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# Involving health workers by placing them in the centre: how Human-Centred Design can positively impact research and evidence synthesis

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# Disclosure

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*I (Christian Auer, [christian.auer@swisstph.ch](mailto:christian.auer@swisstph.ch))  
have no actual or potential conflict of interest in  
relation to this presentation.*

*One of the co-authors is working for the BMGF.*



in partnership with three national research institutions





## Basic conceptual thoughts in PHISICC

01

Paper is closer to where the most **vulnerable** live.

02

'Decisions' is about **people who make them** or are affected by them;  
'decisions' are not only about the information system.

03

As important as 'public health', data and 'statistics' is the **human experience**  
and the human-centred design.

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We wanted to better understand how frontline healthcare workers experience the Health Information Use System (HIUS) and how relevant the HIUS is for their daily work

**QUESTION:**

**Healthcare workers: human beings or resources that are squeezed into a system?**

**Who is the nurse or midwife? Just a small piece  
being kept in motion by a sophisticated health  
information system?**

it is not about paper tools

it is not about parts of information systems

it is not about the best quality data

**It is about PEOPLE, improving their lives\***

through better decisions on what affects them

informed by adequate data

carefully recorded by health workers

in paper tools

\* Especially, the most vulnerable



What have we done so far?

# What research has been done so far in PHISICC?

**01**

**A systematic review on the effectiveness of interventions to improve the 'health information use system' on the quality and use of information.**

**02**

**Characterisation of the 'health information use system' in three countries of Sub-Saharan Africa**

**03**

**Based on insights from the field work, the systematic review was revisited and a fresh analysis done: framework synthesis.**

# Methodological approaches used in PHISICC fieldwork

## 1) Commonly used in public health:

- Inventory studies of the health information system
- Content analyses of the various recording and reporting forms
- Data verification (quality of data)

2) The Human-Centred Design approach was brought in by people from a DESIGN COMPANY.













# Human-centred design: what is it?

**Human-centred design** is a design and management framework that develops **solutions to problems** by involving the **human** perspective in **all** steps of the **problem-solving** process

# Human-centred design : key features

Deep empathy

Building many prototypes

*It is a reiterative process*

**“Human-centered design establishes a meritocracy of ideas empathetic of thought, immune to hierarchy.”**

*Senior adviser at the US State Department*

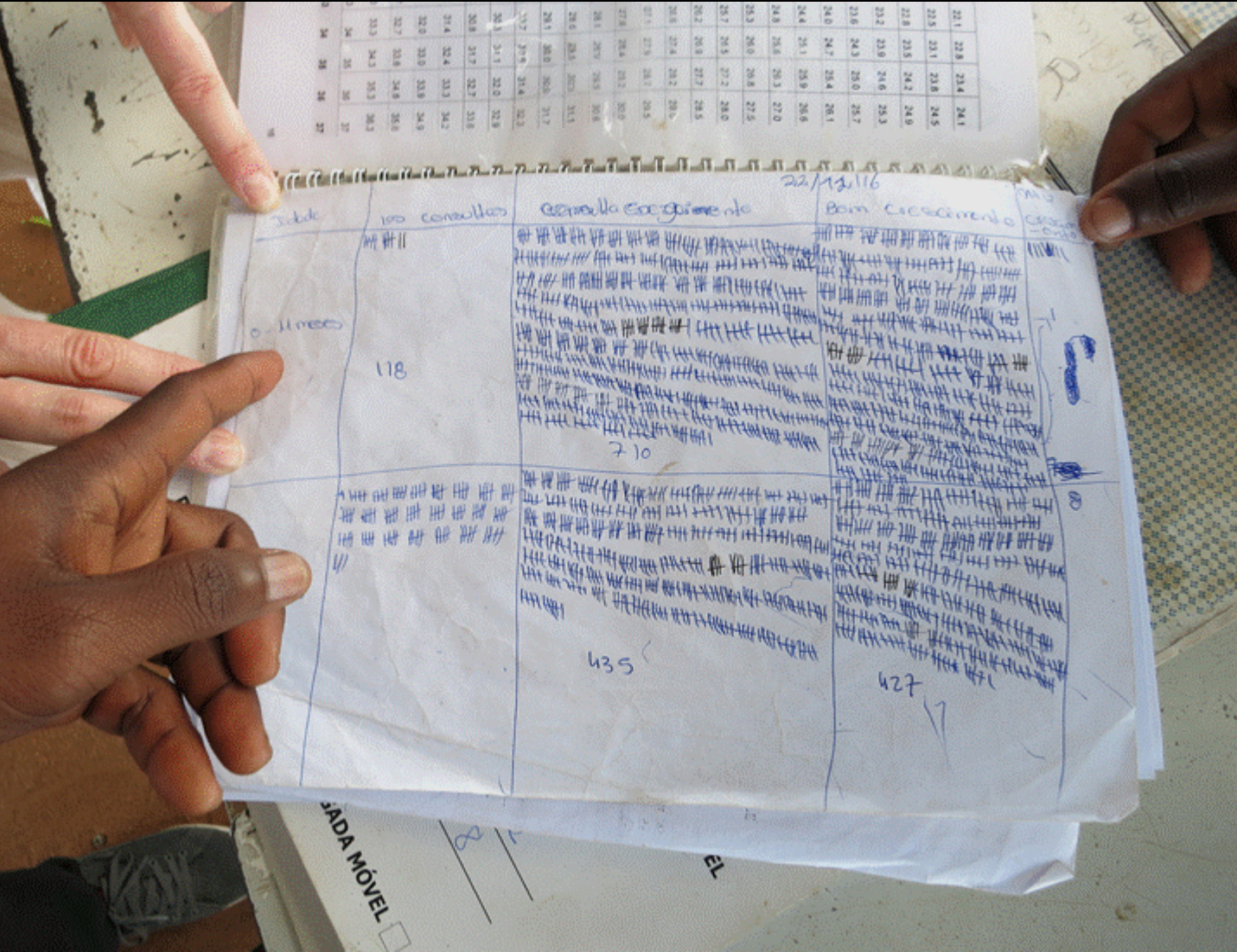
- Deep empathy
  - Generating many ideas
  - Building many prototypes
  - Share these prototypes
- Reiterative process



# Examples from the field work \* using the Human-Centred Design

\* In Côte d'Ivoire, Mozambique, Nigeria

# Message: Time for reporting → less time with patients



“I spend three hours every week tallying the number and type of visits for that week. Then it takes me about 15 hours to add up all the tallies and fill out my section of the monthly report.”

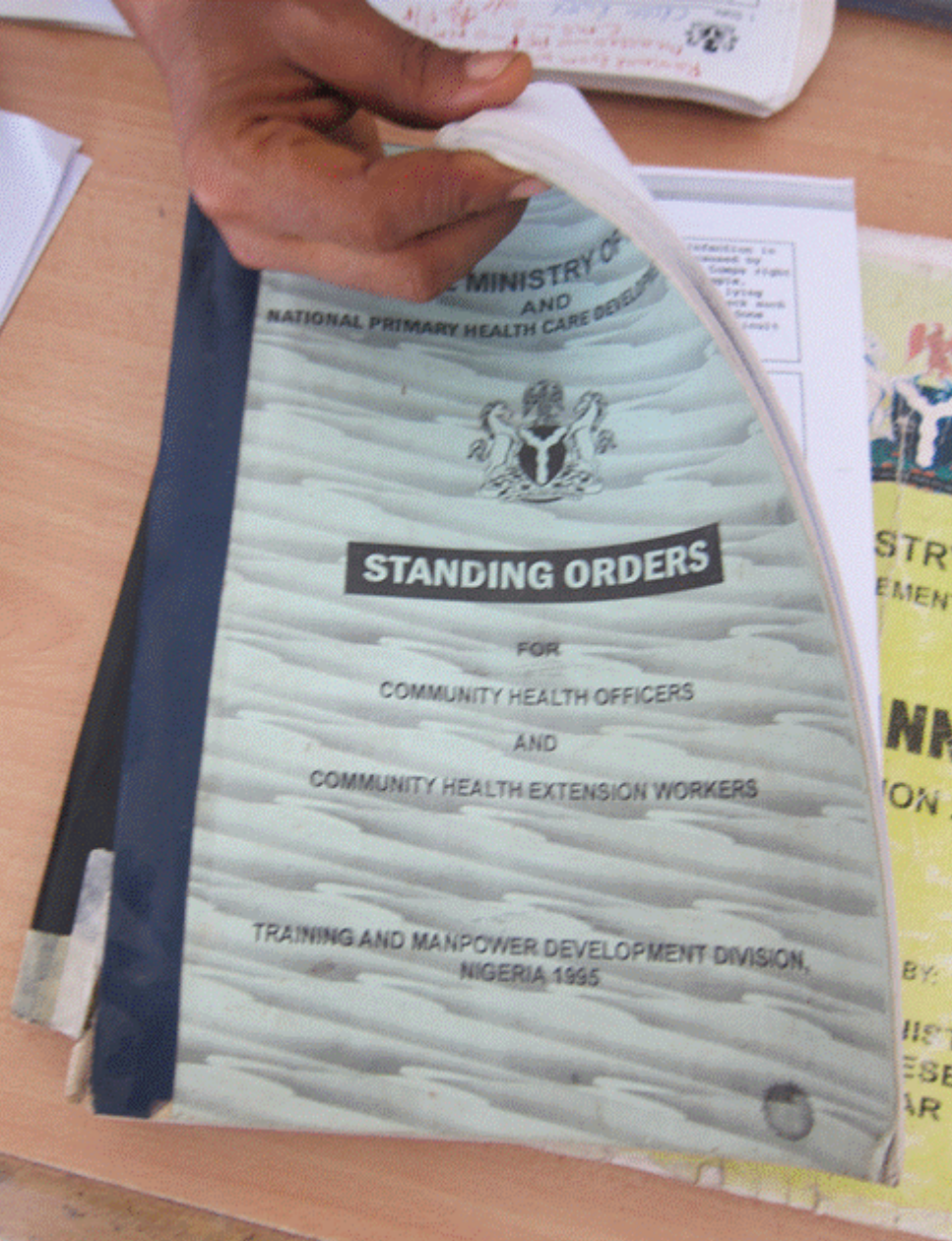


## *Message: Forms to facilitate decision making.*



“We record children’s vaccinations by their birth month. All the children on this page were born in October 2016. To find those who have missed their vaccinations, I have to flip through all of these pages. It’s like doing aerobics.”

*Message: updated guidelines, protocols to help make decisions*



*“Last week, I used the Standing Orders to treat a patient with a rash I had never seen before.”*



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*Message: Gathered data not used for decision making.*

**“We review the report with the district for data accuracy. We don’t usually talk about how I should use this data to make decisions.”**





## Conclusions

The experience in the field forced us to re-interrogate the literature based on what we learned: framework synthesis to understand the contextual situation in which interventions work (or do not work).

Human-Centred Design may capture what common research approaches cannot: it reveals problems and indicates solutions.

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