

Final Technical Note
Early Warning and Rapid Response System

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Background

Indonesia's highly successful family planning program has shifted responsibility and authority for family planning (FP) and population program management to the district level. The National Family Planning Coordination Board (BKKBN) was mandated by law to transfer responsibility for many of its key functions for the national program to the district/municipality level by 1 January 2004.

The challenge

Since the decentralization of FP program the major challenge for BKKBN was to maintain the existing monitoring system. With decentralization, BKKBN was no longer receiving regular reports from around the country. Districts were less interested in regularly collecting and reporting program data for the BKKBN, especially since they were no longer obligated to do so.

The need

It was agreed by MSH, STARH and BKKBN that there was a need for a special "early warning" system to operate in parallel with the existing routine monitoring systems, at least for the first year of decentralization; and for a "rapid response" system, that could take action and offer assistance to districts when problems were detected. Therefore, it was decided to design an "Early Warning and Rapid Response System" (EWRRS) to operate at the national program level.

The purpose

The main purpose of the EWRRS was to provide basic information to policy makers at the central and province levels of BKKBN on how the FP program is performing after decentralization, so they could identify where problems were emerging as early as possible and help districts address these problems in a timely fashion.

The design

This system was designed to collect reliable data from a sample of key informants in a representative sample of districts, and operate in parallel to the routine monitoring systems. The emphasis was on collecting data so that policy makers could see how the FP program was doing at the national and provincial levels following decentralization, not on identifying and responding to problems that only one or two districts may be experiencing.

Timeframe

The EWRRS was designed through the latter half of 2003 and the early part of 2004. The following table summarizes the key milestones:

When	What
October 2003	Framework for the EWRRS and a draft timetable were prepared
December 2003	List of indicators and data collection tools were developed
March 2004	Data collection methodology, tools and the indicators were tested, revised and finalized
April 2004	The system was introduced to selected districts
June 2004	First round of data was collected
August 2004	First feedback reports were prepared and sent to all districts in the country
December 2004	National EWRRS Review Meeting was organized and attended by all EWRRS districts
February 2005	A rapid assessment technique using Lot Quality Assurance Sampling (LQAS) methodology was designed and tested as part of the Rapid

	Response component of the EWRRS
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Data Collection in Sample Districts

A sample of 10 percent of districts were selected as sentinel districts. The selection of districts was a random sample, stratified by inner and outer islands. The total number of districts and the number of sampled districts were as follows:

	Total number of districts	Sample size
Inner Islands	124	12
Outer Islands I	160	16
Outer Islands II	135	14
Total	419	42

In each district, 20 percent of the sub-districts were randomly selected. All the *puskesmas* in the selected sub-districts were included in the system. EWRRS relied on monthly and quarterly data from key informants through self administered questionnaires.

In each district data were collected regularly from:

- District family planning manager;
- District health office director.

In each sub-district data were collected regularly from:

- *Puskesmas* director/*puskesmas bidan* in charge of FP program;
- Private sector *bidan*;
- *Kadre* (FP program volunteers within the communities).

The total number key informants selected are as follows:

	Java & Bali	Outer Islands-1	Outer Islands-2	Total
District Health Director	13	16	13	42
District FP Director	13	16	13	42
Health Center Directors	62	48	35	145
Private Midwives	120	99	81	300
Community Workers	120	99	81	300
Total	328	278	223	829

Indicators

Key informants provided information on the following three FP program environments:

- Policy Environment
 - Availability and appropriateness of legal and organizational structure;
 - Adequacy of political and popular support for the FP program;
 - Change in the image of the program;
- Management Environment
 - Availability of resources (funds, manpower, commodities, etc.);
 - Level of coordination and collaboration at the district level;
 - Contraceptive commodity management system;
- Service Delivery Environment
 - New and continuous users by method;
 - Commodities distributed;

- Availability of FP services and methods;
- Complaints about contraceptive methods;
- Change in the amount of fees paid by the clients.

Data Processing and Feedback Reports

The EWRR Unit at the Central BKKBN Office was responsible for tabulating the data on a regular basis and sharing summary statistics in monthly and quarterly feedback reports with provinces and districts.

System review

In December 2004 a national review meeting was conducted. The purpose of the meeting was to review with the district and province EWRR managers the results of the first five months of EWRR data and discuss implementation issues. Based on the analysis of the data, the main findings for each area are summarized below:

Political Environment

- Political support for the FP program is perceived as very good
- Popular support for the FP program is perceived as good
- 8% of district health directors perceive popular support for the FP program as inadequate
- The availability of contraceptives and method side effects are the two most common negative comments heard by all key informants in all regions.
- Java and Bali experienced the fewest number of negative comments from communities. Outer islands 2 experienced the most number of negative comments from communities.

Managerial Environment

- Lack of adequate funding is the most common problem experienced by key informants
- District FP directors experience more problems than other categories of key informants in distributing and receiving contraceptive commodities
- Pills and injectables are the two methods that key informants experience problems in receiving and distributing
- 50% of private midwives receive their supplies from public sector (health centers and FP field workers)
- In 90% of the districts the level of coordination is satisfactory

Service Delivery Environment

- There is a steady but slow increase in the number of new FP users
- On average, 22% of key informants report about inadequate supplies while over 50% of key informants from outer islands 2 report about inadequate IUD supplies
- Similarly, 20% of informants report that they had to turn away a client without service due to the lack of commodities
- Injectables are the leading method complained about by 21% of the informants reporting complaints
- There has not been a significant change in the amount of fees paid by clients in this period

Based on these results, the following early warning signs and key response areas were identified:

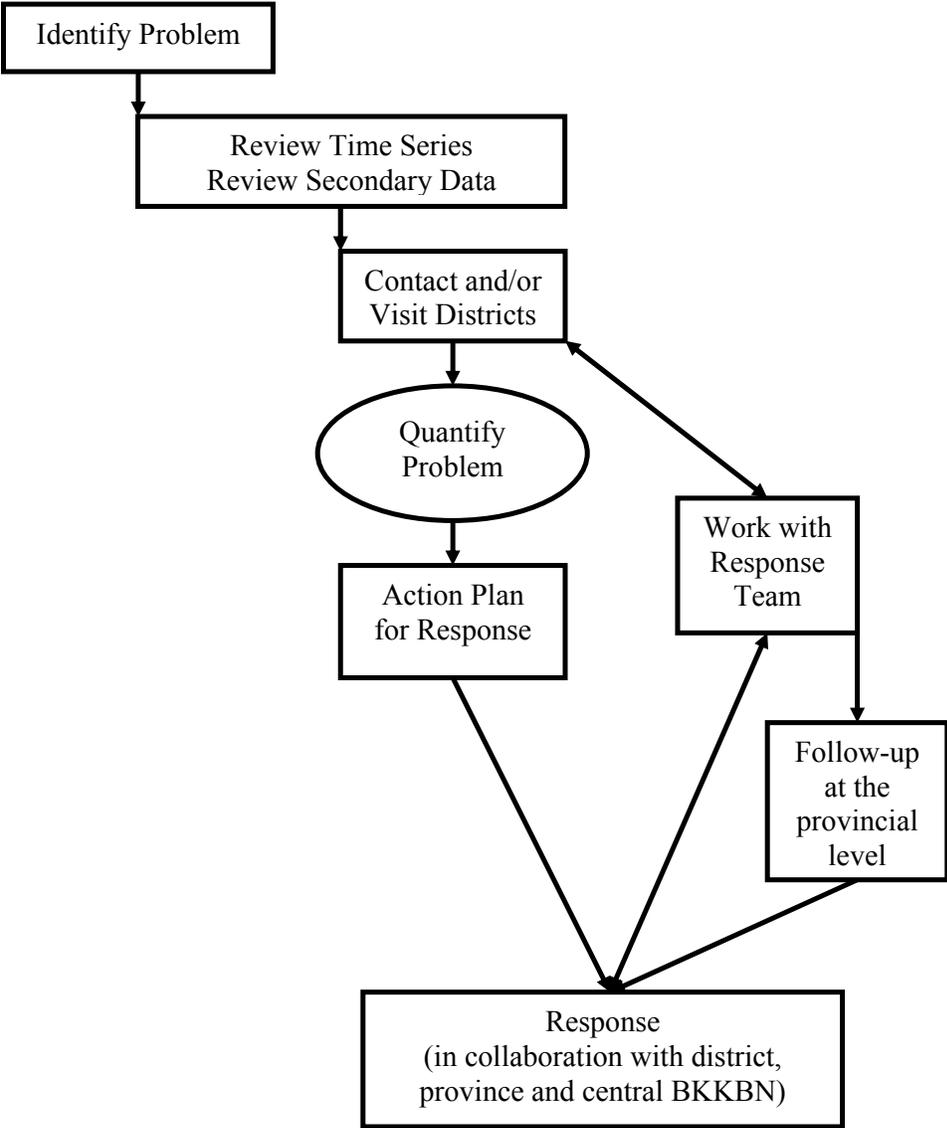
Early Warning Signs	Key Response Area
Availability of contraceptive commodities	Commodity Logistics System
Complaints about method side effects	Counseling and Information, Education, Communication (IEC)
Midwives' reliance on public resources for commodities	Policy

Inadequate funding for the District FP Program	Advocacy
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Rapid response component

Since the early warning aspect of the system worked quite well during the test phase, BKKBN was supposed to concentrate more on the response aspect of the EWRRS over the subsequent months. At the December 2004 national review meeting participants agreed that the system has started to produce information that needs a response, and that the Central BKKBN Office should start working on the response component of the EWRRS. The following chart illustrates the model response mechanism developed by MSH, STARH and BKKBN.

EWRRS Response Model



Conclusion

During pilot phase throughout 2004 and the first half of 2005, BKKBN was able to maintain the system and regularly collected information from key informants. BKKBN staff was capable of processing and analyzing data collected, and also succeeded in preparing and distributing feedback reports. During this period the amount of technical assistance from MSH and STARH gradually reduced. Unfortunately, MSH could not continue working with the BKKBN on the response mechanism as originally planned as BKKBN staff were not available to work face-to-face with the MSH consultant during a TDY planned for August 2005.

Recommendations

BKKBN has been operating in a very complex environment. Decentralization has also contributed to this complexity. BKKBN should be able to monitor not only the decentralization process and its effects on the family planning program but also collect information for regularly monitoring and evaluating the national FP program.

1. The future of the EWRRS

The EWRRS was developed and tested in order to meet the immediate or short-term need for monitoring the possible effects of decentralization on FP program at the district level. This system was designed to be outside the routine district FP reporting system and funded independently of the decentralized districts.

However, EWRRS was designed to be temporary. It was observed that BKKBN's approach to EWRRS was to treat this new system as a part of the routine management information system (MIS). EWRRS is by definition a system that produces "early" information. The first year of pilot implementation produced very important "early warning signs" that BKKBN should start addressing. MSH suggests that BKKBN stop collecting data from key informants and concentrate more on the response side. However, if BKKBN still desires to continue data collection it is advisable to select another set of districts and key informants. Reporting compliance of informants may diminish after a while and drop-outs of informants from the system may naturally occur. In order to avoid or at least reduce drop-outs, a rotating system can be tested for selecting informants where feasible. In this rotation system, each informant stays in the system for three to four months and is then replaced by another with similar background characteristics. Knowing that they will only need to fill-in a limited number of forms (or attend meetings, where feasible) it is expected that informants will remain as sources of valid and useful information. This approach may also help to capture undetected problems or different aspects of the same problem. Previously selected informants could possibly continue serving as *ad hoc* sources of information since they would already know the things that have been monitored, and may voluntarily provide valuable information without being asked.

It is also important to continuously process various analyses and produce *ad hoc* reports in order to better interpret the EWRRS data. Data from different informant groups need to be combined for further analysis as well. All these efforts will lead to a broader understanding of "early warning signs". In order to accomplish this BKKBN should build a larger capacity for data management and analysis.

2. Meeting the information needs of the National FP program

While the EWRRS provides valuable "early warning" information, on the other hand there is a need for improving or adapting the National FP program monitoring system under decentralization.

BKKBN has been actively reviewing and improving its MIS Sub-system in order to be fully prepared for decentralization. BKKBN needs to monitor not only the FP program results but also the Minimum Service Standards (SPMs) and population policies it has established. The existing MIS handles large amounts of routine data collected from the field on FP services, BKKBN field activities, and annual household enumeration. This MIS has also been designed to produce regular reports developed by software programmers. There are already a set rules governing the flow of reports from the field to the Central BKKBN Office and among different departments.

Although BKKBN has recently modified and somewhat simplified the existing MIS, the assumptions behind these efforts remain unchanged. BKKBN still assumes that data collection and reporting from districts to the Central BKKBN Office will continue as usual. However, two years of decentralization experience has shown that BKKBN does not have the same authority over the districts. There has been a steady decline in the timeliness and completeness of reports from service delivery points to districts and from districts to provinces and to the central level. This leads to a decrease in the representativeness of service statistics and information collected countrywide. In other words, underreporting leads to selection bias towards better performing clinics, districts and provinces. BKKBN's efforts to maintain the reporting process and assuring the quality and completeness of data received from districts countrywide has been too time consuming and expensive.

During this critical period BKKBN needs to be creative in order to meet the long-term need, which is a system that generates information on the access, quality and coverage of FP services from selected sites representing the whole country thus reducing its dependence on regular reporting from districts. The EWRRS design provides a solution for this challenge. Rather than expending effort to ensure proper reporting, the sentinel site approach used by the EWRRS can be adopted as a strategy to collect data and monitor the national FP program. A selected number of districts representing the country can be used to regularly collect service statistics and reports (supervisory, logistics, financial, etc).

There are two main choices for monitoring and evaluating the National FP program in the sentinel districts. The first option is to monitor the same aspects of the program in all districts thus collecting the same type of information. The second option is to use a "cycle approach". Each cycle (annual, semi-annual or bi-annual) focuses on a particular program area or problem, rather than trying to collect data from all selected districts on a wide range of program areas or problems. This approach would help to concentrate data collection efforts.

This sentinel site approach for national FP program monitoring would be much more cost-effective and easy to operate than trying to maintain the existing routine MIS system. The cost of redesigning the national MIS would also be very low and could be easily covered by STARH before the planned close out next year.