Supply Chains 4 Community Case Management

Strengthening IPLS for HEWs Pilot: Endline Evaluation

JSI Research & Training Institute, Inc.

Intervention Strategy to Improve Product Availability

The 2012 baseline assessment for phase 2 identified key processes that needed support in order to strengthen the IPLS for HEWs

Jan 2012 to Oct 2012

Phase I: IPLS "Ready" Lessons and Problem Solving for HEWs

Train HEWs in SC knowledge and skills and provide tools using an affordable methodology that results in maximum coverage

Midline Phase 1 / Baseline Phase 2

June 2013 to Mar 2014

Phase II: Strengthen the IPLS for HEWs

Build on the foundation of Phase 1 to operationalize the IPLS for HEWs and transition ICCM Products into IPLS.

Endline

Significant and consistent improvement in product availability at Health Post

Phase 2 Pilot: Objective and Key Learning Questions

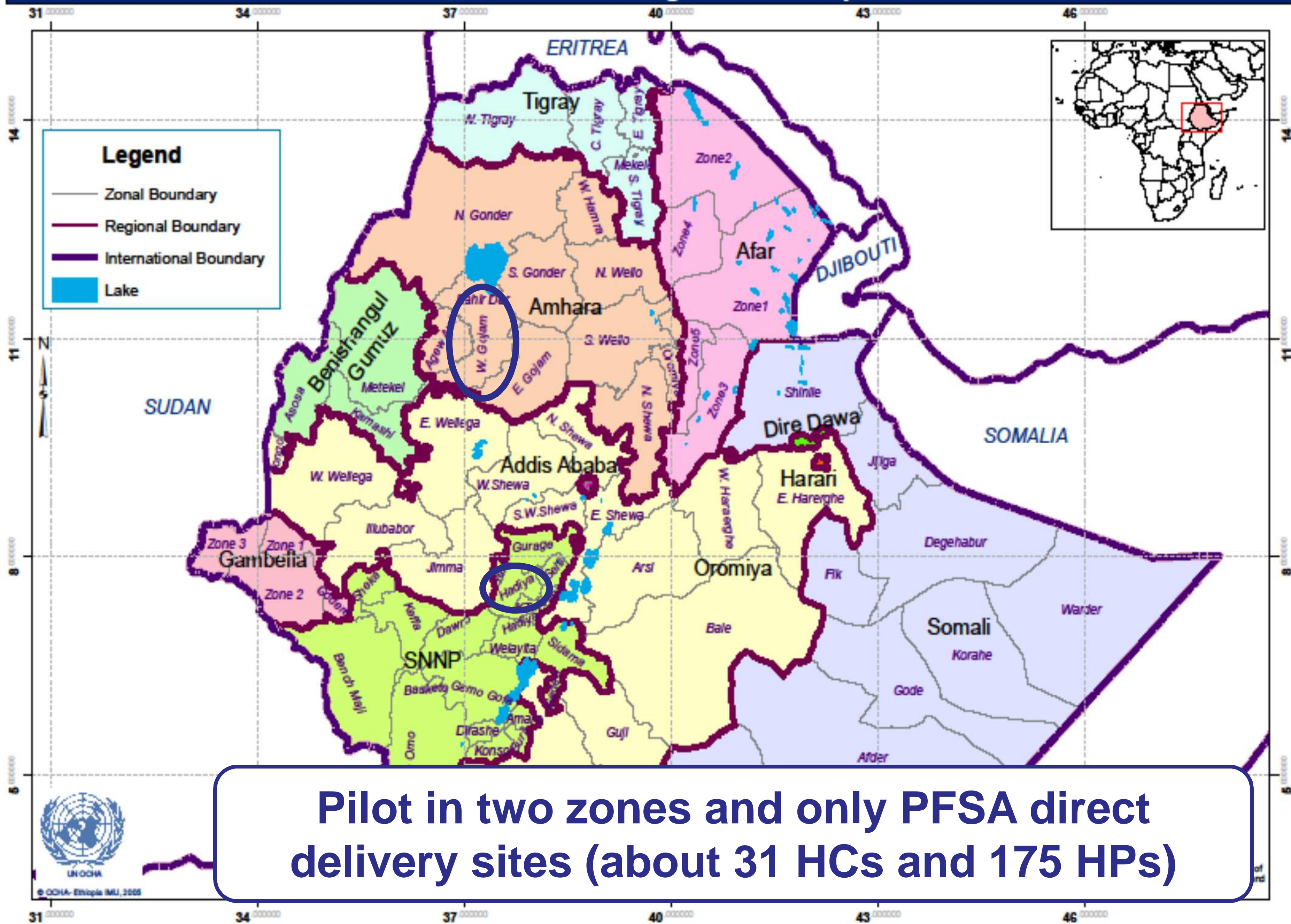
Objective:

To provide a road map for strengthening the IPLS for HEWs in other areas and integrating all health post products into IPLS

IPLS for HEWs refers to the both HEWs using IPLS procedures and HC staff using IPLS procedures to resupply HPs

Key Learning Questions:

1. How does strengthening the IPLS for HPs and integrating HP products into the IPLS affect product availability?
2. What is required to successfully implement the IPLS at HP level and transition iCCM products into the IPLS?
   a) What are the key processes that must be improved to operationalize the IPLS and what are the barriers, opportunities, solutions to improving these?
   b) What are the barriers, opportunities, solutions for transitioning products away from ad hoc/kit system into the IPLS system? Is the cost-recovery system at HCs a bottleneck or opportunity?


Administrative Regions of Ethiopia
Legend
Zonal Boundary
Regional Boundary
International Boundary
Lake
ERITREA
SUDAN
DJIBOUTI
SOMALIA
Tigray
Afar
Amhara
Benishangul Gumuz
Addis Ababa
Dire Dawa
Harari
Gambella
Oromiya
Somali
SNNP
Pilot in two zones and only PFSA direct delivery sites (about 31 HCs and 175 HPs)

Baseline Results

- **Maintaining supply at HCs:** HCs were not stocking all HP products
  - 25% of HCs (West Gojjam) stocked cotrimoxazole 120mg
  - 40% of HCs (Hadiya) stocked cotrimoxazole 120mg
- **Recording:** Bin card use at HP level inconsistent
  - 0% and 3% of HPs had a bin card for **every** product they managed
- **Reporting:** Implementation of Health Post Monthly Reporting and Request form (HPMRR) needed reinforcement
  - 70% and 52% know to submit HPMRR forms monthly
  - 51% and 29% of HEWs had submitted an HPMRR in the last 30 days
- **Resupply Procedures:** between HC and HP need to be reinforced
  - 13% and 25% said they receive monthly, and 83% and 42% said “other”: when they have a stock out, every second month, when the HC has products
- **Storage:** 35% and 54% of HPs only met 4 of 8 storage conditions assessed
  - Most common storage conditions not met– clean, dry, well-lit and well-ventilated, free of rodents or insects and first-to-expire, first-out

Timeline of Activities Conducted During Phase 2 Pilot

Phase 1 | Phase 2 starts

Jan to Mar 2012 | April to Oct 2012 | May | June | July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar

3 day TOT for PHCU Director and HC Store Manager → Initial training for HEWs – methods varied → Supervision to HEWs – offsite and onsite PHCU meetings with SC problem solving → Refresher training for HEWs → HC Supervisors Orientation → Supervision to HEWs

Woreda / Zonal orientation → Joint Supervision with Woreda to HC

Sensitization Workshops – HC, WoHO, ZHD, RHB, PFSA

Review meeting – HEWs, HC, WoHO, ZHD, RHB, PFSA

High Level Review Meeting – ZHD, RHB, PFSA

Review meeting – HEWs, HC, WoHO, ZHD, RHB, PFSA

Baseline Conducted

Endline Conducted

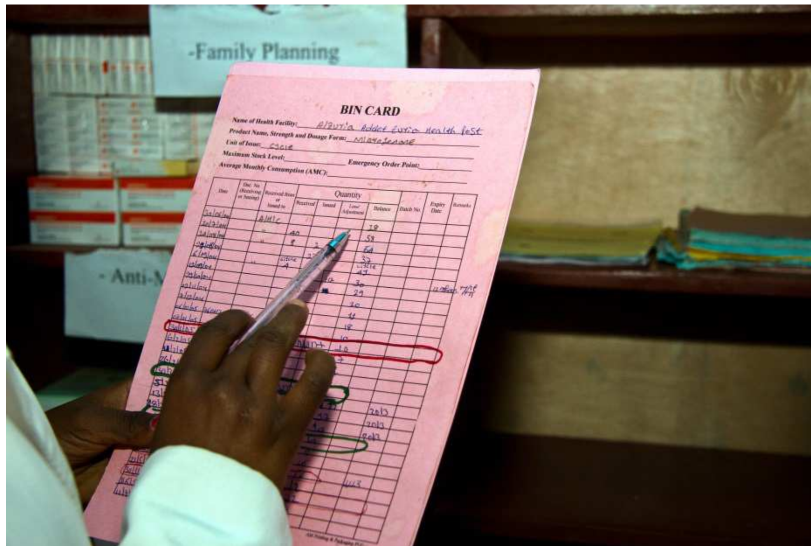
- **Supervision (June 2013, July 2013, Sept 2013, Jan 2014) -** visited each HCs each round and at least one HP per HC, used integrated check list, built woreda and HC capacity
- **Review Meetings (August 2013, January 2014, March 2014)** - reviewed supervision data to identify gaps and developing action plans to address these
- **HEW Refresher Trainings (Dec 2013)** - co-facilitated IPLS for HEWs refresher training with HC pharmacy staff, used for building both capacity of HC and HEWs
- **Orientation to HP Supervisors (Jan 2014)** - provided a one or hour orientation to HP supervisors (non SC specific) on IPLS for HEWs

Key Processes Prioritized for Strengthening IPLS for HEWs

- **Recording and Reporting**
  - Correct use of bin cards at HP and HC level
  - Consistent and correct use of HPMRR at HP level
  - Consistent and correct use of RRF at HC Level, inclusion of HP products
- **Resupply of HP**
  - Ensure HCs manage all products managed by HPs
  - Consistent availability of HP products at HCs
  - Follow procedures for resupply between HC and HP (i.e. HPMRR)
- **Storage**
  - Provide support to HEWs to improve storage conditions

Endline Evaluation Methodology

- Mixed Method Assessment
- Quantitative – Logistics Indicators Assessment Tool (LIAT)
- Qualitative- Case Study Approach



Quantitative Methodology

- Logistics Indicators Assessment Tool (LIAT)
  - Interview HEWs and HC Pharmacy staff/store managers
  - Physical count of tracer products at HP and HC
  - Observation of storage conditions at HP
  - Observation of record keeping and reporting at HP and HC
- Data was collected using mobile phones
- Partner with local evaluation group JaRco
- Collected stock data for 14 tracer commodities

Quantitative Sampling

	Amhara - West Gojjam		SNNP - Hadiya	
	BL	EL	BL	EL
Zones	1	1	1	1
WHO	14	14	11	9
HC	16	16	15	15
Health Posts	79	76	98	100

14 Tracer Products

- Coartem 1X6, tablet
- Coartem 2X6, tablet
- Coartem 3X6, tablet
- Coartem 4X6, tablet
- Malaria RDTs
- Cotrimoxazole 120 mg
- Zinc 20mg
- ORS sachets
- Paracetamol 100mg
- Mebendazole 100mg
- Tetracycline EO (1%)
- Male Condoms
- Depo Provera injection
- Microgynon cycles

Qualitative Methodology

- **Program theory** to frame the case selection, data collection, and analysis
  - Initially developed with initial assumptions on how IPLS for HEWs could be operationalized
  - Then tested and validated with qualitative data to show what it takes to operationalize IPLS for HEWs
- **Case study methodology**
  - A case study is a particular type of research inquiry that investigates a phenomenon of interest, i.e. the "case" in depth. A case study often relies on multiples data sources and data collection methods (qualitative, quantitative, observations, etc) and looks for data to converge to understand the "case" within the existing real world context.

Reference: Yin, Robert K, Case Study Research: Design And Methods-Fifth Edition, Copyright 2014

Qualitative Case Selection

- **Two Primary Health Care Units per zone (4 total)** with the following characteristics*:
    1. Good SC Performance / Good HP Product Availability
    2. Good SC Performance / Low HP Product Availability

Well performing HCs were purposively selected so that positive lessons on how to achieve optimal IPLS operationalization could be drawn.

- **Two Health Posts per PHCU Unit (8 total)**
    - one HP close to the HC and one furtherst away
- **Woreda Health Office** for each PHCU **(4 total)**
- **ZHD, RHB and PFSA Hub (2 of each)**
- **Central Level Interviews**
    - FMOH Child Health Unit, PFSA Forecasting and Capacity Building Directorate, PFSA Warehousing Directorate, UNICEF

* Based on supervision data

Qualitative Data Collection Activities

- **In-depth key informant interviews**
  - HEWs, Health Center staff, Woreda health office staff, Regional Health Bureau, PFSA hub and PFSA central, FMOH and implementing partners.
- **Observation** of HEWs' use of IPLS tools for recording and reporting and other IPLS components:
  - HMPPR, RRF, bin cards, supervision feedback, meeting minutes, tracking tools

Limitations

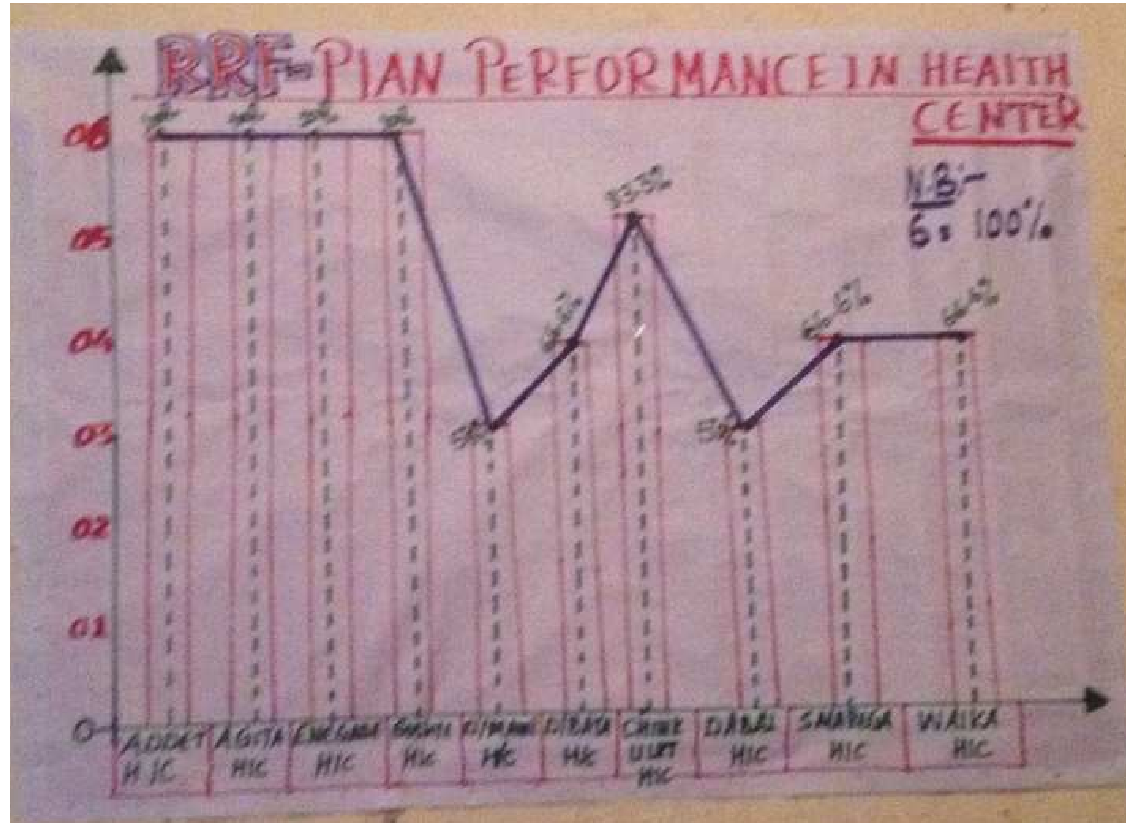
- For the quantitative survey a few HPs were found to be non-functional or not managing products at endline. In addition a few newer HPs were not included at BL. This reduced the sample size slightly for comparison between BL and EL
- For both quantitative and qualitative data collection, the short time available for data collection and the long distances for travel could have resulted in fatigue of data collectors resulting in some missing data or data being captured incorrectly
- Competing priorities of the interviewees posed challenges for data collectors to complete interviews/surveys.

Analysis & Triangulation

- Qualitative and quantitative data analyzed separately, then triangulated to identify concordance/discordance
  - Quantitative indicators show **if we achieved** our objectives of operationalizing IPLS for HEWs
  - Qualitative case study provides insight into **how** and **why** it was achieved
- Qualitative data for each program theory component analyzed → program theory revised to reflect field findings

Program theory helps us understand what activities were critical and important to invest in to achieve operationalization of IPLS for HEWs during scale up

Supply Chains 4 Community Case Management



Results

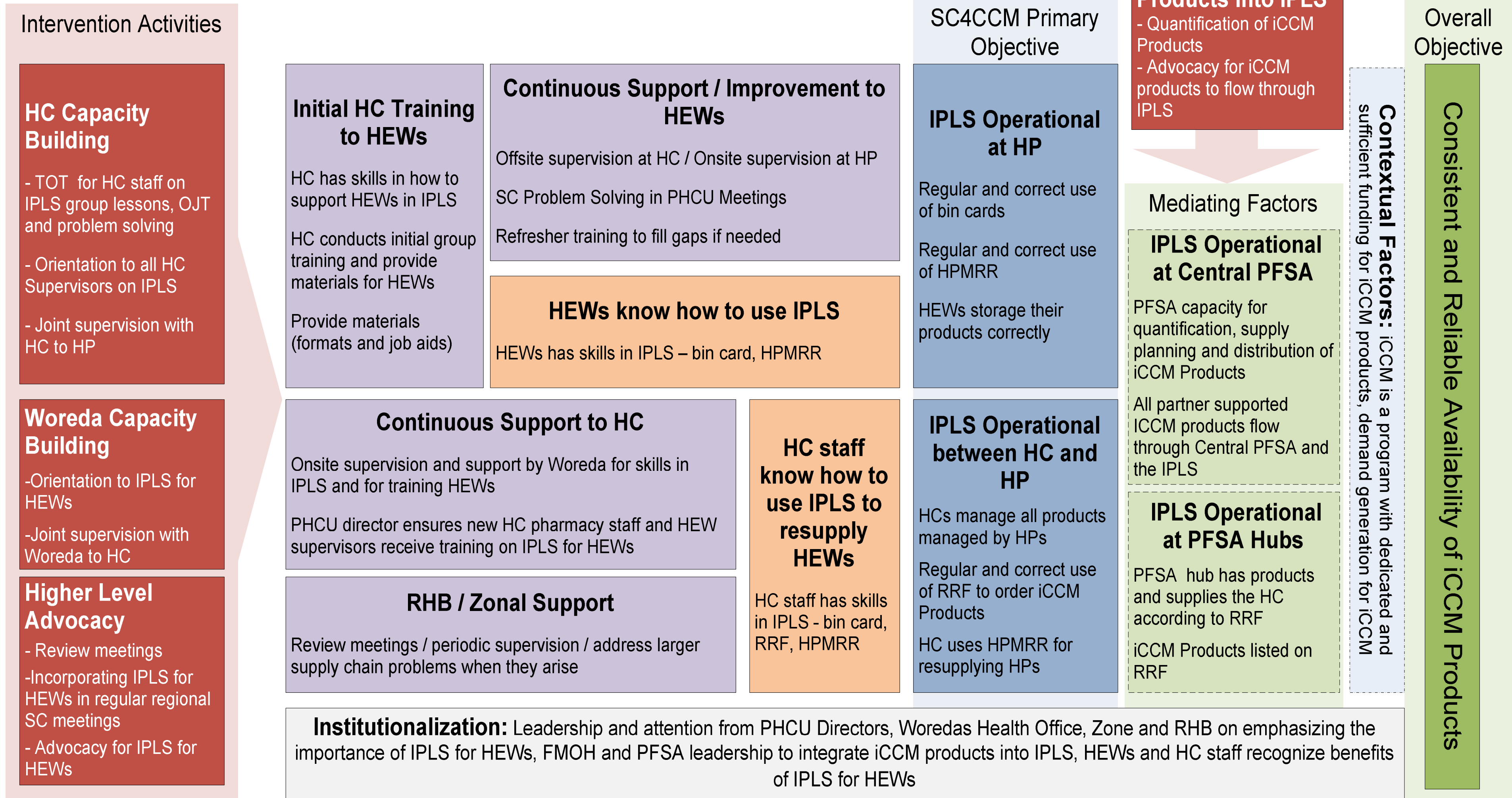
JSI Research & Training Institute, Inc.

Presentation of Results

1. Final Program Theory
2. Results on Primary and Overall Objectives (quantitative and qualitative results)
   a) Knowledge, Skills and Tools (HC and HP)
   b) Is IPLS Operational at HP Level in Pilot Sites?
   c) Product Availability at HP
   d) Explaining HP product availability
   e) Operationalizing the IPLS for HEWs
3. Recommendations

- **Significant** results are indicated by a * ($p < 0.05$)
- Qualitative case study findings are presented in green boxes when on slides with quantitative survey findings

Program Theory



Knowledge, Skills and Tools

- Did HCs have skills to train and support HEWs in IPLS?
- Did they conduct training HEWs and provide IPLS materials?
- Did they provide continuous support so HEWs could achieve consistent and correct use of all IPLS processes?

JSI Research & Training Institute, Inc.

Knowledge and Skills of HEWs and HC Staff

At endline, while fewer HC staff had received **formal** training in IPLS / TOT on IPLS for HEWs likely due to staff turnover, **more HEWs** report being trained in IPLS

	Amhara	Amhara	SNNP	SNNP
% of HC staff	BL	EL	BL	EL
Received formal training in IPLS	94%	**75%**	100%	**73%**
Received TOT on IPLS for HEWs	69%	**50%**	93%	**40%**
% of HEWs				
Received training on IPLS for HEWs	95%	**100%**	52%	**80%**

HEWs through qualitative survey reported receiving two types of training:

- Initial dedicated training session in IPLS usually by Store Manager and PHCU Director (in 2012).
- Refresher training conducted by Project with HC staff (late 2013)

Tool Availability

Availability of tools has increased among HEWs from BL and remains high among HCs

		Amhara BL	Amhara EL	SNNP BL	SNNP EL
HEWs	Flipbook	62%	88%	48%	88%
	Blank Bin card	92%	93%	71%	98%
	Blank HPMRR	75%	83%	56%	87%
HCs	Blank Bin card	100%	93%	93%	96%
	Blank RRF	87%	88%	80%	93%

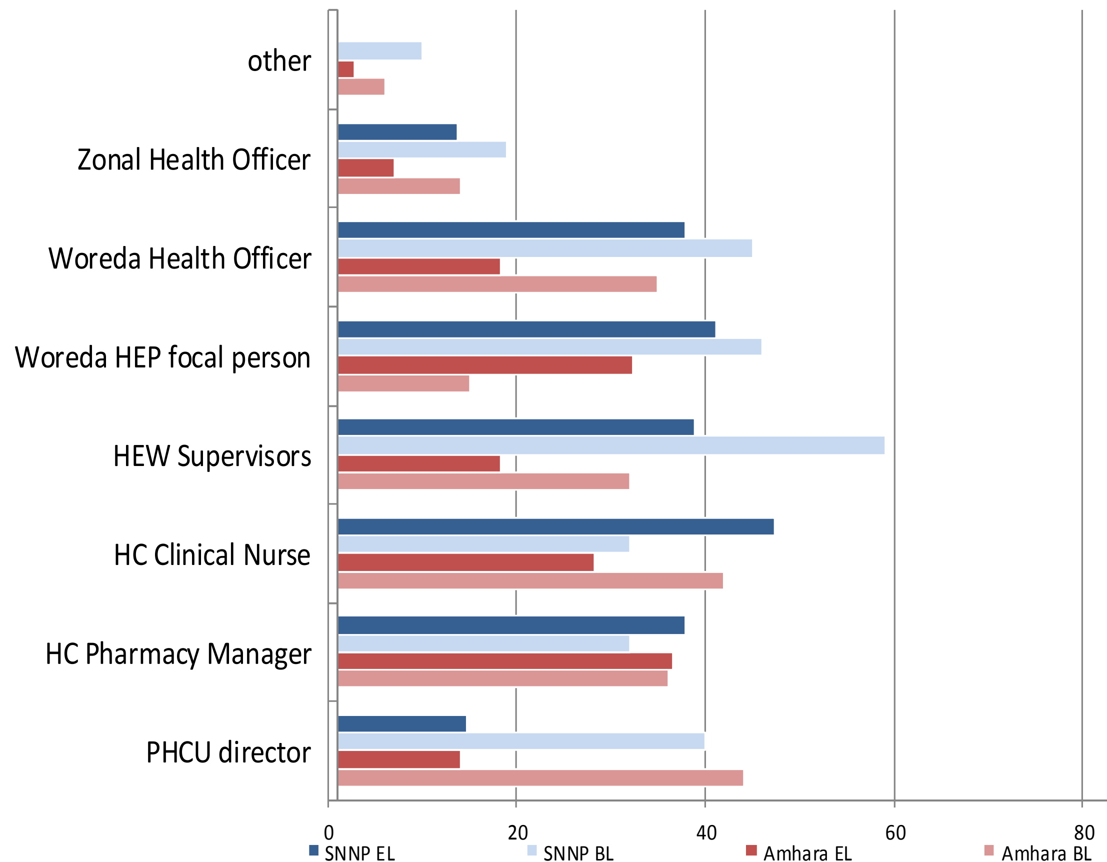
Onsite Supervision of HEWs

HEWs report ever receiving supervision:

BL: 84% Amhara and 97% SNNP

EL: 93% Amhara and 98% SNNP

PHCU directors less involved in supervision at EL, but HC Store Managers are more involved



N.B. Some HEWs responded HEW supervisors which no longer exist, it maybe that HEWs did not know the role of their supervisor or just described them as a supervisor

- *"It is only the storeman that supervises us now. Sometimes the pharmacist and the HC head would come, but they don't that often because we meet with them at the HC."* ~ HPB1.2 (Amhara)
- *"Yes he [supervisor] helped me on everything including bin cards. He even did the reports with us and helped us with everything we needed to know." ~HPA2.1 (SNNP)*
- *"There is a supervisor specifically for different areas. For example there is a PHCU nurse that also provides supportive supervision. I focus on supplies ..."* ~HC B2: PHCU director (Amhara)

Problem Solving Sessions

- Problem solving appears to have become a **routine practice in PHCU meetings**, however not always in the structured way designed by the project.
- Qualitative findings confirmed **IPLS issues were being discussed in PHCU meetings**: some include as an agenda item, some discuss supply issues when discussing the 16 packages.

	Amhara		SNNP	
	BL	EL	BL	EL
% HEWs report having a PS session during PHCU meetings.	70%	**99%**	71%	**100%**
% of HC Store Managers held IPLS PS sessions with HEWs	94%	93%	80%	92%

At EL, the tool used to record information during IPLS PS was:
•**Amhara: 61% meeting minutes**, 23% tracking tool, 15% don't record
•**SNNP: 92% meeting minutes,** 0% tracking tool and 8% don't record

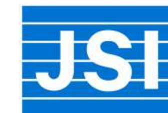
- *"We always talk about medicine and bin cards. The PHCU director has those as agenda items for each meeting."* ~HP A1.2 (SNNP)
- "*We started including IPLS in the command post meeting recently because there were gaps to be filled.*" ~PHCU Director HC A2 (SNNP)
- *"We talk about the HC-HP link, especially concerning the 16 packages. We discuss report timeliness and data quality; filling gaps in iCCM product resupply."* ~PHCU Director HC B1 (Amhara)

Is IPLS Operational at HP in Pilot Sites?

- Regular and correct use of bin cards
- Regular and correct use of HPMRR

JSI Research & Training Institute, Inc.

Correct Use of Bin Card at HP



- Significant improvements in number of HEWs who have a **BC for all products managed, but still room for improvement**
- Bin cards stored and used **mostly correctly**
- After a period of use **HEWs appreciate the benefits of using bin card**

% HEWs observed	Amhara	Amhara	SNNP	SNNP
	BL	EL	BL	EL
% HPs observed with a BC for **ALL** products they managed	4%	**27%***	8%	**36%***
Average # of products for which each HEW had a BC (avg. # of products managed per HEW)	5 (11)	9 (12)	4 (9)	9 (10)
Bin cards stored correctly	50%	62%	44%	**82%***
Bin cards observed had a discrepancy greater than 50% between physical count and balance recorded	41%	24%	24%	19%
HEWs who recorded a physical count for last 3 months for all 3 products: cotri, depo and ORS	27%	45%	18%	**64%***

All 8 HPs in case study could explain how to use the bin card accurately and after a period of time HEWs appreciated the benefits of the bin card

- *"Before we used the HPMRR, we used to hate the bin card because we did not understand it, but now we know it and love it."* ~HP A2.2 (SNNP)

Bin Card Use by Product at HP

- **Significant increase in use of BCs** across the board, except paracetamol & zinc
- Significant improvements in number of HEWs who have a **BC for all products managed, but still room for improvement**

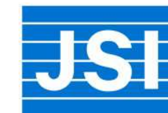
% of HPs with Bin Card by Product, BL/EL

100
90
80
70
60
50
40
30
20
10
0

Coartem 1x6
Coartem 2x6
Coartem 3x6
Coartem 4x6
Cotrimoxazole
ORS sachets
RDTs
Mebendazole
Paracetamol
Tetracycline
Zinc
Condoms
Depo provera
Microgynon

Amhara BL
Amhara EL
SNNP BL
SNNP EL

Health Post Monthly Report and Request Form (HPMRR)



- **Improvement in HEW knowledge** on HPMRR submission practices
  - Significant improvement in number of HEWs reporting they submitted a report in the last 30 days, at BL many HEWs had never submitted a report despite initial training
- **Observed improvements** in timely submission and completeness

	Amhara	Amhara	SNNP	SNNP
% HEWs report	BL	EL	BL	EL
Submit HPMRR forms monthly	91%	99%	51%	**97%**
Submitted in the last 30 days**	59%	**89%**	28%	**77%**
Never submitted a report**	12%	**0%**	66%	**1%**
Submit to the health center	95%	100%	57%	99%
Most recent HPMRR Observed				
Submitted before the 5th day of the month	76%	76%	41%	**86%***
All columns had been completed	87%	**80%**	39%	**81%***

* P value less than 0.05, ** P value less than 0.05 across all answers

All 4 HPs in Amhara and 3 of the HPs in SNNP could explain the HPMRR accurately, one could not be observed. 7 of the 8 HPMRRs observed were completely accurately, one had some sections at the top missing but the HEWs were able to explain all sections accurately.

Resupply by HC to HPs

- **Resupply of HEWs is now regular and consistent with IPLS**
  - Significant increase in HEWs reporting monthly receipt of products
  - HEWs appreciated that now they visit the HC fewer times per month, and in a more predictable rhythm

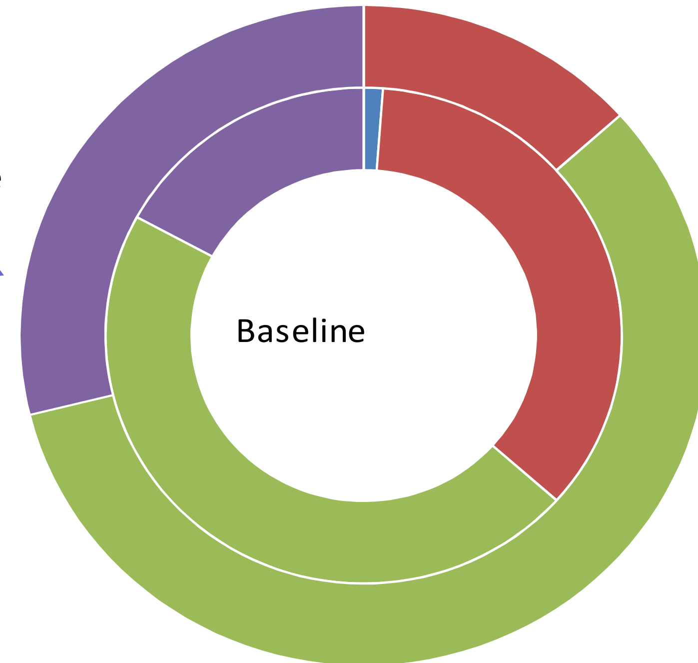
	Amhara		SNNP	
	BL	EL	BL	EL
% of **HEWs** report receiving products monthly	83%	**99%***	26%	**89%***

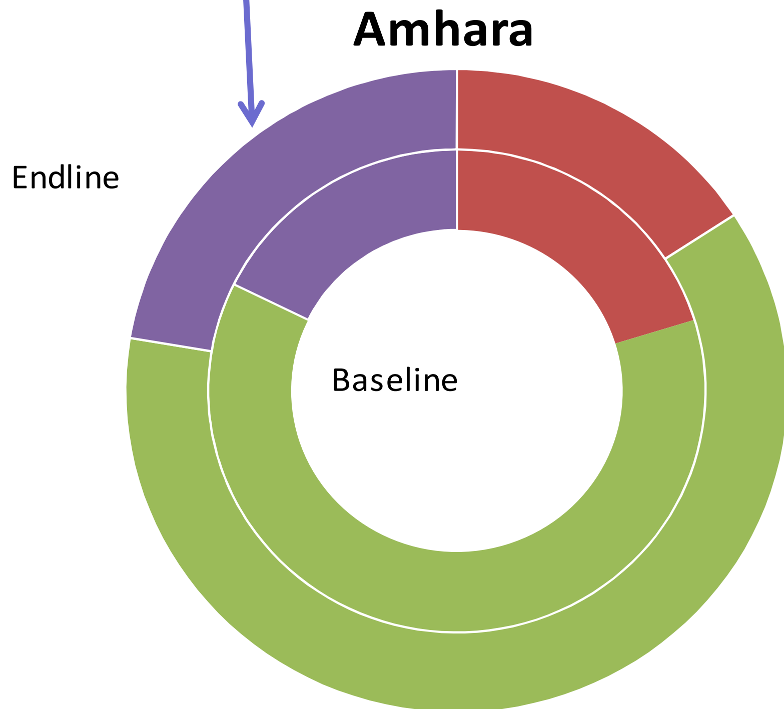
* P value less than 0.05

- *"Before, we went to the HC to request products only after we had a stockout. And sometimes, we'd have to come back empty-handed if they didn't have anything to give us."* ~HP B1.1 (Amhara)
- *"Before, we didn't receive any products until we went and asked. We weren't supplied products regularly, on a monthly basis."* ~HP A2.1 (SNNP)
- *Before IPLS...we had to go to the HC often, almost weekly, to get different medicines that finished each time. Now it saves us energy because we get medicines that we ask for. We ask for it one time when we submit our reports." HPB1.2 (Amhara)*

Number of Storage Conditions Met

At endline a greater proportion of HPs are satisfying more of the storage conditions than at baseline





Storage conditions assessed:

1. FEFO
2. Damaged/expired stored separately
3. Away from chemicals
4. Free of rodents
5. Working lock
6. Protection from sunlight
7. Shelves stacked off the floor
8. Clean, dry, well lit/ventilated

Summary

- Results show that the **IPLS is now operational at HPs** in the pilot areas.
- Quantitative data shows
  - HPMRR reporting frequency and regularity improved in both regions
  - While there is still some room for more improvement in bin card use the direction and magnitude of improvement over the previous year is substantial
- In the qualitative case study
  - We observed skilled and consistent use of the IPLS tools at HP, according to the SOPs, among all eight HPs we visited.
  - HEWs recognized benefits of using the IPLS tools after a period of practice. They felt more in control of their supplies, they are able to monitor stocks and avoid stock-outs and over-supplies.

Product Availability at HP

Consistent and Reliable Availability of Products at HP

Is having IPLS operational at HP enough to improve PA?

- In stock at HP
- Stock status at HP
- Stockouts at HP

% HPs in Stock on DOV BL/EL by Product Category

Increase in availability of both iCCM and FP products in SNNP; while in Amhara CCM product availability declined, while FP increased

N.B. Facilities must have all 3 FP or all 4 iCCM products to be counted as available.

% of HPs in Stock on DOV, BL vs. EL

JSI

Product availability improved or stayed the same except for zinc in both regions

- In Amhara reduction in zinc was significant ($p < 0.05$), likely driver for reduction in all 4
- In SNNP reduction in zinc was insignificant
- All zinc expired in late 2013, a recent shipment had not reached all HPs at time of survey

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Coartem 1x6
Coartem 2x6
Coartem 3x6
Coartem 4x6
RDTs
Cotrimoxazole
ORS sachets
Zinc
Mebendazole
Paracetamol
Tetracycline
Condoms
Depo provera
Microgynon

Amhara BL
Amhara EL
SNNP BL
SNNP EL

Amhara Stock Status at HP on DOV, BL/EL

Fewer "no stocks" at EL compared to BL but little reduction in overstocks

Baseline Stock Status HP

Endline Stock Status HP

Microgynon
Depo
Condom
Zinc
Tetracycline
Paracetamol
Mebendazole
ORS
Cotri
RDTs
Coartem 4x6
Coartem 3x6
Coartem 2x6
Coartem 1x6

0% 50% 100%

0% 50% 100%

No stock | Understock | Adequate stock | Overstock

N.B. n is for those HPs who manage the products and had a bin card on day of visit

SNNP Stock Status at HP on DOV, BL/EL

Fewer "no stocks" at EL compared to BL, slightly improved in adequate stock but little reduction in overstocks

N.B. n is for those HPs who manage the products and had a bin card on day of visit

HP Stocks Outs in Last Six Months

% HPs that had a stock out recorded on the bin card of each product in most recent 6 months, BL / EL

Increase in stockouts for zinc, tetracycline, RDTs and COCs from BL to EL

100
90
80
70
60
50
40
30
20
10
0

Coartem 1x6
Coartem 2x6
Coartem 3x6
Coartem 4x6
RDTs
Cotrimoxazole
ORS sachets
Mebendazole
Paracetamol
Tetracycline
Zinc
Condoms
Depo provera
Microgynon

Amhara BL
Amhara EL
SNNP BL
SNNP EL

Qualitative Results: Perceived Benefits to Product Availability

Despite quantitative data showing many stock imbalances, overall **HEWs believed, or perceived, a positive effect on the availability of products** after introduction of the IPLS tools.

- *"Before, we went to the HC to request products only after we had a stockout. And sometimes, we'd have to come back empty-handed if they didn't have anything to give us. We wouldn't have any products for service provision. Now, there are no such gaps."* ~HP B1.1 (Amhara)
- *"Yes. Now I can ask for medicine before I have a stockout. I've made the bin card my good friend. It tells me how much I need."* HP A1.2 (SNNP)
- *"Yes. Before bin cards and HPMRRs, I used to just write my request on a sheet of paper and give it to the HC. That's how I requested my products. But now, the HPMRR itself tells me how much I need, and the HC supplies accordingly.* ***I don't get too much product so it doesn't expire in my hands. I get just the right amount.*** *Before, I would get too much medicine and it would expire."* ~HP A1.2 (SNNP)

Summary

- Product availability at HP generally increased or stayed the same for individual products, except for zinc in both regions
- Many products are in fact overstocked at HP
- Generally stock outs appear to be decreasing
- Qualitative case study findings suggest overall HEWs feel the IPLS, and in particular the use of HPMRR and bin cards, has resulted in HPs receiving the “right amount”: not too little and not too much

Explaining HP Product Availability

- Product Availability at HC
- HC Role
  - Are HCs Managing key iCCM products?
  - Are they regularly and correctly using the RRF and including HP products?
  - Are they resupplying based on HPMRR?
- Perceptions from different levels on stock imbalances

Product Availability at HC by category, BL vs EL

- Product availability at HCs **increased** across both product categories
  - Significant increase in availability of iCCM products at HC in Amhara ($p < 0.05$)
- In SNNP, at BL no HCs managed cotrimoxazole or zinc so these products were not included in calculation for iCCM at BL

100
90
80
70
60
50
40
30
20
10
0

iCCM

FP

All CCM products (Cotri, ORS, zinc and anyACT)

All FP products (Depo, condoms, COC)

Amhara BL
Amhara EL
SNNP BL
SNNP EL

% of HCs in Stock on DOV, BL vs. EL

- Individual product availability at HC **improved or stayed the same** for nearly all products
  - Increase for cotrimoxazole was significant for both regions ($p < 0.05$)
  - In SNNP, increase in zinc and Coartem 3x6 was also significant ($p < 0.05$)

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Coartem 1x6, Coartem 2x6, Coartem 3x6, Coartem 4x6, RDTs, Cotrimoxazole, ORS sachets, Zinc, Mebendazole, Paracetamol, Tetracycline, Condoms, Depo provera, Microgynon

Amhara BL No. | Amhara EL % | SNNP BL No. | SNNP EL %

Stock Status at HC on DOV, EL

Overstocking still a problem at HCs as well. Minimal "no stocks", although some understocking of Coartem in SNNP

Amhara HC

SNNP HC

Microgynon
Depo
Condom
Zinc
Tetracycline
Paracetamol
Mebendazole
ORS
Cotri
RDTs
Coartem 4x6
Coartem 3x6
Coartem 2x6
Coartem 1x6

0% 50% 100%

0% 50% 100%

No stock Understock Adequate stock Overstock

Qualitative Results: Stock outs

Qualitative case study showed that the majority of iCCM product supply problems could not be solved at HC. If the HC had supplies on hand, then stock-outs at the HP level were easily resolved.

When asked about shortages over the past year:

- *"We send reports to the* ***WoHO,*** *but they might not sometimes bring the proper amount....This is because there are times where* ***PFSA*** *sends medicines to the WoHO and maybe they don't have enough to distribute"* ~ HC A1: Store manager (SNNP)
- *"Sometimes the HC won't receive the drugs it requested. There are delays in report collection and product delivery. It may take PFSA longer than two months to supply the products."* ~WoHO A1 (SNNP)
- *"For zinc, we were told that the PFSA doesn't have any available at the country level. We were also given the same explanation for iron. Some of the zinc and iron we had expired."* ~HC B2: Store manager (Amhara)
- *"If the HC doesn't have medicine that we need we have experienced difficulties with shortages of medicine such as zinc and cotri. We have asked for it many times, but we just received some recently."* ~HP A1.2 (SNNP)

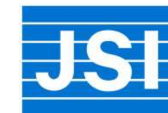
Qualitative Results: Overstocking

Overstocking is the result of problems with **quantification and supply planning** at the central level, **products being pushed** to the lower level in excess, and **a lack of adequate demand** to absorb these products at the community level.

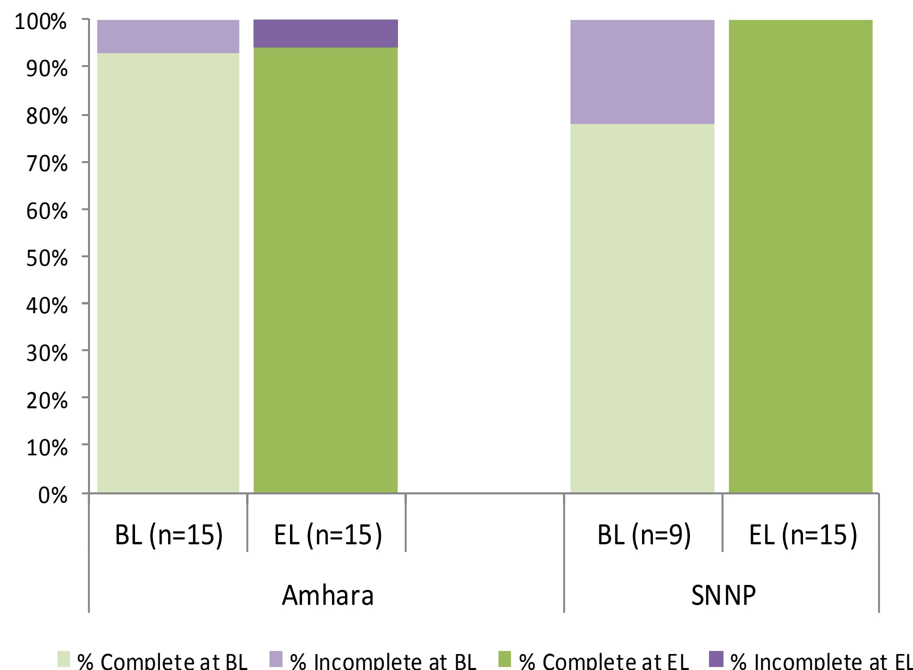
When asked about medicines they have had in excess

- *"Zinc quantification was done for 3 years, 2012-2015, planned for* ***staggered system*** *– but it all came at once."* ~MOH
- *"There are products that are sent out on a* ***push system****, and not using RRF."* ~PFSA B (Amhara)
- In response to a question on why a HP had not been supplied ORS in January and February: *"the HP had an overstock as the Woreda had supplied them directly."* ~HC A2 (SNNP)
- *"We had too much Zinc, and it all expired in December..."* ~RHB A (SNNP)
- *"But they didn't bring these products according to the RRF. They just brought the products here and gave it to us."* ~ WoHO A1 (SNNP)
- *"It seems that there was a* ***lack of awareness****, even among health professionals, about zinc for diarrheal disease. We sent distribution list to PFSA, State Minister sent a letter, even on how to use zinc."* ~MOH

Resupply by HC to HPs



- **More HCs are now stocking key iCCM products**: at BL many HCs were not aware they should be managing cotrimoxazole and zinc.
- **All but one** of HC portion of HPMRR was completed
- To ensure they have enough HP supplies, **100% HCs also report** they include the needs of HPs when submitting the RRF….. however, they often have to handwrite cotri/zinc, and sometimes forms are rejected



	Amhara		SNNP	
	BL	EL	BL	EL
% of HCs managing **cotrimoxazole 120mg**	25%	**100%**	40%	**100%**
% of HCs managing **zinc 20mg**	75%	**94%**	20%	**100%**

All 4 HCs could explain how to complete the HPMRR correctly, only one HPMRR observed had some minor errors in the top section such as switching the HP and HC names.

Order Fill Rate: Observation of HPMRR in Amhara

More orders adequately filled and few under filled at endline. Overstocking at HP resulted in many HPs not requiring resupply (qty req / qty sup'd = 0)

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Coartem 1X6
Coartem 2X6
RDTs
Cotrimoxazole
ORS
Paracetamol
Tetracycline
Zinc 20mg

% Underfilled
% QtyReq & QtySup'd Zero
% Adequate Filled
% Overfilled

Order Fill Rate: Observation of HPMRR in SNNP

More orders adequately filled and few under filled at endline. Overstocking at HP resulted in many HPs not requiring resupply (qty req / qty sup'd = 0)

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Coartem 1X6 Coartem 2X6 RDTs Cotrimoxazole Mebendazole ORS Paracetamol Tetracycline Zinc 20mg

% Underfilled
% Adequate Filled
% QtyReq & QtySup'd Zero
% Overfilled

Summary of IPLS at HP & HC

- Results show that the **IPLS is now operational for processes between HP-HC and processes at HCs** in the pilot areas.
  - Quantitative data shows
    - HCs are submitted RRF regularly and including the health post needs
    - HCs are managing key iCCM products (cotrimoxazole and zinc)
    - HCs are completing the HC portion of the HPMRR and generally supplying HPs according to the HPMRR (adequately filled)
  - Observations made during the qualitative case study among all four HCs visited support the quantitative data that HC staff were **skilled and consistently used the IPLS tools**, according to the SOPs.

Summary of IPLS at HC and higher levels

Both quantitative and qualitative findings suggest that the **imbalances in stock levels at HPs were due to IPLS procedures not being followed by levels above the HC.**

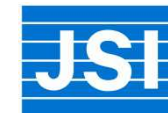
- Products are sometimes pushed from Woreda to HP (bypassing HCs), meaning HPMRR is not used for resupply
- Products are pushed in excess quantities and with short expiry dates, resulting in overstocks at HPs, so products expire before being used, leading to stockouts at HPs
- HCs are often overstocked also, suggesting they are not always resupplied based on the RRF quantities
- Cotrimoxazole and zinc are not preprinted on RRF and HCs sometimes face challenges ordering them (handwritten orders are rejected)
- Coartem is supplied based on cases and not on consumption (HPMRR), often resulting in understocking (context)

Operationalizing the IPLS for HEWs

What does the qualitative case study of good performing PHCUs tell us about **how** to strengthen IPLS for HEWs?

JSI Research & Training Institute, Inc.

Program Theory



Intervention Activities

HC Capacity Building
- TOT for HC staff on IPLS group lessons, OJT and problem solving
- Orientation to all HC Supervisors on IPLS
- Joint supervision with HC to HP

Woreda Capacity Building
-Orientation to IPLS for HEWs
-Joint supervision with Woreda to HC

Higher Level Advocacy
- Review meetings
-Incorporating IPLS for HEWs in regular regional SC meetings
- Advocacy for IPLS for HEWs

Initial HC Training to HEWs

HC has skills in how to support HEWs in IPLS

HC conducts initial group training and provide materials for HEWs

Provide materials (formats and job aids)

Continuous Support / Improvement to HEWs

Offsite supervision at HC / Onsite supervision at HP

SC Problem Solving in PHCU Meetings

Refresher training to fill gaps if needed

HEWs know how to use IPLS

HEWs has skills in IPLS – bin card, HPMRR

Continuous Support to HC

Onsite supervision and support by Woreda for skills in IPLS and for training HEWs

PHCU director ensures new HC pharmacy staff and HEW supervisors receive training on IPLS for HEWs

RHB / Zonal Support

Review meetings / periodic supervision / address larger supply chain problems when they arise

HC staff know how to use IPLS to resupply HEWs

HC staff has skills in IPLS - bin card, RRF, HPMRR

SC4CCM Primary Objective

IPLS Operational at HP

Regular and correct use of bin cards

Regular and correct use of HPMRR

HEWs storage their products correctly

IPLS Operational between HC and HP

HCs manage all products managed by HPs

Regular and correct use of RRF to order iCCM Products

HC uses HPMRR for resupplying HPs

Institutionalization: Leadership and attention from PHCU Directors, Woredas Health Office, Zor
importance of IPLS for HEWs, FMOH and PFSA leadership to integrate iCCM products into IPLS, HEW
of IPLS for HEWs

The quantitative survey show that the IPLS was operational at HP level and between the HC and HP (primary objective), the qualitative case study gives insight into the activities that were important to achieving this objective.

How was IPLS operationalized in selected HCs and HPs?

The successful operationalization of the IPLS for HEWs required a variety of inputs:

training, follow-up and continued support, and leadership

Quality of Training Matters

One HP in SNNP emphasized the importance of a **participatory and hands-on approach to training** and the **acknowledgement of external staff** from high levels

- Training needs to be participatory and hands-on, as per the curriculum, if it is to be effective for skills building.
  - *"When the store manager gave us the initial training, he did it very roughly. The training wasn't participatory."* ~HPA1.2
  - *"[SC4CCM project staff] went through the material very systematically, had the HEWs read the material turn by turn. It was during the refresher training that I learned that I should be writing down the number when I do physical counts."* ~HPA1.2
- Presence and recognition from external staff from high levels reinforced the message to the HEWs that the IPLS was important
  - *"The training was given at the HC so we thought of it as being more like an orientation, not training. When we have training, it usually takes place at the Woreda and Zone, and it lasts two days or more. We still used the bin cards and HPMRR after the initial training, but we became more serious about it after the refresher training with [SC4CCM]. After the refresher training, we were even recognized by the Woreda for our good work.."* ~HPA1.2

Follow-up and continued support for HEWs on IPLS

The HC can effectively function as the **learning site for IPLS for HEWs,** using existing opportunities to support HEWs in IPLS.

- The case study identified **four ways that follow-up had been provided to HEWs:**
  - refresher training
  - on-site supportive supervision
  - off-site learning
  - inclusion of supplies in regular problem-solving discussions at the PHCU meetings.
- **A combination of follow-up and support is needed** regardless of the type or quality of the initial training that HEWs receive on IPLS
  - *"When I transferred to the second HC, the staff and I started discussing about the problems and challenges we were seeing with regards to IPLS. We started coming up with solutions. The store manager and I gave refresher trainings when needed. We also started incorporating IPLS during regular supportive supervision visits." HCB 2 PHCU Director*

Refresher Training for HEWs

Majority of HEWs required a refresher training some months after the initial to address gaps

- Most HEWs required a refresher training
  - *"The last orientation was the most helpful. We had skill gaps, but after the orientation we're much better." ~ HPA 2.1*
  - *"When we had our first orientation we had a lot of gaps, but now after the second orientation most of our gaps are filled" ~ HPA 2.1*
  - *"Both trainings were useful, but we became clear on how to use the report after the refreshment training with [SC4CCM]. ~ HPB 1.1*
  - "After the refresher training that we received we were able to get more clarity on how to fill the HPMRR." ~ *HPB 1.2*
- One HP in Amhara reported not gaining anything from refresher training; this HP referred to a woreda level training instead of the SC4CCM conducted training
  - *"There were some HEWs that had a lot of gaps on the use of bin cards and HPMRR. During the training, skill gaps were filled. "Were you able to gain more information on IPLS from the refresher training?" "Not really," ~ HPB 2.1*

Pilot refresher training was in response to gaps identified through monitoring, but should be planned as part of scale-up

Supervision and Other Support

The PHCU Directors, Store Manager and Supervisors are active in providing support as needed.

- Onsite supervision: HEWs receive supervision on IPLS from their regular supervisors if have knowledge of IPLS and/or the store man and pharmacist
  - *"She supports us on everything we do here at the HP, including bin cards and HPMRR."* ~HPA 2.1 (SNNP)
  - *"The HC pharmacist came. He looked at our bin cards and HPMRR."* ~HPB 2.2 (Amhara)
- Off-site supervision by Store Managers
  - *"If you have any issues that come up between monthly meetings, how do you address it?" "The store manager will help us. He looks at reports when doing so."* ~ HPA 1.1 (SNNP)
- Ad Hoc Support via Phone or In Person
  - *"If you need help or have questions on IPLS, what do you do? Who do you go to?" "We can go to the HC or call them. The HC is not far from here so it's not a problem for us to just walk over there."* ~ HPB 1.1 (Amhara)

PHCU Meetings

PHCU Meetings and Command Post meetings are used as opportunities to discuss issues related to IPLS

- Majority of HPs reported that IPLS was discussed in either the monthly PHCU meetings or the weekly command post meetings
  - *"The PHCU director has those as agenda items for each meeting." HPA 1.2 (SNNP)*
  - *"We started including IPLS in the command post meeting recently because there were gaps to be filled. For the last meeting of the month, we go in-depth and discuss various issues." ~ HC A2*
  - *"The HC attends the kebele meetings as well and we discuss it with them. Sometimes we talk to the HC staff at the meeting on IPLS related things." HPB 1.2 (Amhara)*

- For some supervision is sufficient and there is nothing to discuss at PHCU meeting
  - *"There are no problems when it comes to medicine. We see our supervisor often so there hasn't been a need for us to bring up any problems during PHCU meetings."* ~HPA 2.1 (SNNP)

Training for New HC Staff

A major risk to scale-up of iCCM IPLS for HEWs is the high staff turnover at HC level, and the case study data provide lessons for how to minimize that risk.

- Replacement training
  - *"Any HC staff that has knowledge on IPLS should pass on their knowledge to new staff. We don't send out new staff to work if they are untrained." ~ HCB 1 Store manager (SNNP)*
  - *For the pharmacist we recently trained, we used the former pharmacist to show her around. Then we looked at how she filled reports and we then followed up with her for a week to see how she was doing her work after we had trained her. Then we had her work with the former pharmacist so she wouldn't be working alone. This is how we provided OJT for her. ~ HCB* 2 PHCU director (Amhara)
- More than one person at the HC was trained in IPLS
  - *"There are many units that are trained in supply chain. The store manager is the one who gives orientation to other staff members on RRF, IFRR, etc." ~* HCB 2 PHCU director (Amhara)
  - *"When new staff members come, they don't know anything about HPs…it's not just IPLS that they need to learn about. So, we have to teach them everything. Staff members learn from one another; we orient one another. I make sure that new staff members are up to speed on things that go on at the HPs." ~* HCA 1 PHCU director (SNNP)

Leadership of PHCU Director and Store Manager

The PHCU Director and Store Manager were critical to supporting ownership of IPLS among HEWs and ensuring continuous support

- PHCU Director was critical for ensuring HC staff value IPLS for HEWs
  - *"Change can only happen if we are all working together. So there needs to be commitment by all staff. They need to know about IPLS products, what medicines need to be ordered first, about FEFO. So by having all staff know IPLS this will be good and result in ownership of IPLS by everyone."* ~HC A2: PHCU director (SNNP)
- PHCU Director and Store Manager were critical for ensuring HEWs value IPLS and solving issues related to IPLS
  - *"It was hard to train them [HEWs] at first because they were expecting to get paid. But we made them believe that it was all in their best interest, that the gaps in IPLS were hurting them." ~HC A2: Store manager*
  - *"...if we have an urgent problem that needs to be solved then we go to the HC ourselves and ask. We don't wait always wait for the meetings to problem solve. "* ~HP B1.2

Leadership from Woreda

The **Woreda Health Office can play an important role** in keeping HCs focused on IPLS follow-up.

- Among our cases, one WoHO's practices provide a potential model of woreda-level leadership for IPLS:
  - *"I interact with the all of them (HP and HC staff) indirectly every month. The HEWs submit their* ***HPMRRs*** *to the HCs, who in turn forward a copy of these forms to me. It's indirect in that I don't see and discuss with the HEWs and HC staff in person, but it's regular because I get the HPMRRs every month. In addition to the HPMRRs, they also submit the* ***RRF*** *bi-monthly. Also, Woreda staff—either myself or someone else from Woreda—****attend some of the monthly PHCU meetings****. The first 30 minutes of these meetings focus on supply chain/IPLS. HEWs and HC staff members talk about all the problems that exist; they try to come up with a solution for each; and they name a responsible party who's in charge of seeing this through. Also, we perform* ***supportive supervision*** *quarterly with the woreda program officers and look at all activities including IPLS....."* ~ WoHO B2

Summary

- A combination of dedicated training, follow-up and continued support, leadership – are necessary for building the skills and knowledge for correct use of the IPLS by HEWs
- Training needs to participatory and emphasis by higher level staff needs to be given on its importance
- Continued support should use opportunities such as supervision and PHCU meetings to address gaps in knowledge on IPLS
- A chain of leadership for IPLS at multiple levels above the HP is the primary enabling factor for operationalizing IPLS for HEWs

RISK

- Both the quantitative survey and qualitative case study show that operationalization of IPLS at HP and between HC and HP is good.
- However this has not led to actual improvement in product availability, due to challenges at higher levels
- If stock imbalances continue, there will be reduced motivation among HEWs and HC staff to use the tools correctly and routinely

Recommendations

What does it all mean?

- Four strategic areas to focus on
  - To operationalize IPLS for HEWs
  - To scale up IPLS for HEWs beyond the pilot
  - To institutionalize IPLS for HEWs
  - To integrate iCCM products into IPLS

- Following recommendations are based on pilot results and inputs from two pilot regions

To operationalize IPLS for HEWs:

- Provide adequate training for HEWs on IPLS
  - Either as dedicated sessions at HC (conducted by PHCU Director and Store Manager), or
  - As part of other HEWs trainings, e.g. Integrated Refresher Trainings
- Woreda or zonal staff should be present at HC trainings to ensure quality training is conducted using the recommended participatory methods in training curriculum and emphasize importance of training to HEWs
- Following initial training, HC to monitor the skill level of HEWs and provide combination of support activities based on the need:
  - Refresher trainings – to fill widespread gaps
  - OJT through onsite and offsite supervision – to address individual gaps
  - IPLS included in PHCU meeting - to solve barriers to implementations

To scale up IPLS for HEWs beyond the pilot areas:

- Leadership and commitment from FMOH / RHB / ZHD and PFSA Central and Hubs
- Translate SC4CCM project inputs into feasible health system functions all the way up the hierarchy, e.g.
  - Include IPLS for HEWs in regular cascade of support
- Consider the roles that logistics and iCCM partners can play in IPLS scale-up, e.g.
  - Training of trainers for gap HCs on IPLS for HEWs
  - Reinforce IPLS skills and capacity during routine support
- Use peer-to-peer learning and problem-solving at all levels
- For non-direct delivery HCs include the woreda more centrally during training and implementation

To institutionalize IPLS for HEWs at all levels:

- Leverage existing opportunities for continuous support to HEWs: refresher trainings at HC, integrated supervision on IPLS, OJT during resupply and inclusion of IPLS issues in PHCU meeting agenda
- Plan for HC staff turnover: train more than one person at the HC on IPLS for HEWs and consider skill transfer as a routine activity in handover of duties
- Incorporate IPLS as a criteria for evaluation in professional development plans at all levels
- Engage the PHCU Directors as well as the Store Managers as leaders of IPLS for HEWs, includes printing IPLS forms
- Enlist the support of the Woreda Health Office in follow up with HC on IPLS for HEWs

To integrate iCCM Products into IPLS:

- Conduct an annual quantification specifically for iCCM products
- Ensure dedicated financing for iCCM products: iCCM must be considered a program and products procured through PFSA mechanism to support the program
- Partner supported ICCM products must flow through Central PFSA and the IPLS
- Procurement is coordinated and based on supply plans
- iCCM Products must be pre-printed on RRF
- Resupply of HP products based on consumption, using RRF and HPMRR

To enable consistent flow of essential products to HP:

- Develop practical guidelines to help HCs navigate between health care financing and PHCU directives and provide cost recovery products to HP
- Consider adequate budget allocation for HCs to provide non-program HP products (e.g. cost recovery products such as iron, paracetamol)