Family Planning Supply Chain Assessment in Indonesia

A comprehensive assessment of public sector contraceptives in 11 districts

April 2016





My Choice. Baseline Assessment Report

This document was produced by JSI Research & Training Institute, Inc. (JSI) under the My Choice. Project (PilihanKu), receiving funding through the Johns Hopkins Center for Communication Programs, beginning November 1, 2014. The supply chain component of the project is implemented by JSI with the objective of strengthening contraceptive commodity supply chains and improving contraceptive availability in 11 districts in four select provinces in Indonesia.

Acknowledgments

JSI would like to thank all the respondents who participated in this assessment for their valuable inputs, including respondents from BKKBN Central and Province, District family planning office, sub-district, and facility level. A special thanks to the team at Universitas Gadjah Mada – Center for Reproductive Health (UGM) for leading the quantitative assessment data collection activities as well as the data collectors who conducted the field work.

Finally, this assessment would not have been possible without the support of the Johns Hopkins Center for Communication Programs and the My Choice partners, as well as the dedicated effort by JSI staff and consultants who were part of the assessment team.

Abstract

This report describes a baseline project assessment of the current state of the family planning supply chain in the My Choice districts in Indonesia to understand the capabilities, constraints, and challenges of the existing supply chain and to provide related recommendations.



© JSI Research & Training Institute, Inc.





Acronyms / Abbreviations

AMC	average monthly consumption
ВККВN	National Family Planning Coordinating Board of Indonesia
CPR	contraceptive prevalence rate
СТU	contraceptive technical update
DAK	special allocation fund
DKI Jakarta	Special Capital Region of Jakarta
eLMIS	electronic logistics management information system
F/II/KB	BKKBN SDP family planning report
F/V/KB	BKKBN warehouse contraceptive report
FEFO	first-to-expire, first-out
FP	family planning
FP 2020	Family Planning 2020
IUD	intrauterine device
JSI	JSI Research & Training Institute, Inc.
LARC	long-acting reversible contraceptive
LIAT	Logistics Indicators Assessment Tool
lmis	logistics management information system
LSAT	Logistics System Assessment Tool

M&E	monitoring and evaluation
min/max	minimum and maximum inventory levels
MOS	months of stock
NGO	nongovernmental organization
ODK	Open Data Kit
PLKB	family planning field worker
PPFP	postpartum family planning
ouskesmas	public health center
R&R	reporting & recording
R/II/KB	BKKBN family planning logistics record
SBBK	warehouse item release note
SCM	supply chain management
SDP	service delivery point
бон	stock on hand
SOP	standard operating procedures
гос	theory of change
JGM	Universitas Gadjah Mada – Center for Reproductive Health



Overview and Background

My Choice Project

The My Choice project's vision is to contribute to the Government of Indonesia's family planning (FP) goal to increase the nation's modern contraceptive prevalence rate (mCPR) to 62.2% by 2020. The My Choice project is designed to create a consumer-focused, consumer-driven approach to assist Indonesia in addressing its stagnating CPR, unmet need, and skewed method mix where long-acting reversible contraceptives (LARCs) have fallen out of use. My Choice works in partnership with the national FP board, BKKBN. By focusing on both demand- and supply-side factors including consumer life stage, facility readiness/postpartum family planning (PPFP), supply chain management (SCM), and leadership and advocacy, as well as decentralized data collection, analysis, and use, My Choice is developing an integrated demand-supply model to reach a new generation of FP adopters.

My Choice's goal is to increase mCPR by five percentage points in each of the 11 districts where the project is working, thus contributing to the national goal.

JSI Research & Training Institute, Inc. (JSI) is contributing to the SCM component with an aim to increase contraceptive availability of BKKBN-supplied methods at BKKBN-registered service delivery and resupply points (SDPs) in the targeted four My Choice project provinces and 11 project districts, as shown below:



Supply Chain Component

The My Choice project's demand strategy is to educate the community to enable users to make their own choice to meet their contraceptive needs, thereby improving the skewed method mix, reducing unmet need, and increasing mCPR. This strategy will only be successful if there is a reliable and responsive supply chain that can adapt to the changing method mix and meet FP adopter preferences.

In addition, an increased mandate under universal health coverage will further stress the current contraceptive public sector supply chain as it will need to ensure that all public facilities as well as the large network of private providers have a steady supply of contraceptives.

The goal of the supply chain component of the project is to improve availability of contraceptives at SDPs and province and district warehouses and contribute to the larger outcome of the My Choice project to increase CPR by 5% in the project districts.

Figure 1: Assessment timeline in provinces and respective districts



To achieve this, the project will evaluate the current system, identify opportunities and weaknesses, and then design and test an intervention package to strengthen the current system in anticipation of the changes mentioned above.

In addition to providing information on opportunities and weaknesses in the system, the purpose of the baseline assessment is to provide baseline data for comparison at end line to measure effects of the intervention package.

A baseline assessment with qualitative and quantitative components was conducted between July 2015 and February 2016; dissemination and work planning meetings were then held in 11 districts and four provinces according to the timeline in Figure 1.

Summary Findings

These findings highlight the strengths and weaknesses of the contraceptive supply chain in the project regions. These results were validated through a series of dissemination workshops at district and province level.

Product Availability	Large variations in availability by method were observed: only 55% of all SDPs had a full range of contraceptives available on the day of the assessment. Most facilities had at least three methods in stock, 29% of SDPs were stocked out of injectables, and 21% were stocked out of implants.
Quantification & Procurement	Quantification is primarily based on service targets rather than demand, leading to stock imbalances at the province level and below. Delays in the procurement process at the central level have had a significant impact on product availability at the lower levels.
Inventory Management	Calculation of resupply quantities vary and is often based on annual targets rather than demand resulting in a supply chain that is unresponsive to changing method mix or consumption patterns. Current min/max guidelines are not practical and as a result are not implemented appropriately. No standard procedures are in place for emergency requests or reallocation.
Logistics Management Information System	BKKBN has a strong electronic logistics management information system (eLMIS), but long-standing data quality concerns have hampered its use for key supply chain decisions such as quantification and resupply. An absence of or incorrect use of stock records in facilities was identified as a major cause of poorly reported data and a lack of training in stock cards was evident.
Transport & Distribution	Procedures vary widely by district and sub-district with some using vehicles to deliver to the lower level, others outsourcing distribution, and some collecting from the higher level. Absence of a fixed distribution schedule was a challenge as requests would often come at one time, inhibiting planning for vehicle use and warehouse staff workload.
Storage	The assessment observed good storage practices at the province level; however, conditions at the district and SDP levels were found to be inadequate. Due to insufficient space, facilities were not able to store enough products to maintain appropriate stock levels.
Organization & Staffing	Staff have a strong commitment to improve the supply chain, however, insufficient coordination, communication, and accountability across units and levels has led to inefficiencies in the system. Although the FP program has a supervision structure in place, the supply chain component of the supervision is not sufficient. Roles and responsibilities across supply chain functions are not clearly defined, especially at the sub-district level.

Recommendations

The below recommendations were developed jointly with all stakeholders through results dissemination and intervention design workshops that were held in each province and district. It is recommended that BKKBN develop a comprehensive results-based supply chain strategy and costed implementation plan that address all components of the supply chain, to achieve improved supply chain performance resulting in availability of a full choice of quality contraceptives to all.

Quantification & Procurement	Develop forecasts of contraceptive requirements using consumption data as a primary source of data, validated with demographic and service data and with consideration to program targets. Update supply plans more frequently based on current consumption and stock levels.
Inventory Management	Review min/max guidelines and implement a standardized min/max inventory control system that uses current consumption data for resupply decisions. Develop standard operating procedures (SOPs) for emergency ordering to address sudden increases in demand and redistribution procedures to correct for stock imbalances across facilities.
Logistics Management Information System	Build capacity in reporting and recording (R&R) at the service delivery point (SDP) level through training and supervision activities with an emphasis on improving data quality. Build a culture of data use for decision making, leveraging BKKBN's strong existing information system. Develop tools and dashboards to track key supply chain performance indicators.
Transport & Distribution	Implement fixed delivery schedules and route planning at all levels to optimize resources and reduce workload. Improve infrastructure for transport and develop quality standards to ensure product quality is not compromised. Clearly define the role of the sub-district and family planning (FP) field worker in distribution of contraceptives.
Storage	Improve storage infrastructure at the district and SDP levels and ensure storage guidelines are strictly adhered to so inventory is managed appropriately to ensure quality products and storage space is used efficiently.
Organization & Staffing	Develop dedicated monitoring and supportive supervision for supply chain. Establish performance improvement structures that enhance data use and strengthen communication, coordination, and accountability between levels and units.



Methodology

Theory of Change and M&E Framework

The assessment design and overall approach were developed using a Theory of Change (TOC) model (Figure 2). The TOC model maps the causal pathways required to achieve the end goal of improved product availability; it facilitates development of indicators, assessment tools, and performance monitoring approaches. The four key supply chain preconditions to ensure a continuous availability of contraceptives are:



The theory is that when these four preconditions are in place, BKKBN-registered service facilities will have the expected FP products in stock at all times.

To achieve this, JSI believes that the right resources, tools, and processes must be in place, combined with personnel with the knowledge, skills, and motivation to perform their roles. Ultimately, this will result in supply chain staff taking the actions needed to achieve these four primary preconditions and outcomes. A list of indicators was developed to measure product availability and performance measures within the four causal pathways of quantification and procurement, LMIS, transport, and storage. This assessment collects data on most of these indicators.

Figure 2: Supply Chain Theory of Change: FP Program in Indonesia



Objectives and Overall Methodology

The main objective of this assessment was to identify the key gaps, challenges, and opportunities for improvement of the supply chain operations managed by BKKBN and its partners. The findings of this assessment are being used to:

Provide BKKBN, JSI, and other stakeholders in Indonesia with a situational analysis of the supply chain system for FP commodities within the project provinces;

Inform decisions on supply chain strengthening interventions;

Determine a baseline for benchmarking current system performance at the beginning of the My Choice Project; and

Develop the supply chain monitoring and evaluation (M&E) plan for the project.

Overall Methodology

The assessment measured product availability and overall supply chain system performance for FP commodities supplied by BKKBN and included a facilitybased quantitative assessment component and a tiered qualitative assessment component, as described in the following sections.



Bulukumba district FP office during qualitative assessment workshop

Qualitative Assessment Design

Qualitative Assessment

The Logistics System Assessment Tool (LSAT)—which includes a questionnaire covering several components of a SCM system including procurement and quantification, LMIS, inventory management, storage and distribution, and organization and staffing—was adapted. The questions were discussed by groups of workshop participants who recorded their responses in SurveyMonkey, a web-based tool during one-day workshops in each of the provinces and districts. The 15 workshops included in total over 200 participants who represented BKKBN Central and Province levels, District and Sub-District FP offices, and service providers from both public and private sectors.



Qualitative data collection using LSAT in Kota Medan, North Sumatra



METHODOLOGY

Quantitative Assessment Design

Quantitative Assessment: The quantitative assessment included interviews with staff at their worksites, a physical count of contraceptive stock on hand (SOH), a review of logistics records and reports, and observations of storage conditions. The Logistics Indicators Assessment Tool (LIAT) was adapted for the assessment, and data collectors captured the data through tablets using Open Data Kit (ODK) software. Data collection was conducted in partnership with the Universitas Gadjah Mada – Center for Reproductive Health (UGM).

The assessment sample for the quantitative component included the four BKKBN province and 11 district FP warehouses and a sample of SDPs in the project districts. The sample of SDPs was restricted to puskesmas (public health centers), public hospitals, and private providers (private midwives, private clinics, and non-governmental organization (NGO) clinics) that had received contraceptives from BKKBN in the last 12 months, randomly selected from BKKBN's K0 facility database.

The sample has a power of 0.8 and a two-sided alpha of 0.05 and was constructed to allow for detecting a 10 percentage point change in any indicator over time at each of the facility types. The sample is representative for the project area as a whole; it is not representative at the province or district level. Sampling was conducted separately for each facility type. Facilities sampled were chosen randomly based on probability-proportionate-to-size sampling, after stratifying by district. Thus, districts with a greater number of a facility type contributed more to the sample for that facility type than did districts with fewer facilities of that type. All province numbers in the report refer to the project districts and not the full province. The sampling strategy employed a finite population correction factor.

The facility-based component of the report results are based on the following final sample:

- Four BKKBN Province warehouses
- II district warehouses
- Sample of BKKBN-registered SDPs (Figure 3):

Province	District	Puskesmas	Public Hospital	Private Clinic	Total
	Brebes	19	2	1	
Central Java	Cilacap	17	3	7	94
	Klaten	17	1	27	
	Asahan	13	2	9	
North Sumatra	Deli Serdang	17	1	6	98
	Medan	19	7	24	
	Bulukumba	11	1	0	71
South Sulawesi	Gowa	13	0	3	
	Makassar	24	12	7	
DKI Jakarta	Jakarta Timur	41	4	6	78
	Jakarta Utara	26	0	1	
Total SDPs		217	33	91	341
Total Facilities (SDPs + Warehouses)			356		

Figure 3: Sample of BKKBN-registered service delivery points

Challenges and Limitations

This assessment faced some challenges and limitations, including:

Due to resource and time constraints, sampling for the facility-based component of the assessment was conducted at the overall project level (by facility type), enabling representative results for the project overall. Sampling was not conducted to enable representative results at the province or district levels.

Due to resource constraints, the assessment was not able to quantitatively assess the supply chain system below the puskesmas level (e.g., pustu and private midwives under the puskesmas network).

Permission to conduct the study was granted later in DKI Jakarta than in the other provinces (due to a delay in overall project agreements with DKI Jakarta), so data collection in DKI Jakarta occurred in November–December 2015, nearly two months after data collection in the other assessed provinces.

A complete, accurate facility list indicating all of the facilities that provide BKKBN products was not available. Therefore, some health facilities in the original list of facilities to assess had to be replaced because they were found to be ineligible for the assessment (because they had not had any BKKBN products in the last 12 months) or because they were unreachable, closed, their location was unknown, their facility type had been misclassified, or permission to conduct the assessment was not granted. (Sampled facilities that could not be assessed were replaced with other randomly-chosen facilities of the same facility type in the district, unless such facilities did not exist.)

Assessment Quality Assurance



Yogyakarta pilot data collection with UGM data collectors

To ensure the collection and analysis of quality data, several quality assurance mechanisms were put in place for the quantitative component of the assessment.

Data quality was achieved through supervisor and data collector training, including pilot facility visits.

The use of a mobile platform for data collection, which enabled the programming of skip patterns and required questions, helped ensure appropriate and complete responses. Mobile data collection also enabled UGM and JSI staff to review the data as it came in, allowing for rapid follow-up.

UGM and JSI's Indonesia and US-based teams conducted data cleaning according to developed protocols and followed up with data collectors as needed. Reminders were provided to data collectors regarding the meaning of some questions, prompted by issues found during data cleaning; this helped to ensure quality data.

Findings and Recommendations



The findings and recommendations in this report are based on the observations and opinions of the respondents and the assessment team. The assessment focused only on BKKBN-supplied contraceptives flowing through the system and did not assess contraceptives supplied or procured through other sources. Many of the assessment findings were based on information provided by respondents and were therefore affected by the knowledge, opinions, truthfulness, and biases of the respondents. Truthfulness in responses may have also varied by province, as provinces have varying reputations regarding typical views toward studies. Some of the findings (e.g., regarding storage conditions) were based on data collector observations and interpretations and were subject to many of the same concerns. Any findings shown at the province level are not representative of the whole province, but depict the situation in the selected districts in a particular province. These results are representative for the project overall but not representative at the province or district levels. The number of respondents for each quantitative finding is represented by 'n' in each graph and differs based on the applicability of the question for each respondent.

This sign is shown next to all findings and recommendations that were mentioned by respondents during the qualitative assessment workshops.



I. Product Availability

I. PRODUCT AVAILABILITY

Findings

A well-known slogan in the public health world is "No product, no service." FP clients should have access to the method of their choice when they need it. A key measure of a strong and dynamic supply chain system is adequate availability of contraceptives at service delivery and resupply points.

Contraceptive availability was assessed at warehouses and SDPs by conducting a physical count of the five contraceptive products supplied by BKKBN (see below). For each of these BKKBN products, first facilities were asked if they had had the BKKBN method in stock at some point in the last 12 months (in order to determine whether the facility offered the method supplied by BKKBN). Facilities that offered a method supplied by BKKBN, but that did not have any physical stock of that particular method on the day of the assessment, were considered to be stocked out of that BKKBN method.



As the title of the project suggests, one of the key indicators of a strong FP program is whether SDPs provide the client with a complete cafeteria of method choices. FP adopters have a right to choose a method based on their need and their choices should not be driven by product availability.

The assessment observed that 45% of all SDPs were stocked out of at least one BKKBN-provided method on the day of the assessment, and as a result did not provide the full range of methods that they are supposed to offer. The highest stockout rates were seen in North Sumatra (78%), followed by South Sulawesi (42%), Central Java (30%), and DKI Jakarta (24%). There was large variation across districts (Figure 4).

Figure 4: Percentage of SDPs that were stocked out of at least one method on the day of the assessment (n=341)



I. PRODUCT AVAILABILITY

Findings

At the SDP level, the percentage of facilities stocked out of any BKKBN method was highest for private clinics, at 52%, while puskesmas and hospitals had stockout rates of any BKKBN method they offered of 43% and 41%, respectively. Private clinics are more likely to use non-BKKBN products and as a result do not stock BKKBN products as much as puskesmas and public hospitals do.

Although almost half of the facilities assessed did not have a full range of the five assessed contraceptive methods in stock on the day of the assessment, a majority of facilities had at least three methods available, including at least one long-term and one short-term method. Ninety-four percent of all SDPs had at least three methods available; which this included all puskesmas, 88% of public hospitals, and 85% of private clinics.

Large variations in availability by method were observed (Figure 5). Injectables, a method in high demand, had a high stockout rate of 29% on the day of the assessment. Pills were stocked out in less than 10% of SDPs on the day of the assessment. One of the reasons for the high stockout rates of injectables at SDPs is the lack of availability at district and province warehouses. Of the 11 district warehouses surveyed, five (45%) were stocked out of injectables and one each (9%) was stocked out of pills and condoms.

Figure 5: Percentage of SDPs stocked out, by method on the day of the assessment



At the four province warehouses, one was stocked out of implants, one of pills, and one of injectables. There is a correlation between availability of contraceptives at the warehouses and availability at the SDP level (Figure 6). Stockout rates tend to be lower at the SDP level for products that have sufficient months of stock (MOS) on hand at the warehouse level. The months of stock (MOS) for warehouses was calculated using LMIS data from September 2015, while the stock out rates are from the quantitative assessment.



Figure 6: Comparison of warehouse months of stock on hand with SDP stockout rate (n=356)

I. PRODUCT AVAILABILITY

Findings

Another critical indicator illustrating the health of a supply chain system is whether SDPs have appropriate stock levels to meet future needs. Figure 7 illustrates whether SDPs were overstocked as defined by the assessment (with greater than four months of SOH), appropriately stocked (with one to four MOS), understocked (with less than one month of stock), or stocked out (with zero stock). This indicator was calculated using the ending balance noted in the most recent LMIS report and the average monthly consumption (AMC) (calculated based on consumption reported by the facility during the three months preceding the visit). Facilities with necessary report data were included in this analysis.

Figure 7: Stock status at SDPs, by method



Most SDPs are either overstocked or understocked/stocked out of BKKBN contraceptives, while only a small percentage are adequately stocked. Across products, only approximately 20% of SDPs were adequately stocked based on assessment definitions. SDPs are most likely to be overstocked of intrauterine devices (IUDs) (63% of assessed SDPs were); this is also the case for pills and condoms (both overstocked in over 50% of assessed SDPs). SDPs were most likely to be stocked out or understocked of injectables (55%).

During the qualitative assessment, workshop participants indicated that this high variation in availability across SDPs is due to lack of an appropriate inventory control system that uses appropriate logistics data for resupplying or ordering appropriate quantities. Additionally, there is no organized system for redistribution between SDPs that could correct for this unequal distribution. Workshop participants noted that the strong emphasis on the use of target data with limited use of logistics data often causes overstocked facilities to continue to receive supplies while understocked ones do not receive the quantities they need.

Province and district staff also confirmed that all products received at the province come from Central BKKBN, while some districts procure some of their own products. In addition, workshop participants noted that BKKBN Central does not always procure the same brands of each method; this change of brands affects product acceptance and could be perceived by FP clients as a lack of availability even though other brands of the method remain available. Participants also reported that delays in central-level procurement have affected product availability at province, district, and SDP levels. In 2015 some provinces experienced frequent stockouts of some products, including implants and injectables, while condoms were overstocked in many areas due to low demand. Workshop participants offered that they believe that some of the issues of overstocking and understocking are due to the use of service target data in quantification and distribution planning, and that the situation would be improved if consumption data were used to make supply decisions.





II. Quantification & Procurement

Quantification is done by Central BKKBN. Aside from other data used by the central level, input from the provinces is also considered, and is mostly driven by service targets rather than consumption data. Provinces reported that at the beginning of each year they prepare their annual requirements to submit to BKKBN Central; these, too, are based on a combination of program targets and plans, active client data, and other data sources.

During the qualitative assessment workshops, some provinces and districts expressed that using service targets can result in supply imbalances, as sufficient consideration is not given to actual consumption of products by clients. Once developed by BKKBN Central, the annual supply plan is not adjusted in relation to actual consumption during the year. Supplies to the provinces are determined by the Central level, based on annual distribution planning by the Central level.

While technically province and district staff do not do supply planning, they do develop distribution plans for the year; those plans appear to be influenced by service targets for each district and also consider stock data and average issues for the last six months. If these distribution plans fall short of actual needs, provinces and districts may request additional products. During the qualitative assessment workshop, participants responded that the person responsible for quantification may not possess the necessary skills, and there is a lack of coordination between the supply planner and warehousing units. However, province and district staff reported that they meet routinely and discuss supply issues.



Qualitative assessment in Brebes, Central Java

None of four BKKBN provinces in which the project is working are conducting procurement for contraceptives; all contraceptive supplies are received from Central BKKBN based on the Central BKKBN supply plan.

Meanwhile, several districts (four out of 11) conducted local procurement in anticipation of shortages or limited supply from the province, or to provide contraceptive choice where the type of product is not available from BKKBN due to their limited range of products. District procurement is not regular, uses their regional budgets, and depends on the funds available. The types of items procured locally by districts vary, but most of the districts that conducted local procurement are choosing implants and monthly injectables (while the injectables supplied by Central BKKBN are administered quarterly). Delays in the procurement process at the central level during 2015 contributed to an increase in stockouts for several contraceptives, mostly for short term methods preferred by clients. Participants indicated that this situation pushed clients to choose one of the available products which were IUDs or implants, increasing the trend of LARC usage unintentionally during the last six months of 2015.

BKKBN contraceptives are distributed with supplementary consumables; however, based on discussions with health facilities, these consumables are often either not received, or are received in insufficient quantities compared to the need to support the FP services. There was concern expressed by health facilities regarding product quality, specifically for syringes provided for injectable contraceptives. Another concern expressed by facilities is that Central BKKBN changes the brand and color of pill based on the procurement vendors causing client dropouts.

Qualitative assessment respondents at the SDP level mentioned that several providers have received the Contraceptive Technical Update (CTU) Training, but due to limited exposure to practical training, providers' lack confidence to provide IUDs and implants.

Recommendations

The assessment highlighted that current methodologies and procedures used for quantification and procurement were not meeting current demand for certain methods. This was partially due to forecasting of requirement based on targets rather than consumption, and some delays in procurement.

Participants in the qualitative assessment workshops recommended that capacity building of staff in quantification was required, that funds be allocated for conducting quantification, that contraceptives supply should meet demand, and procurement should be conducted in a timely manner.



The overall recommendations based on the assessment findings for quantification and procurement are:

- Forecasts of contraceptive requirements should be developed using consumption data as a primary source of data, validated with demographic and service data and with consideration to program targets.
- Supply planning should be based on consumption-based forecasts and updated more frequently based on current consumption and stock levels.
- A fixed procurement schedule should be established so that provincial warehouses know when to expect products and can properly plan to prevent stock imbalances.
- Adequate buffer stock should be developed at the centrallevel warehouse to service emergency needs.
- A feedback mechanism should be developed for product quality and product specifications should be modified based on user and provider needs and concerns.
- Province warehouse in North Sumatra
- Supplementary consumables should be available at all times to ensure services are provided in a quality manner.



III. Inventory Management

Proper inventory management includes an inventory control system that prevents stock imbalances, minimizing stockouts and overstocks and maximizing contraceptive availability for clients, while also minimizing expiries. A good inventory control system guides storekeepers on how to determine appropriate quantities for resupply based on logistics data and how to monitor stock levels and take actions to prevent stock shortages and overstocking.

An important factor in understanding how a supply chain functions is understanding who (i.e., which facility level) primarily determines the quantities of contraceptives to be supplied to a given facility. Across all facilities in the four provinces, a combination of an allocation (push) and requisition (pull) system is being used.

Sixty-one percent of SDPs reported that a higherlevel facility primarily determined the contraceptive quantities to be resupplied and 39% reported that the facility itself primarily made this determination. Puskesmas were more likely than other SDPs to indicate that a higher-level facility was mainly responsible for determining their resupply quantities, with two-thirds of puskesmas indicating this (Figure 8).





Regarding variation by province, Central Java showed the highest proportion of SDPs themselves determining the resupply quantities (63%), while South Sulawesi showed the lowest proportion (18%) (Figure 9).

Figure 9: Which level determines contraceptive resupply quantities for SDPs, by province (n=341)



The majority of warehouses and SDPs reported that they have at some point placed an order for contraceptives. District warehouses were most likely to have ever placed an order (91%), while puskesmas were the least likely, at 52% (Figure 10). Of these facilities ever placing an order, a combined 80% reported having placed an order either within the last month (47%) or between one and three months ago (33%).

Figure 10: Percentage of facilities that have ever placed an order for contraceptives (n=356)



Qualitative assessment workshop results were consistent with the quantitative findings, as respondents described the inventory control system as a combination of push and pull. They further explained that for regular distribution, a push system was used, and for any order outside the regular distribution schedule (e.g., emergency orders), a pull system was used (for example, during contraceptive mobile services or due to stockouts). For the regular push system, provinces determined quantities to be distributed to districts for the year and then divided those quantities into quarterly distribution plans.



Using recent consumption (i.e., dispensing) data in logistics formulas to determine resupply quantities ensures that resupply reflects current demand. Respondents were asked about the main way that resupply quantities provided to the facility were determined.

Among district warehouses, the highest percentage of facilities used a formula (calculation) based on quantities on hand, received, and dispensed/issued (45%). Among province warehouses, an equal proportion (33%) used estimations from quantities dispensed or issued, targets based on client numbers, and logistics formulas, respectively (n=3) (Figure 11).

A similar proportion of SDPs reported using estimations from quantities dispensed or issued (46%) and targets based on client numbers (45%) as the main determination for resupply quantities. Across the SDP types, there was minimal variation in the primary ways that resupply quantities were determined. Estimations from quantities dispensed or issued as the primary way to determine resupply quantities across public hospitals, private clinics, and puskesmas ranged from 39% to 48%; targets based on client numbers as the primary way ranged from 41% to 53%, and use of logistics formulas ranged from 2% to 11% (Figure 11). Figure 11: How resupply quantities are determined (n=259)



■ Estimations (quantities dispensed/issued) ■ Client targets ■ Logistics formula ■ Others

Qualitative assessment workshop participants explained that supplies allocation through the routine push system was determined by the higher level looking at SOH, targets, and current and new clients; only a few reported that consumption was used. Some districts and provinces reported that a maximum and minimum stock level exist: 24 months and three months respectively. However, many noted a lack of procedures on how to use these and noted that storage capacity could not accommodate 24 MOS. The majority of respondents said there were no maximum or minimum stock levels established at district or SDP levels.

Emergency orders allow for a way to remedy extenuating circumstances when stock levels fall unexpectedly low, yet assessment findings indicated that the majority of facilities did not have a way to place emergency orders.

On average, only 14% of all facilities had a way to place emergency orders; this varied widely by facility type and province.

Facilities higher up the supply chain were more likely to have the ability to place emergency orders, with 100% of province warehouses having this capability compared to 36% of district warehouses, 15% of public hospitals, 14% of puskesmas, and only 3% of private facilities (Figure 12).



Figure 12: Percentage of facilities with a way to place emergency orders (n=259)

The percentage of SDPs that have a way to place emergency orders between provinces ranged from only 1% of SDPs in DKI Jakarta to 27% in South Sulawesi (Figure 13).

Figure 13: Percentage of SDPs by province with a way to place emergency orders (n=245)



The majority of provinces and districts during the qualitative assessment workshops reported that there are no procedures for emergency ordering. Many said they have never placed an emergency order, while others said they place them about five times a year. Participants said that emergency quantities were determined based on SOH and emergency orders were filled if the higher level had stock. Qualitative workshop participants also noted a lack of procedures for reallocating stock.



Recommendations

A key finding in the qualitative assessment and substantiated by quantitative data is the absence of a standardized inventory control system based on demand. This makes it challenging for resupply points to plan their shipments, resulting in unequal distribution of contraceptives across districts and SDPs and a significant number of stockouts. Further, the lack of an appropriate and operationalized min/max inventory control system compounds the inefficiencies.

6	ഹി	
Ш	— III	
Ш	— III	
Ш	— III	
Ш	– III	
Ц		
L		

During the qualitative assessment workshop, participants recommended that resupply quantities should be based on need and client preferences (consumption data) rather than based on targets, that appropriate maximum and minimum stock levels should be established along with written procedures on inventory control, and that procedures for emergency orders and reallocation of stock should be developed, along with an electronic system that enables easy analysis.

Example of stock level movement using a min max inventory control system with a quarterly resupply schedule



Overall recommendation for inventory management based on assessment findings is to establish a standardized inventory control system that includes:

- Reviewed and revised min/max guidelines and an inventory control system designed to consider distribution schedules, storage capacity, lead times, and buffer stock.
- Min/max guidelines implemented to determine resupply quantities using logistics data, especially the use of recent SOH and SDP-level consumption data that more accurately reflects demand.
- SOPs, tools, and job aids developed to guide supply chain staff on how to maintain appropriate stock levels based on system guidelines.
- Standardized procedures developed for emergency ordering to prevent stockouts.
- SOPs developed for reallocation between districts or SDPs to prevent overstocking/expiry or to address shortages.
- Standardized procedures developed for conducting physical inventory counts on a routine basis.



IV. Logistics Management Information System

Findings

A strong supply chain requires good data visibility, based on routinely and accurately updated records and timely reporting, so that managers and supervisors throughout the system can make informed decisions.

For managers and supervisors to have data available when and where they need it for timely decision making, warehouses and SDPs need to report on time and with accurate data. In the provinces and districts included in this assessment, reporting rates were very good. At all warehouses, data collectors observed 100% reporting for the past three months. Reporting by SDPs was also high, with 79% of facilities able to produce reports for the previous three months (Figure 14).

Recording logistics information accurately and in a timely manner enables good stock management and accuracy in reporting. Assessment results showed poor recording at the SDP level compared to warehouses. Only 26% of SDPs had stock cards (or similar records) containing balance information available for all of the BKKBN contraceptives they offer. All province warehouses and 82% of district warehouses had stock records with balances available for all five of the BKKBN contraceptives assessed (Figure 15). The term "stock card" here refers to any record with balance information, both stock card or similar records, like a stock ledger.

Figure 14: Number of reports available at SDPs from the last three months (n=341)



Figure 15: Percentage of facilities that had stock cards with balance information available for all BKKBN products they offered (n=356)



In facilities with stock cards, data collectors compared the recorded balance information with the actual physical count as a measure of stock card accuracy. The assessment found the overall accuracy of stock cards was low (Figure 16). Only 30% of stock cards observed in puskesmas had a balance that matched the actual physical count, compared to approximately 45% of stock cards in private clinics and public hospitals and 55% in district and province warehouses.

Poor logistics records management leads to inaccurate data being reported to the higher levels and could result in incorrect decision making.

Figure 16: Percentage of stock cards with 100% accurate balance (n=535 stock cards)



Figure 17 shows the forms that facilities referred to when completing their BKKBN reports. Most warehouses used stock cards or stock ledgers, with some also using SBBK (warehouse item release note). Forty-seven percent of SDPs used stock cards or stock ledgers to complete their reports; 25% use SBBKs and R/II/KBs, respectively. (R/II/KBs are records that include some stock data, but not as much as stock cards or stock ledgers do.) Facilities also noted using other forms as well (not included in the figure). Four percent of SDPs said that they did not use any logistics forms to report to BKKBN; these facilities are excluded from Figure 17.





Note: More than one response was allowed for this question, so percentages exceed 100%

Findings

Using data to make wise resupply decisions and for monitoring the performance of the supply chain is essential to maintaining an efficient and effective supply chain. Based on the assessment, use of logistics data was higher at province and district levels than at the SDP level. The percentage of all facilities that indicated that they use logistics data (from their facility and/or from lower-level facilities) ranged from 41% of private SDPs and 45% of public hospitals to 100% of province warehouses. Puskesmas (73%) were the SDP type that was most likely to indicate they use data. Ninety-one percent of district warehouses (all but one) reported that they use logistics data (Figure 18).

Figure 18: Percentage of facilities that use logistics data (n=356)



For these facilities, data collectors asked how the facilities access the logistics data that they use. The vast majority of warehouses reported using their own records. Most also used the eLMIS, while only 40% of district warehouses and 25% of province warehouses that used data accessed it through paper records from lower-level facilities (Figure 19).

Figure 19: How warehouses access data (n=14)



Note:

More than one response was allowed for these questions, so percentages exceed 100%

The vast majority of SDPs also accessed their own facility records, with some accessing records of lower-level facilities (Figure 20).

Figure 20: How SDPs access data (n=210)



Findings

Approximately 50 to 75% of facilities across all levels reported that they had at least one staff member trained in completing an F/IIKB form (for SDPs) and an F/V/KB form (for warehouses) (Figure 21). There were higher rates of facilities with trained staff at province warehouses compared to district warehouses, at 75% and 64%, respectively. At the SDP level, 73% of public hospitals reported having at least one person trained in completing the F/II/KB form, compared to 63% of private facilities and 49% of puskesmas.

Training in completion of stock records also varied. At the district level, 90% of warehouses reported having at least one trained staff member, and at the province level, all warehouses reported having trained staff (Figure 22). However, at the SDP level, very few facilities had staff trained in stock records: only 20% of puskesmas, 14% of private facilities, and 12% of public hospitals.



During the qualitative assessment workshop, participants noted that all province staff had received training in reporting, recording, and use of logistics data. However, the results across the districts were mixed: two districts in South Sulawesi responded that no one had received training in reporting, recording, or use of logistics data. For those who were trained, respondents identified that training was primarily classroom-based, with some on-the-job training and supervision.

Figure 21: Percentage of facilities with at least one person on staff trained in completion of F/II/KB / F/V/KB forms (n=356)



Figure 22: Percentage of facilities with at least one person on staff trained in completion of stock cards (n=356)



Findings

The qualitative assessment workshop participants acknowledged that there was a good reporting system in place and reporting rates across all provinces and districts were very good. However, across all districts and all but one province, problems with incomplete or inaccurate R&R were reported. Problems ranged from discrepancies between service and logistics data to calculation errors and discrepancies between last month's final stock and this month's beginning stock. Reasons for the problems cited by respondents included human error, training, motivation, lack of coordination between divisions that are in charge of service and stock, and lack of thoroughness of the person completing the report.

The qualitative workshop participants from the provinces reported that the types of indicator data available were: stockouts, reporting rate, lead time, and consumption data.



At the district level, most reported availability of similar indicator data as the provinces; however, one said no indicator data was available and three other districts did not respond.

Provinces reported using data for forecasting, distribution planning, tracking stockouts, and comparing logistics data to service achievements. Districts mostly reported using the data for resupply. Data has often been reviewed at small workshops at the facility and district levels, and at monthly budget management and program meetings at the province and central levels.



Recommendations

Overall reporting of logistics data is very good throughout the system; however, the quality of data was reported as a concern by qualitative respondents and was confirmed through the quantitative survey. A major reason for poor data quality as identified in the quantitative results was poor use of stock records which are the primary source of data for logistics reports. Other explanations for poor data quality include calculation errors and transcribing errors.

Qualitative assessment participants recommended that all facilities have staff trained in accurately completing stock records and logistics reports, that routine mechanisms be established for monitoring and data validation, that guidelines and orientation on LMIS data usage for planning, procurement, and distribution of supplies be conducted for managers, and to develop an online F/II/KB for puskesmas. Based on the assessment findings the recommendations for the LMIS include:

- Develop job aids and conduct training on correct use of stock cards and continue to support facility staff in their use through routine monitoring and on-the-job training.
- Develop tools to monitor key LMIS indicators such as data accuracy, reporting rates, and report timeliness, which are critical inputs to implement an appropriate inventory control system.
- Build a culture of data use for decision making, leveraging BKKBN's strong existing information system. Design userfriendly supply chain dashboards that can facilitate rapid analysis for decision making.
- Improve IT infrastructure and build human capacity to implement an electronic logistics reporting system at SDP level to create efficiencies and improve data visibility throughout the supply chain.
- Clearly define the role of the sub-district and FP field worker (PLKB) in logistics reporting.
- Develop guidelines and SOPs for logistics recording and reporting at the levels below the puskesmas, such as pustu and other providers within the network.



V. Transport & Distribution

Efficient transportation within a supply chain is a vital requirement for a well-functioning logistics system. It moves commodities in a timely fashion to where they are required at minimal cost. This requires that functioning vehicles are available when and where they are needed and that staff at all levels understand their role and are motivated to follow the standard procedures for distribution.

As Figure 23 shows, 100% of province warehouses reported that they received BKKBN contraceptives through deliveries transported to their facility. Similarly, the majority of facilities at the SDP level – 73% of public hospitals, 71% of puskesmas, and 56% of private facilities – received contraceptives that were delivered from higher level facilities. At the district level, 64% of warehouses collected their contraceptives from a higher level, while 45% received products delivered from the next higher level. (More than one response was allowed for this question.)

Figure 23: Responsibility for transporting **BKKBN** contraceptives to facility (n= 356)



Note: More than one response was allowed for this question, so percentages exceed 100%

Virtually all facilities relied on a car and/or motorcycle to transport commodities to their facility. (More than one response was allowed for this question.) One hundred percent of province warehouses and 91% of district warehouses obtained their commodities via car transport. At the SDP level, many facilities relied on motorcycles to obtain their products. As Figure 24 shows, 88% of private facilities and puskesmas and 61% of public hospitals obtained their commodities via motorcycle transport. Only 1% of puskesmas relied on walking to transport commodities, and no facilities reported using bicycles or boats to transport contraceptives.

Figure 24: Mode of transportation to transport products to this facility (n=356)



Note: More than one response was allowed for this question, so percentages exceed 100%

For facilities that collected their products, access to sufficient transportation was not typically an issue at any level. As Figure 25 shows, virtually all facilities that collected their products always had access to sufficient transportation for product pick up. Only three facilities reported they only usually had access to sufficient transportation, and no facility reported they did not have access to transportation for product pick up.

Figure 25: Percentage of facilities with access to sufficient transportation, of facilities that collect their products (n=74)



During the qualitative assessment workshop, participants from all provinces stated that vehicles were available for distribution; however, many of the vehicles were old and in poor condition and some said they had to use their own personal vehicles. Furthermore, some did not have sufficient capacity for carrying large loads and in some provinces there was a lack of funds for operation and maintenance of vehicles. In most districts, participants reported that there were no vehicles or funds available for hiring vehicles for distribution. Often vehicles are rented or personal vehicles used for collection and distribution at lower levels.

Of those facilities that have a distribution schedule for contraceptives (51%), the majority of facilities reported they were supposed to receive contraceptives once a month or once every two to four months, with the exception of province warehouses where 50% reported that they were supposed to receive contraceptives annually.

At the SDP level, virtually all private facilities and puskesmas reported that they were supposed to receive contraceptives every one to four months, with more than 50% of facilities at each level reporting they were supposed to receive contraceptives monthly.

Approximately 85% of public hospitals reported they were supposed to receive contraceptives every one to four months, with more than half of these hospitals reporting they were supposed to receive contraceptives monthly (Figure 26).

Figure 26: How often facilities that have a distribution schedule say they are supposed to receive contraceptives (n=181)



As Figure 27 indicates, of the facilities with a distribution schedule for contraceptives, the majority of facilities (with the exception of province warehouses) reported that products always arrived to their facilities on time. All province warehouses reported they received products always or usually on time. At the district level, 100% of warehouses reported they always received products on time. Similarly, at the SDP level, more than 80% of hospitals, private facilities, and puskesmas reported always receiving products on time.



Distribution vehicle in Cilacap, Central Java

Figure 27: How often products arrive to this facility on time, for facilities that have a distribution schedule (n=181)



Frequency of distribution, as reported during the qualitative assessment workshop, varied by province and district. Within one province, the districts represented reported receiving products at varying frequency: once a month, every two to three months, and every quarter. The same variation occurred from district to sub-puskesmas and puskesmas. Many respondents from both province and district levels highlighted that the lack of a fixed distribution schedule was a challenge, as requests would all come at one time, inhibiting planning for vehicle use and contributing to warehouse staff workload. Ad-hoc deliveries are not very cost efficient and strain an already limited distribution budget.

Recommendations

Overall transportation and distribution procedures varied across provinces, districts, and sub-districts. About half of facilities reported they have a distribution schedule and the frequency of distribution varied in these facilities. Availability of vehicles for distribution varied by province and district with some using personal vehicles, some having unreliable vehicles with poor capacity, and others successfully outsourcing distribution.

Qualitative assessment participants recommended new vehicles for distribution should be procured (although some already have a planned budget for this), that a budget should be allocated for operating costs for collecting or distributing supplies, for province staff to supervise the distribution of supplies, and that distribution schedules should be developed for both distribution to district from the province warehouse and for sub-districts to collect supplies from the district.

Example of a quarterly staggered distribution schedule in Central Java



Based on assessment findings, recommendations for transport and distribution include:

- Establish a fixed distribution schedule between each level that is documented and disseminated to all facilities; this is a critical pre-condition to implementing an inventory control system.
- Stagger distribution for facilities across months within a review period to reduce warehouse workload and ensure timely distribution.
- Educate local government stakeholders on availability of new distribution resources through DAK (special allocation funds) that can be used toward distribution to SDPs.
- Optimize distribution resources through improved route planning using route optimization software.
- Evaluate availability of suitable vehicles used for distribution from all warehouses. Based on the evaluation, make decisions locally on whether to replace old vehicles or outsource transportation (and confirm that the vehicles used for distribution have the capacity to carry appropriate loads of products in the right condition).
- Clearly define the roles and responsibilities of the sub-district and PLKB in distribution of contraceptives.

VI. Storage

Standards for appropriate storage conditions need to be met to ensure that contraceptives maintain their quality and effectiveness. In assessing the storage situation, a list of key storage conditions was identified and data collectors observed whether or not these conditions were individually met.

To maintain storage standards, it is critical that staff be trained and/or provided guidance in appropriate storage procedures. All four province warehouse respondents and nine out of 11 district warehouse respondents (82%) had been trained or provided guidance on appropriate storage procedures. However, the percentages were lower at the SDP level, with only 36% of public hospitals, 20% of puskesmas, and 18% of private SDPs reporting that they had been trained or provided guidance on appropriate storage procedures (Figure 28).



FP Province warehouse, DKI Jakarta

Figure 28: Facilities where respondent is trained or provided guidance on storage procedures (n=356)



The majority of qualitative assessment workshop participants reported that the province or district warehouse staff had guidelines and training on storage procedures, with only two provinces and two districts reporting the need for additional training for some staff. However, storage practices at SDP level were often considered inadequate, indicating a need for guidelines and staff training.

VI. STORAGE

Findings

Data collectors observed the storage area to estimate how full it was – whether up to one-third full, up to two-thirds full, between two-thirds full and completely full, or overfull. Data collectors considered over 60% of district warehouses to be one-thirds to two-thirds full; the rest were considered two-thirds to completely full. At the province warehouse, half were considered onethirds to two-thirds full and half two-thirds to completely full. Fifty percent of SDPs were considered between two-thirds and completely full, with most of the rest considered less full than that. Data collectors only considered a few SDPs to be overfull. The range at the different SDP types can be seen in Figure 29.



Figure 29: Storage space use at facilities (n=356)

All province staff at the qualitative workshop reported that the province warehouse capacity was adequate, except if the central level pushed excess products to the warehouse. District- and facility-level storage capacity was mixed, with one district warehouse reporting that it had space to store over 50% more commodities, while some facilities had no dedicated storage space.

Observations on the existence of a temperature control mechanism (e.g., functioning air conditioning, fans, or passive ventilation through windows) and whether contraceptives were stored at an appropriate temperature showed that a majority of the facilities had a temperature control mechanism; however, only approximately one in 10 SDPs maintained the appropriate storage temperature of below 25 degrees Celsius. Over half of district warehouses maintained the appropriate temperature, whereas none of the province warehouses did (Figure 30).





Appropriate temperature Temperature control mechanism

VI. STORAGE

Findings

Data collectors observed many other storage conditions, as well; many of these are listed in Table 1. A majority of facilities met at least 70% of the key storage conditions shown. This means they met at least 10 key conditions out of 14, or if the facilities had large stacked boxes, they met at least 12 of 17. All district and province warehouses met at least 70% of these conditions. At the SDP level, public hospitals did best at meeting at least 70% of these storage conditions, at 97% of public hospitals, followed by private facilities (77%) and puskesmas (74%) (Figure 31).

Figure 31: Facilities that met at least 70% of key storage conditions (n=356)



Table I: Key storage conditions for contraceptives

I	Products are arranged so that identification labels and expiry dates and/or manufacturing dates are visible
2	Products are organized according to the first-to-expire, first-out principle (FEFO)
3	Cartons and products are in good condition (not wet or crushed, and boxes right-side up)
4	Damaged and/or expired medicines and supplies are separated and removed from inventory
5	Products are protected from direct sunlight
6	Products are protected from water and humidity
7	Storeroom is free of rodents and insects
8	Storage area is secured with a lock and key
9	Storage area is accessible during normal working hours
10	Storeroom is maintained in good condition (clean, sturdy shelves, organized boxes)
П	Products are stored separately from insecticides and chemicals
12	Fire safety equipment is available, accessible, and can be used
13	FP products are stored at appropriate temperature
14	There is sufficient storage space

For facilities with stacked boxes:



VI. STORAGE

Findings

Among SDPs, the key storage conditions that were met by the least number of facilities were appropriate temperature, availability of fire safety equipment, and products organized according to FEFO. The conditions that were met by the greatest number of SDPs included storage area accessibility, products being protected from water and humidity, and products being protected from sunlight (Figure 32). The qualitative assessment workshop respondents reported inadequate air conditioning as a primary storage-related challenge, except in the case of one warehouse which has adequate air conditioning, but inadequate power supply. Many warehouses reported they have only one room with an air conditioner and it is not sufficient for storing all commodities; others said the warehouse was wellventilated, but this also meant it was dusty and dirty. Participants also reported a lack of temperature monitoring and recording across all warehouses and SDPs.

Figure 32: Percentage of SDPs that met each of 14 key storage conditions (n=341)



Recommendations

During the quantitative assessment, good storage practices were observed at the province level; however, conditions at the district and SDP levels were found to be inadequate. Storage capacity at facility level as reported through the qualitative workshops and observed during the quantitative survey was not sufficient to store enough products to maintain appropriate stock levels.

During the qualitative assessment workshop, participants identified the following recommendations: comprehensive guidelines on warehousing and storage should be developed and training conducted; guidelines on temperature monitoring should be implemented, including daily recording of temperatures; some warehouses require renovation and improvements; and all province and district warehouses should check what standard support equipment (ladder, trolley, blower, air conditioner, pallets, etc.) is missing and advocate for a budget to procure them.



FP storage area in a puskesmas, North Jakarta

Storage recommendations vary between provinces and districts, though overall recommendations based on the assessment findings for storage are:

- Review and revise storage guidelines and provide routine on-the-job training on best storage practices to ensure policies are well implemented.
- Strengthen storage infrastructure and ensure storage requirements meet quality standards to maintain appropriate product quality and space to store appropriate quantities.
- Educate local government stakeholders on availability of special allocation funds such as DAK that can be used towards infrastructure improvements.
- If storage space is not adequate at the SDP level, collaborate with the pharmacy section to explore storage options outside of the FP service room.



VII. Organization and Staffing

To manage supply chain activities well, staff not only need to have a clear understanding of their roles and responsibilities, and knowledge, skills, and tools to do their jobs, but they should also be motivated to perform consistently.

Qualitative assessment workshops revealed that in terms of staffing, provinces and districts consistently reported that there were insufficient staff to manage supply chain activities, both in data management and storekeeping. In addition, all provinces reported high staff turnover, particularly at the district level.

Regarding training, staff indicated that, while most of them had received some training in supply chain, either in stores management or LMIS, it was either several years ago or insufficient to ensure they or their supervisees were competent to do their jobs. Some district staff reported never receiving training, possibly due to staff turnover, and staff below the district had not received general supply chain training. (Note that training in R&R is discussed in the LMIS section of this report.) When asked about guidelines and tools, staff reported that while logistics guidelines in the form of standard operating procedures (SOPs) exist and are available to province and district staff, they are not specific enough to guide the work; there are no logistics guidelines for staff below the district level and no guidelines for logistics supervision. All staff reported that they have the tools, and specifically the LMIS forms, to do their job.

Regarding coordination and communication, routine meetings occur where data on products is discussed between provinces and districts; two provinces reported having routine meetings with district staff. However, district staff reported that there is little coordination between district and SDP staff; much of this is done by sub-district staff whose role in the national supply chain is not clearly defined.



Assessment team visiting a Puskesmas in Cilacap, Central Java, July 2015

1	- <u>م</u> -
	_
	<u></u>
	- 1
- U	

When asked during the qualitative workshops about staff motivation, some district staff reported that they are motivated to do their work by training opportunities and by their desire to help the community; province staff generally indicated that fulfilling the job responsibility is their motivation. Participants reported that incentives for the storekeeper and staff responsible for R&R were decreasing and having a negative impact on motivation.

In terms of supervision, conducting regular supportive supervision of logistics practices (using standardized checklists and providing timely feedback to supervised personnel) is an important way to reinforce training, promote adherence to logistics system procedures, and increase worker motivation. However, according to respondents during facility visits, only 57% of puskesmas, 46% of private SDPs, and 70% of public hospitals receive supervision for FP in general (not necessarily including SCM); in contrast, all warehouses assessed do receive supervision for FP.

c	۰ص۲	
Ш	<u> </u>	l
Ш	_	l
Ι	_	l
Ш	-	l
C		

In qualitative assessment workshops, staff from several districts and provinces reported lack of funding to support supervision activities as a significant problem, resulting in supervision not being conducted routinely. All province and district warehouses had at some point received supervision about FP product management, compared to almost 50% of SDPs. Fifty-one percent of puskesmas, 58% of public hospitals, and 40% of private facilities had ever received supervision about FP product management.

As Figure 33 shows, only a small percentage of facilities received monthly FP supervision that included SCM. Only 25% of province warehouses and 18% of district warehouses received FP product management supervision in the last month. At the SDP level, only 30% of public hospitals, 15% of private facilities, and 13% of puskesmas received FP product management supervision in the last month.

Figure 33: Percentage of facilities that received FP supervision visits including supply chain management in the last month (n=356)



All province and district warehouses had at some point received supervision about FP product management, compared to almost 50% of SDPs. Fifty-one percent of puskesmas, 58% of public hospitals, and 40% of private facilities had ever received supervision about FP product management.

Of those facilities that reported ever receiving supervision about FP product management, most facilities received their most recent supervision within the last six months. At the province level, three of four (75%) warehouses received supervision within the last six months (Figure 34). At the district level, just over 50% of warehouses reported having received their most recent FP product management supervision in the last six months. At the SDP level, 68% of public hospitals and 67% of private facilities that had ever received supervision for FP product management reported having received this supervision within the last six months, with the majority of the supervision visits occurring within the last month for both public hospitals and private facilities.

Similarly, more than 60% of puskesmas that had ever received supervision for FP product management reported receiving this supervision within the last six months, with approximately 55% of puskesmas who had ever received such supervision having received their most recent visit within the last three months.

Figure 34: When last supervision visit including FP product management occurred for this facility, for facilities that had ever received supervision about FP product management (n=180)



As Figure 35 shows, those who conduct general FP supervision visits vary across facility levels. At the province level, all warehouses reported that Central BKKBN conducted their last supervision visit. At the district level, 100% of warehouses reported that Province BKKBN conducted their last supervision visit, and several district and province warehouses also indicated they receive supervision from others, too. (More than one response was allowed for this question.)

At the SDP level, many facilities reported that their supervision visits are conducted by the District FP office (48% of hospitals, 40% of private facilities, and 45% of puskesmas). Almost 50% of private facilities indicated they receive supervision visits from field workers, and approximately 40% of hospitals and 30% of puskesmas reported receiving supervision visits from Province BKKBN.

Only 47% of warehouses and 30% of SDPs reported they are responsible for conducting supervision visits to lower level facilities. A majority of these warehouses at the district level and all province-level warehouses conducted a supervision visit within the last three months. At the SDP level, approximately 90% of puskesmas that are responsible for conducting supervision visits reported that they have conducted a supervision visit within the last three months, with approximately 40% of puskesmas that provide supervision having done so in the last month (Figure 36).

Figure 35: Who last provided FP supervision for this facility (n=193)



Note: More than one response was allowed for this question, so percentages exceed 100%.



Figure 36: Last supervision visit to lower level facilities (of facilities that reported they are responsible for conducting supervision visits) (n=109)

Recommendations

Baseline results highlighted insufficient coordination, communication, and accountability across units and level of the supply chain system. Although the FP program has a supervision structure in place, the supply chain component of the supervision is not sufficient.

During qualitative workshop interviews, almost all province and district staff recommended additional logistics training for staff who are responsible for managing supply chain activities, including data management. In addition, staff in several provinces and districts recommended that the current SOPs for SCM be revised to be more practical and useful, or that new SOPs be written that better support their jobs.



Field visit in South Sulawesi

Baseline results point to the following recommendations for organization and staffing as they relate to the FP supply chain. These activities will strengthen all the areas of supply chain already discussed:

- Develop a comprehensive results-based supply chain strategy and implementation plan that address all components of the supply chain.
- Review and revise outdated guidelines and procedures and clearly define roles and responsibilities of each unit and level, especially the role of the sub-district and the PLKB in the management of contraceptives.
- Invest adequately in socialization and training of revised policies and guidelines to ensure quality standards are met.
- Develop a dedicated mechanism for supply chain that facilitates routine monitoring and on-the-job training that can complement classroom trainings, SOPs, and job aids. Where possible, combine with product distribution.
- Improve communication and coordination within and across levels in the supply chain by forming teams with a common vision of improving product availability.
- Design and track key supply chain performance indicators and create structures for joint problem solving and action planning to address challenges and improve performance.
- Develop a plan to regularly recognize good performers within the supply chain so as to increase accountability and improve staff motivation.



Conclusion and the Way Forward

Conclusion

The family planning program in Indonesia contributes to the Family Planning 2020 (FP2020) global movement that supports the rights of women and girls to decide freely and for themselves, whether, when and how many children they want to have. FP2020 is based on the principle that all women, no matter where they live, should have access to lifesaving contraceptives. Achieving the FP2020 goal is a critical milestone to ensuring universal access to sexual and reproductive health services and rights by 2030, as laid out in Sustainable Development Goals 3 and 5.*

A strong and dynamic contraceptive supply chain system that achieves universal availability of a full range of contraceptive methods is critical to achieving this goal. A holistic customer focused approach that addresses all components of the supply chain system is essential to ensuring that the six rights of supply chain management are achieved.

Health service delivery including family planning services in Indonesia is decentralized. However, several policies and components of the supply chain, such as quantification and procurement of contraceptives and LMIS, are centrally managed. A comprehensive supply chain strategy and implementation plan by the central level with well aligned policies can provide the much needed direction to the lower levels to achieve improved supply chain performance. A data-centric approach built on a robust LMIS that incudes quality and timely data is needed to inculcate a culture of data use for supply chain decision making. In addition, standardized procedures complemented by a dedicated monitoring and the on-the-job training structure can contribute towards strengthening human capacity and accountability, ensuring policies are implemented efficiently and a high quality of service is maintained.

As Indonesia embarks on achieving universal health coverage for all its citizens by 2019, the public sector is mandated to provide a full range of contraceptives to both public and private service providers. A responsive supply chain system that can adapt to the changing method mix and support the needs of an increasing number of new users will be critical to meeting this mandate. This can only be achieved through a concerted partnership between the public and private sectors.

Many recommendations have been made throughout this report, driven by the baseline assessment findings. JSI will provide technical assistance to address some of these, though it will take a broad approach and series of interventions, led by-BKKBN and local governments, supported by My Choice partners and other stakeholders, to achieve progress toward the ultimate goal of ensuring all Indonesians have access to a full range of contraceptives

The Six "Rights" The **RIGHT** goods in the **RIGHT** quantities in the **RIGHT** condition

delivered . . .

to the **RIGHT** place at the **RIGHT** time for the **RIGHT** cost.

The six rights of supply chain management

The Way Forward

As a team of supply chain experts, JSI is committed through My Choice to providing its expertise to assist BKKBN and local government stakeholders to strengthen their supply chain management system for contraceptives such that the people of Indonesia have access to a full range of contraceptives from BKKBN-registered service facilities. Functionally, this means striving to achieve the goal for registered service facilities and resupply points to maintain a sufficient level of contraceptives in stock at all times.

JSI is employing a data-driven implementation research approach, recognizing that improved data management and use is central to supply chain system improvement and is important because it:

Provides information on the situation at each level

Facilitates evidence based decision making based on specific situations

Is used to track performance and improve accountability

Is used for policy and budgeting purposes



JSI collaborated with stakeholders to design a data centric approach to strengthen the supply chain. Based on the theory of change framework, the four core areas of intervention are:

- **Inventory Management:** Design a consumption based min max inventory control system to ensure a dynamic supply chain system. Develop SOPs, tools and job aids to facilitate efficient implementation.
- **Logistics Recording & Reporting:** Strengthen data quality and timeliness through capacity building of facilities and resupply points to better manage their logistics recording and reporting processes.
- **Monitoring & Supportive supervision:** Develop a mechanism to support routine monitoring and on the job training for supply chain that can complement classroom training and guidelines, resulting in improved accountability and supply chain performance.

Quality improvement: Develop a team based approach with a common vision to improve communication and coordination within and across levels in the supply chain. Inculcate a culture of data use that tracks key performance indicators, identifies gaps and implements solutions to achieve sustained supply chain improvements.





Figures and Table List

Figure I	Assessment timeline in provinces and respective districts	Figur
Figure 2	Supply Chain Theory of Change: FP Program in Indonesia	Figur
Figure 3	Sample of BKKBN-registered service delivery points	ingui
Figure 4	Percentage of SDPs that were stocked out of at least one method on the day of the assessment	Figur
Figure 5	Percentage of SDPs stocked out, by method on the day of the assessment	Figur
Figure 6	Comparison of warehouse months of stock on hand with SDP stockout rate	Figur
Figure 7	Stock status at SDPs, by method	8.
Figure 8	Who determines contraceptive resupply quantities for SDPs	Figur
Figure 9	Which level determines contraceptive resupply quantities for SDPs, by province	Figur
Figure 10	Percentage of facilities that have ever placed an order for contraceptives	Figur
Figure I I	How resupply quantities are determined	ingui
Figure I 2	Percentage of facilities with way to place emergency orders	Figur
Figure 13	Percentage of facilities by province with a way to place emergency orders	Figur
Figure 14	Number of reports available at SDPs from the last three months	Figur
Figure 15	Percentage of facilities that had stock cards with balance information available for all BKKBN products they offered	i igui
Figure 16	Percentage of stock cards with 100% accurate balance	Figur
Figure 17	Forms facilities refer to when completing BKKBN reports	84.
Figure 18	Percentage of facilities that use logistics data	F :
Figure 19	How warehouses access data	Figur
Figure 20	How SDPs access data	Figur
Figure 21	Percentage of facilities with at least one person on staff trained in completion of F/II/KB / F/V/KB forms	0
Figure 22	Percentage of facilities with at least one person on staff trained in completion of stock cards	Table

igure 23	Responsibility for transporting BKKBN contraceptives to facility
igure 24	Mode of transportation to transport products to this facility
igure 25	Percentage of facilities with access to sufficient transportation, of facilities that collect their products
igure 26	How often facilities that have a distribution schedule say they are supposed to receive contraceptives
igure 27	How often products arrive to this facility on time, for facilities that have a distribution schedule
igure 28	Facilities where respondent is trained or provided guidance on storage procedures
igure 29	Storage space use at facilities
igure 30	Facilities with appropriate storage temperature and facilities with temperature control mechanism
igure 3 l	Facilities that met at least 70% of key storage conditions
igure 32	Percentage of SDPs that met each of 14 key storage conditions
igure 33	Percentage of facilities that received FP supervision visits including supply chain management in the last month
igure 34	When last supervision visit including FP product management occurred for this facility , for facilities that had ever received supervision about FP product management
igure 35	Who last provided FP supervision for this facility
igure 36	Last supervision visit to lower level facilities (of facilities that reported they are responsible for conducting supervision visits)
able I	Key storage conditions for contraceptives

APPENDIX

Resources

BKKBN Manual on Storage & Distribution



The Logistics System Assessment Tool (LSAT) and the Logistics Indicators Assessment Tool (LIAT) provide standardized methodologies for assessing logistics systems qualitatively and quantitatively, respectively.

Standard versions of these tools can be found here:

http://deliver.jsi.com/dhome/whatwedo/monitoreval/ meavailability/meliatlsatresources





logistik.bkkbn.go.id http://aplikasi.bkkbn.go.id/sr/Klinik/ Laporan2013/Bulanan/Faskes2013Tabel11.aspx



Data collection tools:

Qualitative assessment: SurveyMonkey

Quantitative assessment: Open Data Kit (ODK)





ODK Collect > Main Menu	
ODK Collect 1.4.5 (1048) Data collection made easier	1
Fill Blank Form	
Edit Saved Form	
Send Finalized Form	
Get Blank Form	







© JSI Research & Training Institute, Inc. Jakarta, Indonesia Email: jsi.idfp@gmail.com Website: www.jsi.com