

Essential Drugs and Contraceptives Stock Supply Survey In 5 provinces In Indonesia

**West Java, Central Java, East Java,
South Sumatra, and North Sumatra)**

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1. Background and purpose of study

Several programs from the GOI, specifically in the areas of health and population in Indonesia were severely affected by the prolonged economic crisis. The sharp decrease in the value of the Indonesian Rupiah limited the GOI's purchasing power. Prices of imported raw materials needed to produce essential drugs, increased dramatically. As a result, fluctuating production costs threatened the sustainability of drugs stock supplies, which are indispensable to health and family planning programs in Indonesia. Unfortunately, in such unstable conditions, aid from the GOI program is very limited, and often times sustainability and accessibility of drugs and contraceptives (stock supply, quantity produced, quality, date of expiry, cost and price) are often overlooked. Also affected by the crisis was the people's purchasing power, especially among those with unstable or low-income. As household expenditures are reorganized according to household needs, money allocated for health and family planning are postponed to a later date or minimized.

The current survey was conducted in 5 provinces: West Java, Central Java, East Java, North Sumatra and South Sumatra. The purpose of this study was to gather and process logistics data to complement an on-going commodity survey. The survey focused on the availability of selected contraceptives and essential drugs at each administrative level of the Ministry of Health (MoH) warehouse department, which included: the central, provincial and municipality/district in the past six months. Data collection began in mid- July to August 2000, to assess the essential drugs stock in the warehouses of the Ministry of Health (MoH) and contraceptive stock in the warehouses of BKKBN by the end of November, and commodities received and distributed between December 1999 and May 2000.

Additional data gathered and processed included the following:

- Stock balance data based on physical counts and examination of records for a selected list of essential drugs and supplies at the central, provincial and districts.
- Consumption (dispensed – to - client) data for these same essential drugs and supplies, along with consumption data for non-USAID contraceptives, at the service delivery points already being visited in the previous survey.

2. Methodology

2.1. Survey design

The survey was designed to study *stock balance* (receive, dispense and stock) and management logistic at specific administrative levels of the MOH warehouse, as well as study the line distribution of drugs at any level administration (from central to province,

province to municipality/district and from municipality/district to facilities) in the selected study site areas and logistics data of drugs and contraceptives.

2.2. Target, Sampling, and Sample Size

The population surveyed covered Program Managers at 3 levels, which were the: (1) Central, (2) Provincial level, and (3) Municipality/district level. These target groups were important sources of information at each administrative level. Sampling of the 3 target groups were in line with the vertical drug distribution system from central, province and municipality/district level.

In each province, 3 sites were selected, which included 1 municipality and 2 districts. Thus a total of 15 municipalities/ districts were observed in 5 provinces. The selection of the study sites was done through several steps. The first step was to select and assign a code to the 5 provinces; secondly, to select 1 municipality and 2 districts from a list of all municipalities/districts in the selected province. The criteria of municipality/districts selected in this survey were that it should be spread widely, geographically, and be able to represent the province area and was relatively reachable (accessible by vehicle). The other criterion was that the selected municipality had similar characteristics of most cities in the selected province.

2.3 Monitoring instruments

One type of instrument was used for data collection, (which combined the questionnaire and observation checklist), and used at all administrative levels. The information collected included the identity of the study site, data on the stock of essential contraceptives/ drugs received and dispensed and current stock availability. Observation checklists were used at stock warehouse in all administrative levels.

At the Provincial level, the Chief or Warehouse/ Logistics Manager was selected as respondent, while at the municipality or district level, the Section head of warehouse/ Logistic was interviewed. In addition, relevant MOH officers at the central level, province and districts were involved in this survey to facilitate data collection.

3. Data process and analysis

Data entry software was finalized with the development of the questioner and observation checklist. In order to minimize mistakes during data entry, the program was enriched with procedure check (e.g. relationship, consistency, logical check and skipping check). Using frequency table distributions, the team was able to detect extreme values/ outliers and verify these figures. Two dimension cross tabulation were developed to check consistency value between several variables. Data analysis was focused on logistic aspects: receive, management and distribution of drugs at each administrative level (central, province, and districts), as well as sources, stock outages and their duration, as well as stock based on records and physical count.

4. Results from in-depth interviews

This survey was conducted in the warehouses of two different institutions the MoH, which channels essential drugs, and BKKBN that handles contraceptives. Two areas where the two institutions overlap, is in the distribution of selected drugs, especially to handle the side effects for contraceptives; and the service delivery point (SDP), in several cases these would be the Community Health Center.

According to regulations, the MOH should be the only institution responsible for supplying and distributing drugs to SDPs in Indonesia. Therefore the role of the MoH is to integrate BKKBN's plans to supply and distribute drugs into MoH's distribution channels. However, upon field observations it was found that BKKBN rarely integrated their supply and distribution of drugs into the MoH channels of supply and distribution. On the other hand, upon interviewing officials from the MoH, from the Regional Office, (Kanwil) and the Department of Health at the provincial level (Dinkes Tk.I), as well as the district level (DinKes Tk.II), they reported that they are not involved in the distribution of drugs to handle side effects as a result of contraceptives. They also reported that it should be BKKBN's responsibility to ensure the availability of these essential drugs for side effects. To better understand the process of supply in both institutions, the process is described in more detail below.

4.1 Essential drugs supply mechanism at the MoH section in the Regional Office (Kanwil), the Department of Health at the provincial level (Dinkes Tk.I), and at the district level (DinKes Tk.II).

4.1.1 Overview of the conditions and availability of drugs in the warehouse

There are two major institutions involved in the drugs supply and distribution at the provincial level: 1) the MoH section in the Regional Office, (Kanwil) and 2) the Department of Health (Dinkes Tk.I). Both are part of the Regional government office (Pemda Tk.I) and are responsible for implementing the distribution mechanisms and must work together with the district level (DinKes Tk.II). The district level (DinKes Tk.II) must report directly to both the Department of health at the provincial level (Dinkes Tk.I) and the Regional Office (Kanwil). (See flowchart).

According to the head of the MoH section in the Regional Office, (Kanwil) and two officers from the Department of Health at the provincial level (Dinkes Tk.I), there is no warehouse at the provincial level in the sites observed. In some sites there was no warehouse to observe, but rather a "buffer" storage, which contained a few drugs that were not released routinely. The drugs available at the provincial storage are only distributed in emergency situations i.e. in the case of natural disasters or if there is a shortage of drugs due to unexpected demand. The drugs at the provincial warehouse are very limited in variety, and are only for major epidemics such as for diarrhea or TB. Thus compared to BKKBN, the warehouses at the provincial level may be smaller, and in some sites, may not exist, because all the drugs are channeled directly to the districts.

Only the department of health at the district level (DinKes Tk.II) has a warehouse. The District warehouse is a public warehouse (logistics warehouse), which stores various health equipments and drugs. The division who is in charge of the distribution of the essential drugs at the District level is the Technical Unit of the District Pharmacy

warehouse (UPTD GFK). This division receives, stores and distributes drugs to the Public Health Centers or Government hospitals. All the drugs distributed by this division must be reported to the Department of health at the provincial level (Dinkes Tk.I) and the Regional Office (Kanwil).

4.1.2 Drugs supply and distribution mechanisms

All the drugs are supplied and distributed by the warehouse at the district office, specifically by the Technical Unit of the District Pharmacy warehouse (UPTD GFK). The drugs are classified in 3 categories: 1) very very essential (VVE), 2) very essential (VE), and 3) essential (E). The drugs are supplied only once a year, according to the amount stated in the budget in the Regional revenues and expenditures (APBN). This money is used for Provincial Development (DPP). According to the decision from the Directorate General in the Food and Drugs Administration (DitjenPOM): PO.00001.2.01584.822/ Menkes/ V/ 2000, the money has to be allocated into 2 sections: 40% for the drugs classified as VVE, and 60% for the drugs classified as VE and E. These drugs' sources are classified as presidential instruction (Inpres) or for Provincial Development (DPP). All the funds budgeted are given to the department of health at the district level (DinKes Tk.II), who will channel the funds to the Technical Unit of the District Pharmacy warehouse (UPTD GFK) in order to meet the annual drugs demand.

Three major state companies (Badan Usaha Milik Negara or BUMN), which are: Kimia Farma, Public company Husada Bakti and Phapros are involved in the procurement for 40% of the drugs, those classified as VVE.

The remaining 60% of the drugs, classified as VE and E, are tendered to either the state companies or the private sector, which would mean the big pharmaceutical companies (PBF). The procurement for 60% of the drugs is through a tender process at the provincial level. The winner of the tender will be responsible for the procurement at the district level and will supply the type and volume of drugs according to the needs stated by the Technical Unit of the District Pharmacy warehouse (UPTD GFK).

After the drugs are received either from the government (BUMN) or private sector (PBF), the Technical Unit of the District Pharmacy warehouse (UPTD GFK) will distribute the drugs to all the public health centers and government hospitals in the region covered by the District Office. The distribution is based on the monthly report of the number of patient visits and the report on the request and usage of drugs received by the public health center (PHC) and hospitals. Usually the UPTD GFK will distribute once every two months because they can only cover 20 PHC and hospitals per month. All the drugs distributed by the UPTD GFK will notify the supplier of the amount distributed. For the drugs supplied by the Inpres/DPP, the UPTD GFK will report to the Department of health at the provincial level (Dinkes Tk.I) and the Regional Office (Kanwil). Other drugs from other sources will be reported directly to each source.

4.1.3. Distribution of drugs from other sources

Apart from obtaining the drugs from the province, the department of health at the district level (DinKes Tk.II) also receives drugs from Health Insurance (Askes), Regional revenues and expenditures budget (APBN) both at the provincial and district level, MoH programs and Foreign Aid (BLN) for drugs in all categories (VVE, VE and

E).

All institutions that want to give aid/ drugs (such as from health insurance ASKES, foreign aid BLN, etc) must work together with UPTD GFK and must notify Department of health at the provincial level (Dinkes Tk.I) and the Regional Office (Kanwil). Thus the UPTD GFK plays a very vital role in the drugs supply and distribution mechanisms.

4.1.4. Role of the MoH section in the Regional office (Kanwil) and the Department of Health office at the district level (Dinkes Tk.II)

In the drugs supply and distribution system, the Regional office and the department of health office at the provincial level are responsible for policymaking, control and guidance. The Regional office and the department of health office at the provincial level must be notified of all the drugs supplied by the big pharmaceutical companies (PBF) to the UPTD GFK. The Regional office and the department of health office at the provincial level will supply drugs to the UPTD GFK only in emergency situations or natural disasters such as earthquakes, flooding etc.

In the case that the big pharmaceutical companies (PBF) or state companies (BUMN) fail to deliver on time to the UPTD GFK, the Regional office and the department of health office at the provincial level, will follow up the case.

The role of the Regional Office (Kanwil) is to cooperate with the Technical Unit of the District Pharmacy warehouse (UPTD GFK) and also work together with the Regional government office (Pemda Tk1) /Department of Health at the province level.

4.2. Contraceptives supply mechanism in BKKBN at the Province Regional Office (Kanwil) level and at the BKKBN district level (Tk.II).

4.2.1. Overview of the conditions and availability of drugs and contraceptives in the BKKBN warehouse

Contraceptives are stored in the BKKBN warehouse at each administrative level (central, provincial and district), and in some areas, there may also be a BKKBN warehouse at the sub-district level, each with their own structure/facilities and equipment. The warehouse will store contraceptives and the necessary equipment needed for family planning programs.

At the provincial level, BKKBN warehouses are usually situated near the BKKBN office, but there are some provinces where their warehouse and office are separated. In contrast, at the district level, the warehouses are situated near the office. Although the size of the warehouses varies between them, it is estimated that the warehouses at the district level are about 7 x 10 meters. The size of the BKKBN warehouse at the district level is smaller than the warehouse at the province level; but if we compare BKKBN warehouses to the MoH warehouses belonging to the Technical Unit District Pharmacy warehouse (UPTD GFK), BKKBN's district warehouses are much smaller in terms of size and capacity. Upon observation, BKKBN warehouses were found to be well equipped in terms of availability of a palette, proper lighting and ventilation and clean.

The main source of contraceptives aid to BKKBN at the provincial and district level comes from the central to regional revenues and expenditures budget (APBN); however,

the number of contraceptive supplies is limited. Other sources of contraceptives come from foreign donors, such as USAID, UNFPA, ADB, World Bank, and other international agencies, as well as bi-lateral donations agreed between government to government. All drugs and contraceptives distributed should be reported to central BKKBN, as well as their source and amounts. This information can be obtained from BKKBN warehouses from their monthly report or form F/V/KB.

4.3. Drugs and contraceptives supply and distribution mechanisms

4.3.1. Supply

The supply system of contraceptives and contraceptive drugs in BKKBN is a very centralized structure. Unlike the distribution system of MoH, in BKKBN's distribution system more than half of the drugs and contraceptives distributed are supplied by the central warehouse to the province warehouses, which in turn supply to the district and so forth vertically down the system. There is no tender process like the MoH. Nevertheless, BKKBN's monitoring system for contraceptives distributed is well organized in the sense that it is possible to find the type and amount of contraceptives at each administrative level from form F/V/KB. BKKBN also supplies drugs (mainly antibiotics Tetracycline 250 mg, Ampicillin 500 mg and Lydocain), which are needed for the insertion of selected contraceptives (such as IUD, Norplant or Implanon) or to handle side effects as a result of contraceptives. These drugs distributed by BKKBN are not recorded at each level (province to clinic) but are recorded in the stock card (kartu barang) as commodities received in the warehouse. However, because the number of drugs is usually not very big, the reporting and recording for drugs in BKKBN is not as complete as the reporting and recording for contraceptives. For example, for each type of contraceptive received, their sources and amount are recorded but for drugs they would record only the type and amount received. Thus, it may be difficult to record the supply or distribution of drugs in BKKBN's system.

At the clinic level, the costs of the drugs used to handle the side effects or drugs used for contraceptives insertion are often charged to the acceptor (this fee may range between Rp. 5000 – 10,000).

4.3.2. Distribution

The distribution system used in each province varies, according to the situation and policies implemented in each area. The distribution system at the provincial and district level relies on 3 main systems, which are based on: 1) requests, 2) allocations and 3) a combination of both. There are selected contraceptives, which are distributed based on request due to a limited contraceptive stock, such as Norplant and Implanon. In some sites, the distribution system for contraceptives is so controlled that in order to release contraceptives from the warehouse at the district level, they are required to submit the number and names of potential acceptors.

In general, each area does not strictly implement the distribution policies because each system has their weaknesses. Instead, they will consider all the factors affecting the distribution and supply system in their area. For example, in an area where contraceptives are usually distributed based on the allocations system, they may also take into account the amount requested or needed by the community (pemenuhan permintaan masyarakat also known as PPM), as well as consider the stock available in

the warehouse.

The section responsible for coordinating and implementing the supply and distribution system are the family planning sector (Bidang KB) and the logistics sector (Kabid Sarana) both at the provincial and district level. Requests will be met based on formal requests from the administrative level as well as taking into account the stock supplies in the warehouse and supply for other areas.

Distribution systems based on the requests and allocations have their limitations. A distribution system based on requests will be able to meet their demands only if they have enough stock supplies and the patterns of use are fixed in a given location. However, if the distribution system is based on a fixed amount of allocated contraceptives, they may be overstocked in a type of contraceptive of which there is no demand, but which may be needed more in another area. Thus the only alternative available is to balance and combine both systems.

5. Results from the survey

The structure and role of the MoH and BKKBN provincial warehouse are very different. The MoH provincial warehouse is considered a “buffer” in crisis situations and unlike the BKKBN provincial warehouse; it does not store commodities for a long time or in large quantities. They are merely a reservoir, whilst awaiting the tender process. As soon as the essential drugs are purchased, they are immediately distributed to the district level; or in some provinces, such as Central Java and South Sumatra, they are completely by-passed. This may explain why the volume of essential drugs recorded at the provincial level is less than the volume found at the district level. Several areas are moving towards decentralization, which may be one reason for minimizing the role of the warehouse at the provincial level.

5.1. Contraceptives and essential drugs stock status by the end of November in the BKKBN and MoH warehouses at the province level and regional office (Kanwil).

The following section deals with the contraceptives and drugs stock supply by the end of November, which varied immensely between and within provinces. Stock supply was recorded from the records available at the MoH and BKKBN warehouse at both administrative levels (province and district).

5.1.1 Contraceptives and essential drugs stock status by the end of November in the BKKBN and MoH warehouses at the province level.

From all the provinces, the types of contraceptives with the highest number of stock supply were Microgynon, Microdial and Excluton. Norplant stock supply was the least and was available only in 3 provinces: Central Java, East Java and North Sumatra.

Upon closer analysis by province, data showed that West Java had the least stock supply for several types of contraceptives; this province had stock supply only for 3 types of contraceptives (Depo Provera, Planotab and IUD CuT380). As for Central Java, they had no stock for Nordette, Microdial, Planotab and IUDs but still had stock for Norplant. East Java's stock supply varied in terms of types of contraceptives, lacking

only in Kf Schering, IUD LL and MLCU. North Sumatra had very little stock for IUDs and South Sumatra had no stock for IUD LL, IUD MLCU and Norplant.

Essential drugs stock supply at the provincial level was available only for 4 provinces, West Java, Central Java, East Java and North Sumatra. In South Sumatra there was no provincial warehouse, but the officials in this area told us they were preparing a “buffer” storage and planned to receive the stock of essential drugs towards the end of this year. Thus, in South Sumatra, drugs were channeled directly to the district warehouses.

In the province of West Java, the provincial warehouse had left over stock for all the major antibiotics, except for Amoxicillin tablets 500 mg, Cotrimoxazole syrup 240 mg, Metronidazole tablets 250 mg and Oxytocin injection 10 IU. The highest number of drugs stock supply available was for Cotrimoxazole 480 mg and Tetracycline capsule. By the end of November, there was still left over stock for selected analgesics (such as Paracetamol syrup 120 mg and tablet 500 mg), but there was no stock for Lydocain, Vitamin A and ORS packets. In East Java’s stock supply was available for selected antibiotics such as Amoxicillin tablets 500 mg and syrup 250 mg, Ampicillin 500 mg, Cotrimoxazole tablets 120 mg and 480 mg, Tetracycline 250 mg and Metronidazole 250 mg. Stock was available for Paracetamol 500 mg and ORS packets. In the province of North Sumatra, stock supply by the end of November was available for 5 types of antibiotics; these were Amoxicillin capsule 250 mg and syrup 250 mg, Ampicillin tablet 500 mg and syrup 125 mg and Cotrimoxazole tablet 480 mg. As for the analgesics, they had stock supply only for Paracetamol tablets 500 mg, and some supply of ORS packages.

5.1.2 Contraceptives and essential drugs stock status by the end of November in the BKKBN and MoH warehouses at the district level.

There is much variety between the stock supplies between each province and within districts. In West Java, one district (Garut) had no contraceptive stock supply, while other districts still had stock for injectables (especially Depo Progestin), pills (especially Planotab), and IUDs but no Norplant. Districts in Central Java had stock for most of the different types of contraceptives, including Norplant and the highest number of stock for pills, such as Microgynon. As Central Java, districts in East Java had a variety of contraceptives, and having a stock supply for pills, condoms and injectables. In the 3 districts observed in North Sumatra, at the end of November they still had stock supplies for condoms, injectables and pills; they had little stock for IUDs or Norplant. Districts in South Sumatra had a large stock of all the different types of contraceptives (especially condoms, pills and injectables).

As for essential drugs stock status, most of the districts observed had sufficient stock for different types of drugs. Only two districts had no stock for some drugs by the end of November, these were Malang (Tetracycline, Oxytocin and Paracetamol) and Semarang (Oxytocin, Paracetamol and Vitamin A).

5.2 Contraceptives and essential drugs received and their sources in the past 6 months at the BKKBN and MoH warehouses and their sources

The MoH and BKKBN provinces and districts warehouses were observed to assess the amount of commodities received in the past 6 months. This data was obtained by looking at the warehouse records for specific commodities received from December

1999 to May 2000. Sources for these commodities were also collected.

5.2.1 Contraceptives and essential drugs received and their sources in the past 6 months at the BKKBN and MoH warehouses at the province level

Most provinces had received a variety of contraceptives; the type of contraceptives received with the largest amount was Planotab (almost 2.5 million strips in Central Java), Nordette (more than 2 million strips in West Java) and Depo Geston (1.3 million vials in East Java). At the provincial level in all the 5 provinces, contraceptives that were not received in the past 6 months were: condoms (no-logo), Kf Schering, IUDs (LL or MLCU) and Norplant in the past 6 months. Some provinces also did not receive other type of pills such as Marvelon or Microgynon, but supplies and distribution of these contraceptives varied by province.

In all provinces observed, the GOI program supplied most types of contraceptives. USAID only provided assistance in North and South Sumatra, and West Java. Their assistance was mainly in Depo Provera, or Depo Progestin and Depo Geston in North Sumatra as well as IUDs CuT 380. ADB assisted in supplying Depo Provera, Depo Progestin and Depo Geston and this was specifically in East Java and North Sumatra. Other donors provided assistance in a variety of contraceptives such as Nordette, Excluton, Planotab or Depo Geston, and these were limited to West Java, East Java and South Sumatra.

Specifically by province, West Java received a high number of Nordette (2091600 strips) and Depo Geston (1300000 vials). Upon investigating the sources of the contraceptives received by the provincial warehouse, it was found that Depo Provera, Depo Progestin, Depo Geston and Plano Tabs came from the Government Program. USAID assisted in supplying Depo Provera and IUDs CuT380, while other donors assisted in the supply of Nordette and Excluton.

The highest number of contraceptives received in Central Java was Planotab (2486725 strips) and Nordette (1352500 strips). From the 15 types of contraceptives observed, Central Java received 9 different varieties. All the contraceptives received at the provincial level in Central Java came from the GoI's program. East Java received as high as 700000 strips of Planotab, followed by 250000 vials of Depo Provera and 200000 vials of both Depo Progestin and Depo Geston. This province also received quite a variety of contraceptives, although less compared to central Java. The government program supplied the vials of Depo Provera, Depo Progestin, Depo Geston, Marvelon and Nordette. The ADB too supplied Depo Provera, Depo Progestin and Depo Geston, while other donors assisted in supplying 2 types of contraceptives: Excluton and Planotab.

The highest numbers of contraceptives received in North Sumatra were Planotab (300000 strips), followed by Excluton and Depo Progestin vials. In this province, the GOI program supplied Depo Progestin, Depo Geston, Nordette, Excluton, Planotab and Copper T IUDs. Meanwhile, both USAID and ADB supplied the same types of contraceptives, which were Depo Provera, Depo Progestin, Depo Geston, although in different amounts. The situation in South Sumatra did not vary much compared to North Sumatra. The most popular type of contraceptive received was Planotab (434800 strips),

Depo Geston and Nordette. The program supplied most of the contraceptives; however, USAID also assisted in supplying Depo Provera, and other donors supplied Depo Geston, Nordette and Excluton.

The province of West Java, few commodities have been received in the past 6 months these included Ampicillin tablet 500 mg, Cotrimoxazole syrup 240 mg, Tetracycline capsule 250 mg, Paracetamol tablet 500 mg. All these commodities were received from only one source, which was by presidential instruction or Inpres. East Java received a variety of drugs, several antibiotics (namely Amoxycillin, Cotrimoxazole, Tetracycline), analgesics (Paracetamol 500 mg) and also ORS packets. The Regional Revenues and Expenditure Budget (APBD 1) provided for most of these drugs.

In North Sumatra, the drugs received were mainly allocated from the MoH program. These drugs included: Amoxycillin capsule and syrup 250 mg, Paracetamol syrup 120 mg and 500 mg tablets. Essential drugs were not available in the other provinces (Central Java and South Sumatra) because they had no provincial warehouse level.

Table 1 Types of contraceptives received in the past 6 months by the provincial warehouse by source and province.

Province	Program	USAID	UNFPA	ADB	Others
West Java	2, 3, 4, 10	2, 12			8, 9
Central Java	2, 3, 4, 6, 8, 9, 10, 11, 12				
East Java	2, 3, 4, 5, 8,			2, 3, 4	9, 11
South Sumatra	2, 3, 4, 6, 9, 10, 11, 12	2, 12			4, 8, 9
North Sumatra	3, 4, 8	2, 3, 4		2, 3, 4	

Others : CIDA, World Bank

Note:

1) condoms no-logo; 2) depo provera; 3) depo progestin; 4) depo geston; 5) marvelon; 6)microgynon; 7)kf schering; 8)nordette; 9)excluton; 10)microdiol; 11)planotab; 12)IUD cut 380; 13) IUD LL; 14) IUD MLCU; 15) norplant.

Table 2 Types of drugs received in the past 6 months by sources and province at the provincial warehouse level.

Province	Inpres	Askes	Program	APBD	Jepang
West Java	5, 6, 9, 14				
Central Java					
East Java				3, 8, 9, 14, 17	
South Sumatera			1, 3, 12, 14		
North Sumatera					

Note:

1) amoxyxillin cap.250mg; 2) amoxyxillin cap.500mg; 3) amoxyxillin sus.250mg/ml; 4)Ampicilin sus.125mg/ml; 5)ampicillin tab.500mg; 6)cotrimoxazole sus.240mg/ml; 7)cotrimoxazole tab.120mg; 8) cotrimoxazole tab.480mg; 9) tetracycline cap.250mg;

10)metronidazole tab.250mg; 11)Oxytocin injec.10IU; 12)paracetamol sus120mg/ml; 13)paracetamol tab.100mg/ml; 14) paracetamol tab.500mg/ml; 15)lydocain; 16)Vitamin A; 17)Oralit

5.2.2 Contraceptives and essential drugs received and their sources in the past 6 months in BKKBN and MoH warehouses at the district level

Upon comparing all the districts, the data shows that most of the drugs received at the district level were more complete than the drugs received at the province level. The districts in North and South Sumatra had received more types of contraceptives than the province had received. However, the only exception was Semarang, this municipality received only IUD CuT 380 (400 pieces) and their stock supply were also thin.

On the other hand, in the case of the essential drugs, some provinces received very few drugs, and these were directly channeled to the districts. As in the case of Central Java, the province warehouse did not receive any drugs in the past 6 months, although they had stock supplies for some drugs. However, at the district level, such as the municipality of Semarang, they received many different types of drugs and from various sources such as the program, presidential decree (Inpres), national health insurance (Askes), and from the national budget revenue – district level (APBD 2).

5.3. Contraceptives and essential drugs distributed in the past 6 months at the BKKBN and MoH warehouse

Similar to the section on the commodities received, this section deals with the commodities distributed from December 1999 to May 2000 in both the MoH and BKKBN province and district warehouse.

5.3.1 Contraceptives and essential drugs distributed in the past 6 months at the BKKBN and MoH warehouse at the province level

The type of contraceptives with the highest number of units distributed in West Java was Depo Geston (891592 vials), Nordette and Depo Provera. In South Sumatra, it was Planotab, followed by Depo Geston and Excluton are listed in order of highest number of units distributed and received. Contraceptives with the highest number distributed were: Planotab, Excluton and Depo Progestin. In East Java, data showed that Planotab, Excluton and Microdiol were the type of contraceptives with the highest number of units distributed.

In west Java, most of the antibiotics have been distributed sometime in the past 6 months, except for Amoxycillin (500 mg and syrup 250 mg), Cotrimoxazole syrup 240 mg, Metronidazole tablets and Oxytocin. The type of antibiotics distributed ranged from as much as 107000 capsules of Tetracycline, followed by Paracetamol and Ampicillin, in lesser quantities. This province did not receive or have any supply of Lydocain, Vitamin A or ORS.

Only 2 types of drugs were distributed in North Sumatra, these were 50 bottles of Ampicillin and Paracetamol syrup. The warehouse at the provincial level did not receive nor distribute many drugs, perhaps because the essential drugs were immediately

channeled to the district level.

5.3.2 *Contraceptives and essential drugs distributed in the past 6 months at the BKKBN and MoH warehouse at the district level*

In the BKKBN warehouses at the district level, data showed that they had received different types of contraceptives stock compared to the province, thus as a result distributed most of their stock (supply and commodities received) within the past 6 months. Again, the only exception was Semarang, where they did not receive drugs, thus distribution was limited.

Most drugs were distributed at the district level in all provinces observed, the level of distribution varied by the supply (stock and drugs received).

6. Stock Out data

The following section shows the results about the type of drugs and contraceptive methods who ever experienced out of stock during the past six months at the province and district levels. The following discussion includes the period of stock out (the duration of stock out period in the past six months). The survey also asked whether at the time data was collected (July-August 2000) they were experiencing stock outage, furthermore, they were asked for the reasons for being out of stock. The data was gathered from the District MOH office at provincial level (*Kantor Dinkes tk. Propinsi*) and Provincial MOH (*Kantor Wilayah DepKes*) and Provincial BKKBN office (*Kantor BKKBN tk. Propinsi*). At the District level, the data was gathered from the district MOH office and District BKKBN office.

6.1 *Types of drugs and contraceptives not available in the past six months (November 1999 - May 2000) at the BKKBN and MoH warehouse*

Upon observing the warehouse at the province and district level, data was also collected on which types of drugs and contraceptives had ever been out of stock in the past 6 months.

6.1.1 *Types of drugs and contraceptives not available in the past six months (November 1999 - May 2000) at the BKKBN and MoH warehouse at the province level*

The results are based on the observations of different types of essential drugs and contraceptive methods that ever had out of stock during the past six months at the province level were as follows. In West Java, they experienced stock out for Vitamin A and ORS packets; as for contraceptive methods they experienced stock out only for Planotab.

In Central Java, some essential drugs that were surveyed were not available in the district MOH office at the provincial level. Only the drugs to cure certain diseases common in Central Java – such as diphtheria, measles, poisoning, diarrhea, ARI, and DHF – were available. Regarding contraceptive methods, Central Java ever had out of stock for pills, IUD LL, IUD MLCU and Norplant.

East Java experienced out of stock for essential drugs such as Oxytocin, Ampicillin syrup, Cotrimoxazole, Paracetamol syrup and tablet, and Lydocain and Vitamin A. Types of contraceptive methods, which experienced out of stock in East Java were Kf. Schering and Norplant.

Several types of contraceptive methods -- IUD LL, IUD MLCU, and Norplant -- ever had out stock in each of province with the exception of West Java. According to the monthly report in warehouse of Provincial BBKBN office, Central Java experienced more often out of contraceptives stock compared to the other provinces.

Following table summarizes the types of drugs and contraceptive methods that experienced ever had out of stock during the last six months at the provincial level.

Table 3 Types of drugs and contraceptives, which have ever been out of stock at the province level warehouse

Province	Types of drugs experienced ever had out of stock during the last 6 month	Types of contraceptives experienced ever had out of stock during the last 6 month
West Java	Vitamin A and ORS Packets	Planotab
Central Java	Amoxillin capsul 250 mg, Ampicillin syrup 250 mg, Ampicillin tablet 500 mg, Cotrimoxazole tablet 120 mg, Cotrimoxazole tablet 480 mg, Oxitocin injection 10 IU, Paracetamol syrup 120 mg/ml, Paracetamol tablet 100 mg, Lydocain	Condom no logo, Marvelon, Microgynon, Kf. Schering, Nordette, Execluton, Microdiol, Planotab, IUD LL, IUD MLCU, Norplant
East Java	Ampicilin syrup 125 mg/ml, Cotrimoxazole tablet 120 mg/ ml, Oxytocin injection 10 IU, Paracetamol syrup 129 mg/ml, Paracetamol tablet 1100 mg/ml, Lydocain and Vitamin A	Kf. Schering, Norplant
North Sumatera	-	Micrigynon, Kf. Schering, Nordette, Microdiol, IUD LL, IUD MLCU, Norplant
South Sumatera	-	IUDs CuT 380, IUD LL, IUD MLCU, Norplant

There was variation in the types of drug and contraceptive methods that were out of stock in each province. Oxytocin injection 10 IU and Vitamin A were two types of drugs that were commonly out of stock at the province level. As for contraceptives, Norplant, IUD LL, and IUD MLCU were usually out of stock at the province level.

6.1.2 Types of drugs and contraceptive methods experiencing out of stock during

the past six months (January - July 2000) at the district level

Similar to the province level, there was also variation at the district level, in terms of types of essential drug experiencing out of stock. At the district level in South Sumatera, reported ever experiencing stock out for amoxicillin tablet, ampicillin tablet, Cotrimoxazole syrup, oxytocin and Vitamin A. In North Sumatera, ampicillin syrup, tetracyclin, oxytocin and lydocain were reported to have ever been out of stock. In North Sumatra, the municipality of Medan never experienced stock out compared to the other 2 districts observed in North Sumatera (North Tapanuli and Deli Serdang), who reported ever experiencing out of stock for some drugs.

Of the three selected areas in East Java, Malang reported to have ever been out of stock for amoxicillin capsul 250 mg, ampicillin syrup 125 mg, caotrimoxazole tablet 480 mg, tetracycline capsul 250 mg, oxytocin injection 10 IU and lydocain. In Central Java, Semarang was reported to have ever experienced out of stock for several types of drug, such as Metronidazole, oxytocin, paracetamol syrup 120 mg/ml, paracetamol tablet 100 mg, paracetamol tablet 5000 mg and vitamin A. Pematang district reported only one type of drug ever had out of stock, that was ampicillin tablet 500 mg.

In West Java, 2 of 3 selected districts (Garut and Cirebon Districts) reported to have ever experienced out of stock for some drugs, which were amoxycillin tablet 500 mg, amoxycillin syrup mg/ml, cotromoxazole tablet 120 mg, oxytocin, paracetamol syrup 120 mg/ml and lydocain.

Type of contraceptive methods that was reported ever had out of stock in each district in 5 provinces had also variation. Exluton, IUD CuT 380 and Norplatin were out of stock in 3 selected areas in West Java. Depo Provera, Depo Geston, Marvelon, Microgynon, Nordette, Microdiol had ever experienced out of stock in 2 of 3 selected districts, namely Bogor and Garut Districts.

Three Districts in Central Java reported ever had stock out for several types of contraceptives such as Marvelon, Nordette, Micridiol, and Planotab. The other two districts, Wonosobo and Pematang, reported ever had stock out for Microgynon, Kf. Schering, IUD MLCU, Norplant and Depo Geston. Depo Progestin, was reported unavailable in the district of Semarang.

In East Java, type of contraceptives that ever had out of stock in all three selected districts was Nordette. Other unavailable contraceptive methods were Depo Provera, Depo Progestin, Marvelon, Microgynon, Kf. Schering, Exluton, Microdiol, Planotab, and Norplant.

Several types of contraceptive methods -- Marvelon, Microgynon, Microdiol, and Norplant -- were reported ever had out of stock in three selected districts in North Sumatera. The other types of contraceptive methods in 2 of 3 selected districts were Kf. Schering, Nordette, and IUD LL. Similar conditions happened in the three selected districts in South Sumatera. Type of contraceptive methods that had ever been out of stock were Marvelon and Microgynon. Microdiol and Planotab were unavailable in 2 of 3 selected districts in South Sumatera. Depo Provera and Depo Progestin were unavailable in Palembang district, Depo Geston and Exluton in Ogan Komering Hulu district.

Table 4 Type of drugs and contraceptive method that had ever had out of stock in District level

Province	Type of drug ever had out of stock during the last 6 month	Type of contraceptive method ever had out of stock during the last 6 month
West Java		
Cirebon	Amoxycillin tablet 500 mg, Paracetamol syrup 120 mg/ml	Exluton, Planotab, IUD CuT 380, Norplant
Bogor	-	Depo Provera, Depo Geston, Marvelon, Microgynon, Nordette,
		Excluton, Micridiol, IUD CuT 380, Norplant
Garut	Amoxicillin syrup 250 mg/ml, Contrimoxazole tablet 120 mg/ml, Lydocain	Dep Provera, Depo Progestin, Depo Geston, Marvelon, Microgynon, Nordette, Excluton, Micridiol, Planotab, IUD CuT 380, Norplant
Central Java		
Wonosobo	-	Depo Geston, Mycrogynon, Marvelon, Kf. Schering, Nordette, Micridiol, Planotab
Pemalang	Ampicilin tablet 500 mg	Microgynon, Marvelon, Kf. Schering, Nordette, Micridiol, Planotab, IUD MLCU, Norplant
Semarang	Metronidaole tablet 250 mg, Oxytocin injection 10 IU, Paracetamol syrup 120 mg/ml, Paracetamol tablet 500 mg/ml, Vitamin A	Dep Progestin, Dep Geston, Marvelon, Nordette, Exluton, Micridiol, Planotab, IUD MLCU
East Java		
Mojokerto	-	Depo Progestin, Marvelon, Microgynon, Kf. Schering, Nordette, Micridiol, Planotab
Ponorogo	-	Depo Provera, Microgynon, Nordette, Norplant
Malang	Amoxycillin Capsul 250 mg, Ampicillin tablet 500 mg, Cotrimoxazoletablet 480 mg, Tetracycline capsul 250 mg, Oxytocin injection 10 IU, Lydocain	Marvelon, Kf. Schering, Nordette, Exluton, Micridiol
North Sumatera		
North Tapanuli	Oxytocin injection 10 IU, Paracetamol tablet 500 mg	Marvelon, Microgynon, Microdiol, Kf. Schering, Nordette, Macrodiol, IUD LL, Norplant
Medan	-	Marvelon, Microgynon, Micridiol, IUD LL Norplant
Deli Serdang	Ampicillin syrup 125 mg/ml, Tetracycline capsul 250 mg	Depo Geston, Marvelon, Microgynon, Micridiol, Kf. Schering, Nordette, Microdiol, Planotab, Norplant

South Sumatera		
Palembang district	Ampicilin tablet 500 mg, Tetracycline capsul 250 mg, Oxytocin injection 10 IU	Condom no logo, Depo Provera, Depo Progestin, Marvelon, Microgynon, Kf. Schering, Nordette, Planotab
Ogan Komering Ilir	Contrimoxazole syrup 240 mg/ml, Oxytocin injection 10 IU, Vitamin A	depo Geston, Marvelon, Microgynon, Exluton, Micridiol
Musi Banyu Asin	Amoxycillin tablet 500 mg	Marvelon, Kf. Schering, Microgynon, Micridiol, Planotab

6.2. Duration of stock out of drugs and contraceptives observed in the BKKBN and MoH warehouses

In each warehouse at the province and district level, the warehouse managers were asked to name the drugs and contraceptives which had ever been out of stock in the past 6 months. Furthermore, if the commodities had ever been out of stock, the beginning and end date of the stock out period were also recorded, thus obtaining the period of stock outage in weeks.

6.2.1 Duration of stock out of drugs and contraceptives observed in the BKKBN and MoH warehouses at the province level.

The types and the length of time (duration) of out of drug stocks can be seen in the following table. By obtaining the initial and end date of stock out for each item observed in both the province and district warehouse, we were able to estimate the duration of stock out period.

West Java and East Java were two provinces experiencing drugs stock out. The types of drugs that were unavailable in West Java for 64 and 24 weeks were Vitamin A and ORS Packets. Almost all types of drugs in East Java were out of stock for 48 weeks as shown in the table below.

Table 5.1 Type of drugs that have ever been out of stock and the duration of stock out period (in weeks) in the MoH province level warehouse.

Province	Type of drug ever had out of stock during the last 6 month	Duration of stock out period
West Java	Vitamin A and ORS Packets	64 and 24

Central Java	Amoxillin capsul 250 mg, Ampicillin syrup 250 mg, Ampicillin tablet 500 mg, Cotrimoxazole tablet 120 mg, Cotrimoxazole tablet 480 mg,	Had never available
	Oxitocin injection 10 IU, Paracetamol syrup 120 mg/ml, Paracetamol tablet 100 mg, Lydocain	
East Java	Amoxycillin capsul 250 mg, Ampicillin syrup 125 mg/ml, Cotrimoxazole tablet 120 mg, Oxytocin injection 10 IU, Paracetamol syrup 129 mg/ml, Paracetamol tablet 100 mg/ml, Lydocain, Vitamin A	192 48 48 48 48 48 48 48
North Sumatera	-	-
South Sumatera	-	-

* Counted since the stock was unavailable (in weeks)

At the province level, each province had different duration for stock out, depending on the type of contraceptives. In West Java, planotab, one type of contraceptive method, was unavailable for 4 weeks. In South Sumatera, IUD CuT 380 and Norplant was unavailable for 24 weeks and 15 weeks respectively.

North Sumatera experienced ever had out of stock for several types of contraceptive methods, namely Microgynon, Kf. Schering, Nordette, Microdiol, IUD LL, IUD MLCU, and Norplant. Those were out of stock for 4 and 48 weeks. All of those contraceptive methods, IUD MLCU was the longest unavailable stock. In East Java, Kf Schering was unavailable for more than six months and Norplant for 2 weeks.

Central Java had experienced more stock outage for several contraceptive methods in the past six months compared with four other provinces. There were eleven types of contraceptive methods unavailable with the duration of stock out ranging from 7 to 35 weeks.

Table 5.2 Type of contraceptive methods that have ever been out of stock and the duration of stock out period (in weeks) at the BKKBN province level warehouse.

Province	Type of contraceptive methods which ever had stock out during the last 6 month	Duration of stock out period (in weeks)
West Java	Planotab	4
Central Java	Condom no logo, Marvelon, Microgynon, Kf. Schering, Nordette, Excluton, Microdiol, Planotab, IUD LL, IUD MLCU, Norplant	7 – 35
East Java	Kf. Schering, Norplant	2

North Sumatera	Micrigynon, Kf. Schering, Nordette, Microdiol, IUD LL, IUD MLCU, Norplant	4 - 48
South Sumatera	IUDs CuT 380, IUD LL, IUD MLCU, Norplant	15 - 24

6.2.2 Duration of stock out period for essential drugs and contraceptives at the MoH and BKKBN district level warehouse

Ten of fifteen districts were selected as the sample which ever had out of stock for one or more types of essential drug. Each type of drug in each district had variation in duration of stock out period. Following is the survey findings concerning the length of unavailable drugs at the district level in each province.

Two of 3 selected districts in West Java (Cirebon and Garut) had more than two types of drugs unavailable. Cirebon experienced amoxicillin tablet 500 mg and paracetamol syrup 120 mg unavailable for 5 weeks and 13 weeks respectively. Garut had no amoxicillin syrup 250 mg/ml, cotrimoxazole tablet 129 mg and paracetamol syrup 120 mg/ml, for 9, 13 and 17 weeks respectively.

Similarly, 2 of 3 selected districts in Central Java, Semarang district and Pemalang district, experienced more than one type of stock outage. In the district of Semarang, the type of drugs that ever had out of stock were metronidazole tablet 250 mg, oxytocin injection, paracetamol syrup 120 mg/ml, paracetamol tablet 100 mg, paracetamol tablet 500 mg and Vitamin A. The duration of stock out for these drugs ranged from 4 to 24 weeks. Only one type of drug was unavailable in the district of Pemalang, which was ampicillin tablet 500 mg and out of stock for 4 weeks.

One of districts in East Java, Malang, reported ever had out of stock several types of drug, namely: amoxicillin capsul 250 mg, ampicillin syrup 250 mg/ml, cotrimoxazole tablet 480 mg, tetracycline capsul 250 mg, oxytocin injection, and lydocain. The duration of stock out for these drugs ranged from 5 weeks to 24 weeks.

In North Sumatera, 2 of 3 selected districts reported ever had out of stock for 2 types of essential drugs during the past six months. Deli Serdang had no ampicillin syrup 125 mg/ml and tetracycline capsul 250 mg for 2 weeks and 8 weeks respectively. North Tapanuli reported ever had no oxytocin and lydocain for 32 weeks.

Three districts in South Sumatera reported ever had out of stock several types of essential drug. The type of unavailable drug in Ogan KH were cotrimoxazole syrup 240 mg/ml, oxytocin injection, and vitamin A; in Musi Banyuasin were amoxicillin 500 mg; and Palembang was ampicillin 500 mg and oxytocin injection. The duration of stock out for these drugs ranged from 1 to 16 weeks. Oxytocin is unavailable in Ogan Komering Hulu since 298 weeks ago.

All selected districts experienced ever had out of stock for one or more types of contraceptive methods. The duration of stock out for different types of contraceptive methods varied between one district and another. Following is the survey findings concerning the duration of stock out for contraceptives at the district level in each province.

Excluton, IUD CuT 380 and Norplant had ever had out of stock in all selected districts in West Java. The length of unavailable time of those contraceptive methods varied from one week to 16 weeks. The other contraceptive methods which were out of stock included Depo Provera, Depo Geston, Marvelon, Microgynon, Nordette, Microdiol, and Planotab.

Three selected districts in Central Java ever had out of stock for Marvelon, Nordette, Microdiol, and Planotab. The duration of stock out was quite long, ranging from 14 to 56 weeks. However, there were several types of contraceptive methods, which reported never to have been out of stock during the past six months. These contraceptive methods were condom no logo, Depo provera, IUD CuT 380, and IUD LL.

Nordette was reported ever had out of stock in 3 selected districts in East Java. The duration of stock out ranged from 13 to 23 weeks. Malang experienced out of stock for several types of contraceptive methods namely Nordette, Marvelon, Kf. Schering, Excluton, and Microdiol. In Mojokerto, the types of contraceptive methods not available were Depo Progestin, Marvelon, Microgynon, Kf. Schering, Nordette, Microdiol, and Planotab. While in Ponorogo, they reported to have experienced out of stock for Depo Provera, Microgynon, Nordette, and Norplant.

The type of contraceptive method that was reported ever had out of stock in 3 selected district in North Sumatera were Marvelon, Microgynon, Microdiol and Norplant. The variation in the length of time of each type of contraceptive was out of stock ranged from 4 to 28 weeks. Norplant reported to be out of stock since 99 weeks ago (still out of stock when the data collection was conducted). The other unavailable contraceptive methods were including Depo Geston, Kf. Schering, Nordette, Planotab, and IUD LL.

Microgynon and Marvelon had ever had out of stock in all selected districts in South Sumatera. The length of stock outage for each type of contraceptive method in each district ranged from 20 weeks to 27 weeks. In addition, the district of Ogan KH had no Depo Geston, Excluton, and Microdiol. In the district of Musi Banyuasin, Kf. Schering, Microdiol, and Planotab were unavailable. While in the district of Palembang, unavailable contraceptive methods were Condom no logo, Depo Provera, Kf. Schering, and Planotab.

7. Discrepancies between physical and record count.

One major focus of this study was to assess whether there were any discrepancies between the numbers of commodities counted based on the record count from the warehouse files and the number physically counted in the warehouse at the time of the study. These discrepancies could be either negative or positive number counts. Negative number counts could occur when the number of commodities in the warehouse (based

on physical count) is less than the figure recorded in the warehouse files. A positive number count could occur when the number of commodities physically counted in the warehouse files is higher than the number in the warehouse records. Either negative or positive figures point out the need to improve the reporting and recording skills of the warehouse management or the need to improve current recording systems.

Information about the level of discrepancies is important to assess the accuracy of reporting and recording in warehouse, and the variation between discrepancies at the provincial and district level. This type of data is useful for monitoring the management system of warehouses and most important, it can be used to monitor the waste and amount of commodities lost or leaked as well as obtain the number of commodities stolen, damaged or expired. This information could be used to identify the problem areas and target future interventions, minimize leakages and assess the quality of the commodities.

The survey measured discrepancies by comparing two sources of records at the warehouse level, which were data from the stock card and data based on the physical count in the warehouse. The discrepancies analysis was conducted in warehouses at both administrative levels (province and district) in two different institutions (MoH and BKKBN). The BKKBN warehouses at the province level are bigger than MOH warehouse, and these drugs are distributed only in emergency situations. The number of drugs available in the MoH warehouse at the province level is only about 10% of the amount of drugs available in the district level warehouse. This survey found that none of the MoH warehouses at the provincial level had discrepancies. On the other hand, two provincial BKKBN warehouses had some discrepancies (East Java and South Sumatra).

At the district level, discrepancies were found in 6 out of 15 MoH warehouses observed, which were Bogor, Semarang, Wonosobo, Pematang, Palembang dan OKI. On the other side 2 out of 15 BKKBN warehouses had discrepancies, which were Palembang and Muba (see table below).

Some reasons for these discrepancies could be the conditions in the warehouses, such as inability to handle large volumes of drugs or contraceptives, unorganized stacks and places to store different types of commodities, and if the commodities came from different sources, they would be placed in different places or set apart. All of these reasons may contribute to problems associated with taking stock count.

These reasons perhaps could be related to the staff organization, thus causing a delay in recording drugs dispensed. For example, one of the UPTD GFK have 5 to 8 employees that handle more than 100 types of drugs and pharmaceutical preparations. Every UPTD GFK have to serve about 30 –50 SDP. Every SDP have to receive supplies once every two months, so that one UPTD GFK has to supply about 15-25 SDPs/ hospitals. Meanwhile, they also need to allocate their time and staff to organize the drugs received from PBF, as well as supervise the warehouse and maintain the recording and reporting system.

Most of the inaccuracies found in this survey related the warehouse record counts were preventable mistakes, such as double recording, double entries for commodities received and delays in the recording of commodities received and distributed, or the

commodities distributed were not yet recorded.

Table 6 Discrepancies between Stock Status Reported and Physical Count in the MoH and BKKBN warehouses at both the province and district level.

Provinces	MOH warehouse			BKKBN warehouse				
	Province	District 1	District 2	District 3	Province	District 1	District 2	District 3
West Java		?						
Central Java		?	?	?				
East Java					?			
South Sumatra		?		?	?	?	?	
North Sumatra								

? = Discrepancies
 = Number match

7.1 *Commodities' dates of expiry*

There were some problems in identifying the expiry dates in some commodities distributed by BKKBN and MoH at the district level (DinKes Tk.II) warehouses. Most warehouses did not record dates of expiry in their stock cards, and there were some drugs, which had no dates of expiry or year produced, some commodities were set in unorganized stacks, and the volume of drugs was very big.

The survey found there were no expired drugs in MOH provincial warehouses (UPTD GFK), as well as in BKKBN warehouses. According to the warehouse managers, there is a policy in the UPTD GFK and BKKBN warehouses that all drugs and contraceptives should be distributed before the commodities are expired or if they cannot be distributed the expired commodities should be destroyed. However, as a result of this policy, commodities at the higher level are distributed just before they are almost expired, so by the time the commodities reach the potential users, they are already expired.

The expiry date of drugs in the Department of Health at the district level (DinKes Tk.II) and BKKBN district level warehouses vary in month and year, most drugs in the MOH warehouse will expire between year 2001 –2004 and for contraceptives in BKKBN in between year 2000 - 2005.

In all of the MoH warehouses, data showed that not all commodities had dates of expiry, especially essential drug commodities such as antibiotics like Cotrimoxazole, metronidazole, analgesics like paracetamol, anesthetics like lydocain and ORS packages. In the meantime, dates of expiry for other essential drugs such as amoxicillin (120, 250 and 500 mg) will expire between years 2001 to 2005; Ampicillin (125 and 250 mg) will expire between years 2001-2004. The others antibiotics Tetracycline will expire between years 2001 to 2003, Oxytocin between years 2001 to 2003 and as for Vitamin A, they will expire in the year 2002.

Contraceptives in BKKBN warehouses like condoms with no logo have expiry dates ranging from year 2001-2004, for depo (provera, progestin and Geston) have expiry dates ranging from year 2002 to 2005. Pill (marvelon, microgynon, Kf.schering, nordette, excluton, microdiol and planotab) will expire between year 2002-2004, except for excluton and planotab in North Sumatra, which will expire in the year 2000. The only Province that still had Norplant supplies was West Java, and will expire in the year 2000.

8. Supply and distribution of contraceptives and drugs from the clinic to client level

The data for this section was obtained from the Monitoring and Distribution of Contraceptives donated by USAID, part 2. In each selected province, 10 clinics in 3 different districts (2 districts and 1 municipality), which received USAID donated contraceptives were selected and observed.

The limitations of this study, specifically in the data collection for drugs available in the clinic were: 1) incomplete or missing records at the clinic level or sometimes the records are not available at all 2) even if the records were available, the system of record keeping was not optimal, thus making it very difficult for the field worker or the health worker to follow up cases to trace back or verify with acceptors, 3) if there were records but they were incomplete and the reasons given by the provider would be because he/she is busy. 4) The clinic is not willing to give the data on the drugs because BKKBN is not interested in taking records of the drugs distributed, perhaps because the quantity of drugs distributed by BKKBN is not so much. 5) Supply of the drugs at the clinic level from the central level is not perfect; in addition, some clinics are self-sustainable in terms of obtaining the essential drugs. With the imperfect record keeping system at the clinic level, sometimes the clinic staffs are not aware of the sources of the drugs. In some cases, clinics were reluctant to reveal their stock number and sources of stock because they were afraid of being investigated. Some clinics can have multiple sources for their drugs and contraceptives, such as MoH, BKKBN, other donors, self-sustainable and fees charged on their clients. This reason may help to explain the reasons for incomplete or missing records.

This situation at the clinic level made data collected difficult. The data collected consisted of the records at the clinic level and the record based on physical count. Although the data was compiled from 50 clinics in 5 provinces observed, some clinics did not have data for some commodities. For example, some clinic had data on contraceptives but none on drugs. There were other clinics, which had data, but refused to share their data. This was because at that time, the permits were obtained from BKKBN, whereas and the clinic wanted the permit issued from the MoH. At that time the Monitoring study was focused on the contraceptives, thus we did not need to obtain the permit from the MoH.

Tabel 7 Total number of clinics observed and obtained data from, by province.

	West Java	Central Java	East Java	South Sumatra	North Sumatra

Number of clinics observed	10	10	10	10	10
Number of clinics which had data*	10	3	10	4	9

* Some items observed in the questionnaire were incomplete or missing in these clinics.

The data collected at the clinic level were divided in 2 categories: contraceptives and drugs. The contraceptives observed consisted of condoms, Depo-provera, pills, IUD CuT 308, and Norplant. The drugs consisted of 4 groups, which were: 1) antibiotics (Amoxicillin, Ampicillin, Cotrimoxazole, Tetracycline, Metronidazole, Oxytocin), Analgesics (Paracetamol), anesthetics (Lydocain), and others (Vitamin A and ORS packets). The analysis was based on the distribution of contraceptives and drugs by the clinic to the client (consumer level), and the level of stock at the clinic by comparing the average amount distributed per month with the physical stock available at the time of the survey.

In West Java, on average the type of contraceptives distributed per month were: pills, Depo-provera, IUDs and Norplant. The distribution of pills per month was high (above 5000), compared to the distribution of other contraceptive methods (below 500). There were 3 methods (depo-provera, pill, and norplant), which had high average consumption level (client demand) compared to their available stock supply (especially for pills and Norplant).

Data on the drugs in West Java revealed that as many as 462.178 tablets and 3574 bottles grouped under the antibiotics, which were distributed in the past 6 months. Tetracycline capsules 250 mg was the type of antibiotic which was most distributed to the client. Paracetamol tablets 500mg was the drug most consumed. Several drugs had very little stock left, these were: Amoxicillin capsule 250 mg, Amoxicillin tablets 500mg, Ampicillin syrup 125mg/ml, Tetracycline capsules 250mg, and Metronidazole tablets 250mg.

The pill was also the most popular method at the clinic level among the clinics in East Java. Interestingly, IUD CuT 308 was second, followed by Depo provera and Norplant. On average, the consumption level per month for the pills compared to other methods was very wide, (about 1000 to 80). The stock supply at the clinic level for the next three months was sufficient and stock for IUDs exceeded the demand (1519 IUD while the demand was only 89 per month).

Data from East Java showed that Tetracycline capsules 250mg was the type of antibiotic most consumed, followed by Amoxicillin capsules 250mg and Contrimoxazole 480mg. If the consumption levels are compared to the stock available, it can be said that the stocks will be sufficient for 1 to 10 months, depending on the type of drug. The demand for anesthesia (lydocain) is high (8035 vials per month) but the stock available is only for 5407 vials. As for analgesics, stock for paracetamol 100 mg maybe sufficient only for 1 month, but stock for Paracetamol 500 mg is enough.

In North Sumatra, the number of contraceptives distributed in the past 6 months at the clinic level is less compared to other clinics in other provinces. In this province, on

average, about 30 contraceptives per month were distributed. The most common type distributed was Depo provera. If we look at the stock for this item, the amount will be enough to meet demand at the clinic level for more than 7 months.

Data revealed that Paracetamol tablets 500 mg was the most popular type of drug distributed by the clinics in North Sumatra, reaching almost 155.567 capsules in the past 6 months. At the time of the survey, there were 15950 capsules in stock; however, the average level of consumption was 25.928 capsules per month. The issue of drugs supply is quite alarming in some provinces. In some clinics, only 2 out of 8 types of drugs had sufficient stock to meet more than one month's demand, these were: cotrimoxazole 120 mg and metronidazole.

In South Sumatra, data collected was not complete, because there was no data on the amount distributed thus it was not possible to estimate whether the stock was sufficient or not to meet demand at the clinic level. Of all the antibiotics, there was sufficient stock for amoxicillin (above 18.000); however, there was very little stock supply for vitamin A or ORS packets.

Unfortunately, in Central Java, much of the data collected in this province was either missing or incomplete.

9. Study limitations

There were several limitations in the study.

- 1) The data collected on the status of the stocks by the end of November, received and distributed in the past 6 months (from December 1999 to May 2000) for both drugs and contraceptives were obtained from records at the MoH and BKKBN warehouses. However, data collection based on the physical count was conducted around the middle towards the end of June and beginning of August. Therefore there was a big possibility that commodities were received or distributed within that time frame. If this were the case, our data would automatically record the difference as a discrepancy, perhaps had we conducted a physical count at the end of May 2000; there would have been no discrepancies.
- 2) Dates of expiry. Several commodities did not have any dates, which made assessment difficult.
- 3) Data regarding the level of demand for drugs and contraceptives was not collected at the province and district level.
- 4) Differences in the methodologies used for the monitoring study and this study, especially the data analysis for the supply and distribution at the clinic level.

10. Conclusion and recommendations

The MoH and BKKBN have different systems of distribution. The MoH's system relies on the tendering process (based on the requests from the district warehouse) at the province level and will distribute the commodities directly from the producer to the district level warehouse. BKKBN's system uses a more centralized approach, either based on request or allocations, and they will distribute the contraceptives through the warehouse at the province to district to clinic level. Thus, aid for drugs are channeled

through the MoH district warehouse and coordinated with the province, but contraceptives are channeled through central BKKBN.

Selected commodities are overstocked due to unplanned aid (from other sources or foreign aid). In some provinces, there was an over supply of drugs/ contraceptives, which were not in demand. For example, a district received malaria drugs, but they did not have any cases of malaria, thus the goods were wasted, but there may have been another district, which needed more malaria drugs. The MoH district officials hold an important role in assessing the needs and plan according to the situation in their areas. Therefore, aid should coordinate more closely with the Province level to identify the needs and amount needed at the district level.

The expiry date of some commodities in stock are either expired or are almost about to expire. One reason for this was due to delays from the central/ province level; by the time the commodities reached the clinic/ client, they were already expired or about to expire. In the future, aid should consider very carefully the date of expiry and the time it takes to distribute to the client, in order to prevent the distribution of expired goods.

The system of recording and reporting in the warehouse could be improved, especially at the district or clinic level. One means of improving the system would be to standardize the format of the records between the MoH and BKKBN. Data showed that the further one goes down the vertical system (in both institutions), the more reporting and recording becomes incomplete. This is because the warehouse staff at the district level and the providers at the SDP level are overworked and often overlook the importance of detailed and accurate record keeping.

Overlap of two institutions at the clinic level. Both BKKBN and MoH distribute their commodities to the SDP level, but sometimes the records at the district warehouse and SDP level do not differentiate between source and volume of commodities received. In addition, the system of recording and reporting at the clinic level was not optimal. One way to overcome this would be for MoH and BKKBN to cooperate and devise an integrated form to record commodities in stock, received and distributed, as well as create a system of reporting liable to both MoH and BKKBN. Thus the MoH and BKKBN at the district level will be aware of all the contraceptive and drugs commodities/ aid received at the clinic level. This would also help to ensure effective distribution according to demand at the clinic level and minimize wastage or oversupply.

Overlap in the type of commodities. BKKBN provides drugs for contraceptive (although not in large quantity) but at the same time, the MoH also supplies these drugs. In addition, the clinic also buys these drugs, depending on their budget (self-sustainable). Often these drugs are stored in the same place and it becomes difficult to find out which sources they come from or the same drugs are stored in different places according to the source. In order to overcome this, training should be provided for the SDP managers on how to properly record, store and report on the commodities. Monitoring regularly by the district officials to the SDP level will hopefully minimize errors in recording and reporting. Also, there should be regular communication between the MoH, BKKBN and clinic managers, to minimize the overlap in types of commodities distributed to the clinic level.

During data collection, it was found that there was a lack of supervision from both MoH and BKKBN institutions. One means of improving the reporting system would be to ensure continuous field supervision at the district and clinic level, preferably from both institutions. Through this activity, high-level officials from both MoH and BKKBN could identify the gaps in the managerial and administrative skills of the warehouse personnel.

Appendix 1 Flowchart of the drugs distribution and supply mechanisms at the MoH

Distribution and reporting.

Explanation:

Distribution flow

Reporting flow

Appendix 2 Flowchart of the contraceptives distribution and supply mechanisms at the BKKBN