MINISTRY OF HEALTH

National TB, HIV & other STIs Programme - Annual Report

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Introduction - Overview of the HIV/AIDS and STIs program

The HIV/AIDS and other STIs programme of the Ministry of Health, like the HIV epidemic has undergone and continues to go through an evolving process, this is in line with the growing dynamics of the epidemic and of other health related issues. Key to this is the gradual process of integration of HIV services into the overall health care delivery system, a process that is seeking to mainstream HIV/AIDS given the lessons we are learning on a day to day basis. The other sexually transmitted infections have gradually been mainstreamed and this has been almost by a de facto process as little work has been done in this regard, as the primary focus continues to be around HIV/AIDS related issues and this being one of the key reasons why HIV/AIDS needs to be mainstreamed.

The programme has also been actively involved in the merging of activities with the PMTCT programme and the Tuberculosis programme and funding out of the HIV/AIDS cost centre has been used in support of TB activities and the procurement of infant formula as well as covering transportation cost of the PCR samples. This funding has also extended to other technical areas such as the Central Medical Laboratory and Central Medical Stores.

As described in the Operational Plan, there are four major outputs and they are all geared towards key objectives of the Programme. The overarching objectives are to reduce the incidence and prevalence of HIV and other STIs and to incorporate all those patients meeting medical criteria for ARVs to be included in the treatment regimens of the Ministry of Health. The four major outputs are:

1. The National HIV/AIDS programme strengthened in its' planning and management capabilities

2. Health system strengthened to improve the universal access to prevention, treatment, care and support

3. Improved management in access and rational use of medications, diagnostic supplies and other health commodities

4. Improved information and knowledge management

San Salvador Ministerial Declaration Review Group

Statistical Overview

HIV data has in itself been transformed due to improved data quality as well as the ever extending use of the Belize Health Information System. The fact that the programme also has a Monitoring and Evaluation officer specifically dealing with HIV data puts us in a position to make better programmatic decisions based on the data that is being generated.

Data for 2010 reveals HIV infections have decreased for the second year in a row, in 2009 the programme had documented a 14% decrease when compared to 2008 data and 2010 data shows a further reduction in new infections by 33.8% when compared to 2009 data. The country has thus gone underneath 250 new infections for a single year, something that hadn't been documented since 2000, prior to the wide scale testing and the introduction of VCT services countrywide. While this is certainly mirroring a positive impact within the national response, the key age groups still affected remain those between 20-49 years of age with the highest number seen in those 25-29 yrs (table 1) highlighting the fact that much work remains to be done amongst this productive sector of society.

The issue of double counting which could account also for the reduction in numbers is now being looked at closely and with the utilization of the Belize Health Information System, this issue is being dealt with on a case by case basis. Further updating of relevant and new information is expected in the next couple of months.

Age group	Total # of new HIV infections	Male	Female
<1	4	3	2
1 to 4	5	2	3
5 to 9	2	1	1
10 to 14	3	0	3
15-19	18	6	12
20-24	30	12	16
25-29	46	23	24
30-34	22	13	9
35-39	29	17	12
40-44	25	14	11
45-49	22	13	9
50-54	17	12	7
55-59	10	8	3
60-64	4	1	3
65+	4	1	3
	244	**126**	**118**

Table 1 – 2010 New HIV infections

Unlike what had been documented in previous years, the Belize and Cayo districts now harbor the greater number of new infections, thus the Stann Creek District now contributes the 3rd highest in total number of new infections (table 2). While we have been unable to document why the particular rise in the Cayo District, one can theorize that this could very well document the internal migration patterns occurring in Belize now. The data reported here is by district of residence as reported by the patients accessing the services.

District	Male	Female	TOTAL
Corozal	5	5	10
Orange Walk	2	5	7
Belize	83	82	165
Cayo	20	16	36
Stann Creek	11	9	20
Toledo	2	1	3

Table 2 - New HIV Cases by Sex and District of Residence 2010

As for the total number of new AIDS cases, there were a total of 81 which confirms the fluctuating pattern and the difficulty we have in keeping track of those patients detected as positive, most patients won't show up again in the system until they are at the latter stages of advanced HIV infection and this is particularly so with the male population. The more predominant numbers are those between 25-49 years, the same age groups as for new HIV infections and this simply reflects the most sexually active age groups (Table 3). This particular indicator is a little bit more difficult to track as a growing number of patients are being put on ARV therapy before they get to full blown AIDS so by definition we may in the future no longer be reporting this particular indicator.

Age Group	Female	Male	Total
Under 1	1	0	**1**
1 to 4	1	0	**1**
4 to 9	1	0	**1**
10 to 14	2	0	**2**
15 to 19	0	2	**2**
20 to 24	2	2	**4**
25 to 29	6	10	**16**
30 to 34	6	6	**12**
35 to 39	4	7	**11**
40 to 44	3	10	**13**
45 to 49	1	9	**10**
50 to 54	1	3	**4**
55 to 59	1	2	**3**
60 to 64	1	0	**1**
Total	**30**	**51**	81

Table 3 – AIDS cases by group for 2010

In table 4 it is noted that the most affected districts are the Belize and Stann Districts, traditionally these two remain the most affected districts. (Table 4)

In 2010, 106 deaths were associated to HIV/AIDS, with males accounting for 74 of the deaths, almost twice the number of females (see table 5). The majority of deaths are likewise associated to the same age groups highlighted above. This particular indicator hasn't actually shown the expected decrease in total numbers as one would have expected with the introduction of ARV therapy and there could be two particular reasons for this: i) more persons are accessing the health services even though they are in end stage disease and ii) with the use of the BHIS and

improved data collection, more persons are being captured as HIV positive and thus being documented as having AIDS related illnesses.

District	Female	Male	Total
Belize	13	25	38
Cayo	4	7	11
Corozal	3	3	6
Orange Walk	2	1	3
Stann Creek	8	13	21
Toledo	0	2	2
TOTAL	**30**	**51**	**81**

Table 4 – AIDS cases by district of residence – 2010

Age group	Male	Female	Total
< 1	1	0	1
1-4	1	0	0
4-9	0	0	1
10-14	0	2	2
15-19	0	0	0
20-24	2	5	7
25-29	9	4	13
30-34	10	6	16
35-39	15	2	17
40-44	8	5	13
45-49	13	4	17
50-54	7	1	8
55-59	5	0	5
60-64	1	0	1
65 +	2	3	5
TOTAL	**74**	**32**	**106**

Table 5 – AIDS Deaths by age groups

While the number of new infections may actually be going down, the number of persons expected to go on ARV therapy is actually expected to go up until it plateaus as HIV infections progress to advanced stages of HIV infection. There has thus been a gradual increase in the total

number of persons accessing ARV therapy on a regular basis and the increase from 2009 to 2010 was by 198 new patients as reflected in the table below.

There doesn't seem to be any real distinction in sex as a determining factor as to who is accessing treatment or not.

	2009		2010	
District	**Male**	**Female**	**Male**	**Female**
Corozal	22	19	26	23
Orange Walk	19	24	19	32
Belize	282	243	330	292
Cayo	66	47	76	85
Stann Creek	44	66	61	82
Toledo	10	12	10	14
Unknown	1	0	1	2
TOTAL	**444**	**411**	**523**	**530**

Table 6 – Persons on ART in 2009 and 2010

The biggest increase in number of patients going on ART therapy is seen in both the Cayo and Stann Creek districts and it is expected that with the rolling out of the adherence plan inherent to each site, a further increase in the number of patients is expected. The programme has also continued to expand its therapeutic options and has started acquiring newer fixed dose combinations to enhance greater adherence.

As it relates to co-infection with tuberculosis, there was a slight increase in documented cases of HIV/TB co-infection and this may not necessarily mean an actual increase as there is now an active case finding of tuberculosis cases that could account for this (table 7). The most affected districts with co-infection are the higher incidence districts as it relates to HIV but are not necessarily the high TB burden districts. The initiation of isoniazide as prophylactic therapy is expected to curtail this increasing burden of TB in HIV patients.

Finally, the other major component of the programme and which is managed in conjunction with the Maternal and Child Health Unit is the PMTCT portion which has been highlighted as a best practice in the region. Out of the 6,631 registered pregnant women in 2010, there was 93.2% coverage with HIV testing and 53 women were detected as HIV +. Twenty (37.7%) out of the 53 cases were known HIV cases and 94.3% of women HIV + received ARV prophylaxis / treatment to prevent MTCT. In 2010, 55 HIV + women delivered babies with 54 of these receiving ARV at the time of delivery. Fifty four newborns were delivered in 2010 and 98.1% of those exposed received ARV prophylaxis at the time of delivery; there was one abortion. The number of women who are HIV + and pregnant decreased by around 10% when compared to previous years but the biggest challenge is that almost 50% are repeat and unplanned

pregnancies. The issue also remains of reaching out to the male counterparts of these females who in the majority of cases have not disclosed their status to their partner (s).

District	Male	Female	TOTAL	Male	Female	TOTAL
		2009			**2010**	
Corozal	1	0	1	1	0	1
Orange Walk	0	0	0	0	0	0
Belize	12	2	14	11	1	12
Cayo	0	0	0	4	5	9
Stann Creek	1	0	1	4	2	6
Toledo	1	0	1	1	0	1
Totals	**15**	**2**	**17**	**21**	**8**	**29**

Table 7 – TB and HIV co-infection in 2009-2010 per district

PITC training in Punta Gorda with health staff

Activities- (major highlights)

Major accomplishments can be highlighted for 2010 which was also the target date the country had set to reach Universal Access.

- Participation in the conduction of a Behavioural Seroprevalence Survey with the Belize Defense Force, results were presented in the first semester of 2010.
    1. The results of this study are now being used in conjunction to draft up a policy and specific plan of action for the BDF
- Active participation in the drafting, completion and submission of Global Fund Round 9 which was accepted for funding.
- Signing of a 5 year agreement with PEPFAR Central America and PEPFAR Caribbean in support of regional strategic frameworks that would be in support of our Operational Plans
- Belize is represented actively in the Regional Coordinating Mechanism of Central America which has launched its' plan of action for the region along with a Monitoring and Evaluation Plan that goes along with it – was endorsed by COMISCA
- The programme is now directly procuring condoms and CD4 reagents from the manufacturers decreasing the cost of these supplies by almost 60%
- The following reports were completed(even thought not all were the total responsibility of the programme) and submitted to the relevant agencies,
    I. UNGASS report for period 2008-2009
    II. Universal Access Report 2009 along with incorporation of the data into a Central American Regional Report
    III. National AIDS Spending Accounts (NASA)
    IV. Millennium Development Goals Report
    V. Evaluation of the Ministerial Declarations
- A memorandum of understanding was signed with CDC Guatemala Office and Universidad del Valle out of Guatemala City to conduct three basic studies of relevance to the programme. All the basic ground work for this has been done and the final protocol is pending approval from CDC Atlanta
    - Qualitative study of three sub-populations (men who have sex with men, female sex workers and persons with HIV/AIDS)
    - An estimation of the size of these populations for the entire country
    - Behavioural Seroprevalence Survey (BSS) with the aforementioned three populations
- Initial phase of the Mesoamerican Project has been completed
- The phasing out of the Chest Clinic has been initiated
- Technical support was given to the TB programme for Global Fund round 10 submission along with support to the MARPs proposal

- Technical support was given to the Central American region for submission of proposal to include migrant populations for Global Fund round 10.
- A forecasting exercise was conducted for ARV procurement in conjunction with the Clinton Foundation no continue to ensure that no stock outs are had
- No stock out of ARVs for the last four years
- An exchange program through a Technical Cooperation Request was had with the island of Bonaire to look at the work ongoing within the prison setting
- A project proposal to look at M&E training along with training in Clinical Medicine was presented to the Brazilian Embassy to seek cooperation, this is pending approval by the Brazilian Government
- The following documents were produced
    - Gender based analysis of HIV in Belize.
    - Post exposure prophylaxis to occupational and non-occupational exposure to HIV was completed and socialized.
- Viral load testing was negotiated and samples were sent to the Virology Laboratory in Puerto Rico
- Multiple training sessions held in each region covering the following main areas:
    - Provider Initiated Testing and Counseling
    - HIV and TB as a co-infection
    - Post exposure prophylaxis
    - Prevention of Mother to Child Transmission
    - Clinical Management of HIV/AIDS
    - Monitoring and Evaluation
    - Voluntary Counseling and testing
- The following trainings were received through the National Programme for local counterparts
    - Pharmaco – resistance to ARVs
    - Basic Epidemiology and Clinical Management (through JICA)
    - M&E skills
    - Early Warning Indicators
    - Size Estimation Calculations for most at risk populations
    - Second Generation HIV Surveillance
- World AIDS Day 2010 with multiple countrywide activities
- Procurement of equipment for Central Medical Laboratory in the process of strengthening health services – funds through PEPFAR
- Initial participation in PANCAP's Global Fund round 9 proposal with some activities

National Agriculture & Trade Show Booth 2010

Financial expenditure of the HIV/AIDS and other STIs Programme.

The National Programme under cost centre 19178 got a total of $1,165,222.00 approved for fiscal year 2010-2011. These monies were assigned to five basic financial categories: i) personal emoluments, ii) travel and subsistence, iii) materials and supplies, iv) operating costs and v) maintenance costs.

As of February 10th of the current fiscal year, the total expenditure for the programme amounted to $822,846.00 which represents 70.6% of the total approved budget and with pending purchasing of supplies and materials for HIV testing and TB supplies, the total expenditure at the end of the fiscal year will be around 95% of the total approved budget.

The table below highlights the actual expenditure as per line item to date *(February 10th, 2011)*

Item & description	Approved budget	Expenditure	Encumbrance
Personal emoluments	$254,322.00	$167,724.00	0
Travel & subsistence	$24,000.00	$16,000.00	0
Materials & supplies	$736,500.00	$539,094.00	$8,254.00
Operating costs	$99,000.00	$84,361.00	$5,175.00
Maintenance costs	$51,400.00	$15,667.00	$4,148.00
TOTALS	**$1,165,222.00**	**$822,846.00**	**$17,847.00**

The vast percentage of the programme monies are spent under the line item "materials and supplies" and this includes basically all materials related to the procurement of testing kits, CD reagents and also, anti-retroviral drugs. Under line item titled "personal emoluments", the salaries highlighted here are for staff from headquarters and from the VCT site in Belize City.

However, of perhaps lesser relevance is the fact that not all these monies may have been spent on HIV/AIDS activities as some monies allocated to travel & subsistence and operating costs may have been given to other cost centres as discussed with finance officer.

Challenges:

The single biggest challenge for the programme has been the integration process into the overall health care delivery system. The term integration in itself poses a challenge in the way each particular entity including national stakeholders and foreign agencies understand it – a process that for the programme simply means – mainstreaming HIV/AIDS related services into the overall health system. The process of integration has happened at different levels at different times and at different depths but the overall process is a gradual one that is slowly being accepted in the light of HIV being perceived as a chronic disease. The cardinal issue behind looking for integration was to curtail the stigma and discrimination associated to HIV; however, there was a compounded problem to this in Belize, and that still remains an issue as HIV is seen as the "very vertical" programme managed solely through headquarters and with external funds.

The integration process in itself creates a further burden to the health system as the services being offered through the traditional VCT sites have to now be offered through an already over burdened health system. As such, the health system at the indicated levels of health care has started the actual HIV testing; the provision of anti retroviral therapies, the clinical follow-up of patients and certain prevention strategies, activities that were once carried out entirely by the VCT staff; this process has been gradual and not necessarily welcomed at the regional levels of health care as this is seen as a more of a burden than a regional responsibility. The regional management teams have also failed to take ownership of the HIV response and still have a heavy

dependency on the National Programme for the actual implementation of activities that ought to be carried out at the regional levels.

On a wider context, there is also an inadequate understanding of roles and responsibilities within the National HIV/AIDS response which at times puts an added responsibility for the MOH's response. There are also many conflicting agendas with the multiple partners at both the national and international level and this creates multiple tasks which at times are parallel to other activities and this arises from a lack of adequate national coordination. The funding issue is also many times conditional to foreign agendas which don't necessarily take the programme's operational plan into account and this leads to conflicting priority areas in the work we carry out and this may be perceived as a lack of interest or "negativity" to conduct activities with the

Financially the programme, has maintained, despite the current economic crisis, the policy of free anti-retroviral options to all those meeting medical criteria for medications. Funding for HIV medications has been entirely from monies assigned to the programme which although limited, has sufficed to have all adult patients on therapy, although no further expansion of therapeutic options was done in 2010. It is expected that in 2011, further treatment options will be available given the decrease in pricing of ARVs and with Belize being a member of the Clinton HIV/AIDS Initiative the access to lower pricing should be available for Belize.

Booth for UB health fair

Recommendations

As we move on towards better data collection and processing to evidently influence better programmatic planning, it thus becomes imperative that the M&E officer be established in this post as this would allow for an easier transition as to the vital role that this plays into the wider Epidemiology Unit. It is becoming clear that a clearly established M&E plan with specific indicators, especially impact indicators needs to be worked on in the immediate future.

With the disease eventually reaching a plateau stage in 2008 and now with a documented decrease for two years in a row, newer prevention strategies and a well planned adherence work-plan needs to be developed to ensure that the efforts documented up until now are sustained. The integration plan, while initially envisioned to lessen stigma and discrimination, has actually taking a newer role as it has now become more evident that HIV/AIDS needs to be mainstreamed into the overall health system for sustainability purposes.

It is also becoming evident that further epidemiological data is needed to further guide the National Response as there are many factors inherent to the HIV epidemic that need to be further discussed. The Programme must then in conjunction with other national partners and key technical areas within the Ministry of Health carry out the very important Behavioral Sero-Prevalence Survey that will look at prevalence rates amongst two core populations, the men who have sex with men and female sex workers. The results of this study will guide future planning and strategic interventions amongst key populations considered to be most at risk. The same issue arises with the Mesoamerican Project that seeks to document primary and secondary resistance to anti-retroviral drugs in Belize; a study that should also guide any future interventions for the country.

While the programme will spearhead the Global Fund round 9 which starts this year, the specific structure allows for further mainstreaming and overall integration of HIV activities into the overall health system. The current Global Fund speaks for strengthening of three vital structures (Central Medical Laboratory, Central Medical Stores and the Belize Health Information System) for the overall health systems strengthening and being able to capitalize on this, would go a step further in ensuring support for further mainstreaming of HIV/AIDS.

Funding specific for HIV/AIDS activities is on the decrease and as newer health priorities arise, the time may be just right for the HIV programme to also seek integration into a wider spectrum of chronic diseases, especially in light of the fact that ARVs are expected to prolong the lives of those infected with HIV. The same chronic diseases documented in the overall general population are expected to make their presence in HIV patients and thus the broader health perspective needs to be incorporated here.

HIV/AIDS thus needs a wider incorporation within the National Response and also a greater uptake of responsibilities and specific actions within the region. The work initiated and accomplished up until now thus needs to be sustained with a specific focus for the future.

Finally, the Programme should continue the political advocacy through the regional channels available. The opportunity of being the Vice-Chair of the Regional Coordinating Mechanism of Central America presents itself as a unique to learn from the major partners in the region and the recent inclusion of Belize in the Horizontal Technical Cooperation Group furthers supports this. Belize has a key position where leverage can be had from both the Central American and Caribbean regions to ensure the political agenda is included for the benefit of the country. A further in depth commitment is needed if this is to be achieved.

Conclusions

The documented decrease in new HIV infections is certainly a positive note for the overall response and highlights the positive outcomes of ongoing national efforts despite the fact that there have been no specific targeted approaches in the National Response.

However, some of this decrease must also be taken with caution and points out to the increasing improvement in data quality that the Programme is pushing for. With the increasing use of the Belize Health Information System the issue of double counting and duplication of data is virtually eliminated so that as we move forward, it is expected that better figures to guide the overall response will be had. This will allow for better programmatic reporting as HIV continues to be mainstreamed into the overall health response responding to the needs of those infected by HIV as well as responding to MOH's logo of "equal health for all."

The eventual sustained success in the HIV response will be, from the Ministry of Health's standpoint, how to strike a perfect balance in ensuring that HIV is mainstreamed into a general package of health without diluting the response required for this multi-faceted disease. This should thus fit into the overall objective of the Health Sector Reform Project and must be one of the lead disease entities as chronic diseases become more prevalent in country.