



Mobile Financial Services for Visually Impaired End-Users Pilot Initiative

Presentation Session

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**Maria Stephens
USAID**

**Charlotte McClain-Nhlapo
USAID**

**Aubrey Webson
Perkins International**

**Martin Kieti
Perkins International**

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Moderator:

Good morning everyone. Welcome to the final EPS seminar, "Mobile Financial Services for the Visually-Impaired End-User Pilot Initiative." We have Maria Stephens, who is the Activity Manager for all of the EPS seminars so I'll hand it over to her.

Maria:

-- us in what sort of sadly is our last Emerging Payment System Seminar but hopefully the beginning of a broader discussion, and I'm very happy that we're ending with this seminar because it's the start of some good and I think creative and necessary thinking within USAID about how we really need to make mobile financial services as part of new payment systems as truly inclusive as possible. The pilot initiative, which is linked to this presentation or really the basis of this presentation, really came about from the convergence of the three sort of separate but interrelated streams. First was my having been inspired by some research undertaken by and I think continued by two researchers from the Institute for Money, Technology and Financial Inclusion out in California headed up by now-Dean Bill Mauer. The second is my own experience as a low-vision person. I closed my good eye and tried to do a transaction, a sort of thought-experiment transaction with a mobile phone with my bad eye and realized that both of my eyes were like my bad eye. It wouldn't work and so I took that experiment a little bit further and thought, "Well gee, who do I need to connect with who focuses on these issues at much more depth than I do," and I was very happy to meet my colleague at USAID, Charlotte McClain-Nhlapo, who's the Senior Disability Advisor, who really focuses on and is a champion of these types of issues on a very grand scale so off and running we went and through Charlotte I met and continue to meet some pretty amazing people who continue to make development as inclusive as possible.

I'd like to just give a shout-out to Carol Grigsby who is on the board of the Perkins School for the Blind and thank you very much for bringing some of my USAID Mission colleagues into this presentation. Hopefully we have some of our missions who seem particularly interested in this topic participating today and thanks both to Carole and to them for joining us and without further ado let me introduce our panelists. To my right-right is Charlotte McClain-Nhlapo. Charlotte is the Senior Disability Advisor at USAID. Charlotte comes to us and to that position with extensive experience both as the commissioner for South Africa's Human Rights Commission and more recently as the Senior Disability Advisor at the World Bank and she now holds that position with USAID.

To my immediate right is Aubrey Webson who's the director of Perkins International, which is a part of the Perkins School for the Blind up in Watertown, Massachusetts. Aubrey oversees in Perkins' work with hundreds of partners in 65 countries globally and. Since 1992 he's lead several initiatives in both Africa and the Caribbean focused on shaping

Educational Services for children who are deaf, blind and for those with multiple disabilities. Aubrey introduced and implemented the Institutional Development Program, which is a capacity-building program for organizations of the blind in Africa and the Caribbean and prior to joining Perkins International, Aubrey worked with Sight Savers and Helen Keller International. We have coming to us from Nairobi Martin Kieti. Martin is also with Perkins.

He represents Perkins Institutional Development Program, based in Nairobi. So he's our local point person in Nairobi for this pilot project. Martin holds a Masters in Linguistics. Prior to this position he held numerous positions as the CEO of the Kenya Union for the Blind – sorry Union of the Blind, which is also a local partner for this pilot initiative, in Kenya, and he has professional experience in education, social development and non-profit management and research. We will be having Douglas Goist join us soon and I'll let him introduce himself when he joins us and Doug actually comes to us as a representative of the Advisory Committee for this pilot so he can speak from that perspective. So I will now hand over to Charlotte.

Charlotte:

Good morning everybody and good morning to those who are in different parts of the world or evening. I really want to say thank you first of all to QED for pulling this together but I really want to say a hardy thank you to Maria who's been absolutely the life force. Did I just turn it off? Okay.

You know get the life force – who has been the absolute life force behind this pilot that we're going to discuss today. I want to say categorically that USAID is committed to disability-inclusive development and this commitment is spelled out in the 1997 USAID Policy on Disability but it's also spelled out in, increasingly, a number of other agency policy and what this means, in practice, is that USAID programming should be inclusive of persons with disabilities across the board and so inclusive financial systems and tools are no exception and so it was a really great coming together of minds when Maria and I started talking about this. I wanted to share with you a few quick facts, just to provide some kind of background around why we're doing this, why this is so important. The first thing is to just mention and many of you may know and many of you may not know that there are at least 1 billion persons with disabilities globally. In my view this is probably a very conservative figure because it probably doesn't take into account people with a lot intellectual and hidden types of disabilities but the point I think to remember here is that this is a significant population.

It's essentially 15 percent of any given population so that, I think, is important. I think another important fact is that 80 percent of persons with disabilities live in developing countries. Another key point that I think has helped facilitate this pilot is the fact that there is now a UN Convention on the Rights of Persons with Disabilities. It has been ratified by over 130-something countries. Kenya, which is the pilot country that we will be discussing today has ratified this convention and what this really means is that there is going to be – there is – an obligation on the countries that have ratified the convention to include persons with disabilities in everything that they do and struggling in all aspects of development and the issue of accessible ICT is very prominent within the Convention on the Rights of Persons with Disabilities. Now a few words on the kind of mobile economic growth in Africa: It's been described by many observers and readers as Africa's new revolution, just the mobile phone itself. Half of Africa's 1 billion population has a mobile phone and these phones are not just for talking, you know? The power of telephony is really looking at forging new enterprises, enterprises that stem from cultural enterprises to banking, which is something that we'll discuss today.

In Kenya 70 to 80 percent of the population moves money, sends remittances, makes payments using the mobile-transfer program so this really has become, in many parts of Africa, the predominant platform for financial transactions. Another simple fact is that while Africa has experienced this incredible boom in mobile phones in the last decade, today, as I said, we have 500 million phones and this – these phones – really carry huge economic potential in underdeveloped parts of Africa. We're going to discuss Kenya today but, you know, this is happening in Uganda, it's happening in South Africa, it's happening in many parts of Africa. The London Business School found that every additional 10 mobile phones per 100 people in developing countries boosts the GDP by 0.5 percent so I think this is also something for us to think about. I think it's also important that we recognize that the mobile phone has been used, as I said, not just for talking but certainly to spread vital information so, again, around development issues, around access to healthcare, around education and then certainly around addressing issues around disaster preparedness and then, of course, more relevant for today's discussion around the issue of financial transactions but despite the proliferation of phones in Africa, we still see a digital divide that excludes persons with disabilities from this group, and Aubrey will talk much more about that but it's something that I think we need to think about more deliberately.

I think we need to think about how can we expect persons with disabilities to be part of banking transactions when mobile phone handsets are not accessible, in particular for persons who are low-vision or are blind. How can we expect financial transactions when this population is often uneducated and therefore can't read? I mean that's a broader issue but one

still, I think, to consider. So for many Africans these ubiquitous devices are more than just a handy way of communicating. They really have become a way of life and I think, again, that's something that we will hear in the discussions today but while we're seeing the increase amongst many, many Africans. Again, we're not seeing this as a piece of technology that is necessarily benefiting persons with disabilities who basically have been traditionally left out of these types of economic opportunities. So there remain a lot of barriers for persons with disabilities but they're not insurmountable barriers and I think that this is what this pilot shows that these are barriers that can be removed and the removal of these barriers can contribute significantly to the empowerment of persons with disabilities both economically and socially and so I'm excited that we're exploring these various type of innovations because this is what this is about and we will hear about – and we will from Perkins – about some of the unique challenges that persons with visual impairments and blind face in relation to making mobile financial transactions.

Thank you.

Aubrey:

Thank you. Thank you, Charlotte, and good morning or good evening, good day to you, wherever you are in this room or on the world wide connectivity platforms. I'm Aubrey Webson. I work at the Perkins International within the Perkins School for the Blind and before I begin let me give you a little bit of a background about Perkins. Perkins is the oldest school for the blind in the United States.

It started back in 1829 so that makes us almost 190 years old. We have had – Perkins has been a frontrunner in developing and taking on major challenges for person who are blind or deaf/blind or persons with significant multiple disabilities. Helen Keller is probably the most famous of the Perkins students, went to Perkins, learned to read and write after coming into Perkins and being told of her parents giving up hope and thinking she cannot be educated in any form. That was transformed. We all know the history of Helen Keller that she went on to write books, went on to be a leader in the women's feminist movement, went on to be a significant leader for persons who are blind and persons who are deaf/blind, traveled throughout the world and became a significant player in American history.

Perkins went on, too, following Louis Braille who invented the Braille format, a communication tool for reading for persons who are blind, Perkins developed, in the 1940s a piece of equipment called a Perkins Brailier, which is today still the preeminent equipment that is used throughout the world for producing Braille by students and by writing and reading by professionals and especially now in the developing world and have moved the Brailier into other forms -- into a higher form – of

technology by producing a new equipment very, very recently called a Smart Braille, which produces Braille output with voice and speech, and print so that a parent can assist their child now without having to go through very special lessons to learn Braille or learn a format of communication that might be foreign to them so Perkins School for the Blind continues to challenge and, in 1989, developed an international program of which we, with the support of the Clinton Foundation and through that international program, when they started to work in the late '80s, there were less than 300 persons who were deaf/blind, around the world, in developing countries, receiving any service. Today they increased that number to thousands and thousands, last year served over 45,000 children and the number's increasing every year so just the transformative work that has been done. This particular piece of work and research is very interesting to us, at Perkins, as mobile technology is significant in changing Africa, as Charlotte said, and, for me, as I often say, technology is the wheel to a person with disability. That is just as the wheel transformed our lives, technology has certainly transformed the lives of persons of persons with disability to make persons with disability effective, efficient and able to compete, compete socially, compete on economically just like any other persons if given the opportunity and therefore we are delighted to be sharing this and to part of this process thanks to Maria and her team and to Charlotte and the folks at AID and QED to helping to make this possible. You have had some of the background of the project, background from Charlotte in terms of why we are looking into this and the importance of mobile technology so I would go to Slide 2.

Aubrey:

And speak a little bit more and get into the project. We recruited a researcher in Kenya to work with Martin and a committee in Kenya to do the – to guide this project through. There we looked at – let me say early in this that we looked at – four regions in Kenya. We had some challenges like you would expect in any research program and we will talk a little bit about that.

We looked at the whole use of transfer – mobile money transfer – and the role of persons and I'm speaking to the slide because there's a lot of text on the slides and I know it's very dense and people have some difficulties in reading all of the small text. Of course I don't because Braille is a little smaller but better. *[Laughter]* So looking – so we were able to – we had to look at the transfer, look at the market, look at the use and try to identify how persons who are blind are using it. Our goal was to be able to identify those barriers, identify those issues and to be able to then put those into perspective and we hope come out with recommendations so identify barriers faced by persons who are blind. We were able to then – we designed and tested an appropriate intervention. We raised awareness with this we hope among service providers and a little later we'll talk

about some of the providers who were involved, and we were able to look at how those barriers might be removed. On the – just to stop a little bit, on the – other end of this microphone or on this discussion across the seas is Martin Kieti, from Kenya, who is the person on the ground and Martin will jump and Martin, feel free to jump in at any time as we move through this, on Methodology.

Aubrey:

We took an approach of questionnaires and interviews. We developed a questionnaire. We trained a team who went out and did questions and asked questions of a number of persons. There were 120 subjects in the process. They were drawn from 4 regions, I said, of Kenya: Mombasa, Nairobi, Thika and Kericho.

We had Kisumu earlier involved and we had to change Kisumu because of the heavy rains in that area and because of issues around – issues after – the elections that were a little bit tenuous for people to go out at the time when we started the process. We also – to validate it we – have workshops for stakeholders, focus-group workshops and we are later going to have and in fact those workshops took place just as we prepared just before this session so we can talk about it enough for the details and we will come to later from those workshops of the focus groups as well as the validation workshop that will also be coming that will also help to validate what we have discovered. As I said 120 primary respondents were in the sample from the 4 districts that I mentioned. Sampling was done on a snowball method, using branches of the Kenya Union of the Blind. I think somebody referred to them earlier, a consumer group that has branches of persons who are blind or low-vision throughout the country and I mentioned Nairobi, Mombasa, they represented the urban areas, and Kericho and Thika represented rural or semirural areas. The distribution of the sample: Nairobi had 28 percent, just over, while 31 percent from Mombasa, 24 percent from Kericho and 15 percent from Thika.

Some characteristics of the primary respondents, we had gender. 55 percent were men, 45 percent were women. Visual status: There were 67 percent of the population were totally blind persons, 33 percent were partially-sighted or low-vision. Education: There was 2.5 persons in the sample or 36 percent had primary-school education, 20 percent secondary-school education, 38 percent – and I'm giving the round numbers, right – had tertiary education, and most were graduates then. Most of the graduates were from Nairobi. They had the highest number of graduates or tertiary you will expect that, they are from the city, and Kericho has the lowest, which was – and then employment. There were 30 percent of persons employed, 29 self-employed, 28, 27 unemployed, 8 percent were persons who were retired.

Income average levels in US dollars: Average income was \$201.00-per-month for the employees. US dollars, there were \$58.00 for those with – the 101 were persons who were employed, \$50.00, sorry, for other categories were the average. That’s the self-employed or the retirees or the unemployed. 51 percent employed earned less than US dollars \$120.00, and so 51 percent of those who were employed earned less than US dollars \$120.00. Now this is where – this is probably the crux of the thing.

How many people really had access to a phone that they can do their transaction and business? So there were 68 percent of such persons of the respondents owned a phone. All of these – all persons who are partially blind, we had 91 percent of the persons, who were totally blind, owned the phones, so of the respondents 58 percent of the partially-sighted or partially-blind persons owned phones. Persons who were totally blind: 91 percent. Totally blind persons tend to use their phones as everything, for their ears, their eyes, it’s their – these days if it’s a smartphone it’s their – radio and so on.

94 percent of the employed persons owned phones while 73 percent of those unemployed own phones, and that’s remarkable because – as Charlotte pointed out – the importance of a phone. It’s not just to talk so if even though you are unemployed you own a phone. More older people – persons 50-plus – own their phones while 83 percent, the younger folks, did not own phones. So the cost of phones: The mean cost of a phone is about \$45.00 – sorry between \$25.00 and \$45.00 – and that’s an important thing, an important piece, and we’ll discuss costs a little further and recognize the gap. Next slide: Access to speech-enabling phones. Now this is critical because you can own a phone as so many persons have but you have no speech access so, in reality, you really don’t know how to deal with the phone because you may very well be able to make a calls but you can’t get feedback so you don’t have the ability to do transaction with the phone and to make the phone be the tool that it is.

Only 7.5 percent of the group have speech-access-enabled phone, 7.5. Of these 77 percent are men while 22 are women. 30 percent of the phones came with speech software while the rest did not come so you had to install software. That is again important because that, as you would see, makes a difference in the cost of the phone, cost of operating and carrying the phone so the smartphones I guess came with speech. The average cost of speech-enabling phones was about US \$300.00 so for the average cost of the phone that came with speech access is about \$300.00.

The average cost of the phones capable with installation of speech software was about \$159.00, \$160.00. The average cost of speech

software by itself was \$132.00 and so even if you bought a phone for \$100.00 you still had to go buy a piece of software for \$150.00 to add to that and that of course carries _____. Only 13.33 percent of the respondents did not own a phone. Out of those 87 percent can get access to the phone easily.

They can get it fairly easily. The sources of those phones were for those without the phones. They were able to go to friend. They were able to deal with an offspring, a sister or brother and so forth, and they were able to work with others. Other sources included – other sources, as we said, parents, neighbors, teachers and so forth.

A unique form of access were people bought SIM cards and then they were able to insert their SIM card into somebody, into a friend or a family's phone so the phone became a community phone in its own right so I could buy my SIM card and it isn't always that easy because you have to have – it's quite a hassle to get a SIM card in some of those countries but you could buy your SIM card and then you could insert the SIM card into somebody else's phone, do your business and then take it out. The main reasons for not owning a phone is cost. That was the main reason, was cost. Other reasons, loss of – people lost their phone or inability to use a phone or lack of interest by some people in just owning a phone have given up. The mobile banking, 98 percent at least know what it is.

The most-recognized – that is about over 98 percent recognize it – there are several different carriers that are listed, Safaricom, EFL, Orange and so on. They have registered – 90 percent have registered – with a carrier, 95 percent are registered with more than – and the carriers as you see are listed as to people registered with different carriers and from Safaricom to Orange and so on. Those subscribed to more than 1 carrier is also noted. 83 percent then have both – 2 of them as I said have more than 1 carrier so people have – some people are registered with 1, some people are registered with 2. The majority of course are registered with 1 carrier.

97 percent use the system to send and receive money. Now to me this is very important so 97 percent use the system to send and receive money, 27 percent use it to make payments for goods and services. 68 percent use it to transact the bank and other business and I think it's important, I think, that we know those percentages because we're going to talk a little bit more about them in the next couple of slides. Slide 30: Ability to operate the system.

This is where – this was very important for us to try to find out can people operate a system, can they? What are the barriers? Only 19 percent can independently manipulate the system. That is the menus on the phone to

deal with it. 80 percent require some form of assistance, sighted assistance.

Only 21 percent can input figures into the system while they're using the phones. Only 11 percent can access transactions and confirmations and feedback while 88 percent require sighted assistance. Now some of what Charlotte referred to is stunning in that slide because we see how people are being left behind. Now agent-based operation is interesting because the agent is like a middle person, that person who you carry money to and the money is then given to them and they put the money into your phone. 19 percent of the respondents or subjects can independently identify themselves at the agent and only 5 percent are able to access the agent's numbers and other agents-based information.

Only 3 percent are able to confirm transactions on the agent's phone. Now that is telling. Slide 15: Some demographics in distribution of the need with unsighted and sighted support. More totally blind persons – 52 percent – require assistance than partially sighted persons. More than 34 percent need sighted assistance and rather than other forms.

We have more women – 52 percent – requiring assistance. We have more people with tertiary education requiring assistance. More secondary persons or secondary education, more persons with secondary education and this probably has to do maybe with age. I don't know, we didn't – that might be interesting to see what comes out in the validation between those folks at higher levels and secondary education. All retirees and so on required – all persons retrenched required – some sort of assistance.

More people in Thika required assistance. More people in Kericho and those are the rural areas so that probably has to do with education and we will probably find that out. Slide 16: Confidentiality. This is critical of course because we are talking about banking. 38 percent believe that confidentiality in this service for blind people is impossible. 26 percent reports that the misuse of their details by sighted assistants.

Of these 62 percent reported unauthorized transactions. We had a lack of sight, being blind in itself, they saw as a barrier. In ability to read and/or understand English and numbers, phone design and affordability, lack of trustworthiness by assistants and/or other forms, other persons assisting. Lack of understanding by agents and that's the middle person to whom I spoke to, the agents.

User suggestions for improvement. Many of the persons in that first go around suggested – 21 percent suggested – for that believe that by using only 1 trustworthy agent their details would be better secured so they should have a single agent allocated or assigned to assist persons with

visual impairment. They believe that in restricting access to their phones and assistants only by – unlimited only to families and friends that they trust – try to keep details. There must be efforts – ways – to try to keep details more confidential and we will see that one of the ways they did that – some people – is by changing their pin or password regularly. Next slide: Some suggestions.

They need sensitizing agents. That's an awareness amongst the bankers so that they could make the agents more aware. Affordable speech phones: So making those phones that you do not have to go and buy software for, those phones that come speech-ready to be more affordable, accessible information at the agents base so that the persons can have more access to the information directly and not to depend on the agent so that the information can be accessible at that base as well. Voice prompts from these, voice prompts being critical in working with the agent and/or with the banking, the system itself. Next slide: Some additional suggestions.

Introduction of biometric information for all users of MFS, introduction and/or enforcement of polices to improve services to blind clients, improvement of accessibility features in all phones that will allow easier and better access, introduction of Kiswahili-speech-enabling phones. If you remember earlier people said – one of the problem is people didn't understand English and if key Kiswahili is your mother tongue and the phone comes speaking, the phone gives you American-English, European-English, English-English, and all kinds of stuff, you probably do not understand it. Recognition of thumbprints by agents and on the phone so that there'll be a thumbprint mark that can be recognized. Agent-based transaction to be carried out in privacy, in private, and that's a simple one for the bankers. Some general observations. A vast majority of the respondents own or have access to some kind of phone as we talked earlier.

I think we said about 80 percent. Most of those phones cost less than \$30.00. Most of the phones are not speech-enabled. So although most of the people have phones – I think we said that earlier – they really are not accessible so we question their use. The cost of speech-enabling phones, over \$300.00, I think we have 30 _____ so over \$300.00, and remember we said that persons earn, on an average, \$200.00-per-mont so you're talking about 2-month salary just about and the average salary for most people is \$120.00 so that gives us significant disadvantage.

Other – over 90 percent of the – respondents or people subscribe to MFS. Over 90 percent of the subjects also use MFS to send and receive money while payment of bills and so on – bills and other forms of transaction – are done by few. Under 20 percent of the respondents or subjects are able to independently operate their own phones, based on the technology that's

available, and under 20 percent of them are able to independently carry out all transactions even working with an agent. There is a great need for as we see sighted assistance and therefore makes the person very vulnerable. Confidentiality is a critical problem and I refer to it, the way to combat that by most people is simply to change their pin or password regularly.

I know I wouldn't remember it. There are a number of areas that are coming up for suggestions and a lot of it focused around the interaction with agents, interaction with the system and trying to make the system speak to people and become more visible and so that people can hear and interact in a more personal and confidential way. Going forward – it's the last slide, going forward – we're still going to see what the focus groups have said and feed this back into this discussion. We are also going to be looking at the – once we get the information from the focus group we will do a workshop for validation. We'll then have the steering committee -- of which Doug is on -- who would be able to have some discussion around some of the information that we get and be able to just try to help us with validating some of the information that comes through.

There is a lot of work on cost. There is a lot of work on some policy that would protect regulations that would protect persons. There's a lot of work on that relationship and I know it was discussed in the steering committee around the agent and what both the bank and the phone companies think they can or cannot do. There is a lot of work to be done there. I'm going to stop here and then we can questions and Doug – maybe if Doug – I don't know if – if you want to add some things from the discussions that you have been involved with so far.

Maria: Actually Martin is on the line.

Aubrey: Oh Martin, I am sorry.

Maria: Martin is there anything you'd like to add?

Martin: I'm just wondering whether the participants understand the introduction of agents into discussion. Basically the mobile phone address here ____ the phones two levels, like Aubrey said, a level where you get your money and take it to agents who are authorized but the mobile operators open more shops around the villages or outskirts where people can take their money and ____ into their phones or where they can draw down money from their phone into their pocket and there are transactions around agents and then there are transactions that people now undertake on their handsets while they're managing their phone. How to deal with it, you know? Moving it to another phone or they are paying for goods and services or interacting with the bank accounts. We feel – like Aubrey said

– that more people use the service only to send and receive money, which means they interact more with agent but when it comes to a payment of goods or interacting with the bank account, these transactions are more and more handset based and their only characteristic in the people who have the employment but most of the other categories – and the category of people – dealt more with sending and receiving, which mean they interact more with the agents.