HIV AND AIDS: GLOBAL SUMMARY AND BASIC FACTS

"Our mission is to build a better world, to leave no one behind, to stand for the poorest and the most vulnerable in the name of global peace and social justice."

Ban Ki-moon
United Nations Secretary-General

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ABSTRACT

Investing in AIDS is leading to concrete outcomes with an optimistic view to end this epidemic. Unfortunately, achievement and progress related to this disease are not fairly disseminated among high risk populations. There is a need to reform policies and punitive laws, in addition to ensuring adequate access to treatment without forgetting the importance of addressing stigma and discrimination, implementing an efficient awareness campaign and prevention program and services taking into consideration specificities of each region. HIV program must be integrated within the national disaster preparedness and response plans. International and national efforts need to rise, especially from the government side along with the civil society to efficiently overcome health threatening conditions facing vulnerable populations. This article addresses main findings and limitations in the region and serves as a reminder on basic facts versus myths and a global summary on HIV/AIDS.

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INTRODUCTION

Investing in Acquired Immunodeficiency Syndrome (AIDS) is leading to concrete outcomes with an optimistic view to end this epidemic.

In 2013, Human Immunodeficiency Virus (HIV) cases worldwide have reached 35 million. New infections in that same year were 38% lower rate than that in 2001 with approximately 2.1 million new HIV cases.

Moreover, after reaching a peak in 2005, a 35% decline in death rate from AIDS related causes was observed in 2013. However, it is worth noting that antiretroviral therapy is not equally covered between children (24%) and adults (38%); those rates increased respectively by 3% and 6% by mid 2014.

Unfortunately, achievement and progress related to this disease are not fairly disseminated and people at higher risk of infection remain less acquainted with this improvement which highlights the urgent need to invest in HIV prevention programs and put more efforts in providing relevant treatment within such populations. How to close this gap knowing that the number of people who do not have access to life-saving treatment has reached 22 million?

To do so, more efficient and sustainable HIV programs need to be implemented. These programs must take into consideration a wider range of stakeholders and address social as well as other structural difficulties and limitations. In fact, by mobilizing the community, the latter shall benefit further from provided services such as HIV testing, treatment and prevention. It will also help promoting adherence to these practices especially when complemented by the inclusion of various related development sectors such as health and education, especially when taking into account gender equity and social protection. And since one of the main foundations of AIDS response program is to be absolutely committed to protect human rights, only zero discrimination can be acceptable [1].

More concretely, there is a need to restructure policies and punitive laws, in addition to ensuring adequate access to treatment without forgetting the importance of addressing stigma and discrimination. Last but not least, HIV program must be integrated within the national disaster preparedness and response plans [2].

WORLD MAP OF THE AIDS EPIDEMIC

In 2013, **(Figure 1-3)** [3], there were around 6,000 new HIV infections per day; the approximate distribution was as follows:

- 68% were located in Sub Saharan Africa
- 700 were children under 15 years of age
- 5,200 were adults aged 15 years and older, of whom:
  - 47% were women
  - 33% were young people aged between 15 and 24

EPIDEMIOLOGY OF HIV IN THE EASTERN MEDITERRANEAN AND MENA REGION

With the exception of Djibouti, South Soudan and Somalia – where HIV epidemic is widely spread across the country – the disease has relatively low concentration in most Eastern Mediterranean/ Middle East and North Africa (EM/MENA) countries [4].

However, although the epidemic is declining worldwide, HIV infections are increasing very rapidly in EM/MENA region where the disease has the fastest growing rate. Moreover, the region lacks adequate data on HIV prevalence and an under reporting. However, results available suggest an increase rate among high risk populations accompanied by transmission to low risk populations. In fact, it was noted that HIV-positive young women acquired this infection, for the majority of the cases, from their partners and/or husbands with high risk behavior.

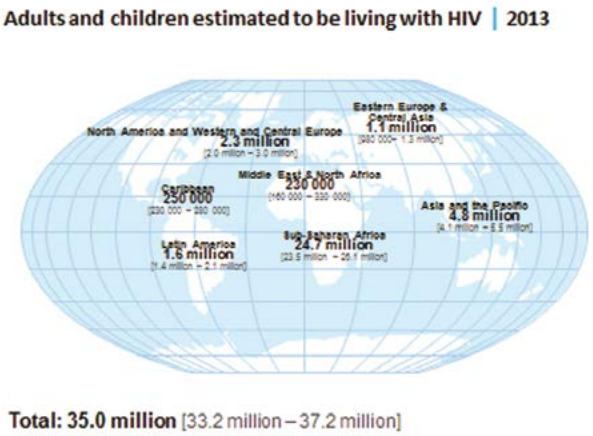

Figure 1: Adults and children estimated to be living with HIV (2013)

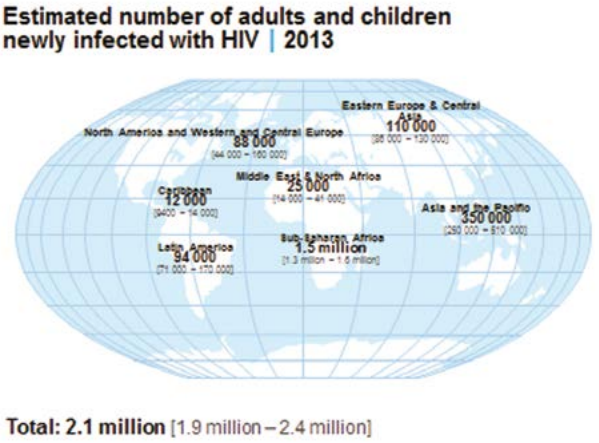

Figure 2: Astimated numbers of adults and children newly infected with HIV (2013)

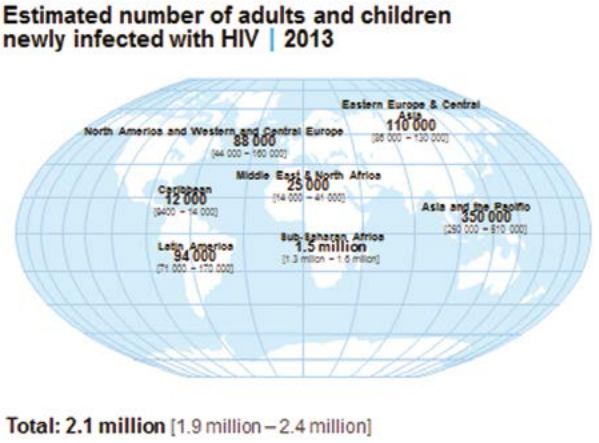

Figure 3: Astimated adult and child deaths from AIDS (2013)

Previous studies in Pakistan and the Islamic Republic of Iran also highlighted an increase of infected women whose spouses were HIV-positive Injecting Drug User (IDUs) [4;5].

By the end of 2010, a total estimation of the number of adults and children living with HIV has reached 580,000 in EM/MENA region. And overall, children aged less than 15 years old as well as the prevalence of new cases is increasing. Subsequently, this rapid epidemic spread in the region, the increase of infected women in addition to the inadequacy of Prevention Mother-to-Child Transmission (PMTCT) services, AIDS related death rate is doubling [4].

OVERVIEW OF THE AIDS EPIDEMIC IN LEBANON

The ministry of public health (MOPH) in Lebanon suggests that HIV/AIDS infection can be prevented [6].

The estimated prevalence rate of HIV in Lebanon is 0.1%. Although considered low, the concentration is usually confined to Most At-Risk Populations (MARPS), commonly among MSM population, as the latter group is linked to high risk behavioral practices, but also among drug users and younger population.

According to the National AIDS Program (NAP) report, the total number of cases registered till November 2014 was 1780 and new cases reported in this same year (until November) was 109 **(Figure 4)**, most of which were transmitted sexually and for the majority among younger age groups [6]. However it is to be taken into consideration that the lack of timely and reliable data hinders the epidemiological dynamics of HIV. As such, HIV surveillance program remains poor. Furthermore, most of MARPS members do not seek proper medical counsel and/or relevant tests and examinations because of the high level of discrimination and stigma.

Majority of infected people were aged between 15 and 49 years old; in other terms the most sexually active and productive part of the community.

The category of those who are less than 15 years old starts to appear this year, which indicates that the younger age group is increasingly affected.

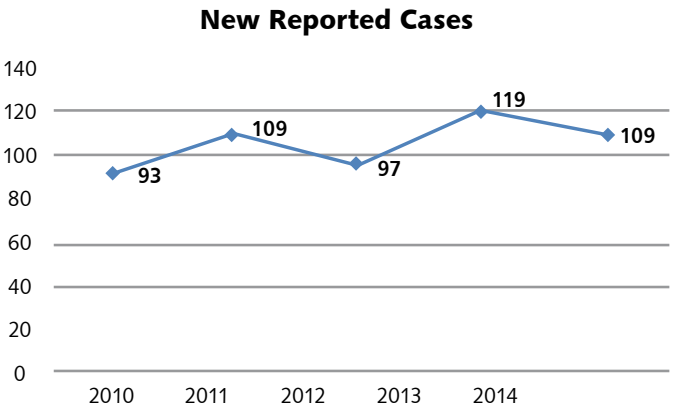

Figure 4: New reported cases in lebanon

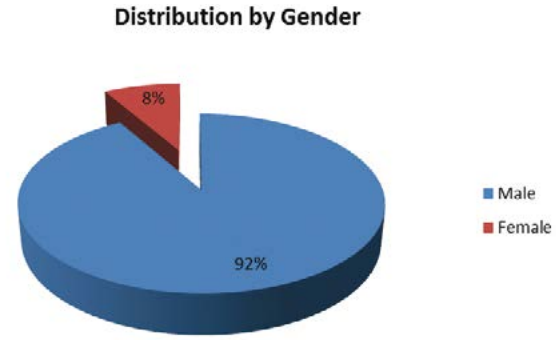

Figure 5: Distribution of cases in lebanon by gender

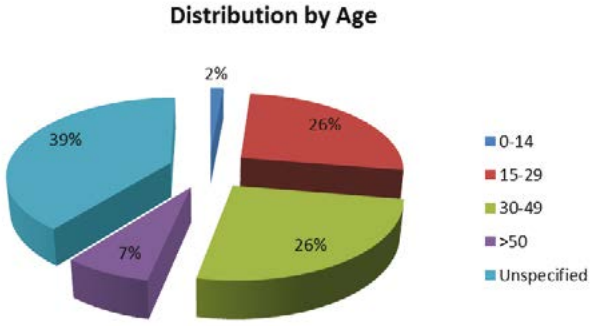

Figure 6: Distribution of cases in lebanon by age

As shown in **figure 8**, the distribution of HIV cases according to sexual behavior showed that the higher proportion was among homosexual (36.7%), followed by heterosexual (22.9%) while 38% were "unspecified".

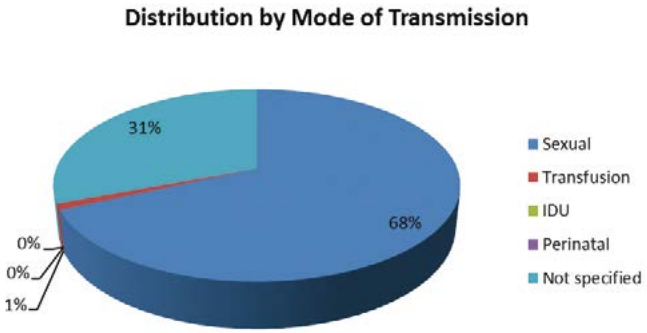

Figure 7: Distribution of cases in Lebanon by mode of transmission

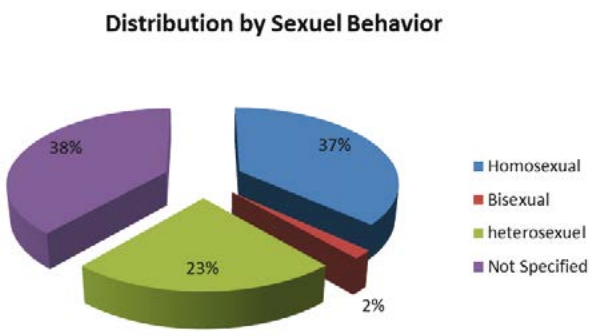

Figure 8: Distribution of cases in lebanon by sexual behavior

Other previous studies took place in 1996 and 2004 respectively; they studied HIV knowledge among Lebanese, they also included common attitudes and beliefs. Following these studies, it was concluded that universal awareness pertaining to HIV favored increasing and improving individuals' knowledge.

Despite this fact, a surprising decrease from 93% to 87% of people approving proper and efficient protective measure was observed in 2010. Moreover, MARPs – including Female Sex Worker (FSW), Men who have Sex with Men (MSM) and IDUs – were shown to be engaged in risky behaviors, such as unprotected sex, despite their awareness of potential HIV transmission.

SYRIAN CONFLICT IMPACT [7]

A huge number of Syrian refugees in Lebanon have added to the existing political, economic, social and most importantly health related burden/problems. In fact, medical coverage follows many schemes and scenarios where for example the Lebanese MOPH covers patients who do not have any kind of health insurance, while other ambulatory services remain uncovered.

In their biweekly report – dated from July 7th till 20th, 2013 – United Nations High Commissioner for Refugees (UNHCR) declared that 8233 patients attended Primary Health Care (PHC) centers seeking medical care. Nine percent of these cases were pertaining to Sexually Transmitted Diseases (STDs) [7].

Similarly to other MENA countries, Syria has a low prevalence of HIV masked by an under reporting caused by many factors including the higher incidence rate being among MSM group where people are reluctant to report of fear of stigma and discrimination.

Similarly to other countries in the EM/MENA region, in Syria, HIV prevalence is considered low. Likewise, this prevalence rate is hindered by the lack of consistent data and reporting. And with the increasing numbers of refugees, an increasing rate of violence and STDs has followed, thus the urgent need for awareness and prevention services and program in order to face the imminent danger of acquiring the infection for the refugees' population and the hosting and/or neighboring ones.

Accordingly, international and national efforts need to rise, especially from the government side along with the civil society to efficiently overcome those health threatening conditions facing the hosted and hosting populations.

BASIC FACTS ON HIV AND AIDS

What is HIV?

Human Immunodeficiency Virus or HIV is a small germ known as a virus. It weakens the body and makes it unable to fight sickness. Our bodies are normally protected by the immune system against diseases. The Immunity helps fighting diseases attacking our system. However HIV is a stronger germ that attacks immunity and weakens it.

So when our bodies no longer have this defense lines also known as "soldier cells" to protect them, diseases can attack us and eventually kill us.

Without proper treatment, people with HIV eventually progress to AIDS, though this may take ten years or more. However, people with HIV who are efficiently treated are unlikely to develop AIDS. That is why early detection is crucial.

What is AIDS?

Acquired Immune Deficiency Syndrome is a medical condition and an advanced form of infection with HIV virus.

The virus may not cause recognizable symptoms for a long period after the initial exposure. The person is diagnosed with AIDS when his immune system is too weak to fight off infections and when the number of immune system cells (CD4 cells) in the blood drops below a certain level. He starts showing symptoms such as: diarrhea, fever, tuberculosis, skin rash, loss of weight, cancer and general body weakness. Different stages of the disease are described in **figure 9**.

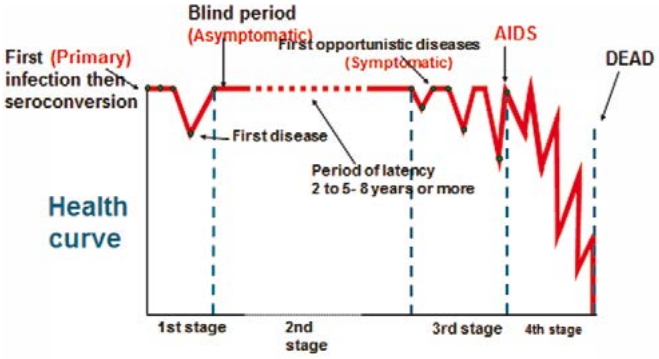

Figure 9: Stages of the disease

Mode of Transmission:

HIV is found in:
- Blood
- Semen
- Vaginal Fluids
- Breast Milk

HIV can be transmitted:

1. Through un-protective sex with someone who is already infected:
   - Vaginal sex
   - Anal sex
   - Oral sex
2. Through infected blood:
   - Blood transfusion
   - Sharing HIV blood contaminated body piercing instruments
   - Exchange of blood
3. From mother to child:
   - During Pregnancy
   - At birth
   - Breast feeding

HIV does not spread by:
- hands shaking

- combs sharing
- Eating from the same plate
- Hugging
- Sharing towels and/or clothes
- Sharing latrines and/or toilets
- Sitting close to other people
- Mosquitos, bedbugs and other insects or animals bites

Window period (figure 10):

HIV window period can be defined as the time elapsed from contraception date of the disease till the production date of its antibodies (contraction). It is considered the initial or first stage of the infection. During window period, HIV tests performed including ELISA, Western Blot or Rapid test cannot detect the presence of HIV antibodies at this stage and provide fallaciously negative results. The average duration of a window is from two to 12 weeks. Afterwards, when a sufficient amount of antibodies is produced in one's system, HIV test will then give a positive result.

As such, the window period implies that:

- No antibodies are traced in the blood despite the fact that virus itself is present in the blood.
- Results of HIV testing will be negative since no antibodies are detectable at this stage.
- Patients can infect other persons during this time.

Moreover, in order to get reliable results, it is recommended to perform regular follow up examinations every two to three weeks until antibodies are generated. Thirty five percent of people who got tested only once during window period, discovered the disease at an advanced stage, and ended up dying. However, one way to detect an HIV positive case during their window period is by performing PCR test.

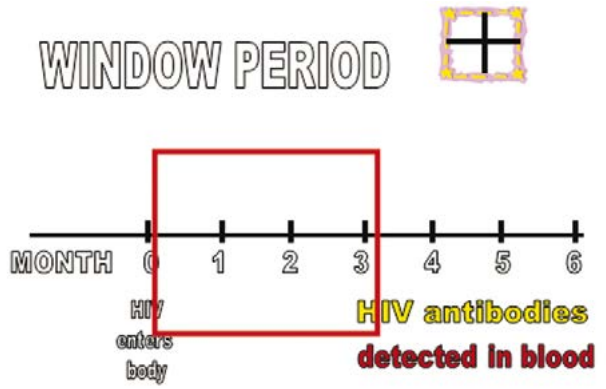

Figure 10: Window period

Prevention methods include:

- Abstaining from sex
- Being faithful to your uninfected partner
- Proper & consistent use of condoms
- PMTCT – ARV

HIV POST-EXPOSURE PROPHYLAXIS

Post-Exposure Prophylaxis (PEP) is a medical response to an emergency medical response to avoid infection after a potential exposure to blood-borne pathogens.

HIV Post-Exposure Prophylaxis (HIV PEP) is a set of provided services in order to prevent HIV infection following potential exposure. These services include the following:

- First aid.
- Counseling.
- Risk assessment of HIV exposure.
- HIV testing (accompanied by an informed consent).
- An anti-HIV medication protocol, complemented by appropriate care and follow up.

• Following an exposure, PEP should be initiated promptly, preferably within less than 2 hours, and no later than 72 hours after the exposure.

• Compliance to a 28-day course of HIV anti-retroviral (ARV) medication is precarious to ensure effectiveness of the treatment.

• A full 28-day course of anti-retroviral HIV medication is administered in the form a combination of two to three drugs in one tablet.

• Pregnancy test is performed to rule out the possibility of pregnancy among young women of childbearing age potentially exposed to the virus.

• Emergency oral contraception (two tablets of Levonorgestrel) is used to prevent undesired pregnancy following a sexual assault.

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