

Delivering a Package of RH Services

The Use of a Matrix of Services

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Adapting to Change: Core Course on Reproductive Health and Health Sector Reform

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Every country has developed a program of reproductive health services based on the needs of the population, the resources that are available for service delivery, and the political pressures that are exerted by the various constituencies represented in a country. Yet often the process through which critical decisions are made is not explicit, with the result that services are developed in a way that does not correspond to either the real needs of the population nor the realities of the country. This paper presents a way that the design process can be made more explicit and more closely meet the needs of multiple constituencies while corresponding to the limitations of budget, staffing and infrastructure that often impede implementation.

The process that is used is the development of a matrix of services that determines the boundaries of a reproductive health program in terms of the packages of services that will be delivered at each level of the health structure, including the community level. Central to this process is the development of standards of service for each level that defines the staffing requirements, pharmaceutical and supply needs, equipment and physical infrastructure that will be required at each level of the infrastructure for each type of service to be offered..

Overview

This paper will lay out an 6 step process for the planning and management of reproductive health services. This process is based on the experience of countries from West Africa and around the world in the development of these programs and is a synthesis of these experiences. The steps are:

1. Prioritization of program interventions;
2. Development of standards of service;
3. Inventory of facilities/communities;
4. Development of costing standards;
5. Initiation of workplan;
6. Monitoring facility improvement and service delivery.

1. Prioritization of program interventions

Countries and organizations are seldom in the position of being able to plan and fund all the activities they would like. Clearly this is true with regard to health programs, including reproductive health programs, where the costs of some types of interventions are very high and budgets are traditionally very limited. For this reason, all organizations make decisions about the relative priorities of different types of programs, and base their funding on this prioritization of importance. This process may be either explicit or implicit and many factors are included in this prioritization

process including disease or condition prevalence, impact on the population, political concerns, international opinion, and experience of past activities. However, the process of prioritization is frequently done without benefit of evidence of what is most important, cost-effective, or successful. There have been many attempts to develop a single index to use as the basis of prioritization. Whereas mortality was the earliest one, more attention is now on indicators such as DALYs or QALYs that incorporate both mortality and morbidity into a single measure.

Yet, while objective measures such as mortality, burden of disease and cost-effectiveness are important in defining priorities, many other factors are included in the final decision making process. Programs which are highly visible or have strong constituencies may often get a higher priority and more funding. Thus, in considering what will be the priority programs to be included in a package of reproductive health services, it is important that policy makers and planners early on consider the political implications of their proposals and how to solicit the types of support that are required for successful implementation.

2. Development of standards of service

One of the lessons that has been learned about the design and delivery of reproductive health is the importance of standards of service delivery. Standards define what exactly will be done for each type of client or service that is provided and serve as the basis of training, budgeting and monitoring.

The first step in the development of standards is to decide what services will be offered at each level of the health structure. For example, at what service delivery level will IUDs be provided? Will the safe motherhood program rely on village midwives and referral of difficult cases or supervised deliveries at the health center? Will CBD workers do counseling? The decisions about who will provide what services where define the array of services to be provided at each level of the system. It also defines the referral network that will be required for effective programs.

An example of a matrix for safe motherhood services is given below. This example lays out the services to be given at each level of the infrastructure existent in a particular country.

Community	Health Center	Hospital	Referral Hospital
<ul style="list-style-type: none"> · Assisted delivery · Communications · Emergency transportation 	<ul style="list-style-type: none"> · Antenatal care · I.V. fluids · Antibiotics · Referral 	<ul style="list-style-type: none"> · Caesarian section · Laparotomy · Blood · Secondary antibiotics · Control of eclampsia 	<ul style="list-style-type: none"> · Laparoscopy · Tertiary antibiotics · Amniocentesis · Fetal monitoring · Specialist obstetricians

Every country will have a different matrix of services, depending of the levels of the infrastructure, and the decisions about how and where services are to be delivered. In the example above, the decision has been made to have uncomplicated births in the community with a trained midwife, but some countries will choose a program in which all deliveries are done in health facilities rather than the community. Similarly, the above example limits caesarian sections to the hospital, but in countries where health centers are staffed by doctors, it may be possible to do caesarian sections at the health center level. Thus, for each country, there will be a different matrix of services based on the available facilities and the choices about how services are to be delivered. The example above shows how the services to be delivered for Safe Motherhood would be shown in a matrix. A

completed matrix of services showing services for other elements of reproductive and primary health is shown in appendix 1.

Once the array of services at each level is determined, the staffing requirements (including specialized training) and equipment needed for each output can be determined for each level of service delivery. For example, if counseling is to be provided at all levels, then trained staff and counseling materials will be required at all levels. If, for example, Norplant is to be given at all health centers and hospitals, then staff with specialized training, equipment for Norplant insertion, and a sterile room with adequate privacy will be required, as well as local anesthesia and take-home materials for clients about possible side effects and where to go to get help, if necessary. Standards will also include client-centered quality measures such as waiting times, cleanliness of facilities, and responsiveness to client needs.

This mapping out of services at each level of the infrastructure has important implications that go beyond service delivery. One advantage of the matrix format is that it serves to highlight these non-clinic interventions as well as the clinic-based activities, so gives a more complete picture of the total program. It also serves to highlight the connections between the various parts of the system in areas such as referrals, and communications.

The hallmark of this development of standards for each level of the health infrastructure is the level of specificity that is required. By insisting on the establishment of the specific requirements in terms of staffing, training, equipment, supplies, and facilities that are required at each level of the system for each type of intervention, the manager is now in a position to estimate the cost of such a package of services, both in terms of capital costs and of recurrent costs. This level of specificity also facilitates the tracking of service delivery in terms of the number of facilities that have the staff, supplies and facilities that meet the standards that have been set.

3. Inventory of facilities/communities

Having defined the standards of service in terms of staffing, equipment and physical facilities, it is then necessary to know what is currently present at each facility in order to determine what will be needed to get each facility up to standard. For this, a physical inventory of each facility is required. This inventory ascertains the extent to which standards are presently being met, and the shortcomings that will need to be addressed to get the facility up to this standard level of service and quality. Many managers may be reluctant to do this physical inventory insisting that the information is already available or that transportation is difficult or expensive. However, a visit to every facility is a critical step for the process since few managers actually do have the necessary information and a visit to each facility often uncovers many issues of which managers are unaware. During this inventory, it can be noted which facilities meet all the requirements that have been set for that level of service delivery and what is needed or what is needed to reach this standard. In most situations few, if any, facilities will meet these standards on the first visit, but many may require only minimal improvements to reach this level. This inventory must not be a once in a lifetime venture. It must become part of the regular supervisory process, done by normal supervisory staff. For the first few times, however, the supervisor may require assistance to understand the concept.

Once information is collected about the current situation at each facility, a plan can be developed for bridging the gap between what is already available and what is needed **at each facility** to reach the standard needed for service delivery. This plan will include training, equipping, development of

improved logistics systems, or other management interventions that are required so that standards of service will be met, and facilities able to deliver services.

4. Development of costing standards

One of the traps that many health planners fall into is to do elaborate plans of programs such as reproductive health, without consideration of the financial constraints that limit implementation. Many plans look more like wish lists than realistic programs and so are never implemented. One reason for this is that accurate cost information about what will be the true costs of implementing a new program have not been available, and so planners simply use figures that do not accurately represent the situation in their own country.

For this reason there has been an increasing focus on the collection of cost data of reproductive health services and the methodologies used to determine those costs. This initially came about from the discussions surrounding the ICPD in Cairo at which time both donor and recipient countries were searching for a way to calculate the global costs of implementing the program of action of that conference. During these discussions, figures were used that were based on very approximate estimations of resource requirements, because of the substantial lack of good data regarding actual costs to run a reproductive health program. Since then, several studies have been published measuring the costs of these services^{1,2} and discussing methodologies to be used for this exercise.

Cost data can be collected in two ways: top down or bottom up, and each has its advantages and disadvantages. Top down costing takes the total cost of a program such as reproductive health or outpatient services and allocates these costs on a per output basis. Thus, the total costs of reproductive health services might be divided by the total number of clients to yield the average cost per patient.

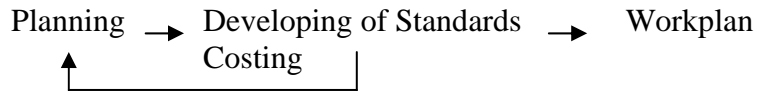
Bottom up costing collects cost information about each input that goes into an output. Thus, data on salaries, time spent by each staff on each type of output, supplies, use of operating rooms, transportation, etc. are collected and added together to build up the total cost of an output such as a normal delivery. It is this type of costing that is facilitated by the development of a matrix of services.

Doing bottom up costing requires a definition of what exactly is being costed: what are the specific inputs that are being included in each type of program to be costed. In other words, what are the standards of service? Having developed the standards of service needed for the matrix that is described above, it is a relatively straightforward process to develop the costs of each package of service. Further, the costing of each input, combined with the inventory of facilities that has been done, enables planners and managers to say what are the actual costs of bringing each facility from its present situation up to the level that is defined in the standards of the matrix. Thus, accurate budgeting, and a realistic timeline can be developed for implementation of the program.

¹Marc Mitchell, Joan Littlefield, Suzanne Gutter, Costing Reproductive Health Services, *International Family Planning Perspectives* (Alan Guttmacher Institute, Jan., 1999)

²Barbara Janowitz, and J..Bratt, 1994, *Methods for Costing Family Planning Services*, New York: UNFPA

Obviously, once the costing of program implementation is done, planners may need to reconsider the feasibility of their proposed matrix. While they may wish to make caesarian sections available at each health center or each district hospital, this may not be realistic given the available budget or staffing, and the matrix may need to be considered in light of the cost information. Thus, the planning process is a cyclic one in which plans are developed, costed and reconsidered in terms of what is realistic. This is illustrated below:



At the end one should be able to develop a realistic workplan that is within the constraints of both budgetary and manpower constraints and directed at the priority issues in reproductive health.

5. Initiation of workplan

Having set priorities, developed standards, done an inventory of available resources, and costed what will be needed to bring all facilities and programs up to the standards that are developed, the program manager is ready to begin implementation of the workplan and bring facilities up to the standards described above. While the needs of the manager for the upgrading of facilities will obviously vary with the country and specific situation, as a general rule, managers will need to focus on 3 key areas: staff, supplies and equipment (including pharmaceuticals and contraceptives), and the physical facilities.

- **Trained and committed staff:** It is apparent that a facility cannot function without staff. Whether the service being provided is reproductive health, surgery, or any other field, service delivery begins with the person delivering the service. Staff must be technically competent to provide the appropriate array of services,³ but this is not sufficient. Staff must also be committed to providing the client with the best service possible. For this to occur, they must respect the client and his or her needs, and must be willing to take the extra step needed to address the needs of the client⁴. This is a basic element of reproductive health: to value to client's perspective and meet his or her needs. This will come from effective training, good supervision, appropriate incentives; and from role modeling by senior staff in the organization. In terms of planning for this to occur, training, and other elements of personnel management will be required.
- **Supplies:** Services cannot be delivered without staff, and staff cannot function without supplies. Too many countries often leave the procurement, storage, and distribution of supplies to chance. Adequate contraceptives, drugs, supplies and equipment required for the service package are essential for the provision of services to the client. Excellent work has been done in the area of logistics management and assistance is available through a wide variety of sources⁵ if this is an

³Bruce, Judith. 1990. "Fundamental Elements of the Quality of Care: A Simple Framework." *Studies in Family Planning*, Vol. 21, No. 2.

⁴ Elaine M. Murphy, PATH, and Cynthia Steele, AVSC, *Client-Provider Interactions in Family Planning Services: Guidance from Research and Program Experience*

⁵Many donors including USAID and WHO can provide assistance in logistics

issue that needs to be addressed. Inept management, inappropriate financial priorities, and corruption must all be addressed to ensure an uninterrupted supply of all equipment and supplies necessary to provide a full array of services.

- **Adequate physical facilities:** Facilities do not have to be beautiful or expensive to serve the needs of the client, but they need to be functional. They must be clean, provide both visual and auditory privacy for examination and counseling. They must be sufficiently secure for equipment and supplies to be kept safely and for staff and clients to feel safe. In the case of community-based distributors, a suitable site for contraceptive distribution and counseling clients is needed—this will most often be the clients' homes. In addition, with the exception of community based services, a reliable source of water and energy is also required.

6. Monitoring facility improvement and service delivery

Monitoring this type of approach to program implementation is relatively simple, since the focus is on the improvement of access and quality of the delivery system through the upgrading of individual facilities to a standard level, and incorporates the collection of baseline data through the use of inventories of facilities in step number 3 above. In essence, the monitoring system would 4 components and associated indicators:

- number of facilities that meet the standards set;
- whether the workplan is on schedule, and where it is not;
- whether the budget developed in steps 3 and 4 are on target, and what is the variance;
- whether the population has benefited from the inputs.

With the exception of the last indicator, the data for this type of monitoring would come from the operational information collected through the implementation process, with periodic inventories being done of all facilities. In the case of population benefits, the methodology will be determined by the type of benefit that was identified in step 1 of this process and data collected as needed.

Conclusion

The wide array of services defined by the ICPD programme of action has given many planners pause at how best to implement a reproductive health program. This has been compounded by the many changes that are occurring in the way that services are delivered through a decentralized, health structure using both public and private sector and with an increased emphasis on the financial viability of each type of service. Further, the need to include sectors beyond health to address issues such as youth, gender-based violence, HIV/AIDS, and safe motherhood have made implementation more complex and increased the management needs throughout the system. Yet, at the same time, there is a recognition that it is only through such a

management. Two excellent sources of assistance are Management Sciences for Health, and John Snow, Inc., both located in Boston, MA.

multi-sectoral approach that real progress will be made in reproductive health. There is, therefore, a need to develop simple approaches to the design and management of health services that will be easy to understand and use, but robust enough to work in a wide variety of settings.

This paper is an attempt to define such a system of planning and management using a matrix of services as the starting point. It is based on work that has been done in many countries around the world and is based on management fundamentals that have been shown to work in many settings over a long period of time.

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Appendix 1: Illustrative Service Package, including reproductive health and other primary/preventive services.

Intervention	Community/Household (outreach workers)	Clinic (or lowest level fixed site facility)⁶	Health Center: (a) outpatient surgery only (b) in-patient surgery	District Hospital (referral services)
Family Planning	community counseling distribution of condoms, oral contraceptives	manage/refer problems provide injectables	manage/refer problems IUDs, Norplant surgical contraception (b)	infertility
RTI control and management	information on safe sex recognition of symptoms	counseling symptomatic screening symptomatic treatment	testing full treatment of asymptomatic problems	diagnostic procedures specialized treatment HIV screening
Ante/post natal care normal deliveries, management of emergencies	register pregnancies home deliveries recognize problems and arrange transport	antenatal check-ups TT vaccination obstetric first aid IV fluids, antibiotics	basic obstetric care emergency obstetric care (b) post abortion care	comprehensive emergency obstetric care ectopic pregnancy
Nutrition	identify, treat anemia counsel pregnant women vitamin A, iron folate	manage supplementation program		
Management of child illness	Feeding advice, Vitamin A Home treatment for fever/malaria/diarrhea Care seeking (early recognition and referral)	Assess and classify ORT & feeding for diarrhea Antibiotics for ARI Antimalarial drug for fever (in malaria areas)	Assess & classify cough, diarrhea, fever, nutritional status; treat cough, fever/ malaria, diarrhea, blood in stool, ear problems. Referral severe cases	Manage severe cases
Immunizations	maintain registers	Immunization (EPI plus)		
Disease control	water, sanitation identify TB suspects and provide DOT ⁷ to cases; manage malaria cases	identify TB suspects and provide DOTs to cases; manage malaria	diagnose and treat cases secondary drugs for malaria manage drug complications	manage severe cases
Curative care	treatment of cuts, bruises fever, stomach aches	antibiotics, IV fluids	other surgery (specify)	

⁶ Note: services offered at lower level would normally be offered at higher levels as well, when appropriate, and are not repeated in higher-level cells.

⁷ DOT— directly observed treatment