

STI BASELINE SURVEY



STI Indicator Information from the National Baseline Assessment of STI and HIV services in SA public sector health facilities

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Introduction

The first comprehensive national baseline survey of Sexually Transmitted Infection (STI) prevention and management services in public sector health facilities was conducted in collaboration with the national Department of Health (NDoH) between August 2002 and May 2003.¹ The primary objectives of this survey were to ascertain the current status of quality of care provided at primary health care (PHC) facilities, and to provide information that would inform national STI programme direction, policy review, and priority interventions.

Some key findings from telephonic interviews of 962 randomly selected PHC facilities in 254 sub-districts across South Africa (approximately 25% of all public sector facilities nationally), are presented here. All data collected during this survey were reported for the month of July 2002.

Selected Results

Quality of Record-Keeping

Survey findings showed that there were significant discrepancies and inconsistencies in record-keeping and collection of monitoring information in a large number of PHC facilities.

Approximately 34% of the 962 PHC facilities surveyed were found to have provided discrepant or inconsistent data. These discrepancies and inconsistencies were in recording of one or more key variables; 176 facilities were found to have discrepancies in male condom data reported; and 159 facilities had discrepancies in STI client data.

In many instances the information provided was derived from monthly statistics or by estimation, and not from registers, either

because the respondent had not consulted the register, or because incomplete or insufficient data were contained therein.

Many facilities did not routinely record the gender of STI clients or the number of STI clients that are under the age of 18 years. The sex and age distribution of STI clients treated at public sector facilities are not captured through the District Health Information System (DHIS).

Some facilities (mostly hospitals) did not keep records of numbers of STI clients seen. The reason cited for this was that STIs were predominantly treated at PHC facilities, and that hospitals only treated referrals or after-hours cases. This needs to be addressed when appraising referrals for STI management at secondary level.

Estimates of the proportion of all facilities nationally with record-keeping discrepancies, were derived from the validation process, from reporting problems relating to male condom statistics and STI client load statistics in various provinces (Figure 1).

Nineteen percent of facilities [95% CI: 16 - 21] were found to have a discrepancy of >10% in STI client records after three rounds of validation. Gauteng was found to have the most facilities with discrepancies in reporting of STI client data (66%), followed by North West Province (25%). Free State had the lowest proportion of facilities reporting discrepant STI client data (7%).

An average estimated discrepancy in male condom records of at least 50%, was found in 9.3% [95% CI: 8 - 11] of facilities. The province with the most inconsistencies in reporting male condom distribution was Gauteng with an estimated 42% of facilities being unable to give a figure within 50% of the one they gave previously. In all other provinces, except Free State, the proportion of facilities that were estimated to have such reporting problems was less than 10%.

The relationship between inconsistent reporting and other facility factors such as facility size, facility location, and province was

Table 1: Selected results for PHC facilities, July 2002

	EC	FS	GP	KZN	LP	MP	NC	NW	WC	SA
% Facilities with data discrepancies: STI clients (>10%)										19
% Facilities with data discrepancies: Male condom distribution (≥50%)										9.3
Number of STI clients visits										170 215
% male										35
% <18 years										11.8
STI clients per population ≥15 years (%) (annualised) ^a										
	6.6	6.5	2.9	8.7	10.6	7.9	5.0	7.2	4.6	6.5
Condoms distributed per male ≥15 years (%) (annualised)										
	9.1	5.7	6.1	5.8	9.0	10.0	7.5	6.7	8.1	7.2
% Facilities out of stock: Male condoms										3.9
% Facilities out of stock: Any of the essential STI drugs										13
% Professional nurses 'ever trained' in syndromic management										50
% Provider knowledge of correct drug treatment of STI syndromes										41
Number of clients tested for HIV										49 356
VCT Coverage (No. clients tested for HIV per population ≥15 years (%) (annualised) ^{b, 2}										
	1.04	3.10	1.33	2.04	1.09	0.95	2.67	2.52	3.78	1.88
Number of clients referred for HIV testing										2 652
% Facilities considering themselves designated VCT sites										53
% Facilities estimated to be PMTCT sites										29

analysed. Recording problems were found to vary significantly among provinces ($p < 0.0001$), between facilities in rural, peri-urban and urban areas, and according to facility size (Table 2).

Table 2: Factors associated with quality of data reporting

	Consistent response, % (n)	p-value
All PHC Facilities	68 (634)	
Facility size		0.03
Less than 5 staff	71 (350)	
5 or more staff	64 (285)	
Facility location		<0.0001
Rural	73 (326)	
Peri-urban	66 (166)	
Urban	57 (142)	

Number of STI clients

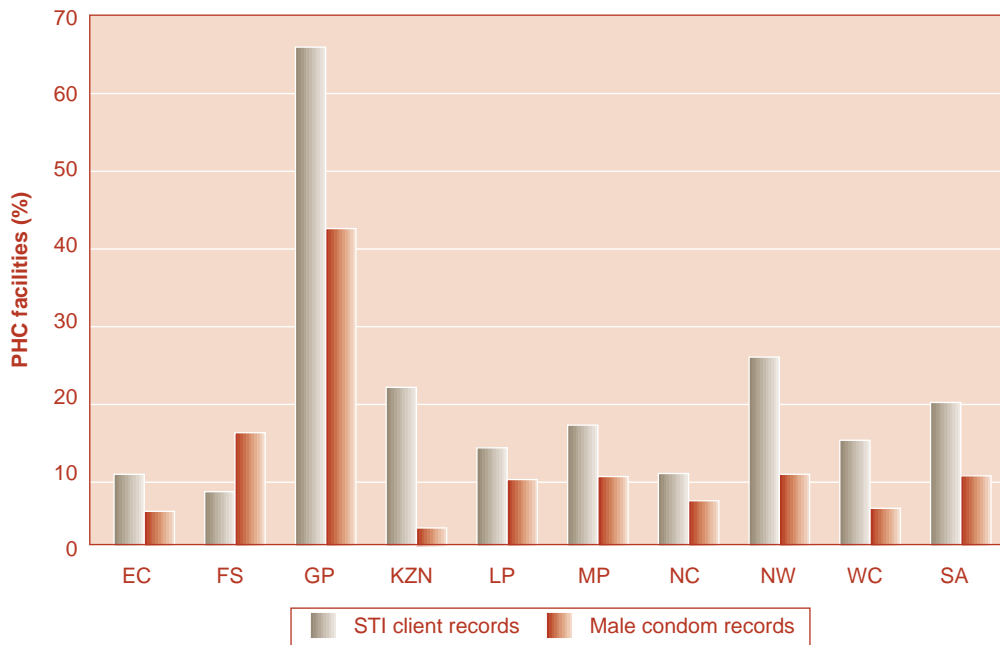
The estimated total number of symptomatic STI clients attending public sector PHC facilities during July 2002 was 170 215. The total number of cases treated as STIs at PHC facilities for the same month, reported to the DHIS, was 146 237. Using averages of STI clients seen during the month of July in the preceding two years (from the DHIS), it was calculated that 79% of the annual STI client total are treated in July, therefore our best estimate of the annual figure is 2 168 344 symptomatic STI clients treated at public sector PHC facilities in SA.

Estimates from other studies indicate that about 50% of clients with symptomatic STIs may be treated by other health service providers, mainly in the private sector.³ In addition, several studies indicate that up to 50% of all STIs can be asymptomatic.^{4, 5} Thus, it can be estimated that at least 8.4 million symptomatic and asymptomatic STI infections occurred in 2002 in SA, among a population (15 years or older) of about 30 million.

a This approximates the DHIS indicator 'Incidence of STI treated new episode (annualised)'

b This approximates the WHO indicator suggested to measure coverage of VCT services. It is quite close to the figure calculated by WHO for 2001, which indicated that 2% of the population in need had access to VCT services.

Figure 1: Estimates of percentage of PHC facilities with discrepancies in STI client and male condom records¹



Note: ⁱ After final round of verification.

Of facilities that recorded gender and age of STI clients, it was found that in six provinces, more than 10% of STI clients were under 18 years of age. Overall, 35% of STI client visits were made by males (range 31-42%). Provinces with high utilisation of services by males were Mpumalanga (42%) and Free State (41%).

Male condom distribution

It is estimated that during July 2002, about 8 745 254 condoms (approximately 100 million annually) were distributed through PHC facilities. Details are given in the chapter on reproductive health. This equates to about 7.2 condoms per male aged 15 years or older in 2002. In comparison, the total number of male condoms reported to the DHIS to have been distributed by PHC facilities during July 2002 is about 3 million less (5 667 418). This discrepancy may in part be a result of Gauteng not routinely

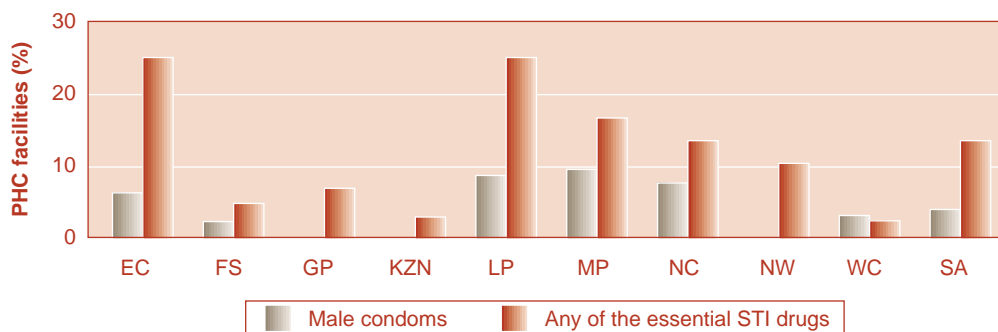
reporting male condom distribution data to the DHIS. Consistent and correct reporting of condom distribution for the DHIS has been raised as a major challenge in some provinces.¹

In addition, this survey found that there was significant secondary distribution of male condoms from PHC facilities to 'non-clinic sites' such as taverns, and that most facilities did not keep records of this secondary distribution.

Stock-outs of STI Drugs and male condoms

The frequency of essential STI drug and male condom stock-outs are not routinely captured through the DHIS. All provincial pharmaceutical services in South Africa use the essential drug list (EDL) for STI drug supply management. Monitoring of drug supplies using the DHIS has generally been reported to be

Figure 2: Percentage of facilities with stock-outs



problematic as information may not reach provincial offices in time to prevent stock-outs at depots. Only one province reported using the DHIS to manage STI drug supplies.¹

Facility managers were asked whether any of the five essential drugs used in the management of STIs (metronidazole, ciprofloxacin, erythromycin, doxycycline, benzathine-penicillin) had been out of stock during July 2002 (irrespective of duration of stock-out). Facilities that reported not using a particular drug were recorded as being out of stock, except where a correct alternative drug was used.

All provinces reported stock-outs of essential STI drugs in some facilities during July 2002. The proportion of facilities that had a stock-out of any one of the essential STI drugs ranged from 2.4% (Western Cape) to 24% (Eastern Cape and Limpopo). Just over 10% of STI clients that attended PHC facilities were potentially affected by stock-out of STI drugs during July 2002. Most STI drug stock-outs were reported to be due to problems with transportation of supplies to PHC facilities, and staff shortages.¹

The NDoH barrier methods programme utilises a Logistic Management Information System (LMIS) to facilitate a continuous supply of condoms on the basis of consumption. The LMIS indicated a 1% stock-out in the 166 male condom primary sites between January 2002 and January 2003.

This survey showed that nationally, the estimated proportion of PHC facilities that experienced male condom stock-outs was fewer than 4% in July 2002. PHC facilities in three provinces (KwaZulu-Natal, North West, Gauteng) reported no male condom stock-outs. In the remaining six provinces the percentage of facilities with condom stock-outs ranged between 2% and 9%.

Training and knowledge of nursing staff

This survey found that 50% of professional nurses at PHC facilities were 'ever trained' in syndromic management of STIs, and hence, in many instances the national STI treatment guidelines are implemented with variable quality. The number of facilities that provided correct drug treatment for vaginal discharge, urethral discharge, and genital ulcers was below 50% in almost all provinces except Eastern Cape (50%) and Gauteng (51%). Effective management of STIs in public sector PHC facilities is compromised by a lack of adequately trained staff, and by inappropriate use of available drugs.

HIV counselling and testing

It is estimated that about 50 000 clients were tested for HIV at PHC facilities that offered HIV testing during July 2002, but these facilities were not necessarily designated VCT or PMTCT sites. In addition, about 2 700 clients were referred for VCT by facilities that lacked capacity to provide this service (except in the Western

Cape where all PHC facilities offer HIV testing). According to the DHIS, the total number of clients attending any PHC service during July 2002 was 6 414 050. From this it may be calculated that about 0.8% of all PHC clients accessed HIV counselling and testing services at PHC facilities during this period.

Almost one-third of all PHC facility staff were trained in HIV counselling (most of whom were professional nurses); and nearly one-third of PHC facilities (mostly in the Eastern Cape and KwaZulu-Natal) had no nursing staff trained in HIV counselling. The key challenge to implementation of VCT and PMTCT services was a shortage of trained staff.

This survey showed that 53% of PHC facilities in South Africa considered themselves designated VCT sites. This is considerably higher than the number of facilities reported by the NDoH at the end of 2002, and may be attributed to service providers assuming that facilities were designated VCT sites if counselling and testing services were offered. Of those facilities which reported offering VCT services during this survey, 82% actually tested anyone in July 2002. Through the expansion plans for VCT and PMTCT, the NDoH aims to have VCT services available at 80% of public health facilities by the end of the 2003/4 financial year.

It was estimated that about 29% of PHC facilities were PMTCT sites, and that about 4 000 referrals for PMTCT were made in July 2002. At the time of this survey, VCT and PMTCT service roll-out had not commenced in many provinces, and services were established to varying degrees. In addition, expansion of the PMTCT programme in some provinces had not been officially documented.

Discussion

Monitoring and evaluation systems (and ultimately programme planning and implementation) depend critically on the quality of data. The validity of any estimates made from the data collected in any survey is limited by the reliability of the reporting systems that are in place on the ground, at each individual facility.

The DHIS is reported to be used in all provinces and facilitates the relaying of aggregated data to national levels. Some provincial STI managers have reported inadequate communication between their programmes and provincial information system departments which results in difficulties in accessing data and utilising it to inform planning.¹

Two recent studies have reported the quality of routine PHC data in South Africa to be inaccurate, incomplete and inadequate for a variety of reasons including lack of feedback and apathy.^{6, 7}

One of the strengths of this survey is that it gives a statistically unbiased estimate of a number of variables and indicators, and thus is one of the few instruments by which the quality of data reported under the national DHIS can be assessed. Routine information systems such as the DHIS inherently produce results that are biased downwards (towards zero) for data that are derived from counts e.g. condoms distributed, STI clients seen, etc. This is because generally, no adjustment is made for facilities that do not send in reports, i.e. missing data are treated as zeros. In the telephonic survey, on the other hand, non-reporting facilities were replaced and weights were adjusted accordingly. The estimate of the national aggregate count is therefore compensated for by the missing value of the non-reporting facility. This may create a bias towards results representing the better managed facilities at the expense of less well managed ones. However this bias is likely to be much smaller, and not consistently in the same direction (downward). The results therefore, give an indication of the effect of under-reporting in the DHIS.

In common with the DHIS, the validity of any estimates made from the data collected in this survey is limited by the reliability of the reporting systems that are in place at each individual facility.

Successes, Challenges, Recommendations

There has been a considerable amount of progress recently in monitoring and evaluation of STIs. The introduction of an effective STI sentinel surveillance programme commenced in 2003, and a process for training of sentinel sites is in place in all provinces. This will complement the annual antenatal HIV and syphilis seroprevalence survey which is well established nationally, and will enhance the ability of the STI programme to effectively monitor the patterns of disease within the community, and to use this information as a management tool.

Findings from this survey highlight the need to emphasise the importance of information collected and collated by the DHIS at facility level. There is a need to ensure that the programme is able to access and interpret data collected by the DHIS, and that there is utilisation of health data for planning purposes and management at facility level.

It is therefore recommended that the NDoH:

1. introduce regular quality control of data recording on a sample of facilities in order to maintain and improve the flow of reliable data, and to be able to adjust DHIS figures for undercount;

2. develop and implement improved record-keeping systems at facility level;
3. train service providers on record-keeping at facility level;
4. conduct regular monitoring of key aspects of the national STI programme (including drug treatment, barrier methods, and syphilis screening), particularly in rural communities;
5. develop logistics systems to facilitate monitoring of drug supplies at provincial level.

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