

The Cost of Adding the Female Condom to a Peer Education Program with Sex Workers in Mombasa, Kenya

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SUMMARY

A nine-month intervention to introduce female condoms into a male condom promotion and distribution program for sex workers in Mombasa, Kenya, cost about \$258 (20,650 Kenyan shillings) per participant. Building on an established program made it possible to devote most of the resources to direct service delivery, rather than infrastructure and salaries. However, the female condoms distributed at no charge to participants accounted for 42 percent of total costs. The high cost of the female condom makes it unlikely that the intervention could be sustained without donor assistance.

KEY POINTS

- Adding female condoms to a peer education program cost about \$258 (20,650 Kenyan shillings) per participant.
- Working with an established, well-organized peer education program appears to have freed the majority of program resources for direct service delivery.
- The cost of the female condoms (\$108, or 8,650 KSh. per participant) may prohibit expansion of the program without continued donor support.

INTRODUCTION

A Family Health International (FHI) study of the introduction of female condoms into a male condom promotion and distribution program among 210 sex workers in Mombasa, Kenya, included a cost analysis to estimate how much it would cost to continue the intervention or expand it to other parts of Kenya. This information is provided to help the Kenyan government and other interested policymaking groups determine the most effective use of their resources in introducing female condoms.

The intervention study built on an ongoing program, carried out by International Centre for Reproductive Health (ICRH) and managed by FHI's Implementing AIDS Prevention and Care (IMPACT) project, to promote male condom use among sex workers and their partners in Mombasa. FHI and ICRH also collaborated with the National AIDS and STI Control Program (NASCO) to design and carry out the study. The Program for Appropriate Technology in Health (PATH) designed the information, education, and communication (IEC) materials peer educators used to promote female condom use, and the Japanese International Cooperation Agency (JICA) provided the female condoms.

The cost analysis was designed to determine what additional resources would be required to support provision of female condoms through the existing peer promotion program. To answer this question, FHI researchers identified the resources used during the intervention and measured those resources in their natural units (time for labor, units for supplies). Then they assigned a unit cost to each resource and allocated resources to specific phases of the intervention: implementation or service delivery. The implementation phase is focused on preparing staff and infrastructure and procuring supplies; the service delivery phase corresponds to the delivery of behavior change messages and female condoms to the 210 sex workers. These cost estimates by phase can be used by the Ministry of Health, nongovernmental organizations, or donors to assess the feasibility of continuing the female condom intervention in Mombasa (service delivery only) and of replicating it in other sites (implementation plus service delivery).

Data sources for the cost analysis of the implementation phase included records kept by the implementing organization (ICRH), as well as discussions with FHI staff involved in training peer educators and procuring the IEC materials and female condoms. Data sources for the service delivery phase included ICRH staff estimates of time spent on female condom education and supervision of the intervention and service statistics from the peer educators on educational sessions held and female condoms distributed.

Data were analyzed using MS-Excel spreadsheets. For resources that were shared for research and intervention (including some ICRH staff, transportation expenses, and capital purchases) the estimated fraction for the intervention was used to allocate that portion of total cost to the intervention. Because the female condom was a partial substitute for the male condom, the estimated reduced use of male condoms was treated as a cost savings in estimating service delivery costs.

RESULTS

The total cost of the nine-month intervention was \$54,139 (4,336,469 KSh.), or approximately \$258 (20,650 KSh.) per person. Table 1 summarizes the results of the cost estimation.

The estimated cost of the implementation phase was \$12,598 (1,009,121 KSh.). The cost of the IEC materials purchased from PATH accounted for almost half the implementation costs. These costs could be reduced if the intervention were to be replicated in another locale, because IEC materials that were not popular with the peer educators could be omitted. Almost 40 percent of the implementation costs were for training the peer educators. However, the peer educators were already experienced in male condom promotion, so more resources might be needed for training if this intervention were replicated in a locale without experienced peer educators. The remaining 15 percent of the implementation costs were devoted to improving the drop-in center, procuring furnishings, and producing T-shirts for the peer educators.

The female condoms donated by JICA accounted for most of the service delivery costs. Each sex worker received, at no cost, \$108 (8,650 KSh.) worth of female condoms over nine months. The cost of the condoms and field staff time together represent 75 percent of service delivery costs. Supervision and administrative support costs were relatively low, each representing about 12 percent of total service delivery costs.

Table 1: Estimated Cost of Female Condom Introduction in Mombasa, Kenya

Intervention Phase/Activity	Total Cost (KSh.)	(%)	Total Cost (US\$) ⁽⁶⁾
Implementation			
Training Peer Educators	375,160	8.7	4,684
Procurement of IEC Material ⁽¹⁾	480,055	11.1	5,993
Capital Improvements / Equipment ⁽²⁾	153,906	3.5	1,921
Total implementation	1,009,121	23.3	12,598
Implementation Cost per sex worker	4,805		60
Service Delivery (June- Feb. 2005)			
Field Staff	717,309	16.5	8,955
Supervision ⁽³⁾	400,998	9.2	5,006
Condoms (net) ⁽⁴⁾	1,827,231	42.1	22,812
Administrative Support ⁽⁵⁾	381,810	8.8	4,767
Total Service Delivery	3,327,348	76.7	41,541
Service Delivery Cost per Sex Worker	15,845		198
Total Intervention	4,336,469	100.0	54,139
Intervention Cost per Sex Worker	20,649		258

⁽¹⁾ IEC materials purchased for \$5,000 from PATH also includes transport to Nairobi for development.

⁽²⁾ Includes rehabilitation of local drop-in center, office furnishings and t-shirts for peer educators

⁽³⁾ Includes the staff cost as well as transport to field

⁽⁴⁾ Value of female condoms distributed less value of reduction in male condom distribution

⁽⁵⁾ Includes rent for drop-in center and central office, communication expenses, office supplies, and overhead for implementing organization

⁽⁶⁾ Exchange rate based upon interbank rate of 80.09861 KSh. /\$ for period 5/1/04 – 2/28/05 from <http://www.oanda.com/convert/fxhistory>

CONCLUSIONS

- The resources required to introduce the female condom were relatively lower than would be expected because the intervention study was able to take advantage of an already established peer education condom promotion program. Logistical, administrative, and supervisory systems were already in place, making it possible to use the majority of resources for direct service delivery.
- JICA provided the female condoms at no cost to the intervention, substantially reducing actual expenditures by the implementing organization (ICRH) and research organization (FHI).

- The cost of the female condoms -- the equivalent of \$108 (8,650 KSh.) worth of female condoms per sex worker over nine months -- would represent a substantial investment by the Kenyan Ministry of Health, which spent \$70 (5,607 KSh.) per capita on health in 2002. Therefore, it seems unlikely that the female condom intervention could be expanded without donor assistance.
- Because female condoms are currently much more expensive than male condoms, whenever a female condom is used as a substitute for a male condom there is no additional public health impact from the intervention but there is an increase in cost. This is why the peer promotion messages emphasized using a female condom when the use of a male condom is not possible. In this study, it is estimated that approximately 1/3 of the female condoms distributed served as substitutes for male condoms. . However it should be remembered that female condoms were provided for free to the participants, and therefore they had no financial incentive to limit substitution. With this level of substitution, approximately \$7,000 (560,000 Ksh.) of the money spent on female condoms had no additional public health impact since they simply replaced use of male condoms.
- The portion of service delivery costs not spent on condoms, equal to \$90 (7,209 KSh.) per sex worker, represents the cost of running a targeted prevention project. These costs may be offset if the intervention reduces disease transmission; however, estimating such effects was beyond the scope of this study.

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