LEVERAGING MOBILE MONEY

The Potential for Mobile Financial Services to Support and Enhance UNICEF Programming

An assessment of the opportunities for and challenges of integrating mobile financial services to support UNICEF programming and operations, primarily in the areas of health, social protection, and finance and administration.

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SECTION 1
EXECUTIVE SUMMARY

© UNICEF/MLWB2008-712/Francois d'Elbee. In August 2008, a mobile banking van from Opportunity Bank delivers cash to small scale farmers at Mwandama Millennium Village Project in Zomba.

Approximately half the global population does not have access to basic financial services; when looking at Africa, the figure rises to 80 percent. Without savings, insurance, payment services, and basic credit, the poor are more vulnerable to economic shocks and more liable to exploitation in unregulated financial markets. Financial exclusion contributes to the marginalizaton of populations already most vulnerable and exacerbates the cycle of poverty. The rapidly growing mobile financial services (MFS) sector offers great potential to combat financial exclusion, with important implications for international development. By connecting those traditionally marginalized -- whether due to geography, economy, or otherwise -- into digital financial networks via the mobile phone, MFS opens new possibilities for service delivery and development programming.

Innovative groups such as the Bill and Melinda Gates Foundation and the UK Department for International Development are doing pioneering work in advancing the use of MFS for development. This report identifies three focus areas where MFS can support and improve the organization's programming and operations:

Social Protection: Quick-impact initiatives such as food security programmes and household cash transfers can be supported and facilitated by MFS. In many cases, the mobile channel can be used to supplement existing, analogue platforms.

Health: UNICEF's investments in using mobiles for health programming have yielded improved capacities for quality care provision. MFS can help further improve programme efficiencies and efficacy, and help them achieve scale and sustainability. mHealth and MFS share common building blocks which can be leveraged for cross-sector efficiency gains. In doing so, there is opportunity to move both sectors from fragmented pilots to scalable, commercially viable, and sustainable programmes.

Finance and Administration: There is also immense opportunity for MFS to help UNICEF reduce administrative costs, burdens, and risk associated with financial management and transfer, especially in partner and partner-beneficiary relationships. Given UNICEF's scale, even minor efficiency improvements through the system can, in aggregate, have a transformative effect.

Using MFS in programming and operations can yield diverse benefits for UNICEF:

- Greater transparency and accountability
- Greater programme sustainability through diversified funding
- Greater ability to discern relationships across platforms and programmes, and to immediately adjust programming, based on linked monitoring and evaluation
- Decreased time and cost burden in processing funds
- Expanded opportunities for developing local capacities
- Decreased burden for partners by brokering transactions through UNICEF-negotiated, locally appropriate platforms
- Increased morale for implementing partners and extension workers through real-time, performance-based renumeration
- Decreased risk for partners in handling cash

"Mass adoption of MFS can help families graduate from poverty, ultimately aligning with UNICEF's larger vision of tackling inequity and achieving sustainable development."

In addition to direct benefits to the organization, given UNICEF's scale, using MFS to serve its goals can also stimulate the global MFS market, a secondary but important effect. Mass adoption of MFS can help families graduate from poverty, ultimately aligning with UNICEF's larger vision of tackling inequity and achieving sustainable development. Though the MFS is experiencing early growing pains, ultimately, the alignment of corporate interests with development aims points to a sustainable, double bottom-line opportunity. By strategically integrating MFS into programming, UNICEF can support market mechanisms that improve the livelihoods of the poor.

Further, MFS can play a critical role in aligning UNICEF with mobile operators' core businesses, rather than with their corporate social responsibility arms, which have less power and influence. As MFS is a high-growth area, operators seek partners to help them realize its potential. Acquiring expertise now will have long-term benefits for UNICEF; as the industry evolves, opportunities to leverage MFS for development will only increase.

As the MFS marketplace grows, UNICEF will need to advise governments on how the sector can support their social development goals. UNICEF needs experience leveraging MFS for development to be able to develop guidance notes for country offices and policy products for governments in the future.

Many challenges lie ahead for the MFS industry, and there is a pool of unanswered legal, regulatory, and operational questions. Security both of the platform and of user data is of great concern, as are the associated privacy and fraud risks. Despite the challenges, it would be unwise for UNICEF to neglect MFS at present. With significant potential to reduce poverty while directly supporting UNICEF programmes, the organization should assume a proactive, informed role in influencing market forces for optimal development outcomes. UNICEF can leverage its market-shaping ability, its name, and its convening power to organize stakeholders and ensure the most vulnerable families and children are considered as policies are shaped and programmes implemented.

Early movers in MFS can help define whether and how the industry serves development aims; they will also acquire critical knowledge and influence that will serve them well as services are increasingly delivered via mobile. As a leader in the mobiles for development community, UNICEF's advances in MFS will foster greater capacity in this group and in governments to leverage appropriate technology to realize development opportunities..

SECTION 2
THE OPPORTUNITY

© Evan Wheeler. Community health workers in Malawi are trained on RapidSMS, an open-source SMS framework partially developed by UNICEF, as part of a nutrition surveillance initiative.

Approximately half the global population does not have access to basic financial services; when looking at Africa, the figure rises to 80 percent. Without savings, insurance, payment services, and basic credit, the poor are more vulnerable to economic shocks and more liable to exploitation in unregulated financial markets. Financial exclusion contributes to the marginalizaton of those already most vulnerable, further exacerbating the cycle of poverty and severely limiting families' abilities to care for their children.

"For every 10,000 people in emerging markets, there is one bank branch and one ATM, but 5,100 mobile phones."

Though awareness of the consequences of financial exclusion is gaining momentum in policy circles, progress to overcome it has been slow. In the past three years, however, promising new models hoping to fast-track financial inclusion have emerged. Central to these new models is the mobile phone, and with good reason. In emerging markets, traditional banking reaches approximately 37 percent of the population; roughly half these populations, however, have access to a mobile phone. According to management consultancy McKinsey, for every 10,000 people in emerging markets, there is one bank branch and one ATM, but 5,100 mobile phones. With over five billion mobile subscriptions worldwide, mobile is now the ubiquitous platform; recent years have seen banks, mobile operators, and financial service specialists leveraging it to deliver financial services.

In a basic mobile financial services (MFS) model, customers deposit funds by giving cash to specialized agents, who then credit the customers' mobile accounts using a custom MFS text messaging system. Also using SMS (short message service, or text message), MFS subscribers can transfer funds from their mobile account to family and friends, or make payments to retailers registered with the system. Users can withdraw cash from any agent. Loans, insurance, and other value-added products and service are more complex, and require greater coordination among multiple actors, but the core technology and principles are the same. Fees are, on average, 19 percent cheaper than traditional banks for comparable services.

A Rapidly Growing Market

While there is great potential for MFS, the sector is young and many key issues surrounding operations and regulations remain unresolved. According to a recent McKinsey/GSMA report, 75 percent of operators working in MFS have been doing so for less than two years. And while M-PESA in Kenya and GCash and SMART Money in the Philippines are thriving, national success stories are limited. A recent GSMA survey of five mobile money deployments globally found that only one had a healthy active user rate (60 percent) while the rest fell under 30 percent, with one coming in at 10 percent.

CASE STUDY

M-PESA IN KENYA: M-Pesa is a mobile-based money transfer service launched in 2007 by Safaricom, a Vodafone affiliate, in Kenya. Partly funded by the UK Department for International Development (DFID), M-Pesa is the most successful mobile banking service to date. By 2009, less than two years after launch, it boasted 6.5 million subscribers. M-Pesa allows users to deposit and withdraw money, transfer money (to both subscribers and non-subscribers), pay bills, and buy airtime. Locally branded services have been developed for Tanzania, Afghanistan, and South Africa; several other markets including India and Egypt are being considered for further development.

At the time of writing, the GSMA counted 96 live MFS deployments globally -- and another 91 planned -- the majority of which were in developing countries. From 2008 to 2009, users of MFS doubled, reaching 55 million; it is expected that the yet unreleased figures for 2009 to 2010 will report similar growth. Indeed, many developing countries may leapfrog over the electronic banking systems widely used in more developed markets today. Industry watchers predict that in the next five years, over one in five people in Africa, many of which were previously unbanked, will become MFS users. The industry is expected to reach $8 billion in annual revenue by 2012; $5 billion from direct revenue, and $3 billion in indirect revenue through reduced churn and higher average revenue per user (ARPU), two critical success metrics in the mobile sector.

The development and rapid growth of MFS has important implications for international development. By connecting those traditionally marginalized -- whether due to geography, economy, or otherwise -- into digital financial networks via the mobile phone, MFS opens new possibilities for service delivery and development programming. Organizations such as the World Food Programme, Concern Worldwide, and country governments such as those of South Africa, Pakistan, and Brazil, have experimented with MFS and other novel forms of funds transfer (ie. electronic benefit cards) to improve social support and emergency services. As the industry advances, opportunities to leverage MFS will only increase, and rapidly so.

Financial Inclusion Helps the Most Vulnerable

MFS can bring transformative social and economic benefits to the poor in developing countries. As former UN Secretary-General Kofi Annan said in 2003, "The stark reality is that most poor people in the world still lack access to sustainable financial services, whether it is savings, credit or insurance. The great challenge before us is to address the constraints that exclude people from full participation in the financial sector. Together, we can and must build inclusive financial sectors that help people improve their lives."

Today, the most vulnerable mothers and families do not have access to primary financial instruments that are essential in mitigating the risks associated with low and unsteady income. When trapped in the cycle of poverty, families are unable to care for their children. Payment services will help poor families save time and money that can be spent in more productive ways. Basic credit will allow them to use current assets to capitalize on future opportunities. Appropriate insurance schemes will allow them to protect against economic shocks. The ability to save, and to do so securely, will allow them to decrease their risk in handling cash. Taken in sum, access to basic financial instruments will al-

© UNICEF/MLWB2010-627/Eldson Chagara. UN Secretary-General Ban ki-Moon is briefed on mobile banking at Mwandama Millennium Village Project in Zomba.

low families to pursue economic opportunities, generate greater income, and accumulate amounts of net worth. As a result, they will be more able to meet their life and emergency expenses, including school fees and healthcare costs for their young.

Strategic use of MFS by UNICEF and other large development organizations in serving their own goals can stimulate global demand for MFS. This may be a secondary effect that will have profound implications for those they are trying to serve. Greater consumer adoption of MFS, at all income levels, will affect poor families the world over, ultimately aligning with UNICEF's larger vision of tackling inequity and achieving sustainable development.

Innovative groups worldwide have already realized the contributions MFS can make towards development goals, and are doing pioneering work in piloting, evaluating, and advancing MFS. Some of the leaders include:

Research, Advocacy, and Programmes: The Bill and Melinda Gates Foundation's Financial Services for the Poor program, the Aga Khan Foundation's Fund for Economic Development, and DFID have all invested in research and advocacy on the positive impacts of MFS for the poor, with pilots in countries such as Kenya, Haiti, and Afghanistan. The Grameen Foundation is actively piloting new products, services, and programmes that serve the poor through targeted programs and its AppLab.

Public Policy: The World Bank's CGAP (Consultative Group to Assist the Poor) and IFC (International Finance Corporation) divisions are both heavily involved in advancing global policies in this field, with the former focused on the public sector, broadly defined, and the latter on myriad regulators and influencers in the banking and finance sectors.

Private Sector: The GSMA Development Fund is helping organize and advance the mobile industry's efforts through its Mobile Money for the Unbanked program. Indeed, some of the largest players in mobile telecommunications -- from operators to handset manufacturers to application developers -- are keen to get involved, as are the commercial banking and financial services sectors.

The dialogue is vibrant, with actors committed to advancing financial inclusion through coherent action, sound policy, and innovative service delivery. Due to the market potential, the private sector is also eager to move fast and engage with actors like UNICEF that may help stimulate demand and increase penetration through innovative programming. There is opportunity for UNICEF to become a leader in tackling poverty while pursuing its own agenda. The free market is poised to become a powerful force in empowering the poor in its own right, but supporters like UNICEF can help catalyze positive effects and ensure the most vulnerable are not again overlooked in this financial revolution.

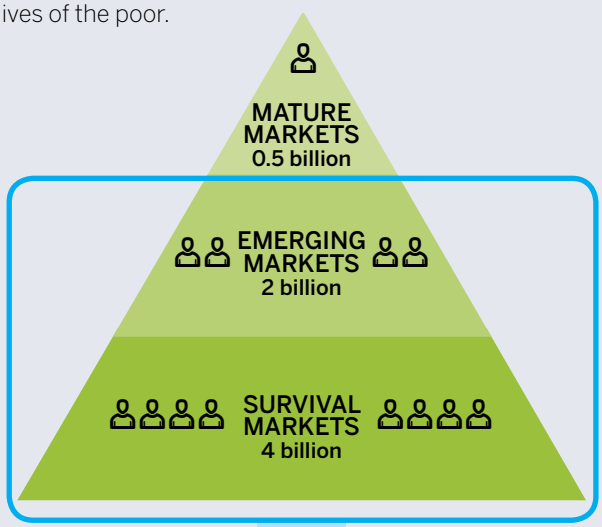
Through innovative programming, there is immense opportunity to rethink how the international development community frames, supports, and designs for financial inclusion. Operationally, MFS has the potential to transform UNICEF and its partners' service delivery through greater accountability and efficiency, and decreased risk. Taking a broader view, MFS can also encourage greater local capacities (by engaging more, non-institutional partners) and greater programme sustainability through diversified funding.

REALIZING MOBILE BANKING'S POTENTIAL TO DRIVE SOCIAL CHANGE

Mobile financial services offer great opportunity to combat financial exclusion, with important implications for marginalized populations worldwide. There are also inherent benefits for mobile operators and governments. Working together, each group can realize its own goals and collectively improve the lives of the poor.

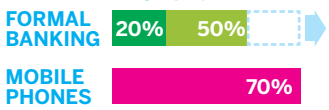
1 FINANCIAL EXCLUSION EXACERBATES POVERTY

The world's unbanked are more vulnerable to economic shocks and more liable to exploitation in unregulated financial markets. Financial exclusion contributes to the marginalizaton of those already most vulnerable, and further exacerbates the cycle of poverty.



2 MOBILE BANKING CAN DRIVE POSITIVE CHANGE

In emerging markets, the percent of people reached by:



By 2012, **1.7 BILLION PEOPLE** without access to formal banking will have access to mobile phones.

In reducing the cost of providing financial services by up to **70 PERCENT,** mobiles make it possible to offer banking to populations that were previously unprofitable to serve.

For every 10,000 people in emerging markets, there is:

1 BANK BRANCH

1 ATM

5,100 MOBILE PHONES

3 INTERSECTING OPPORTUNITY

Financial Potential

For mobile operators:

$8 BILLION ANNUALLY

$5 billion annually from direct revenue.
$3 billion annually from reduced churn and increased average revenue per user

Development Potential

For marginalized populations:

- Ability to pursue economic opportunities
- Ability to generate greater income
- Ability to accumulate amounts of net worth

For development organizations:

- Greater transparency and accountability
- Greater efficiency and improved morale through real-time transfers
- Greater programme sustainability through diversified funding
- Greater agility through sophisticated M&E
- Expanded opportunities to develop local capacity
- Decreased burden and risk for local NGOs

4 REALIZING MOBILE BANKING'S POTENTIAL

Mobile Operators
ACT as technical experts
BRING the platform and agent infrastructure,
GET increased revenue.

Governments
ACT as regulators
BRING facilitating powers,
GET improved livelihoods for their citizens.

Development Organizations
ACT as conveners
BRING global expertise in serving the marginalized
GET improved outcomes.

Mobile Financial Services in Support of UNICEF's M4D Vision

UNICEF's recent Mobiles for Development (M4D) study recommended the organization invest greater resources in the M4D field as a whole so that it can leverage the low-cost mobile platform in support of programming, especially to reach isolated and vulnerable groups. Specific recommendations from the M4D report were for UNICEF to:

- Engage with mobile operators' core business units
- Increase organizational capacity for M4D initiatives
- Play a strategic role in strengthening and moving forward the M4D community
- Strengthen monitoring and evaluation (M&E) efforts in M4D
- Share M4D experiences with governments and practitioners
- Work with multi-stakeholder partnerships
- Explore integrating mobile finance into programmes

Acting upon this last proposed direction will help UNICEF progress on all the other recommendations.

- Strategic use of MFS will be critical to UNICEF's approach to align with operator's core businesses, rather than with their corporate social responsibility arms, which have less power, influence, and resources. As MFS is a high-growth area, operators are scouting for partners that can help them unleash its potential. Demonstrating that UNICEF understands and can help operators advance their business objectives can prove beneficial in winning their wider support, and transferring positive associations to other M4D programmes.
- Acquiring expertise and practical knowledge in how to leverage MFS will help the organization better understand how to work with mobile operators in the future, thereby increasing organizational capacity for M4D initiatives.
- Innovative pilots in this space will contribute to the knowledge of the wider M4D community as a whole -- and to government and practitioners discouse -- on how to operationalize opportunities in using mobiles for development.
- Building in and executing a robust M&E plan to any MFS initiative will be especially valuable for UNICEF and for the M4D community as it learns what works and what does work in MFS-supported programming.
- Due to the complexities around MFS, UNICEF will be required to work with multi-party stakeholders in pursuit of MFS-supported programming. These include multiple mobile network operators, hardware manufacturers, mobile service providers, industry regulators, banks, and government ministries. In doing so, UNICEF can gauge various actors and surface new opportunity areas and possible alliances. As the industry is still young, UNICEF can convene suitable actors to set policy that realizes the MFS' potential to help the poor, and does so in a way to aligns with the UN/UNICEF vision.

As the MFS marketplace grows and reaches mass adoption in national markets, governments will be looking to understand how they can use these platforms and mechanisms to support their work. MFS is well-positioned to do so, but governments generally will not have the requisite technical knowledge to take advantage of MFS. The parts of government that handle developments in MFS (the financial regulators) do so at a policy level, and are generally removed from those parts of government (the ministries responsible

for health, social services, emergency response, and others) that would take advantage of new technologies in support of social services.

> **"UNICEF needs to develop innovative mechanisms that leverage MFS to support child rights, with accompanying operational guidance notes for country offices and policy products for governments."**

Thus, UNICEF -- at the global level -- needs to develop innovative mechanisms that leverage MFS to support child rights, with accompanying operational guidance notes for country offices (COs), and policy products for governments. These may include high profile global advocacy and knowledge management (ie. through a global report and/or high profile presentations at global events); assisting in the preparation of technical background materials, and advocacy. Work in this area should be coordinated with domain experts such as those at the World Bank and the International Monetary Fund.

COs will then be able to inform policy discussions and stimulate dialogue in their respective countries on alternative options for social support and service delivery, and their potential impacts on child rights, long term development, and pro-poor growth. COs will also need to provide technical support to programme design.

Providing cost-effective and sustainable programming for both UNICEF and its beneficiaries can be challenging, and the organization must proceed cautiously. Potential hurdles and risks associated with the MFS sector are outlined in a later section and must be assessed and mitigated. That said, it would be unwise for UNICEF to neglect the potential of MFS. The growth of MFS globally will have significant impacts on poverty reduction and the quality of life for the developing world, and UNICEF should assume a role to influence market forces to ensure the impacts are for the positive.

Benefits for Programmes and Operations

In addition to supporting UNICEF's poverty reduction efforts and the organization's overall M4D strategy, MFS can also bolster UNICEF programmes in specific ways. Benefits of leveraging MFS in support of programmes and operations include:

Greater reach -- especially in rural, hard-to-reach, or insecure areas -- through a ready-built agent network.

Both mobile networks and banking systems are similar in that they require vast and relatively dense coverage to win customers and be successful. In developing MFS systems, operators invest heavily in building sizable agent networks and in ensuring adequate agent penetration across geographies. Though coverage in rural, otherwise hard-to-reach, or insecure areas is understandably more sparse compared to urban areas, vis-a-vis other commercial or government services, mobile generally has farther reach. By leveraging MFS operators' existing agent networks, UNICEF and its partners can increase their own programme reach rapidly and by orders of magnitude. Safaricom's M-Pesa in Kenya currently boasts roughly 20,000 agents countrywide, latest figures from Zain's Zap service in Uganda puts it at about 4,000 agents. Such ready-built infrastructure can be used to ensure UNICEF programmes benefit those that can't otherwise be reached.

Greater transparency and accountability

Mobile systems bring with them a level of transparency that can reduce fraud by creating real-time, digital trails, and by cutting out many middlemen in transactions that typically handle -- and thus are able to leak -- cash. MFS can help track the flow of money from donor through implementing partners, down the system, and to the end beneficiaries.

CASE STUDY

MOBILE BANKING COMBATS FRAUD IN AFGHANISTAN:

According to Transparency International, Afghanistan is the world's second-most corrupt nation, tying with Myanmar and coming in just above Somalia. Its population suffers the effects of government graft, with little recourse. In mid-2009, however, the government began paying members of its police force through mobile banking, using the M-Paisa service by Roshan. The service facilitates funds transfer through SMS and, in a country where 70 percent of the population is illiterate, through interactive voice response (IVR). When policemen first started receiving their salary via mobile, many assumed they had received a raise -- up to 30 percent in some cases. In fact, they had simply received their full pay for the first time; previously, commanders and higher-ups in the chain had all taken a cut as cash moved through the system on its way to the policemen. After a successful pilot, the government has since extended the programme. Anecdotal evidence suggests that salary disbursement via MFS has meant police salaries are now comparable to those offered by the Taliban, thus preventing defections.

Automated systems largely eliminate the time-consuming and costly processes associate with disbursing and tracking funds, while digital storage ensure that records are widely, easily accessible and never lost. In health, for example, UNICEF can track its funding to the government or local NGOs, into the clinics, to community healthcare workers, and to recipient mothers (and, in reverse, all the way back up the chain). Such granular transparency can help combat corruption and fraud, leading to more accurate evaluations and data to inform future programmatic and budgeting decisions. Funders will also be able to better track their investments, to ensure wise future decisions that yield the desired results.

Digital tracking can help determine whether transferred funds were used for the intended purpose, and in accordance with the stipulated procedures. Mobile tracking adds an extra degree of awareness to the process. And in countries with limited banking infrastructure that may adopt mobile as the dominant banking platform, it will be far easier to track downstream expenditures through mobile, especially as mobile payments and cash transfers become more common.

Greater programme sustainability through diversified funding.

User payment for some types of services, where appropriate, would diversify programme funding sources and decrease reliance on UNICEF and other external funders. Greater financial independence is critical if programmes are to scale and become sustainable. Though user fees would, in most cases, still be heavily subsidized, partial funding by direct user contributions would alleviate the financial burden on donors. There is also growing evidence that charging nominal user fees for services -- rather than having them entirely covered by aid -- increases perceived value of the services, leading to greater motivation to participate and greater programme compliance.

Greater ability to discern relationships across platforms and programmes, and to immediately adjust programming, based on linked M&E.

Stronger M&E that yields actionable evidence would be immensely helpful for UNICEF. There is an opportunity, through mobile, to develop advanced history tracking and analytics engines to collect, process, analyze, and act upon large volumes of layered beneficiary and programme data from disparate sources. A multiplicity of linked mobile programmes would allow for detailed, trans-programme beneficiary tracking. This would then allow service providers to observe correlations between beneficiary behaviours, incentive schemes, and other programmes; if there are relationships found, UNICEF and implementing partners can use the evidence to adjust programmes to maximize positive outcomes and build a stronger, holistic social safety net.

Expanded opportunities for developing local capacities.

Integrating systems that are commonly used by local people in the communities in which UNICEF works increases the ability of the organization to partner with smaller organizations that may not have the ability to process and manage funds through the current

channels. This facilitates smaller scale trials and programmes with smaller partners, increasing local ownership and capacity for community development, and increasing direct funds entering impoverished communities.

Improved morale for partners and extension workers through real-time, performance-based renumeration.

Mobile money can help deliver service- or performance-based incentives for implementing partners and extension workers. Immediate renumeration -- rather than having to wait weeks or even months -- improves the morale of partners on the ground, which can positively impact response time and overall quality of programmes and services delivered. MFS also decreases the administrative time and cost burden on UNICEF in processing cash transfers.

Decreased time and cost burden in processing funds.

Using mobile to support funds transfers can decrease administrative processing time in handling manual forms, and can decrease the transaction costs of transferring funds. Mobile payments and remittances tend to reduce costs by 50 to 70 percent compared with traditional delivery models such as banks or Western Union. They are also more secure, more trackable, and faster than indigenous models such as the hawala model found in parts of Central Asia.

Decreased burden for partners by brokering transactions through UNICEF-negotiated, locally appropriate platforms.

Using platforms and services such as MFS that enjoy widespread adoption among implementing partners decreases their burden in learning and using new systems, freeing their time and resources to focus on programmes and service delivery rather than on administration. Given the growth projections for MFS, it is likely that the next few years will see massive uptake and greater preference of mobile platforms for payments and remittances. Smaller on-the-ground partners, however, may not always have the expertise or the leverage of UNICEF to negotiate arrangements with mobile operators. Thus, UNICEF can act as an intermediary by establishing long-term agreements with operators with preferential rates and procedures, which local partners can then use when running programmes. When partners perform transactions through MFS, the cash transfer is automatically settled between UNICEF and the operator based on the long-term agreement.

Decreased risk for partners and beneficiaries in handling cash.

Using virtual currency rather than cash in payments to partners, their staff, and extensions workers, decreases the risks associated with carrying around large sums of cash. Even if mobile phones are lost, funds are easily recovered from any mobile device, agent, or operator branch simply by entering in account details and password.

HOW UNICEF CAN USE MOBILE MONEY TO REACH THOSE HARDEST TO REACH

UNICEF can negotiate long-term agreements with mobile operators to leverage operators' existing agent networks and technical infrastructure for its programmes and those of its implementing partners. This allows UNICEF to to increase programme reach by orders of magnitude -- even in the most rural, otherwise hard-to-reach, or insecure areas -- while decreasing time, cost, and risk burden for partners and beneficiaries.

unicef

1 STANDING LONG-TERM AGREEMENT FOR MOBILE FINANCIAL SERVICES

MOBILE OPERATORS

2 PARTNERS ACCESS AND DISBURSE FUNDS EFFICIENTLY

3 MOBILE AGENT NETWORK EXTENDS PROGRAMME REACH

4 PROGRAMMES REACH MORE BENEFICIARIES

SOCIAL PROTECTION PROGRAMMES

- social cash transfers
- emergency cash transfers
- cash for work programmes
- school feeding

HEALTH PROGRAMMES

performance-based, real-time renumeration

5 Once registered in a mobile financial services system through a UNICEF or partner programme, users can continue to use the new services to pursue new economic opportunities and develop resilience.

Benefits for UNICEF:

- Greater reach through a ready-built agent network
- Greater programme sustainability by aligning with operators' core businesses
- Greater accountability in handling funds
- Expanded opportunities to develop local capacity
- More sophisticated data collection, tracking, analysis
- Decreased logistical burden

Benefits for Partners:

- Decreased logistical burden and lower cost by activating UNICEF-brokered agreements
- Low/no cost for procurement and training by using tools/skills people already have
- Improved morale through real-time compensation
- Decreased risk compared to handling cash

Benefits for Operators:

- Increase customer base in pursuit of market potential

Benefits for Beneficiaries:

Mobile financial services can bring transformative social and economic benefits to poor users. By stimulating the MFS market, UNICEF can help families:

- Develop a channel for secure savings
- Decrease their risk in carrying cash
- Build up a credit history
- Improve their resilience against economic shocks

SECTION 3

MOBILE MONEY IN SOCIAL PROTECTION

© UNICEF/NYHQ2010-1573/Pierre Holtz. A woman holds a pail and a food voucher for her child, waiting in a queue for food rations at a UNICEF-supported food distribution site in Mirriah Department in the southern Zinder Region, north-east of Niamey, the capital.

The correlation between social and economic exclusion and poverty is clear, and the impact of financial exclusion on poverty can be similarly pernicious. By offering a path to financial inclusion, MFS helps mitigate poverty's debilitating effects, allowing the poor build resilience against economic shocks, and strengthening families' abilities to perform their childcare roles.

> **"In addition to the contributions MFS makes categorically to social protection, poverty alleviation, and progress towards the MDGs, a wide range of programmes from food security to cash transfers to employment schemes can be directly supported by MFS."**

A mobile credit account provides a secure way to store money without running the risk of theft (if kept on their person) or of disappearance in case of natural disaster (if kept under their mattress). With a reliable way to accrue assets and a digital system that tracks their behaviours, the poor are able to develop a financial history that can be used to obtain future credit offerings, perhaps even a formal bank account from a commercial bank. Further, as many of the world's poorest already own a personal mobile phones (or have access to one), MFS support in programmes requires no procurement to outfit beneficiaries with new tools and little training (beyond what is generally provided by a mobile agent) as beneficiairies already know how to use their phones, overall reducing programme costs.

In addition to the contributions MFS makes categorically to social protection, poverty alleviation, and progress towards the MDGs, a wide range of programmes from food security to cash transfers to employment schemes, and more, can be directly supported and facilitated by MFS. UNICEF must assess programmes on a case-by-case basis to determine whether mobile integration would be appropriate and beneficial. In most cases, it's likely that mobile would be used to supplement -- and not replace -- existing, non-digital platforms. But as mobile penetration deepens and populations become increasingly tech-literate, more and more transactions -- financial and otherwise -- will be conducted via mobile; it may

CASE STUDY

MFS AND THE WORLD FOOD PROGRAMME:

In late 2009, WFP began piloting a mobile food voucher programme for Iraqi refugees in Syria. Select families eligible for food assistance were given a special SIM card -- they all had their own mobile phones -- and received text messages with a special code during each two-month food distribution cycle. The mobile vouchers were redeemable in selected government shops for a variety of food commodities. After each transaction, an updated balance was sent by SMS to the beneficiaries' phones. The value of the mobile vouchers were roughly equivalent to the value of foodstuffs given in traditional handouts, but the mobile option helped preserve recipients' dignity in allowing them choice in what they wished to purchase and when, and in saving them from waiting in long lines at distribution centres. After a successful pilot, WFP is expanding the programme to other governorates, with a short-term projected reach of nearly 10,000 families. WFP is also looking into other strategic uses of MFS. Currently, in the Philippines -- a country with a 80 percent mobile penetration rate -- WFP is using MFS to distribute salaries earned through its cash-for-work programmes, which are part of recovery activities after severe tropical storms. Recipients receive payment automatically after each task is completed, and instead of waiting at a distribution centre, they can claim their pay at any of 18,000 participating corner stores.

not be long until MFS systems are the mainstream banking platform in many countries. In light of this, social protection programmes with cash transfer components will need to integrate MFS if they are to respect beneficiaries' behavioural preferences, and not put undue burden on those they aim to serve.

In early 2008, Concern Worldwide became the first organization to use MFS for transferring cash in a development context. In the wake of the Kenyan elections, Concern used M-PESA in a targeted response to the food security issues that arose. Families whose livelihoods had been severely compromised by the post-election violence received virtual cash via their mobile phones, which could be redeemed at any MFS agent in the country. Since then, digital solutions have been used to distribute emergency cash transfers in Niger, for food vouchers for Iraqi refugees, and for cash-for-work programs in post-disaster reconstruction in the Philippines. Done right, these new models can decrease the risks, costs, and logistical challenges -- both for governments and beneficiaries -- associated with cash delivery, while improving accountability, efficiency, and programme sustainability.

A key challenge facing cash transfer programmes is the security of cash as it is physically counted and transported; MFS essentially eliminates this issue as accounting and transfer both become digital. UNICEF can make a bulk payment to the mobile operator, who then takes responsibility for the funds from the time it enters its account to the time it reaches beneficiaries. Even in rural and insecure areas, operators often have agent presence; UNICEF can leverage operators' ready-built infrastructure to extend critical support in times of need, even to those hardest to reach. UNICEF Uganda is already exploring this model with Uganda Telecom (UTL), where UTL's MFS agents will be trained to process birth registrations nationwide. Due to fierce mobile competition in the country, operators are eager to partner with large organizations that can help stimulate the market and can encourage consumer trial and education. UTL was thus extremely accommodating to UNICEF's needs

Finally, cash transfers themselves often have an empowering effect on recipients, giving them agency in deciding what to feed their families and how to invest to improve their own livelihoods. Unlike food transfers or material donations, they also benefit local economies and have positive effect on communities' own dignity. Cash transfers done via mobile can have a doubly empowering effect by introducing beneficiaries to, or advancing their abilities in, new technologies. Though evidence of this is largely qualitative and anecdotal, the success of UNICEF and Tostan's Jokko Initiative in Senegal -- where women were taught text messaging skills -- support this claim. By requiring recipients engage in a novel, technological process to access support, beneficiaries become active participants in their own development rather than passive recipients of aid.

SECTION 4

MOBILE MONEY IN HEALTH

© Merrick Schaefer. Annie Musebo, a registered nurse in Kambwali Health Clinic, Nchilenge Province, Zambia, receiving results from the UNICEF-designed Results160 system and recording them in the dried blood spot register.

Mobile health (mHealth) is the practice of medical and public health, supported by mobile platforms and devices. UNICEF's investments in mHealth have been driven by the rapid rise of mobile penetration in the developing world, and have yielded improved capacities for quality care provision by healthcare professionals and extension workers. Most recently, for example, a UNICEF project to support community health workers (CHWs) in rural Zambia saw a 50 percent improvement in the speed of delivery and return of HIV results for infants. The pilot was built on the open-source RapidSMS framework; partly developed by UNICEF, RapidSMS underpins many of the organization's mHealth initiatives. Another recent project in Rwanda gave CHWs the ability to communicate and to access emergency care via mobile phone; in doing so, child and maternal mortality rates decreased by 50 percent and tracked positive antenatal care behaviours increased from 75 to 91 percent.

"There is potential with MFS to further improve efficiencies and programme efficacy, and to help them achieve scale and sustainability."

While mHealth has helped reduce healthcare costs through greater efficiencies and improved public health, there is potential with MFS to further improve efficiencies and programme efficacy, and to help them achieve scale and sustainability. Further, as mHealth evolves and increasingly advanced healthcare (and ancillary) services are offered remotely, electronic payments will be needed to support them. If, for example, a CHW requests diagnostic information through a clinical decision support system via a mobile phone, service payments can be seamlessly facilitated by MFS.

Both mHealth and MFS are emergent industries undergoing immense growth. While both have seen great innovations in relatively short periods of time, both suffer from diverse, fragmented pilots; a lack of platform standardization; and inefficient knowledge sharing amongst practitioners. While they face similar challenges, MFS expert Menekse Gencer believes that their successes are inextricably linked. In a November 2010 presentation at Columbia University, she noted, "The success of one sector will drive the success of the other as MFS is vital to healthcare payments and healthcare provides critical use cases to spur the adoption and usage of new mobile payment systems".

CASE STUDY

MOBILE MICRO-INSURANCE:

Mobile micro-insurance is an area that looks to grow rapidly in the future. Services allow users to deposit small payments into an insurance scheme, via their mobile accounts, that are then used to protect them against life shocks which may result in devastating healthcare costs. Currently, pilots such as Pesinet in Mali have attracted global attention from governments, non-profits, and the private sector alike. If this is an area UNICEF may pursue, an existing mHealth system with MFS integration would make it easier to introduce mobile micro-insurance in the future, both technically and from a user education perspective. A multiplicity of linked healthcare and insurance systems, in addition to improving the social safety net, would also allow for sophisticated, trans-programme patient tracking. This makes it easier to determine correlations between patient behaviours, various incentives, programme design elements, and insurance schemes. Found relationships can then be used to immediately adjust programmes to maximize positive health outcomes.

Gencer notes that mHealth and MFS are built on similar foundations, and she urges development practitioners to exploit their latent synergies to improve access to -- and hence the benefits of -- both. According to Gencer, the two sectors share common user bases, infrastructure 'plumbing', business elements, and policy concerns. "These common elements," she notes, "if addressed cross-sector, will benefit each by reducing costs that would otherwise be independently borne, thus improving services overall."

What follows is an overview of the common building blocks between mHealth and MFS, as identified by Gencer, and better results can be won through collaboration and the sharing of resources:

End Users

Understanding the complex needs of the poor is more challenging than it first appears. Though development reports contain comprehensive measures and analyses of poverty, those working for (or hoping to sell to) the poor often have little idea of how the 2+ billion people surviving on less than $2 a day actually live. There is thus potential for mHealth and MFS to establish linked profiles for their common user base. Not only can user and market research be shared by both sectors, connected history tracking and analytics based on richer, cross-programme data can help organizations and service providers determine how users act, what they may need, and what programme elements are and aren't working.

Technical Infrastructure

mHealth and MFS require common technologies for their operations. On the front-end, both require software that allow users -- many of whom may be textually or technologically illiterate -- to interact with their systems using basic mobile handsets. On the back-end, both require platforms that can provide secure ID authentication, database management, fraud detection, and data security functions. (Especially in the case of ID management, having one ID across sectors can also help with verification and fraud reduction.) Services for both must be easily, cheaply accessible, and reliable, on mobile phones and on the network. Given the interconnectedness of the two sectors, it's conceivable that they could share technical platforms, resulting in cost savings and greater resources invested in developing fewer but more robust, interoperable technologies.

Distribution

Both mHealth and MFS rely on in-person agents to reach their target users in the 'last mile' of service delivery. In mHealth, this can refer to CHWs, often working independently and without a fixed location; in MFS, these are the mobile agents, stationed at various types of cash-in, cash-out points including retail and service outlets. In both sectors, these networks of individuals must be trusted by their communities in order for systems to effectively function. Health and finances are areas where people tread carefully; as such, CHWs and mobile agents both need strong relationships with their communities before they can successfully register, educate, service, and support users. There is opportunity to combine select, less specialized functions for each sector -- user registration and authentication, for example -- as well as to deliver cross-sector training, as

appropriate, so agents can educate communities on the benefits of both systems. In India, for example, CARE's village health champions sees agents acting as both CHWs and registrars for mobile micro-insurance.

"Cross-sector efficiency gains can help catalyze the adoption of both mHealth and MFS. In doing so, there is opportunity to move them beyond fragmented pilots to scalable, commercially viable and sustainable national deployments, and to improve health and financial outcomes for the traditionally underserved."

Business Model

Both mHealth and MFS struggle with sustainability issues and share concerns around business models and scale. As both target the poorest segments -- in a recent McKinsey and GSMA study, half of mobile operators surveyed said that the unbanked were their principal targets in their MFS businesses -- they must both rapidly scale if they are to sustain these low-margin operations. Widespread adoption in both sectors is heavily influenced by pricing which, in turn, is largely influenced by rates offered by network operators. The more affordably priced the services, the higher the chance of adoption, the greater the benefits for te target populations. If mHealth and MFS are able to act as a 'bundle' in negotiations with operators, costs for voice, text, and data usage as part of these programmes could be cross-subsidized.

Policy Concerns

mHealth and MFS both require sound, enabling policies to ensure they reach their full potential. The fact that both rely on technology, however, complicates matters, as there are few precedents for comprehensive regulations at the intersection of mobile telecommunications and health, and similarly for mobile and banking. Stakeholder liability in both remains unclear: Can an operator be liable for malpractice if a critical message never reaches its intended recipient? Does a software application that turns a mobile phone into a diagnostic tool mean that the hardware is now a medical device, and thus subject to the regulations governing such devices? What are the ramifications of security breaches in patient data? These questions are complex, but must be tackled head-on. There is vibrant discourse in both sectors and each can learn from the other's progress.

Both mHealth and MFS need to lobby government to take decisive action in passing enabling policies. Given the complexity and lack of precedent in such matters, governments may demur; thus, the sectors can combine forces to call for judicious decisions. Regulations governing ID authentication and management, liability in complex systems, consumer protection, and other issues in mobile will cut across sectors; thus, it is of great importance that mHealth and MFS coordinate efforts to ensure policies support the patients and the poor.

Groups like the mHealth Alliance and the World Economic Forum are encouraging leaders in mHealth and MFS to drive cross-sector efficiency gains. Holistically addressing the deep-rooted causes of ill health and harmonizing mHealth and MFS infrastructures, technologies, and policies can yield greater long-term value to poor and vulnerable families. Cross-sector efficiency gains between mHealth and MFS can help catalyze the adoption and success of both sectors. In doing so, there is opportunity to move them beyond fragmented pilots to scalable, commercially viable, and sustainable national deployments, and to improve health and financial outcomes for the traditionally underserved.

SECTION 5

MOBILE MONEY IN FINANCE AND ADMINISTRATION

© UNICEF/MLWB2008-712/Francois d'Elbee. In August 2008, a mobile banking van from Opportunity Bank delivers cash to small scale farmers at Mwandama Millennium Village Project in Zomba.

There is also immense opportunity for UNICEF to use MFS to reduce administrative costs and burdens associated with financial management and transfer, especially in partner relationships (and in partner-beneficiary relationships). Given UNICEF's scale, even minor efficiency improvements throughout the system can, in aggregate, have a transformative effect.

UNICEF's operational framework for transferring funds to partners, the harmonized approach to cash transfers (HACT), was last updated in 2005. HACT was designed to:

- reduce transaction costs to UNDG ExCom agencies' cooperation through the simplification and harmonization of rules and procedures
- improve implementing partners' capacity to effectively manage resources
- help manage risks related to management of funds and increase overall effectiveness

Procedures were determined to guide the following transactions:

- Direct cash transfers to implementing partners for expenditure related to activities in agreed Annual Work Plans (AWPs).
- Direct payments to third parties for expenditure related to activities in agreed AWPs.
- Reimbursements to implementing partners for expenditure related to activities in agreed AWPs.
- Direct agency implementation through which the UN agency incurs expenditure related to activities in agreed AWPs.

While the procedures are sound in approach and were indeed innovative five years ago, emergent norms necessitate the organization -- and the other UNDG agencies using HACT: WFP, UNDP, and UNFPA -- revisit HACT and begin to consider how they may be improved given today's realities. If there is interest, UNICEF should consider developing a mobile version of the Funding Authorization and Certification of Expenditure (FACE) format for requesting and reporting on funds. This may ease the burden on implementing partners that may not have the resources to access and complete the digital form, and decreases administrative burden for processing manual forms.

SECTION 6
POTENTIAL CHALLENGES

© Merrick Schaefer. Steve, a UNICEF officer in Musho-ta Clinic, Kwambwa District, Malawi, describes how the clinic tracks, visualizes, and communicates its progress in providing services to mothers and infants.

With a pool of yet unanswered legal, regulatory, and operational questions, many challenges lie ahead for the MFS industry as a whole, and thus likewise for entities that may seek to partner with industry operators. Successful MFS deployments require the coordination of physical assets and capabilities from two distinct fields (mobile telecommunications and banking) and partnerships among a host of stakeholders, many of whom were previously unfamiliar to each other.

"By engaging the market now -- fully aware of the challenges ahead -- UNICEF can play a unique role in shaping national markets and in advancing the MFS sector with a view to serving the poorest consumers."

Data security and privacy are of greatest concern. With regards to health and social protection programmes, the identities of those served is of critical importance. Stakeholders must understand and proactively address data concerns so as to optimize programme outcomes while ensuring beneficiaries' rights are never compromised.

In mHealth, groups such as the Center for Global Health and Economic Development at Columbia University's Earth Institute have developed industry-leading guidelines for managing and transferring personal health information. For their Millennium Villages Project, all personnel working with patient-level data (CHWs, clinicians, verbal autopsy specialists, database managers, data entry clerks, researchers, etc) must undergo training on the principles of patient confidentiality and data access; they must also sign confidentiality agreements around patient data. MVP protocol is designed to protect individuals' data while allowing for the flow of the information required to provide quality healthcare. While the MFS sector has its own practices around data, if it is to support development programmes, it must adapt to and respect the needs of development. Aligning sector protocols will take time.

Beyond data privacy and security, there are many other operational and regulatory issues requiring attention. Compliance with existing financial regulations (ie. anti-money laundering laws may still apply, even for low-value transactions) must be addressed.

Low-cost, ubiquitous distribution and logistics channels must be designed and managed. Frameworks for coordination between regulators, operators, banks, and service providers must be established, with appropriate channels for handling user complaints and adjudicating disputes. User education and trust-building are necessary for every market.

To take services to national scale, open and common standards across technical platforms will be critical -- UNICEF has first-hand experience in this area with its work in mHealth, adding MFS would certainly complicate efforts. Taking a broad view, national MFS markets are, for the most part, dominated by single players and there is a lack of interoperability between payment systems worldwide. Given the potential of MFS, however, UNICEF should accept that these complexities are part of engaging in the field and, indeed, in any sector in today's interconnected world.

Given MFS's annual potential of USD 8 billion, it seems likely the private sector will move rapidly to resolve outstanding issues and will exert pressure on banks, regulators, service providers, and other stakeholders to drive forward together. By engaging the market now -- fully aware of the challenges ahead -- UNICEF can play a unique role in shaping national markets and in advancing the MFS sector with a view to serving the poorest consumers. UNICEF can leverage its market-shaping ability, its name, and its convening power to bring together stakeholders, to facilitate efficient deliberations, and to ensure the poorest are not overlooked as policies are shaped and programmes implemented. By joining groups such as the Gates Foundation, the Grameen Foundation, and the GSMA Development Fund in the campaign for financial inclusion through MFS -- whether directly or as a consequence of MFS-supported programming -- UNICEF can help guide the evolution of MFS, ensuring it supports those who stand most to gain.

SECTION 7
CLOSING THOUGHTS

© Jorge Just. Children at Dwelling Places, a non-profit in Kampala, Uganda. The photographer was in Uganda to test RapidFTR, a mobile phone application and data storage system designed by UNICEF to support family tracing and reunification in emergencies.

The potential benefits of MFS -- both for UNICEF and more broadly for vulnerable populations -- is great, and thus the organization must proactively engage with the MFS sector in support of its mandate. Though the market is experiencing early growing pains, ultimately, the alignment of corporate interests and development aims points to a sustainable, double bottom-line opportunity. By strategically integrating MFS into programming, UNICEF will support market mechanisms that improve the livelihoods of the poor.

"The alignment of corporate interests and development aims points to a sustainable, double bottom-line opportunity. By strategically integrating MFS into programming, UNICEF will support market mechanisms that improve the livelihoods of the poor."

Early movers in this space will help define the future of mobile service delivery, acquiring unique experience that will only become more valuable as market transactions and development programmes are increasingly facilitated by mobile. Operators trying to counter dwindling customer registrations or to win over fickle markets are looking to auxiliary offerings such as banking, healthcare, education, and development-focused services for solutions. Many, however, admit to having little knowledge about the lives and profiles of the poor. With its long history of working with the most vulnerable populations, UNICEF can prove immensely valuable for operators looking to build their MFS businesses. And in providing 'market research' on the poorests demographics, UNICEF helps ensure future MFS products and services are well-suited to the needs of those who need them most.

To make MFS commercially viable, operators in each country must register 15 to 20 percent of the addressable market. This is no easy feat -- currently, of nearly 100 MFS deployments globally, there are only 10 with over one million users. By demonstrating foresight and capacity in supporting operators' MFS ambitions, UNICEF will position itself as a valued partner for the mobile sector. With the organization's support in funding, programming, and evaluations, operators can decrease their investment risk while conducting business as usual. And, in turn, by supporting UNICEF programmes, mobile

operators are able to build a customer base more quickly and increase the reach of the MFS products. More customers mean greater economies of scale and returns on investment. Further, users -- be they beneficiaries, implementation partners, or extension workers -- that have registered for MFS through a UNICEF programme can, outside of the programme, be encouraged to use MFS in new ways, such as savings.

To understand how MFS and other alternative payment schemes will impact programming, UNICEF should begin piloting small-scale and strategic integrations of MFS alongside programmes. The impacts must be carefully scrutinized, and the lessons shared, to better understand how UNICEF and other development organizations can harness the potential of MFS.

As a leader in the mobiles for development community, UNICEF's work in MFS will foster greater capacity in the community and in governments seeking to leverage mobiles to serve the most vulnerable. By coupling compelling development outcomes with strong revenue growth for an entire industry, the future of MFS will highlight innovative new models of development-corporate coordination for positive, cross-sectoral change.