



en breve



May 2004 No. 47

A regular series of notes highlighting recent lessons emerging from the operational and analytical program of the World Bank's Latin America and Caribbean Region

INTEGRATED SERVICES TO FIGHT MATERNAL MORTALITY IN NICARAGUA

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Introduction

Reducing Nicaragua's high maternal mortality rate of 150 maternal deaths per 100,000 live births is a priority in the Government's Health Plan and Poverty Reduction Strategy.² Efforts to improve reproductive health face many challenges. Adolescent pregnancy rates are among the highest in the region (130 per 1,000 15-19 year olds). Fertility in rural areas (5.4 children per woman) and among poor women (6.6) is significantly higher than the Latin American average of 2.8 children per woman. Poverty, limited educational and employment opportunities, traditional gender roles and disempowerment of women, and poor access to distant health services across difficult terrain in remote rural areas are significant barriers. Maternal complications need immediate attention, are difficult to manage and often lead to the death of the woman (and/or child).



Women's Centers and Extending Health Care Services to Remote Areas

Since 1998, the health sector reform project has contributed to improving maternal mortality and reproductive

health in remote areas of Nicaragua through Women's Centers (WC), which provide care to high-risk pregnant women before and after delivery; and "Extension of Coverage" initiatives that sub-contract health operators to provide basic health care to isolated communities. Since 2001, nine WCs (Table 1) have served 2,927 women—6 percent of all expected births in the 887 communities in 23 municipalities they cover.³ "Extension of Coverage" projects in Siuna and San Carlos cover 4-6 percent of the population of these districts, serving approximately 11,000 people per year.

Women in isolated rural communities with high risk pregnancies are referred to the WC by health personnel (health volunteers in communities, midwives, and doctors and nurses in intermediary health points). These women tend to be poor or extremely poor, with little or no education. Nearly one third are teenagers. They usually spend two weeks before delivery and one week after delivery at the center. In addition to food and lodging, they receive daily medical visits from health center doctors, and education on sexual and reproductive health including family planning (FP) and child care. WCs have extended their services beyond those planned, offering advice and counseling on issues as diverse as domestic violence, child support claims, and how to obtain identity cards or land titles.

Box 1. Women's Centers in figures

From 2001-2003, 2927 women gave birth to 2930 babies in WCs—80 percent of the women were poor or extremely poor - 30 percent of the women were younger than 19 years, 30 percent were older than 35-60 percent had little or no education - Their average number of children was 4.6 - half the women had previously delivered a baby at home - In the North Atlantic Zone, 90 percent of the women were of Miskito origin - The average travel time to the WC is between 3 and 8 hours on foot or by boat

Following an initial visit by the Ministry of Health (MoH), local communities promote the idea of a WC and identify a local community service organization (CSO, e.g. a local NGO) to manage and operate it. These CSOs tend to be small grass-roots organizations with a strong local base. WCs are governed by a committee that includes representatives from the health center, local government, the leading CSO and sometimes a local Ministry of Education representative. The CSO usually contributes one full time staff to manage the center, and the MoH provides (decreasing) funding for operating costs, and health staff to visit the centers regularly. Local governments sometimes provide land for a building and part of the operating costs. Networks of friends have arisen around most WCs to provide additional resources.

Community health networks—health volunteers and midwives—play an essential role in the successful operations of WCs. Volunteers and midwives, trained by the MoH (or international NGOs) to recognize common health problems, live in remote communities. They monitor the health of the community and alert health personnel when emergencies arise, coordinating with intermediary health points staffed by nurses and/or doctors and with health centers or hospitals. They are responsible for family planning and reproductive health training in communities. They identify and refer high risk pregnancies to the health point or WC.

Under “extension of coverage” initiatives, the MoH hires a local health operator (usually a CSO) to visit remote rural communities periodically to monitor health and provide basic health services. Using an incentive-based contract, the MoH reimburses the local health operator according to agreed-upon health indicators. The CSOs tend to be grass root organization which work closely with the community health network of midwives and volunteers. The integration of this network with the formal health care system has produced excellent results for basic and reproductive health care.

Results

Preliminary data suggest sharply reduced maternal mortality since WCs became operational. Many women are using WCs, most of whom are receiving professional care during a birth for the first time. Their unprecedented access to regular checkups, medical visits and ultrasounds has significantly reduced maternal mortality in all health districts with a WC, except for Rio Blanco (Table 1). In San Carlos, the WC has increased births attended by health professionals by 48 percent, and maternal mortality has decreased from 16.7 to 6.2 per 100,000 live births.

Coordinated action by WCs and community health networks has increased family planning (FP). FP education has intensified through household visits, community meetings and talks in WCs. Results are encouraging,

Box 2. “Extension of coverage” initiatives funded under the Health Sector Reform Project San Carlos' Basic Health Team

The Community Health Association provides basic health services to 8 isolated communities in the municipality of San Carlos. The association comprises over 300 local men and women, 10 technical and 4 administrative staff. Their basic health team includes a doctor and three nurses who usually spend 4 to 5 days in each community every 8 weeks. The association coordinates its work with the MoH and presents bi-monthly reports on their progress toward agreed-upon health targets. They vividly remember working through the Easter holiday week to achieve targets on time. Achievement of the targets carries with it a significant reward: a 15 percent premium to invest in equipment for the association. The association has always met their targets. Furthermore, their contract with the Health Sector Reform Project is a source of pride, representing institutional recognition and support for the work they have been doing for years. **Siuna's integrated reproductive health services** The Women's Movement Paula Mendoza provides a broad range of reproductive health services for poor isolated rural communities in Siuna, including a reproductive health clinic, a Women's Centre, and nutrition and training programs. They use innovative approaches in reproductive health and family planning education to try to involve men. These include periodic workshops with community leaders (men), offering reproductive health counselling to couples, and talking with fathers to promote responsible parenthood.

although considerable obstacles remain, especially men's reluctance to use and/or let their wives use FP methods. In San Carlos and Siuna, sites of extension of coverage initiatives, FP coverage among the fertile population has more than doubled from 21 to 43 and 47 percent respectively.

Women have said in interviews that their WC stay provided physical and psychological rest that would have been impossible given the large, continuous demands on them in their communities. They value highly the care received from WC staff, doctors, and other women in the Centers, and have come to regard health care as their right, not charitable assistance.

Factors contributing to the success of Women's Centers

Community participation is essential to the success of WCs. Learning from similar, less successful initiatives, the project assessed communities' institutional capacity, and involved communities fully. The leading role of CSOs in establishing and operating the WCs, as well as the support of local hospitals, have also been essential.

Community ownership of WCs strengthens sustainability. MOH's strategy of decreasing financing, coupled with helping WCs develop long-term sustainability plans have spurred fundraising activities and resulted in various alliances. For example, Matiguas WC is seeking support from a Parliamentarian and network of migrants in Los Angeles. In Siuna, donations from friends in the U.S. fund equipment, and several international NGOs contribute to operating costs. El Castillo and San Carlos' WCs are supported by grass root organizations and international NGOs. WC managers are unanimous that after the project closes, they "*will not let the project fall (in)to the cracks because of lack of funds, we will search for funds wherever necessary*".

The MoH plays an essential role at the local level, setting strategy, coordinating different health operators (the WC, CSO and community health network), and sitting on the

WC management committee. Unlike earlier efforts, WCs are totally integrated into the health system. MoH support at central level has helped legitimize the model and generate additional external support. Weak local level MoH capacity, however, undermines the WC and whole system. For example, high staff turnover (3 health center directors and 2 maternal health doctors in two years) in Bluefields has delayed the WC project.

WCs complement services already provided by health centers, which avoids competition and keeps costs as low as U.S. \$66.6 per woman for 15 days of services.

Gender training for project, WC and MoH staff has built knowledge of the realities women face, raised awareness of how gender inequalities can worsen women's reproductive health, and improved the ability of the WCs to meet their clients' needs.



Challenges

There are four main future challenges:

- i. transmitting reproductive health messages to men in ways that they will accept;
- ii.harmonizing reproductive health training programs run by MoH, Ministry of Education, and local and international NGOs, and ensuring quality control of these training initiatives;
- iii. setting service standards and creating a Federation of WCs as WCs proliferate across Nicaragua; and
- iv. building capacity to operate WCs properly in more communities,

particularly where no solid social base exists.

Conclusion

Preliminary findings indicate encouraging success and cost effectiveness of Women's Centres and Extension of Coverage initiatives in improving maternal mortality and other reproductive health indicators in isolated areas of Nicaragua. Their expansion in Nicaragua and replication elsewhere is highly recommended. Investing in building

communities' capacities to operate the centres and bringing the local branch of the MoH on board are fundamental to efficient implementation and sustainability.

Millennium Development Goals Latin American Overview

The Latin America and the Caribbean region has the highest gross national income (GNI) per capita of all developing country regions. The number of poor in the region would fall from 57 million in 1999 to 47 million by 2015, if it can maintain a per capita growth rate of 2.6 percent. But GDP per capita has grown by only 1.5 percent a year since 1990 in the region, with many countries affected by economic crises in the second half of the decade. Latin America continues to attract more private capital, \$72 billion in 2001, than any other developing country region. The region also

has the lowest military spending among developing regions, 1.3 percent of GDP. But the region suffers from a relatively low overall rates of savings (19 per cent of GDP). The region has the potential to reach many of the MDGs. It is the only developing region where girls have a higher literacy rate than boys. The region also has the highest life expectancy at birth, 71 years. Yet there are still significant gender differences in labor market opportunities. Child malnutrition remains a problem in the low-income countries and in poorer regions of some middle-income countries. Although it is a comparatively wealthy region, it is also the most unequal

Box 3. Men and reproductive health decision making

Reproductive health decisions, ranging from whether to use contraceptive methods to whether to spend household resources on transporting pregnant women to a health center, are usually made by husbands. Men's opposition to family planning or disregard for their pregnant wives' care can stem from ignorance of the consequences of poor or little care, or from long-standing cultural practices that are difficult to change. Women's limited ability to challenge the authority of men can have pernicious consequences. WC personnel note that maternal deaths not uncommonly result from husbands refusing to allow their wives to go to the health center. Women often obtain contraceptives surreptitiously, getting injected contraception when taking their children to the health point, or choosing caesarean delivery to be able to have tubal ligations without telling their husbands. WCs and health personnel have tried many approaches to get men on board. For example, health personnel in Matiguas get men to observe and support their wives during the delivery, which can also raise awareness of pregnancy risks. They recall the father of a large family telling his wife during delivery: "*(giving birth) is horrible, we have to (family) plan*". Midwives often talk to men of the economic difficulties of raising large families. This was a powerful argument for one man whose reason for undergoing a vasectomy was the high cost to his family (about \$1000) when his wife had an emergency during a pregnancy.

¹ This note summarizes a case study produced under the 'Gender Mainstreaming in Latin America and the Caribbean' component of the Bank-Netherlands Partnership Program. Information was gathered in Nicaragua in September 2003, in interviews with project staff, local health personnel and Women's Center staff; visits to 3 Centres (Matiguas, Siuna and San Carlos); and focus groups with WC clients and community health network members. The authors gratefully acknowledge Josefina Medrano's (Health Sector Reform Project) help during fieldwork. For additional information: mruizabril@worldbank.org or jfernandezdiaz@worldbank.org

² Improving maternal health is a Millennium Development Goal; the target is reducing maternal mortality by three quarters, between 1990 and 2015.

³ The average number of communities served by each WC is 99; in Siuna, where communities are especially dispersed, the WC serves 190 communities.

⁴ The increase in maternal deaths in 2001 reflects better recording after the WC opened

region in the world. Inequalities are high both across and within countries. The region includes two very poor countries (Haiti and Nicaragua), and regional averages for country indicators mask wide disparities in social indicators by income, ethnicity, gender and geographic location.

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