

malaria
consortium

disease control, better health

Project activity update 1

17 June 2014

Kevin Baker



PREVENTION



DIAGNOSIS

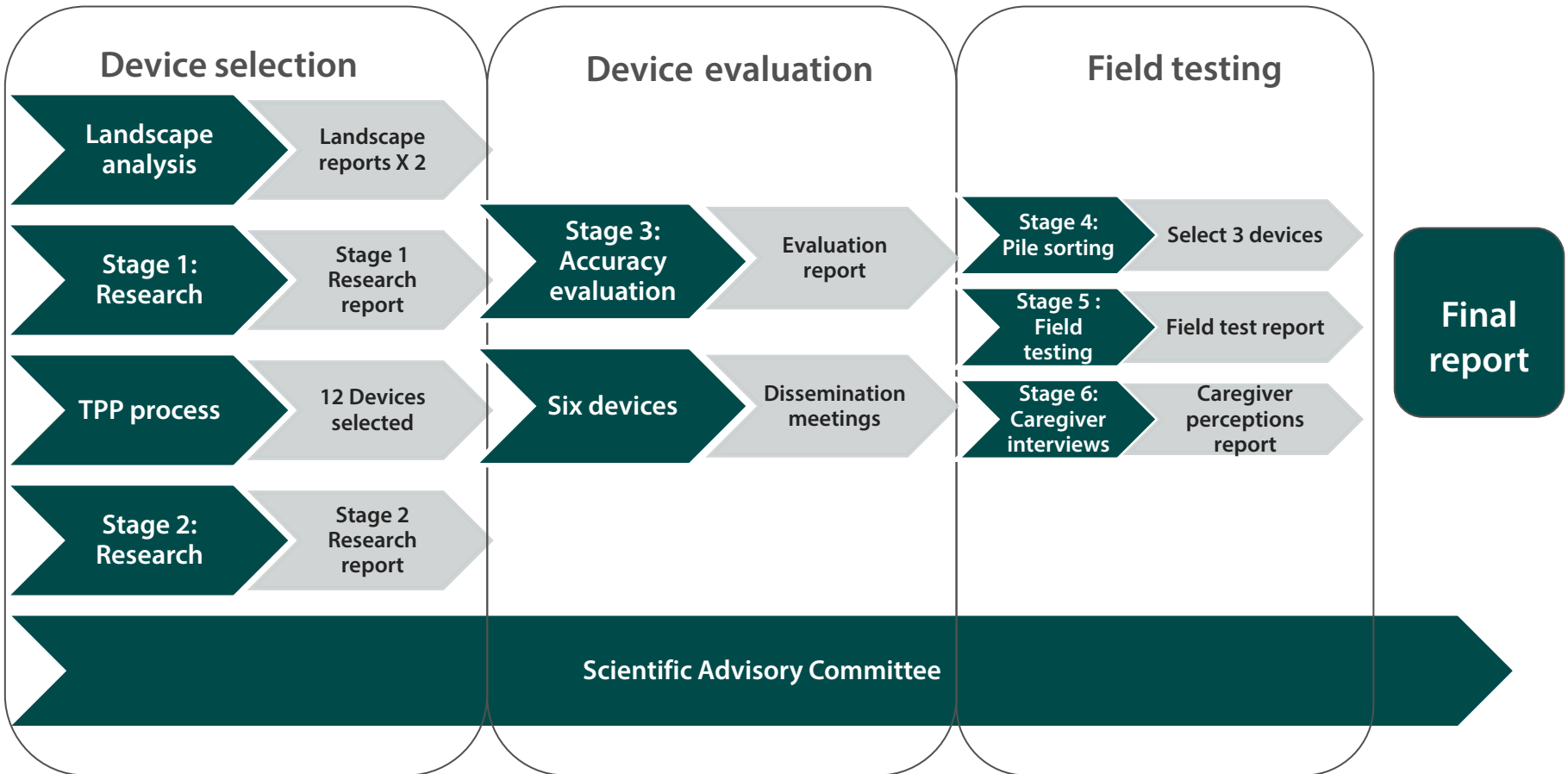


TREATMENT

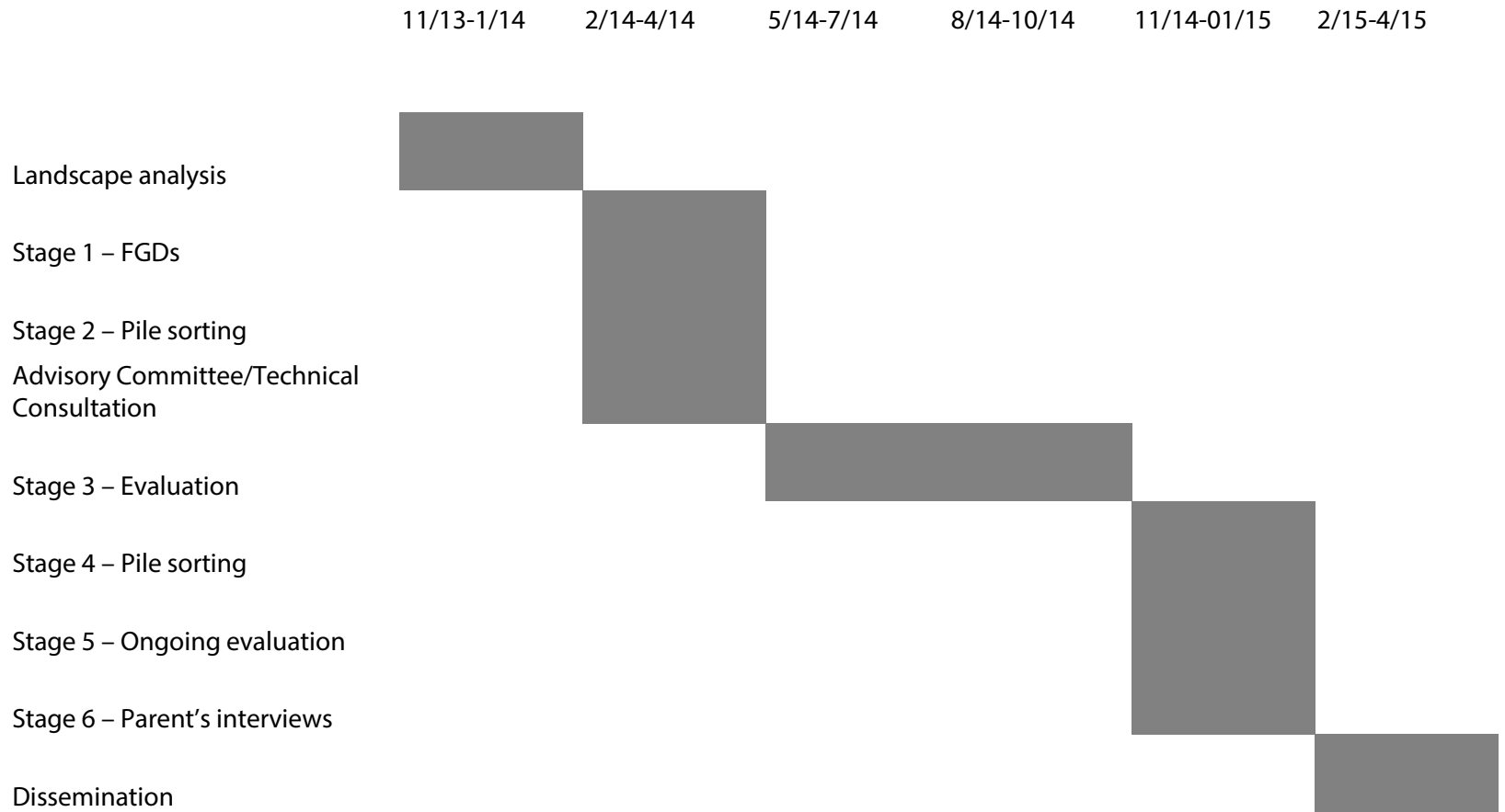


RESEARCH

Pneumonia Diagnostics project workflow



Project timescales



Research methodologies – Stage 1 (Formative research)

- ***Research methodology:*** Three focus group discussions (FGDs) with eight CHWs in each of the four country using 'Fair Notes' data capture methodology for initial findings and using NVIVO analysis of full transcripts for the final report
- ***Objective:*** To capture current constraints in diagnosing pneumonia at the community level and suggestions on characteristics of a tool that could improve the accuracy of pneumonia diagnosis which is acceptable to the caretakers

Stage 1 activity update

- Stage 1 FGDs completed in all four countries by end of June 2014
- All FGDs were audio recorded and Research Assistants used a 'Fair Notes' data collection methodology to capture data
- Data analysed using thematic framework initially manually and subsequently using NVIVO software

Research methodologies – Stage 2 (Formative research)

- **Activity date: July 2014**
- *Research methodology:* Pile sorting exercise with CHWs and national stakeholders in all four countries with 12 devices
- *Objective:* To capture CHW and national stakeholder device preferences based on a set number of defined criteria on up to 12 devices

Research methodologies – Stage 3 (Accuracy evaluation)

- **Activity date: September to November 2014**
- *Research methodology:* Each tool/device (total six) measured against the gold standard measure several times (six) with a varied sample of 48 CHWs and 24 FLHFWs
- *Objective:* To capture diagnosis accuracy data on each device in comparison to the gold standard device

Research methodologies – Stage 4 (Pile sorting exercise)

- **Activity date: December 2014**
- *Research methodology:* Pile sorting with 16 CHWs and six FLHFWs conducted to support the selection of two RR timers and one POx devices for routine practice evaluation
- *Objective:* To understand health worker preferences on device selection for routine practice evaluation

Research methodologies – Stage 5 (Routine field testing)

- **Activity date: January to March 2015**
- *Research methodology:* Conduct evaluation of user perceptions of devices in routine practice using 16 CHWs and six FLHFWs in each country over two months (240 and 90 interactions recorded with video)
- *Objective:* To measure health worker behaviours using selected devices during routine practice

Research methodologies – Stage 6 (Caregivers perceptions)

- **Activity date: January to March 2015**
- *Research methodology:* Conduct one to one interviews with parents on their perceptions of devices (24 in each country)
- *Objective:* To measure parents perceptions towards selected devices

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Stage 1 research findings

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TREATMENT



RESEARCH

Stage 1 – Key themes

- ‘Felt’ need expressed by community health workers
- Current barriers to pneumonia diagnosis
 - Community level barriers
 - CHWs knowledge and skills
 - Issues with current devices
 - Uitability, usability and durability
 - Supply chain management
- Ideal device characteristics

Stage 1 – Key themes: ‘felt’ need

- ‘Felt’ need expressed by community health workers

Community health workers in both countries expressed a need for diagnostic devices

“I use my digital watch sometimes but that is just improvising. We need more reliable tools. I use it because I don’t want to dispense amoxyl without proof that a child has pneumonia” – Ugandan VHT member

- In both locations CHWs demonstrated this by replacing provided devices by personal devices

“I had received a watch through ICCM programme three years ago, but now it is not working and I am using my own mobile phone” – Ethiopian HEW

Key themes – Current constraints 1

- Community barriers highlighted in both locations included:
 - Parents seeking alternative care such as local witch doctors and herbalists.
 - Parents don't trust the health worker to count the breathes accurately unaided

“Parents like the timer and they trust what I say to them only if I have used the timer to assess their child” – Ugandan VHT member

Key themes – Current constraints 2

- Community barriers highlighted in both locations included:
 - Parents lack patience when their child is sick

“Parents like the timer and they trust what I say to them only if I have used the timer to assess their child” – Ugandan VHT

“When a child is restless or crying it is hard to count RR...thus I tell the parent to wait until the child calms down. But this takes several times and the parents lack patience, and sometimes ask to leave without getting treatment” – Ethiopian HEW

Key themes – Current constraints 3

- Community health workers own knowledge and skills were also highlighted in both locations. These included:
 - Their ability to provide care
 - Skills maintenance

“Asthma and pneumonia sometimes are similar. I would like to be able to tell them apart when a child with cough is brought to me” – Ugandan VHT

“We need supportive supervision by knowledgeable people who can fill our gaps in pneumonia care” – Ethiopian HEW

*“After I trained in ICCM I didn’t receive any supportive supervision”
– Ethiopian HEW*

Key themes – Current constraints 4

- Issues with current devices were often highlighted in both locations. These included:
 - Suitability
 - Usability

“For me the UNICEF timer is time consuming and labour intensive”
– Ugandan VHT

“Yes I agree, and in addition some children are afraid of the ticking sound”
– Ugandan VHT

“The watch I have is not suitable, it would be good if it was digital”
– Ethiopian HEW

Key themes – Current constraints 5

- Issues with current devices were often highlighted in both locations. These included:
 - Durability

“The batteries are a problem, they drain quickly” – Ugandan VHT

“I have the ability to provide the care I would like to except for the fact that my timer keeps breaking down. Provided we have the right tools, we are capable of providing care” – Ugandan VHT

“I would make a device which would not malfunction immediately and doesn't work with dry cells” – Ethiopian HEW

Key themes – Current constraints 6

- Community health workers also highlighted issues with supply chain management

“Sometimes parents bring a coughing child but I have to send them to other VHTs who have a functioning timer – if the child has pneumonia this is valuable time wasted” – Ugandan VHT

Key themes – Ideal device characteristics

- Community health workers highlighted a number of elements:
 - Automation – this was the most important point raised in all discussions and covered areas such as colour/digital displays and multi-functional

“I would place it on the child’s chest or any part of the body and after a short while it would indicate whether or not a child has pneumonia, that way I would not have to count and the results would be accurate”

– Ugandan VHT

“I will make a multi-functional and fast device, which limits my role only in registration and requesting information” – Ethiopian HEW

Key themes – Ideal device characteristics

- Community health workers highlighted a number of elements:
 - Improved usability and accuracy – again leading on from automation – removes the need to count

“We need one that’s more accurate than the UNICEF timer because it saves time as well as medicines” – Ugandan VHT

*“I will make a device which gives me an accurate RR count by itself”
– Ethiopian HEW*

Key themes – Ideal device characteristics

- Community health workers highlighted a number of elements:
 - Durability

“Yes, durability is important, in addition if we can get one that is rechargeable, then that will be good” – Ugandan VHT

“A device which doesn’t work with dry cell. If the device works with dry cell it will stop whenever the dry cell stops.” – Ethiopian HEW

Key themes – Ideal device characteristics

- Community health workers highlighted a number of elements:
 - Acceptable (to parents)

“One that is acceptable to parents, it builds their confidence in you”
– Ugandan VHT

“A device which displays the result like RDT. If it is like RDT it will be light and can be carried everywhere plus the science in it displays the result which enables us to be trusted by parents.” – Ethiopian HEW

Key themes – Ideal device design

- Community health workers highlighted a number of design elements they would like to see:
 - Like a digital thermometer
 - BP apparatus

All these again relate to automation and ease of use

“Mine would look and work like a digital thermometer. I would place it on any part of the body for a few seconds and it would display results that indicate if the child has pneumonia” – Ugandan VHT

“It will be good if there is a device which tells the number of RR by itself like the BP apparatus.” – Ethiopian HEW