



# The digital lives of refugees and Kenyans with disabilities in Nairobi:

A human-centred design approach to identifying mobile-enabled opportunities

July 2020





The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with almost 400 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](http://www.gsma.com)

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

---

## BUTTERFLY WORKS

Butterfly Works is a social design studio pioneering the use of co-creation and design thinking in international development. Building on almost 20 years of experience in over 25 countries on 50+ projects and 100+ partners, they create education and communication solutions for social impact. They act as the innovation, research, technical and human-centred design partner for social organisations worldwide.

---



Safaricom is a leading communications company based in Nairobi, Kenya. The company offers mobile telephony, mobile money transfer, consumer electronics, ecommerce, cloud computing, data, music streaming, and fibre optic services. It is renowned as the home of M-Pesa, a mobile banking SMS-based service.

---



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](http://www.gsma.com/m4h) or contact us at [m4h@gsma.com](mailto:m4h@gsma.com)

Follow GSMA Mobile for Development on Twitter: [@GSMAM4](https://twitter.com/GSMAM4)

---



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/](http://www.unhcr.org/innovation/connectivity-for-refugees/)

---

### Authors:

Zoe Hamilton (Insights Manager, GSMA),  
Jenny Casswell (Acting Insights Director, GSMA),  
Aline Alonso (Design Researcher, Butterfly Works)

### Contributors:

Mark Kamau (Director of UX, BRCK), Eve Aronson  
(New Business and Project Navigation, Butterfly Works),  
Merel van der Woude (Creative Strategy, Butterfly Works)

### Acknowledgements:

The GSMA would like to thank the research participants in Nairobi who gave their time and commitment throughout this process. Thanks as well to HIAS and UNHCR Kenya, without whom this research would not have been possible, and to the GSMA Assistive Tech team.



# Contents

<b>Acronyms</b> .....	2
<b>Definitions</b> .....	2
<b>Executive Summary</b> .....	3
<b>1. Introduction</b> .....	9
<b>2. Hearing impaired</b> .....	12
Personas .....	13
Daily life with hearing impairments: barriers and opportunities .....	16
Mobile phones and mobile services .....	18
Health Services .....	21
Financial Services .....	24
<b>3. Visually impaired</b> .....	26
Personas .....	27
Daily life with visual impairments: barriers and opportunities .....	30
Mobile phones and mobile services .....	31
Health Services .....	33
Financial Services .....	35
<b>4. Visually and Hearing impaired</b> .....	38
Cross-cutting barriers and opportunities .....	39
Humanitarian and support services .....	42
<b>5. Conclusion and Considerations</b> .....	44
<b>Annexes</b> .....	46

## Acronyms

<b>DPO</b>	Disabled Persons' Organisation	<b>PIN</b>	Personal Identification Number
<b>HIAS</b>	Hebrew Immigrant Aid Society	<b>SMS</b>	Short Message Service
<b>IVR</b>	Interactive Voice Response	<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>KYC</b>	Know-Your-Customer	<b>USSD</b>	Unstructured Supplementary Service Data
<b>MNOs</b>	Mobile Network Operators		
<b>NHIF</b>	National Health Insurance Fund		

## Definitions

<b>Accessibility</b>	The characteristics of products, services or environments designed to be inclusive of persons with disabilities.
<b>Assistive technologies</b>	An umbrella term covering the systems and services related to the delivery of assistive products and services and this report includes those based on digital technologies.
<b>Disability</b>	An umbrella term covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations.
<b>Hearing impaired</b>	A person who reports or is identified as having “a lot of difficulty” hearing.
<b>Person with disabilities</b>	A person who reports or is identified as having acute difficulty (“a lot of difficulty”) or a complete inability (“cannot do at all”) to perform at least one or more of the functional domains of the Washington Group Questions.
<b>Visually impaired</b>	A person who reports or is identified as having “a lot of difficulty” seeing.
<b>Washington Group Questions</b>	A set of questions designed to identify people with disabilities in a survey or a census.



# Executive Summary

As mobile networks proliferate around the world, access to technology has become increasingly important. Inability to access digital tools can lead to exclusion from basic services and vital information. In humanitarian contexts, as assistance is increasingly delivered through digital channels, it is of the utmost importance that marginalised communities are included. This is important not only to ensure they are digitally included in a more general sense, but also so that they can access the assistance that they are entitled to. If these groups are not included in the design process, populations with special needs—such as the elderly, ethnic minorities or people with disabilities—risk being excluded by a design that has not taken them into account.<sup>1</sup>

**This research focuses on disability, using human-centred design methods to better understand how refugees and Kenyans with visual and hearing impairments in Nairobi use mobile technology and potential opportunities that it could provide.** The insights and

considerations seek to inform MNOs, technology providers, disabled persons' organisations (DPOs), and humanitarian organisations about how they might work individually or together to better use mobile technology to create more inclusive services for these populations.

---

## Key Findings

Following an introduction (**Section 1**), insights, opportunities and considerations were identified for both the hearing (**Section 2**) and seeing (**Section 3**) impaired and structured around four main areas:

- 1. Mobile phones and mobile services**
- 2. Health**
- 3. Financial**
- 4. Humanitarian and disability support services**

First, it was necessary to generate an understanding of the daily lives of research participants, their access and use of mobile technology, and how mobile phones challenge or enable their access to services. The latter three focus areas (health, finance, humanitarian and disability support) were identified as posing particular challenges for target populations and also where mobile technology had the potential to play a role.

1. GSMA M4H (September 2019) [Bridging the Mobile Disability Gap in Humanitarian Settings](#).



# Hearing Impaired

## Section 2

### Daily Life

#### Barriers

- Communication is the major challenge.
- Unexpected situations can cause problems outside the home.
- People take advantage.

#### Opportunities

- This group has an entrepreneurial mind-set.
- People actively seek out services to meet their needs.
- People with hearing impairments have a strong community.

### 1 Mobile phones and mobile services

#### Insight

Mobile technology can help in accessing information and interacting with people, two major barriers for the hearing impaired.

#### Consideration

Platforms and reporting mechanisms via text or sign language video calls can ease in-person communication and provide reliable information sources. These services should be combined with awareness campaigns to make sure people are aware of these services.

Voice-based services present a barrier to people with hearing impairments.

It is important to implement alternatives that are accessible to this population such as SMS or USSD menus, social media functionalities, and sign language video communication to access customer care.

Video calls are valuable, but also expensive and bandwidth heavy.

Special packages from mobile network providers, targeted to this population, could offer discounted options for video calls and data bundles.

Lack of awareness about accessible mobile services.

Promotion and partnerships with existing accessible platforms and services can increase the mobile service usage, as well as this population's sense of inclusion in society.



## 2 Health Services

### Insight

Users felt health staff are not aware or prepared to fulfil the needs of people with hearing impairments.

### Consideration

Hospitals and health centres can be made more accessible by training staff about the needs and challenges that people with disabilities face. Additionally, visual tools to share information or call patients in the hospital can better include this population. Finally, including patient's additional needs in their patient records can alert health staff to this patient's condition so appropriate measures can be taken.

People have insufficient access to adequate information around symptoms and treatments.

Accessible digital communication channels (e.g., sign language video calls, text messages and mobile health applications) could better inform persons with disabilities about their diagnosis, treatments and follow-on consultations, as well as direct them to the correct health provider.

## 3 Financial Services

### Insight

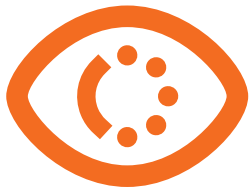
Users place high value on accessibility and trust in providers.

### Consideration

Training M-Pesa agents on the needs of people with disabilities could significantly improve this population's experience.

Users have a desire for financial literacy and entrepreneurship skills.

Increasing awareness of and capacity around using mobile assistive tech features is a must in any intervention in order to make sure the target group can increase their independence and benefit from these features.



# Visually Impaired

## Section 3

### Daily Life

#### Barriers

- People with visual impairments experience high levels of dependency.
- People experience loneliness and often have a passive lifestyle.

#### Opportunities

- People felt a sense of social responsibility and a desire to give back to their communities and families.
- A close network of important actors play a central role.

### 1 Mobile phones and mobile services

#### Insight

Users have a general lack of digital literacy and struggle to use their phones independently.

Lack of awareness of accessibility features.

#### Consideration

This group would benefit from digital literacy training so that they feel more confident using their phones independently and understand the various functions it can perform.

Increasing capacity of mobile assistive tech features, such as screen readers, should be considered in any intervention, to ensure the target population can benefit from accessible features.





## 2 Health Services

### Insight

This population has a lack of clarity about their condition and how to treat it.

People felt they had a lack of self-efficacy and privacy.

### Consideration

Access to and information about treatment should be provided in accessible ways to this population. Similar to those with hearing disabilities, digital channels and e-health applications could inform patients with disabilities about their condition, treatments and follow-on consultations, as well as direct them to the correct health provider.

Accessible digital communication channels, like voice calls or IVR menus, to reliable health information could bring more independence and privacy when searching for health advice. Due to this population's low levels of digital literacy, training and awareness raising would need to accompany this type of intervention.

## 3 Financial Services

### Insight

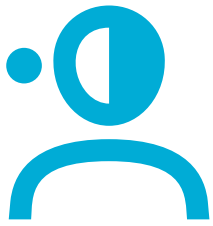
Lack of accessibility of M-Pesa and awareness of existing accessibility features leads to lack of ownership of personal finances.

This population is highly dependent on others for mobile use and needs increased digital literacy skills to improve autonomy.

### Consideration

Generating awareness about M-Pesa's existing accessibility features could improve users' experiences. M-Pesa already has features that allow customers to use a voice-based PIN code and hear their last transaction and account balance. These features, if customers were more aware of them, could help to overcome some of the barriers they face. Additionally, adding more accessible features could be a way to improve accessibility and customer experience.

Increasing awareness of and capacity around using mobile assistive tech features is a must in any intervention to ensure the target group can increase their independence and benefit from these features.



# Cross-cutting insights for the visually and hearing impaired

## Section 4

### Daily Life

**Barriers**

- **Everyone:** Lack of digital literacy and awareness of accessibility features
- **Everyone:** People felt a lack of opportunity to build their capacity and contribute to their community
- **Refugees:** People feel safe in Kenya but not included in society
- **Refugees:** Refugee Identity cards created a barrier in accessing services

**Opportunities**

- **Everyone:** Religion plays an important role in people’s lives as a safe space and in forming their community
- **Refugees:** Being a part of a community is key for support

### 4 Humanitarian & Disability Support services

Insight	Consideration
Research participants found information about available services for refugees and people with disabilities inconsistent.	It is important to generate awareness about existing support services and implement accessible channels and platforms for consistent information and referral. This is true both for Kenyan organisations supporting people with disabilities and organisations seeking to support refugees. Adopting an integrated user-centred approach to service provision and assistance can shift the siloed focus per organisation into a more empathic and systemic view of the needs of this population and a more collaborative response.
Refugees felt that information about available services was inaccessible to them.	Humanitarian organisations and support service providers can be made more accessible by creating multiple channels to request information and support, for example through video calls, SMS, and voice calls.

While the considerations and recommendations are multifaceted, there are simple quick wins that can be implemented. UNHCR and Safaricom, for example, are both in discussions with their call centre teams to ensure phone lines are supplemented by other means of communication, like video calls. Making an effort to ensure that marginalised populations are included can have wide reaching impact and help to

achieve the goal of self-sufficiency for people with disabilities in humanitarian contexts. More research, using a human-centred design approach, should be conducted to better understand these challenges and how the sector can ensure they are included. The methodology used in this project has been published and can be used as a guide.

# 01

# Introduction

Mobile technology has the potential to be both a barrier and an opportunity to people with disabilities. As it becomes more central to life in general and the humanitarian sector, it is important to take these populations into account when considering the role of mobile technology.

The goal of this project was to better understand how people living with disabilities in humanitarian contexts use mobile technology and how mobile services can be improved to optimise their experience and increase access to essential services in their daily lives. The intention was that these insights could be used to inform Mobile Network Operators (MNOs) and humanitarian organisations about how to improve existing, or create new, mobile-enabled products and services to better serve customers. By using human-centred design research methods, the process sought to keep people with seeing and hearing impairments in Nairobi, Kenya, at the centre of the work and to generate findings around their lived experiences.

## Context and target populations

The target populations for the project were urban refugees and host communities with visual or hearing impairments in Nairobi, Kenya. The decision to focus on urban refugees in Nairobi was made because this population often faces a more diverse set of experiences than refugee camp residents and often has less support than camp residents in terms of programmes, interventions, targeted research and data.

The decision to focus on people living with visual and hearing impairments was made because of the project's focus on mobile solutions—these groups face very specific challenges in using mobile phone services. Additionally, addressing their needs resulted in concepts that could be beneficial to

other vulnerable populations, such as people with mobility difficulties, low levels of literacy and elderly populations. It is estimated that about 840,000 people in Kenya have a form of visual impairment and 550,000 people have a hearing impairment.<sup>2</sup>

This research engaged the Somali and Congolese refugee communities as they represent the largest urban refugee and asylum seeker communities in Kenya. UNHCR reports that, in Kenya, there are currently 494,649 refugees and asylum seekers registered. Sixteen percent of this population resides in urban areas.<sup>3</sup> This project also included representation of the host community, Kenyans with disabilities, in the research activities.

### A note on intersectionality

Forcibly displaced populations are more likely to experience disability.<sup>4</sup> Many refugees—in Kenya and more broadly around the world—come from or through areas of conflict and often face greater obstacles accessing high quality healthcare. Refugees with disabilities often face greater and mutually-reinforcing challenges—both due to their impairments and their status as a refugee. They may experience additional challenges including discrimination, stigma and violence while navigating new, and sometimes challenging environments.

Within the context of this project, researchers considered these intersecting vulnerabilities that shaped the identities and experiences of the target populations.

It is important to recognise that in some cases the barriers and challenges identified through this research are directly connected to participants' status as refugees (i.e. identification documents) and others are linked to a particular impairment (i.e. communication, mobility). However, in most cases, the challenges were compounded by the fact that participants are both refugees and have a seeing or hearing impairment. The overlapping identities create unique challenges and complicate existing challenges.

## Rationale for focus on mobile, health, financial and humanitarian or disability support services

Based on the overall scope and focus of this research, four types of services were identified: mobile, health, financial and humanitarian or disability support. These four focus areas came out of consultations with different stakeholders, including GSMA,

Safaricom, UNHCR, along with the priority areas identified by research participants themselves. These were areas that posed major challenges to target populations and where mobile technology had the potential to play a role.

2. Global Disability Rights Now (July 2020) [Disability in Kenya](#).

3. UNHCR (April 2020) [Kenya Registered Refugees and Asylum Seekers](#).

4. Humanity & Inclusion (2015), [Disability in Humanitarian contexts](#).



## Structure of this report

This report is divided into four main sections, following this introduction, the second section focuses on insights learned from the hearing impaired, the third on the visually impaired and the fourth highlighting issues that were cross-cutting insights across both groups. Sections two and three include insights related to mobile, health and financial services. The fourth section includes insights related to humanitarian and disability support services. A final conclusion

and considerations section summarises overarching trends.

The insights in this report come from the research participants themselves, unless otherwise stated. These insights were contextualised by key informant interviews and desk research. More information on research questions, methodology and research limitations can be found in the Annex.



Nairobi

# 5 Hearing impaired



Somali

Congolese

Kenyans



5 Smartphones

# 13 Visually impaired



9 Smartphones



3 Basic phones



1 Borrows a phone



**02**

# **Hearing impaired**

# Personas

## A day in the life of the hearing impaired

### Gloria, 21 - Congolese

“ I dream of having a good job that would pay me well enough to start my own business. I have been trying to work as a hairdresser as I wait to finish school just to get some money and help my guardians, but people don't trust that I can do it. ”



Gloria lives with her aunt and uncle.

She likes to learn new things, but that can be challenging. She is very happy because she is learning how to be a tailor and wants to be one of the best designers in Kenya! At home, the kitchen is her territory; that is the way she can help her family. She wants a job, but people do not trust that she can work hard.

Sometimes she wants to go out for a walk, but her aunt does not let her because she thinks something bad might happen to Gloria while she is alone.

Gloria feels good when she is around friends and can interact with them. But now, due to the Coronavirus, she is afraid that she will not have a chance to interact with her friends as usual.

Gloria uses social media to communicate with her friends from church, but she has challenges in accessing the internet, as bundles are expensive and she does not have a job.



- **I wake up, wash myself, help to prepare food and clean.**
- **My aunt takes me to my tailoring class. She thinks it is dangerous that I go by myself. Some of the people there can understand basic sign language and they help me a lot in the classes.**
- **After lunch, I receive a visit from my church women's group. We pray together for each other.**
- **I watch TV but with my pen and paper by my side. This way I can ask questions if I cannot make sense of what I am watching.**
- **I prepare dinner with my aunt and wait for my uncle to arrive. We eat together.**





# Personas

## A day in the life of the hearing impaired

### Daniel, 32 - Congolese

“ I love being around people! I learn so much from deaf people like me. It makes me realise that we are special and very strong. I wish everyone also saw us this way. ”



Daniel lives with a couple of friends that just had a baby. It is a small living space, but they make it work; they are like a family to him.

Daniel spends a lot of time on his phone—that is how he forgets about his problems. He uses social media and plays games online. He also uses WhatsApp video calls to communicate, but this is expensive because of costly data bundles. For Daniel, this is the price he pays for being deaf.

Daniel works as a cleaner and at whatever small job he can find. He also sells airtime to shops. He received a small government grant once and used it to start his airtime sales venture.

When he is not working, Daniel goes to the Export Processing Zone, a designated area that facilitates activities around the exporting of goods. In this area he can find small manual jobs, like carrying boxes or cleaning up. It is far from home, but it is where he can find work and where he can meet others from the deaf community. He finds it worthwhile to go because he can hang out with “his own kind”—that is how he refers to fellow people with hearing disabilities. He finds it really important to have a community with which he can share his challenges, exchange ideas and look for manual labour opportunities together.



I wake up and pray. I thank God for being here and having a home, jobs and friends around me.

I go to the Export Processing Zone to see if I can find some small job in the morning. And I met another deaf person. We shared our stories and he motivated to work hard and don't think about my problems.

I got some work carrying some boxes to the shops. I am happy to work, be active and meet people. And even better: get some money!

It is time to go to my cleaning job. I like the people from the company I work. They are kind to me and make me feel welcome. That is rare for a person like me, some people don't know how to react when they see I am deaf.

I eat together with my friends. I surf the Internet for a while in bed before going to sleep.





# Personas

## A day in the life of the hearing impaired

### Mercy, 46 - Kenyan



Deaf people are excluded and usually sad that they do not share their problems. I would like to help! I have been discussing with my husband this idea of offering Kenyan Sign Language training in my shop and create a place to meet and share our challenges.



Mercy lives with her husband and has a shop that sells clothes.

Sometimes, when people realise that she is deaf, they try to take advantage and steal from her. For example, officials sometimes harass her and confiscate clothes from her shop.

The main challenge Mercy has is with communication overall. She feels excluded and frustrated because services are not built for people like her.

For instance, she did not feel good when Coronavirus sensitisation was carried out, as she felt the campaigns excluded the deaf. She heard the government asked people to call a hotline number, which she cannot do. She isn't aware of other ways of accessing verified information on the virus.

Mercy really likes M-Pesa. She also attends meetings with her chama, a savings group. Mercy brings a sign interpreter so she can understand what is happening in the meeting.



I wake up, have breakfast with my husband and go to my shop.

I like to be in my shop and see new people everyday. Sometimes it is hard and I lose some clients because I cannot communicate with them properly. I try to write things down and use basic signs.

Today I have a Chama meeting. We cook together and share challenges in our business. The other women are very supportive and I learn a lot with them. We also have a lot of fun together!

I go to the market to buy some things for the house and for the shop.

I cook for my husband and we pray before going to bed.





# Daily life with hearing impairments: barriers and opportunities

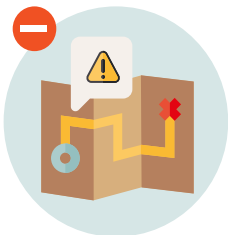
This section offers a glimpse into the daily reality of people living with hearing impairments, including barriers and opportunities that they face in accessing and using services. These contextual aspects are based on information reported directly from research participants and can inform the development of programmes and services for the target groups.

## Barriers



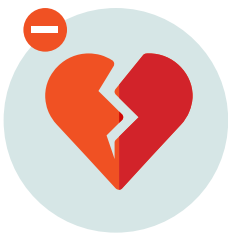
### Communication is the major challenge

Communication barriers for this population vary from interacting with service providers and members of their community to receiving reliable information and reporting emergencies (e.g. COVID-19). This not only prevents them from accessing basic needs but also from being included in society. Illiteracy or a lack of sign language skills increase these challenges. Refugees can face additional barriers if they don't understand the local language.



### Unexpected situations can cause problems outside the home

In general, this population tends to have an active lifestyle, with social connections and a fair level of mobility, both in terms of walking around and using public transport. However, they face challenges when new or unexpected situations arise, and in some situations when interaction with able-bodied people is required. Communication barriers prevent them from acting independently in these situations. For example, generally they are able to navigate Nairobi, but when unexpected situations arise, it is more difficult for them. Participants mentioned situations such as when a bus driver tries to take advantage, the road they usually take is blocked, or when there is an emergency they need to act upon.



### People take advantage

Sometimes when people see a person with a hearing impairment, they try to take advantage of the fact that the person will not be able to understand or react in time. This can come from regular people on the street, for instance, or from service providers and officers, for example, claiming an extra fee. Robbery was also reported as a concern when being out of the home.

## Opportunities



### This group has an entrepreneurial mind-set

The challenges to find a job and cope with the compounded barriers—of being a refugee and living with a disability—made many of the people with a hearing disability highly creative and entrepreneurial. They are constantly finding different ways of generating income and dream about having their own businesses and to hire others with disabilities.



### People actively seek out services to fit their needs

These populations actively seek out services that better fit their needs, by combining different components of different service providers that are accessible or more suitable. They see the value of paying a bit more or going further to reach services that are accessible and comfortable, such as a mobile money agent who can communicate with them, or a store in which they can communicate with basic sign language.



### People with hearing impairments have a strong community

This population reported feeling safer around people, especially around people with whom they could communicate comfortably. In Nairobi, there is a large deaf community that regularly meets to exchange their challenges and motivate each other. They also use WhatsApp groups for these purposes. These channels are also the main way to obtain information about available opportunities and accessible services in the city. While people were not currently familiar with organisations specifically designed to support the hearing impaired, raising awareness of these organisations could be an opportunity to further increase this community.



# Mobile phones and mobile services

This section outlines the main research insights into how people living with hearing impairments access and use mobile technology, how mobile phones challenge or enable their access to services, as well as considerations for overcoming these barriers.

---

## Mobile technology can help in accessing information and interacting with people, two major barriers for the hearing impaired

In some cases, hearing-impaired people can communicate with other people through informal basic sign language. They point to something at a shop and make a gesture with their hands and the shop owner signals the price with their fingers. Another way of communicating is using pen and paper. However, stigma, lack of awareness and the complexity of information to be exchanged can often prevent these means of communication from happening. At the same time, traditional mass communication channels, such as television and radio, are not accessible to this population, making it harder to receive news and information.

**Research participants noted that communication channels, platforms and reporting mechanisms via text or sign language video calls, where available, eased these interactions. They can also provide reliable information sources and fact-checking mechanisms. This needs to be combined with awareness campaigns to make sure the most vulnerable segments are reached and aware of these services.**

---

## Voice-based services present a barrier to people with hearing-impairments

Voice-based services, like any Interactive Voice Response (IVR) menus and call centres, can present barriers to this population. **It is important to implement alternatives that are accessible to this population such as SMS or USSD menus, social media functionalities, and sign language video communication to access customer care.** In some cases, these alternatives are already in place, but research participants often lacked awareness about

these existing services. For example, Safaricom has customer service channels available through SMS and USSD as well as on social media. **However, it is important to couple these alternatives with awareness-generation about accessible channels.**

## Video calls are valuable, but also expensive and bandwidth-heavy

Participants noted that video calls are very important to them because they allow communication via sign language. However, data can be prohibitively expensive and slow network connections can impede communication.

**Special packages from mobile network providers, targeted to this population, could offer discounted options for video calls and data bundles. This would also require a process with the MNO to verify their special needs.**

## Lack of awareness about accessible mobile services

There is a lack of awareness about accessible services, information, educational and entertainment channels. Users are limited to the services they know. **Promotion and partnerships with existing accessible platforms and services can increase the mobile service usage, as well as this population's**

**sense of inclusion in society. When promoting existing services and developing new offers it is also important to take into account different languages (especially in the humanitarian context), as well as the deaf community's use of written language, as it may require translation.**

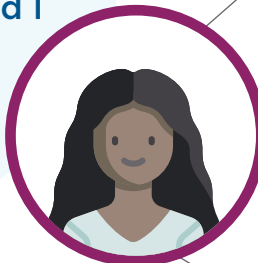
“

**Mercy, 46 - Kenyan**

The main challenge I have is with communication. Services are designed for those who can speak and I am not one of them.

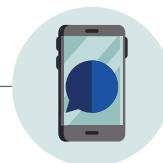
”

”



### Mobile money

She uses M-Pesa and thinks it is an enabling service, but she has challenges when customer care support is needed.



### SMS



### Whatsapp

She uses video calls with her husband to help communicate with the doctor or to solve issues she encounters in her day.



“

**Daniel, 32 - Congolese**

I spend a lot of time on my phone. I go on the internet, and forget about my problems! The applications using video are expensive because of data bundles. It is the price we pay for being deaf!

”



**Mobile money**

He uses M-Pesa, but has challenges because of his Refugee ID and because he cannot communicate with the agent.



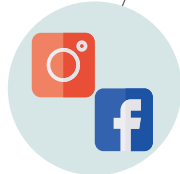
**Mobile games**

He likes to play games, but his preferred games consume a lot of data.



**Whatsapp**

He is part of a lot of WhatsApp groups and receives all of his information from there. He also uses WhatsApp video calls to communicate, but that makes it expensive because of data bundles.



**Social Media**

He likes to use Instagram and Facebook.

“

**Gloria, 21 - Congolese**

My phone is always out of bundles. Sometimes I try to borrow one to use, but it is never easy...

”



**Whatsapp**

She uses Whatsapp to communicate with friends from church.



# Health Services

This section shares insights on how people living with hearing impairments manage health issues and the challenges they face in accessing health services. The main challenges faced are followed by considerations for overcoming these barriers.

---

## Users felt health staff are not aware or prepared to fulfil the needs of people with hearing impairments

Communication with health providers is a major challenge this population faces in accessing health services. In every step of their journey, from the onset of a health issue to receiving instructions and treatment—people with hearing impairments reported a journey filled with uncertainty and misunderstanding.

**Hospitals and health centres can be made more accessible by training staff about the needs and challenges that people with disabilities face. This can include training on basic sign language, or,**

**alternatively, the hospital can ensure that sign interpreters are available, either in-person or digitally through a video call translation tool. Additionally, visual tools to share information or call patients in the hospital, alongside existing voice-based tools, can better include this population. Finally, including patient's additional needs in their patient records can alert health staff to this patient's condition so appropriate measures can be taken.**

---

## People have insufficient access to adequate information around symptoms and treatments

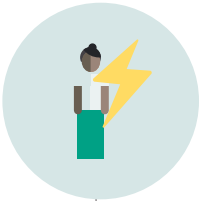
Research participants noted that even when they were able to access treatment, they were often unsure why certain treatments had been prescribed or what they were intended to do. Participants said they are not using their phones to access information, either on symptoms they experienced or on treatment.

**However, accessible digital communication channels (e.g., sign language video calls, text messages) and mobile health applications could better inform persons with disabilities about their diagnosis, treatments and follow-on consultations, as well as direct them to the correct health provider.**



### Need for health assistance

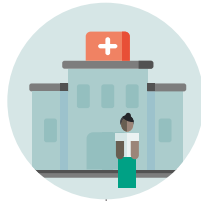
Mercy experiences pain



- Barriers in communication prevent her from sharing issues with people around, to consult with health professionals via a phone call and report emergencies

### Going to the hospital

Mercy gets a bus to the hospital



- + Ability to navigate the city and use public transportation independently
- Not having available assistance closer to home

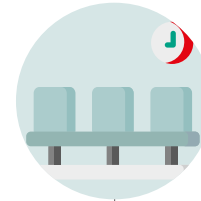
### Waiting

Mercy fills in a health form and waits her turn



- + Ability to receive health services using National ID (Kenyan nationality)
- Lack of opportunity to communicate about special needs from service provider and staff
- Lack of patient records and history of health treatment

Mercy does not hear when her name is called so she is the last one to be seen by the doctor



- Lack of understanding about the situation, long waiting time and feeling ashamed and disrespected
- Lack of awareness about special needs from service provider and staff
- Service provider and staff unequipped to attend to people with disabilities

I also see doctors and nurses talk and point at me and I don't know what they are saying.



#### Mercy, 46 - Kenyan

Hospitals give me the most communication frustration, I try to avoid them. I only go there when I really need medical care.



When I go to the hospital, I am usually given a waiting card and queue like others to see the doctor.

When it is my turn and the doctor realises I am deaf, they usually skip me altogether and continue serving others.

I am therefore usually left as the last patient, even when I am suffering, but because I cannot speak, I waited more than 3 hours last time!





## Consultation

## Care

Mercy has challenges explaining her complaints to the doctor

Mercy has challenges understanding the doctor's procedures and prescription

Mercy has challenges following her prescription and recommendations



+ Being consulted by the healthcare professional

- Barrier to effectively communicate about her complaints (e.g. has to write down or show everything she wants to communicate)

- Need of assistance to communicate with doctor (video call with her husband to mediate the conversation)



Sometimes I video call my husband to help communicate with the doctor when I am stuck in hospital and he is away.

Sometimes I even miss my turn in the queue because they shout the names out and I cannot hear when my name is called. They assume everyone hears them when they shout names out.

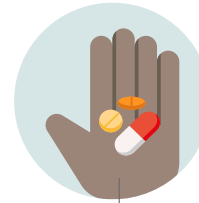


- Barrier to communicate about procedures and prescription (basic signs and writing)

- Need of assistance to communicate with doctor (video call with her husband to mediate the conversation)

Eventually when the doctor sees me, and when he gives me a prescription, he normally does not have time to explain the medicine well to me because of the communication challenges.

In the past, I have ended up mixing the medicines because of unclear instructions.



- Barrier to properly understand and ask clarifications about procedures and prescriptions

- Cost of medicine

I also have a lot of fear when the doctor is using a needle, takes my blood and does not tell me what is going on. It feels scary and intrusive!





# Financial Services

This section offers insights on how people with hearing impairments manage their finances, their experiences as customers and the main challenges they face in accessing financial services. These are followed by considerations for how to overcome these barriers.

## Users place high value on accessibility and trust in providers

Mobile money is a very important and enabling service for this population. M-Pesa was the primary mobile money service mentioned by participants. However, not all steps in M-Pesa's transaction process are accessible and trusted by people with hearing impairments. For example, the customer care call centre presents a barrier for this population to communicate about issues they are having with the service, to better understand current offers, and to make changes to their accounts. More awareness about the existing accessible channels to access customer care or implementation of sign language video communication can bridge this gap.

Participants noted that they were often frustrated or worried about being taken advantage of when interacting with mobile money agents. They said they did not mind traveling further to reach an agent if they saw a benefit to this, such as better treatment or accessible means of communication. If the agent was trained in basic sign language, users would see this as a major advantage.

**Training M-Pesa agents on the needs of people with disabilities could significantly improve this population's experience. Accessible rating, reporting and feedback mechanisms could be a way to increase accountability and generate more awareness about the needs and challenges faced by this population.**

## Users have a desire for financial literacy and entrepreneurship skills

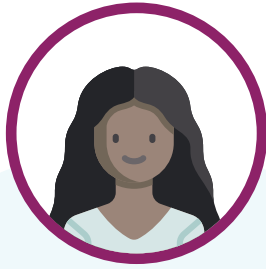
Despite having limited income sources, or perhaps because of this constraint, this population has an entrepreneurial mind-set. They also have a desire to save money, invest and plan for the future.

**Awareness campaigns and capacity-building activities in managing personal finances, financial literacy and entrepreneurship targeting this population could complement existing financial services.**

Village savings and loans groups, or chamas, that also offer social support were reported by target populations as providing opportunities for saving

and a safe space for discussing financial topics with others. The social and community-building aspects of these groups was highly valued.

**There is an opportunity to leverage these types of existing community groups as an entry point to additional elements of financial literacy, including the possibilities presented by digital tools, like mobile money. There is also an opportunity to encourage men and refugee communities to participate more in saving groups, as participants reported these groups were primarily seen as serving women.**



“

**Mercy, 46 - Kenyan**

I was able to give my church an offering through M-Pesa. I really like M-Pesa. It helps a lot because I cannot speak. It is when I need customer care support that I cannot use it because it is voice-based. Then I rely on my husband.

I go to a specific M-Pesa shop despite it being far from my home because the Agent understands basic sign language.

Later I had a savings group meeting. We had amazing food together, we discussed money and then we all contributed to our joint savings. The discussion at the Chama made me feel good.

”



“

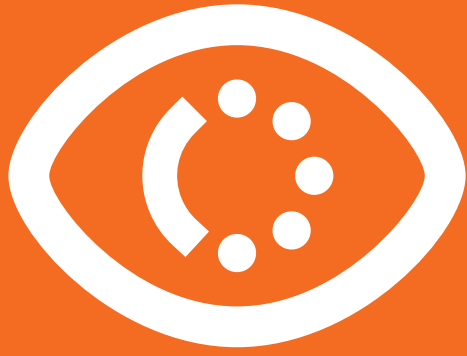
**Daniel, 32 - Congolese**

I use M-Pesa, but I have a lot of challenges because I do not have a National ID. Sometimes I have challenges communicating with the agent when he asks for a National ID and I try to explain, but we cannot understand each other.

I save my money through M-Shwari\* by Safaricom. I struggle to stick to my budget. I would like to stick to my budget so that I can save. I never do.

\*M-Shwari is service offered through M-Pesa that allows customers to manage their bank accounts and access micro credit loans through their mobile phones.

”



# 03

# Visually impaired

# Personas

## A day in the life of the visually impaired

### Ahmed, 26 - Somali



My dream is to have my own business and employ people like me. I really want to work but nobody sees any useful skills in me... I hope somebody will give me a chance one day!



Ahmed lives with a guardian, as he does not have family in Kenya.

He can make phone calls and use WhatsApp voice messages. Sometimes he listens to the radio to pass the time.

He receives money from well-wishers from his church through M-Pesa. Ahmed knows how to use the text-to-speech feature, a tool that aids blind and low-vision users by saying actions out loud as items are touched, selected, or activated. However, he doesn't like to use it too often because the mobile money agent or others around him could hear his PIN code. To cash in or cash out, he needs to ask a friend for help.

Ahmed needs assistance to navigate his house and he is afraid of leaving the house alone. He does not trust that people will not take advantage of him. At the same time, he feels lonely and in need of a community. He usually spends the day waiting for someone to visit, bring food, or take him for a walk. Some days, Ahmed goes to the market with a neighbour or spends the day at church.

Ahmed lost his sight because of diabetes, and he feels a lot of pain. He has a refugee ID card but is unsure if this entitles him to health care in Kenya and has often faced issues when he tries to use it to access health.



- I wake up, pray and go back to sleep.
- I wait for my uncle to leave for work. He works early and my aunt prepares everything. It is too rushed and I feel like I am in their way. Then, I call my aunt to help me wash. I am afraid of hurting myself.
- I wait for my friend from church to visit me. I feel pain and my blood pressure rising so I take a nap.
- I wake up and stay in bed waiting for my friend. I feel hungry but cannot cook. It is not safe for me to go to the kitchen.
- I have dinner with my aunt and uncle. They tell me about their day. We pray and go to sleep.





# Personas

## A day in the life of the visually impaired

### Samuel, 36 - Kenyan

“ I love working on my vegetable farm. It feels so good to be outside and work with my hands! And at least I can help a bit with the family bills. I don't want to be a burden to my family. ”



Samuel lives with his wife and son. He plants vegetables in his compound. Sometimes he and his family sell some of his crops.

His brother gives him money every month through M-Pesa. Samuel needs his son's support to manage his finances, but he makes the decisions on how to spend or save money in the household.

Samuel can go around his house and to his neighbour's by himself but that is where his mobility ends.

He feels a lot of pain in his eyes but he can't access the right support to help him.

He can make voice calls by himself but needs his son's assistance to use WhatsApp. He would like to know how to use his phone better and has heard of a functionality that could help him, but he does not know how it works. Samuel would like to know more about financial services and how to better manage his money.



I wake up, wash myself and have breakfast with my wife and son. We pray and thank God for all that we have.

Sometimes I spend the day taking care of my vegetables outside, but today there is not much to do. I finish early.

I go visit my neighbour. He is old and likes to have someone to talk to. Sometimes his son passes by and gives me a little money to help my family. He knows our hardships.

I hear my phone. It is an SMS. If it is money, it needs to be collected soon. I cannot ask for help with these things from my neighbour, so I wait for my son to come home.

We have dinner and tell stories together.



# Personas

## A day in the life of the visually impaired

### Lucia, 56 - Congolese



I feel safe in Kenya, but not included. I would like to know how to start the process for the repatriation, and go to a place where we would have more opportunities.



Lucia lives with her daughter, who takes care of her, and has some friends from church.

She does not own a phone and needs assistance from her daughter to make voice calls.

Her daughter manages the money and shopping. Even when she receives a donation from a friend from church, she does not have a say in how the money is spent.

Lucia does not know why she lost her vision. She can't get access to the hospital because they can't pay the fees. They have tried to get some kind of assistance several times, but have no idea of how it works.

She can navigate in the house, but not outside. She has pain in her legs and can't walk well. She can prepare food, and she is happy to help her daughter when she can.

Lucia often spends the day alone at home, listening to the radio or sleeping to pass the time and forget about her pain. Her happiest day of the week is when her daughter takes her to the church.



- **I wake up and I have breakfast with my daughter listening to the radio.**
- **I feel a lot of pain but there is nothing I can do, so I go to bed and try to fall asleep.**
- **I try to help a bit in the house. It is the least that I can do... I do some things in the kitchen and wait for my daughter to arrive.**
- **She is arriving late today. I go back to bed and sleep to pass the time.**
- **I have dinner with my daughter. She tells me the news. We pray for God saving our lives and bringing us to Kenya. Then, we go to sleep.**





# Daily life with visual impairments: barriers and opportunities

This section offers a glimpse into the daily reality of people living with visual impairments, including barriers and opportunities that they face in accessing and using services. These contextual aspects are based on information reported directly from research participants and can inform the development of programmes and services for the target groups.

## Barriers



### People with visual impairments experience a high level of dependency

People living with visual impairments in Nairobi tend to have limited autonomy to navigate the city, or even their own homes. They are dependent on others to help them meet their basic needs such as nutrition, hygiene and healthcare. They expressed a strong desire to be able to manage their affairs independently and safely.



### People experience loneliness and often have a passive lifestyle

This population reported feeling lonely. It is not uncommon that their routine consisted of waiting to receive visits and sleeping to pass the time or to relieve pain. This dependency, lack of mobility and lack of accessible activities, means that the limits between social activities and assistance are blurred. Friends come to visit and talk, but also to bring food, cook, find the right medicine, and help them bathe.

## Opportunities



### People felt a sense of social responsibility and a desire to give back to their communities and families

There is a general sense of social responsibility among this population towards their family, the community of people with disabilities, and the wider society. They feel empowered when they can be helpful or in-charge, though that is rarely the case. They dream about starting a small business, and to generate money to invest in giving back to people in vulnerable situations or generate social impact, such as creating a clinic for the blind.



### A close network of important actors plays a central role

People living with visual impairments have a few people that play very important roles in their lives, mainly as sources of information and entertainment. These key people also assume the role of caregivers, supporting the fulfilment of their basic needs, taking them places, taking care of their finances, supporting them with income and more. This network consists of family members, friends from church, neighbours, merchants from neighbouring market stalls or helpful community members.





# Mobile phones and mobile services

Below are the main insights into how people living with visual impairments access and use mobile technology, how mobile phones challenge or enable their access to services, as well as sharing considerations for overcoming these barriers.

## Users have a general lack of digital literacy and struggle to use their phones independently

The level of digital literacy among this population is generally low. In some cases, users do not know even how to make calls independently. This prevents them from using this basic communication functionality on their mobile phones and means, that in most cases, people require assistance to read and send messages and to make calls. This prevents them

from managing services with sensitive data, such as their mobile money PIN codes and account balances in a safe way. **This group would benefit from digital literacy training so that they feel more confident using their phones independently and understand the various functions it can perform.**

## Lack of awareness of accessibility features

Even users with smartphones and assistive tech features like screen readers did not know how to access them. However, people are interested in learning more how their phones work, including the features built specifically to increase accessibility.

**Increasing capacity of mobile assistive tech features, such as screen readers, should be considered as a component in any intervention, in order to make sure that the target population will benefit from accessible features.**



### Lucia, 56 - Congolese

I do not have a phone. I would not know how to use it because I cannot see. If I need anything, my daughter can do it for me.



**Mobile phone**  
She does not own a phone.



**Voice calls**  
She needs assistance from her daughter to make voice calls.



**Samuel, 36 - Kenyan**

I would like to know how to use my phone better. I heard about something that makes the phone read things for you. But I don't know what is...



**Ahmed, 26 - Somali**

I imagine myself in the future as a computer geek. I will do everything over my phone as if it was my super power!



**Mobile money**  
He receives money from well-wishers from the church via M-Pesa





# Health Services

Below are insights on how people living with visual impairments manage health issues and the challenges they face in accessing health services. The main challenges they face are followed by considerations for overcoming these barriers.

## This population has a lack of clarity about their condition and how to treat it

In some cases, impairments among this population could be reversed if effectively diagnosed and treated. Many are unclear as to why their seeing is impaired and if their condition is treatable. These challenges are compounded among refugees, who are often unclear as to what health services they are entitled to or how to access these services.

**Access to and information about treatment should be provided in accessible ways to this population. Similar to those with hearing impairments, digital channels and e-health applications could inform patients with disabilities about their condition, treatments and follow-on consultations, as well as direct them to the correct health provider.**

## People have insufficient access to adequate information around symptoms and treatments

There is a lack of self-efficacy and a passive attitude in relation to health issues reported. The target population often waits for caregivers to arrive or friends to visit in order to share concerns or take their medication. They felt fully dependent on these caregivers, unable to take care of themselves and unable to keep health information private from them.

**Accessible digital communication channels, like voice calls or IVR menus, to reliable health information could bring more independence and privacy when searching for health advice. Due to this population's low levels of digital literacy, training and awareness raising would need to accompany this type of intervention.**



“

**Ahmed, 26 - Somali**

I then went to sleep because my blood pressure was very high. I suffer from high blood pressure aside from being blind.

They tell me my blindness was induced by my diabetic condition.

I have already tried to go to a Kenyan government hospital and they did not treat me because I do not have an [identity] card.

”



“

**Lucia, 56 - Congolese**

I had to go to bed because of pain. I feel like I could die any moment because of my condition. I sleep to pass the time. Maybe someone will come visit me and help.

I have never understood why I went blind. No doctor has ever examined me, because I cannot afford a doctor. In the future, I see myself fully regaining my eyesight and supporting my family.

”



“

**Samuel, 36 - Kenyan**

I do not use my phone for health because I cannot see. I wish they can develop an app for the blind where they can access health services.

”



# Financial Services

The information below outlines insights on how people with visual impairments manage their finances, their experiences as customers, and the main challenges they face in accessing financial services. The main financial service mentioned by research participants was M-Pesa, therefore these insights relate particularly to this service. These insights into barriers are followed by considerations for overcoming these barriers.

---

## Lack of accessibility of M-Pesa and awareness of existing accessibility features leads to lack of ownership of personal finances

Visually-impaired populations rely on others to help with M-Pesa, leading to frustrations, feelings of dependency and a lack of ownership over their finances. Different aspects within their financial journey can present barriers, including: using their PIN code, receiving notifications and account information, not being able to count their money and a lack of trust in M-Pesa agents due to inability to effectively communicate.

**Generating awareness about M-Pesa's existing accessibility features could improve users**

**experience. For example, M-Pesa already has features that allow customers to use a voice-based PIN code and hear their last transaction and account balance. These features, if customers were more aware of them, could help to overcome some of the barriers they face. Additionally, adding more accessible features and functionalities to make the service use safer and independent, such as IVR menus, could be a way to improve accessibility and customer experience.**

---

## This population is highly dependent on others for mobile use and needs increased digital literacy skills to improve autonomy

The level of dependency on other people to help with phone use can be quite high among this population. This means that even when accessibility options are available, target populations are rarely aware of them and do not know how to use them.

**Increasing awareness of and capacity around using mobile assistive tech features is a must in any intervention in order to make sure the target group can increase their independence and benefit from these features.**



## Receiving money

Samuel's brother sends him money



- + Network of support: Family or well-wishers send money regularly via M-Pesa
- Not being able to take care of family's basic needs

## Notification

SMS notifies Samuel that the mobile money is received



- + The mobile money transfer was successful
- Need of assistance to receive the information
- Lack of privacy about Samuel's finances (e.g. balance amount received, PIN code)

## Withdraw money

Samuel's son goes to the M-Pesa agent to withdraw money



- Not being able to withdraw the money by himself
- Not trusting the M-Pesa agent, fear of being defrauded
- Not being able to use his PIN code safely

## Keep money

Samuel's son brings home the money



- Not being able to count the money



**Samuel, 36 - Kenyan**

My biggest aspiration is to be able to manage my financial matters independently.

If it is M-Pesa I do not go. I cannot access my M-Pesa PIN. I wish there was another way to access my PIN, It makes it impossible for me to access M-Pesa services.

Sometimes I cannot tell the difference between currencies. I cannot always be accurate because I am blind. I have to have a high level of trust in others.





### Spending decision

Samuel keeps the cash until it is needed



- + Being the gatekeeper of the money he receives
- Keeping cash at home
- Not using additional services and benefits from mobile money

### Shopping / payment

Samuel decides how to spend the money



- + Making the choice for the family's basic needs
- Not being able to cover all needs and manage finances in the longer term

### Delivery

Samuel gives the money to his son or wife to buy / pay for what is needed



- Not being able to choose and buy supplies or make payments

### Keep money

Samuel's son or wife brings supplies and the change back



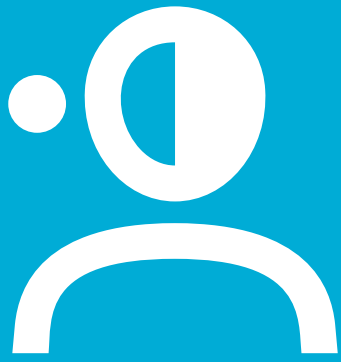
- Not being able to count the money

I only receive cash. I have never used or known how to use M-Pesa. I wish there was training for people with disabilities to use financial services.

“ I keep the money until it is needed. After we decide what is needed, I give money to my children to go shopping. After they make purchases, they bring the change back to me.

I would like to buy things on my own if M-Pesa was disability-friendly. Handouts are not the same as earning from your own effort.

”



**04**

# **Visually and Hearing impaired**





# Cross-cutting barriers and opportunities

This section focuses on the cross-cutting barriers and opportunities faced by participants living with either visual or hearing impairments in Nairobi. As mentioned above, this research included both Somali and Congolese refugees, along with local Kenyans. Many of the issues highlighted here are not unique to this group, the same issues can be found among refugees without seeing or hearing impairments, or among non-refugee Kenyans with seeing or hearing impairments. However, the fact that the majority of participants in this research faced the overlapping identities of being both refugees and having hearing and seeing impairments means that many of these issues were exacerbated.

The barriers and opportunities below highlight the issues that arose at this intersection—either among all participants or among all refugees with some form of disability. The purpose of this section is to better understand the overlap in these issues and to identify opportunities to address multiple accessibility issues.

## Barriers



### Everyone: Lack of digital literacy and awareness of accessibility features

Across groups, to varying degrees, research participants expressed that they wanted to know how to better utilise their phones and the accessibility features that are already available. Greater digital literacy can have a multitude of benefits from increased access to financial services, to increased connections to loved ones, to increased access to health information. Increasing mobile digital skills and awareness of accessibility features, like screen-readers, could bring benefits to people with visual and hearing impairments in Nairobi.



---

### **Everyone: People felt a lack of opportunity to build their capacity and contribute to their community**

Research participants indicated that they feel empowered when they can contribute to the community or be independent. The combination of limited mobility, dependency, stigma, and lack of accessible capacity-building opportunities leads to limited income-generating opportunities for this population. They reported feeling guilty for not being able to support their families and are happy when they can contribute, for instance in household tasks. They expressed a sense of social responsibility and wish to support their family, to give back to society, and to empower people with disabilities. These feelings were felt more intensely by refugees, who felt less able to participate in their community outside of their household.

While mobile technology cannot provide a solution to this barrier as a standalone solution, it can play a role in helping to give people with disabilities more autonomy to act independently. A mobile phone can help people to conduct business, save money and communicate with people around them. Integrated with more general skills training or awareness campaigns to reduce stigma in the wider community, digital literacy training can play an important role.



---

### **Refugees: People feel safe in Kenya but not included in society**

Although refugees said they feel safe in Kenya, this population does not feel well-integrated in society. This was felt particularly by refugees with visual impairments. A lack of work and learning opportunities, and of access to disability-friendly services, paired with stigma contributed to this feeling. Refugees specifically reported that they either have already applied, or would like to apply, for resettlement to a new country, where they believe they will have more opportunities and be more included. It is important to note that opportunities to be resettled are limited.<sup>5</sup> Any programming working with this population would benefit from integrating an element of community inclusion to ensure refugees have the opportunity to build stronger social ties with people around them.



### Refugees: Refugee Identity Cards created a barrier for accessing services

Upon being granted refugee status, applicants are issued a 'Refugee ID' card which secures a refugee's legal identity and guarantees residency in Kenya. However, these IDs cannot currently be used by refugees in meeting the Know-Your Customer (KYC) requirements to activate basic mobile services as well as access to mobile financial services such as M-Pesa.<sup>6</sup> Additionally, these IDs cannot be used to access the National Health Insurance Fund (NHIF) system and, in some cases, job opportunities.

Working with governments towards more conducive policy environments regarding SIM registration, KYC requirements and access to support services is a major opportunity for this refugee population to meaningfully benefit from access to mobile services registered in their own names. Generally, these policies should aim to advance refugee's access to ID-linked services, reduce identity fraud and increase financial inclusion. Such dialogue with policymakers and relevant private sector actors should be combined with increased awareness about the regulations at the ground level by service providers, staff and service users.

## Opportunities



### Everyone: Religion plays an important role in people's lives as a safe space and in forming their community

Places of worship are seen as safe spaces as well as places for building community. These groups are seen as more welcoming to people with disabilities and bring them a sense of belonging through activities such as praying, studying and cooking together. This existing network presents an opportunity for organisations building interventions to work with. Mobile technology interventions can achieve multiple goals and have a larger chance of success if they are integrated into existing community structures, like religious communities.



### Refugees: Being part of a community is key for support

People living with disabilities reported feeling safer around people. While the hearing-impaired community reported a stronger network than the visually impaired, who often felt isolated, both emphasised the importance of having a strong network. In general, Kenyan participants had larger support networks to help them navigate daily challenges. Being a refugee added an extra barrier, as people had a smaller community on which they could rely. Having this community is important as a person with a disability in Kenya and any intervention, including mobile solutions, that can be designed to integrate people with disabilities into their community will be advantageous.

5. UNHCR (July 2020), [Resettlement](#).

6. Refugees currently use a number of work-around solutions to access mobile services.



# Humanitarian and support services

The final service area that was identified by project stakeholders and research participants were humanitarian and disability support services. The research examined how accessible these services were and opportunities for improvement. The main challenges and insights around these services were cross-cutting, visually and hearing impaired populations reporting similar challenges. The main challenges cited by research participants are followed by considerations for overcoming these barriers.

---

## Research participants found information about available services for refugees and people with disabilities inconsistent

Target refugee populations reported that most of the information about available support services for refugees is spread through word-of-mouth and WhatsApp groups. For this reason, they indicated that there is a lack of consistent knowledge about specific types of assistance and programmes accessible to refugees with disabilities, as well as criteria and procedures for applying for support. Target populations reported that they were referred to many different points of contact before they were able to locate the information needed.

Kenyan participants living with disabilities were also not aware of support services and assistance targeted to them and also did not know where to seek information. They were unaware that support services existed for Kenyans with disabilities.

**It is important to generate awareness about existing support services and implement accessible channels and platforms for consistent information and referral. This is true both for Kenyan organisations supporting people with disabilities and organisations seeking to support refugees. Adopting an integrated user-centred approach to service provision and assistance can shift the siloed focus per organisation into a more empathic and systemic view of the needs of this population and a more collaborative response.**

---

## Refugees felt that information on available services was inaccessible to them

Refugee participants from the research were aware of a UNHCR call centre to access information on refugee services. However, because it is voice based, the information channel is not accessible to people with hearing impairments.

**Humanitarian organisations and support service providers can be made more accessible by creating multiple channels to request information**

**and support, for example through video calls, SMS, and voice calls. Accessible rating, reporting and feedback mechanisms can also be a way to increase accountability and generate more awareness about the needs and challenges faced by this population.**



**Daniel, 32 - Congolese**

I do not receive any support from NGOs. I have tried a lot. They sent me to different places. It was never the correct one. I gave up... the NGOs gave me hope, but they let me down.



**Mercy, 46 - Kenyan**

I never heard of any support for Kenyans with disabilities, only for refugees.



**Lucia, 56 - Congolese**

My biggest dream is to be repatriated to another country so I can get help. But I do not know how that works and if my daughter and I can apply for it together.



**Samuel, 36 - Kenyan**

I do not know the process for services or receiving more money. I wait until they call me. I have received 3 months rent from HIAS before. They randomly gave me a call and offered this help. I wish I could understand the structure of the help so I can plan.



# 05

# Conclusion and Considerations

This research highlighted steps that can be taken by various actors to improve users' experiences and increase their autonomy and inclusion. The insights and considerations above suggest ways that MNOs, technology providers, disabled persons' organisations (DPOs), and humanitarian organisations might work, either individually or together, to create inclusive services.


## Next Steps - research into implementation

As partners in this research, Safaricom and UNHCR were involved throughout the research process. They are both taking forward several considerations from the research and in the process of implementing these.

### Safaricom

The research findings have been brought to the attention of the Diversity & Inclusion team and the idea of providing video relay as a service for the hearing impaired has been raised with the Call Centre team and is currently under consideration. Further, Safaricom is exploring ways to increase the financial literacy of their marginalised customers, including people with disabilities, women and the elderly, to help them to access the full suite of financial services available through M-Pesa.

### UNHCR

UNHCR is planning to enhance the accessibility of the UNHCR call centre in Kenya for refugees with communication disabilities by providing refugees with alternatives to voice communication. Additionally, UNHCR has launched a [Call for Proposals](#)  that provides targeted financial support to country operations interested in tackling specific challenges relating to Digital Access, Inclusion and Participation based on this research.

---

## Hearing Impairments: Conclusions

While people with hearing impairments were able to navigate spatial and social landscapes with a degree of autonomy, there were still many ways in which this group felt excluded. Across the research findings, hearing impaired people faced barriers in communicating with others and understanding clearly what services and support they were entitled to.

MNOs, humanitarian organisations and DPOs can support this group by ensuring there are diverse

and inclusive communication channels and tools. In-person interactions could be eased with tools like video-based sign language translation services or mobile applications that help to communicate and follow up on services provided. Additionally, service providers, from health workers to M-Pesa agents, can be trained in the special needs of this group. Voice-based services should always include text or video based alternatives.

---

## Visual Impairments: Conclusions


Among the seeing impaired, high levels of dependency and a sense of isolation were common. This was exacerbated among refugees, who had a smaller network of friends and caregivers on whom they could rely. Across the themes, mobile, health, financial and humanitarian or disability support services, this trend continued. Visually-impaired people did not have access to the right services and information, nor did they feel confident in their ability to access these things independently and safely.

To address these issues, MNOs, humanitarians and DPOs should look at ways to increase self-efficacy through increased digital literacy and training in accessibility tools alongside entrepreneurship and financial literacy training. All interventions should be rooted in existing community networks and seek to increase ties to the community, especially when targeting refugees and asylum seekers.

---

## Continuing to fill research gaps

The findings of this research are highly contextualised to the experiences of refugees and Kenyans with hearing and seeing impairments in Nairobi. And, although this research goes some way to build the evidence base on this topic, specifically with a mobile technology lens, there remains a large knowledge gap. More research needs to be done into people with disabilities' experiences in humanitarian settings and how interventions can be better designed to take their needs into account. This includes services essential to reducing inequalities and ensuring everyone can access the services and information they need.

More research should be conducted to better understand the challenges that these populations face and how the sector can ensure people with disabilities are included. This research can and should be replicated to better understand other humanitarian contexts. The methodology used in this project [has been published](#)  and can be used as a guide.

# Annexes

## Research questions

To meet the objectives of the project, key research questions were defined. These questions informed the way the research activities were structured:


- **How do people with disabilities access and use mobile technology in humanitarian settings?**
- **What are the challenges they face in using mobile technology?**
- **What role does mobile technology play in their daily lives?**
- **Is mobile technology bridging access to services (which are not accessible without it)?**
- **Which services are not yet accessible? Can mobile technology help to facilitate access to these services?**

## Methodology

This process was facilitated by a co-creative, human-centred approach that uses participatory design tools and puts end users at the centre of the process. In the research sessions, individuals that represented different profiles of the target populations were engaged through group activities and daily check-ins over the phone or in person.

A human-centred approach is especially useful when working with vulnerable populations, including refugees and people with disabilities. These populations tend to have less of an opportunity to voice their hardships and influence decision making processes. At the same time, they face complex systemic challenges. These challenges require a

deep contextual understanding and iteratively tested solutions. In this approach, design research tools and activities were adapted to the needs and realities of hearing- and visually-impaired individuals and for refugees. This not only leads to a process that is more accessible, comfortable and engaging for target populations—it also means that the insights that result are reflective of the situations and respond to the needs of the target populations.

More information on the methodology employed in this study as well as recommendations for how it can be applied in other contexts can be found in the report [Human-Centred Design in Humanitarian Settings: Methodologies for Inclusivity](#). 

## Research limitations

This research was conducted with a limited number of representatives from the target population. While this allowed for greater depth with participants, it should be noted that the participants do not fully represent the diversity of experiences by the target populations.

The insights gathered and the personas that were created based on the participants in this research should also not be considered as fully representational of the experiences and circumstances of the entire target population. For example, not all members of the target population

have the same access to and familiarity with mobile technology, to community support and to basic services. The insights shared in this document therefore aim to shed light on some of the barriers and opportunities shared by the target populations with regards to mobile technology's role in facilitating access to basic services. Further research could lead to deeper understandings and insights, and the development of interventions to address the identified insights should be further tested and validated with more representatives of the target populations.



[gsma.com](https://www.gsma.com)



For more information, please visit the  
GSMA website at [www.gsma.com](http://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