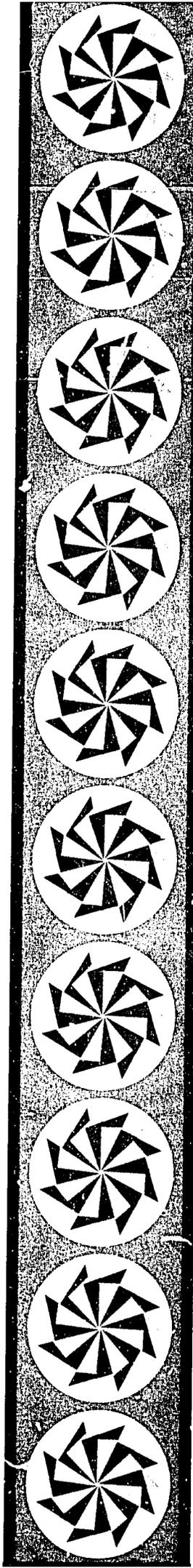


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Estimating Condom Needs

Project Manager's Information Packet

other topics in this series:

Fixed Interval Condom Tracking System

Condoms: Quality Assurance Issues

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Estimating Condom Needs

Introduction

This packet describes a method for estimating condom needs for new condom distribution programs. Existing programs can and should use a more exact estimating method based on actual/current distribution data. Regardless of the method used to estimate the initial use level, all projects should monitor their condom distribution to ensure that condoms are always available when needed. By estimating your program's condom needs, you will also be able to set condom distribution targets/objectives that are based on program resources and scope. These targets can later be compared with actual distribution data as part of your regular program monitoring and evaluation activities.

Procedure

Any estimate of the number of condoms a project will distribute is ultimately based on the budget for the project and the staff's ability to complete the task. With this in mind, described below are some practical steps to calculate a condom estimate:

Step 1: Identify the particular target group(s) to be served by the project. Estimate the total number of people in the target group(s). If necessary, divide the larger group(s) into subgroups with similar characteristics.

Step 2: Estimate the percent of the target group(s)/subgroups you expect to reach in the first year of the program. In cases where there are multiple target group(s)/subgroups, the percent may vary from group to group. This estimation should factor in the number of staff or volunteers who will serve as distributors and the distribution capabilities of each (total number of work hours, setting in which the staff member will operate, ease of access to the target population, operating budget, condom availability, etc.).

Step 3: Estimate the number of "high-risk" sex acts in which a typical member of the target group(s)/subgroups may engage during a one week or one month period, then calculate the yearly average. If data is not readily available, then informal interviews can be conducted with members of each group/subgroup to help determine their typical sexual behavior.

Step 4: Estimate the percent of "high risk" (and other) sex acts during which you expect target individuals will use condoms during the first year of the project. Ideally, this estimate should be based on current usage rates which may have been identified through behavioral research; Knowledge, Attitudes, Behaviors, and Practices (KABP) surveys, or recent contraceptive prevalence studies. If no condom use information is available, assumptions will need to be made. For some target groups, it may be useful to make a distinction between the usage rates for current condom users and current non-users.

Step 5: Total the number of condoms estimated for each subgroup. As project planning progresses, other adjustments may need to be made to take into account new information that may substantially alter the estimate.

What Next?

The following pages contain examples of how two different intervention projects planned their condom distribution components. Read the examples and review the equations included for each. Remember, target populations and project designs vary greatly. These examples are designed to offer project planners a guide to determining their approximate condom needs. The equations shown in these examples should be modified or tailored to fit the specific circumstances for each project.

Example #1 Peer Educator Project in Africa

Background Information

The urban area of Kenalia and the surrounding countryside are home to 150,000 people as shown in a recent survey by the Ministry of Planning. The population of Kenalia continues to grow as people from rural areas move to the urban area in search of better jobs. The area is located on a main roadway through the country of Kenal where several large truck stops serve as overnight lodging for truckers. Tourists and other business people also flock to the bustling area.

As might be expected, this urban center has developed a busy commercial sex industry. The majority of commercial sex workers (CSWs) live in brothels around the truck stops and near the downtown center. A smaller group of CSWs provide services out of private homes and rented hotel rooms. Both the “brothel-based” and “home-based” CSWs solicit “business” from truckers at the truck stops and bar/hotel patrons. Although the CSWs are a rather transient group, it appears that at any given time they number about 3,000. Approximately 2,500 of the CSWs work out of the nearly 100 brothels scattered throughout the area, while another 500 CSWs work out of private homes or hotel rooms. Due to their unique circumstances and related behavioral characteristics, the brothel-based and home-based CSWs form two distinct subgroups within the target population.

Through interviews with a number of CSWs in each subgroup, the project leaders estimate that a typical brothel-based CSW engages in an average of 10 paid sex acts per week, generally with different men, while home-based CSWs engage in about one paid sex act every other day, typically drawing from a smaller client pool. Condom use information obtained during these interviews, along with local condom sales and distribution figures indicate the condom use rate is very low or non-existent in Kenalia.

Summary of Project Plans

During the first year of operation, the project hopes to:

- Train peer educators to educate CSWs about HIV transmission and condom use.
- Make free condoms available to clients and CSWs at the brothels, in bars and hotels, and at truck stops.
- Reach approximately 60% of the CSWs in the brothel-based subgroup (or all of the CSWs in 60 of 100 brothels).
- Reach a small segment (approximately 30%) of the home-based CSWs. The staff realizes that the home-based CSWs will be harder to reach since they don't necessarily associate with groups like brothel-based CSWs.

The project staff hopes that with education and easy access to condoms CSWs in both of the subgroups will begin to use condoms in approximately 25% of their

sexual encounters during the first year of the project. The project staff hopes that the number of “protected” sex acts will rise in later years as condom use becomes more popular.

The equations shown below demonstrate the step-by-step procedure described on page 1 and estimate the number of condoms the Kenal project may use during the first year.

Step 1	total number of CSWs in target pop.	=	estimated number of CSWs brothel-based subgroup	+	estimated number of CSWs home-based subgroup
	3,000	=	2,500	+	500
Step 2	number of program participants in each subgroup	=	$\left(\begin{array}{l} \text{total number of brothel-based CSWs in target pop.} \\ 2,500 \end{array} \right) \times \left(\begin{array}{l} \text{estimated percent reached in year one} \\ 60\% \end{array} \right)$	=	1,500 brothel-based CSWs in year one
		=	$\left(\begin{array}{l} \text{total number of home-based CSWs in target pop.} \\ 500 \end{array} \right) \times \left(\begin{array}{l} \text{estimated percent reached in year one} \\ 30\% \end{array} \right)$	=	150 home-based CSWs in year one
Step 3	total number of sex acts by participants in each subgroup	=	$\left(\begin{array}{l} \text{number of brothel-based CSWs} \\ 1,500 \end{array} \right) \times \left(\begin{array}{l} \text{estimated total sex acts per year} \\ 520 \end{array} \right)$	=	780,000 total sex acts per year among brothel-based CSWs
		=	$\left(\begin{array}{l} \text{number of home-based CSWs} \\ 150 \end{array} \right) \times \left(\begin{array}{l} \text{estimated total sex acts per year} \\ 180 \end{array} \right)$	=	27,000 total sex acts per year among home-based CSWs
Step 4	number of <u>protected</u> sex acts by participants in each subgroup	=	$\left(\begin{array}{l} \text{number of sex acts/year brothel-based CSWs} \\ 780,000 \end{array} \right) \times \left(\begin{array}{l} \text{estimated \% of sex acts using condoms} \\ 25\% \end{array} \right)$	=	195,000 protected sex acts among brothel-based CSWs
		=	$\left(\begin{array}{l} \text{number of sex acts/year home-based CSWs} \\ 27,000 \end{array} \right) \times \left(\begin{array}{l} \text{estimated \% of sex acts using condoms} \\ 25\% \end{array} \right)$	=	6,750 protected sex acts among home-based CSWs
Step 5	total number of condoms estimated for project during year	=	protected sex acts brothel-based CSWs	+	protected sex acts home-based CSWs
		=	195,000	+	6,750
		=			201,750 total protected sex acts among both subgroups (rounded to an order quantity of 204,000)

Note: The 204,000 condom estimate reflects the number that the project would use if it was operating at full capacity for the entire year. However, it will take several months before the project staff can train peer educators and set up a distribution system. Hence, the 204,000 estimate would probably suffice for 1 1/2 years, since the initial demand for condoms will be low.

Example #2 STD Clinic in the Caribbean

Background Information

The island of St. Matthew is located in the Windward Islands of the Caribbean. Recent census data shows the total population of this mountainous island to be just over 115,000. Although St. Matthew is still largely agrarian, the population of its capital and principal urban area, Queenston, has swelled by more than 30% to 45,000 since the last census was taken a decade ago.

Since the first AIDS case was diagnosed in St. Matthew in 1985, there have been 28 additional cases reported. In recent years, HIV transmission seems to occur predominately through heterosexual contact and, as in other parts of the world, ulcerative STDs are thought to be possible co-factors for transmission in a high number of these cases. Given the alarming increase in St. Matthew's STD rates over the past 3 years, the Ministry of Health (MOH) has determined that an aggressive AIDS education and condom promotion project is needed for the island's growing number of STD clinic patients.

Summary of Project Plans

During the planning phase of the project the MOH planners collected pertinent information from several sources:

- Service statistics for the island's two STD clinics indicated that a total of 750 Matthewsians received services during 1990, up from 500 in 1989. Complete data were not yet available for 1991, but the number of STD patients appeared to be stabilizing; in 1992 they expect to serve about 800 patients.
- 25 clients in each clinic (50 total) were asked about the frequency of their condom use. 30% reported using condoms (on average at least 1/3 of the time) while 70% reported no use or infrequent use of condoms. Although the survey sample was small, the results correspond with data from a recently completed National KABP Survey.
- Condom distribution data from the St. Matthew's National Family Planning Association (SMNFPA) were used to estimate how often clients have sex on average. The SMNFPA provides 15 condoms per month (180 per year) to clients using this method of family planning. The planners reasoned that couples successfully using this method of family planning were engaging in protected sex acts a great majority of the time. The planners used this information on SMNFPA couples to estimate the total number of sex acts per year for STD clinic patients (the SMNFPA clients and STD clinic patients had similar demographic profiles).
- The planners assumed that STD clients who currently used condoms at least part of the time would respond differently to the educational intervention than clients who never or rarely used condoms. Hence, the project planners set different condom use targets for current users and non-users. For the approximately 30% of clinic clients currently using condoms, it was projected that the intervention will increase condom use to 75% of all sex acts. Among clients who do not currently use condoms, it was projected that condom use will approach 25% of all sex acts.

Based on these assumptions, the project planners completed the calculations described on the following page. Supported by these calculations, project officials

estimated total client/project participant condom needs at about 60,000 for the first year of the educational intervention project. After further consideration, an additional 18,000 condoms were budgeted to meet the anticipated distribution demand created by other members of the community who are likely to become aware of the clinic distribution either through word-of-mouth or outreach activities sponsored by the clinic.

Using this process, the project planners arrived at 78,000 condoms as a reasonable estimate for meeting clinic distribution needs in the coming year. This process was also used by project planners to assist them in determining the condom distribution objectives described in the project work plan. Careful record keeping during the year will allow the project planners to evaluate the accuracy of their estimate and provide the information which they need to insure that ample condoms are always available for distribution.

Steps 1 & 2*					
number of program participants in each subgroup	=	$\left(\begin{array}{c} \text{total number of clinic patients} \\ 800 \end{array} \right)$	\times	$\left(\begin{array}{c} \text{estimated percent current condom users} \\ 30\% \end{array} \right)$	= 240 current condom users
	=	$\left(\begin{array}{c} \text{total number of clinic patients} \\ 800 \end{array} \right)$	\times	$\left(\begin{array}{c} \text{estimated percent non-condom users} \\ 70\% \end{array} \right)$	= 560 "non-condom" users
* All of the patients (100%) will be encouraged to participate.					
Step 3					
total number of sex acts by participants in each subgroup	=	$\left(\begin{array}{c} \text{number of current condom users} \\ 240 \end{array} \right)$	\times	$\left(\begin{array}{c} \text{estimated total sex acts per year} \\ 180 \end{array} \right)$	= 43,200 total sex acts per year among current condom users
	=	$\left(\begin{array}{c} \text{number of non-condom users} \\ 560 \end{array} \right)$	\times	$\left(\begin{array}{c} \text{estimated total sex acts per year} \\ 180 \end{array} \right)$	= 100,800 total sex acts per year among "non-condom" users
Step 4					
number of protected sex acts by participants in each subgroup	=	$\left(\begin{array}{c} \text{number of sex acts/year condom users} \\ 43,200 \end{array} \right)$	\times	$\left(\begin{array}{c} \text{estimated \% of sex acts using condoms} \\ 75\% \end{array} \right)$	= 32,400 protected sex acts among current condom users
	=	$\left(\begin{array}{c} \text{number of sex acts/year non-condom users} \\ 100,800 \end{array} \right)$	\times	$\left(\begin{array}{c} \text{estimated \% of sex acts using condoms} \\ 25\% \end{array} \right)$	= 25,200 protected sex acts among "non-condom" users
Step 5					
total number of condoms estimated for project during year	=	protected sex acts condom users	+	protected sex acts "non-condom" users	= 57,600 total protected sex acts among both subgroups (rounded to an order quantity of 60,000)
		32,400		25,200	

Summary

The examples described on the preceding pages have some interesting similarities and differences. In both examples, two distinct subgroups were created to describe the target population. In the first example, the subgroups reflected the differences in the numbers of subgroup members the project would likely reach and the differences in their average number of paid sex acts. In the second example the subgroups reflected the variations in current condom use among the target population. By recognizing these patterns/differences in the target population, the project planners can better plan to meet the needs of all the potential project participants.

Remember, all distribution goals must be realistically based on the budget and personnel available to the project. In the first example, the project had a substantial budget and access to a great deal of staff and volunteer support but still estimated that they could realistically reach only 60% of one subgroup and 30% of the second during the first year. In the second example, distribution to the entire target population was proposed because the participants were clients at an STD clinic and came to the clinic for services.

The following page contains a worksheet that can be used to help you evaluate the condom needs for your particular project. A series of prompts are included to remind you to consider important details of the planned project. The equations should include your "best guess" at the actual numbers. If you have some doubts about your estimates and can't get better information at the present time; make plans to recalculate the equations when you feel you have access to better information.

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