a consumer segment beyond standard voice, SMS, MMS and data services

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This document is an output from a project funded by UK aid from the Department for International Development (DFID), managed through Mott MacDonald, for the benefit of developing countries.

The views expressed are not necessarily those of DFID or Mott MacDonald

