HIV/AIDS IN LEBANON: REVIEW OF A SUCCESS STORY

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1. Introduction:

Lebanon, a country of about 4 million inhabitants in the Middle East and North Africa region (MENA), reported its first case of HIV in 1985(Mokhbat and al. 1985). By 2012, the cumulative number of cases reached 1552 with a plateauing in the past 7 years to a yearly average of 99 cases. It is a low prevalence country (less than 0.1%). In 1989, Lebanon recognized officially that HIV is a public health threat and established a National AIDS Program (NAP) aiming to lead the concerted efforts of the public and private sectors in the fight against the disease. While many countries in the region were denying its presence for different reasons, Lebanon developed a series of national action plans based on evidence gathered from a series of studies, summarized below, and covering the general population as well as high-risk groups. The adopted strategies made the anti-retroviral drugs universally available and accessible. By 2012, data showed that the overall numbers of reported cases were declining (NAP report 2012). It is thus likely that the HIV/AIDS disease is curbing in Lebanon and the turning point in dealing with such a pandemic has been reached.

2. Epidemiology

1.1 Global

After more than 3 decades from its first report, the HIV infection remains a global epidemic sparing no country, age group, gender or ethnicity. HIV/AIDS is not only a health problem, but also a developmental and global security issue. In 2011, a total of 34 million individuals were living with HIV compared to 26.2 million in 1999, that's a 30% of increase, and some 2.1 million died of AIDS worldwide (UNAIDS & WHO, 2012).

In 2009, there were an estimated 2.6 million (2.3-2.8 million) people who became newly infected with HIV. This is nearly 19% fewer than the 3.1 million (2.9-3.4 million) people infected in 1999, and more than 21% fewer than estimated 3.2 million (3.0-3.5 million) in 1997, the year in which the annual new infections peaked (UNAIDS, 2011). Consequently, the progressive decrease in the number of new HIV infections is an indication that the overall growth of the global AIDS epidemic is relenting and has somehow stabilized. This trend is being materialized in Lebanon.

1.2 Regional

Despite the remarkable progress in understanding HIV epidemiology globally, the situation in Middle East and North Africa (MENA) region is much less clear. In the review about HIV by Raddad et al. In 2010, it was shown that HIV infections are still occurring at a sustained pace in the existing sexual and injecting drug risk networks, and that there is a substantial heterogeneity in HIV spread. Injecting drug users (IDUs), men who have sex with men (MSM), and female sex workers (FSW), are clearly documented high-risk groups in all MENA Countries (Abu Raddad et al., 2010; Mumtaz et al., 2011)

In fact, there was an increase in the numbers of people living with HIV (PLWHIV) from 2001 (180,000) to 2008 (310,000) and to 2009 (460,000) with a doubling of the average incidence from 0.1% in 2001 to 0.2% in 2009. In addition, 26,000 young people in the MENA region acquired HIV in 2009 (UNAIDS & WHO Report, 2008; UNAIDS, 2010).
Other reports showed that the prevalence of HIV in the MENA region was increasing and heterosexual transmission accounted for 80% of the cumulative total number of reported AIDS cases. In contrast, the use of non-sterile needles among injecting drug users accounted for 10% cases and transmission through blood and blood products decreased from 12% in 1993 to 0.4% in 2003 (Kim, 2002; UNAIDS & WHO Report, 2008).
After years of denial of its existence in many countries of the MENA region, HIV and its complications underscore their burden and impact on society. The region as a whole is failing to control HIV spread that, depending on geographical area and risk behavior, occurs at moderate to high frequency. In recent surveys, the majority of transmissions of infection were reported in commercial sex workers (47.2%), followed by injecting drug users (22.6%), and men who have sex with men (18.9%) (Abu-Raddad et al., 2010; Mumtaz et al., 2011).

1.3 Lebanon

After 3 decades of its reported presence in Lebanon and constant monitor of the incidence of infection, the annual reported cases from 2007 to date showed that the disease is being stabilized (fig. 1 and 2), compared to other countries of MENA regions (fig.1) especially to those which represented a relatively high HIV prevalence, such as (Djibouti, Morocco, Somalia, and Southern Sudan). These data showed a step forward along the course of curbing HIV/AIDS disease transmission in Lebanon.

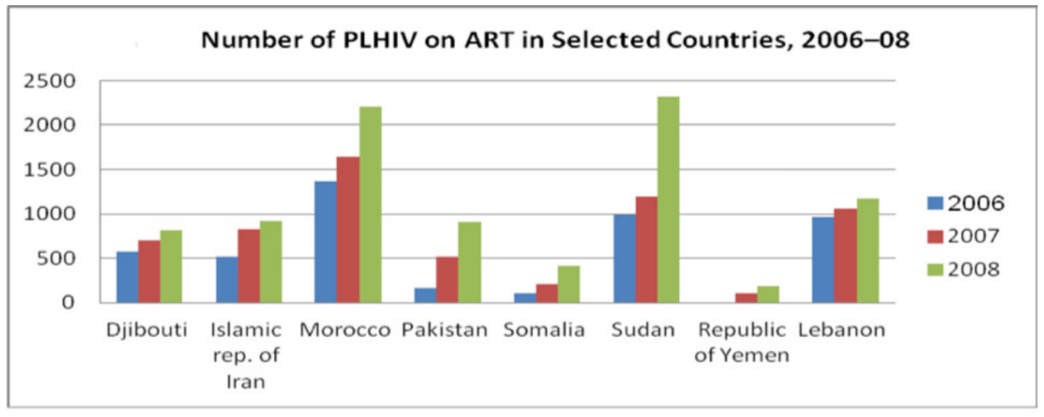

Fig.1: Regional Database on HIV/AIDS; WHO/EMRO2008a.

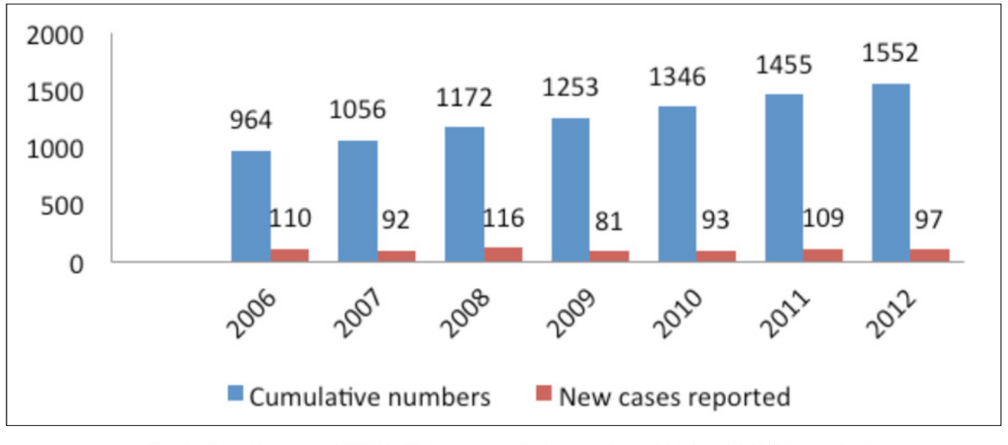

Fig.2: Distribution of HIV/AIDS cases in Lebanon from 2006 to 2012(November)

In Lebanon, the reported level of the HIV/AIDS epidemic is considered low, with an estimated prevalence of 0.1%. However, the number of reported HIV and AIDS cases increased steadily since 1985, when the first AIDS case in the country was reported (Mokhbat et al., 1985). While the first cases of HIV/AIDS were diagnosed among emigrant Lebanese men visiting or returning home, more recent data indicated that local transmission and spread of the disease were taking place and becoming a significant, if not the prevalent, mode of transmission in the country. By 2009, 1253 cases were reported to the National AIDS Program (NAP), followed, the year after, by 1,346 cases and ended by 1552 by 2012 (fig 2). More than half newly reported cases (54.1%) were in the HIV stage implying that diagnosis of HIV infection in Lebanon occurs in late stage of infection and, hence, the need to encourage early detection, and to promote early testing (Fig. 3). Despite all past data, the new statistics in 2012 (51.50% HIV stage, 34 % AIDS and 14 not specified) have shown a progress at detection level of HIV, which can probably reflect a maturity and responsibility in Lebanon against this virus (fig.3).

Sexual intercourse remains the main route of HIV transmission in Lebanon, accounting for 76.3% total infections. Of these transmissions, 44.00 % and 19.35% are transmission through heterosexual and homosexual relationships, respectively (Table 1). Testing of transfused blood for HIV has been mandatory since 1990, and since 2009 there was not new case of HIV infection reported as due to transfusion.

Concerning the stage of the disease, 42% of respondents were at the HIV stage as opposed to 54% (50 respondents amongst 92) that were revealed to be at the HIV stage during the 2007 (NAP 2007) .In the same year, 23% of respondents were diagnosed at the AIDS stage and another 23% were at an unspecified stage, raising questions concerning the status and efficacy of HIV/AIDS diagnosis and reporting system in Lebanon, and pointing to the need to organize a truly effective system/network for early testing and detection of the infection (fig.3).

The 2007 data portrayed an increasing trend of newly reported infections, particularly amongst the young population aged 15-29. Moreover the 2010 data revealed that 30% of all 1,346 documented HIV/AIDS cases in Lebanon fall within the 31-50 age group and only 18% occurred in people below the age of 30. This finding suggests, and clearly needs to be substantiated with prolonged prospective studies, that HIV/AIDS transmission is increasing amongst adults and possibly decreasing amongst youth (NAP website, 2011).

Analysis of the gender distribution of HIV/AIDS cases over 6 years (2007-2012) showed a trend of decrease in the number of female reported cases towards males from 2009 into 5% in 2012. Similarly to what observed in the past, in 2010 males accounted for 89% of all 93 reported cases and females for a mere 11%. This study also demonstrated a 9% increase of male-diagnosed cases of HIV/AIDS since the beginning of the surveillance campaign in Lebanon, and in particular, from 2007, when about 80% HIV/AIDS cases were reported in males, Such higher prevalence of infection amongst males prompted a nationwide study in MSM that was completed, and results disclosed, in 2010 (Mhafoud et al., 2010). This analysis is confirmed by the new data of 2012 (95% males and 5% girls) as shown in (fig. 4).

With women having contributed to 37% of newly reported cases according to the same source published in year 2007, the above figures offer evidence towards decreasing female influence on the epidemiology of HIV/AIDS, to 7% and 5% by 2011 and 2012 respectively, Lebanon (NAP, 2008/2012).

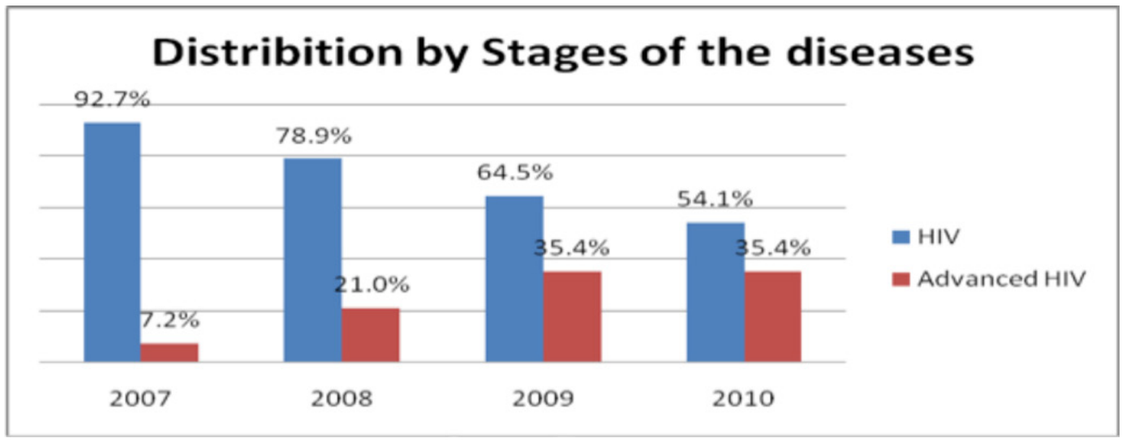

Fig. 3. Distributions of reported cases by stage at detection from 2007 till 2012.

The staging and classification of HIV/AIDS were done according to the WHO criteria, and on the basis of clinical manifestations where the stages are categorized as 1 through 4, progressing from primary HIV infection (Asymptomatic) to advanced HIV/AIDS (HIV wasting syndrome).

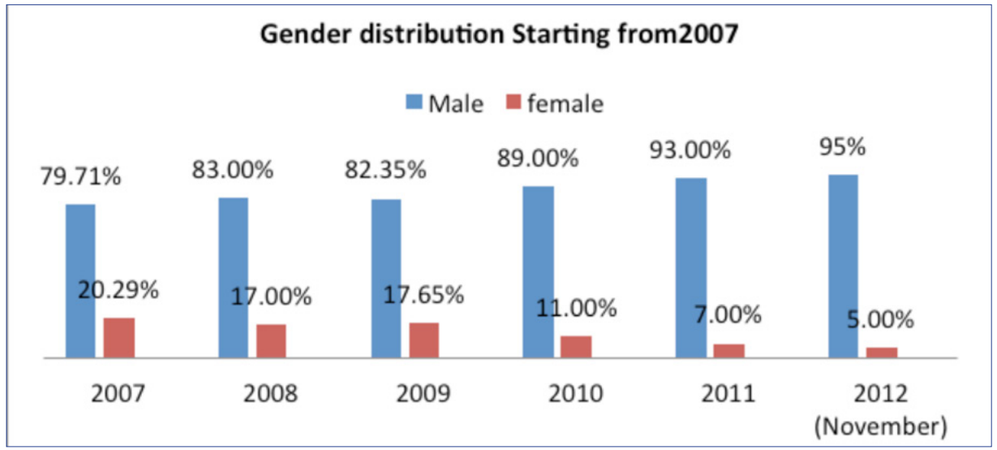

Fig.4: gender distribution of HIV cases since 2007

	Homosexual	Bisexual	Heterosexual	Not specified
2007	26.32	10.53	53.63	9.23
2008	49.18	3.28	34.43	13.11
2009	34.29	8.57	40.00	17.14
2010	19.35	16.10	44.00	20.55
2012	43.30	0	13.40	43.30

Table 1: Distribution of HIV infection by sexual behavior: (WHO/NAP 2012.)

2. Review of major studies about HIV/AIDS in Lebanon

As mentioned, Lebanon officially recognized HIV/AIDS as a public health threat as early as 1989, year in which a national response was set forth by public and private sectors. Such response led to the establishment of the National AIDS Program that was launched in 1989 and foresaw consecutive action plans and strategies based on data accrued from multiple field studies over the past thirty years or so. Several field studies have been conducted among different groups to assess knowledge, attitudes, beliefs and practices (KABP) regarding HIV/AIDS. This information was used to build up health awareness and appropriate education, prevention, and control strategies.
The first study was in 1991 (Jurjus 1991, WHO's reports). Fallowed by several studies achieved by 1995, 1996 and 2004 (Jurjus, WHO's reports)

In 2010, Mahfoud et. al. conducted a biobehavioral study targeting specific groups like FSW, IDU, and MSM in Lebanon. This study increased our understanding of the dynamics of HIV transmission in these at risk populations whereby, this transmission tends to be concentrated. Their data showed that the prevalence of HIV among the MSM group was 3.7% as compared to 0.1% in the general population. Comprehensive prevention efforts targeting this high risk groups were recommended. They believed that such efforts will help in curbing the spread of HIV.

The youth constituted another group that needed to be addressed in Lebanon. Globally half of the new HIV infections were among youth aged 15 to 24 , in 2012 ,27.80 % of new reported cases belongs to patients less than 30 years old (NAP/WHO 2012). In Lebanon, the incidence of new HIV infections was increasing among young adults and required special attention. Knowledge about HIV/AIDS was incomplete among secondary school students and out-of school youth and was accompanied by engagement in unsafe sexual practices. The 1996 national KABP study revealed that 15.8% and 47% of the respondents had their first sexual relation before the age of 15 and 20 respectively (Jurjus 1996). Therefore, findings indicated that by the age of 25, the majority of the youth would be sexually active (80%) and only 23% would be consistently using condoms (Rady 2004). Despite the high rates of sexual activity among youth in Lebanon, availability of information on sexual and reproductive health remained limited as school curricula do not include comprehensive information on the topic, and reproductive health education targeting youth were lacking. Adding to the unavailability of youth friendly services, the current economic and unstable political situation in Lebanon was leading to high rates of unemployment among youth which engender stress leading to casual sexual relations as a stress relieving alternative.

Very recent data collected in 2011 and 2012 indicated a limited increase in the HIV prevalence among the MSM population to 3.7%. A special study funded by the NIH is addressing this issue at the moment. Moreover all reported data indicate a low contribution of females in HIV transmission since only 5% of new reported cases are females. On the second hand only 6.2% of new reported cases have a travel history (NAP/WHO 2012), which indicates a national HIV spreading.

3. Conclusion

Soon after the declaration that HIV/AIDS exists in Lebanon and initiation of the National AIDS control plans, the strategies adopted by the Ministry of Health were based on interim, 2 year, 5 year plans, based on evidence originating for above mentioned studies and surveys. These studies addressed the general population as well as specific highly vulnerable groups. Synthesis and analysis of the most recent epidemiological data indicate that HIV prevalence is low in Lebanon, less than 0.1%, scoring a low level in woman (only 5%) and a substantial stabilization of the HIV/AIDS pandemic. In brief, after 3 decades of its first reporting in Lebanon, HIV/AIDS spread is diminishing.

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