Research Article

Addressing the HIV Epidemic in the Republic of Congo – Where do we Stand, What Needs to be Done

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Abstract

Introduction: The Republic of Congo is undergoing a serious and comprehensive HIV/AIDS epidemic. HIV prevalence rate was 3.1% lower than in the other Central Africa Countries.

Objective: This review aims to provide more detailed analysis on the monitoring of data at the national level in order to identify areas where performance can be improved.

Methodology: Health data used in this publication originates exclusively from the Health Department of Brazzaville.
Data on HIV were collected from some health facilities dedicated to HIV-1 care and management. It's national observational data routinely collected.

Findings: No national investigation on the knowledge, attitude or practice regarding male/female condom use has been realized until then in our Country. These data permit to estimate the number of people tested HIV positive, areas with high HIV prevalence and low coverage of antiretroviral therapy.

Discussion: All the data used for national-level indicators are generated at the local level and communicated to the national pro-

gram. This higher percentage of positive tests compared to the mobile testing clearly indicates that Mobile HIV Testing Board or Provider Initiative reach very different types of populations with a very different risk profile. The material and human resources needed to improve education, social protection and the health of the general population are largely lacking.

Conclusion: In the Republic of Congo, there were efforts must be deployed in promoting health and controlling HIV infection. This review shows that efforts must be made in promoting health and preventing HIV infection. Health indicators do not meet the WHO performance thresholds for HIV control. The objectives will not be achievable for 2020 unless drastic measures are taken to improve HIV care.

Keywords: Republic of Congo, HIV.

Introduction

HIV/AIDS is a leading cause of morbidity and mortality[1]. Approximately 37.9 million people are currently living with HIV, and tens of millions of people have died of AIDS-related causes since the beginning of the epidemic. In recent decades, major global efforts have been mounted to address the epidemic, and despite challenges, significant progress has been made.

In Republic of Congo, HIV/AIDS is the first cause for death among people aged 15 to 49 years. In 2018, the HIV/AIDS pandemic has so far caused about 4000 deaths, while 89 000 individuals currently live with HIV [2].

The Antiretroviral Access Initiative was introduced in 2003. Unfortunately, the first and second line regimens and the reagents for the laboratory tests are frequently out of stock. Antiretroviral treatment (HAART) programs cannot be scaled-up, for lack of continuous supply of antiretroviral[3], but also for the lack of drugs for opportunistic infections. Patients are often unable to get treatment for a full month. Unplanned interruptions in antiretroviral therapy impacts negatively on HIV treatment outcomes, including increased morbidity and mortality, as well as the development of drug resistance[4]. Another consequence is that people lose trust and do not return to treatment center even when stocks are supplied.

Status of the HIV/AIDS Epidemic in Republic of Congo

Although having overall adult prevalence rates (3.1%) lower than in the other Central Africa Countries, the Republic of Congo is undergoing a serious and generalized HIV/AIDS epidemic. Among the countries in the region, the Democratic Republic of Congo (0.8%), Gabon (3.8%), Chad (1.3%), show adult HIV prevalence rates fewer than 5 percent, according to epidemiological data reported by UNAIDS[2], in 2018. Only Equatorial Guinea presented a HIV prevalence rate of 7.1% [2]. In Republic of Congo, the economic growth is projected to slowly recover at 1.9%, on average, over the period 2018 to 2020 [5].

In the Republic of Congo, a life expectancy at birth is estimated at 59.8 years in the general population, the male 58.6 years and female 61.1 years. AIDS is one the leading cause of death in our Country. AIDS-related deaths (all ages) were 4000 in 2018 and deaths due to AIDS among children aged 0 to 14 are less than 1000[2]. UNAIDS estimates that at the end of 2018, there were 82 000 adults aged 15 and over living with HIV. Children aged 0 to 14 living with HIV were 7700 and 1200 newly infected children 6. Women aged 15 and over living with HIV represent the most affected population, 55 000[6].

Since the seroprevalence and AIDS Indicators Survey conducted in 2009 by the National Center for Statistics and Economic Studies, no other survey has been conducted to date to describe the new HIV situation[7]. Areas with high HIV prevalence and low coverage of antiretroviral therapy are likely to have a high incidence of HIV [8]. Local estimates of HIV prevalence are useful for estimating the need for antiretroviral therapy and other HIV-specific services at a given location[9,10]. It is also a tool, offering a way to target effectively resources and interventions[11].

Methodology

Area of collected data

The health data used in this publication originate exclusively from the Health Department of Brazzaville and covering the city of Brazzaville. Health Department of Brazzaville is hierarchical as follows: Departmental Directorate Socio-sanitary - Focal Point - Health Centers. There is a focal point in each Departmental Directorate of Health. Brazzaville is the capital of the Republic of Congo, a country located in Central Africa. The city is on the Congo River, opposite Kinshasa, capital of the Democratic Republic of Congo. The area of Brazzaville is 263.9 km² with a population of about 1,838,348 inhabitants in 2017[12].

Data reporting, setting and health data

The focal point of the Program for the Fight against HIV is a service located in each Departmental Directorate of Health, appointed by the Decree n°10212/MSP/CAB of 19 October 2004, on the allocation and

institution of the National Program for the Fight against HIV/AIDS in its Article 13. It is composed of a coordinator, a monitoring officer, an evaluation officer and a secretary, according to the note n°515/MSP/CAB/DDS-BZV of 03 April 2018. All data collected from health centers are sent to the focal point, which is the main coordinator of HIV. The focal point compiles HIV data and sends them at the national HIV program level. This program is placed under the political supervision of the Presidency of the Republic and under the technical supervision of the Ministry of Health and population.

The reporting is done by the focal point, which only the one covering the city of Brazzaville. All health data are usually reported in health record books. The data transmission at the departmental level is done by means of forms, provided by the general direction of the health and that allows collection of all health data from a health center, including HIV related data.

The Brazzaville focal point collected data from all 94 health centers in Brazzaville. The health data of the other cities are listed by the same procedure and sent to the departmental directorates of the cities. Unfortunately, those data are collected, bundled, but unpublished. But no scientific analysis is done to understand the oscillation of data trends. Reports are certainly written but not disclosed to the general public or to the scientific world. Refresher seminars are almost non-existent, making the analysis of the HIV situation problematic.

Two objective criteria to evaluate the effectiveness of responses were reviewed: HIV prevalence rates and the level of resources devoted to the epidemic in the country. This was referring to the response in terms of providing care to HIV patients and controlling the HIV epidemic. The experience in many of the countries with the highest prevalence of HIV/AIDS have low incomes and carry a heavy burden of other diseases, and it is particularly important to deploy resources judiciously.

No statistical methods were used to predetermine sample size. All Health facilities enrolled in data collection transmitted their data at the level of the departmental directorate of Brazzaville where focal point compiles the data and transmit them to the Ministry of Health and Population.

The indicator score is a standard tool for measuring the intensity and impact of HIV. The indicator score was calculated by considering the ratio between the annual target (target expected or planned) and the target achieved. The indicator scores have been split into: very poor- (0 to 29%); poor- (30 to 49%); good- (50 to 79%); excellent- (80 to 100%).

We had recovered the data within the framework of the implementation of the national strategic plan, the follow-up of the implementation of in-terventions and activities of STIs and HIV/AIDS, epidemiological surveillance, studies and research would allow the constant supply of useful data for feeding the information system. These data came mainly from three sources:

- routine periodic reports from those implementing the national program;
- epidemiological surveillance reports;
- reports of surveys, studies, audits, reviews and evaluations carried out within the framework of the national strategic plan.

Findings

Republic of Congo is not a model in the fight against HIV virus and AIDS. For many years, the number of new infections in the Country is not mastered. Effective responses to the epidemic require a multi-sectoral approach, including the involvement of the presidency of the Republic, the government through the Prime Minister, the Ministry of Public Health, and HIV associations. In the absence of local information on HIV incidence, knowledge of variation in HIV prevalence can be used to better target prevention efforts in areas of greatest need.

The conditions for an effective response and successful policy actions, needed to successfully combat the HIV epidemic, are missing. These conditions are based on the crucial role of the authorities to make effective political commitments.

Pillars of the fight against HIV/AIDS

HIV Testing Counselling: HIV counseling and testing is a set of services that are offered to populations to give them the opportunity to know their HIV status from informed decision-making. Also, counseling and testing can either be requested by the person (Voluntary Counseling and Testing, or "Opt in"), or offered by the health service provider (Counseling and Testing at the Provider's initiative, or "opt out").

The first program concerning the mobile HIV testing council made it possible to estimate the total number of people admitted to a mobile CDV. The annual target was estimated at 398,504, a target of 99,626 per quarter. The proportions of people admitted to mobile CDV were of 166/398504 or 0.04%. All persons admitted to CDV had received pre-test counseling, but only 157/166 or 94.57% of individuals had agreed to take the screening test. The rate of HIV positive people was 4/157 or 2.25%.

The second program concerns the Provider-initiated HIV Testing Council. The annual target was estimated at 797 008, a target of 199 252 per quarter. The total number of people presented at the voluntary counseling and testing was 1213/797 008 (0.15%), those who agreed to take

the HIV test was 522/1213 representing 43.03%. the rate of seropositive individuals was 126/522 or 24.1%.

HIV Mother-to-child transmission: The annual target is an annual estimate of the total number of people expected. The annual target of pregnant women who should be received in CDV/PMTCT was estimated at 398 504. Only 1345/398504 (0.33%) was achieved at the end of the year. In total, 1,354 pregnant women received pre-test counseling, but only 1,036 / 1,354 (76.51%) agreed to take the HIV test. Finally, the total number of pregnant women with HIV was 23/1036 (0.22%).

According to the data of the Republic of Congo, listed by UNAIDS, the coverage of pregnant women who received ARV for PMTCT was estimated 25% and their number was 1026, on the other hand pregnant women needing ARV for PMTCT was 4100. The number of HIV exposed children who are uninfected was estimated 44 000 and there was 2% early infant diagnosis [2].

In 2016, WHO estimated a percentage of pregnant women living with HIV who received antiretroviral for PMTCT to 16%. Final mother-to-child transmission rate including breastfeeding period was 25.6%, there were estimated HAART coverage (children, 0-14) to 25% and a percentage of infants born to women living with HIV receiving a biological test within two months of birth 3%[6].

The number of prescribing doctors trained in the care and management of people living with HIV/AIDS was 14 out of 36 expected or 38.88%. These data on HIV are the only existing and available at the level of the Departmental Directorate of Brazzaville. And these HIV health data give an idea of the exact situation and the reality of HIV infection in the Congolese population.

The small number of women received demonstrates the weaknesses of the prevention of mother-to-child transmission program applicable to the entire country. The number of new pregnant women put on antiretroviral was 80.35% (45/56).

Management of adult living with HIV/AIDS: The total number of HIV treatment centers planned was 18, but by the end of 2017, only 13 sites were implemented. In addition, only 573 new HIV patients out of the approximately 7,700 planned (7.44%) were registered in the HIV treatment centers by the end of the year.

Despite the rapid increase in the use of antiretroviral therapy since the mid-2000s in the world and in Africa, in the Republic of Congo the supply of ARVs remains a major problem to be solved by the Ministry of Health and Population. Sustainable Development Goal 3 (Ensuring Healthy Lives and Promoting the well-being of all and all ages) explicitly

calls for an end to the epidemic by 2030. What are needed to achieve this are more efforts to develop and implement new strategies for effective action in the fight against HIV in our country.

The HIV prevalence obtained so far is part of the projections generated by the software called spectrum [13]. Local estimates of HIV prevalence are useful for estimating the need for HIV services. Local estimates of the number of people living with HIV make it possible to estimate the need for antiretroviral treatment. These data permit to estimate the number of people tested HIV positive, areas with high HIV prevalence and low coverage of antiretroviral therapy.

In the WHO documents[6], the reported data in 2016 show that only 29% of people living with HIV were also diagnosed, those receiving HAART were 23% and that the proportion who are virally suppressed was not known, as viral loads are almost never carried out in this country. In addition, reagent breaks become legendary and where depend on the subsidy of the global fund[6].

Quantity of condoms distributed: The proportion of male condoms distributed was 158,400/398,504, or 39.74%, while that of female condoms was 4,800/ 368,504 or 1.2% so very little knowledge and usage of female condom. No national investigation on the knowledge, attitude or practice regarding male/female condom use has been realized so far in our Country.

Consider putting all original data into one table indicator score ranged from poor to very poor with respect to the amount of condoms distributed in the Republic of Congo. In the first two quarters of 2018, no condoms were distributed. Although the objections of certain groups against such distribution. Some causes can be highlighted to explain the lack of distribution: lack or shortage of supplies, problem in the distribution chain, lack of personal health-care.

In the fight against HIV/AIDS, condoms are a critical component in a comprehensive and sustainable approach to the prevention of HIV and other sexually transmitted infections. According to the Congo Multiple Indicator Cluster Survey (MICS 5 Congo 2014-2015), only one out of 3 young people in Congo have appropriate knowledge about HIV infection and prevention.

Effectiveness of the response to HIV/AIDS

It is difficult to avoid the consequences of HIV. Although the denial phase took a long time, in the Congo, we had moved to the recognition phase and very quickly from the recognition phase to the mobilization phase. But so far all efforts at this level are not yet deployed. Few countries in Africa have succeeded in this mobilization phase: Senegal and

Uganda[14], but also South Africa and Botswana[15].

Discussion

The collection of HIV data at the peripheral level provides low-cost sources of information that sometimes provide an overview of the distribution, including cases of HIV-positive people. This data can be used to identify areas that need to be addressed and that require further investigation. Another source of information useful for HIV/AIDS surveillance is the regularly collected data on HIV care, as well as statistical information related to death.

Why are national-level indicators important?

National-level indicators are important because they allow the country to assess the progress towards the stated Sustainable Development Goals, particularly important in the area of HIV/AIDS [16].

These National-level indicators also allow cross-national comparisons between Central Africa and global assessment of progress in meeting the targets [17,18]. Cross-national comparisons are instructive in identifying countries where progress towards meeting the targets is relatively slow[19,20].

Also this review has allowed more detailed analysis of monitoring data at the national level to identify areas where performance can be improved. The HIV data obtained concerns the management of sexually transmitted infections, the mobile HIV testing counseling, the HIV testing counseling, the HIV testing advice for women during pregnancy, the guidelines of care for HIV pregnant women and the newborn, the care of the HIV-positive adult, the care of the HIV-positive child and the therapeutic care of people living with HIV. The number of HIV-positive discoveries reduces the number of people who are unaware of their infection and allows HIV-positive people to access antiretroviral therapy for both individual and collective benefit.

All the data used for national-level indicators are generated at the local level and communicated to the national program. However, not all the indicators that are needed or useful at the local level are relevant at the national level. Some issues are best measured at the local level and may lose their meaning when abstracted to the national level. Nonetheless, it is important to remember that much of the information for the indicators presented here is gathered at the local level and that some of the national-level indicators are interpretable and useful at the local level as well[21,22].

Mobile HIV Testing Board or Provider Initiative

The low acceptance (43.03%) of the tests in the initiation program of the provider, supposes that individuals come by coercion, certainly after a medical recommendation. The acceptance rate of the program is relative-ly high (94.57%), which supposes that individuals spontaneously and voluntarily come to be screened. which implies a significant proportion of individuals agree to take the test.

This higher percentage of positive tests compared to the mobile testing clearly indicates that these two screening programs reach very different types of populations with a very different risk profile.

A previous year, in 2016, WHO estimated a number of people newly infected with HIV to 7,600 per year in the Republic of Congo[13]. The national HIV policies and plans, the Implementation of national policy on HIV self-testing is unknown[6].

Lack of resources

The infrastructure needed to cope with the increasing number of people living with HIV is often lacking. The human resources needed to manage HIV infection are not sufficient to meet the current need of the epidemic. The material and human resources needed to improve education, social protection and the health of the general population are largely lacking. This lack of resources is closely linked to the country's unstable economic development, which is directly associated to a reduction in health budget invested in HIV prevention.

The assessment of the effectiveness of the response is done using objective criteria. These criteria provide elements, key points for assessing the effectiveness of the response in the Republic of Congo. These criteria include trends in HIV prevalence rates, mortality rates, life expectancy and levels of social displacement (for example, the number of orphans). Unfortunately, all these data are not available; the health data collected in 2018 were mainly based on HIV prevalence rates. This implies that since then, political efforts to improve the control of the epidemic have been ineffective and did not lead to a proper response.

Conclusion

This paper provides the evidence based, local data of Brazzaville town on HIV management in the Republic of Congo. This review shows that efforts must be made in promoting health and preventing HIV infection. Health indicators do not meet the WHO performance thresholds for HIV control. Today, the HIV/AIDS remain a most serious problem in the Republic of Congo. This review reinforces the evidence that national efforts are imperative to change HIV infection trend from the death penalty to chronic disease. As people living with HIV live longer because of ARV treatment, many clinicians and midwives should be trained and several prescribers trained in HIV care and management in order to curb the trend of epidemics in the Republic of Congo.

In this review, we were able to show that there are major gaps in the HIV control program in Congo.

The 90-90-90 strategy is an attempt to get the HIV epidemic under control by adopting a 'test and treat' approach. These objectives consist of increasing the proportion of people knowing their HIV status to 90% of those living with HIV, increasing the proportion of people receiving sustainable antiretroviral therapy to 90% of those diagnosed to be HIV-infected and increasing the proportion of people with sustainable suppression of their viral load to 90% of those receiving antiretroviraltherapy. Unfortunately, these objectives will not be achievable for 2020 unless drastic measures are taken to improve HIV care.

Competing Interests

The authors declare no conflict of interest.

Authors' Contribution

GLLS designed the study, contributed to data cleaning and management, analyzed the data, interpreted the results and drafted the manuscript. OA collected the data. CNN analyzed data and reviewed the manuscript. MPG contributed to the design of the paper, reviewed the data, contributed to the data interpretation and contributed to the writing of the paper. All authors contributed to, and approved the final version of the paper.

Acknowledgments

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