

ORIGINAL ARTICLE**ASSESSMENT OF EFFECTIVE COVERAGE OF VOLUNTARY COUNSELING AND TESTING SERVICES IN MAJOR HEALTH FACILITIES OF JIMMA ZONE, SOUTH ETHIOPIA****Mohammed Hussein¹, Challi Jira², Belaineh Girma³****ABSTRACT**

BACKGROUND: Coverage assessment of Voluntary Counseling and Testing (VCT) service is useful to measure the health system effort or performance of health service delivery function and to influence decisions. The objective of this study was to assess effective coverage level for Voluntary Counseling and Testing services in major health facilities of Jimma Zone.

METHODS: Health institution based cross-sectional quantitative and qualitative study on health facilities that provide voluntary Counseling and testing services.

RESULTS: The over all HIV/AIDS service package indicators availability coverage were 45.5% across the zone. The over all coverage for target population were 1.3%. The primary health care centers served only 18% of total registered Voluntary Counseling and Testing service users. Out of total positive sero-status clients, only 5% received condom. The coverage for post result counseling was 98.7% for all tested clients. Seventy-four (1.3%) of clients who were tested for HIV did not returned to know their results.

CONCLUSION: This study demonstrated that effective coverage of Voluntary Counseling and Testing service was very low based on the providers view and records available. Thus we recommended that the services has to be strengthened, supervised and monitored to have a better achievement and improving the coverage status in addition to scaling up the services in the Zone.

KEYWORDS: Effective coverage, availability, utilization, quality, VCT services

INTRODUCTION

Good health is both an investment and consumption goods. It is an investment goods because it enables people to engage in the production process effectively and consumption goods because it enables people to enjoy to its full extent with out pain. Ill-health leads to loss in productivity and time put in to production, resulting in poverty leads to poor living condition, malnutrition and illiteracy, there by leading to ill-health, hence the vicious cycle of ill-health and poverty. But one way of ensuring good health services is accessible to all people by increasing coverage and utilization (1).

HIV/AIDS is the most far-reaching and damaging epidemic the world has ever seen. Within a single generation, it has grown into an individual and societal tragedy with huge implications for human security, for social and political stability and for economic development (2).

In all affected countries the HIV/AIDS epidemic is bringing additional pressure to bear on the health sector. As epidemic matures, the demand for care for those living with HIV/AIDS rises. Health care service faces different level of strain, depending on the number of people who seek services, the nature of the need, and the capacity to deliver that care (3).

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The health sector can play a unique role in delivering prevention and care interventions through a range of health services and can use varied entry point for reaching out to people in need. Most national programs seek to achieve their goals by expanding access to information and to high quality services for every one who need them. One measure of how well a program is performing is the coverage level it achieves.

Since the start of HIV/AIDS prevention and care intervention programs of VCT, there was no effective coverage assessment done in previous years in the Jimma Zone. This short coming necessitated the importance of the study. Thus, The objective of this study was to assess the effective coverage of VCT in terms of service availability, utilization, continuity and quality in order to know how well the programs are serving those who need them.

METHODS

The study was conducted in Jimma Zone which is situated in South West of the Federal capital Addis Ababa and administratively has 13 districts. HIV/AIDS prevention and care service provision in Jimma Zone is through governmental and non governmental organizations (NGOs) that includes VCT services in 8 health centers, 2 hospitals and 2 NGOs. The study was conducted from January – April 2006.

The study design was health institution based quantitative and qualitative cross-sectional study to determine effective service coverage of VCT services in hospitals, health centers and NGOs of Jimma zone. The source of the study population includes health facilities that provided VCT and ART services. Study population or subject for quantitative study included Jimma university specialized hospital, Limmu district hospital, two NGOs and 50% of public health centers that provide HIV/AIDS prevention and care related services and records of clients of VCT that was provided from January 1st to December 31, 2005. The study population or discussants for qualitative was facility heads, district health office heads and counselors in respective health facility.

Data collectors and supervisors were selected on the basis of their experience in health service provision. Data collectors for the interview were health personnel who were not involved in VCT, PMTCT and ART services. Semi structured questionnaire was developed and used in this study. Training topics included: discussion on the study objectives, methods of data collection and field

supervision. Furthermore, each question included in the questionnaire was discussed in detail. In record review of first visits of VCT and ART services was used in data collection. In depth interview were conducted with Heads of the district health offices, health facilities, and with the counselors using in-depth interview guide questions in Amharic language to keep the communication uniform among all key informants.

HIV/AIDS service effective coverage was measured by the number of people received the service in the year using service statistics provided in 2005 and corresponding to projected population needing the service in the same year. The proposed measurement of HIV/AIDS intervention would be by use of coverage indicators domains: Availability, Utilization, Continuity and Quality.

Availability indicators to measure access for VCT used in the study were availability of service site, condom, sexually transmitted diseases (STD) drugs, HIV test kits, antiretroviral therapy (ART) drugs, referral support network, and the availability of long-term support.

Utilization indicators to measure acceptability for VCT used in the study were use of HIV test counseling and HIV test.

Continuity indicators for VCT used in the study was use of family planning by HIV positive individuals, post test counseling, condom provided, clients referred to ART and support by organizations.

Quality indicators for VCT used in the study were existence of policy document, plan and national guidelines, number of service provider received training, safety precaution followed by service providers.

The quantitative data was analyzed using step-by-step approach explained in literature. The responses were edited before analysis, coding of certain variables was done. Data was entered and processed using the Statistical Package for Social Science (SPSS) for window version 12.0. First descriptive statistics was used which included frequency, mean, median and others. Then bivariate and multivariate analysis was done. Chi square test was used for hypothesis testing and p-value of below 5% taken as significant. Odds ratio with 95% CI was used to know relationship of variables.

The qualitative data was transcribed, translated, coded and categorized by using study themes as a guide and then grouped the data around the themes. Differences and similarities between the answers have to be examined.

Questionnaire was developed based on WHO effective coverage assessment guideline. The

developed instrument was pre-tested before the actual data collection period. Based on finding of pre-test, questionnaire was revised. During data collection close supervision was carried throughout the periods by supervisors and principal investigator after giving them necessary orientation on the tools of the study. The completed questionnaires were checked for each question items and variables at regular intervals. Data was cleaned and entered by investigator using SPSS version 12.

Permission to conduct the study was obtained from ethical clearance committee of Jimma University, consent paper from Jimma Zone Health Office, District Health Offices, Health Centers, Hospitals, and NGOs and from respected service providers. General information including objective of the study was explained. Identification was coded to assure confidentiality.

RESULTS

Out of total registered VCT clients in the year 2005 of the study health facilities, male users comprise 52.3%, 74.2% were in the age group 15-29 years. The target age group (15-49) years were the most (96.7%) that utilized the services during the year in Jimma Zone. The mean age was 25.3 years (95% CI = 25.07 – 25.5) and the median age was 23 years.

The majority (76.5%) was from urban areas and the rest were from rural villages. Most (63.6%) of the service users were never married and about 86% had some education. With regard to occupation

36.9% were unemployed and 29.6% were students (Table 1).

Service Availability

The presence of package varies from five (35.7%) to ten (71.4%) among the facilities. The highest (71.4%) HIV/AIDS service package were reported in Jimma University specialized hospital and the lowest (35.7%) were reported in Serbo, Sokoru and FGAE health facilities. The over all HIV/AIDS service package indicators availability coverage was 45.5% across the study facilities (Table 2).

Respondents who were in public health facilities said that “*the availability of VCT/PMTCT and ART services had negative impact by compromising the other services because of dual responsibilities of counselors*”, but respondents who were supervisors and district heads believe that “*the availability of the service fulfills the needs of clients*”.

All in depth interview respondents said that “*availability for VCT service is an important component of PHC service that has to be integrated to other routine services*”. Counselors who responded to the interview agree that “*VCT service was not always accessible to clients who needs the service, because of counselors multiple responsibilities*”.

Table 1. Socio-demographic characteristics of VCT service utilizers, Jimma Zone, 2006

Variables	Frequency (N=5657)	Percent (%)
Age		
14 and below	92	1.6
15-19	1226	21.7
20-24	1831	32.4
25-29	1136	20.1
30-34	589	10.4
35-39	373	6.6
40-44	212	3.7
45-49	99	1.8
50 and above	98	1.7
Sex		
Male	2959	52.3
Female	2698	47.7
Residence		
Urban	4328	76.5
Rural	1329	26.5
Marital status		
Never married/Single	3597	63.6
Married	1378	24.4
Separated	270	4.8
Divorced	214	3.8
Widowed	179	3.2
Status not known*	19	0.3
Educational status		
No formal education	779	13.8
Primary	1718	30.4
Secondary	2350	41.5
Tertiary	789	13.9
Status not known*	21	0.4
Occupation		
	2086	36.9
Unemployed	1247	22.0
Employed	436	7.7
Merchant	1672	29.6
Student	197	3.5
Peasant	19	0.3
Status not known*		

Table 2. Essential HIV/AIDS service package availability by health facility, Jimma Zone, 2006

Service package	Health facility							
	JUSH	Limmu hospital	Jimma H/C	Agaro H/C	Serbo H/C	Sokoru H/C	FGAE	Medan Act
Voluntary testing and counseling	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Blood screening	Yes	No	No	No	No	No	No	No
Palliative care	Yes	Yes	No	No	No	No	No	No
Treatment of HIV related infections	Yes	Yes	No	Yes	No	No	No	No
Nutrition care	Yes	Yes	No	No	No	No	No	Yes
STI service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PMTCT	Yes	No	No	No	No	No	No	No
ART	Yes	No	No	No	No	No	No	No
Universal precaution	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Home based care	No	No	No	No	No	No	Yes	Yes
HIV education	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DOTS service	Yes	No	Yes	Yes	Yes	Yes	No	No
Prison HIV prevention service	No	No	Yes	No	No	No	No	No
Street children HIV prevention and care service	No	No	No	No	No	No	No	Yes
Total yes score	10	7	6	6	5	5	5	7
Total HIV/AIDS service package indicator availability coverage %	71.4	50	42.8	42.8	35.7	35.7	35.7	50

45.5

Utilization

As indicated in Table 3 a total of 5657 clients were registered from January – December 2005 for VCT service in eight health facilities that were found in four districts of Jimma Zone.

The lowest (0.04%) covered by Kersa district and the highest (7%) covered by Jimma town. The over all coverage for target population (15-49years) was 1.3% in the districts where studied health facilities were present in 2005.

Table 3. Coverage of VCT service utilized clients by district, Jimma Zone, 2006

Name of district	Target population (15-49 years)	Utilized clients	Contact coverage (%)
Kersa	79,903	33	0.04
Sokoru	73,505	143	0.2
Goma	163,160	354	0.2
Limmu kosa	119,161	241	0.2
Jimma town	69,724	4886	7.0
Total	440,212	5657	1.3

Target population calculated using 46.6% of total population in 2005 (3)

The maximum number (36.2%) of clients was seen by FGAE Jimma clinic and the least number (0.6%) was seen by Serbo health center. The highest coverage (56.9%) of total clients was seen by NGOs. The primary health

care centers served only 18% of total registered clients. Six public ownership facilities provided VCT service for 2443 (43.2%) of total registered clients in 2005 (Table 4).

Table 4. Coverage of VCT service utilized clients by study health facility, Jimma Zone, 2006

Name of health facility	Number of Clients	Percent (%)
Serbo health center	33	0.6
Sokoru health center	143	2.5
Jimma health center	487	8.6
Agaro health center	354	6.3
Limmu hospital	241	4.3
Jimma university hospital	1185	20.9
FGAE Jimma clinic	2045	36.2
Medan act HIV project	1169	20.7
Total	5657	100

Out of a total registered VCT service utilized clients seven hundred forty two (13.1%) were positive for HIV. Females VCT users were 1.41 times more likely to be positive than male users and the difference was statistically significant (OR = 1.41, 95% CI= 1.19 – 1.67). Unemployed VCT service users were 1.56 times more likely to be positive for HIV test than all other occupation and

the difference was statistically significant both in bivariate and multivariate analysis.

Clients who were ever married and age above 30 years had greater risk of HIV infection than comparative groups (OR = 2.23, 95%CI = 1.87-2.67). Sex, age and marital status and occupation were found to be predictors of HIV infection among VCT utilizers (Table 5).

Table 5. Prevalence of HIV sero – positivity of VCT utilized clients by socio demographic variables using both bivariate and multivariate analysis, Jimma Zone, 2006**P-value*<0.00

Variables	HIV sero-status		Total No (%)	Bi-variate OR (95%CI)	Adjusted OR (95%CI)
	Positive No (%)	Negative No (%)			
Sex					
Male	328 (11.1)	2624 (88.9)	2952 (100%)		1
Female	414 (15.4)	2282 (84.6)	2696 (100%)	1.45(1.24 – 1.69)	1.41(1.19 - 1.67)*
Total	742 (13.1)	4906 (86.9)	5648 (100%)		
Residence *					
Urban	587 (13.6)	3731 (86.4)	4318(100%)		
Rural	155 (11.7)	1174 (88.3)	1329(100%)	0.84(0.69 – 1.01)	
Occupation					
Unemployed	433 (20.8)	1650 (79.2)	2083(100%)		1
Employed and other occupation	305 (8.6)	3242(91.4)	3547(100%)	0.36(0.31 – 0.42)	0.44(0.37-0.52)*
Education					
No education	162 (20.8)	617 (79.2)	779(100%)		1
Some educational level	573 (11.8)	4276 (88.2)	4849(100%)	0.51(0.42 – 0.62)	.897(.726-1.108)*
Marital status					
Never married/Single	295 (8.2)	3296 (91.8)	3591(100%)		1
Ever married	444 (21.8)	1595 (78.2)	2039(100%)	3.11(2.65 – 3.64)	2.23(1.87-2.67)*
Age					
30 and below	499 (10.9)	4076 (89.1)	4575(100%)		1
Above 30	243 (32.7)	830 (16.9)	1073(100%)	2.39(2.02 – 2.83)	1.75(1.43-2.12)*

Continuity of VCT Service

Out of total positive sero-status clients 224(30%) were referred to the support by organization, Only 36(5%) received condom, Twenty-seven (3.6%) clients received family planning service. The coverage for post result counseling was 98.7% for all tested clients. Seventy-four (1.3%) of clients who were tested for sero-status did not returned to know their result. Majority of respondents who were working in health centers expressed that *“we fear for the sustainability of the service, because of high turn over of health personnel”*. One participant bitterly said that *“you see I am head of H/C, the only counselor, TB clinic provider”*.

Quality of VCT service

The essential documents such as policy document and guidelines were present in all health facilities. In majority (87.5%) of health facilities counselors and laboratory technicians were trained on counseling and confidentiality, but only 37.5% of onsite supervisors were trained. It was reported that 5 (62.5%) health facilities had some, but not adequate space to ensure counseling.

The functional counselors to the VCT target population ratio in the study health facilities were 1: 31,443. About 9(64.5%) were found in health facilities of Jimma town. The majority (93%) of counselors were nurses by profession. Twelve of them (85.7%) were assigned by head of the institution to be a counselor. Twenty one percent of counselors reported that they are pressurized in doing counseling work. Two of them believe that their training on counseling was inadequate but the majorities believe that it was adequate or very good. About 43% of them did not get follow-up or ongoing training and 36% did not accessed to assumed supervisor. Five (36%) of counselors used to see less than six clients per day and the rest reported that they used to see more than seven clients per day. The average consultation time reported was three hours per day per counselor.

DISCUSSION

It was pointed out that VCT is an entry point for subsequent interventions, not a solution by itself. There should be appropriate referral and support for behavior change following knowledge of HIV status. It has been demonstrated in a number of studies that VCT has a positive impact on risk behavior. VCT

resulted in increased condom use, falling HIV incidence and decreasing incidence of unprotected sex.

Availability of essential HIV/AIDS service package that includes VCT, treatment of HIV related infections, nutrition care, STI service, PMTCT, ART, universal precaution, home based care, HIV education, DOTS service were 45.5% throughout the study facilities. The finding indicates that people who demand the service in the zone did not access more than half of the package.

Out of 440,212 aged 15-49-target populations 5657 were registered for VCT service and the coverage were 1.3% in study facilities. This finding indicated better coverage when compared to the finding 0.7% for Africa region and 0.2% globally. The difference in coverage status might be the time of assessment. The physical availability of VCT in health centers was 61%, but the utilization coverage was very low. The possible justification could be lower utilization (18%) achievement of health centers compared to (56.9%) achievement of NGOs.

The qualitative assessment revealed that there was low utilization of VCT service by community and majority of service providers were not confident and satisfied in providing the service. Utilization of already available service can be possibly limited by inadequate community mobilization and service interruption because of counselors multiple responsibilities as indicated in qualitative assessment.

Male subjects who were registered and counseled for VCT service covers 52.3% and it was similar to the finding of prevalence of VCT clients in Ethiopia and Tanzania (4, 5). The majority (74.4%) of users were in the age group 15-29 years this indicates youth utilized VCT service more than other age groups. The mean age of users was 25.3 years and it is lower than the finding of study in Djibouti (6, 7). More urban residents have been tested for HIV than rural residents. The finding might be due to presence of VCT centers in towns.

The description of socio-demographic variables of VCT service utilized clients with sero-positivity showed that 13.1% were positive for HIV blood test. Of this positive subjects 55.8% were females which was lower than HIV prevalence among VCT clients reported by FMOH in 2003 and higher than the finding in South Africa and Djibouti (4, 5, 6,

and 7). The study showed that sero positivity was 1.4 times higher among females compared to male users and the difference was statistically significant when sex adjusted for residence, occupation, educational status, marital status and age (OR=1.42, 95% CI= 1.19 – 1.68). This could be due to the fact that females are more vulnerable to HIV infection compared to male counterparts due to biological, social and economic disadvantages (8).

Unemployed VCT service users were 1.56 times more likely to have risk to be HIV positive than users having employed and some other job (Table 5). The possible reasons might be their economic status, hopelessness or other factors, which are beyond the scope of this study.

VCT is an entry point for other services, out of total positive clients 30% was referred to support organization, 3.6% received family planning counseling and only 5% received condom. This finding indicated that the coverage of continuity of service was very low compared to the finding in Zimbabwe (9).

The finding in this study revealed that 1.3% of clients tested for HIV were not returned for post test counseling and it was very low compared to 30% in Zimbabwe (9), however, an HIV test can be helpful to the client and community only if he or she understands the result. Providing HIV test result to client involves interpretation that is based up on the test result and the client's specific risk for HIV infection (10).

The quality indicators used in this study revealed that annual plan found to be in 87.5% of the study facilities and out of these 29% did not include HIV/AIDS prevention and care services packages in their plan. This finding revealed that the concern of management related to HIV prevention was very low in some facilities and the consequence resulted in poor monitoring and evaluation of the program. Even if 35% of on site supervisors were not trained, the provision of VCT service by trained counselor and laboratory technician was promising to scale up the service. One possible factor to low number of trained onsite supervisors were due to high turn over of health personnel in the zone. One of the problems picked out in the in-depth interview was lack of supervision.

In conclusion, Physical availability of VCT centers, sustained supply of relevant drugs, test kits and condom, and availability of at least

one trained counselor and laboratory technician in majority of major health facilities was promising. Utilization coverage, supervision, monitoring and evaluation activities, public health centers coverage were very low and missed opportunity for post test counseling as well as provision of condom to HIV positives were also identified.

Based on the finding of the study the following recommendations are made:

Strengthen public health centers through counselors training, supervision, monitoring and community mobilization for maximum utilization of available services Further health system research beyond provider's side should be undertaken.

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