



Bridging the mobile disability gap in refugee settings

September 2019



The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with over 350 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces the industry-leading MWC events held annually in Barcelona, Los Angeles and Shanghai, as well as the Mobile 360 Series of regional conferences.

For more information, please visit the GSMA corporate website at www.gsma.com

Follow the GSMA on Twitter: [@GSMA](https://twitter.com/GSMA)



The UN Refugee Agency (UNHCR) works to ensure that all fleeing violence and persecution have the right to seek asylum and find safe refuge. UNHCR is mandated to lead and co-ordinate international action to protect refugees, safeguarding their rights and those of other forcibly displaced persons.

UNHCR believes that displaced populations and hosting communities have the right, and the choice, to be included in a connected society, and have access to technology that enables them to build better futures for themselves, their families and the world.

For more information go to: www.unhcr.org/innovation/connectivity-for-refugees/



This document is an output of a project funded by UK aid from the Department for International Development (DFID), for the benefit of developing countries. The views expressed are not necessarily those of DFID.

Mobile for Humanitarian Innovation

The GSMA Mobile for Humanitarian Innovation programme works to accelerate the delivery and impact of digital humanitarian assistance. This will be achieved by building a learning and research agenda to inform the future of digital humanitarian response, catalysing partnerships and innovation for new digital humanitarian services, advocating for enabling policy environments, monitoring and evaluating performance, disseminating insights and profiling achievements. The programme is supported by the UK Department for International Development.

Learn more at www.gsma.com/m4h or contact us at m4h@gsma.com

Follow GSMA Mobile for Development on Twitter: [@GSMAM4d](https://twitter.com/GSMAM4d)

Assistive Tech

The GSMA Assistive Tech programme works to drive greater access and use of mobile technologies for persons with disabilities in emerging markets and maximise opportunities for social and economic inclusion. The programme works with the mobile industry and key disability and development stakeholders to address the digital inclusion gap of persons with disabilities, identify innovation opportunities and highlight the value of mobile-enabled assistive technologies.

The programme is supported by the UK Department for International Development and AT 2030.

For more information, please visit www.gsma.com/AssistiveTech

Follow GSMA Mobile for Development on Twitter: [@GSMAM4d](https://twitter.com/GSMAM4d).

Author:

Matthew Downer, Insights Manager,
GSMA Mobile for Humanitarian Innovation

GSMA Contributors:

Clara Aranda Jan, Insights Manager, Assistive Tech. Jenny Casswell, Senior Insights Manager, Mobile for Humanitarian Innovation. Maha Khan, Insights Director, Mobile for Humanitarian Innovation. Michael Nique, Insights Director, Assistive Tech.

Acknowledgements:

The GSMA would like to thank the team from Jigsaw Consult who led on the design of the research instruments and conducted the data collection. We are also immensely grateful to the colleagues from UNHCR country offices in Jordan, Uganda and Rwanda who supported the team whilst in country and provided invaluable context specific knowledge.

The authors are greatly appreciative of the time taken by colleagues from Humanity & Inclusion and UNHCR to review drafts of this report and provide valuable subject matter expertise.

Contents

Introduction	2
Prevalence of Disability	4
How refugees with disabilities are accessing and using mobile	6
Barriers to mobile usage for refugees with disabilities	10
Benefits of using mobile for refugees with disabilities	14
Conclusions and recommendations	18



Introduction

An estimated one billion people globally have some form of disability, 80 per cent of whom live in emerging markets¹. In these markets the barriers faced by those with disabilities often translate into lower levels of education, employment and inclusion in society². By providing access to communication and information, mobile phones and related services can facilitate more inclusive participation in society for persons with disabilities and help to tackle these barriers³.

However, whilst access to mobile services can provide a lifeline to persons with disabilities, this community does face barriers in accessing mobile services. For example, in Kenya visually impaired users rely on paying trusted individuals to conduct basic mobile money transactions, such as airtime top-ups and cash outs, on their behalf⁴.

Within humanitarian contexts, persons with disabilities are often disproportionately impacted by crises and can “fall through the cracks” in terms of accessing services they are entitled to⁵. As well as the challenges faced by the wider crisis affected population, persons with disabilities often face unique issues such as heightened risk of violence, exploitation and abuse, and high levels of stigma⁶.

It is important to acknowledge that displaced populations with disabilities are not a homogenous group. Whilst they may share some common

experiences, their different functional limitations present unique challenges as well as experience intersecting diversity factors which may lead to situations of further exclusion⁷.

Despite facing multiple exclusions there are green shoots demonstrating how digital technology can support persons with disabilities during crises. The aim of this case study is to highlight refugees with disabilities’ access to mobile services and the benefits and challenges associated with using these services in three different humanitarian contexts. The hope is that mobile network operators (MNOs) and humanitarian organisations can use this data to tailor mobile-enabled services that meet refugees with disabilities’ needs, in a way that is a commercial opportunity for MNOs.

1. World Health Organisation and World Bank (2011) World Report on Disability
 2. GSMA (December 2018) Leveraging the Potential of Mobile for Persons with Disabilities.
 3. GSMA (December 2018) Leveraging the Potential of Mobile for Persons with Disabilities.
 4. GSMA (July 2019) Generating insights on mobile products and services for disability: takeaways from the field
 5. Handicap International (July 2015) Disability in humanitarian contexts: Views from affected people and field organisations
 6. UNHCR (2019) Working with persons with disabilities in forced displacement.
 7. UNHCR (2019) Working with persons with disabilities in forced displacement.

Context

This report uses data collected as part of GSMA refugee-centered research, The Digital Lives of Refugees⁸ to, for the first time, size the mobile disability gap in regards to access and usage gaps. It also identifies the barriers faced by persons with disabilities in accessing mobile technology in refugee settings and the benefits it can bring. It is the second case study drawing on this data focusing on the inclusivity gaps of mobile technology in humanitarian settings, following the report Bridging the Mobile Gender Gap for Refugees⁹.

The analysis is based on a representative survey of refugees in three contexts: Bidi Bidi refugee settlement (Uganda), Kiziba refugee camp (Rwanda) and with urban refugees in Jordan. It also includes qualitative data drawn from two focus groups conducted with refugees with disabilities in Bidi Bidi and Kiziba¹⁰.

This paper does not attempt to look at the complex social dynamics that impact the lives of refugees with disabilities (such as stigma from the community) but rather seeks to uncover how these

groups use mobile phones and tell their stories as they were shared.

How disability is defined within a study greatly impacts those who are identified as a person with disabilities and hence the findings that come through. The survey instrument for this study included The Washington Group Short Set of Questions (see Box 1) defines a person with a disability as someone who says they have “a lot of difficulty” doing or “cannot do” at least one of the six functional domains covered in the questions. Excluding those who say they have “some difficulty” sets a threshold that is aligned with the recommendations made by the Washington Group.

Due to base sizes, the analysis of the survey data does not delve into challenges faced by individuals with specific disabilities. Whilst this can be a crude disaggregation that does not take into account the nuance of an individual’s circumstance, this analysis nonetheless is a starting point and a provocation to the wider sector to understand how digital services can be leveraged to support beneficiaries with disabilities.

Box 1

Washington Group Short Set of Questions¹¹

The Washington Group Short Set of Questions (WGQs) is designed to identify people with a disability. The questions focus on six functional domains (walking, seeing, hearing, cognition, self-care and communication) to identify those at greater risk of exclusion compared to the general population.

The questions only identify one aspect of disability (difficulty functioning in) and therefore identify those at risk of exclusion as opposed to individuals with any form of disability. As such, they should not be used to diagnose individuals, but rather to disaggregate data.

Humanity & Inclusion and Leonard Cheshire have been running projects to test and assess the use of the WGQs in humanitarian action.

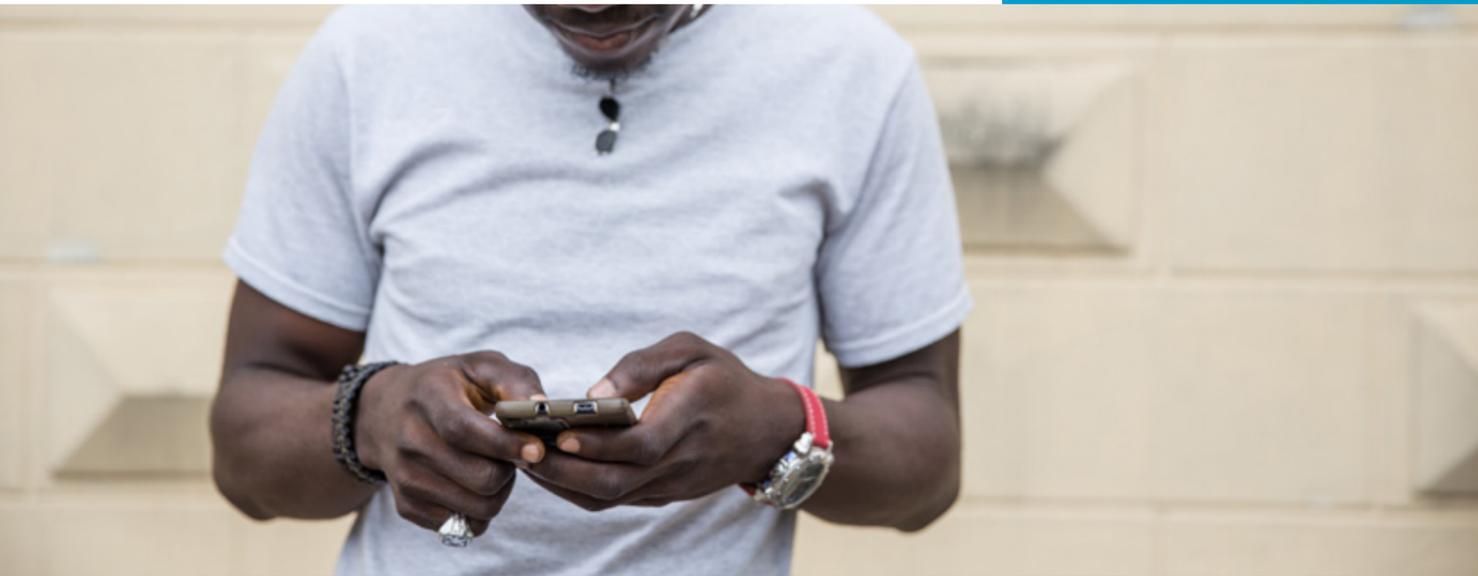
They advocate using the WGQs as a tool for the disaggregation of data and to avoid the problems of under-reporting in the past¹².

These questions are preferable to other approaches because:

- They identify persons with disabilities using a human-rights based approach;
- They do not stigmatise the respondent;
- They rely on self-reporting; and
- They are internationally comparable¹³.

All enumerators were trained on the approach ahead of data collection. For the purpose of the GSMA survey, a slight adaptation was made to the delivery of the questions. The questions are included in Annex 1 with an explanation of the changes.

8. GSMA (July 2019) The Digital Lives of Refugees: How displaced populations use mobile phones and what gets in the way.
 9. GSMA (March 2019) Bridging the mobile gender gap for refugees
 10. Details on each context and the research approaches utilised can be found in the main The Digital Lives of Refugees report
 11. The Washington Group (January 2016), The Washington Group Short Set of Questions on Disability.
 12. Humanity & Inclusion & Leonard Cheshire (October 2018), Disability Data Collection: A summary review of the use of the Washington Group Questions by development and humanitarian actors
 13. Humanity & Inclusion (January 2019), Factsheet #1: Collecting Data In Humanitarian Action Using The Washington Group Questions.



Prevalence of Disability

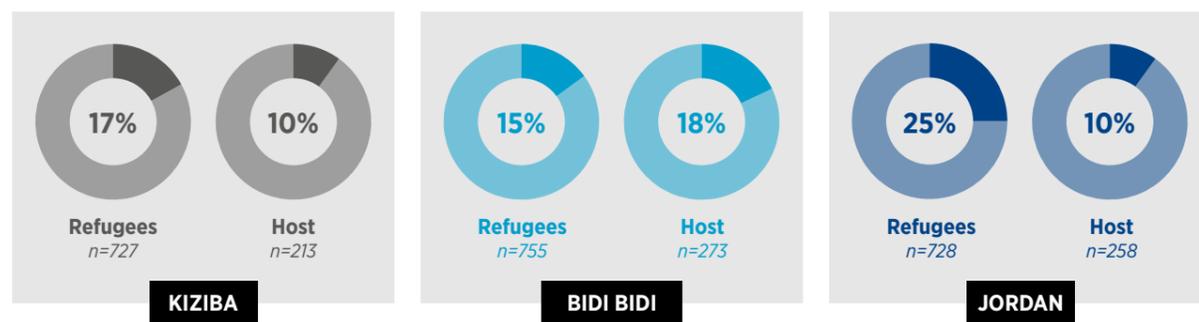
Prevalence of disability in each context

Using The Washington Group Short Set Of Questions to identify those with disabilities, there were notable differences across the three contexts in regards to the prevalence of disability within the refugee and host communities¹⁴. Refugees in Kiziba and Jordan were more likely to have a disability than host communities whereas in Bidi Bidi there was not a notable distinction.

Throughout this report, where analysis refers to “refugees with disabilities” it is in reference to the subset identified in Figure 1 below.

Figure 1

Prevalence of disability within each context by refugee and host communities



14. For sampling purposes, host communities were taken to be nationals of the country the research was taking place in that resided either within or in close vicinity of the refugee settlement. In Jordan a nationally representative sample of adult Jordanians was used.

Dimensions of disability

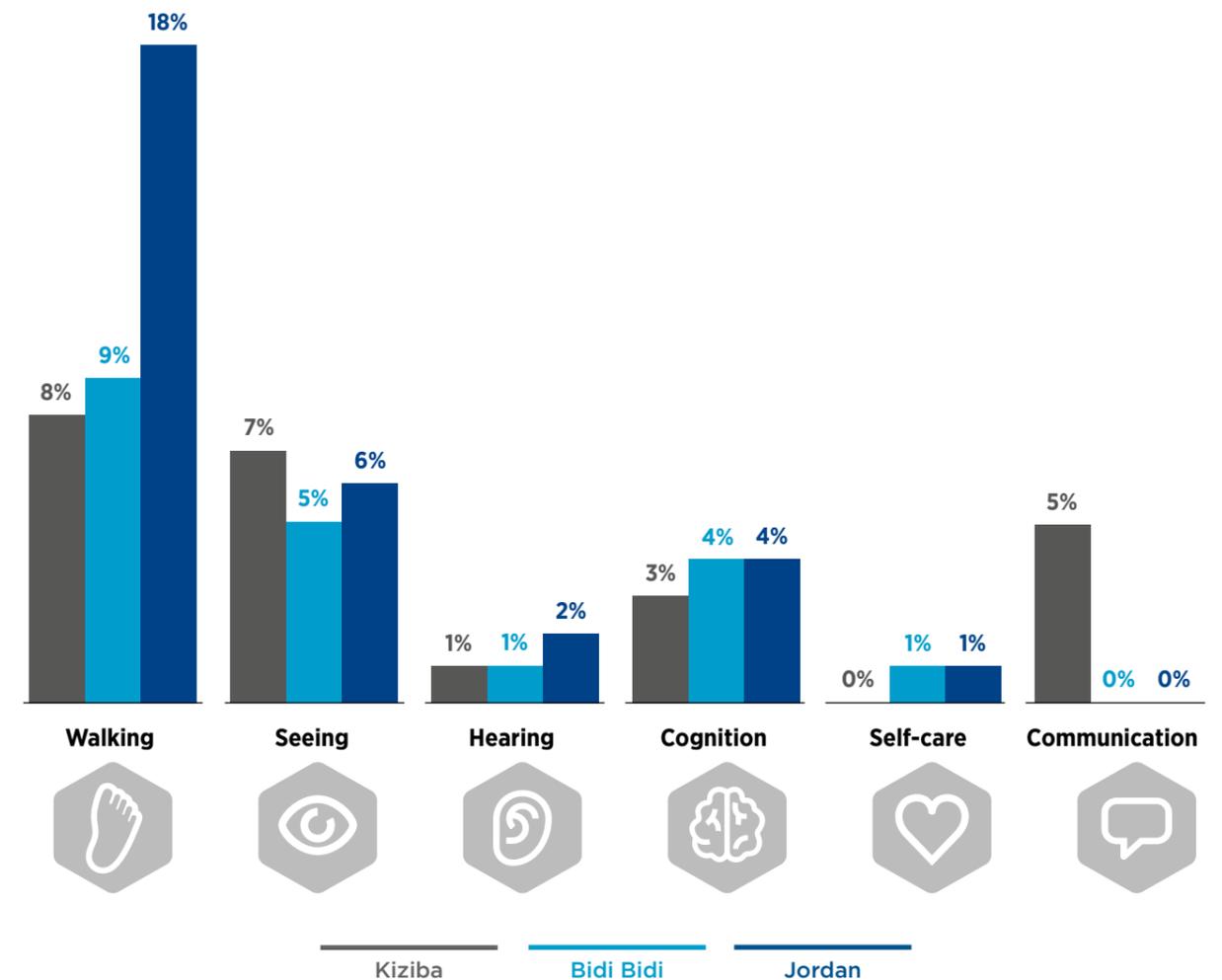
Figure 2 below shows the proportion of respondents who reported that they could not do or had a lot of difficulty in doing each of the six functional areas included in the survey. Whilst there are differences between the contexts, across all three it was “walking or climbing stairs” difficulty that was most common.

due to stigma and difficulty in accessing all respondents and therefore this is likely a low estimate. For example, it is probable that difficulties with “communication” may be underreported due to the survey requiring self-identification, and the participants’ impairments may limit their capacity to participate in a survey interview.

It is important to bear in mind that an element of underreporting is likely to these survey questions

Figure 2

% of refugees in each context that have “a lot of difficulty” or “cannot do”



Base: n= Kiziba (727); Bidi Bidi (755); Jordan (728)



How refugees with disabilities are accessing and using mobile

Access to phones for refugees with disabilities

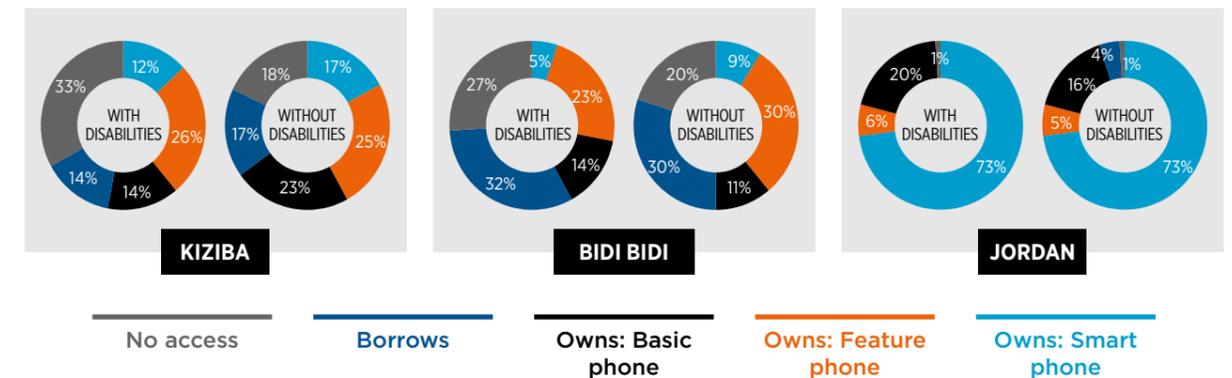
In both Kiziba and Bidi Bidi there is a sizable group of refugees with disabilities that do not have access to a mobile phone (Figure 3). In both settings this phone access gap is higher than it is for refugees without disabilities. They are also notably less likely

to own smartphones. For Jordanian respondents there was no notable differentiation, this is likely to be linked to the near total mobile penetration within this group and the high penetration of smartphones in Jordan¹⁵.

15. GSMA Intelligence (July 2019) Jordan Market Statistics

Figure 3

Phone access by disability across research contexts



n=Kiziba (with disabilities: 125 | without disabilities: 602); Bidi Bidi (with disabilities: 111 | without disabilities: 604); Jordan (with disabilities: 180 | without disabilities: 548).

The Mobile Disability Gap

Using the same approach as when calculating the mobile gender gap¹⁶ it is possible to calculate how much less likely a refugee with disabilities is to have access to, own or use a mobile phone in each research context. This can also be referred to as the 'mobile disability gap'.

$$\text{Disability gap in ownership / use (\%)} = \frac{\text{Owners/users without disabilities (\% of population)} - \text{Owners/users with disabilities (\% of population)}}{\text{Owners/users without disabilities (\% of population)}}$$

In Kiziba, refugees with disabilities were 15 per cent less likely to have ever used a mobile phone than those without a disability (74 per cent said they had done so) whereas in Bidi Bidi the gap was 7 per cent (with 85 per cent having done so). This question was not asked in Jordan due to the near ubiquity of phone usage.

Figure 4 below shows the mobile disability gaps for: active phone use (within the last 3 months)¹⁷;

phone ownership and active use of mobile internet. There are notable disparities within Kiziba and Bidi Bidi, whilst the gap in Jordan is reversed¹⁸ yet negligible.

As there were no notable differences in the access and use of mobile between urban refugees with disabilities and those without in Jordan, this report will focus on the results from Bidi Bidi and Kiziba.

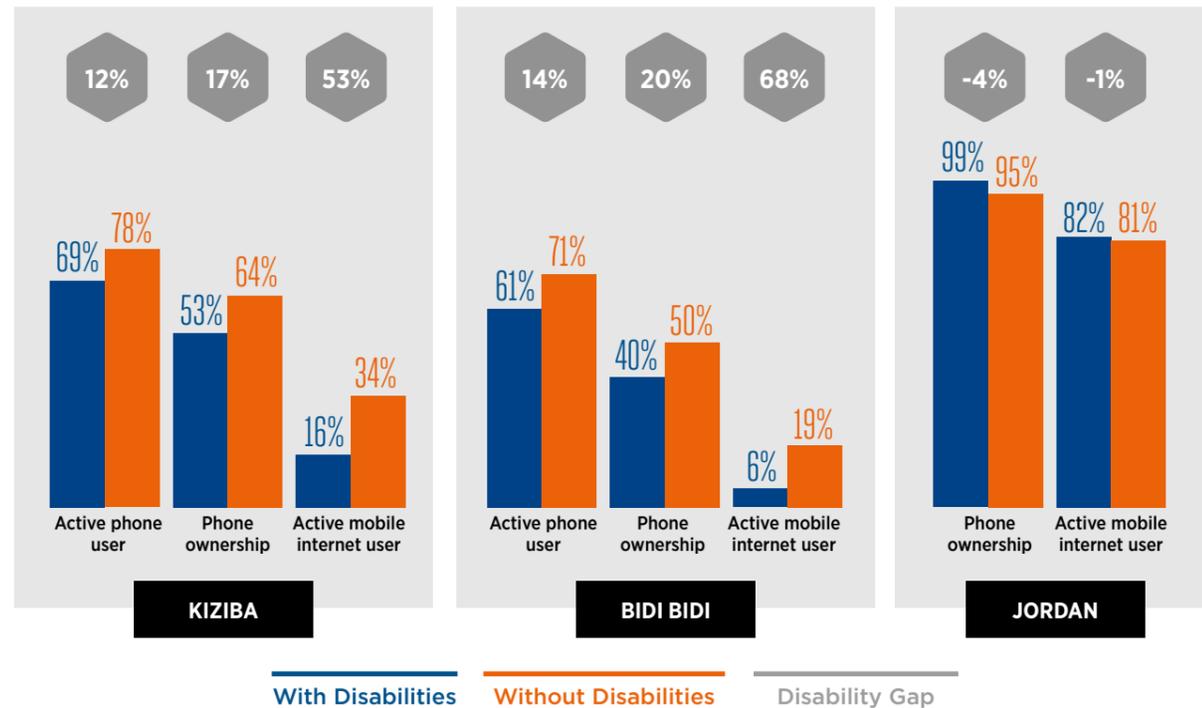
16. GSMA (May 2019) Mobile Gender Gap Report 2019 Methodology GSMA (March 2019) Bridging the mobile gender gap for refugees

17. With the exception of Jordan where this question was not asked.

18. A negative gap demonstrates that incidence is higher amongst populations with disabilities compared to those without. It is worth bearing in mind that the survey was with urban refugees in Jordan and it may well be that the figures are different for encamped refugees in the country.

Figure 4

Mobile disability gaps across research contexts



n=Kiziba (with disabilities: 602 | without disabilities: 125); Bidi Bidi (with disabilities: 644 | without disabilities: 111); Jordan (with disabilities: 548 | without disabilities: 180).

How refugees with disabilities use mobile services

Looking specifically at phone users, there are notable disability gaps for those who report using common features of mobile phones (Figure 5), such as in Bidi Bidi where refugees with disabilities that use a phone are 21 per cent less likely to use mobile money than those without a disability. **Across both contexts, refugees with disabilities are less likely to use every phone feature included in the survey than those without disabilities.**

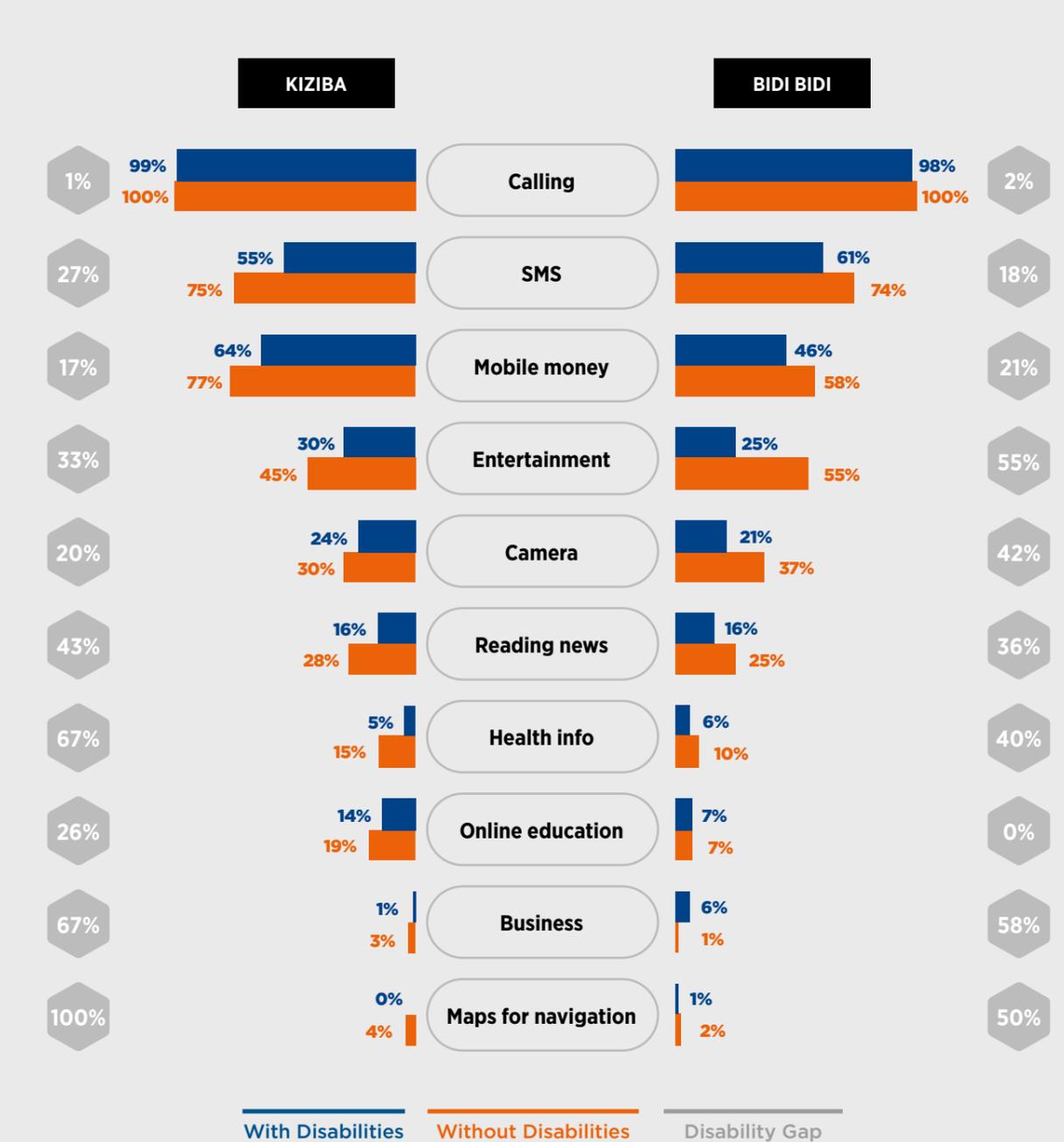
It was notable that those with disabilities were less likely to use both SMS and mobile money, which are the second and third most used services in both locations. As these services can be utilised on even the most basic handsets and offer relatively simple ways in which mobile can be used to deliver humanitarian services it is prudent to encourage and facilitate greater uptake in the future where required accessibility features are available.

As with all groups included in the research, calls continued to be the most commonly used feature of mobile for all users and there is no significant gap in either location. The majority of participants in both focus groups identified calling as the most important use of a phone, although it should be noted that neither included those with hearing difficulties. One participant explained how calling was the most easily accessed service for them due to being visually impaired:

“As you can see I am blind, I was born able to see, but when I came here I got a disease. I only receive calls, I don’t make calls. And I need someone to lead me... Receiving calls makes communication easy because at least I can hear.” [Male, Kiziba, Refugee, Feature phone]

Figure 5

Disability usage gaps for common mobile use cases in Kiziba and Bidi Bidi



n=Kiziba (with disabilities:125 | without disabilities:602); Bidi Bidi (with disabilities:111 | without disabilities:644)



Barriers to mobile usage for refugees with disabilities

In the survey and focus group discussions, refugees with disabilities identified barriers they face in accessing mobile technology. Whilst by no means unique, the ways in which these barriers intersect with other challenges faced by this group are deserving of attention. They are not listed in an order indicative of relative importance.

Charging

Access to charging presents a notable barrier to the use of mobile phones (as it does for most refugees in camp or settlement contexts)¹⁹. **Seven in ten (70 per cent) refugees with disabilities that do not own phones said charging was a barrier to doing so (compared to 60 per cent of those without disabilities) and in Kiziba the figures were 43 per cent and 52 per cent respectively.**

Refugees with disabilities are reliant on communal energy sources (like charging stations) due to being unlikely to have any form of energy in their home. In Bidi Bidi only 42 per cent of refugees with disabilities have energy in the home compared to 55 per cent of those without and in Kiziba 33 per cent (in line with the 34 per cent of those without disabilities).

Whilst accessing charging in refugee settlements comes with some universal barriers (cost requirements, theft of handsets at charging stations, reliability of energy supply),²⁰ refugees with disabilities (most notably related to mobility) also have difficulties in accessing the stations due to the distance. Whilst individuals often find workarounds, these are not without their drawbacks:

“We need a solar charger – then it is ok, but otherwise we have to send [our mobile phone] with someone. Then the battery may remain [at the charging station] for a long time because you have to find someone to pick it up”
[Refugee with disabilities, Bidi Bidi settlement]

19. UNHCR (September 2016) Connecting Refugees
20. GSMA (July, 2019) The Digital Lives of Refugees: How displaced populations use mobile phones and what gets in the way.

Accessing mobile agents

A number of participants in the focus groups said that simply finding/accessing a mobile agent (for airtime or mobile money) was often a barrier to using mobile phones. In Kiziba, 14 per cent of refugees with disabilities who do not own a phone reported finding a mobile agent was a barrier to such (almost three times the 5 per cent of those without disabilities who said the same). It is possible to send someone on their behalf, however this relies on having a trusted individual to act as a proxy and is often not as quick as required:

“I can’t go a long distance and I might need it [my phone] urgently”
[refugee with disabilities, Bidi Bidi settlement]

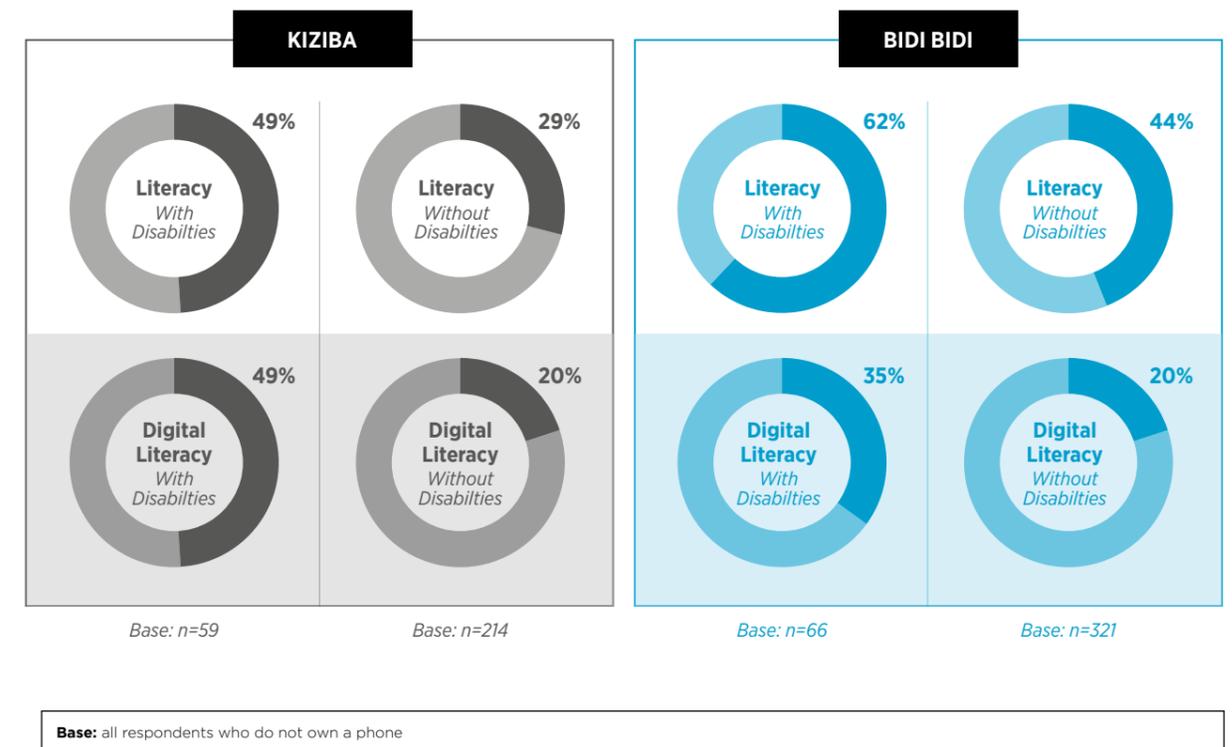
Mobile agents in Kiziba²¹ noted that where possible they will visit customers with disabilities in their homes during the rainy season when the terrain becomes dangerous. However this was only in response to being asked (which some may feel uncomfortable doing) and they were less willing to do so outside of the rainy season.

Literacy & Digital Literacy

Refugees with disabilities reported that literacy and digital literacy were barriers to using mobile. In both contexts, refugees with disabilities were more likely to say that these were issues impacting their ability to own and use a phone (Figure 6).

Figure 6

Literacy/Digital literacy cited as barrier to owning a phone

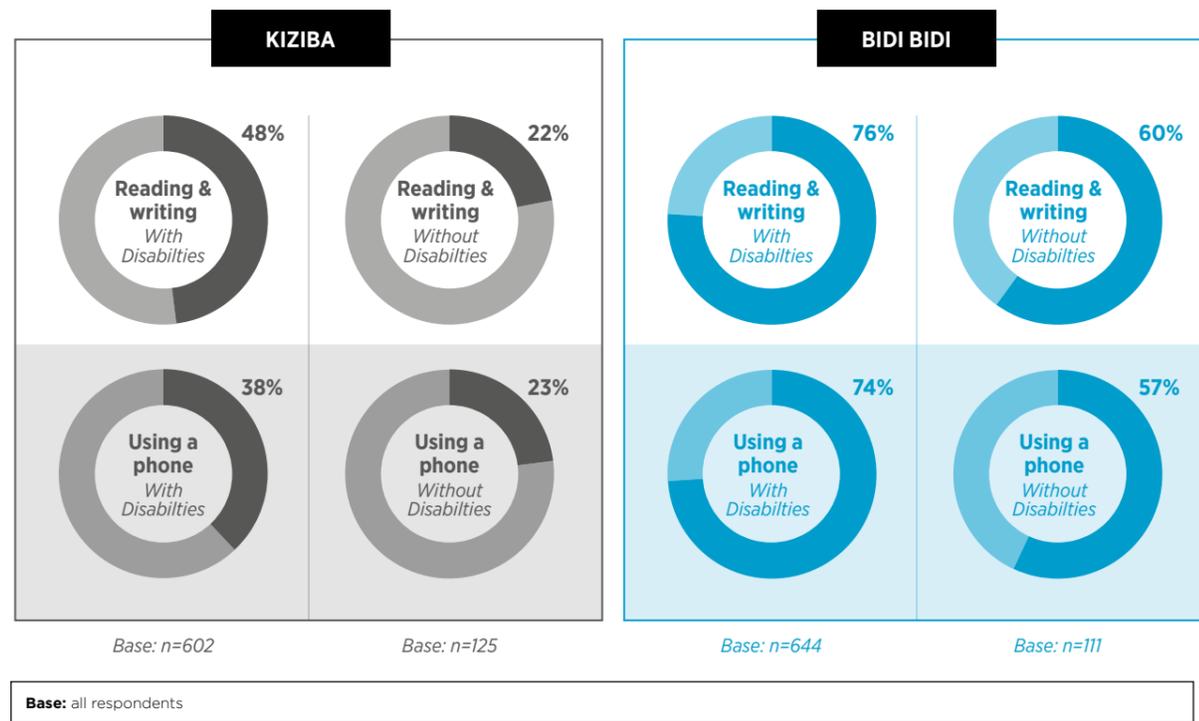


21. The research team conducted a focus group with approximately 15 agents whilst visiting Kiziba refugee camp.

This is unsurprising as in both locations this group were also more likely to say they have difficulty reading and writing and “at least sometimes” have difficulties using a phone (although it should be noted that this second question is likely to have conflated physical ability and prerequisite skills) (Figure 7).

Figure 7

Difficulties with literacy and using a phone in each context



In regards to digital skills, participants in the focus groups were open about what they did not know and expressed an interest in being taught.

“Not all of us know how to download music – we would like to know how to send music from one phone to another. And things on the net that we want to access but don’t know how to.”
[Refugee with disabilities, Bidi Bidi settlement]

“if there could be helped in trainings on how to use a phone and income generating activities – that would be helpful, because most people regard us as beggars – we are not and we want to come out of that. Our capacity should be built” [Refugee with disabilities, Bidi Bidi settlement]

Box 2

Sahana Software Foundation: Pictographs in Disaster Communication

Working together with Microsoft Research India and ExCiteS@UCL, and supported by Elhra, Sahara Software Foundation are working to develop a mobile application that uses pictographs to communicate with affected communities during an emergency. The application will enable responding agencies to better communicate with people affected by crisis who are linguistically challenged or have low levels of literacy.

Cost

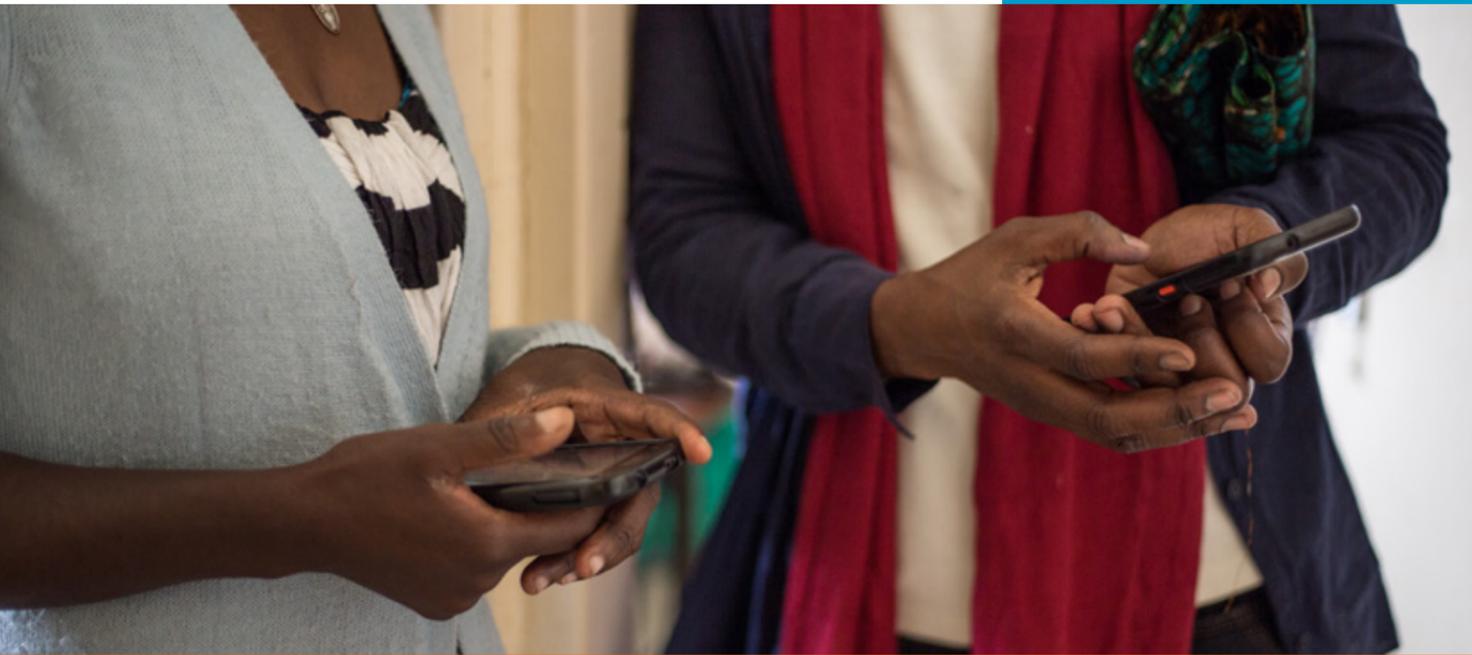
Whilst cost is a common barrier for accessing mobile technology that affected all groups in the research (regardless of disability), it was felt more acutely by those with disabilities. In both contexts the cost of handsets and airtime were the top two cited barriers to mobile phone ownership and mobile internet usage by refugees with disabilities. This is not surprising as persons with disabilities often have higher costs due to having to pay for accessible transport, pay for other community members to collect distributions or other items, pay for medication, as well as facing barriers to work.

In Bidi Bidi, nearly all refugees with disabilities that do not own a phone (97 per cent) said it was the cost of a handset that was prohibitive and 79 per cent the cost of airtime; in Kiziba the numbers were 93 per cent and 78 per cent respectively.

In the focus groups, discussions around the cost of accessing mobile were explained in the context of limited economic opportunities available:

“You use the food given to you for airtime and you run out of food.”
[Refugee with disabilities, Bidi Bidi settlement]

“Many times we keep [our mobile phone] off because we don’t have that RWF100 [9p/11¢] for charging.”
[Refugee with disabilities, Kiziba camp]



Benefits of using mobile for refugees with disabilities

Whilst only two focus group discussions²² were conducted with refugees with disabilities, the participants were able to provide valuable insights into the benefits they gained from accessing mobile. The survey data did not highlight any areas of importance that were unique to those with disabilities, however understanding how it is felt remains important regardless.

Immediate access to information

The majority of focus group participants cited calling as the most important use case of mobile due to the fact it enabled immediate information exchange. Combined with services like mobile money it is enabling these groups to solve problems as soon as possible (such as sending loved ones money when encountering an issue).

“Before I used to write letters but now when I want to know how they are I can call directly, and I feel connected with my relatives.”
[Refugee with disabilities, Kiziba camp]

22. In total there were twelve participants with disabilities.

Box 3

BarrierBreak: Newz Hook

In 2016, BarrierBreak, an Indian for-profit social enterprise launched ‘Newz Hook’, an app that provides access to news for persons with various disabilities (specifically those with hearing and visual impairment and intellectual disabilities). It also provides disability-focused updates for parents and special educators. The app supports the use of screen readers that read aloud the text displayed on a mobile phone. It also allows for a high contrast view and to increase the size of the text, supporting partial visual impairment. It also ensures all news is written in a way that is short, simple and easy to understand for everyone

Entertainment

Whilst refugees with disabilities are less likely to use their phones for entertainment than those without, in the focus groups those who do discussed how much they value it. They specifically focused on music and radio.

Previous GSMA research also found this to be true in Nyarugusu refugee camp, Tanzania²³. One participant spoke about how she used her phone to calm herself whilst she was recovering from an illness.

“It makes me forget my problems, when I start thinking of what is happening at home I listen to music [on my mobile phone] to help me forget.”

[Refugee with disabilities, Bidi Bidi settlement]

“I was paralysed on one side and had to stay in my home on my own. The worry was worsening the condition - the doctor advised that I needed to relax and not worry. Using my phone I was able to listen to music and it relaxed me - I enjoyed it and I stopped worrying about my condition. I think it is what cured me.”

[Refugee with disabilities, Nyarugusu camp]

There was a discussion in the Bidi Bidi focus group about how they would like to learn to be able to share music between their phones to help them access a greater variety of songs, demonstrating how improved digital literacy could support these individuals to better maximise the positive impacts of mobile.

Box 4

Movistar+ 5s

Launched in 2016, Movistar+ 5S is a service offered by Telefónica that allows users to watch programmes from their pay-TV platform with different accessible features, including sign language, captions and audiodescription. The service is provided at no additional cost and can be accessed through the television or computer.

23. GSMA (2017) Mobile is a lifeline: Research from Nyarugusu refugee camp, Tanzania

Help and support

In both groups there were discussions around how phones are useful in accessing help or support. This was mostly linked to calling friends or family in times of need. Participants also discussed how mobile money enabled them to easily send and receive money from family members in a way that would not be possible if using cash.

“Sometimes I need to call someone to help me, so I can call. Financial help, even around the house because I live alone.”

[Refugee with disabilities, Kiziba camp]

It was mentioned that refugees with mobility issues that do not have phones can miss meetings or important information which can lead to not

accessing services to which they are entitled, implying that mobile phones can act as an important channel for information for those who cannot go out and find it.

Interestingly, this link to help and support has not translated into two way communication with NGOs or UN agencies (with 5 per cent saying this was the case in Bidi Bidi and 13 per cent in Kiziba, compared to 13 per cent and 21 per cent respectively for host communities). **Humanitarians may want to capitalise on this association to design mobile enabled information services for beneficiaries with disabilities.** However they should be careful to ensure that they do not entrench existing digital disparity in the process by excluding individuals with certain types of impairment.



Box 5

Safaricom: M-PESA Interactive Voice Response (IVR) service

Safaricom recognized that the visually impaired/ blind are at risk of being defrauded while using M-PESA (Safaricom’s mobile money service) and that many did not have the ability to handle their personal finances in total confidentiality.

As such at the end of 2017 the operator unveiled a new IVR service which enabled persons with disabilities to check their M-PESA balance for free, with inbuilt voice biometrics. It is intended that the service will expand to other M-PESA features in the future.

They also ensured all customers with disabilities had their number ‘whitelisted’ meaning that their calls were given priority when contacting customer care.

Box 6

Turkcell: Visual call centre for the hearing impaired

Turkcell has developed a ‘visual call centre’ in order to provide services to customers in sign language. The service is provided free of charge to all subscribers with a disability. Calls can be made from a 3G compatible handset.

Connection to loved ones

Participants outlined how their phones were enabling them to maintain meaningful connections with loved ones in other countries or other settlements in a way that would be impossible without them.

“Receiving calls [is important] because it makes communication easy because at least I can hear. I was born able to see, but when I came here I got a disease. The impact is that I feel connected with my family.”

[Refugee with disabilities, Kiziba camp]



Conclusions and recommendations

Based on the findings of this report there are a number of recommendations for how stakeholders across the sector can play their part in bridging the mobile disability gap in refugee contexts. Stakeholders will be most effective if they are coordinated and base their actions on understanding the specific barriers affecting refugees with disabilities.

If services and technology are accessible for the most vulnerable then they become more inclusive for all users, meaning there is an impetus for both humanitarians and the private sector to look to making adaptations. As humanitarian programming often targets the most vulnerable members of

affected communities, closing the mobile disability gap may enable humanitarians to digitize some of the most impactful services and prevent the digital exclusion of the communities they serve.

Humanitarians

- Include detailed questions around access to and use of mobile in needs assessments to facilitate an understanding of the potential of mobile as a delivery channel in each context, particularly for persons with disabilities.
 - This will also enable organisations to size the mobile disability gap (and other mobile gaps, such as for women) to understand underlying inequity in access to mobile phones.
- Think through how mobile technology could be leveraged to deliver services to beneficiaries with disabilities in a way which supports them to access aid and livelihood opportunities.
 - Include persons with disabilities through participatory and user centered design research in order to identify areas that could be most impactful
- Work with livelihood programme providers to address barriers to access for persons with disabilities to help them overcome the heightened barriers of mobile phone access presented by cost.

Mobile Network Operators

- Design or tailor products and services so that they are inclusive for persons with disabilities to support them in accessing the full suite of opportunities on mobile.
 - Including persons with disabilities in the process of designing these services will help to ensure they are relevant and impactful.
- Encourage and incentivize agents to “roam” within refugee settlements and to visit refugees with certain impairments in their homes to help overcome the barrier accessing airtime or mobile money.
 - Other avenues for facilitating easier access may include regular outreach to community centres during times when vulnerable users are already there.

Joint

- Joint and coordinated action increasing the literacy and digital literacy of refugees with disabilities will reduce barriers to accessing written or complex mobile services. A combination of formal training, community champions and tailored services (driving demand side upskilling) can be effective.
- Stakeholders across the sector should work together to create innovative market solutions to barriers such as cost and charging. These may include, but are not limited to:
 - Finance models for handsets to help offset up-front costs²⁴;
 - Pay-as-you-go models for access to energy in the home²⁵; and
 - Encouraging or incentivizing involvement in community savings groups, such as VSLAs. Where possible these should be digitized for efficiency.
- Work together to identify new challenges as they present themselves and to co-create solutions that meet the needs of beneficiaries, humanitarians and the private sector.

24. GSMA (2017) Accelerating affordable smartphone ownership in emerging markets

25. GSMA (2018) Mobile-enabled energy for humanitarian contexts: The case pay-as-you-go solar home systems in Kakuma refugee camp

Annex 1: Methodology

This case study uses data from recent GSMA research and full methodological details are located in that report²⁶. A brief summary of how the data used in this case study was collected is below:

Face-to-face surveys with refugee populations, collected using Kobo Collect software. Sampling ensured a representative sample of the population

based on gender, age, nationality and other relevant demographics.

Focus group discussions (FGDs) used to explore mobile access and usage, drivers and barriers of different groups in detail. Discussion groups lasted approximately 60 minutes.

Tool	Kiziba	Bidi Bidi	Jordan	Total
Face-to-face surveys with refugees	727	755	728	2,210
....Of which, persons with disabilities	125	111	180	416
Focus groups with refugees with disabilities	1	1	0	2

Annex 2: The Washington Group short set of question

See below The Washington Group short set of questions as asked in our survey. The adaptation for the survey was the inclusion of a question related to literacy and the use of a pre-question and then followed up as applicable for the level of difficulty. The responses to the literacy question were not used for estimating prevalence of disability.

Do you have any difficulty doing the following things: [READ RESPONSE OPTIONS]

- Reading and writing, in any language
- Seeing, even if wearing glasses
- Hearing, even if wearing a hearing aid
- Walking or climbing steps
- Remembering or concentrating
- Caring for yourself, like washing or dressing
- Communicating with others, using your mother language
- NONE

How difficult do you find reading and writing, in any language?

(Some difficulty, a lot of difficulty or I cannot do at all)

How difficult do you find seeing, even if you are wearing glasses?

(Some difficulty, a lot of difficulty or I cannot do at all)

How difficult do you find hearing, even if you are using a hearing aid?

(Some difficulty, a lot of difficulty or I cannot do at all)

How difficult do you find walking or climbing steps?

(Some difficulty, a lot of difficulty or I cannot do at all)

How difficult do you find remembering things or concentrating?

(Some difficulty, a lot of difficulty or I cannot do at all)

How difficult do you find washing or dressing?

(Some difficulty, a lot of difficulty or I cannot do at all)

How difficult do you find communicating with others?

(Some difficulty, a lot of difficulty or I cannot do at all)

26. GSMA (July 2019) The Mobile Lives of Refugees

gsma.com



For more information, please visit the
GSMA website at www.gsma.com

GSMA HEAD OFFICE

Floor 2
The Walbrook Building
25 Walbrook
London EC4N 8AF
United Kingdom
Tel: +44 (0)20 7356 0600
Fax: +44 (0)20 7356 0601