



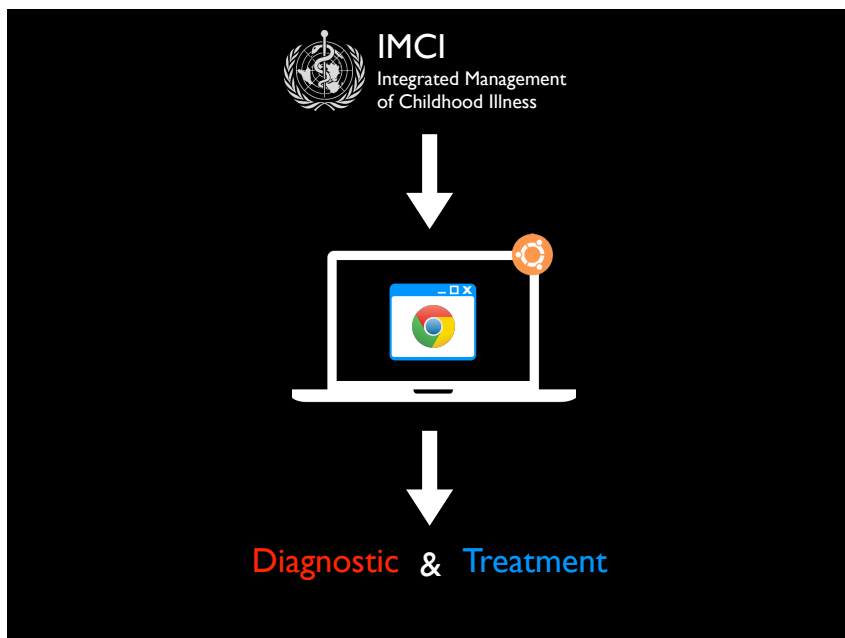
REC
Registre Electronique
de Consultation

What is it?
How does it work?



The REC is package:

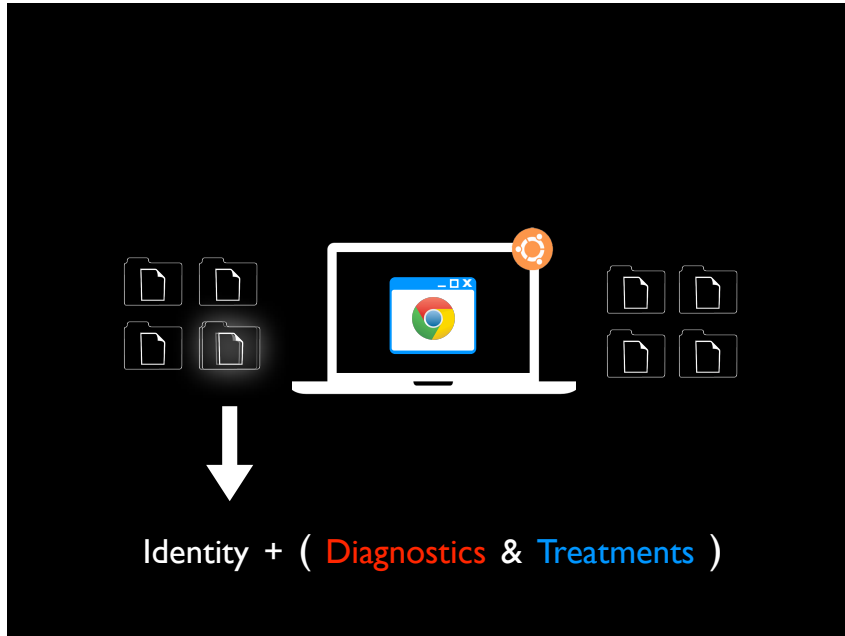
- Hardware: netbook
- Software: operating system + web application
- The REC only one runs a single application => simpler maintenance
- Combined expertise:
 - Tdh: humanitarian contexts
 - Wopata: software development



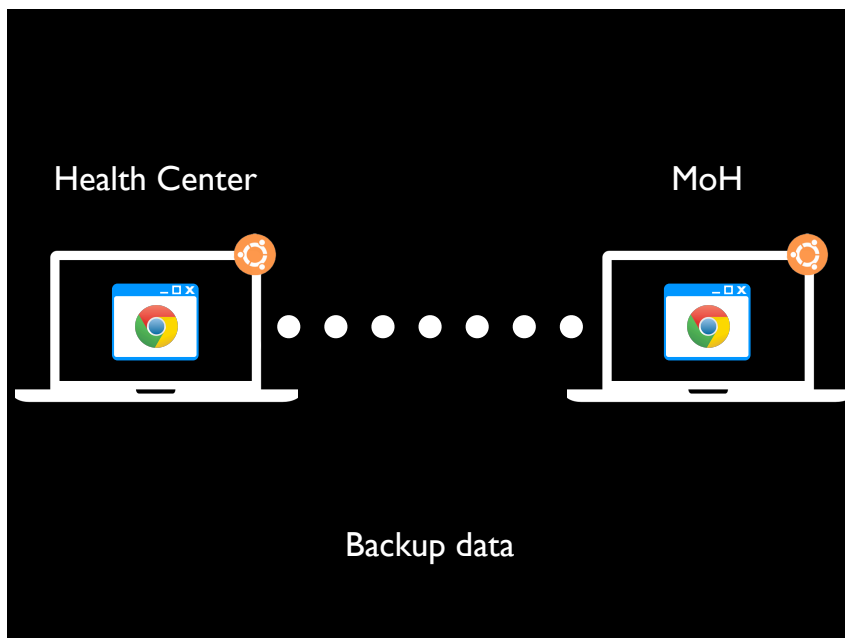
- The REC helps health personnel in rural Burkina Faso to diagnose illnesses of children under 5 years of age.
- It is based on a WHO diagnostic method
- User inputs symptoms and gets diagnostic + treatment

The REC contains:

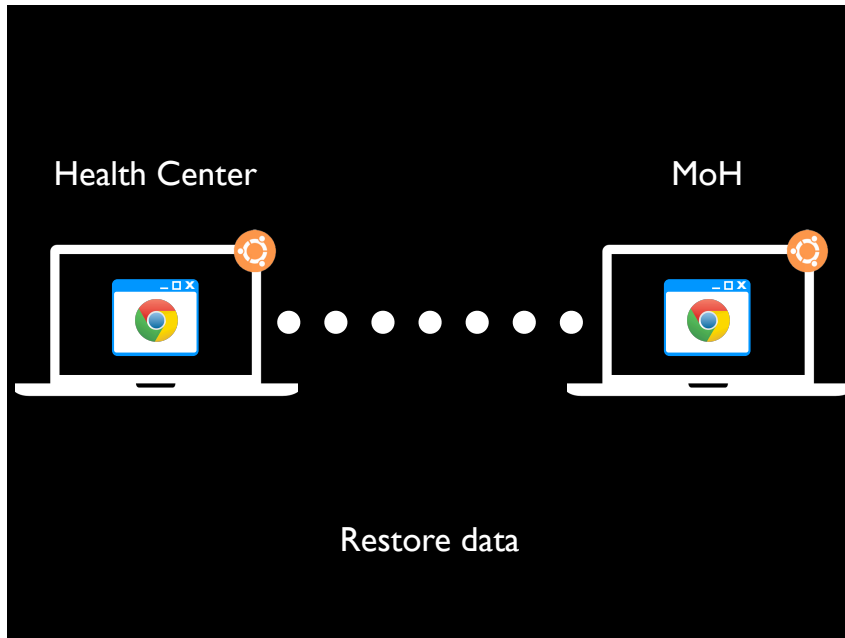
- A medical file for each patient
- Each file contains all the diagnostics + treatments of the patient



- Data can be exported on a USB stick
- Data is centralized at the level the MoH
- Backups are done monthly and brought by motorbike



- Data can be restored via the same mechanism



- The hardware



Pas de signe général de danger

Signes de danger

Pneumonie grave ou maladie très grave

Toux

L'enfant a-t-il la toux ou des difficultés respiratoires ?

Depuis combien de jours ?

Compter les mouvements respiratoires par minute

☐ Respiration normale

☒ Respiration rapide

Rechercher : L'enfant a-t-il un tirage sous-costal (inspiratoire) ?

Ecouter : l'enfant a-t-il un stridor (inspiratoire) ?

Continuer >

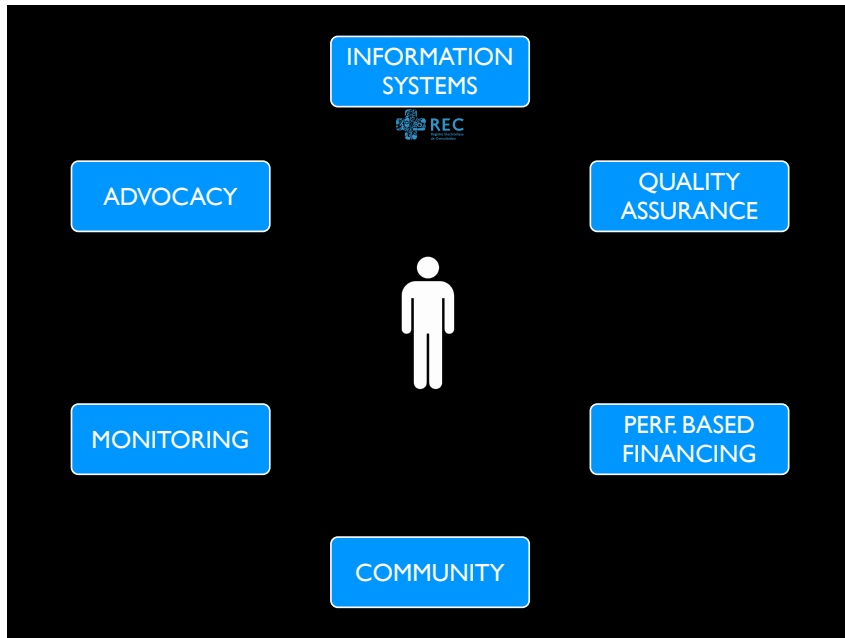
Diarrhée

Fièvre

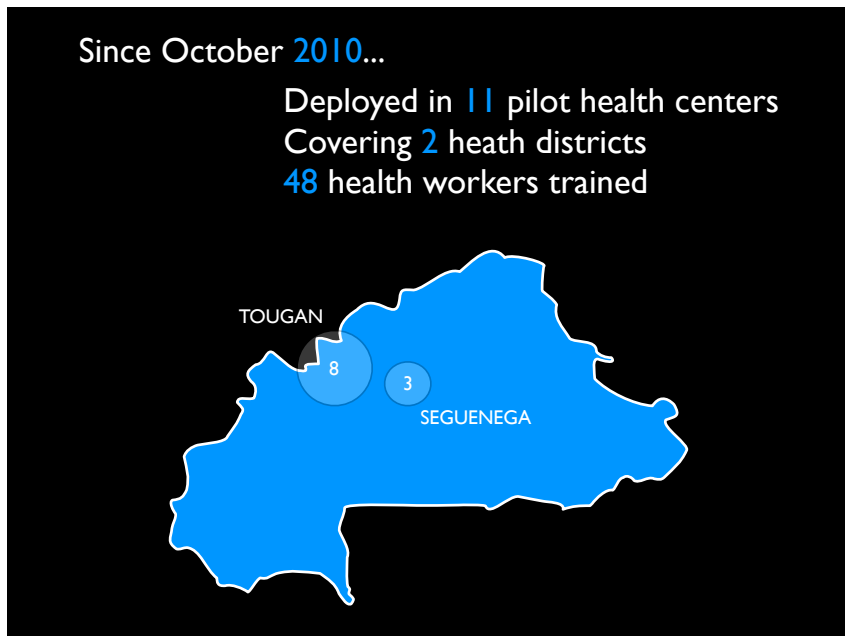
Affection de l'oreille

Anémie

Project setup



- Tdh project implements 6 axis of intervention
- Information Systems is only one of them
- The REC by itself wouldn't be sustainable



- Scale of the projet

Pilot health centers **equipped** with

NETBOOK

SOLAR PANELS

BATTERIES

WIRING

- Preparing the centers

Achievements

- From the perspective of the usage of the REC

Easy learning curve

Self-trained social workers

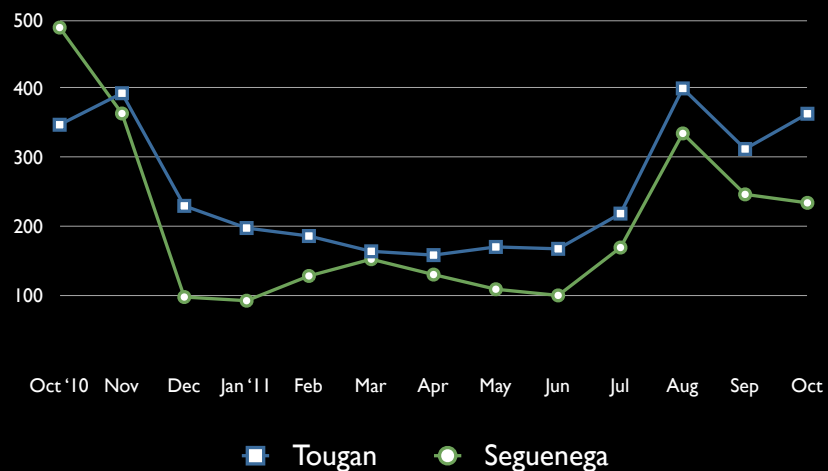
Over 26.000 recorded diagnostics in 12 months

Reduced IMCI diagnostic time

Only 1 hardware malfunction

- Learning curve: hardware is not a usage issue
- Self-trained: software is easily adapted to user skills
- # diags:
 - 26.000 coherent IMCI diagnostics
 - comprehensive data on diagnostics => identify problem and focus trainings
 - absolute number => see limiting factors
- Time: faster than with paper forms
- Malfunction: keyboard issue. No misuse

Average number of diagnostics



- Example of monitoring data
- We are able to follow up on the usage of the REC
- If used daily, it should reflect the attendance of the centers

Limiting factors

- From the perspective of the usage of the REC
- From the feedback of users

Health worker motivation

Reluctance to change

Understaffing of health centers

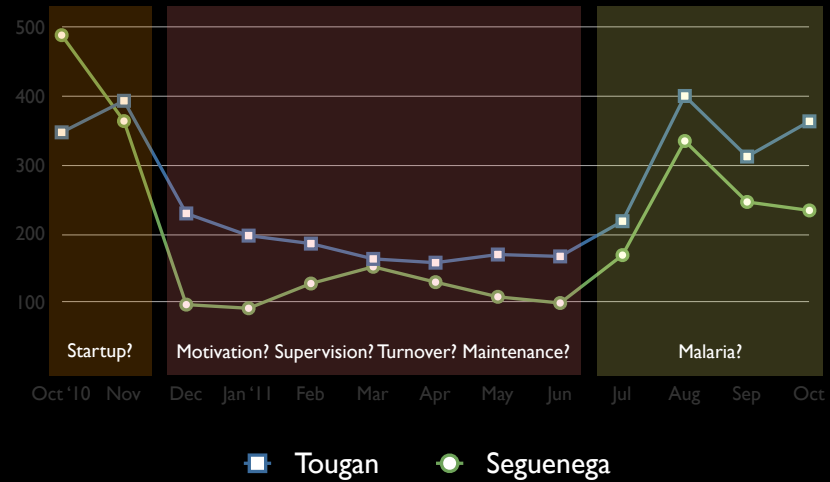
Staff turnover

Lack of supervision from MoH

Maintenance procedures

- Motivation: the use of the REC relies completely on them
- Change: some workers will accept more naturally than others
- Understaffing: hard to cope when high attendance
- Turnover: Approx. 15% of trained workers changed center in the last 12 months
- Supervision: no pressure nor incentives from hierarchy
- Maintenance: it can take weeks to provide maintenance a center. No immediate report

Average number of diagnostics



- We can look at the graph in a different way: How to explain the evolution?
 - Some factors are linked to the REC
 - Some factors are external to the REC

How to address limitations?

Health worker motivation

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Maintenance procedures

Health worker motivation

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Understaffing of health centers

Staff turnover

Lack of supervision from MoH

Maintenance procedures

SOFTWARE

HARDWARE

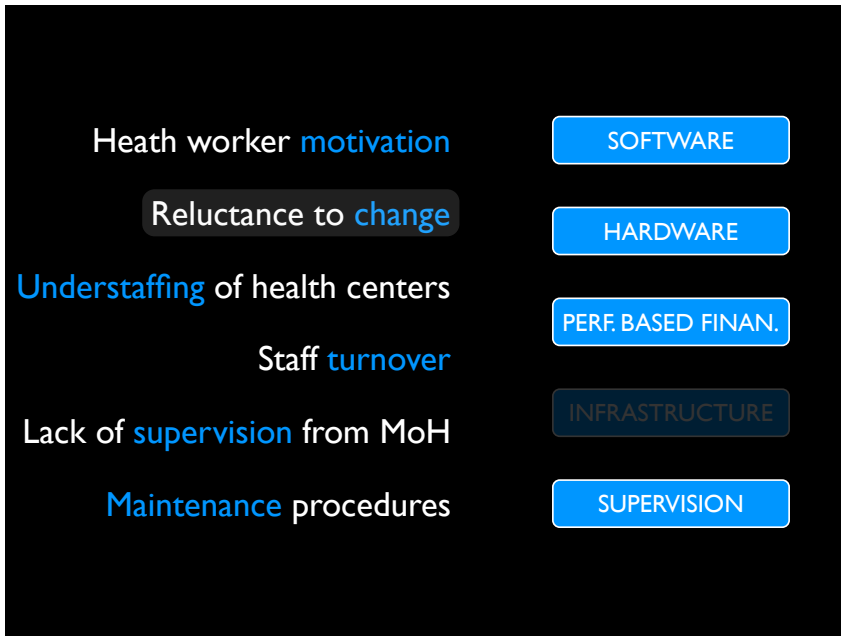
PERF. BASED FINAN.

INFRASTRUCTURE

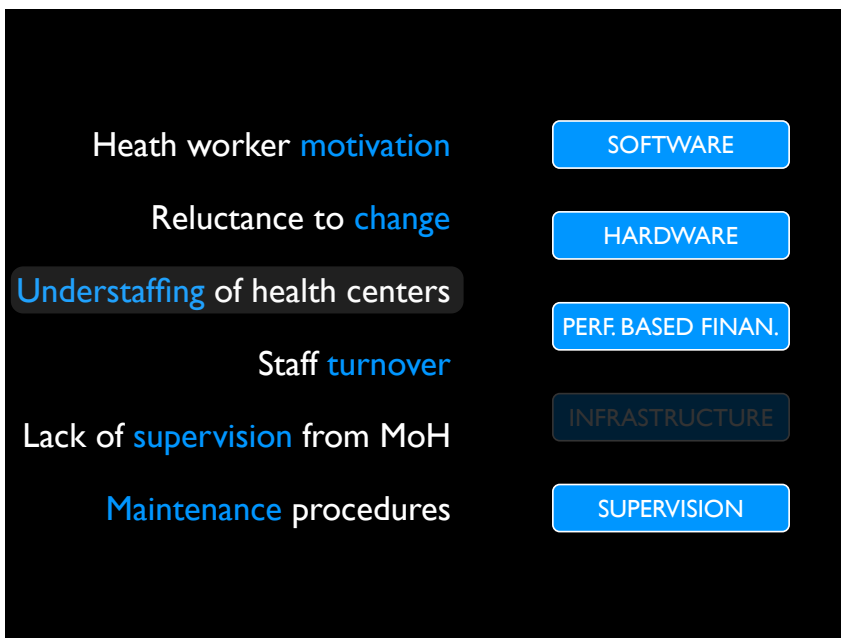
SUPERVISION

- Better user experience
- Incentives

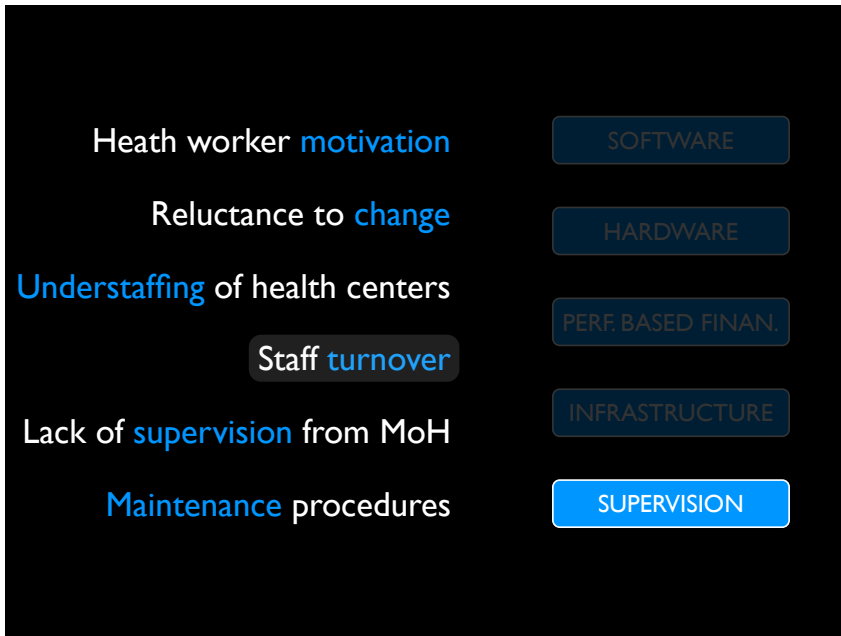
- Better user experience
- Incentives



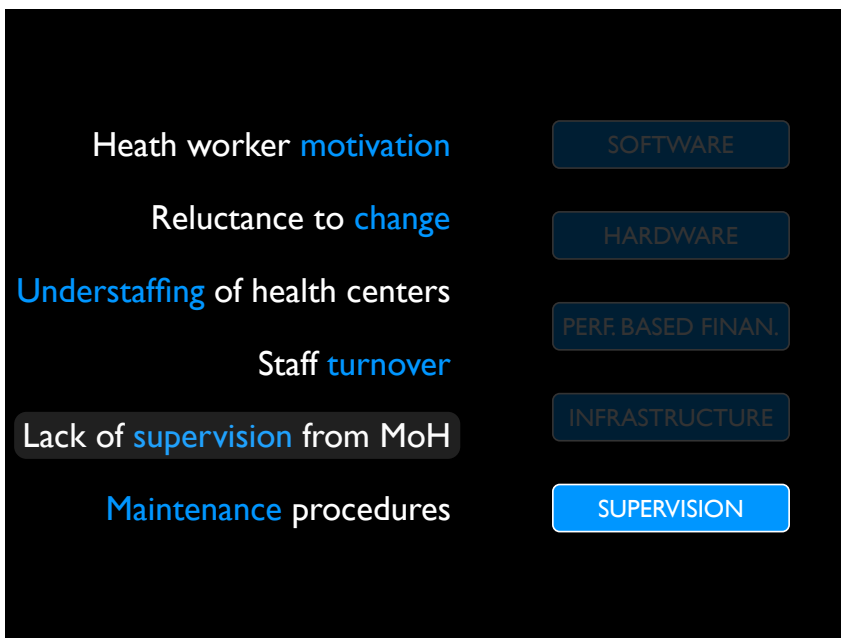
- How organize the consult with less staff



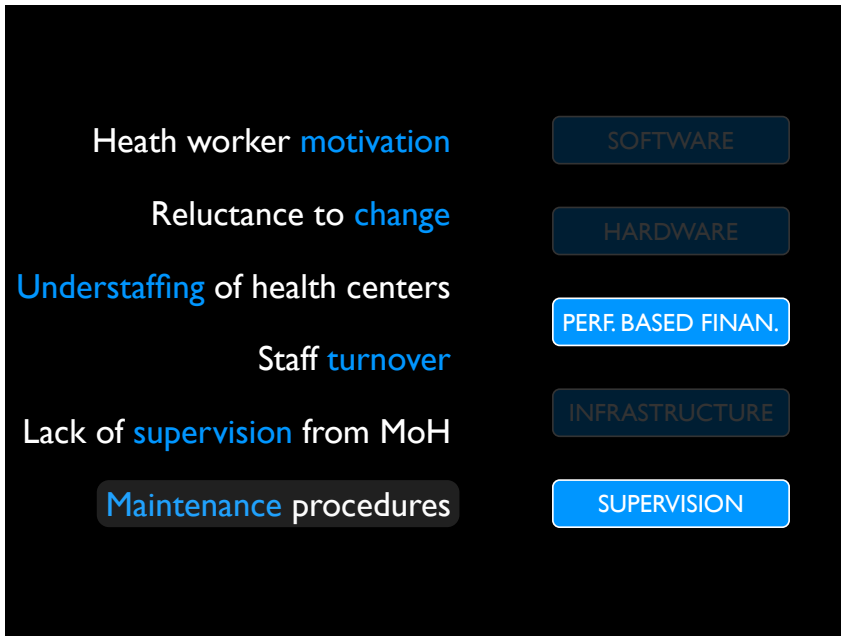
- Make sure all new staff is trained



- Work closer with MoH
- Follow up on the integration of the REC into the health system



– Telecommunications



- 2 districts of Tdh
- 0.5 district of Save (Kaya)



What's next?

Our vision for the project

Improve
global user experience

EASIER DATA ENTRY



Tablet



Handheld



Touchscreen computer

TACTILE DEVICE

- Tactile devices are more fun => more incentive to use
 - No mouse
 - no need to learn how to use it
- => faster learning
- reduces the number of devices to maintain

CONTEXT COMPLIANT DEVICE

DUST

HEAT

HUMIDITY

ANTI-SCRATCH

ROBUST

LOW COST

ENERGY EFFICIENT

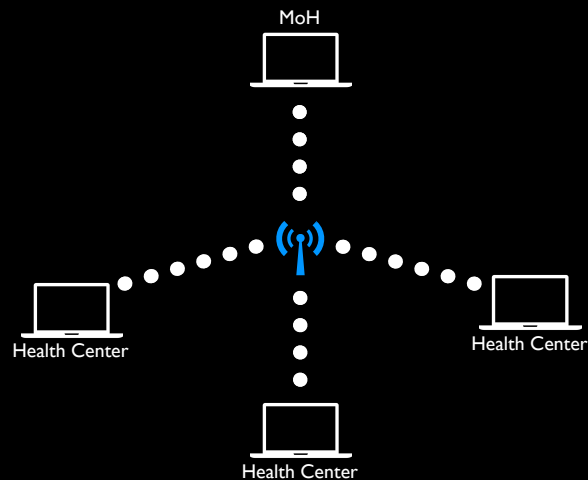
AUTONOMY

CONNECTIVITY

- Normal devices have a shorter life-time

Improve data centralization method

WIRELESS AREA NETWORK



Wireless data connexion between
health centers and MoH

ON DEMAND SYNC

REMOTE UPDATES

REMOTE MONITORING

- No more USB sticks => one device less to maintain
- Safer data management
- Easier application maintenance



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