mHEALTH ALLIANCE

Five Years of Mobilizing for Health Impact

KEY ACHIEVEMENTS & FUTURE OPPORTUNITIES

ABOUT THE mHEALTH ALLIANCE

The mHealth Alliance leverages the game-changing potential of mobile technology in pursuit of transformed health outcomes for billions of the world's most vulnerable people. To this end, the mHealth Alliance brings together experts from every sector — health, government, technology, development — to spark new connections and drive collective action for mainstreaming mHealth. Hosted by the United Nations Foundation, the mHealth Alliance's founding partners include Norad, Rockefeller Foundation, Vodafone Foundation, HP and the GSM Association. The Alliance also powers Health Unbound (HUB), a global online interactive network and knowledge resource center, and serves as a strategic partner to the Mobile Alliance for Maternal Action (MAMA) and mPowering Frontline Health Workers. For more information, please visit www.mHealthAlliance.org.

UNITED NATIONS FOUNDATION

Vodafone Foundation

Rockefeller Foundation
Innovation for the Next 100 Years

hp

Norad

GSMA

PHOTOGRAPHY CREDITS

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p. 9: UN Photo Andrea Brizzi

p. 14: UNICEF-Uganda

p. 15: Interactive Research and Development (IRD)

p. 24: MAMA

A WELCOME FROM THE EXECUTIVE DIRECTOR

Since its creation five years ago, the mHealth Alliance has been uniquely positioned to play a catalytic role in the mHealth community. By forging cross-sector partnerships to spark innovation and collective action, the mHealth Alliance has helped to improve health outcomes in low- and middle-income countries through the mainstreaming of mobile health.

mHealth, perhaps the most evolved of the mobile or "m" services, has benefited from the efforts and investments of a broad array of players. From established technology, telecom and medical companies, to start-up social enterprises, governments, multilateral agencies, and civil society groups, there have been countless individuals and institutions whose efforts have contributed to the rapid growth that has occurred in the past five years.

As a coordinating body for the mHealth ecosystem, the mHealth Alliance has had the pleasure of partnering with and working alongside a vast number of these stakeholders. We count nearly 300 organizations from 59 countries among our members, and our catalytic grants mechanism has delivered 26 grants to organizations whose work in 14 countries aims to reach 31 million people. Alongside these community building and strategic funding activities, the Alliance has supported the mHealth field through capacity building initiatives, country-level engagements, strategic partnerships, and a robust thought leadership series.

As we pause to reflect on the outcomes of the past five years, I am grateful for the opportunity that the mHealth Alliance has had to convene and help lead this impressive community, and I am proud of what we've achieved together. The stories you will read

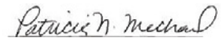
The progress in recent years has demonstrated the critical importance of collaboration and collective action—particularly across diverse sectors.

in the pages ahead are just a small sampling of some of the wonderful outcomes this collaboration has yielded.

While there is certainly a place for competition in any successful market, I believe that the progress in recent years has demonstrated the critical importance of collaboration and collective action—particularly across diverse sectors—in successfully and sustainably advancing an emergent field.

As mHealth evolves, this spirit of collaboration must continue. This is true at the global level, where efforts to build the evidence base, establish standards, and develop enabling policy guidelines remain critical. This is increasingly true at the country and institutional levels, where a growing number of mHealth projects and programs are gaining traction and moving toward scale.

We truly have come a long way. We must now continue to work together to fully realize the transformative impact that mobile technology can have on strengthening health delivery systems and increasing access to lifesaving health information and services for families around the world.



Patricia N. Mechael

Driving mHealth Toward Scale

WHERE WE ARE TODAY

Today, through innovation and strategic investments, the field of mHealth has grown into a mature environment where the benefits of using mobile technologies for the delivery of health information and services are clear. Yet, there is much work to be done in order to fully extend access to health information for the many health workers and health facilities that provide services to the four billion people who live at the base of the economic pyramid. The community must now focus on how to take mHealth to scale, both within institutions and at the country level.

Since its creation, the mHealth Alliance has spearheaded a number of projects, partnerships and initiatives designed to strengthen the enabling environment for mHealth in low- and middle-income countries. In a growing number of countries, once-fledgling mHealth projects are beginning to take root and achieve scale, thanks in part to mHealth Alliance funding, coordination, technical assistance and partnership support. Examples from Nigeria, Tanzania, and the UN Commission on Life-Saving Commodities for Women and Children demonstrate how the Alliance is helping to power this transformation.

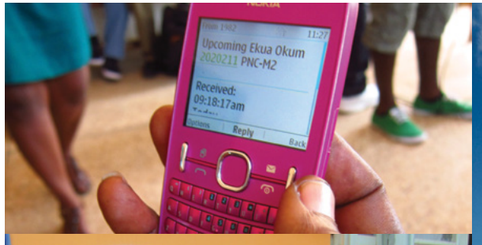
SAVING ONE MILLION LIVES IN NIGERIA

In 2012, Nigerian President Goodluck Jonathan launched the ambitious Saving One Million Lives initiative that aims to scale up access to essential primary health services and commodities for women and children throughout Nigeria. The Government of Nigeria invited the mHealth Alliance and other strategic partners to work with its Federal

Ministry of Health to integrate the strategic use of information and communications technologies (ICTs) into the ambitious effort to save the lives of one million women and children by 2015. Together with partners, including GSMA and Intel, efforts are already underway to develop an ICT framework to guide the use of ICTs in Nigeria's health system. In the shorter term, the Alliance is providing coordination and technical assistance to a broad range of implementation partners in three key areas for scale-up: increasing quality and quantity of reporting by health care facilities through the increased use of ICTs; integrating mobile technologies into a conditional cash transfer program to improve the health of pregnant women; and harnessing mobile phones to improve the management of supply chains for essential commodities.

ELIMINATING MOTHER-TO-CHILD TRANSMISSION OF HIV/AIDS IN TANZANIA

In Tanzania, with generous support from Johnson & Johnson, the mHealth Alliance is partnering with the Elizabeth Glaser Pediatric AIDS Foundation to provide technical assistance that will establish a decision support and registration system designed to decrease the incidence of mother to child transmission of HIV. The system addresses three key goals: to improve the quality of care provided to women and infants at reproductive and child health clinics, including the elimination of mother to child transmission of HIV/AIDS; to enhance data collection for patient records, as well as monitoring and evaluation; and to provide supportive clinical care messaging directly to women, helping to reduce loss to follow-up.



ENSURING GLOBAL ACCESS TO ESSENTIAL HEALTH COMMODITIES

It happens all over the world and, sadly, it's not uncommon. A nurse lacks access to an updated checklist for the use of resuscitation equipment, making it challenging to properly resuscitate a newborn. A community health worker lacks job-aids that would assist him or her in diagnosing a child with pneumonia, making it difficult to achieve the correct diagnosis and then provide the appropriate antibiotic treatment. In these cases, and many others like them, the delivery of life-saving commodities is stymied by a lack of adequate support tools for health workers to guide their use.

The UN Commission for Life Saving Commodities for Women and Children has identified this as a priority for improving the effective use of 13 essential life-saving commodities, particularly as it relates to reproductive, maternal, and child health. The Commission's overarching goal is to increase access to these 13 essential commodities for women and children in 50 of the world's poorest countries. The mHealth Alliance participates in the Commission as a co-convener for Recommendation 9, along with the African Medical and Research Foundation (AMREF), with a focus on using mobile technology to improve health worker performance and accountability. The Alliance is also a working group member for Recommendation 6, related specifically to the use of ICTs for supply chain management, and is leading ICT-related activities as a member of the working group for Neonatal Resuscitation Commodities.

The mHealth Opportunity

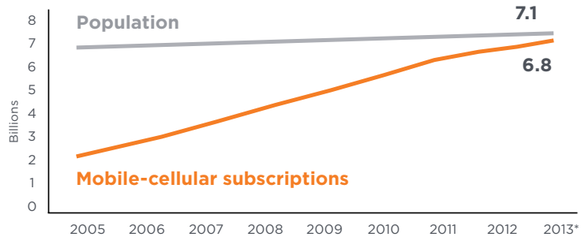
WHERE WE BEGAN

Many of the activities that have occurred throughout the past few years would have seemed like a distant dream when the Alliance was first conceptualized in 2008. At the time, the field was comprised of a few players who were fragmented and operating small-scale pilot projects. Knowledge sharing, an understanding of the value proposition of mHealth, and integration of mHealth with eHealth and other mServices was limited at best.

At a Rockefeller Foundation retreat in Bellagio, Italy, during the summer of 2008, a group of global health and technology visionaries gathered to discuss how the exponential growth in mobile phone uptake, including in some of the world's most remote and underserved areas, could change the way health care is delivered.

Graphic facilitation of the 2008 Bellagio retreat.

MOBILE PHONE UPTAKE RELATIVE TO THE GLOBAL POPULATION



SOURCE: ITU World Telecommunication / ICT Indicators database
Note: *Estimate

Global health challenges were formidable. Of the eight Millennium Development Goals (MDGs) established in 2000, the two for which progress lagged the furthest behind were MDG 4, which addressed reducing child mortality, and MDG 5, which aimed to improve maternal health.

Yet, at the same time the tremendous rise in mobile network coverage, coupled with falling hardware prices, was creating a unique opportunity for technology-enabled health information and service delivery in communities that were traditionally beyond the periphery of formal health systems.

To maximize this opportunity, the participants of the Bellagio conference agreed on the need for a neutral umbrella organization to catalyze collaboration and advance the use of mobile technologies to promote better health and wellbeing for the most vulnerable populations. A year later, with seed funding from the Rockefeller Foundation, the United Nations Foundation and Vodafone Foundation, the mHealth Alliance was born.

Transforming mHealth Potential into mHealth Impact

WHAT WE HAVE ACHIEVED

Today, the mHealth Alliance counts nearly 300 member organizations, representing nearly 60 countries. Through its catalytic grants mechanism, the Alliance has supported 26 grantees whose projects aim to reach roughly 31 million people in 14 countries.

To keep pace with the rapidly changing environment, the Alliance has adjusted its strategic focus over the years. Its initial focus on knowledge transfer, open standards, collaboration, and best practices shifted, in later years, to advocating for and addressing specific gaps in the mHealth landscape, namely in capacity building, evidence, policy, standards and interoperability, and sustainable financing.

Alongside the focus on addressing gaps, the mHealth Alliance deepened its technical, grant-making, partnership-incubation, community building, and knowledge base support. The following examples provide snapshots of Alliance activities with partners in some of these areas.

ACCELERATING CHANGE THROUGH CATALYTIC GRANTS

To address the two health-related MDGs that lagged the furthest behind, namely those related to maternal and child health, the mHealth Alliance launched the Maternal mHealth Initiative. This program sought to unite ICT, especially mobile, with the expertise of maternal, newborn and child health practitioners. The ultimate goal was to reduce maternal and infant mortality while improving the health of mothers and newborn children.

As part of this work a groundbreaking partnership, cemented in 2011 with the Government of Norway, enabled the mHealth Alliance to host and manage a catalytic grants mechanism supporting the scale-up of innovative uses of mobile technology to advance maternal and child health.

In addition to providing funding, the grants mechanism, which operates as part of the United Nations Secretary-General's Innovation Working Group (IWG), supports grantees with networking and technical support from the mHealth Alliance and the World Health Organization. The support is designed to help grantees expand their projects to wide-scale implementation, build their evidence base, grow partnerships, and transition to a sustainable business model. Grantee workshops providing dedicated technical assistance have been held in Ghana, India, Malawi, South Africa, and the United States.

MAP OF IWG PROJECT REACH

CASE STUDY

Empowering Citizens to Strengthen Health Outcomes in Uganda

Child and infant mortality rates are improving in Uganda. Death rates of children under five fell from 152:1,000 in 2000 to 90:1,000 by 2011 and infant mortality rates declined to 54 per 1,000 live births in 2011 from 88 in 2000. Despite these hard-earned steps forward, however, overall Uganda is not "on track" to achieve the health-related MDGs. Key maternal, newborn and child health (MNCH) goals remain unattained, with maternal mortality rates hovering at a near constant rate over the past five years.

Low transparency and poor accountability are major factors that contribute to poor health system performance in developing countries.

A recent randomized study in Uganda showed that strengthening accountability mechanisms can lead to dramatic improvements in health indicators. The study found that engaging citizens in the planning and supervision of health services, and empowering communities to report on the quality of health services in their communities led to a 33% reduction in under-five mortality, a 20% increase in the use of outpatient services, and improvements in the quality of care delivered after one year.

With funding from the IWG catalytic grant program for MNCH managed by the mHealth Alliance, UNICEF-Uganda is empowering citizens to strengthen MNCH outcomes with two mobile-based tools: U-report and mTrac. The U-report system, which already has over 200,000 users in Uganda, equips mobile phone users with the tools to establish and enforce new standards of transparency and accountability. The integration of mTrac, a data management system, allows data submitted by individuals to be delivered back to health facilities and health professionals using mobile phones. It also is helping to measure improvements in health service delivery.

CASE STUDY

Countering Vaccine-Preventable Deaths in Pakistan

Every year, 8.8 million children under five die – an estimated 17% of them due to illness triggered by a vaccine-preventable disease. That's almost 1.5 million children who die each year from preventable disease.

In Pakistan, despite major efforts to improve immunization coverage, low vaccination uptake and delayed immunization delivery leave many children vulnerable. Full immunization coverage remains modest, varying by province from below 40% to up to 80%. In addition, limited programmatic data are available on age-appropriate immunization coverage, which assesses whether these critical vaccines have been administered at the right points during infancy.

With funding from the IWG catalytic grant program for MNCH, managed by the mHealth Alliance, Interactive Research & Development (IRD) in Pakistan is using mobile to deliver information and small incentives that can make a huge difference. Through SMS reminders and a lottery system with cash prizes for participants, IRD is seeking to eliminate vaccine-preventable illnesses by increasing the full and timely completion of the vaccine delivery schedules among children throughout Pakistan.

BRINGING PROJECTS TO SCALE BY INCUBATING INNOVATIVE PARTNERSHIPS

The mHealth Alliance has served as partnership secretariat to two major public-private partnerships seeking to improve maternal and child health through community health worker support and direct citizen engagement. In this role, the mHealth Alliance has provided strategic guidance, communications and partnership support to the Mobile Alliance for Maternal Action and the mPowering Frontline Health Workers Initiative.

The Mobile Alliance for Maternal Action (MAMA)

MAMA is an innovative public-private partnership that supports programs delivering vital health information through mobile phones to mothers in resource-constrained settings in low- and middle-income countries. Founded by USAID, Johnson & Johnson, the mHealth Alliance, the United Nations Foundation and BabyCenter, MAMA converts many of the simple health interventions that have been proven to reduce maternal and child deaths into informational text messages for expectant moms. Messages concerning birth spacing, regular antenatal care, exclusive breastfeeding, hand washing, and use of insecticide-treated bed nets to prevent malaria are all behaviors that require the knowledge and willing participation of the mother, as well as other household and community decision-makers. Since its launch in 2011, MAMA has worked with local partners to implement programs in Bangladesh and South Africa, with plans for a third country program in India underway.

CASE STUDY

Promoting Healthy Behavior Change through MAMA Text Messages

In less than two years, over 230 non-profits, social enterprises, and governments in almost 60 countries around the world have joined the Mobile Alliance for Maternal Action (MAMA) community by downloading and using the evidence-based, mobile-formatted MAMA messages. The messages currently reach more than 565,000 new and expectant mothers globally.

The MAMA messaging program accompanies each mother on her journey of learning and discovery and acts as a step-by-step guide to a healthy pregnancy and healthy baby. Mobile phone-based health messages are portable, accessible, discreet and can be saved or shared. They can provide information, offer support, dispel myths, highlight warning signs and connect pregnant women and new moms with local health services.

Messages can be targeted to a woman's stage of pregnancy or the age of her child so that the information reflects exactly what she is experiencing at a particular time. This helps to build an emotional connection with the mother and a sense of trust, making it more likely that she will be receptive to messages that encourage changes in behavior.

mPowering Frontline Health Workers

A key barrier to achieving MDGs 4 and 5 is the severe shortage of trained frontline health workers and, thus, their lack of ability to provide quality and timely services to women and children. mPowering Frontline Health Workers, created by USAID, the mHealth Alliance, and a consortium of nine other public and private sector partners, was launched in 2012 to address this gap. For an early example of the mPowering initiative's work, we turn to India, where frontline health workers form the backbone of the public health system, but face significant challenges, including inadequate training, weak performance incentives, and inefficient data for decision-making.

CASE STUDY

Assessing Health Worker Readiness for Mobile in India

In India, as in other parts of the world, mobile technology offers a revolutionary opportunity to strengthen the capacity of health workers and improve the quality of critical maternal and child health interventions. In September 2013, team members from the mHealth Alliance, the mPowering Frontline Health Workers global staff, and Qualcomm Wireless Reach led a delegation to New Delhi, India to explore how mobile could help bridge the gap in training and resources available to frontline health workers.

The delegation assessed what content and mobile tools are being used to support health workers in low-resource settings; identified gaps and opportunities to support the scale-up of mHealth solutions; met with key government, public and private stakeholders; and investigated how to align mPowering's strategy with national and local priorities, needs and programs.

Based on this work and stakeholder interviews with representatives from multiple sectors in India, three opportunities emerged for consideration that map well to trends in other areas of mHealth. These recommendations included: 1) developing a standardized process for the Indian government to evaluate and integrate existing mHealth patient registration and monitoring solutions into its national health information databases; 2) establishing a pan-India platform that delivers accessible, relevant and high quality mobile content to health workers for refresher training and continuing education; and 3) supporting an existing, proven mHealth solution launch at scale in one or more states in India.

BUILDING COMMUNITY THROUGH MEMBERSHIP AND SOCIAL MEDIA

In 2012 the Alliance opened its door to membership, rallying a growing number of stakeholders in the mHealth community together around the 'Greentree Principles,' a core set of guiding principles designed to make the growth of the field as ethical, sustainable, and equitable as possible. In joining the mHealth Alliance, member organizations agreed to principles that include: developing the mHealth commons through collective action and collaboration, openly sharing information and knowledge to promote mHealth, supporting the collection of evidence, designing mHealth products with the end user in mind, and promoting equity, transparency, and ethical conduct. Today, the nearly 300 mHealth Alliance members represent a diverse cross-section of sectors and geographies.

The Alliance has also played a critical role in bringing the global mHealth community together through online channels. The Alliance powers Health Unbound (HUB), an interactive network and online knowledge and resource-sharing center, which has more than 8,500 members. HUB offers its users access to 2,300+ available resources and, through a partnership with K4Health's PhotoShare, more than 18,000 photos. The Alliance has also initiated and led thoughtful discussions about key mHealth topics through its Communities of Practice, hosted on HUB.

Additionally, in recent years the Alliance has promoted knowledge sharing and promotion of mHealth news, projects and research by expanding its social media channels. From 2012 to the end of 2013, the mHealth Alliance Twitter channel expanded from less than 4,000 to nearly 12,000 followers. During this time, @mHealthAlliance played an important role

in Twitter conversations such as #MDGMomentum, an online effort to rally the global community in the final 1,000 days leading up to the MDG target date, and the online dialogue surrounding the Social Good Summit. The Alliance has also created communities on Facebook, YouTube, LinkedIn and Google+.

Through new media, and through its efforts to engage traditional media outlets, the Alliance has contributed to a heightened awareness of mHealth and its benefits. The fact that three articles about global mHealth appeared in the New York Times in 2013 offers one simple indicator of just how much more visible the field has become. The mHealth Alliance was quoted in or provided background information for two of the three New York Times articles.

INCREASING THE KNOWLEDGE BASE THROUGH RESEARCH AND EVENTS

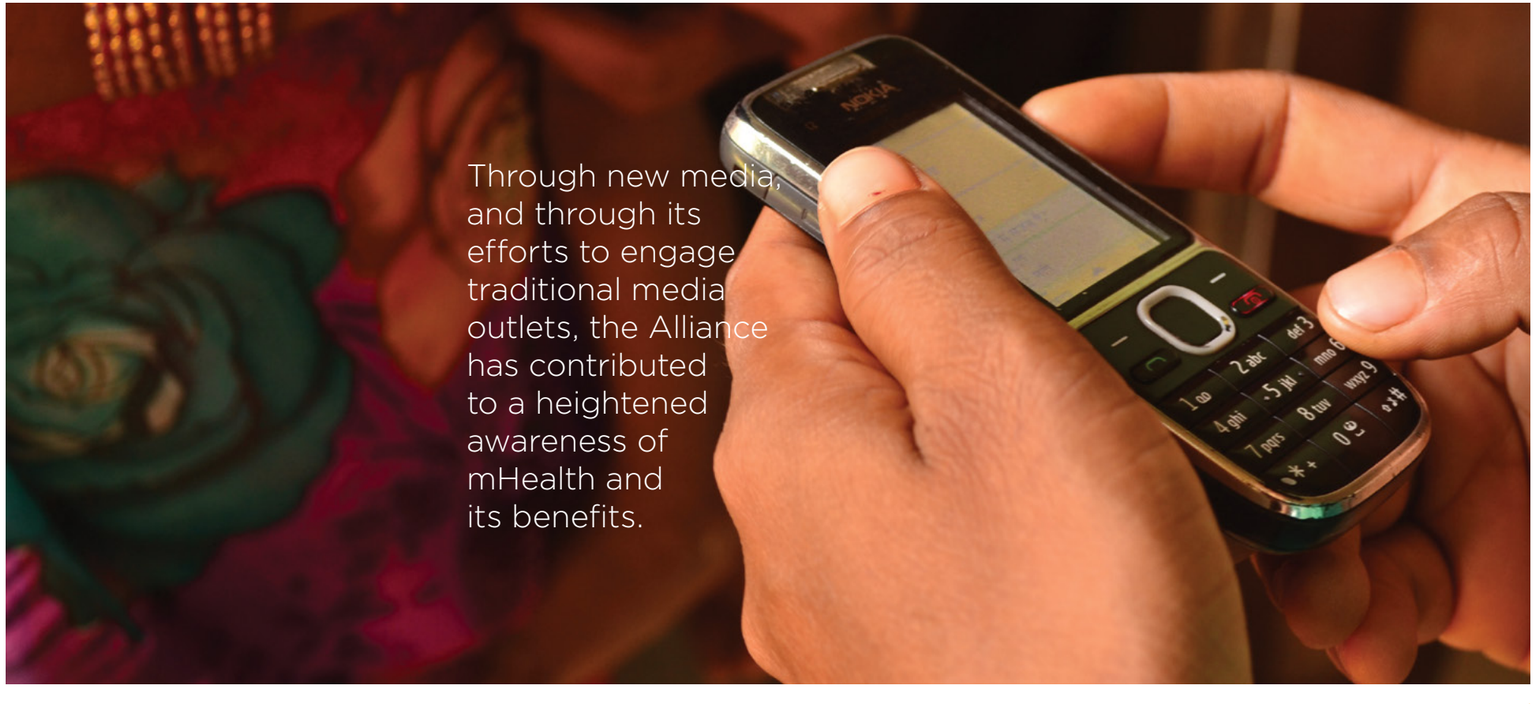
The mHealth Alliance identified the need to expand the mHealth knowledge base early on. Since its creation, the Alliance has provided thought leadership for the field through original research and analysis, by convening workshops, and by speaking at and organizing events.

The mHealth Alliance has played an important role in advancing dialogue and knowledge sharing as an organizing partner of the annual mHealth Summit, the world's largest mHealth event, in collaboration with HIMSS Media, the National Institutes of Health and the Foundation of the National Institutes of Health. This event has grown from a gathering of 500 to more than 5,000 in only 5 years. In 2012, the Alliance founded the Global Health

Track to incorporate a stronger focus on issues related to mobile health for low- and middle-income countries. The Alliance has also worked to include keynote speakers with a focus on global development issues.

The Alliance has produced more than 20 publications since its establishment in 2008. The reports profiled below are just a sampling of the deep research:

- An 8-part series on mHealth for maternal, newborn and child health (MNCH), including a Gender Analytical Framework
- A 4-part white paper series on mHealth for healthy aging, produced in partnership with Pfizer
- Baseline evaluation of the mHealth Ecosystem
- Sustainable Financing for mHealth, produced in partnership with Vital Wave Consulting
- The State of Standards and Interoperability
- Patient Privacy in a Mobile World – a framework to address privacy law issues in mobile health, produced in collaboration with the Thomson Reuters Foundation, Baker & McKenzie, and Merck
- The Role of mHealth in the Fight Against Tuberculosis
- Preparing the Next Generation of Community Health Workers
- Barriers and Gaps Affecting mHealth in Low and Middle Income Countries, produced in partnership with the Earth Institute, Columbia University
- mHealth: New Horizons for Health through Mobile Technologies, first ever global survey on mHealth, produced in collaboration with WHO



Closing the Gap

WHERE WE ARE HEADED

In the past five years we, as a community, have taken tremendous steps toward realizing the potential of mobile health to make much-needed health information and services available to people beyond the reach of formal health systems.

Mobile phones are delivering lifesaving health information to pregnant mothers, training frontline health workers, enabling improved data collection and management, amplifying citizens' voices in providing feedback on public health service delivery, and providing patient reminders that encourage healthy behavior choices that can both help prevent and treat disease. The mHealth Alliance has been proud to support these advancements through its global work.

Now that a number of key barriers that faced the field of mHealth at the time of the Alliance's creation in 2008 have been surmounted, the road ahead should see more focused, country-level efforts to take mHealth projects to scale in a strategic, impactful and sustainable way. The Alliance has already begun this work directly in countries like Nigeria and India, and indirectly through the research, catalytic funding and community building activities described in this report. Increasingly, the Alliance will support mHealth at the country-level through its new mHealth Expert Learning Program (mHELP), which, with support from Johnson & Johnson, is providing active technical assistance in countries including South Africa and Tanzania.

The innovation, strategic investments, market research, and tailored local development of mHealth projects must continue in the spirit of the Greentree Principles in order for the field to reach its full potential. The convergence of the mobile technology and global health fields has spurred considerable advances in efforts to achieve the MDGs by 2015. mHealth should be actively leveraged in the days remaining until the MDG deadline. It also should be a major strategic pillar of the post-2015 global development agenda.

Looking back at five years, there have been challenges and learning experiences along the way, but also key successes that merit reflection and celebration. The mHealth Alliance looks forward to carrying this momentum forward in collaboration with many of you who have helped pave the way for the future of health information and service delivery for some of the world's most vulnerable populations. Together, we can surely make the next five years as exciting and significant as the past five have been.


mhealthalliance.org