

Mobile for Humanitarian Innovation

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Annual Report April 2023

About the GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

We invite you to find out more at gsma.com

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GSMA Mobile for Humanitarian Innovation

The GSMA Mobile for Humanitarian Innovation programme works to accelerate the delivery and impact of digital humanitarian assistance. This is 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 funded by the UK Foreign, Commonwealth & Development Office, and is supported by the GSMA and its members.

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

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Foreword

In 2022 we began to look back, and understand, the impact and transformation caused by the COVID-19 pandemic. Years of restriction on movement and a global shift to connecting digitally with family, friends and colleagues solidified the central role of mobile and catalysed the shift to digital humanitarian action.

Despite many countries in the world experiencing some respite from COVID-19, millions more people have been pushed into needing humanitarian assistance, primarily due to conflict (including in Ukraine), but also often compound risks of climate shocks (including ongoing drought in the Horn of Africa and flooding in Pakistan) and surges in energy/food prices. At the time this report was published, affected people, local responders and humanitarian agencies were continuing to deal with the aftermath of the devastating earthquakes in Turkey and Syria.

Against this backdrop, we were delighted to announce the continuation of our partnership between the GSMA Mobile for Humanitarian Innovation programme (M4H) and the UK Foreign, Commonwealth & Development Office (FCDO), which will allow us to continue to respond to the global humanitarian challenge through mobileenabled technology. Our work to date has reached more than 10 million people with improved access to, and use of, life-enhancing mobile services in humanitarian contexts, and our ambition is to reach more than double that number in the years ahead.

In renewing our partnership, we set our strategic direction for the future through consultation with the GSMA's mobile network operator (MNO) members and humanitarian partners. We see digital having a key role to play in disaster preparedness and response, delivery of humanitarian cash and voucher assistance, supporting forcibly displaced communities such as refugees and responding to global challenges such as food insecurity and climate change. We are also acutely aware that a shift to digital comes with both risks and opportunities, and we are committed to supporting our partners in working towards a safe, dignified and inclusive digital humanitarian future.

This annual report covers our impact and activities in 2022 and looks at broader trends and themes in digital humanitarian action. Both the GSMA and the FCDO would like to thank the growing network of partners who collaborate with us to deliver all that is covered in this report and more. We look forward to continuing this work together and advancing digital humanitarian action in the years to come.



Kimberly Brown, Head of GSMA Mobile for Humanitarian Innovation



Chris Porter, Humanitarian Head of Profession, UK Foreign, Commonwealth & Development Office

01 Introduction

2022 has been a year of significant achievements and an important transition into a new phase of the Mobile for Humanitarian Innovation programme. We have continued to build our portfolio of partners for both specific programming and policy influence at the country level. We have also been engaging on priority thematic areas at global and regional levels where the M4H programme can add a unique voice and expertise.

One important pivot has been deepening our engagement in early and anticipatory action, notably through the launch of <u>the GSMA</u> <u>Innovation Fund for Anticipatory Humanitarian</u> <u>Action</u>. New grantees will start funded projects in 2023, reaching growing numbers of people affected by crisis through our innovative partnerships. The M4H programme will also strengthen our voice as members of the Risk-Informed Early Action Partnership (REAP), in cooperation with existing partners such as the International Telecommunication Union (ITU).

In 2022 we produced influential thought leadership through major research from the <u>perspective</u> of mobile phone users in displacement-affected communities, and we captured lessons from our grantees and partnerships in a series of case studies and evaluations. We also trained and supported governments to develop their national emergency telecommunications plans, and to create the enabling environment necessary to effectively deploy mobile-enabled solutions to humanitarian challenges.

Increasingly, the GSMA M4H programme is becoming a go-to source of expertise and advice around the globe, with team members regularly participating in conferences, discussions and roundtables to highlight the power of mobile, to engage in policy debates and to build and deepen the partnerships that are at the core of our success.





"The GSMA continues to play an important role as a broker between the humanitarian aid and development sector and the mobile industry, whose contribution is as critical as it ever has been in helping us solve the complex problems forcibly displaced people and their hosting communities face in a challenging global environment. The investments made through the Mobile for Humanitarian programme play a catalytic role in nudging the entire sector forward, improving the way we do business, supporting communities and ensuring that forcibly displaced communities around the world can access connectivity."

Hovig Etyemezian Head of Innovation Service, UNHCR



"The GSMA is a key partner for ITU's work on disaster preparedness and response and we share the same vision of leveraging digital transformation for humanitarian assistance and improving people's lives. This includes our work on the Disaster Connectivity Maps (DCM) for detecting connectivity gaps following disasters and guiding first responders on the ground, and the UN Early Warnings for All initiative that aims to protect every person on earth by early warning systems by 2027. The GSMA's support is critical for identifying opportunities and harnessing MNO partnerships for better information, to improve our response efforts and for saving lives."

Dr. Cosmas Luckyson Zavazava Director, ITU's Telecommunication Development Bureau









This brings the number of previous grantees to 21.

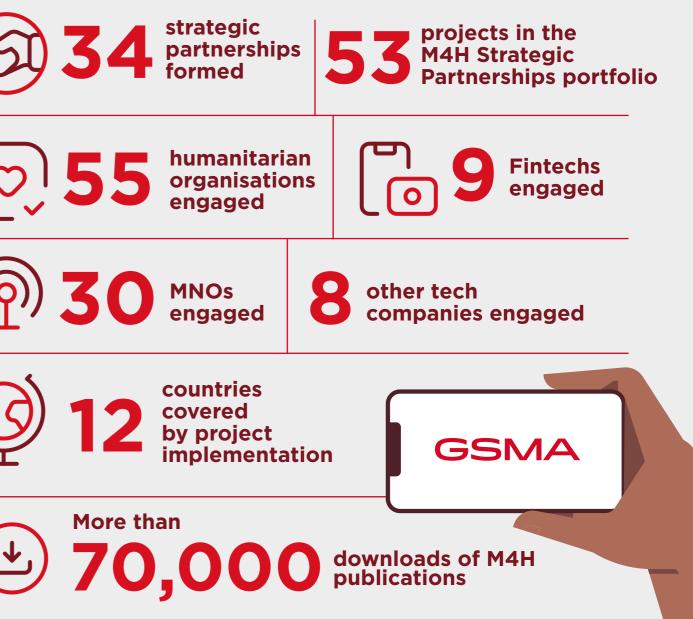
Innovation Fund rounds completed: **Total funding** distributed:



10m

£5,481,627

10 million people.







GSMA

5/35

M4H publications were downloaded more than in 2022, bringing total downloads since the start of the programme to more than as well as podcast streams.

M4H has published 81 outputs, including research, podcasts and case studies, since the programme launched in 2017.



Partnerships for innovation, resilience and response



"When we applied to the Innovation Fund, we had a mobile partner already who was Digicel in Haiti. They were hugely supportive with our GSMA application for funding and turned around our partnership agreement quickly. We enjoy a fantastically supportive relationship with Digicel. It's clear that it is a mutually beneficial relationship. EarthSpark's work in delivering electricity to the mobile towers is authentically helpful to Digicel, and for us they are a great customer. I think it is the best form of partnership where both sides are authentically benefiting. Digicel's towers are reliably powered and our team has reliable connectivity – it's very mutually beneficial."

<mark>Allison Archambault</mark> EarthSpark

SMA



Ali Bosir Head of Enterprise Solutions, Telesom Group





"Prior to applying to the Innovation Fund, we had a pilot of our chatbot that we developed and tested in a specific context using funding from another source. This separate funding stream allowed us to cover some of the development costs for the project alongside the GSMA Innovation Fund-supported components. It is wise not to be fully dependent on GSMA so you know your department won't crumble as soon as the funding comes to an end and to ensure your project is resilient."

Nicolas Boustany Solidarités International "GSMA goes above and beyond to provide their partners with three critical paths of support: resources, insights and connections. Their multi-faceted offerings help grantees to measure impact thoughtfully and deliver tools that advance their innovation well beyond the lifecycle of the Innovation Fund grant."

Chloe Mead Sesame Workshop

The impact of the M4H programme is built on a foundation of research, evidence and learning that have led to strategic funding in innovation, policy, advocacy change and sustainable partnerships in humanitarian contexts and at the global policy level.

Investing in innovation

In 2022, the M4H Innovation Fund continued to provide funding and support to organisations using mobile technology to deliver innovative products and services that respond to humanitarian challenges. The full portfolio of projects supported by the Fund can be found in the Mobile for Humanitarian Innovation Fund Portfolio (2017-2022) report. As well as continuing to support our active grantee portfolio with technical assistance, building MNO partnerships and providing marketing opportunities, we have focused on providing support for our growing alumni portfolio of grantees.

An important part of the M4H Innovation Fund offering is support beyond the funding life cycle. Many of the grantees we have supported are on a long-term innovation journey, and our Round 3 portfolio supported solutions that demonstrate long-term sustainability and scalability beyond the grant period. As these projects in the Innovation Fund portfolio reach scale, the positive impacts of mobile-enabled innovation are becoming evident and solutions are being replicated and mainstreamed.

After navigating a challenging couple of years, innovators in the M4H portfolio have been able to implement and successfully adapt their solutions to respond to new realities and the potential of mobile and digital technologies to address them.

We were pleased to have launched a new round of innovation funding in 2022: the GSMA Innovation Fund for Anticipatory Humanitarian Action. This round will back solutions that leverage mobile digital technology to anticipate potential humanitarian impacts and enable effective early response. By focusing on the important theme of anticipatory action, the Fund will contribute to solutions that minimise humanitarian impacts and improve preparedness in the face of sudden-onset crises.



Box 1: Success stories: grant projects completed in 2022

Solidarités International



Developed the SOLIS bot, a two-way messaging platform for Syrian refugees in Lebanon to communicate with humanitarian organisations. The chatbot, which works via WhatsApp, reached more than 40,000 people. The average time between information request and response is just 3 minutes 20 seconds, down from a target of nine minutes.

Earthspark International



Following the earthquake in Haiti in August 2021, Earthspark adapted their project, reaching 4,450 people with new energy connections and energy literacy messaging. Users were also able to pay for energy through mobile money.

Deployed their first microgrid-connected solar + battery storage system at the Tiburon health clinic, one of their customers. This has made energy service for the clinic and the telco tower more resilient, and provided an important proof-of-concept for distributed topographies for future microgrids.

The Rumie Initiative

Increased access to digital learning resources for more than 42,000 people across Afghanistan and Pakistan.

Built a consortium of partners from across the region, including Viamo Pakistan, Learn Afghanistan and the Womanity Foundation.



rumie

Omnivis

Developed a handheld device and kits to rapidly detect cholera in water, in Kenya and Bangladesh.

Future collaborations are planned with Grameenphone, Safaricom and Viamo.



BBOXX DRC

Sold more than 7,000 solar home kits to users in the Democratic Republic of Congo (DRC), expanding operations in several conflict-affected regions, such as North Kivu. Successfully launched Flexx40, BBOXX's most flexible and accessible single light kit to date.



Altech

Sold more than 1,400 solar home kits to refugees in Mulongwe and Lusenda camps in the DRC, and worked directly with Vodacom to enable customers to pay for the kits through mobile money, and worked directly with Vodacom to enable customers to pay for the kits through mobile money.





Lessons from the Innovation Fund Portfolio

Impact case studies are published for each solution supported by the M4H Innovation Fund to ensure that valuable lessons and outcomes are shared with the mobile and humanitarian sectors. In 2022, we published eight impact studies. Here is a snapshot of some of them.



Sesame Workshop

Sesame Workshop, the nonprofit organisation behind Sesame Street, has a mission of helping children everywhere grow smarter, stronger and kinder. As part of the <u>Ahlan Simsim</u> initiative, in February 2020, Sesame Workshop launched Ahlan Simsim, a localised version of Sesame Street for broadcast across the Middle East and North Africa that focused on children affected by crisis and displacement.

Key stats:

25 new pieces of mobile-first content were produced during the project.

Mobile-enabled content received more than **39 million** views by an estimated **8 million** unique viewers.

95% of survey respondents agreed that mobile was the right channel to receive the content.

"Before Ahlan Simsim, I did not watch educational videos, but after I watched these videos and noticed the improvement in my technique, I started watching more educational videos about my behavior at home and with children. I changed a little, so I prefer Ahlan Simsim."

Father, Erbil Iraq





Welthungerhilfe's Child Growth Monitor

Welthungerhilfe works on the principle of help to self-help – from fast disaster relief to reconstruction and long-term development cooperation projects with national and international partner organisations. <u>Child Growth</u> <u>Monitor</u> (CGM) is a mobile app used to measure and detect malnutrition in children. Instead of using a physical scale, height board or mid-upper arm circumference (MUAC) tape, CGM uses image data taken with an off-theshelf smartphone and processes it using artificial intelligence (AI).

Key stats:

55,000 children were measured with the CGM tool during development.

36 healthcare workers used CGM in the field during trials to evaluate its usercentric design.

4 new major partners were acquired during the project, including Sony and GIZ.

"Using the app is very easy in comparison to the manual measurements. I used to have to carry the heavy instruments on my shoulders and walk from house to house. I think scans are much easier to do."

<mark>Anganwadi worker,</mark> Haripura village, Kinshanganj, India





United Healthcare Distributors

United Healthcare Distributors (UHD) is a leading Ugandan distributor of consumer goods. They partner with VAC Solar, an Anglo-Belgian group, which owns the distribution rights for portable power (POPO) technology.

The partners developed the Community Solar Hub Project, a rental network using the innovative POPO battery solution to increase access to affordable, reliable power in Arua, Kokobo and Rhino Camp Refugee Settlement in northern Uganda. POPO provides low-cost and flexible access to energy through a secure and scalable battery rental platform, requiring no deposit, credit checks or fixed payment structure. The portable battery is lightweight, lockable and tamper proof. Additionally, POPO uses near-field communication (NFC) and mobile technology (mobile money and networked IoT) to facilitate payments and track and measure battery usage.

Key stats:

On average, nearly 5,000 batteries were rented per week.

3,750 households rented a battery at least once.

47 men and 21 women earned income through battery distribution.

90% of customers said batteries last at least six hours.

"I am so pleased that POPO came to Arua. I can now rent a battery to use in my shop and in my home so I can work and read at home at night. The bright light in the battery makes me feel very safe when I walk home in the evening."

POPO user in Arua Uganda





"Sasai Fintech's strategic partnership with the GSMA has been profound. The collaboration has enabled us to enhance our competitive positioning, forge new partnerships with other MNOs and humanitarian partners in Burundi. Leveraging on GSMA's expertise, we have been able to assess the digital/mobile integration needs and the success factors to foster an enabling environment for the uptake of the digital/mobile-based solutions, particularly the humanitarian sector. The partnership has ingrained in us a spirit of innovation for sustainable and scalable digital/ mobile solutions to the myriad of problems within the humanitarian sector, with which we hope to make a transformational change towards efficiency and effectiveness in their interventions. We look forward to continuing with this partnership in 2022 and beyond."

Sasai Fintech (Econet) Burundi

Box 2: Post-grant success stories

A key part of the M4H Innovation Fund is enabling grantees to continue to grow, replicate and reach scale after grant funding has ended. Here are a few highlights from our alumni portfolio:

- International Rescue Committee (IRC):
 Eighteen months after the end of their M4H
 Innovation Fund grant, the CuentaNos
 platform registered a 281% increase in usage
 in Honduras, El Salvador and Guatemala,
 with the number of direct users up from
 88,165 to 336,779.
- British Red Cross: The 121 Personal Cash
 Aid platform piloted in Kenya under the

Innovation Fund grant has expanded its reach and is now being used in Ethiopia and the Netherlands.

- Sesame Workshop: The six caregiver-facing Trusted Messenger videos developed during the project have had an additional 38,948 views since the grant ended in April 2021, all the result of organic reach.
- Solidarités International: Six months after their grant had ended, usage of the SOLIS bot, a two-way communication platform for Syrian refugees in Lebanon, had expanded to northern Lebanon and reached an additional 1,500 direct users.



Strategic partnerships

The aim of the M4H programme's Strategic Partnerships portfolio is to "form and catalyse long-term sustainable partnerships between the mobile industry and the humanitarian/ development sector at both the country and global level", in order to "create and influence businessto-business partnerships between MNOs, digital service providers and the humanitarian community to find sustainable, potentially scalable and commercially viable solutions to the challenges of delivering digital humanitarian assistance".

The why: Partnerships between humanitarian organisations and the private sector are growing in tandem with the digitisation of humanitarian assistance. When MNOs, tech sector and humanitarian practitioners work together, their unique core competencies and expertise can improve the coordination, effectiveness and outcomes of joint response and recovery efforts. Long-term strategic partnerships between

MNOs, humanitarian practitioners and their partners are critical to creating value and a business case for engagement. This, in turn, supports the development of an operating model that enables partners to thrive and deliver critical assistance to people in crisis.

The how: M4H Strategic Partnerships build and strengthen digital ecosystems in humanitarian contexts by catalysing longterm and sustainable partnerships across industries. We do this by providing our partners with technical advisory support, strategic business development support and, when needed, hands-on technical support. M4H acts as an intermediary between MNOs, other digital service providers and the humanitarian community, to find sustainable and potentially scalable solutions to the challenges of delivering digital humanitarian assistance.

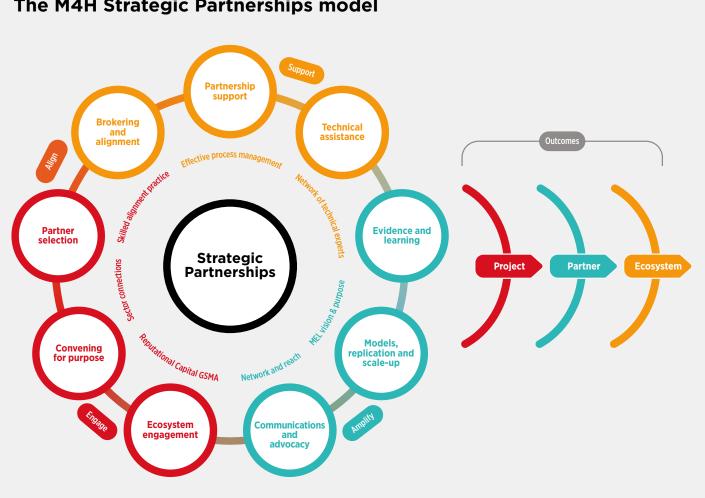


Figure 1: The M4H Strategic Partnerships model

Our partnerships approach supports the overall strategic direction of the M4H programme, which is to better anticipate and prepare for disasters, including through the Humanitarian Connectivity Charter (HCC) (see section 4).

All field initiatives of our strategic partnerships fall into one or more of the following categories:

- Strengthening foundations: building the capacity of local humanitarian actors and service users to engage with the digital economy.
- Innovative partnerships: testing or integrating innovative new partnerships between the private sector and the humanitarian community.
- Innovative new technology solutions: testing or integrating innovative new technology solutions or using existing technology in new ways.
- Growing the digital ecosystem: demonstrating how service users are using technology to improve their livelihoods or how the project helps them use technology more effectively.

FOCUS: Rwanda

M4H engagement in Rwanda has allowed the team to trial new approaches and adopt digitally enabled solutions that we can replicate and scale based on learning. These are illustrated in the following examples.

Digitising Village Savings and Loans Associations (VSLAs)

M4H has worked with partners including World Vision Rwanda and EXXUS to facilitate the digitisation of 50,000 VSLAs, which together have more than 1,250,000 members, through World Vision's Saving for Transformation (S4T) model. Since February 2021, 6,200 VSLAs have transitioned from analogue to digital systems, affecting almost 155,000 people. More than \$800,500 was saved digitally and more than \$300,500 in loans were processed digitally, leading to just under \$60,500 in recorded interest. The project was piloted and scaled up in Rwanda and then replicated in Kenya and Burundi, with Somaliland in the planning stage.

> "World Vision's Saving for Transformation is a self-sufficient development model that boosts livelihoods and self-resilience of marginalised households."

World Vision Rwanda

Interactive voice response

Through a partnership with Alight, Viamo and Peripheral Vision International, M4H piloted interactive voice response (IVR) technology for maternal health messaging in Rwanda, then scaled it up for sexual and gender-based violence (SGBV) awareness training and replicated it in Uganda to train mobile agents in the Humanitarian Code of Conduct.

Our latest joint project, s, takes IVR content further by creating an engaging, interactive, narrative-based audio game that can be played on a mobile phone. This approach makes content accessible to end users who may not have access to smartphones, stable electricity or internet connectivity. The audiobased game also allows communities with low literacy levels to engage with the content in an accessible format. Through the game, educational themes are transformed into entertaining, relatable and context-specific stories with multiple possible outcomes. The games embed scripts in audio games using real-life scenarios where users make choices and learn along the way. Each time the caller plays a game, they are exposed to up to 10 key messages aimed at enhancing their learning and understanding. Since the game was launched in May 2022, 42,723 listeners have joined in from across Rwanda. More than half (58.5%) were under 18 and 32.2% were aged 18 to 24.



=OCUS: Ukraine crisis

As the humanitarian crisis continues in Ukraine and surrounding countries, access to connectivity is vital to ensure communities receive life-saving information, stay connected with loved ones and access vital services. M4H has been coordinating closely with an array of humanitarian partners, including the World Food Programme-led Emergency Telecommunications Cluster (ETC), UNHCR and UN OCHA, as well as MNOs in the region, as they collaborate to provide vital aid (including access to connectivity) to those affected by the crisis.

M4H is also collaborating with Internews, an international humanitarian organisation, to provide access to information/communication as aid to support humanitarian programming in countries hosting Ukrainian refugees (Moldova and Romania). Through our technical assistance, we are helping Internews' humanitarian team set up two-way communication channels with the refugee population. The first step is assessing and understanding the information ecosystem, information needs and most-trusted communication channels of the affected population(s), which will allow timely and accurate information to be shared between them and the humanitarian agencies responding to the crisis.

The aims of this partnership/collaboration are to:

- Support the humanitarian community to respond to information needs and combat misinformation and disinformation by enabling vulnerable people to access factbased, timely and relevant information. This will allow them to make informed decisions at a moment's notice.
- Help link the humanitarian community to well-equipped information providers, such as trusted local media, digital content creators and influencers. This will enable responding agencies to track and address misinformation and disinformation relevant to humanitarian access and services.





"I would like to express my gratitude to the GSMA for their continuous collaboration with the Ministry of ICT and their sincere efforts in supporting us throughout the drafting process of the Somaliland National Emergency Telecommunication Plan. We have witnessed the GSMA's dedication and hard work towards this initiative. and we are thrilled to further our collaboration with them in the future."

Shadia Abdi Khalif,

Director of the Telecommunications Department, Ministry of Information, Communications and Technology, Somaliland

Policy and advocacy

Capacity building: the role of mobile in humanitarian action

Collaboration among humanitarian organisations, the private sector and governments is vital to addressing risks, enhancing disaster preparedness and supplying aid during humanitarian crises. The use of mobile technology has become essential to achieving these objectives. However, governments and humanitarian organisations encounter various challenges in using mobile technology to improve their humanitarian response efforts. These challenges include limited access to mobile networks and internet connectivity, a lack of understanding of mobile technology, data privacy and security issues and inadequate coordination and collaboration among humanitarian actors.

In 2022, we continued to deliver our capacitybuilding course, "The Role of Mobile in Humanitarian Action" to address these challenges. In addition to four online training sessions, the programme was delivered in person to a diverse group of 34 government and humanitarian stakeholders in Jordan and received positive feedback. The course focused on the crucial role of telecommunications during disasters, the impact of telecommunications infrastructure failure, ways to improve infrastructure resilience, the role of government regulation in supporting resilience and how mobile technology can enhance disaster response. The importance of collaboration between governments, humanitarian organisations and MNOs in the disaster risk reduction cycle was also emphasised.

In the coming year, M4H plans to deepen partnerships with national governments, regional entities and multilateral organisations, to elevate the capabilities of a diverse range of policymakers. The programme will also create tools and provide advice to support policymakers in identifying and implementing customised mobile solutions that enhance disaster preparedness and response efforts.



National Emergency Telecommunications Plans

In 2022, M4H continued to provide support to governments in the creation of National Emergency Telecommunications Plans (NETPs), which are comprehensive documents outlining policies, procedures and actions needed to ensure the continuity and restoration of telecommunications services during emergencies and disasters.

The current state of emergency

telecommunications globally is complex and varies depending on the country, but there has been significant progress in recent years in developing infrastructure and capabilities to support emergency telecommunications during disasters and emergencies. Past support from M4H has led to improvements in telecommunications infrastructure, better coordination and collaboration among government agencies, humanitarian organisations and the private sector. It has also increased awareness and understanding of the importance of emergency telecommunications among government officials and crisis-affected communities.

Currently, M4H is supporting Somaliland's Ministry of Information and Communication Technology to develop their first-ever NETP, which is expected to improve response and recovery efforts, restore telecommunications services faster, enhance communications and coordination, as well as increase resilience and community preparedness.

In the next year, M4H will continue to play a critical role in ensuring the safety and well-being of people affected by disasters and emergencies. This will include scaling support for policymakers to create NETPs and, in partnership with the ITU, ensuring that NETPs continue to be an important priority for governments, humanitarian organisations and MNOs.



03 Inclusive digital humanitarian action

The principles of humanitarian action require impartiality and humanity: humanitarian actors have an obligation to alleviate suffering, give special attention to the most vulnerable and ensure that the services they provide are accessible to all who need them. Within humanitarian settings, existing vulnerabilities and risks are heightened due to conflict, displacement or upheaval of social norms.

Research also shows that humanitarian contexts create new and more complex vulnerabilities. For example, instances and impacts of disability are often greater in humanitarian settings due to conflict and poor access to health services. Women and girls also face additional risks in displacement contexts, where they can face greater risk of violence and greater expectations to perform household tasks.

Whenever services are being delivered through digital channels in humanitarian contexts, there is potential to mirror and exacerbate existing inequalities. Vulnerabilities are context-specific, and who is marginalised within a given setting will vary based on that area's specific history and socio-economic structure. However, we know that marginalised groups are often less likely to have access to, and full use of, digital technologies. Therefore, when delivering services through digital channels, it is usually these groups who are at greatest risk of being excluded. This is what we call the digital divide: the gap between those who have access to technology and the internet and those who do not.

However, mobile technology also presents an opportunity. If designed with these groups and their specific life needs in mind, technology can not only be accessible and enable access to services, but it can also facilitate greater inclusion overall – economically, socially, politically and/or in terms of equitable access to services. Financial inclusion is one area where appropriate programme design can open up financial services to previously excluded groups, with mobile money offering significant opportunities (see Box 3).





Box 3 Financial inclusion and mobile financial services

Over the past decade, mobile money has expanded from a niche offering in a handful of markets to a mainstream financial service, moving millions of households in low- and middle-income countries (LMICs) from the informal cash economy into a more inclusive digital economy. In many crisis settings, mobile penetration is high enough to capitalise on the potential of mobile money and broader digital financial services to facilitate financial inclusion and the financial well-being of people in need of humanitarian assistance.

In 2022, the M4H team continued to make the case for the role of mobile financial services in supporting the financial inclusion of people affected by crisis, specifically for refugees and forcibly displaced people. The team continues to work with partners and governments around the world to support the development of favourable regulatory frameworks, especially looking at issues related to SIM registration and know-your-customer (KYC) requirements. This included speaking at the Alliance for Financial Inclusion (AFI) Global Policy Forum to discuss the legal and regulatory frameworks that are required, as well as remotely as part of the Pathway to 17 event to highlight the role of stakeholders across the development,

humanitarian and private sectors in driving such issues forward.

As well as policy and influence work, the M4H team continued to work with a range of partners to increase the use of mobile financial services and support digital financial inclusion. Some key examples from 2022 include our ongoing work with Grameen Foundation in developing mobile money agent networks in Ugandan refugee settlements¹ and a new partnership with the **Danish Refugee Council**, which will build on multiple years of experience to support the digitisation of Community Saving and Loans Associations (CSLAs) across East Africa. This is on top of our continuing work to support the use of mobile money for humanitarian cash assistance; in 2022 we supported partners with this in Burundi, Ethiopia, Kenya, Mozambigue, Rwanda and Somalia.

Going into 2023, we intend to continue prioritising this area for delivery and influence, and capitalise on the ever-growing shift to digital finance and the increasing number of innovative technologies available. We look forward to working with a range of partners on this.

¹ Case study to be published in 2023.





By supporting, funding and researching digital humanitarian solutions, the M4H programme has striven to create an environment where digital solutions are not only creating no harm (by exacerbating digital divides), but also helping to include and support historically marginalised groups. Our work also considers the wider ethical questions and risks raised by the use of digital technology within our programme (see Box 4).

Box 4 Ethics and digital risks

As the world becomes increasingly digitised, so too is the humanitarian sector. Digital technologies are routinely used by humanitarian organisations as part of disaster preparedness and response, immunisation programmes, migration management, health interventions and more. The vulnerability inherent in humanitarian contexts adds nuance to existing digital ethical risks and often heightens them, exposing affected people to potential harm. As M4H continues to work at the forefront of digital humanitarianism it is more important than ever to ensure our team, and the partners we work with, are equipped and empowered with adequate knowledge and that ethical considerations are embedded in our work.

The M4H programme has therefore worked with The Engine Room to conduct an internal ethical review, taking stock of our blind spots and knowledge gaps, and providing the team with a framework to inform decision-making and consider ethical questions. We hope that this work will later become part of an external strategy that models ongoing ethical inquiry within the sector and shares knowledge and lessons on digital ethics and risks.

Lessons on digital inclusion

Through programming and research, M4H has learned several lessons about how to create inclusive digital solutions:

1. Understand the landscape of mobile access and ownership to design and target inclusive digital programming effectively.

The GSMA measures access and usage gaps to quantify digital exclusion. Through this type of metric, it is possible to better understand who is at risk of exclusion when digitalising programming in a given context. For example, M4H research shows that mobile gender gaps and mobile disability gaps are often, but not always, higher in humanitarian settings. The <u>Connectivity Needs and</u> <u>Usage Assessment (CoNUA) Toolkit</u> can be used to understand the mobile landscape in any context and design better solutions (see Box 5).

Box 5: Connectivity Needs and Usage Assessment Toolkit

Through 2022, the GSMA supported the use and development of the Humanitarian Connectivity Needs and Usage Assessment (CoNUA) Toolkit.² Originally launched in Beta in 2020 in partnership with REACH and supported by the Emergency Telecommunications Cluster (ETC), the CoNUA Toolkit is designed to address the need for an evidence-based approach that puts crisis-affected individuals at the centre when considering, designing or assessing digital humanitarian assistance, or the role of digital technology in crisis settings more broadly.

Since 2021, the toolkit has been used by a broad range of actors to collect data on access to, and usage of, mobile technology in humanitarian settings in 13 countries on two continents. This has ranged from the ETC assessing ICT needs, habits, access challenges and training requirements in Niger³ and Burkina Faso as part of a digital community centre project, to the Norwegian Refugee Council assessing whether mobile communications and mobile money are suitable modalities for delivering assistance to displacement-affected communities in Sudan,⁴ to the People in Need organisation identifying whether SMS messages would be suitable for a flood early warning system in the Philippines. In each of these scenarios, organisations collected similar and comparable data to make informed decisions, and in time we hope this will lead to a proliferation of available data across a range of settings.

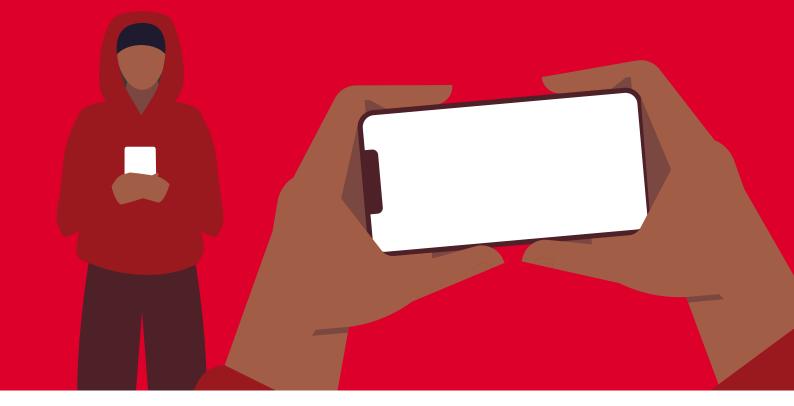
In 2023, the GSMA will continue to work with REACH and the ETC to refine, improve and promote the CoNUA Toolkit, including expanding translations to include tools in Arabic, English, French, Spanish and Swahili. A dedicated microsite on the GSMA website will be published to house the toolkit, guidance and links to reports, summaries and other resources from toolkit deployments around the world. Both the GSMA and REACH will continue to make dedicated resources available to support organisations to deploy CoNUA tools in impactful ways and to share this evidence with the humanitarian sector.

If you have any questions about the CoNUA Toolkit, or want to request support, you can contact the team at <u>conua@gsma.com</u>.

- 3 ETC. (2022). Evaluation of telecommunication needs in Niger.
- 4 Casswell, P. and Downer, M. (2022). Digital Access and Barriers in Displacement-affected Communities in Sudan (White Nile and West Darfur).



² Baah, B., Downer, M. and Kruk, L. (2020). Humanitarian Connectivity Needs and Usage Assessment Toolkit.



2. Understand the drivers and barriers to digital inclusion.

Given the intersectional nature of identity, having a programme that targets specific barriers, rather than specific identities, can be a more effective way to address digital divides. Barriers vary between contexts, but some of the most common we see include:

- Cost/affordability: The cost of handsets and bundles can be prohibitive, especially in humanitarian and displacement settings where livelihood opportunities are often limited. While this affects everyone, marginalised groups like women and people with disabilities may feel it most acutely. In our Digital Lives of Refugees research in Jordan, Rwanda and Uganda, the cost of a handset was found to be the most common barrier in all three contexts, followed by cost of airtime.
- Literacy and digital skills: Difficulty reading and writing and low levels of digital literacy are another major barrier to mobile phone ownership and use.
- Charging and electricity: Often, the settlements where displaced people reside are off the grid, creating access barriers to charging points. In these contexts, people must pay to charge their mobile phones, which creates additional barriers to digital inclusion.
- KYC and regulatory requirements: In many countries, KYC requirements require certain official identity documents (IDs) to access SIM cards legally. Many displaced people are not able to access these documents or the documents they have are not accepted by local governments. Changes in regulation can also restrict access to mobile services. For example, Tanzania and Uganda have both introduced taxes that have limited the use of mobile services.
- Connectivity or network coverage: Many people in humanitarian contexts are in last-mile settings where network coverage is weaker.
- Social or access-related barriers: This may include a wide range of social factors, including family approval or social norms that restrict access to, or use of, mobile technology.
- Language: The lack of available services in local languages can pose a barrier to the use of mobile technology.
- Safety and security: Exposure to negative content or risks associated with surveillance of activity online can also lead users to avoid the use of mobile technology.



3. Designing solutions that use human-centred design (HCD) methodology and are led by local partners can facilitate digitally inclusive humanitarian programming and greater digital inclusion.

Deep contextual research can help to understand users' lived experiences, the barriers they face to digital inclusion and highlight possible solutions. In Haiti, Innovation Fund grantee <u>Mercy Corps</u> leveraged HCD to conduct deep research into user behaviours around mobile technology before launching their IVR-enabled platform that provided information on extreme weather preparedness. By understanding user preferences for message formats and best times of day to be contacted, they were able to reach 16,672 people. Nearly all (99%) said that the messages were useful and 84% acted on the information and recommendations they received.

Being led by local partners is key because they deeply understand the local context and can better address local barriers. Grantee Naya Jeevan, a Pakistan-based organisation, was able to tailor their services to the culture of the villages where they worked. Their programme, which provided telehealth, televeterinary services, as well as mental health services, could address stigma surrounding mental health because they understood the barrier. Since many of the Sindhi words used to refer to mental health have negative connotations, it was important that field staff were trained by local experts who understood both trauma and the nuances of the language. Likewise, the M4H-supported KUHI Consortium brought together local actors in Rwanda, which allowed the group to better target their activities. For example, by focusing on the talent gap in Rwanda, they were able to design programming around building profitable digital skills that users could leverage to find employment. Working with local partners also helped to support the long-term sustainability of programming and ensure that digitally inclusive humanitarian action will continue to move forward.

M4H has supported projects that have addressed several of these barriers to create more digitally inclusive humanitarian action. Through projects and research, our team continues to learn more about how the humanitarian and technology communities can work together to create a more inclusive future. Our landmark 2022 study, the <u>Digital Worlds of Displacement-Affected</u> <u>Communities</u>, took this approach to understand how communities affected by displacement use mobile phones. Our findings are detailed in the following section.

FOCUS: The digital worlds of displacement-affected communities

For many years now, humanitarian organisations have debated the ethics of using technology to reach displacement-affected communities, as the ethical challenges of technology in humanitarian settings are both complex and numerous. However, people are using mobile phones with or without the intervention of the humanitarian sector, and organisations need to leverage this fact. **To amplify the benefits of mobile technology for displacement-affected communities and mitigate the potential risks, it is essential to understand how users interact with it.** New M4H <u>research</u> published in 2022 does just that.

The M4H team conducted a study with displacement-affected communities in three humanitarian contexts, and our research highlights the different ways communities and individuals create their own digital worlds. Applying in-depth mixed methods, we aimed to understand users' behaviors and experiences in northern Lebanon (Syrian refugees and local Lebanese communities), Bor, South Sudan (with internally displaced people and local residents of Bor Town) and Iowara, Papua New Guinea (West Papuan refugees and local Papuan communities). These worlds differ greatly in terms of their individual and communal goals and desires, as well as structural factors - the local economic, political and social context that may facilitate or restrict access to technology.

For example, in **northern Lebanon**, mobile phones were important for connecting with friends and family. Despite fuel shortages that cause frequent power outages and high usage costs, refugees and host community members had the widest variety of phone uses, including social media, news, online education and accessing humanitarian services. However, concerns about privacy and anti-refugee sentiments expressed on social media has led many Syrian refugees to maintain a low digital profile, often using aliases or connecting only with a small group of friends and family.

"As soon as I arrived to Lebanon, I got a phone to be able to register with the UN. I came in early 2013."

Female Syrian refugee Akkar, Lebanon "It is very good that we are able to connect and communicate with the people that are close and far. However, what is making it harder is that the coverage is becoming weaker by the day because of the electricity problem. We get it for an hour in the morning, and at night it will be gone soon. This is causing a lot of issues, as we can't charge our phone or use the internet."

Female Syrian Refugee Akkar, Lebanon

In **Iowara, Papua New Guinea**, by contrast, mobile phone usage is relatively limited. Most people own basic phones, often to keep in touch with friends and family across the country or back home in West Papua, Indonesia. Social and economic constraints, combined with extremely low levels of digital literacy, limited more frequent use or the use of more advanced functions. However, key community members who have access to more stable employment often served as "digital connectors", assisting their neighbours to perform more advanced functions like transferring money for school fees.

"Anything regarding their children from school, they call me. They tell me they need this, so they bring cash, I also do SMS banking.. [...]When children need money in schools, parents come with money asking can you transfer me K 100.00 or K 200.00 or K 1000.00? I do that too. It's a very important part."

Community health worker in Iowara Papua New Guinea



In **Bor, South Sudan,** as in the other contexts, people used their mobile phones to keep in touch with loved ones and relax. However, there was also a high prevalence of creative costsaving measures to access games, music and videos through offline channels. Although South Sudan has one of the lowest rates of connectivity in the world, mobile access and ownership in Bor were unexpectedly high. Of the internally displaced people surveyed, 79% owned a mobile phone and 90% had access to one.

Our research also explored several emerging themes in digital humanitarian action. The following issues are becoming more important in areas of the humanitarian sector where mobile technology plays a role.

Financial well-being

Research shows that financial inclusion has a transformational impact on displaced people and others affected by humanitarian crises. However, in both Bor and Iowara, uptake of mobile financial services was low. Due to Iow and inconsistent incomes and pressing immediate needs, when people use mobile financial services it is almost entirely to meet their basic needs, such as food, education and airtime, and not in transformative ways that could improve their well-being. However, there is optimism about the future role of these technologies, especially in promoting greater financial well-being with easyto-use, affordable and speedy financial services.

Digital leisure

Leisure and relaxation were often one of the most important use cases cited by mobile phone users across all three research locations. In northern Lebanon, frequent electricity cuts have prevented many people from using their TVs regularly and pushed them to rely increasingly on their mobile phones for entertainment, including to watch series, news and sports. Both refugee and host communities commonly used Facebook and YouTube for entertainment, to learn languages, watch motivational videos and find out about science, life hacks and new skills. In Bor, South Sudan, as previously mentioned, digital leisure was very important, especially among displaced populations who used mobile phones to pass the time. Music, movies and videos were often shared via Bluetooth.

"Young people enjoy leisure time with phones, while older people use very few applications, especially basic phones for music or songs for leisure."

User research group Bor Town, South Sudan

"I used my phone just to watch football. The video was about Lionel Messi (Argentine football star) ... The chatting we had with my friends online was about the past match of football against Liverpool Versus Arsenal FC, last night; I appreciated Liverpool for their great win."

Male IDP Bor PoC camp, South Sudan

"The phone makes us happy. We watch series together, it somehow brings the family all together to watch, and that is more than enough for me. Look, I have limited time on the phone and I feel super happy with that time, but again I wish we have more time on it but that all depends on electricity."

Female Syrian refugee Tripoli, Lebanon



Misinformation, disinformation and hate speech

While misinformation, disinformation and hate speech (MDH) is a widespread global issue, it is an especially pressing concern in humanitarian contexts where it increases the potential for harm and creates a greater risk to the safety, well-being and dignity of displacement-affected populations. MDH manifested in different ways across the three contexts, presenting unique challenges to mobile phone users and humanitarian organisations alike.

- In northern Lebanon, 62% of respondents reported that they had seen hate speech, and interviewees described anti-refugee sentiments towards Syrians online as widespread. Many Syrian interviewees were very reluctant to discuss these problems and were concerned about the monitoring of common social media platforms by the Syrian government.
- People in Bor shared their concerns about false and fabricated information about the conflict and peace agreement. Stories of ethnic, political and tribal conflicts often linger in public discourse for a long time, with the details lost or altered with each telling. Most people who had access to the internet reported seeing false information online.
- In Iowara, Papua New Guinea, many interviewees told researchers their concerns about phishing scams. There was also a concern about misinformation and disinformation, particularly the risk of it being used to target personal relationships. For example, photoshopped images of individuals implying adultery have been reported, creating conflict within communities.

"My husband usually deals with the information source and if it is right. As for the hate speech, that's one of the reasons why we don't have Facebook because it exists there. We saw a lot of hate speech between refugees and Lebanese and that escalated a lot. We don't want any problems, so we are not involved at all."

Female Syrian refugee Akkar, Lebanon

"Because on Facebook, some information was not verified, before they posted them. It is mostly people's opinion, sometimes they just assume things and post."

Male West Papuan refugee Iowara, Papua New Guinea

Mobile technology has changed how people in displacement-affected communities interact with the world. Also, the ways in which they use technology vary greatly depending on individual and community goals, aspirations and constraints. Over the next year, we will continue to share the findings with our networks and work with partners to catalyse projects and shape interventions.

04 Anticipating and preparing for crises



"We are really excited to have the GSMA join REAP. In order to take early action to the scale needed to make 1 billion people safer from disaster by 2025, we need integrated, 'whole-of' approaches. It is encouraging to see an industry leader committing not only to supporting humanitarian action, but also to working in partnership with stakeholders from other sectors in order to increase the impact of our collective activities. We have no doubt that the GSMA will play an important role in contributing to the Partnership's 4 Targets and we look forward to working together."

Ben Webster

Head of REAP Secretariat





Anticipating disasters and crises to reduce their impact has become a key priority of the humanitarian sector. In 2022, M4H scaled up both engagement and funding in anticipatory humanitarian action.

The GSMA Innovation Fund for Anticipatory Humanitarian Action

Launched on 24 November 2022, the GSMA Innovation Fund for Anticipatory Humanitarian Action is the next iteration of our Innovation Fund. This round will back solutions that leverage mobile digital technology to help anticipate potential humanitarian impacts and enable effective early response.

Through the Fund, we aim to support projects that:

- Prevent and minimise the impact of humanitarian crises.
- Improve preparedness for sudden-onset crises
- Enable dignified and inclusive communication and assistance.
- Anticipate the incidence and impacts of crises and enable earlier and more effective responses.

Given the broad and far-reaching potential of anticipatory action, we are expecting to see a diverse range of solutions, including but not limited to:

- Pre-positioning and early deployment activities (for example, a mobile-enabled system that triggers a support payment when a certain risk threshold is reached).
- Early action, preparedness and resilience building focused on communities vulnerable to and/or at risk of crisis.
- Dissemination of early warning messages and adapting existing early warning systems to enhance the inclusion of different groups.
- Systems that will enhance communication between organisations and affected communities, anticipating the increased demand and need for information (for example, twoway communication channels between at-risk populations and humanitarian organisations).

Engaging in anticipatory action and early warning policy

Beyond specific funding, M4H has galvanised action in support of the UN Secretary-General's Early Warnings for All initiative to ensure every person on Earth is protected by early warning systems by 2027. Mobile technology often plays a central role and can be harnessed at multiple stages of an early warning system. This includes (but is not limited to) collecting, observing and analysing data, communicating risk and disseminating alerts to anticipatory and early action initiatives, such as the early disbursal of cash aid. The M4H programme is well placed to support this initiative and has begun to ramp up activities in this area. We will be working closely with the ITU and the International Federation of Red Cross and Red Crescent Societies (IFRC) in support of the Early Warnings for All initiative in 2023. In 2022, the GSMA, through the M4H programme, joined the Risk-informed Early Action Partnership (REAP). Our contribution to REAP's targets has included participation in working groups that focus on risk financing and inclusive risk communication through digital channels.



The GSMA Humanitarian Connectivity Charter

The impacts of disasters and crises are evident around the world. Meanwhile, the mobile industry continues to grow, connect more people and touch more lives. Communication and access to information is becoming ever-more critical in humanitarian emergencies. The GSMA Humanitarian Connectivity Charter (HCC) outlines shared principles of commitment and a series of aspirational collaborative actions the mobile industry can take to support communities and other stakeholders in emergency situations. The HCC works to channel this potential by recognising the unique role of MNOs in preparing for, and responding to, humanitarian emergencies such as natural hazard disasters, conflict, food insecurity and displacement.

The HCC was launched in 2015 after two years of industry consultation to support MNOs in improving the preparedness and resilience of their mobile networks. The Charter consists of a set of shared principles adopted by key players in the mobile industry, which support improved access to communication and information for those affected by crisis to reduce loss of life and make a positive contribution to humanitarian response.

The principles of the HCC:

- Enhance coordination within and among MNOs before, during and after a disaster
- Scale and standardise preparedness and response activities across the industry to enable more predictable response
- Strengthen partnerships between the mobile industry, governments and the humanitarian sector



HCC outcomes

Through pursuing the principles of the HCC, signatories will continue to work to achieve the following outcomes:

- Creating accessible and resilient connectivity for mobile subscribers and communities affected by disaster situations
- Establishing best practice standards for the mobile industry before, during and after a disaster
- Reliable information sharing that will benefit communities, humanitarian responders and the mobile ecosystem
- Improved leveraging of MNO core assets, competencies and relationships with external partners to deliver humanitarian communication activities
- Greater visibility of the unique role of mobile communication and the mobile industry in supporting disaster-affected communities

05 Measuring and demonstrating impact



Measuring and demonstrating impact

The M4H model for impact involves a process of research and analysis to identify opportunities, tools, partnerships and grants to support pilots and scale projects, and learning to build an evidence base that can support replication, further scale or policy influence through our network of partners and champions. Research and monitoring, evaluation and learning (MEL) underpin this approach and are foundational to our work.

Scaling impact: digital worlds research

Landmark M4H research in 2022, The Digital Worlds of Displacement-Affected Communities, used a participatory mixed-methods approach to better understand how displacement-affected communities access and use mobile technology. The project was designed from the outset to be user led, contextually sensitive and COVID-safe. It was conducted in three phases, allowing us to closely adapt the methodology to emerging findings from each context, both in terms of the research questions that were explored and the tools that were used.

An iterative, locally adapted, participatory approach led to highly nuanced research findings. The final report illustrates how communities and individuals access and use mobile technology, the patterns of use that have emerged and the impact of local social, political and economic constraints. After the research was finalised, the results were brought back to the research communities to share findings and gather feedback. Results were translated into local languages, simplified and distributed through preferred channels as identified through the research. More detail on the methodology can be found in <u>this report</u>.

While the M4H team has been focusing on disseminating the research findings with different audiences, we are already actively exploring partnerships to implement digital literacy training in Papua New Guinea as a specific follow-on from the research.

Demonstrating impact through monitoring, evaluation and learning

This is an exciting time for M4H as we transition into a new phase of the programme. In 2022, we delivered against our MEL framework, documenting best practices and providing evidence of impact, with a strong focus on qualitative and reflective learning. This has positioned M4H to deliver a new and ambitious MEL approach in 2023 to reflect this new phase and evaluate the journey and impact of individual projects. We will focus increasingly on monitoring our change and influence at the ecosystem level, which will help ensure the programme can continue to pursue and implement the most efficient, effective and impactful activities in our work. As we entered a new phase of our work it was necessary to update the Theory of Change (ToC) to reflect the maturity of the programme and shifts in both our strategic focus and the external operating environment. The updated ToC now represents the breadth of work we are focusing on across the programme, as well as the detailed pathways to impact. These include the stakeholders on which we depend and the implicit assumptions to achieve this impact.





External evaluations and assessments

Each year, M4H commissions several external evaluations and assessments to monitor our journey to, and the impact of, ensuring highquality evidence and understanding is drawn from the activities we deliver, support or fund. This helps us to track the success and progress of all workstreams, to articulate and provide evidence of key outcomes and refine and prioritise our focus and approaches. Key studies completed in 2022 included a **Phase 1 Endline Report**, which used an "outcome harvesting" approach to document progress and learning and identify the strengths and limitations of evidence collected; a **Process Evaluation of the M4H Innovation Fund**; and an **Outcomes Assessment of M4H's Strategic Partnerships**, which was able to identify the approaches and interventions that have had the greatest impact, as well as the approaches that partners have valued most, to guide future programming.

06 Conclusion

The need for responsible digital humanitarian action has never been greater. Sudden-onset disasters, such as floods and storms, are becoming more frequent and severe due to the global climate emergency. Disaster preparedness and response will be a key pillar of our work moving forward, with a focus on the HCC, anticipatory humanitarian action and early warning to better prepare for, and respond to, this growing area of need.

Protracted emergencies and conflict continue to cause suffering and displacement in countries such as Ukraine and South Sudan and surrounding regions. Through building digital ecosystems, the M4H programme is able to support digital and financial inclusion, enable effective delivery of digital assistance and support connectivity for displacement-affected communities and emergency responders.

The M4H programme is driven by principles of dignity, inclusion and safety in digital transformation. This report highlights the work we are doing, both with our partners around sexual and gender-based violence and protection training, and within our own processes to consider the ethical dimensions of digital humanitarian action. These efforts will continue to grow and develop in 2023. We will also continue to be evidence driven, building an investment portfolio of innovation, delivering digital humanitarian programmes through our partnerships, supporting an enabling policy environment and building a global research agenda to inform the future of digital humanitarian action.

We have been able to achieve everything outlined in this report and more, through the support of our donor, the UK FCDO, and the trusted partnerships we have built with MNOs and humanitarian agencies since our inception.

Please contact us at <u>M4H@gsma.com</u> to get involved.



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