

# Analysis of Funding Allocated to the Fight against HIV/AIDS in the Democratic Republic of Congo from 2008 to 2017

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## Abstract

On the basis of the documentary analysis and interview, we noted that the total funds in the four interventions whose identified axes made it possible to know how the resources mobilized for the AIDS response were distributed during the period of 2008 to 2017. These funds are distributed as follows: Treatment: 1,016,982,472 USD; Prevention: 302,542,391 USD; Governance: 459,246,584 USD; Mitigation of the impact: 115,757,443 USD. It should be noted that the analysis of resource allocations by component during the period 2008 to 2017 reveals significant disparities. Indeed, it was noted that the treatment component has received significant funding compared to the other components. It is followed by governance, prevention and impact mitigation which happens to be the component that received less funding compared to the other four (4) components.

## Keywords

Funding, Response, HIV/AIDS, DRC

## 1. Background

According to estimates on HIV/AIDS made from sentinel surveillance surveys of a category of people in 2011, HIV prevalence is estimated at 2.57% within the general population and evaluated at 3.5% (95% CI: 3.3 - 3.8) in pregnant women seen in prenatal consultation [1] [2].

Overall, the HIV epidemic in the DRC is relatively stable. In fact, the data

from the surveillance of pregnant women in the sentinel sites indicate that this remained relatively stable between 2003 and 2011, a period during which the prevalence varied around 4%. Although the DHS survey made it possible to estimate a prevalence of 1.3% in the general population, this HIV prevalence data from the DHS+, to date, had not been validated at the level of the population in DRC. The DRC is therefore experiencing a generalized HIV epidemic marked by tendencies to increasingly affect women, young people and rural areas.

Based on the analysis of the epidemiological situation of HIV and its impact on individuals, families and communities, the National Multisectoral Program for the Fight against AIDS gives high priority to interventions aimed at the specific groups most exposed to risks [2].

Among the instruments likely to help in the evaluation of effectiveness remains the funding allocated for this purpose [1] [2]. It is therefore important and even essential to present and analyze the various funding, both internally and externally, granted with a view to combating HIV-AIDS [3] [4] [5] [6] [7]. This is the exercise for this work. The general objective of this work was to assess the effectiveness of the response to HIV-AIDS in the Democratic Republic of the Congo (DRC) and in particular in the City Province of Kinshasa. To achieve this objective, it has set itself the following specific objectives:

- Identify the actors who have contributed to the financing of the response to HIV as well as the size of their contribution.
- Analyze this funding by area of intervention: prevention, care and treatment, impact mitigation, governance.
- Determine the coverage of ARVs and the evolution of patients on ARVs from 2008 to 2017 in the DRC.

## 2. Methodology

This was a qualitative study with several techniques, in particular the concentration workshops at the start, the documentary review, the focus group, semi-structured interviews, the taking of background samples allocated to the fight against HIV/AIDS [8] [9] [10] [11]. We have integrated the authorities involved in the management of funds allocated to the fight against HIV/AIDS to better obtain reliable and good quality information [12]. These authorities questioned were the Head of Finance Department and the Accountant. To ensure the reliability of the data collected from the authorities, we requested funding reports during the period.

The survey was conducted at the Multisectoral National Program for the Fight against HIV/AIDS located in Kinshasa in the commune of Kasavubu. The data were collected by documentary review and by interview with the heads of PNMLS finance departments.

### Statistical analyzes

The collected data were analyzed on Excel 2010 software and SPSS version 21.

We expressed these data as mean and relative frequency and illustrated either in tables or figures.

### 3. Results

**Table 1** gives a summary of this funding, indicating the share of each actor.

By carefully observing the data in this table, we realized that three main actors have contributed with their funding to the fight against HIV/AIDS: the State, the private sector and the international community. The origin of the funds is therefore threefold: public funds coming under the State, private funds coming from private actors and funds allocated by the international community. The data in **Table 1** is also shown in graphical form.

To make the data on the sources of funding for the fight against AIDS even clearer, it still seems important to show the reader the evolution of this funding by its sources, year by year, from 2008 to 2017. This evolution is represented in **Figure 1**.

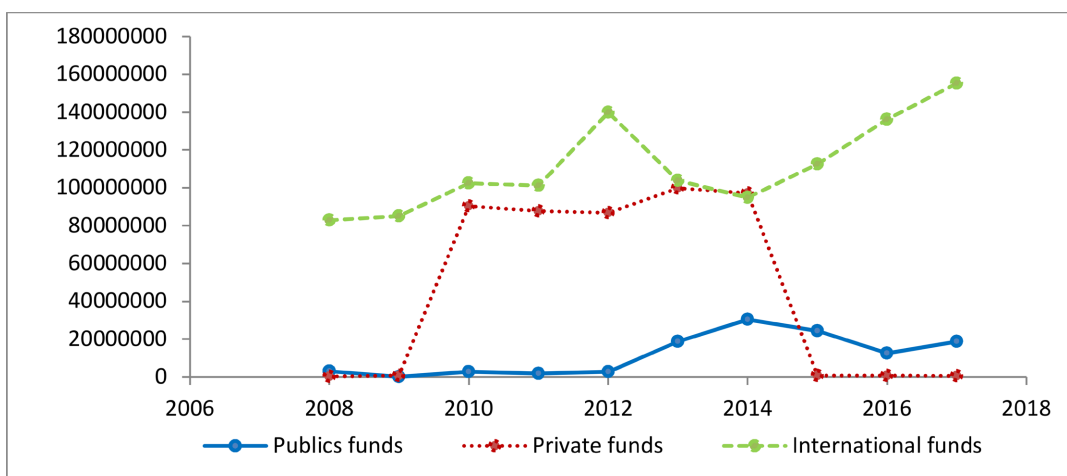
Looking at this graph, we can easily see that international funds peaked in 2012 and then went down again in 2013, 2014 before experiencing a dizzying drop in 2015. They will then take the lift in 2016 and will experience a new peak in 2017. In addition, private funds kept the same height from 2008 to 2012, rose slightly in 2013 to drop back to the previous height from 2014 to 2017. As far as they are concerned, public funds are starting to rise. 2012 to 2014, go down again from 2015 to 2016 to go up again in 2017.

Always for the sake of clarity and to allow the reader to assimilate the funding data and to have a clear idea of it, it is advisable to present these data, separately, source by source. This way of proceeding leaves no shadow spark in the understanding of the said data. Thus we begin by presenting the evolution of public funding, then that of private and finally that relating to international funds. In

**Table 1.** Evolution of financing by source for the period from 2008 to 2017.

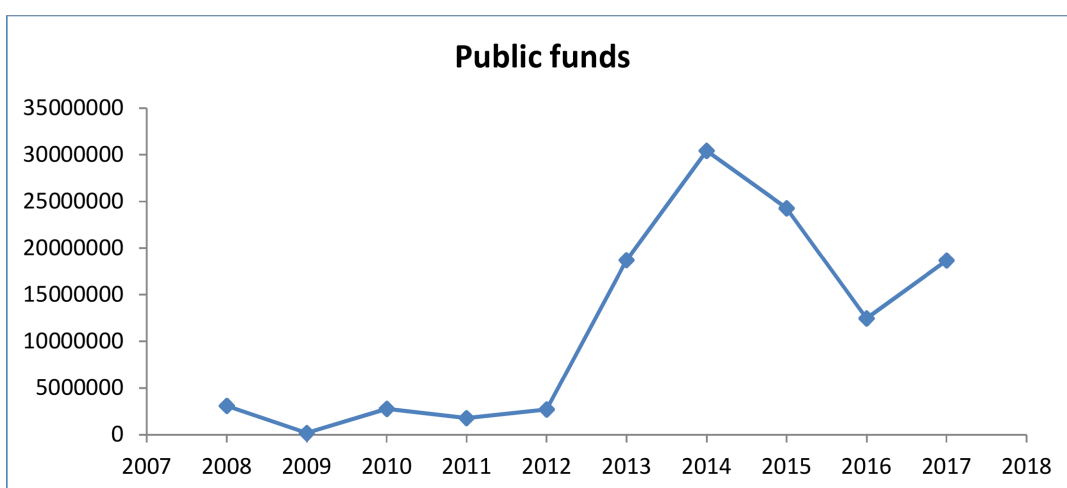
Years	Publics funds	Private funds	International funds	Total
2008	3,074,647	216,885	82,889,699	86,181,231
2009	162,272	747,655	85,047,023	85,956,950
2010	2,759,539	90,357,007	102,437,817	195,554,363
2011	1,765,235	87,766,704	101,268,276	190,800,215
2012	2,710,269	86,725,151	139,843,066	229,278,486
2013	18,701,115	99,828,588	103,913,388	222,443,091
2014	30,404,892	97,139,296	94,899,519	222,443,707
2015	24,264,623	696,711	112,592,258	137,553,592
2016	12,470,267	788,344	136,180,615	149,439,226
2017	18,662,067	600,897	155,309,285	174,572,249

Source: REDES Report 2008-2017.



Source: REDES Report 2008-2017.

**Figure 1.** Trends in financing by sources from 2008 to 2017.



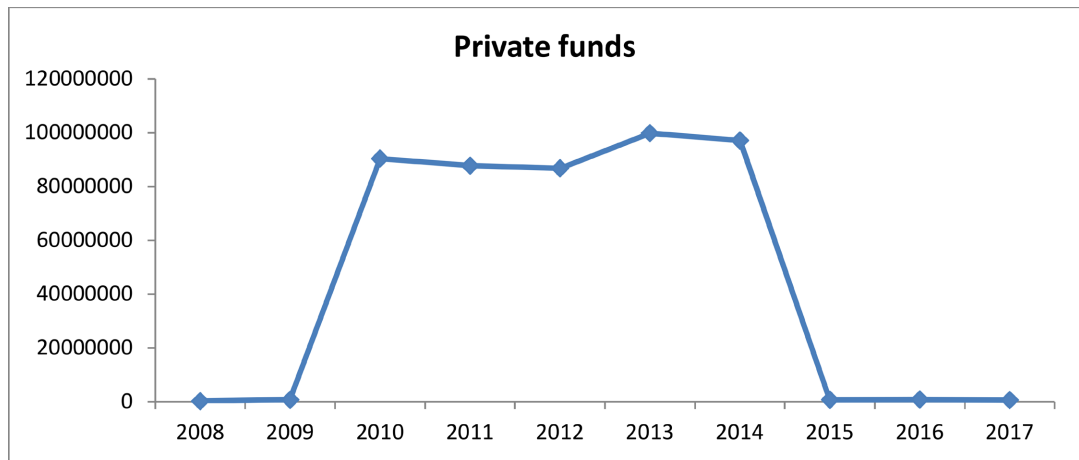
**Figure 2.** Evolution of public funding from 2008-2017 (Source: REDES Report 2008-2017).

the graph below the evolution of publics funds.

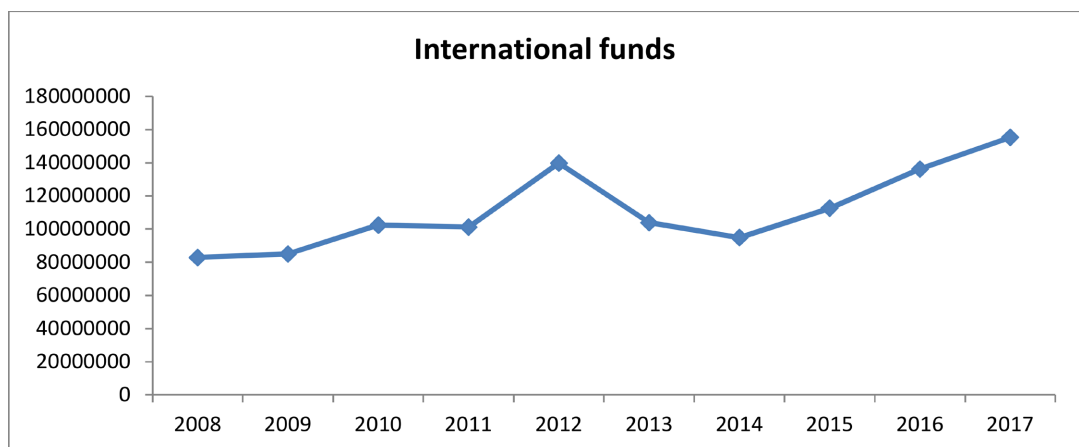
It has already been observed in **Figure 2** that the public funds experienced a beginning of rise in 2012 until 2014, go down again from 2015 to 2016 to rise again in 2017. It is therefore the same observation which emerges from **Figure 3**. As for private financing, the data are contained in **Figure 4**.

Careful observation of these two graphs clearly shows that 2013 was the year in which private funding was greatest, although it was less significant overall. The third source of funding remains funding from international funds. These are contained in **Figure 5**.

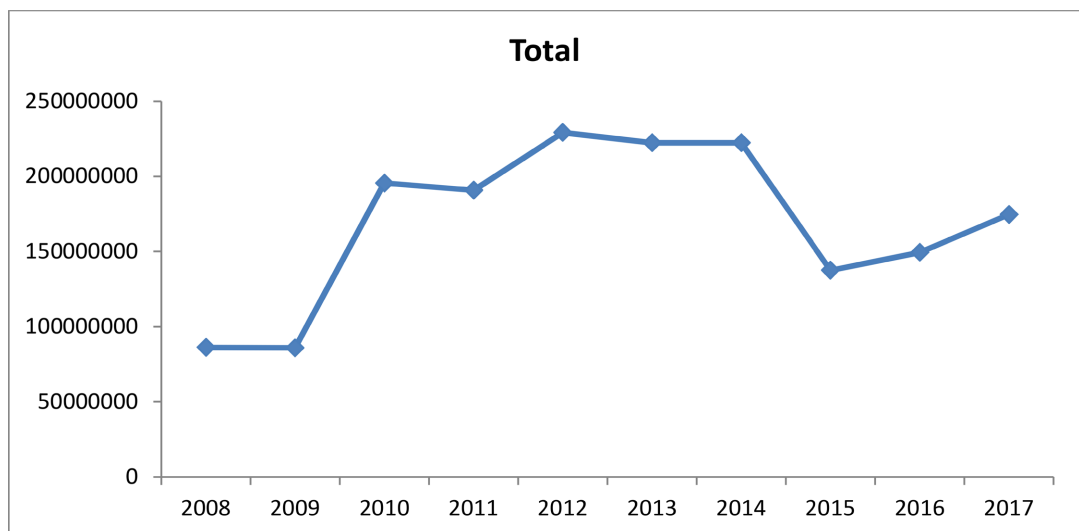
Unlike the previous two sources of funding shown in the graphs above, international funds are proving to be the most important contribution of all in the fight against HIV. We can see in both graphs that in 2012, these funds increased significantly. The year 2012 shows a specular deficit in the granting of these funds. In 2012, we observed an equally spectacular increase in this funding until 2017, which is, all in all, the peak. The following chart aggregates this funding.



**Figure 3.** Evolution of private financing from 2008 to 2017 (Source: REDES Report 2008-2017).



**Figure 4.** Evolution of international financing from 2008 to 2017 (Source: REDES Report 2008-2017).



**Figure 5.** Evolution of total funding from 2008-2017 (Source: REDES Report 2008-2017).

In reality, the total funds allocated to the fight against HIV reflect the sum of the partial interventions of the actors. Thus, on the whole, it is easy to observe that

these financings which started in 2008 evolve in a checkered manner until 2011. In 2012, they are gaining height, decreasing slightly in 2013 and 2014, experiencing a free fall in 2015 and go back in 2016 to 2017.

After presenting the sources of funding as well as their actual contributions to the fight against HIV, it is now important to show how these contributions have been directed. It is a question of specifying the axes of intervention of these contributions. This is covered in section two of this chapter.

## 4. The Areas of Intervention of Financing for the Fight against HIV from 2008 to 2017

### 4.1. Funding for the Fight against HIV by Area of Intervention from 2008 to 2017

This first point indicates, on the whole, the funds intended for the fight against HIV by distributing them according to their line of intervention. **Table 2** provides clear information on the funds allocated, year by year, from 2008 to 2017 to the various aforementioned areas of intervention.

The data in **Table 2** show that there are four areas of intervention in the fight against HIV: prevention, care and treatment, impact mitigation and finally governance. By observing these data closely, it comes back to us that the lot of funding has been oriented towards the care and treatment of infected people, that is to say 45% of the total funds. The second highest pocket is governance, with 32%, the third is reserved for prevention activities, those intended to deliver information, training (education of the population) as well as attitudes and behaviors to adopt in the face of the pandemic: 18%. And finally, shock mitigation

**Table 2.** Evolution of intervention finances from 2008 to 2017.

	Prevention	Care & Treatment	Mitigation Impact	Governance	Total
2008	25,217,710	18,466,192	8,757,858	33,739,471	86,181,231
2009	22,579,694	23,508,746	6,462,955	33,405,555	85,956,950
2010	40,646,289	115,424,530	20,841,449	18,642,095	195,554,363
2011	37,491,276	122,097,968	9,377,809	21,833,162	190,800,215
2012	59,121,933	134,099,923	8,965,127	27,091,503	229,278,486
2013	33,212,772	107,187,977	6,926,830	75,115,511	222,443,090
2014	31,544,330	106,812,630	3,528,275	80,558,672	222,443,907
2015	20,673,867	37,797,597	2,705,765	76,376,365	137,553,594
2016	17,251,042	52,464,070	4,668,886	75,055,228	149,439,226
2017	22,897,543	40,505,122	11,768,489	99,401,095	174,572,249
Taux	310,636,456	758,364,755	84,003,443	541,218,657	1,694,223,311
%	18%	45%	5%	32%	

Source: REDES Report 2008-2017.

with 5%. All these data are better visualized in **Figure 7**.

## 4.2. Evolution of Funding by Axis

After having observed the funding as distributed by axis, it is necessary, for the sake of clarity and conciseness, to represent these data axis by axis in order to reflect the way in which this funding has been granted progressively, year by year.. The first axis to visualize is prevention.

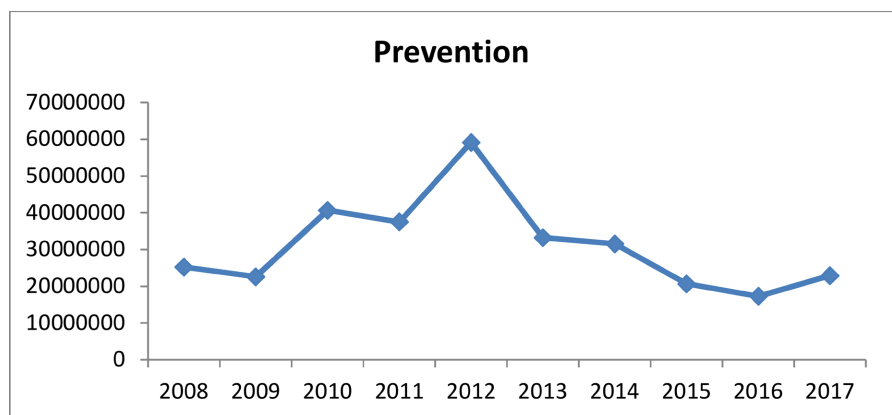
### 4.2.1. Evolution of Funding Allocated to Prevention from 2008-2017

**Figure 6** provides information on the funds allocated for HIV prevention.

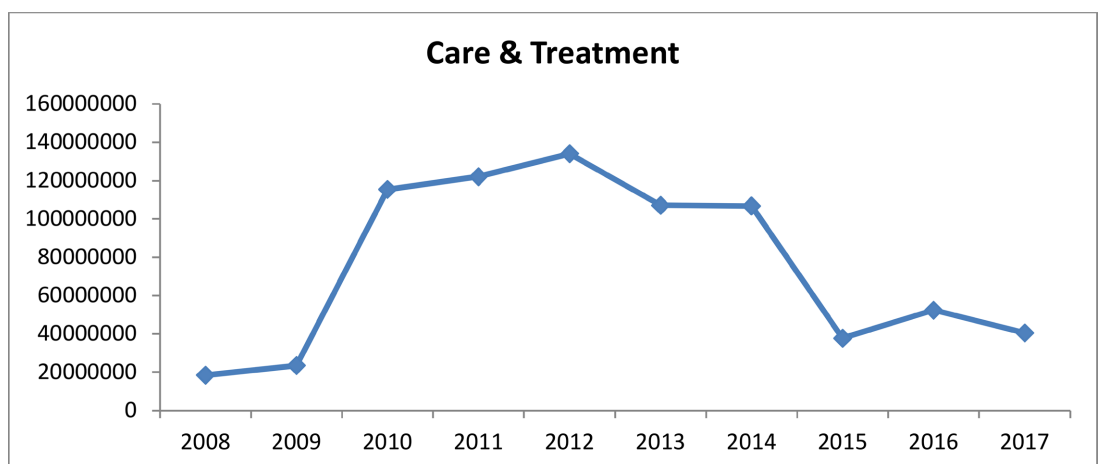
Observation of the graph above shows that the funds allocated to prevention, year by year, have by no means exceeded the \$ 60,000,000 mark. The peak of these financings is in 2012 and since then they have progressed slightly in a sawtooth way until 2017.

### 4.2.2. Evolution of Funding Allocated to Care and Treatment from 2008-2017

Looking at **Figure 9**, it turns out that care and treatment are the axis where



**Figure 6.** Funding allocated to prevention from 2008-2017 (Source: REDES Report 2008-2017).



**Figure 7.** Funding allocated to care and treatment (Source: REDES Report 2008-2017).

funding has been most directed. This is the only area in which funding reached the 200,000.00 mark in 2017. This advantage can be explained by the importance given to human lives, which, in any case, justifies the colossal amounts granted to this axis. Infected people need to be well cared for and taken care of to prevent the spread of infection.

#### 4.2.3. Evolution of Funding Allocated to the Impact Mitigation Axis from 2008-2017

As shown in the graph above, the funding allocated to impact mitigation in the fight against HIV was not significant enough during the period from 2008 to 2017. The amounts of these financings have never reached the bar of 60,000,000 USD. In 2014, they barely reached 40,000,000 USD (Figure 8).

#### 4.2.4. Evolution of Funding Allocated to Governance from 2008-2017

It emerges from this graph that governance has been one of the priority axes in the fight against HIV. It ranks second in decreasing order of funding streams for the response to the pandemic. And here we can see that this funding reached the 100,000,000 USD mark in 2017 (Figure 9).

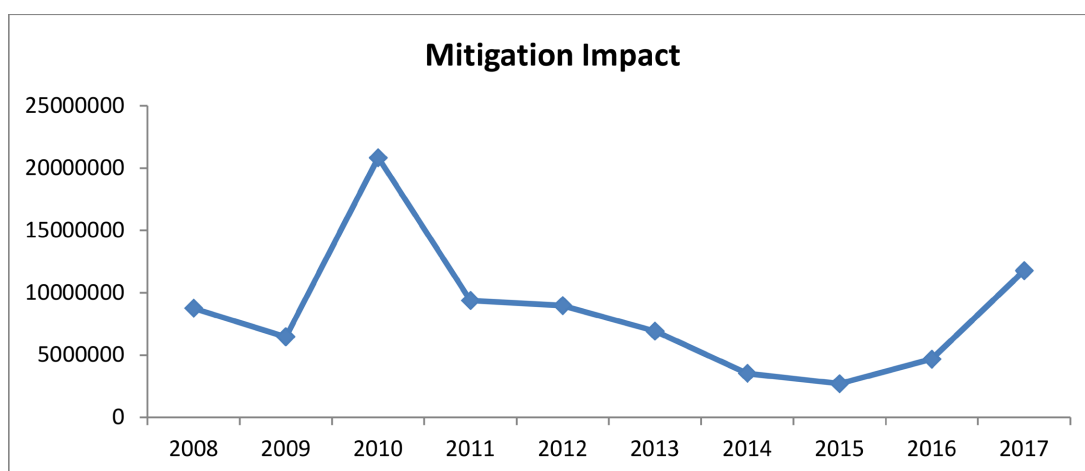


Figure 8. Funding allocated to mitigate the impact from 2008 to 2017 (Source: Rapport REDES 2008-2017).

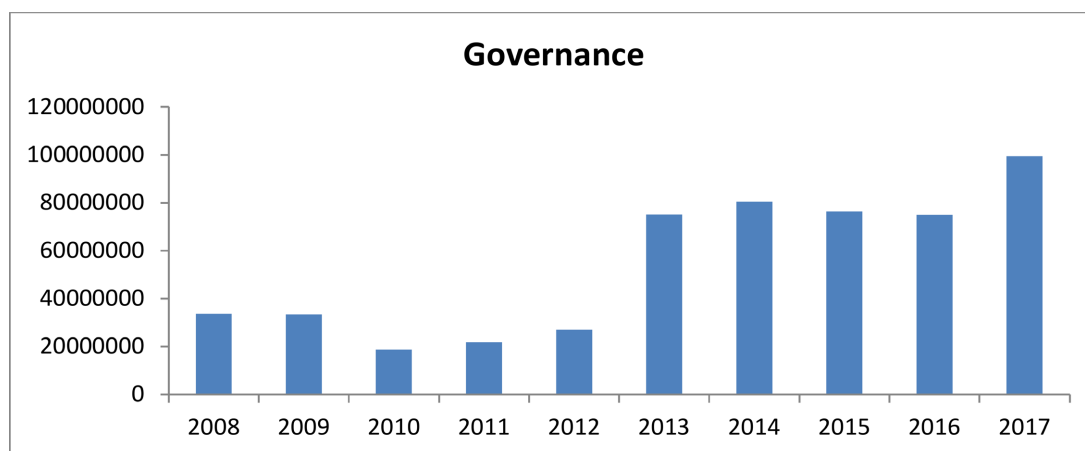


Figure 9. Funding allocated to governance from 2008 to 2017 (Source: REDES Report 2008-2017).



#### 4.2.5. Evolution of Total Funding Allocated to the AIDS Response from 2008-2009

After having presented and analyzed the funding granted to the response to AIDS through its various axes of intervention, it is now appropriate to show by graphs the total amounts of this funding in order to have an overall idea in monetary terms of the investments financial support for the fight against the AIDS pandemic. The two graphs below show the data for these financings.

From this graph, we can retain the following: from 2008 to 2017, funding for the various actors involved in the response to HIV-AIDS amounted to more or less 400,000,000 USD. In 2008 and 2009, the level of this funding is of equal value: almost 80,000,000 USD per year. In 2010 and 2011, the amounts awarded are almost identical. 2012 is taking the lift and in the four years following 2013 to 2016, funding has seen a roller-coaster ride, only to pick up sharply in 2017 (**Figure 10**).

#### 4.3. ARVS Coverage and Evolution of Patients on ARVS from 2008 to 2017 in DRC

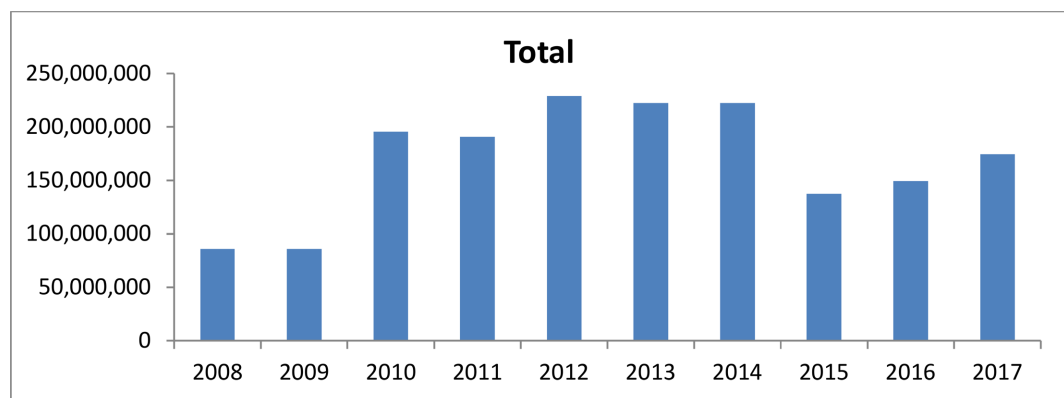
The third section of the chapter deals with the coverage of ARVs and the evolution of patients on ARVs in the DRC for the period from 2008 to 2017. It indicates the spectrum targets as well as the number of patients placed on treatment for the period considered. The data collected is contained in the table below as well as the resulting graphs (**Figure 11**).

Looking at **Table 3**, we can easily see that from 2008 to 2017, the number of patients put on ARV treatment is still lower than the spectrum targets. Each year, the number is very much lower than expected, which constitutes a no less difficulty in the process of taking charge of and responding to the pandemic. The two graphs below reflect the same reality. They look like this.

### 5. Discussion

#### 1) Sources of funding for HIV-AIDS

During the period from 2008 to 2017, the use of available data shows that the Democratic Republic of Congo has mobilized considerable sums for the response



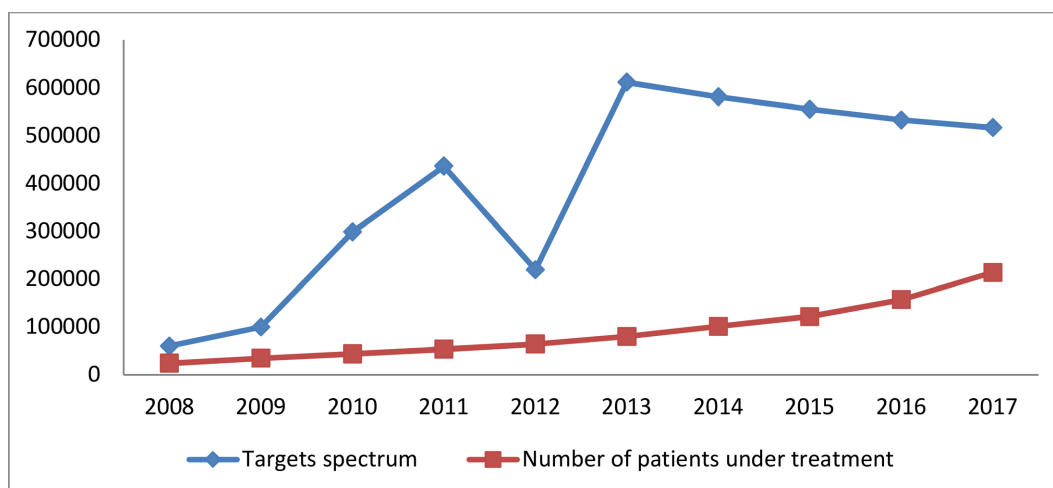
Source: REDES Report 2008-2017.

**Figure 10.** Total funding allocated to the AIDS response 2008 to 2017.

**Table 3.** ARV coverage and evolution of patients on ARVs in the DRC from 2008 to 2017.

Years	Targets spectrum	Number of patients under treatment
2008	60000	24245
2009	100000	34813
2010	298579	43878
2011	436361	53554
2012	219590	64219
2013	611340	79978
2014	580931	101324
2015	555089	121762
2016	532741	157072
2017	516617	213995

Source: REDES Report 2008-2017.



**Figure 11.** Evolution of Antiviral treatment, Period 2008-2017 (Source: Rapport REDES 2008-2017).

against HIV and AIDS. These efforts complemented the establishment of institutional coordination and operational response mechanisms. The total financial resources allocated during the period 2008-2017 amount to \$1,894,528,890.

In this funding process, there are sometimes significant fluctuations from one year to another [13]. To this end, it emerges that the resources allocated to the response to AIDS hardly exceeded 100 million US dollars between 2008 and 2010, a period during which they range between 80 and 100 million US dollars [14]. Between 2011 and 2013, a sustained increase with a peak in 2012 was observed and could be explained by the significant increase in external funding, notably from the Global Fund and PEPFAR [13] [14].

In addition, a pronounced decrease in funding was noted between 2014 and 2015. This decrease was caused by a rejection of the grant application from the Global Fund of around \$ 352 million for lack of consistency and quality of the

funding request submitted to the Global Fund [15]. From 2016 to 2017, the annual amounts earmarked for the fight against AIDS experienced a spectacular rebound mainly because of new grants from the Global Fund and the US government (PEPFAR) [13] [14].

The REDES reports for the period under analysis show that public financing was very low during the period from 2008 to 2012. On the other hand, they recorded an increase during the period from 2013 to 2017. As for private financing, they have been low overall and total around fifteen million USD over the ten years covered by the analysis [16]. After a record contribution of 2 million in 2008, private funds declined significantly from 2010 to 2012.

The analysis of resource allocations by component over the period 2008 to 2017 reveals significant disparities. Indeed, it was noted that the treatment component has received significant funding compared to the other components. It is followed by governance, prevention and impact mitigation which happens to be the component that received less funding compared to the other four (4) components. When we look at the evolution of resources over the period studied, it emerges that the funds allocated to the treatment component experienced a sharp increase during the period 2009 to 2013, followed by a significant decrease from 2014 to 2015. The years 2016 and 2017 saw an increase in the funds allocated to treatment and care. Funding for the prevention component was generally moderate but stable during the period 2008 to 2017 with a relative increase from 2011 to 2013. Regarding the Governance component, there was an increasing increase in the funds allocated from 2010 to 2017. From 2014 to 2016, the funding allocated to the governance component greatly exceeded the other axes of intervention, which could constitute a paradox because this component is a transversal axis. The expenses for governance represent half of the expenses for care and treatment. In addition, it greatly exceeds the cumulative expenditure of prevention and impact mitigation activities. There is therefore a need to look at the functioning and efficiency of the institutional mechanisms in place responsible for implementing the response.

## **2) The lines of intervention of funding for the fight against HIV FROM 2008 TO 2017**

The first section presented the sources of funding for the fight against HIV for a period from 2008 to 2017. It also presented the level of contributions made by each source. It emerged that HIV in the DRC has received much more contribution from international funds. Public funds followed suit, in descending order to end with private funds.

In this section, it is a question of showing how these funds were distributed according to the axes of financing. These areas include: prevention, care and treatment, impact mitigation and governance. Prevention refers to funds intended for sensitization and education of the population against HIV as well as the means and techniques to be able to prevent it. The funds intended for care and treatment are oriented in a curative perspective towards people suffering from HIV or already sick with AIDS [17]. Impact mitigation, on the other hand,

is an effort to reduce or lessen the shock and finally governance. As with the first section, the data is presented first on a table and then on graphs in order to visualize it well and make it clearly visible and understandable [18] [19] [20] [21] [22].

The comparison of programmatic performance with the funding received reveals that despite significant funds mobilized for the AIDS response during the period 2008 to 2014, antiretroviral treatment coverage remained quite low with 32% at the end of 2015. It took the implementation of a Catch-up Plan on ARV treatment from 2016 to 2018 to see a clear improvement in ARV treatment coverage reaching 63% in 2019. However, this increase in ARV coverage hides disparities worrying because the care of children remains weak and constitutes a major challenge. The implementation of appropriate strategies seems essential to reverse current trends in pediatric AIDS.

It was noticed in this that the private fund had fallen to zero as the year progressed. This situation has been noticed in several projects carried out in our country. This fund suddenly drops to zero due to the fact that the private sector no longer had the means and the resources, either they were discouraged from allocating other funds, because the first funds were not correctly used in the interventions to fight against the HIV/AIDS by managers.

Thus, to increase the funds allocated to the response to HIV/AIDS, the authorities involved in the management of the fund to be rented to the response, must show good governance and must present correct reports, and finally encourage donors to increase their support.

## 6. Conclusions

The analysis of total funding in the four interventions whose axes identified above made it possible to know how the resources mobilized for the AIDS response was distributed during the period from 2008 to 2017. These funds are distributed as follows:

- Treatment: 1,016,982,472 USD;
- Prevention: 302,542,391 USD;
- Governance: 459,246,584 USD;
- Mitigation of the impact: 115,757,443 USD.

## Author's Contributions

All authors contributed to data analysis, drafting or revising the article, had agreed on the journal to which the article will be submitted, gave final approval of the version to be published, and agreed to be accountable for all aspects of the work.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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