

Findings

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Chad : the Safe Motherhood Project Strengthening the Health System

In this largely Muslim population, only about a third of women have any schooling, most marry young (nearly 80 percent by the age of 19) and by the age of 18, more than half have had their first child. Nearly 1 in every 5 women joins in a polygamous marriage. As both women and men state they want 8 and 16 children, respectively, the use of modern contraception remains strikingly low at 1 percent among women and fertility is high (total fertility rate estimated at 6.6). Given this, it is not surprising that maternal mortality in Chad is among the highest in the world, estimated at 827/100,000 live births through survey means (CDHS 1998) or 1,500 based on a hypothetical model by WHO/UNICEF (1996): The life-time risk of dying from maternal causes is 1 in 18 or 1 in 9, respectively.

During labor and delivery, a most vulnerable period, only 1 in 4 Chadian women have trained assistance; this declines to 16 percent in the rural areas. Even the use of antenatal care is low; about 1 in 3 Chadian women have some antenatal care although only one in five seeks such care in the rural areas. The leading causes of maternal mortality are hemorrhage/anemia, eclampsia, and postpartum and post-abortion infections. High fertility, high levels of maternal anemia (reaching 70 percent at the National Reference Hospital), difficult access to health care, clandestine abortions, female genital mutilation (estimated at 20 percent), and low literacy among women, are among the many indirect causes of poor maternal health.

Chad's dispersed population impacts on indicators of health service availability as well, such as the ratios of persons per health facility bed or per public health facility, which are the worst amongst the Sahelian countries. Drugs and contraceptives were scarce; in 1993, only 11 of 400 functional public health facilities provided family planning services and information. And only about half the health districts throughout the country were considered functional in 1994 (defined as having a district hospital with a doctor and continuous supply of essential drugs) and most required repair, water and electricity. Further limiting access to basic health services has been the shortage of qualified staff (only 1 doctor/45,000 population and 1 midwife/37,000 population, two-thirds of whom serve in the capital of N'djamena; and 1 nurse ([usually male] / 25,000 population), their lack of sensitivity to women, the scarcity and inappropriate use of drugs, the low operating budgets for health facilities, as well as the obstacles of climate,

difficult terrain, and lack of transport.

Government policies on safe motherhood and basic health

In response to these challenges, the government and donors developed a National Health Development Plan that defines the country's health policy and program strategies through the late 1990s. This plan was updated and presented to the donors in March 1999. The Plan provides a framework for coherent policy commitment and interventions for improved health. It aims to ensure widespread availability and accessibility of services, especially for the most vulnerable groups. This includes basic health for mothers and children, prevention and control of local endemic diseases including Sexually Transmitted Diseases (STIs) and HIV, nutrition, family planning services, water and sanitation. Particular emphasis is given to reducing maternal and infant/child mortality. Key strategies are: (a) developing and strengthening the three-tiered health care pyramid by promoting decentralization and integrating activities and programs; (b) implementing district health plans with the district as the program's operational unit; (c) ensuring accessibility to low-cost essential drugs; and (d) increasing community participation in the management and financing of primary health services through community health committees.

Project-specific assistance from the World Bank

In addition to the elements already in the Plan, a specific maternal health objective was included in the May 1999 Country Assistance Strategy. The Bank is assisting the government in implementing its long-term strategy for increased access of the population to quality basic health, nutrition and family planning services, the Bank has provided financing for two complementary projects: the Health and Safe Motherhood Project and the Population and AIDS Project.

Health and Safe Motherhood Project

The objectives of this project are to: (a) enhance capability at the central level to support regional health services (16 percent); (b) ensure accessibility of the population to low-cost essential drugs (21 percent); and (c) improve access to basic health services in the regions of Guéra and Tandjilé (63 percent). While the scope of (a) and (b) are nationwide and support capacity building for health generally, (c) targets two regions for the implementation of these efforts with an emphasis on Safe Motherhood. This project builds on a prior Bank project that included support for the general health sector, the Social Development Action Project (PADS).

(a) Enhancing capability at the central level

The first objective of the Health and Safe Motherhood Project is to support the government's efforts to decentralize decision-making and management authority, reinforcing the role of the Regional Health Officer (RHO) for health planning and program monitoring of all regional activities, including the public and non-governmental sectors. Standard training modules were developed for district level use as well, aimed not only at upgrading technical, communication and management skills, including skills needed for the cost-recovery schemes, but also at

consolidating the various donor-supported training activities. Given the emphasis on accessibility of low-cost drugs, health workers also are trained in the diagnostic and treatment schemes of the essential drugs.

Complementing the training and management efforts is the effort to strengthen nationwide the Information, Education, and Communication (IEC) program. This is done through capacity building at the central and regional levels for better planning and coordination of IEC activities and their implementation.

(b) Ensuring access to low-cost drugs

To further support the nationwide health efforts, and specifically the newly-adopted National Drug Policy (NDP), the Bank assists to ensure overall geographical as well as financial accessibility of the population to essential generic drugs as a prerequisite to the successful implementation of cost-recovery. The NDP selects drugs essential for dealing effectively with at least 90 percent of the curative and prophylactic needs of the majority of the population, including the major complications that kill women. A Central Purchasing Agency, an autonomous, not-for-profit institution, set up with the support of the project, now provides, through regional pharmacies adequate and timely supply of essential generic drugs and medical supplies to health facilities (public and NGO) at prices the communities can afford.

(c) Ensuring access to basic health services

Implementation efforts in two prefectures demonstrate how these nation-wide initiatives can enhance the Safe Motherhood program. The regions of Guéra and Tandjilé, with 12 percent of the country population, were selected for special inputs, not only because they had attracted little to no other donor involvement, but also because they are relatively inaccessible, the level of poverty is striking, and use of health services low even by Chadian standards. The first strategy to improve the accessibility of basic health services is to ensure that the health facilities are available and staffed according to the National Health Development Plan, meaning rehabilitation or construction and equipping of health facilities, plus redeployment of doctors, midwives, nurses, and paramedical personnel to the extent that they are available. The design of the health centers includes a labor and delivery room to allow maternity care at peripheral levels.

Retraining personnel in the project areas has provided physicians skills in public health and short-term clinical training in surgery, internal medicine and obstetrics-gynecology; paramedics have received training in anesthesia and radiology; and the IEC capability was strengthened. As the backbone of the health system, the basic training of the nurse aides is being revised to ensure that they have knowledge and skills in Safe Motherhood. When they graduate from the 2-year course, they would have had 40 days hand-on training in hospital delivery.

The Safe Motherhood approach involves encouraging women with complications to have institutional births, including at health centers. The Project includes an IEC campaign aimed at alerting families of the dangers of excessive bleeding, of prolonged labor beyond one day and

night, and of premature "water breaks" with no pain (no contractions). Motorcycles pulling stretchers are based at health facilities with a radio link-up between health centers and the district hospital; these are being tested for their effectiveness to provide emergency transport for women experiencing complications. Male nurses, often the only staff available at health center level, are encouraged to invite the female traditional birth attendants (TBA), with whom the majority of women deliver to be present during deliveries taking place in the health centers. This has meant that husbands as well as their wives feel more comfortable with the nurse.

Lessons learned and recommendations

Safe Motherhood: An entry-point for capacity building

Chad has proved fertile ground for building a Safe Motherhood program. A significant benefit of strengthening a Safe Motherhood program is that the health infrastructure, from the peripheral units to referral hospitals, is also strengthened for other services as well.

Referral is an absolute necessity in Safe Motherhood, as women with severe delivery complications require a higher level of care. Chad has approached this by attempting to ensure communications and transport between referral levels (radios and motorcycles). Transport is a particular challenge in Chad where there are only a few roads, most of them not practicable during the rainy season. While radios have proved useful in other places for Safe Motherhood, they are not necessarily an easy intervention to put into effect. It means obtaining a frequency band specific for emergency calls, high levels of maintenance, and the need for committed skilled staff available to respond to questions. Several pilot experiments are being undertaken and documented in order to find affordable and effective means to refer women, but at present referrals remains difficult, especially during the rainy season.

Other components necessary for effecting Safe Motherhood, in addition to other health initiatives, are brought together in a unique way that adds to the projects' *potential* success in an otherwise uncompromising environment: essential drugs for Safe Motherhood, training of paramedics to provide normal delivery in peripheral areas, partnering of the traditional and medical systems to draw rural women into professional care at delivery, and the exploration of means to address transport and communication problems. It should be possible, at the end of the project, to determine whether these necessary components were in fact sufficient to improve maternal health.

Ensuring availability and accessibility of basic health services

In spite of the efforts to redeploy MOPH staff to reach specified norms per area, the acute shortage of clinical and paramedical staff (nurses, midwives, and nurses-aides) continues to be a significant obstacle to increasing access. Several strategies are being considered to correct the present geographical imbalance in the distribution of such personnel, including annual recruitment of new graduates, regionalization of basic training, skill-upgrading programs for district health personnel, a one-third quota for women in each class of paramedics, re-deployment of existing personnel, short-term recruitment of expatriate physicians, if possible from within the region, and negotiation of contracts with NGOS for the management of health

facilities.

Training of paramedics to recognize and manage obstetric/newborn problems

A two-year course for nurse-aides and a three-year program for nurses provide some hands-on experience for normal and complicated deliveries. Normal care training includes methods to determine pregnancy and estimate the date of delivery, use and interpretation of a partogram to monitor labor, and provision of post-partum and newborn care. To manage complications, students are taught how to provide ergometrine for hemorrhage, and how to diagnose and refer obstructed labor, placenta previa, and eclampsia.

The paramedics (nurses, midwives, and nurses-aides) in the Chad system hold the key to successful Safe Motherhood. They are the link between a woman and referral care, and pivotal to recognizing complications early and providing management at an early stage to lessen the number that go on to become severe or which can result in death. Providing the paramedic with the support s/he needs--drugs, a radio, motorcycle, IEC support to build community awareness, referral back up--requires a long-term commitment to Safe Motherhood, a critical component that is very much in evidence in Chad.

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