

# **mHealth solution for improved quality of RMNCH service delivery across the primary health care system**

Dissemination of L10K's Learnings

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April 27, 2022

Hyatt Regency, Addis Ababa

# Outline

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- Background of mHealth in Ethiopia
- mHealth program objective
- Platform and alignment with other systems
- Phases and implementation
- Usage analysis
- Achievements and challenges
- Transition from mHealth to eCHIS

- In Ethiopia mHealth solutions in the public health sector have contributed for reporting indicators as well as improvements in the delivery of quality health care
- The Ethiopian MOH has prioritized mobile technology as a potential solution to revitalize the Health Extension Program (HEP) within the Primary Health Care (PHC) system.
- Digitizing the health information system (HIS) and promoting data use are integral to achieving the Information Revolution pillar of Ethiopia's most recent Health Sector Transformation Plan (HSTP II).
- As part of the HIS digitization, the electronic CHIS (eCHIS) was launched in 2016 to digitize data flows from community level

# L10K's mHealth Objectives and Strategies

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Initial objective was to demonstrate innovative mobile solutions to improve PNC in the first 48 hours after birth

## Objectives

- Improve timeliness and coverage of RMNCH services
- Improve quality & equity of RMNCH services
- Improve referral care for RMNCH services

## Strategies

- Design the eCHIS in consultation with government and in line with eHealth architecture
- Design and test with HEW end users to ensure accurate content
- Phased roll out in target woredas
- Health area modules developed, tested and added over time for full coverage of health services

# Alignment with the national mHealth initiatives



## HEW Information and Communication needs

Referral system

Data Exchange

Supply Chain Mgmnt

Consultation

Training and Education

## Designed mHealth Solution

- Pre-referral treatment
- HC referral app to receive and send referrals

- PHEM and other reports
- Information exchange between HEWs and supervisors

- Supervisory app

- Job aid
- Referral facilitation tool (HC-HEW)

- On- and off-site training
- System and tech support

## Outputs

Defaulter Tracing

Report tracking

Devices (Smart phone, PV solar, PB)

Real time PM

225 HEWs and 135 Supervisors trained

# mHealth development approach

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- Landscape assessment for context-appropriate design
- Identified appropriate platform (CommCare) that is interoperable with other national digital systems and plans
- Engaged HEWs in design for end-user communications and information needs
- Test and iterate the mHealth solution
- Phased roll out in collaboration with MOH

# mHealth application suites and development approach

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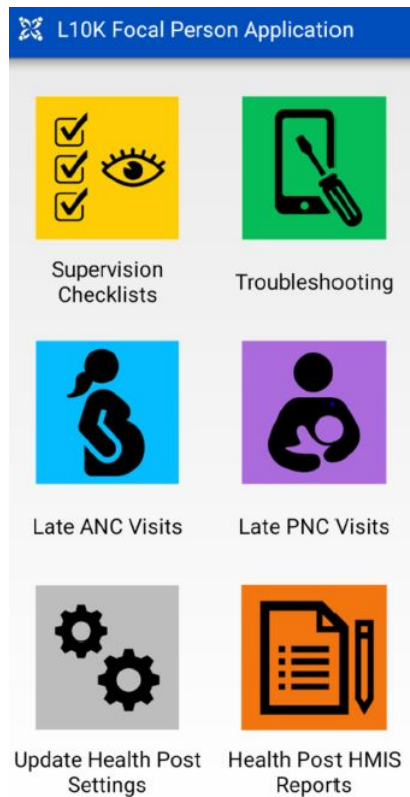
## Mobile Applications

1. HEW App
2. HC referral App
3. Focal person App

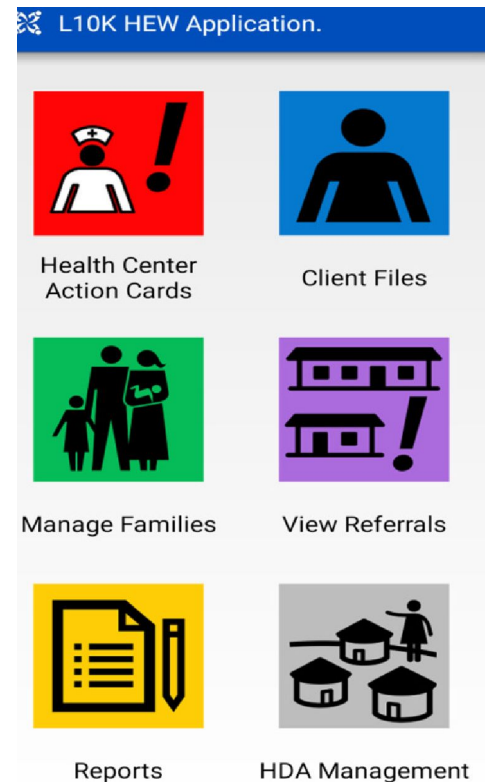
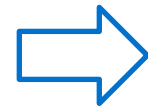
## mHealth Users

- Mobile app Users:
  - HEWs
  - Health Center workers
- Web-based Users:
  - Health administrators (Woreda Health Offices, Zonal and Regional Health Bureaus, and MOH)

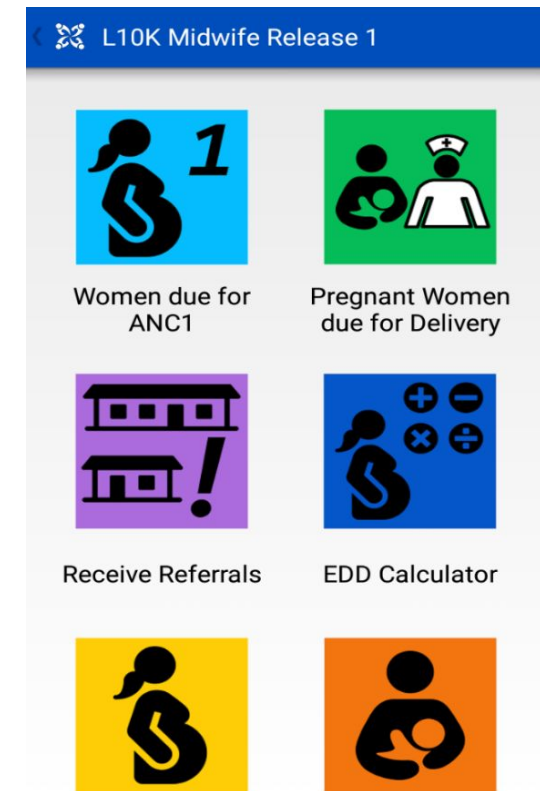
# Developing support within the system



A focal person app was used to provide programmatic and technical support for HEWs



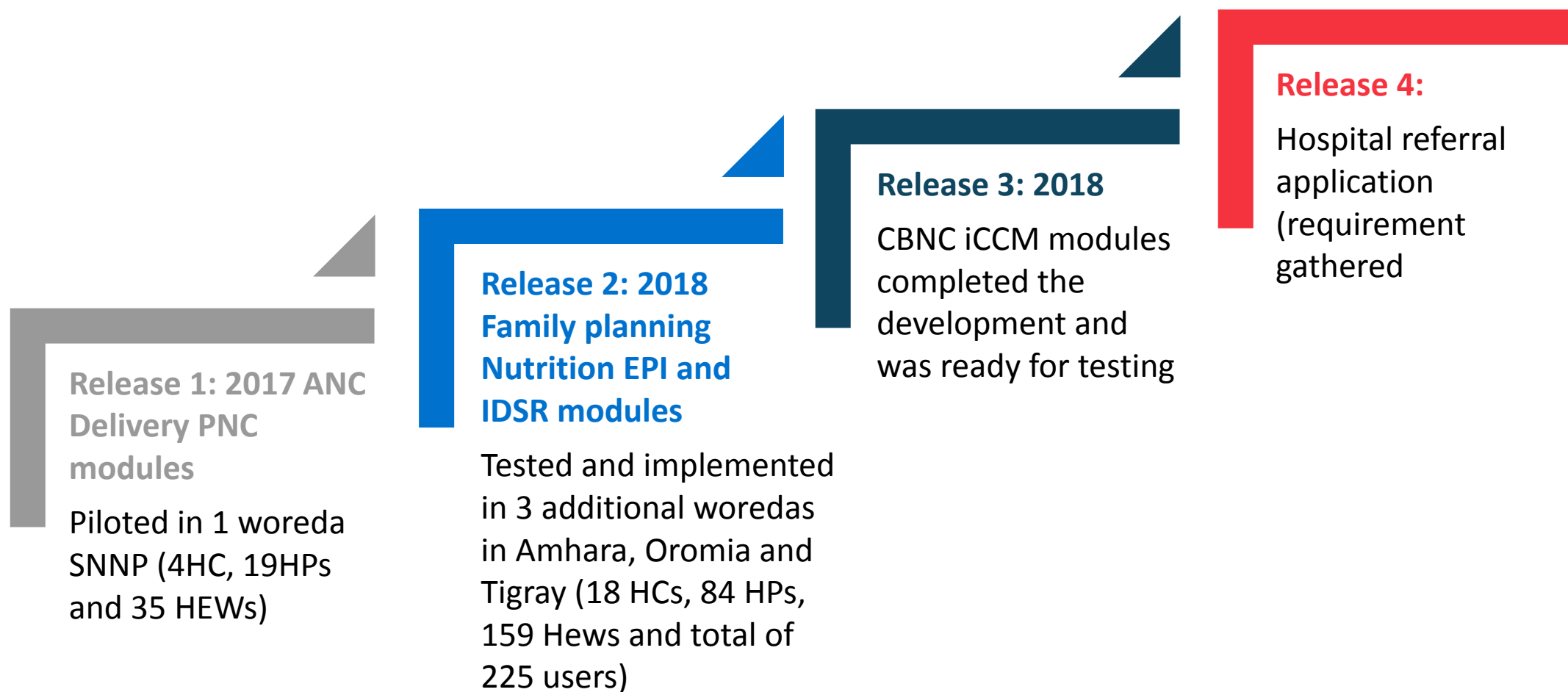
HEW helped HEWs to record, track clients and priorities services..



A HC app was designed to receive and send referral feedbacks for HEWs



# eCHIS Development and Roll Out Phases



# Usability of mHealth solution: the end-user perspective

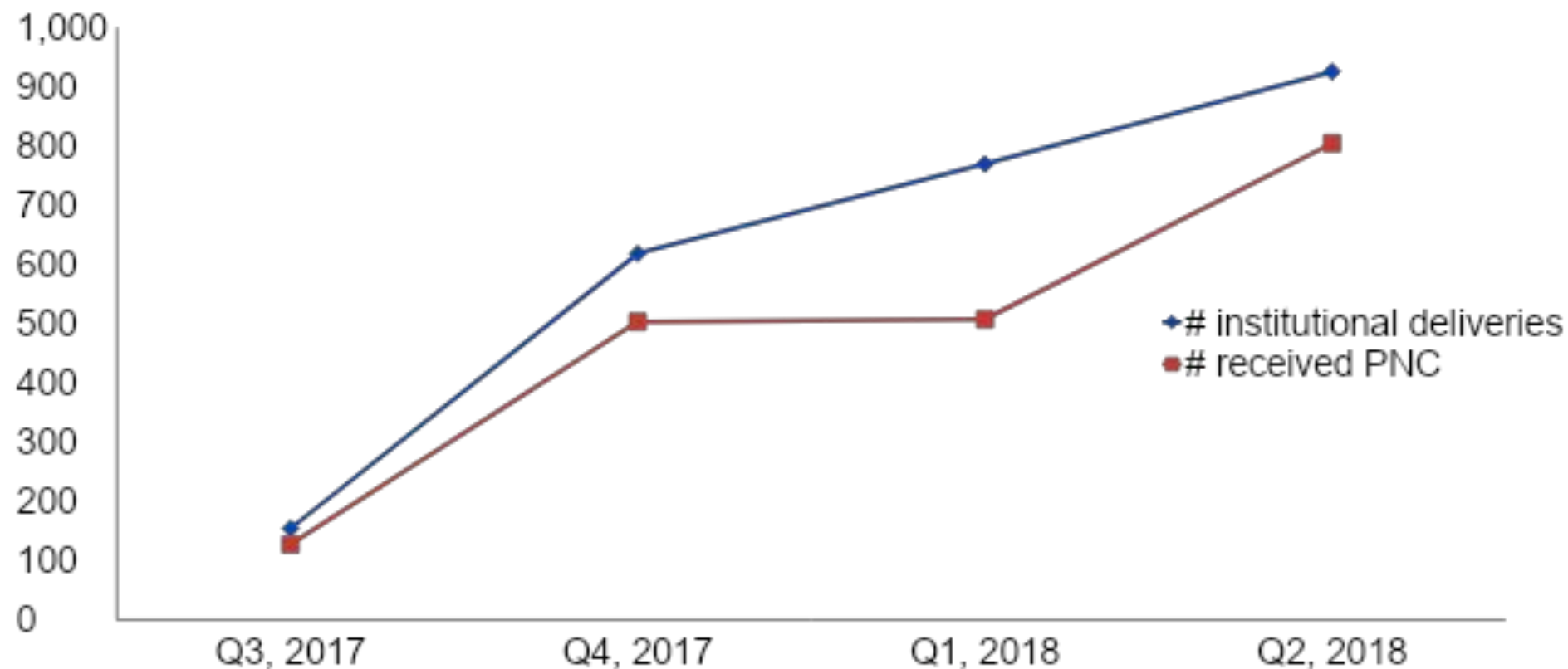
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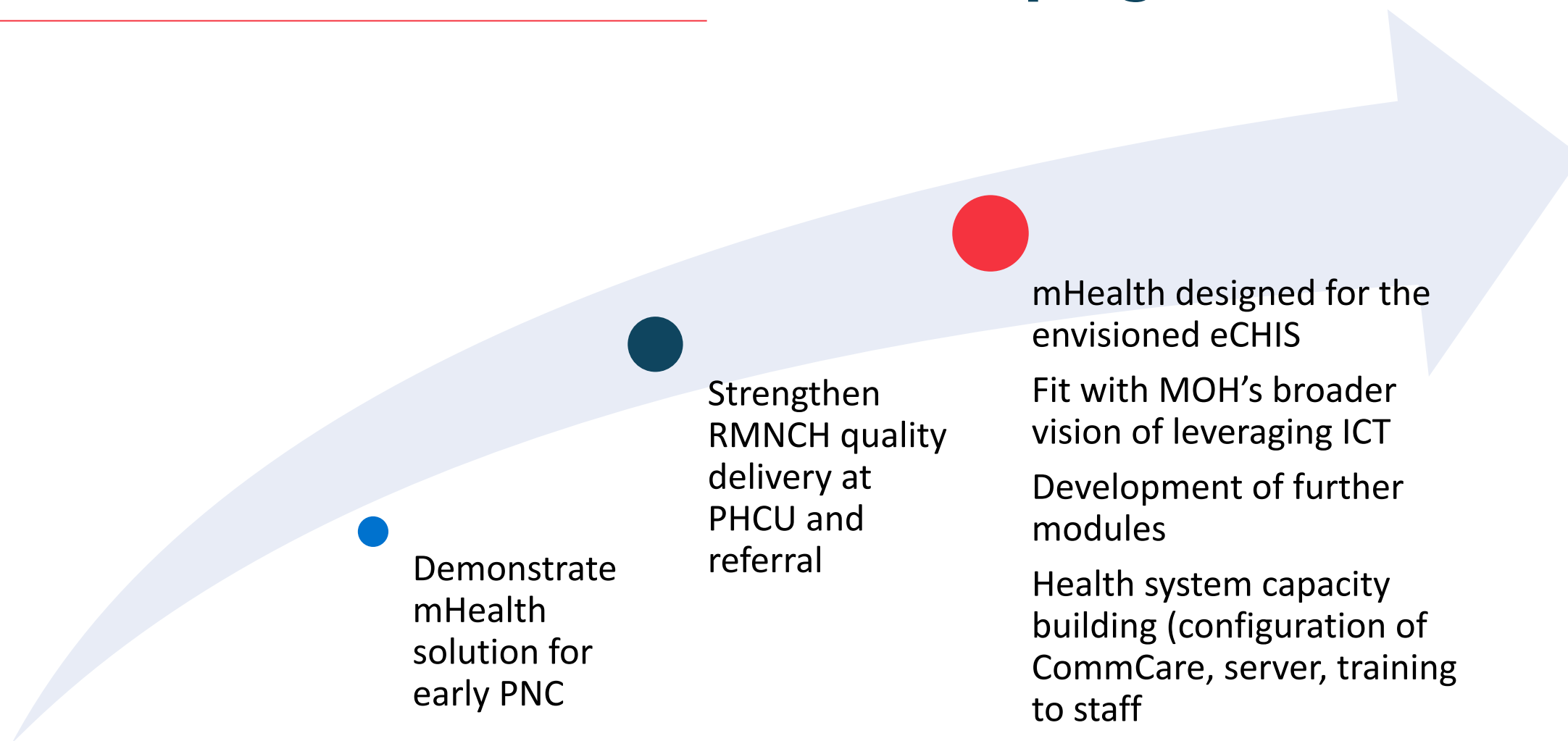
Process evaluation results after 2018 Release 2:

- Information from 20 HEWs, 8 midwives, and 6 focal persons
- HEWs preferred the electronic mHealth over the paper-based client tracking
- HEWs reported that the mHealth app was easy and enjoyable to use
- Users demonstrated how the app works
- Easily identify and trace defaulters and bring them back into care
- Identify pregnancy danger signs and complications, leading to more timely referrals
- Provided standardized care
- Users believed clients' adherence to the pregnancy continuum of care improved
- Improved interactions, linkages between facilities, and timely exchange of real-time information

## Pregnancy registration and adherence to treatment protocols and continuity of care during mHealth solution roll-out in the mhealth woreda



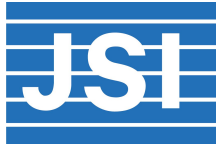
# Big Picture: L10K has supported mHealth has to evolve into the national eCHIS program



# Lesson learned

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- Use of mHealth offered a potential solution to improve timeliness and quality for RMNCH care services.
- Stakeholder engagement during design, developing, testing, and deploying the mHealth applications was critical.
- Ownership, ensuring skills and knowledge transfer at all levels is vital.
- Landscape assessment (resource + infrastructure )before design and deployment were critical.
- Frequent follow-up and support is important for performance improvement and quality of care.



# Thank you!

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