PREVENTION OF CERVICAL UTERINE CANCER IN NICARAGUA

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1. Introduction

Global changes in matters of sexual and reproductive health (SRH) are governed by the importance that diseases such as cervical-uterine cancer, HIV-AIDS, and other sexually transmitted infections or problems of a reproductive nature have acquired in the last 14 years. Until 2013, cervical-uterine cancer was the main cause of deaths due to cancer among women in Nicaragua (22% of total deaths due to cancer). The evolution of policies on this subject ranges from the creation of a national strategy to address the problem, to investment in support programs for the prevention and cure of the disease.

Efforts like those carried out by the Ixchen Women’s Center, an organization that promotes and fosters the health and wellbeing of women in Nicaragua with the implementation of a sectoral program for the prevention and cure of cervical-uterine cancer, are a sample of the joint work between public-private entities and civil society to reduce the incidence of the disease in the country, with palpable results, at least at the statistical level, where the incidence of the disease has diminished to a rate of 3.91% between 2000 and 2011.

During 2010, an evaluation of the impact of the Ixchen Women’s Center’s Sectoral Program for the Detection and Prevention of Cervical-uterine Cancer was done in Nicaragua. This evaluation formed part of a group of studies carried out on the influence of Dutch cooperation in the field of sexual and reproductive health rights in several countries, particularly the policy to support programs and projects of this nature. Under this policy, between 2005 and 2009, more than USD 33 million were allocated from Netherlands Development Cooperation to support governmental, non-governmental and multilateral initiatives in the field of sexual and reproductive health rights.

In a consortium, Ecorys and CDR carried out a broad evaluation of the program at the request of the Development Cooperation and Policy Evaluation (IOB) of the Dutch Ministry of Foreign Affairs. The impact evaluation considered at least five relevant aspects in the analysis of the intervention: first, its net effect in terms of coverage and the effect with regard to the number of persons correctly treated; second, the effects of the intervention on knowledge and attitudes toward cervical-uterine cancer and the use of SRH services; third, an analysis of the cost-effectiveness of the intervention; fourth, the outcomes of the intervention in terms of the public-
private association for its implementation; and fifth, the unexpected outcomes of the intervention.

The sectoral program evaluated was carried out from 2005 to 2008, and it was implemented by the Ixchen Women’s Center in collaboration with the Ministry of Health of Nicaragua, with direct or indirect support from other organizations in the country.

This article discusses the work done from a policy approach for sexual and reproductive health rights in Nicaragua, and particularly the approach for the prevention, treatment and/or cure of cervical-uterine cancer through a sectoral program of the Ixchen Women’s Center.

2. Economic and social context

The total population of Nicaragua, some 6 million people, is 50.6% women, or more than 3 million people. Between 2000 and 2013, the female population of Nicaragua increased slightly (0.4%), with a significant increase in life expectancy at birth of women, which rose from 73.8 years in 2005 to 77.6 in 2013.

Over the last twenty years, the role of women in Nicaraguan society has evolved. They are increasingly becoming the standard head of the household, where three out of ten households are female-headed. Ministerial and Assembly positions are held by women in 56% and 40% of the cases, respectively. The country’s work force is 37.2% women, meaning that of every three persons who work, one is a woman. Even so, in terms of literacy, at least one of every five women over 10 years of age is illiterate; whereas of every three women employed or working, two remain in the informal or low productivity sector.

In sexual and reproductive health terms, the average number of children per woman fell from 4.6 children in the 1990s, to 2.4 on average for 2012, nearly a 50% reduction in the last 20 years. Between 2006 and 2012, adolescent pregnancies were reduced by 2.2% and a 7.5% increase in the use of modern contraceptive methods was recorded for the same period.

The WHO emphasizes “the enjoyment of the highest attainable standard of health” as a human right, with national conditions of availability, accessibility, acceptability and quality of healthcare services for people to be able to live as healthy as possible. Sexual and reproductive health as such, has evolved as a concept in the last 30 years. It changed from being a maternal-child health concept – with care for the mother-child pair – to a more robust and comprehensive one that includes aspects of pregnancy and newborn care as well as everything related to the reproductive systems of men and women, including their functions and processes such as procreation and a satisfying sex life.

Since the 1980s, a greater participation of women has been promoted in civil society by emphasizing their sexual and reproductive health rights, which over the years has resulted in changes in government policies and approaches. In practice, the Ministry of Health of Nicaragua formulated the National Strategy for Sexual and Reproductive Health in 2007. This is a significant advance in this area, however, sexual and reproductive rights still have a long way to go. This is the particular case of abortion, a highly controversial subject in the country, which has been illegal since 2006 and punishable under any circumstance, including when the life of the mother is at risk.
Cervical-uterine cancer has gained importance in Nicaragua as well as a certain urgency as a public health problem. By 2013, cervical-uterine cancer represented 22% of the causes of death from cancer among women in the country, followed by other types of cancer (17%), breast cancer (11%), liver (11%), stomach (10%) and colorectal (7%) cancers. Between 2008 and 2010, cervical-uterine cancer was the main cause of death among women 15 to 49 years of age in Nicaragua, while in Central America it was the second cause of death among women in that age group.

Since 2008, there has been a national system for monitoring and managing cervical-uterine cancer in Nicaragua. However, interventions for addressing the problem starting with its prevention have been developed in recent years, mainly through the administering of Papanicolaou tests. Between 2005 and 2009, at least 2,223 new cases of women with positive Papanicolaou tests were reported nationally, and 56% of women between 31 and 45 years had invasive carcinoma, the most advanced stage of the disease. Some 52% of women diagnosed with carcinogenic lesions and carcinomas did not have a previous Papanicolaou test done; this means that a Pap smear, as this procedure is also called, was not necessarily a routine event for women bearing this diagnosis.

Through forms of care such as the Family and Community Healthcare Model (Modelo de Atención en Salud Familiar y Comunitaria - MOSAFC), the intent is to strengthen the healthcare systems and the prevention of diseases such as cervical-uterine cancer, considering that rural areas are those with the highest risk by having less access to traditional healthcare services. Even so, operationally, care is limited and dependent on the national referral system, mainly at the cure level.

Some relevant actions in terms of policies and regulations for the prevention of cervical-uterine cancer include the implementation of the Nacional Alliance for the Prevention of Cervical-uterine Cancer, comprised of MINSA, NGOs and other pertinent actors for the care and prevention of the disease in the country. In 2006, the National Committee for the Prevention and Control of Cervical-uterine Cancer was created, whose specific function is to coordinate actions and interventions to prevent, diagnose and treat the disease. Two years later, a monitoring system for the prevention of gynecological cancer (SIVIPCAN) was launched, accompanied by a national strategic plan, the updating of the National Standard for Prevention, and several training manuals.

The Nacional Alliance for the Prevention of Cervical-uterine Cancer was created in 2010 and under its framework the Sectoral Program for the Prevention and Care of this cancer was developed. This Program was implemented by the Ixchen Women’s Center. The intervention covered more than 75 municipalities nationwide and directly supported other national initiatives. The Ixchen sectoral program did Papanicolaou tests on women, in its mobile units and at its care centers. Between 2005 and 2008, an estimated 66,512 women had Papanicolaou tests through the program; of this group, 4,432 had positive test results, indicating some level of the disease. With the extension of the sectoral program until after 2009, MINSA held some national days for taking Pap smears with the participation of Ixchen in the reading of the samples between 2010 and 2011.

The Ixchen Women’s Center has been working for the health of Nicaraguan women since 1989, and it collaborates with several NGOs that have similar or complementary objectives. Between
2005 and 2008, Ixchen received funding support from the Netherlands to implement the Sectoral Program for the Prevention and Care of Cervical-uterine Cancer. This program consisted of a public-private collaboration between Ixchen and MINSA and it was extended to 2011. To date, Ixchen continues to implement actions for the prevention and care of cervical-uterine cancer.

The Ixchen sectoral program focused on attending to low-income women, generally in rural areas where the Ministry of Health did not have sufficient coverage, and in some urban areas where the Ministry requested particular support for the program. The program approached the target group using mobile units in which a medical team (nurses, physicians, teachers) offered Papanicolaou test services and provided the subsequent results, monitoring of positive cases or referral to the national system, as well as the inclusion of educational elements on sexual and reproductive health.

3. Methodology

The Evaluation of the Impact of the Ixchen Women’s Center Sectoral Program for the Prevention and Care of Cervical-uterine Cancer covered the period 2005 to 2008. This program received approximately USD 2.4 million from Dutch Cooperation as support. This evaluation was done by a multidisciplinary team of professionals, with support from reference groups in Nicaragua and in the Netherlands. This team carried out three studies:

First, a quantitative study based on a survey of program users. For this quantitative study, a survey was developed, validated and implemented with a sample of 634 users of the Ixchen sectoral program. The survey contained 101 questions, using indicators that enabled answering the investigation questions concerning the quantitative study. The women surveyed were selected in 21 municipalities (9 departments) where the program had a presence.

The original sample proposed was calculated using a 90% confidence interval, a 4% level of accuracy and an estimate of the population parameter at 50%, with respect to the estimate of women between 15 and 49 years of age who had never had a Papanicolaou test. In the construction of the sample a total of 630 interviews were defined.

In order to determine the net effect of the intervention, a counterfactual analysis was proposed, meaning a relationship between a scenario with and another without the intervention. Using a simple formula and considering the number of Pap smears done among users over three years, the aim was to verify a scenario without the intervention by calculating:

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\text{Average Pap smears done before Ixchen in a 3 year period} = \frac{PP}{A}\]

Where:

- \(A\) = Years in reproductive age, equivalent to: Age in 2005 (before the Ixchen intervention) − 15 (start of reproductive age)
- \(PP\) = Number of Pap smears done prior to the Ixchen intervention

This equation gives an average index of Pap smears done before the intervention, during a similar period (three years). This would be an index that represents the percent of Pap smears done in
the scenario without the intervention. This index, adjusted to a confidence interval of 90%, was extrapolated to the entire population of Pap smears done (66,512), providing with a simple calculation the number of Pap smears done without the intervention, and by subtracting these cases from the total, we obtain the net number of Pap smears due to the Ixchen sectoral program intervention.

Two more analyses were done in this study. In a first round, the condition of women before and after Ixchen were compared; in other words, the percentage of women who received Pap smears before and after the intervention. This analysis gives an idea of the coverage of Pap smears at two times, and it explains that the differences can be attributed to the Ixchen sectoral program as a possible factor. Figure 1 shows the logic of the analysis, considering the selection of a group of women 14 to 45 years of age in both periods.

Figure 1. Logic of the analysis of comparison – mid-term situation.

Second, a descriptive study with interviews and case studies among users, key program actors and external actors. This study was a complementary multivariable regression analysis of factors that influenced a women to have a Pap smear. Under the construction of a Probit model, based on the Estimate of Maximum Probability, the aim was to estimate the effect of some independent variables, such as educational level, age on the probability of having a Pap smear, and years before or after the Ixchen intervention.

4. Findings and data analysis

The results obtained from the evaluation process of the Ixchen sectoral program were as broad as the methodology itself and the number of studies carried out. The compiled findings are presented in terms of the chain of the intervention, from diagnosis or detection to the creation of awareness and attitudes toward SRH, and finally the (correct) treatment and cure.

Detection through Pap smears

Data from the Ixchen program indicate that the mobile units provided services to at least 88,769 women, of which 66,512 received a Papanicolaou. Of this group, 4,432 cases of women with positive results were detected, showing some precancerous lesion or cancer. Of this latter group, 49% were found in women 25 to 39 years of age, 16% in women under 25 years and 36% in women above 39 years of age.

Net effect of the intervention

To verify the net effect of the intervention, a counterfactual analysis of Pap coverage was done. Women were asked about their Papanicolaou history before and after Ixchen to obtain an average of Pap smears done in three years by each program user. The scenario with the
intervention between 2005 and 2008 showed 66,512 Pap smears done. Considering the methodology applied, an average index of 0.3376 Pap smears per woman was obtained for the three years of the Program; under a 90% confidence interval, this indicates that a scenario without the intervention would imply the realization of 20,400 to 24,509 Pap smears.

The net effect of the sectoral program is the result of subtracting the number of Pap smears done by the program (66,512) and the scenario calculated without the intervention. Therefore, the net effect on coverage for detection is between 42,303 and 46,113 Pap smears, a significant effect that explains the number of ‘extra’ persons covered by the program.

**Durability of the intervention**

The aim was to determine how durable the effect of the Ixchen intervention was; in other words, whether or not it had an influence on women continuing to receive Pap smears once the program ended. For this, historical Pap smear data were analyzed for two periods, before and after the intervention.

Four different groups were considered: 1) women who had one or more Pap smears before and after Ixchen, 2) women whose only Pap smear was during the Ixchen intervention, 3) women who had one or more Pap smears before Ixchen and none after the intervention, and 4) women who had Pap smears after the Ixchen intervention but had not had any beforehand. The groups were controlled by age (women 14 to 45 years of age) and they were analyzed in four periods of three years each, three periods before the intervention (1999-2001, 2001-2003 and 2003-2005) and one after the intervention (2009-2011).

The results show an increase in coverage, suggesting that Ixchen may have had an impact on the demand for new Papanicolaou services in subsequent years\(^{14}\). Figure 2 shows that coverage in the period after Ixchen would be between 21 and 26%; considering the baseline number of Pap smears done by the program, this would imply 13,916 to 17,611 Pap smears.

In this regard, precaution must be exercised since factors such as the continuation of the Ixchen program, the influence of other actors, and the accuracy of the historical data provided by the women cannot be completely isolated.

**Figure 2: Percentage of Pap smear coverage in different periods – mid-term effect.**

![Figure 2: Percentage of Pap smear coverage in different periods – mid-term effect.](image)

*Source: Dutch Ministry of Foreign Affairs (2012, p. 51).*

**Pap smear cost**

Although the test itself was offered at no cost to the users of the Ixchen sectoral program, the program did incur costs for each test. The survey revealed low costs for users in terms of out-of-
pocket costs (transport, food, etc.) and the opportunity cost of obtaining the test. The calculated average cost is approximately USD 0.30, mainly because the mobile units facilitated access to the service by being situated in the vicinity of the beneficiary communities.

The total calculation of costs per test, including the taking of the sample, laboratory costs and marginal costs of the education sub-component, is USD 28.33 per test done. However, this is a cost that considers the total of 66,512 Pap smears done, and not a more realistic scenario, such as the one proposed under the ‘net effect’ of the program. With 44,058 Pap smears, the cost of this effect would increase significantly to USD 42.77 per test done.

**Determinant for conducting a Pap smear**

The Probit models verify the effect of some indicators regarding the likelihood that a woman will have a Pap smear done before as well as after the intervention.

The factors that had a positive effect, meaning that they could have had an influence on the decision to obtain a Pap smear before the intervention, included formal education, mainly considering access to education and not the educational level as such; being the head of the household had a relatively high positive effect in comparison with women who were not heads of households and finally, the apparent awareness of family planning methods. Moreover, the distance to the nearest health center showed a negative effect, meaning that the farther the distance, the lower the likelihood that a Pap smear was done (and in this particular case, for each hour of distance, the probability diminished by 12 percentage points).

In a second model, indicators related to satisfaction in the use of the services were included. Factors that had positive effects and could have had an influence on the decision to obtain a Pap smear after the intervention included pregnancy subsequent to the intervention, implying that in seeking prenatal care services, women were more likely to come into contact with other sexual and reproductive health services where awareness was raised about having the test postpartum. Furthermore, participation in community health organizations (*casa de salud*) increased the possibility of doing a Pap smear, probably because the women have more contact with education and awareness-raising campaigns. In this regard, the qualitative study shows that women do not always participate in leading activities in the community and they do not necessarily perceive support from the community, directing their participation much more toward religious organizations.

Negative effects were seen among women with children under 6 years of age, above all because these women must remain at home caring for their children, which hinders their ability to get the test. In particular, support from the partner could not be verified as a factor having an influence in the quantitative study; however, the qualitative study showed that in these cases the women are quite independent in decision-making and decision-making by the couple is mainly for questions about purchases for the home and caring for the children.

**5. Knowledge, attitudes and practices**

Some ideas regarding the knowledge, attitudes and practices of women toward cervical-uterine cancer or toward the Pap smear can be derived from the study. It is very difficult to qualify the level at which the women are knowledgeable or not, and how much they know about such a broad topic, as well as to isolate this from other interventions present.
The study verifies basic knowledge about the test, where at least 75% of the women interviewed knew its correct purpose was cancer detection. Some 35% of the women surveyed had the first Pap smear of their life with the Ixchen intervention and 23% said that their first care related to their reproductive health was provided in the mobile units, therefore the level of awareness and learning about such an invasive test probably comes with time and practice.

Of the women surveyed, 71% knew about the Papanicolaou before the Ixchen intervention from MINSA campaigns. Other sources of knowledge mentioned in the surveys and interviews with women varied: radio, television, NGOs, health centers and relatives. Fifteen percent of the women surveyed indicated they heard about the Pap smear for the first time through an Ixchen mobile unit campaign.

Regarding cervical-uterine cancer, 76% of the women surveyed said that they knew about the disease, and of this group, 33% did not know the reasons for its occurrence in women. Erroneously relating the Pap smear as well as cancer with sexually transmitted infections occurred in several of the cases.

Although one of the subjects included in the research allowed investigating the use of contraceptives, pre- and post-natal services, and other health services, these areas were not studied in depth. However, women’s contact with the program, particularly those who had positive diagnoses and were referred to clinics for treatment of early or precancerous lesions, stimulated the demand for other sexual and reproductive health services. These include family planning methods and other tests such as ultrasounds\textsuperscript{15}.

6. Treatment and cure

In terms of treatment and cure, the number of patients treated correctly and discharged can also be derived from the calculations of the net effect of the program. This effect on the number of women treated correctly can be described from two scenarios. The first only considers women attended by the mobile units (66,512 who had Pap smears, and of these 2,211 who had positive results). The other considers the total women attended and referred by MINSA as well as other institutions (2,221 positive cases of referred women, which total 4,432 with positive results).

The latter scenario, considered to be the program total (4,432 positive cases), showed 1,771 women discharged. The calculated discharge rate for the program is 2.58%, giving a total between 1,082 and 1,188 women discharged correctly by the program.

Treatment chain: successes and abandonment

The treatment chain was reconstructed based on the questions asked of women with positive diagnoses. In this chain, some diagnoses were made prior to the Ixchen intervention, which were separated out to verify the treatment follow-up behavior of the users (Figure 3).

Among the factors to highlight, in the first place is a greater abandonment of treatment after the first control appointment, which is a key time for treatment monitoring, and in this case the women indicated they had not received a follow-up appointment from the medical staff. However, since these data represent the women’s perceptions, we cannot conclude that this is the cause for dropping out.
Secondly, splitting the chain by type of diagnosis\textsuperscript{16}, the women with noninvasive (pharmacological) treatments apparently followed the treatment (38% of the women), in contrast with those who had invasive treatments (31% indicated having received cryotherapy and 15% received a hysterectomy). This is explained because following a pharmacological course of treatment requires less time and effort, considering that at least 30% of the women in treatment are caring for children under six years of age.

\textit{Cost per woman detected and years of life saved}

The years of life saved were calculated based on the diagnoses and the likelihood of progression to cervical-uterine cancer, average survival rate for the diagnoses, average ages of the women and life expectancy. A minimum was calculated based on the 40% of women discharged and a maximum, considering an extrapolation to 60% with incomplete data (women dropping out of the treatment). The years of life saved by the intervention, considering only women referred from the Ixchen mobile units, ranged from 6,556 to 23,323 years\textsuperscript{17}.

The cost per year of life saved by the intervention was calculated according to the scenario with all the referred cases (4,432 women). The cost per woman with cervical-uterine cancer detected is USD 852. This costs rises to USD 1,570 if we only consider in the calculation the women detected and referred from the Ixchen program mobile units and not others referred by MINSA.

\textbf{7. Public and private collaboration}

Some aspects were revealed in which the collaboration was not very effective or where there were gaps that had to be addressed subsequently. A uniform transfer of capacity from the program to the MINSA care centers did not occur\textsuperscript{18}. Secondly, the handling of the files and their referrals did not occur under a standardized system with the possibility of following up on all the cases. To
this is added the absence of complete data available for all the users, whether due to the loss or mishandling of data. Even so, the Ministry of Health as well as the Ixchen Women’s Center and other collaborators such as PROFAMILIA, the Nicaraguan Society of Gynecology and Obstetrics (SONIGOB) and the network of brigade members and community leaders filled an important role in the implementation of the program. Its implementation contributed to the development of the National Strategic Plan for the Prevention of Cervical-uterine Cancer.

8. Lessons and conclusions

The program provided contributions and services that previously did not exist in this ‘mobile’ modality with greater proximity to the women attended in rural areas. Other aspects such as information, raised awareness and sometimes satisfaction with the service could have been compromised in the search for greater coverage in the number of women obtaining the test.

Regarding education and awareness about cervical-uterine cancer, much work remains to be done, not just at the level of women in their search for sexual and reproductive health services, but also among their partners and families. The involvement of community leaders, local brigade members and other actors from public or private institutions of the area, was highly effective in achieving the expected results of the program. This was even confirmed during the research, where this support was key in the search for candidates to interview. The multiplier effect of knowledge (oral communication between people) is a scheme that can continue to be applied in future interventions, and it can go beyond Pap smears, addressing deeper issues that would help create awareness about health rights among those most in need.

A key factor in the implementation of a program of this type is the development of an efficient and verifiable data system. The achievements in the area of health, as well as aspects related to monitoring each case or each diagnosis could be systematized and disseminated better with proper data management. The Ixchen program showed basic flaws in this regard, jeopardizing the follow-up and continuity of users within the national referral system. The creation of basic data systems for health programs is an investment that pays for itself in the rescue and proper integration of these women into other programs or national health referral systems, thereby ensuring timely access to the services available.

The opportunities for deeper collaboration on training and knowledge transfer, from a stronger rights approach, was worked on only superficially. Although the program was implemented in collaboration with MINSA, proximity and unity were not perceived at the level of users, who saw the program as an alternative or a competitor and not as a complement to the national system. More and better coordination among the actors could have made this kind of program a system for approaching the needs of rural women, giving them greater continuity of services with a focus on their participation as well as the fulfillment of their sexual and reproductive health rights.

The Ixchen sectoral program was cost-effective, achieving a cost per year of life saved between USD 55 and USD 348. Compared to the GDP for that period (USD 994), it was found to be between 3 and 20 times lower, reflecting a very good cost. In comparison with similar interventions in other countries, the cost of the program is higher; some of the aspects that make it more costly are: a) the cost of mobilization, and b) the type of test done requires several visits and monitoring. Although the program was aimed at rural low-income women who had not
received Pap smears in the last two years, it took the opportunity to provide coverage to other women who sought Pap services in the mobile units, and not just the target group. Although this was less cost effective, it increased the productivity of the program as such.

Other factors such as collaboration with other institutions, the use of more efficient tests (fewer visits) and the inclusion of other sexual and reproductive health services in the scheme, could improve the cost-effectiveness of these types of interventions.

Notes

1 Average Annual Percent Change (AAPC) of the Standardized Mortality Rate (SMR) for the disease (OPS, 2013 p. 44).
2 Other studies on the same topic were done simultaneously in Bangladesh, Ghana, Mali and Tanzania.
3 Consortium formed by ETC Crystal, KIT (Royal Tropical Institute), Ecorys and CDR.
4 UNFPA (2013, p. 2).
5 Concepts promoted by the WHO in terms of general healthcare services. For more information, consult: http://www.who.int/mediacentre/factsheets/fs323/es/.
6 “Sexual and reproductive health is a state of complete physical, mental and social wellbeing, and not merely the absence of diseases or infirmities, in all matters related to the reproductive system, its functions and processes. It includes the freedom and ability to have a satisfactory, enjoyable sex life without risks; and to procreate with the freedom to decide whether or not to do so, when and how often.” (MINSA, 2007 p. 7).
7 MINSA (2007, p. 5).
8 OPS (2013, p. 43).
9 The Papanicolaou, cytology or Pap smear is a test developed by George Papanicolaou in the 1920s (published in 1943); it is done in the neck of the uterus, to verify the presence of malignant or carcinogenic cells. This test should be done every six months once an active sexual life has begun. Its average cost in private clinics was USD 2.10 in 2011 de USD 2.10, although it is free in the public health system.
10 Dutch Ministry of Foreign Affairs (2012, p. 31).
11 The referral of patients with positive Pap smears was done to clinics in the Ixchen or PROFAMILIA networks, as well as to the nearly National Hospital for treatment.
12 All the users had a file with the details of their care, domicile and full name; however, these files were destroyed in 2010. Only the digital databases of users with positive Pap smears (4,432) were saved. In books, the name, municipality, department and date of care was saved for all program users (66,512).
13 It was considered that this was the start of reproductive age, based on data obtained from the World Health Organization, http://www.who.int/mediacentre/factsheets/fs334/en/index.html.
14 In this analysis, the results obtained from the survey regarding the use of services should be considered with caution, given that the interviews and surveys do not provide an in-depth perspective on the use of SRH services; moreover, this analysis was done based on the Pap smear history of the women, which cannot be verified in databases since specific data from outside the intervention are not available.
15 Dutch Ministry of Foreign Affairs (2012, p. 73).

16 The diagnosis obtained was according to the perception and information provided by the women, because it was not possible in all cases to corroborate the diagnosis in the program files.

17 The calculation of years of life saved does not consider the ‘net effect’ of the intervention, instead it relies on the final data for women attended, referred and treated.

18 A transfer of capacity and knowledge on the subject was expected at the level of the Local Comprehensive Health Care Systems (SILAIS - Sistemas Locales de Atención Integral en Salud).
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