Process evaluation of a mHealth intervention in Uganda -

CHW Supervision, Motivation, and Performance

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Methodology

o   Key Informant Interviews with 24 VHTs and 8 VHT Supervisors in the technology intervention arm in 4 Mid Western districts in Jan/Feb 2014

o   VHTs sampled based on performance:

High performance (n=12)	Low performance (n=12)
Solar chargers functional	Solar chargers not functional
Connected to CUG	Not connected to CUG
Receiving motivational SMS	Not receiving motivational SMS
Sending data and receiving feedback SMS	Not able to send data or receiving feedback SMS
Had medicines in stock	Had medicine in stock

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Supportive supervision

- Strengthened the VHT – peer supervisors' level of supervision:

    "I have got guidance on sending weekly reports from our Coordinator [Parish Coordinator]. … after the training the Coordinator called me and explained to me how it is done and I learnt that and even fellow VHTs helped me" (KII, VHT).

    "My Coordinator helped me at the start. I used to have trouble entering data and sending it. After some few weeks I got it and did it comfortably …" (KII, VHT).

    - More frequent phone calls between VHTs and their supervisors led to a greater bond between them

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Supportive supervision (Cont'd)

- Regular phone contact reduced the need for frequent supervisory visits

- Targeted supervision took place for weak VHTs based on data submitted:

    "After receiving the flagged message on the misuse of drugs I made a follow up to give refresher training to the VHT. I went through the register to confirm the message I received and I realized where the problem was and I called the VHT and shared with the VHT on when he is supposed to dispense amoxicillin tablets and when he is not supposed to dispense" (KII, VHT Supervisor).

- Malaria Consortium review meetings refreshed VHTs on use of the inSCALE phone applications

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VHT performance

- VHT were able to treat patients at night using the solar lamp provided by inSCALE:

  "I did not only get the phone but also a solar lamp that has helped me in treating children at night. In the past I could not raise money to buy paraffin to light the house and treat patients at night" (KII, VHT).

- The inSCALE mobile phone respiratory timer improved accurate diagnosis of pneumonia

- Peer support for drug stock management

- Educational messages remind VHTs of proper treatment procedures and correct treatment practices

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VHT performance (Cont'd)

- Being part of the Closed User Group enabled peer (VHT-VHT) consultation and easy rapid access to advice from supervisors on difficult cases:

  "This simplified my work as a VHT. If I want to consult any of my VHTs I don't have to walk there like in the past I call them and ask whatever I want to and that is all." (KII, VHT)

  "When I forget how do anything while treating, I call fellow VHTs and ask them to remind me how things are done like say counting the breath rate of a child and that has helped me a lot in doing my work as a VHT" (KII, VHT)

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VHT performance (Cont'd)

- VHTs receive prompt response from supervisors based on feedback messages flagging missing data or errors in data

   "When I make any mistake in my data submission or I will get a response immediately telling me what to do. For example I have entered the data wrongly or missed out a step I will know. If I have treated a child not following the right procedure or age I am supposed to treat I will also get guidance through those messages on what I should do" (KII, VHT).

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VHT motivation – recognition & affirmation

- Receiving feedback and motivational SMS makes VHTs feel appreciated, recognized for their work and known by Government and Malaria Consortium:

➢ Encouragement to continue working

➢ Feeling part of the health system

➢ Affirms their skills

> "The feedback messages also are good because they show that I am sure of the work I am doing. This has kept me going and loving the job I do" (KII, VHT).

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VHT motivation – saving & generating money

- Reduced costs and saving money previously incurred on phone charging and lighting

- Generating income from charging other community members' phones

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VHT motivation – mobile phone ownership & use

- Being part of a CUG enabled VHTs to communicate to fellow VHTs, Parish Coordinators and their supervisors at no cost to them

  "I can talk or make consultation with the VHTs, my Supervisor and the Coordinator freely. You don't have to go through the hassle of looking for money to load airtime to call any of them. This makes me proud because when I ring anyone on the system I get a prompt response from them. I don't need to first introduce myself it is automatic" (KII, VHT).

- Phones can be charged and switched on at all times, regardless of whether there is electricity or not in their villages

VHT motivation – mobile phone ownership & use

- Learning how to use a mobile phone, how to make calls, send and receive messages:

  "It is through the inSCALE phone that I learnt to operate a phone. I learnt to call, send and receive messages on that phone. Don't you think that is really a motivation?" (KII, VHT).

- Owning a dual sim card phone, and for some, owning a phone for the first time:

  "I had never owned a phone before in my life and this was the first set; it is through this VHT program that I got one, so I have to remain working with Malaria Consortium" (KII, VHT).

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Social status, respect & recognition

- VHT owning a phone is seen as prestigious

- Presence of solar light in VHTs' homes at night is seen as being similar to having electricity in Kampala:

  > "Before they [VHTs] would spend the night in the dark but now they are sleeping as if they are in Kampala …. They tell us 'Even if we are to leave the light on for the whole night, we shall charge the following morning'…" (KII, VHT Supervisor).

- VHTs receiving mobile phones was seen as a connection to the health system, resulting in more respect by the community members

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Some challenges observed

Impact of the inSCALE Technology Innovation is affected by:

- Challenges in network access and internet connectivity

- Software and hardware maintenance

- Irregular supply of drugs/ drug stock-outs

- Transfer of VHT Supervisors from one sub-county

- A few VHTs continue having difficulties using the mobile phone

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Conclusion

- The inSCALE innovation have increased functionality, performance and motivation of VHTs, and increased the frequency of contact between VHT and supervisors

- VHTs have saved money and even generated income from having solar chargers

- Barriers to implementation, such as maintenance of phones and software needs to be carefully considered before the roll-out of m-Health innovations

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Thank you