

Technical Consultation Meeting Pneumonia Diagnostics

16 June 2014

Karin Källander, Kevin Baker, Stefania Rigillo



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RESEARCH

Meeting agenda Day 1

Time	Agenda Item	Content	Presenter
8:30 - 9:30	Welcome and introduction	Overview of Malaria Consortium and Pneumonia Diagnostics project and introduction of participants	Karin Källander
9:30 - 10:05	Opening plenary	Pneumonia management in sick children – the current situation and opportunities	Wilson Were
10:05 - 10:20	Coffee break		
10:20 - 11:00	Landscape analysis update	Presentation on the current landscape on pneumonia diagnostics as a result of the findings of the work done to date by Malaria Consortium	Kevin Baker
11:00 - 12:30	Respiratory rate – Session 1	Discussion on the specifics of respiratory rate measurement and agreement on the gold standard - Decision point	Moderator: Wilson Were
12:30 - 1:30	Lunch break		
1:30 - 3:00	Respiratory rate – Session 2	Discussion on appropriate measurement parameters for respiratory rate - Decision point	Moderator: Shamim Qazi
3:00 - 3:30	Coffee break		
3:30 - 4:30	Plenary 2	Role of POx in Clinical Management of Sick Children in Low Income Countries Inclusion of POx in IMCI and iCCM – WHO perspective	Jim Black Shamim Qazi
4:30 - 6:00	Pulse oximetry – Session 1	Discussion on the specifics of oxygen saturation measurement and agreement on the gold standard - Decision point	Moderator: Debbie Burgess
6:00 - 6:15	Wrap-up		Malaria Consortium

Meeting agenda Day 2

Agenda for Day 2 of the Technical Consultation, 17 June 2014

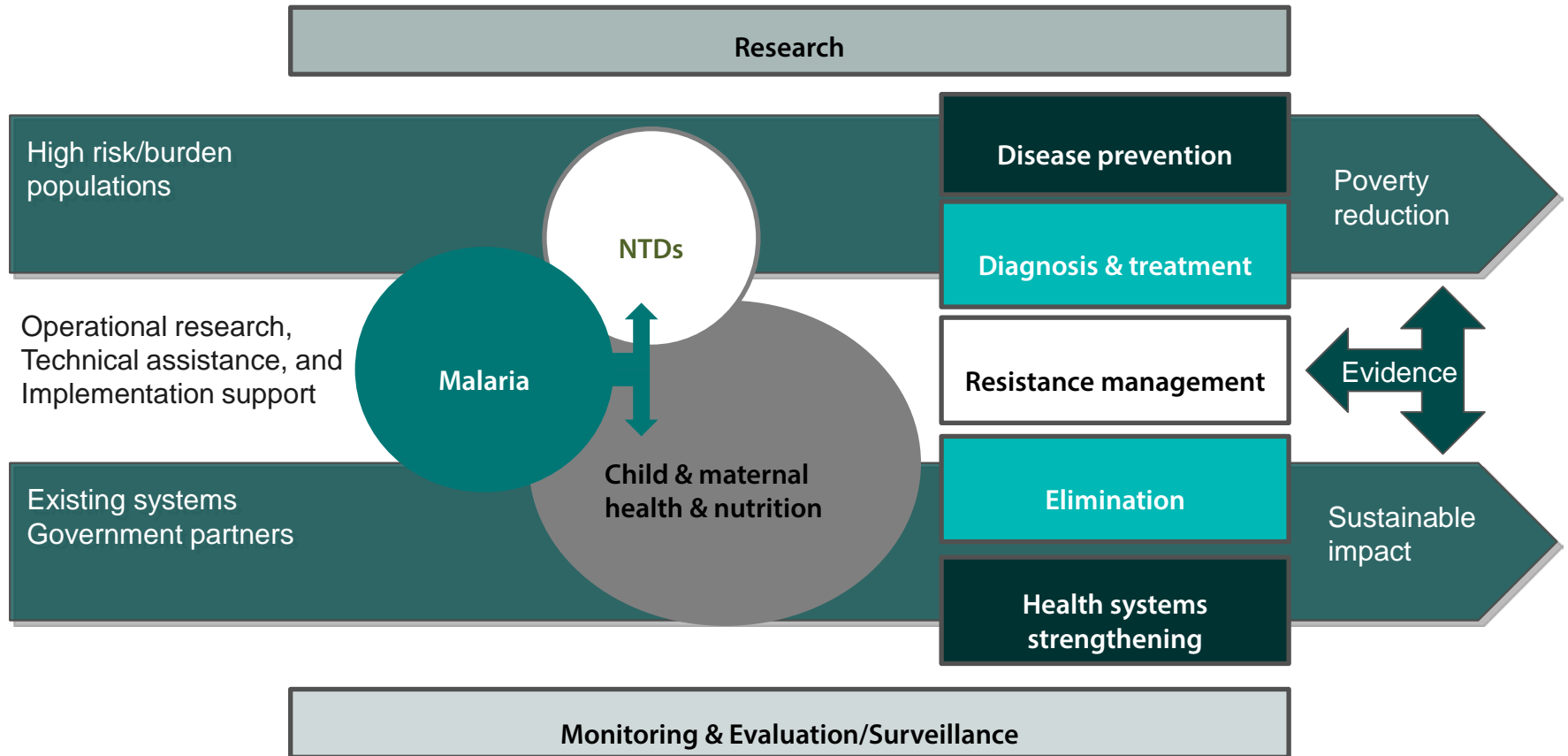
Time	Agenda item	Content	Presenter
8:30 - 9.00	Recap of day 1	Recap of day 1 of the workshop	Karin Källander
9.00 - 10.30	Pulse oximetry – Session 2	Critical parameters that are needed in considering the use of POx for the diagnosis of pneumonia - Decision point	Presenter: David Peel Moderator: Debbie Burgess
10:30 - 10:45	Coffee break		
10:45 - 11:45	New developments	Discussion on diagnostic tools development outside of RR and POx and their evaluation	Udantha Abeyratne
11.45 - 12.30	Wrap-up	Highlights of meeting outcomes and next steps planning	Karin Källander / Kevin Baker
12:30 - 1:30	Lunch break		

Malaria Consortium - Our mission

To improve lives in Africa and Asia through sustainable, evidence-based programmes that combat targeted diseases and promote child and maternal health

What is the Malaria Consortium?

A specialist organisation, that implements and improves public health programmes based on evidence



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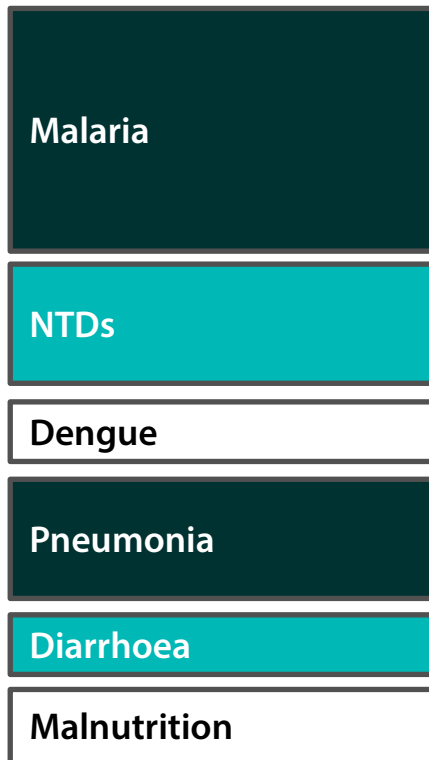
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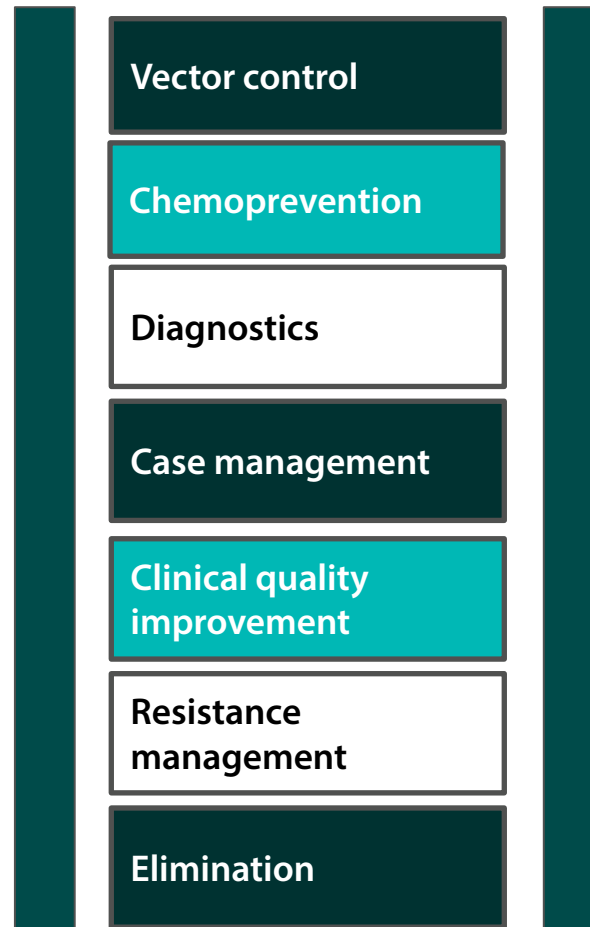
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Where is our expertise?

What diseases?



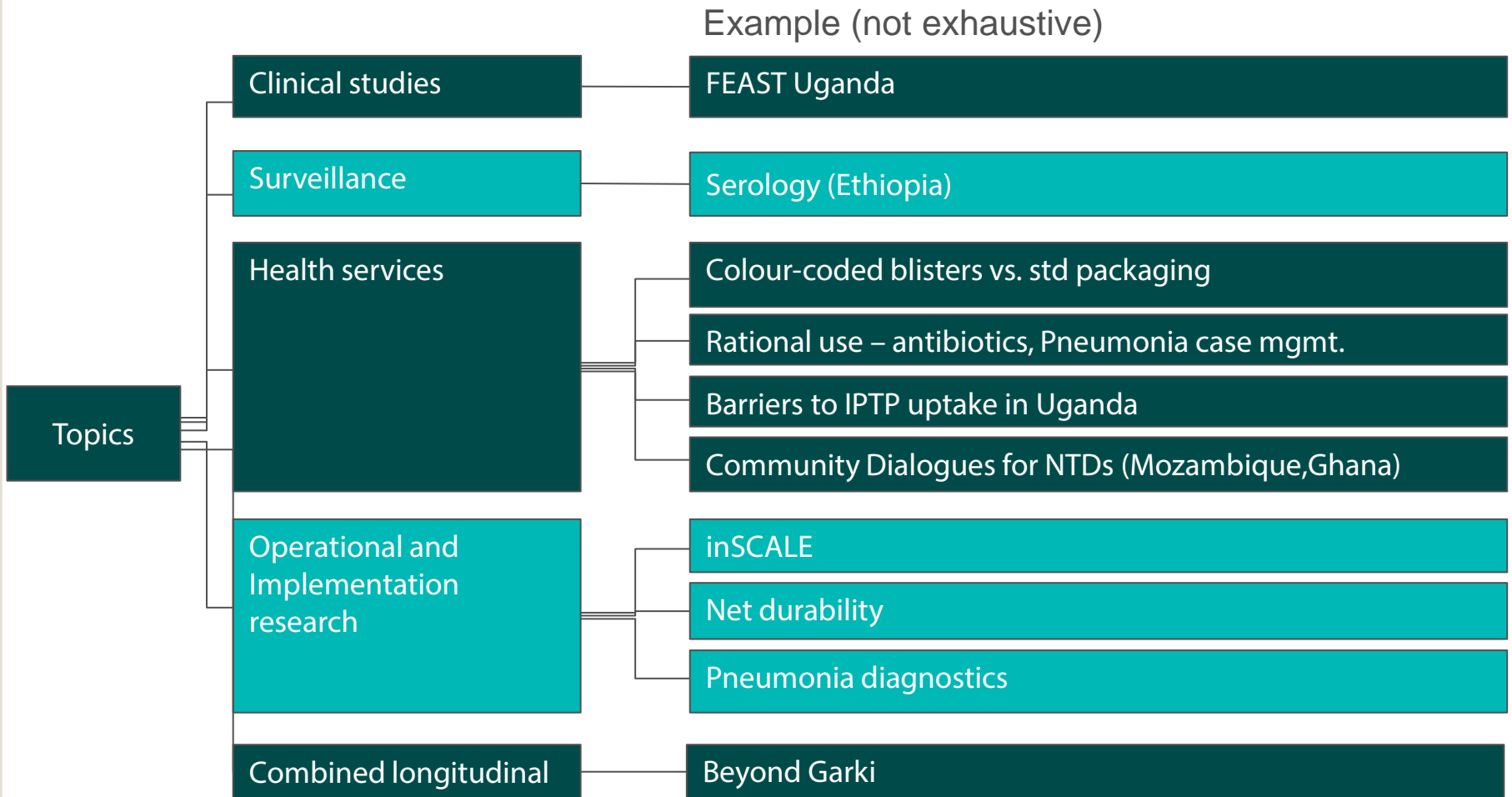
What areas?



What approaches tools and techniques?



Current research areas



Development of Malaria Consortium

- **Began as DFID Malaria Resource Centre:**
 - **Global policy**
 - **DFID investment strategy**
 - **Project design and evaluation**

1994 - 2000

- **Registered as NGO**
- **Established in five countries**
- **Combined Technical support & implementation**

2003 - 2005

- **Widened scope to communicable diseases, NTDs, integrated childhood illness & health systems**
- **Launched large-scale delivery in Nigeria**
- **Launched Asia**

2008 - 2009

2001 - 2002

- **Initiated country support programmes**
- **Opened offices in Uganda and Ghana**

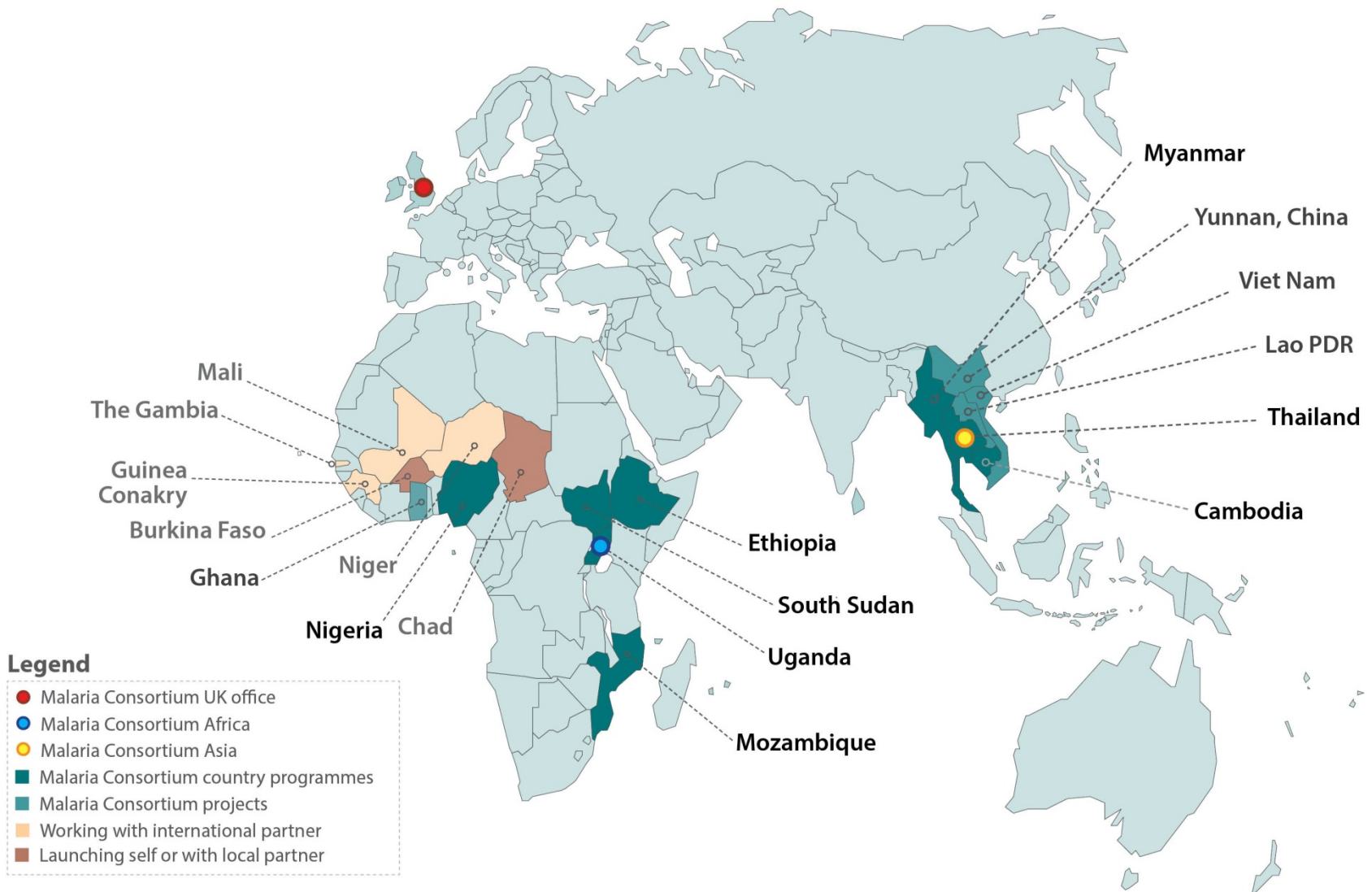
2006 - 2007

- **Grew to 14 Offices in Africa**
- **Delivered innovatively on malaria**
- **Expanded to other diseases**
- **Grew M&E and research capacity**

2010 - 2015

- **Expanding NTD work**
- **Testing innovations to improve delivery**
- **Promoting quality approaches and health system integration**
- **Building technical and M&E leadership**

Where we work



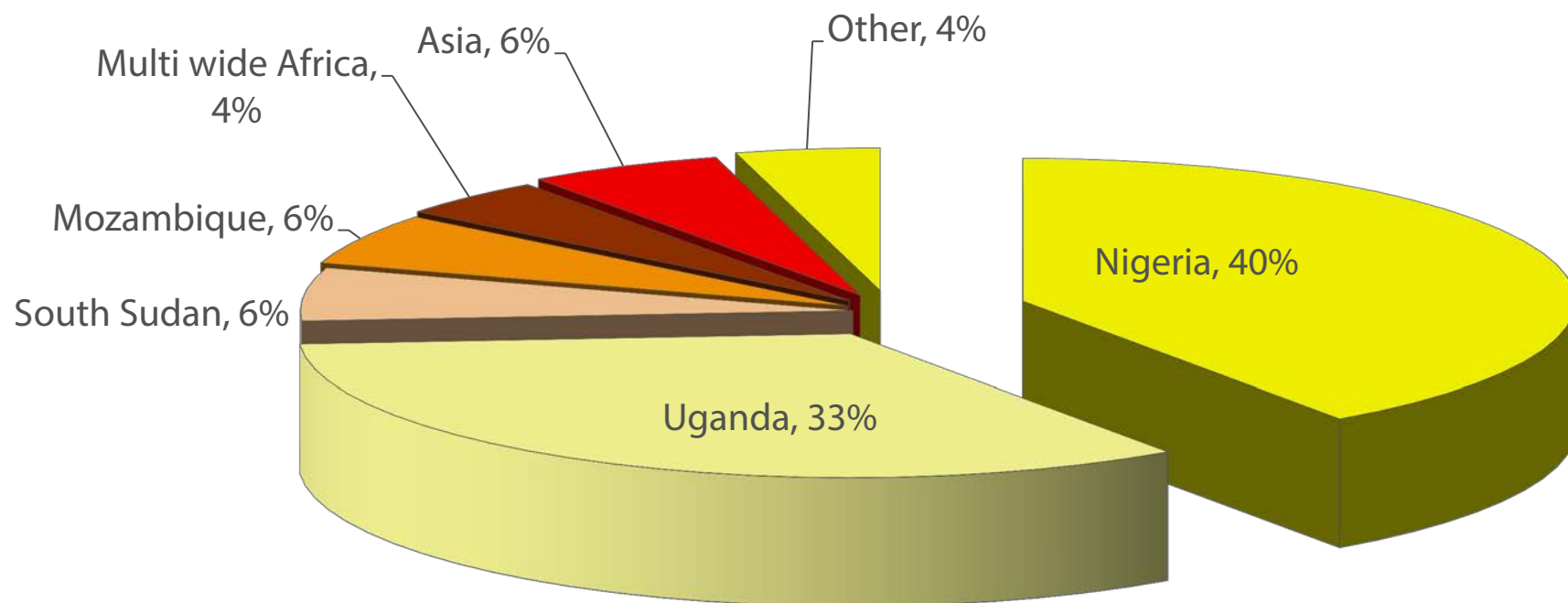
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Income by country FY ending March 2014



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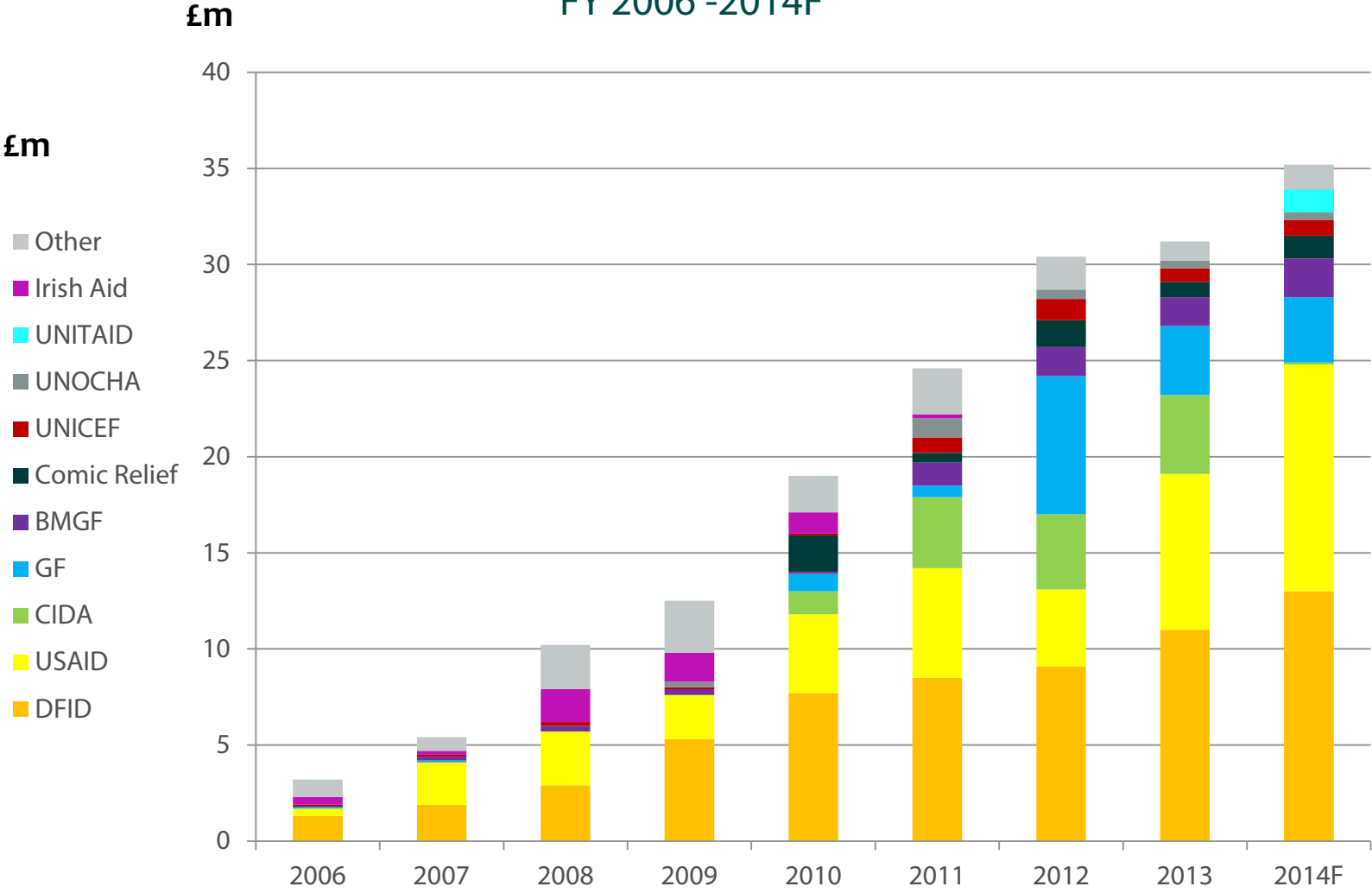
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Total income by donor

FY 2006 -2014F



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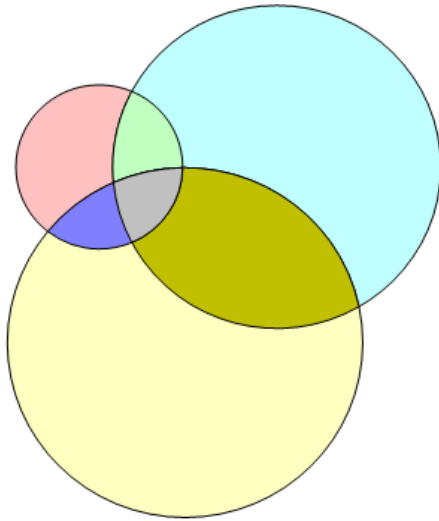
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Why pneumonia diagnostics?

15,470 CHW prescriptions in
Mid-west Uganda



ACTs

Amoxicillin

ORS



Project overview

Title: Use of improved tools for measuring respiratory rate and oxygen saturation among community health workers: sub-Saharan Africa and Southeast Asia

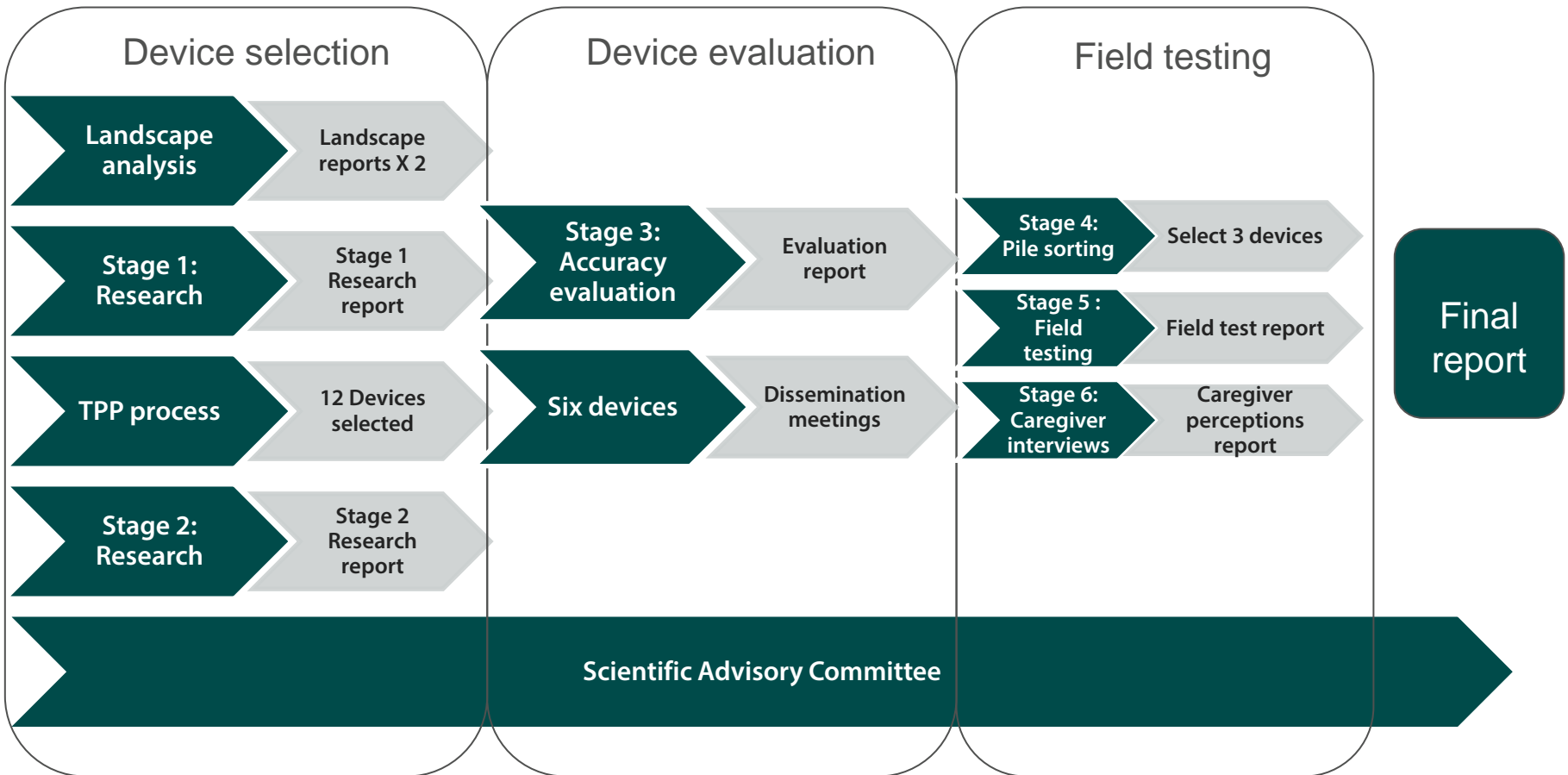
Goal: To identify the most accurate, acceptable, scalable and user-friendly respiratory rate timers and pulse oximeters for diagnosis of pneumonia symptoms by CHWs and FLHFWs in four low-income countries – Cambodia, Ethiopia, South Sudan and Uganda

Timescales: November 2013 to June 2015 (six research stages)

Project objectives

- **Objective 1:** To systematically review the landscape for existing RR mobile phone apps, automated RR timing tools and POx devices appropriate for low resource settings
- **Objective 2:** To identify, using pre-defined criteria, the most promising and appropriate devices for field-testing in sub-Saharan Africa and Southeast Asia
- **Objective 3:** To establish the accuracy of the RR timing/classification device to diagnose symptoms of pneumonia and the POx devices to measure oxygen saturation, respectively, when used by CHWs and first level health workers in sub-Saharan Africa and Southeast Asia
- **Objective 4:** To explore the acceptability and usability of existing RR mobile phone apps, automated RR timing tools and POx devices as perceived by caregivers, CHWs and FLHFWs

Pneumonia Diagnostics project workflow



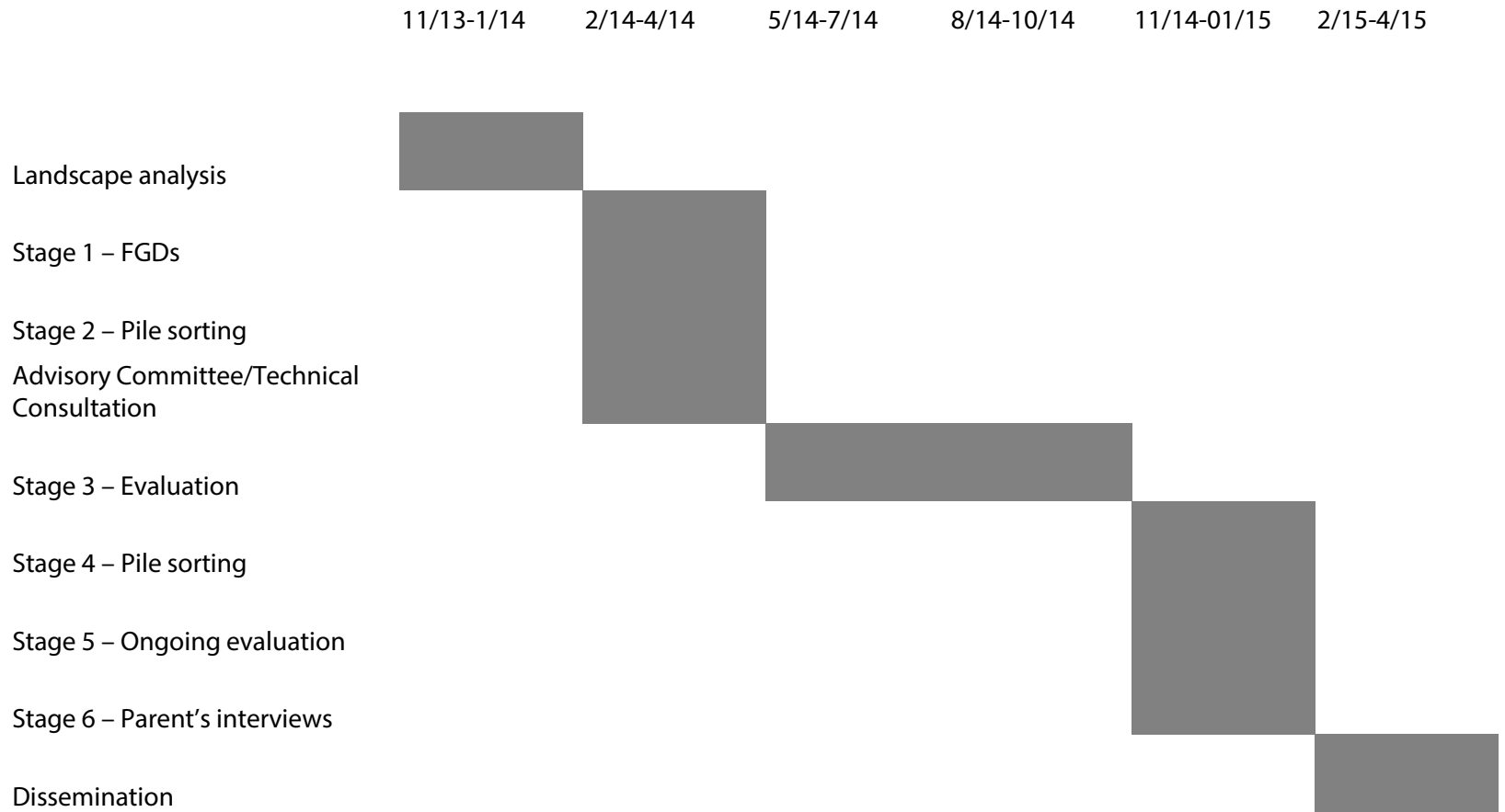
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Project timescales



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Technical Consultation meeting objectives

- To facilitate discussion and agreement on the 'gold standard' measures for respiratory rate and pulse oximetry
- To facilitate discussion and agreement on appropriate accuracy measurements for both respiratory rate and pulse oximetry



a decade in communicable disease control and child health

Landscape analysis update

Kevin Baker



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Landscape analysis

Based on initial landscape review done by PATH on over 150 possible RR timers

- Stage 1: Consultant engaged to update this work based on a defined set of criteria
(Availability/suitability/usable/affordable)
- Consultant also included 40 POx devices as this was not included originally
- Objective was to help facilitate the creation of a shortlist of devices for field testing
- Analysis conducted using desk research and phone interviews

Landscape Analysis - findings

Possible RR Devices	158
Possible POx Devices	30
TOTAL	188
Study eligibility criteria:	
1. Availability	88
2. Suitability	32
3. Usability	10
4. Affordability	45
Possible devices available for field testing	13

Landscape analysis – learnings

- Complete product specifications very difficult to obtain
- Many devices are not suitable for our target audience – children under five
- More analysis needed from a technical perspective
- Some devices fall outside initial proposal scope – measurement of cough sounds/breathe/joint POx and RR devices