

## Sightsavers Phase 1 application to GiveWell

### Introduction - Sightsavers work with Neglected Tropical Diseases

Sightsavers' vision is of a world where no one is blind from avoidable causes and where visually impaired people participate equally in society. Sightsavers is one of the world's leading non-profit organizations dedicated to combating avoidable blindness and promoting equal opportunities for people with disabilities in developing countries. We work with local partners in over 30 countries in Africa, Asia and the Caribbean, restoring sight through specialist treatment and eye care. We also support people who are irreversibly blind by providing education, counselling and training. We help the people who need it most - those living in poverty in some of the world's poorest countries.

We have long been committed to the elimination of two devastating blinding neglected tropical diseases (NTDs); onchocerciasis (river blindness) and trachoma. Sightsavers' earliest work was in Ghana in the 1950s, where our Founder Sir John Wilson, Dr Geoffrey Crisp and Dr Freddie Rodger initially led the first ever surveys into the extent and transmission of river blindness and the introduction of rehabilitation services for people who are irreversibly blind. Sightsavers has also been involved in the control of trachoma since 1952, working with partners in 35 countries. We were recently nominated by a group of organisations with expertise in the fields of NTDs and water and sanitation to lead the global mapping of trachoma by the end of 2015. In 2014 alone, we supported the distribution of 29,401,080 treatments to prevent river blindness in 14 countries, and 9,283,731 treatments to prevent trachoma in 12 countries.

The WHO African Programme for onchocerciasis Control (APOC) plays a significant role in the fight against river blindness. With the planned closure of APOC in December 2015, there is uncertainty about the future funding mechanism for elimination activities. There is a critical need to secure additional funding in order to sustain the path to elimination of river blindness.

### Growing our work

Over more recent years, Sightsavers has worked to expand the impact of our neglected tropical disease elimination programs. Sightsavers believes it is essential to scale up treatment of preventive chemotherapy to reach global targets for the control and elimination of neglected tropical diseases<sup>1</sup>. We will coordinate treatments and surveillance in all countries where we have neglected tropical diseases programmes – this is irrespective if they are the blinding or non-blinding neglected tropical diseases. Morbidity management should not be ignored as programmes scale up treatments.

All our supported NTD programs are built upon the model of volunteer community directed drug distribution. Community Directed Treatment with Ivermectin (CDTI) is an approach for the mass distribution of drugs that was pioneered by Sightsavers and its partners. It involves using local volunteers to distribute the drugs and record the treatment details. It is an extremely cost-effective system and has the advantage of being owned by the community, which increases uptake of the drugs.

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<sup>1</sup> onchocerciasis, trachoma, LF, soil transmitted helminths and schistosomiasis

The CDTI approach is designed to be sustainable and benefits from the ability to be utilised for the distribution of integrated drug treatments for more than one NTD. The use of co-ordinated drug distribution efforts to tackle multiple NTDs, enables further scale-up of this approach and great value for money. We now undertake co-drug distribution for the treatment of lymphatic filariasis (LF) in many of our projects, and in 2014 alone supported the distribution of 44,867,923 treatments for LF.

In recent years, we have begun supporting integrated drug distribution for soil transmitted helminths and schistosomiasis, and have been increasingly involved in programs addressing these NTDs, for example a large scale program in Nigeria supported by the Childrens Investment Fund Foundation (CIFF) to map STH and schistosomiasis in northern Nigeria. **We are pleased to now be able to present opportunities for GiveWell to support Sightsavers to scale up our integrated NTD programs to include mass drug distribution for the treatment of Soil Transmitted Helminths and Schistosomiasis.**

## Sightsavers in Guinea Bissau

### Guinea Bissau – Introduction

Guinea Bissau ranks 177th out of 187 countries in the UN Human Development Index 2013 report. Per capita GDP was USD 614 in 2010, with more than two-thirds of the population living on less than 2 USD a day and a third on less than one dollar a day. The country showed an HDI average annual growth between 2000 and 2010 of 0.9%, compared with 2.1% for sub-Saharan Africa and 1.68% for very low-ranking countries.

### Q1a. Major activities performed by Sightsavers and other players

Sightsavers has been working in Guinea Bissau since 2001 in partnership with the Ministry of Health's National Eye Care Program. During this time we have supported eye care programs to address conditions amongst the population including cataract and glaucoma, a human resource development program to increase the number of practising ophthalmologists, cataract surgeons and eye health workers, and NTD programs focused on the elimination of trachoma and onchocerciasis, with limited work to support STH drug distribution in two regions. Our Guinea Bissau program team is based remotely in Senegal and The Gambia and liaises on a weekly (and often daily) basis with the NTD staff at the Guinea Bissau Ministry of Health, and makes at least four trips a year to visit program staff and provide supportive supervision. The governance structure and Ministry of health support for NTDs in Guinea Bissau is weak and Sightsavers' support has a big impact. NTD activities are coordinated by the Director of Disease Control and there is no NTD-specific coordinator beneath him. We are currently in discussion with the Ministry of Health to advocate for the appointment of a national NTD coordinator and other key NTD focal points.

**Sightsavers' Guinea Bissau trachoma elimination program** has run since 2011 and is working to ensure Guinea Bissau can be declared free of blinding trachoma by 2020. The project is supporting the implementation of the full SAFE strategy for trachoma elimination (Surgery to treat trichiasis, Antibiotics to treat infection, Facial cleanliness and Environmental improvement to interrupt disease transmission). Project activities include the distribution of the antibiotic treatment Zithromax, the training of trichiasis (TT) surgeons and the provision of TT surgeries, and the improvement of environmental sanitation in target areas through the construction of water points and latrines, alongside behaviour change activities to ensure their use.

## Our onchocerciasis elimination program

Sightsavers has been involved in supporting onchocerciasis elimination work in Guinea Bissau since 2007. Sightsavers is currently supporting mass drug distribution for onchocerciasis & LF in two regions, Gabu and Bafata, and in 2015 we are newly introducing coordinated treatment STH. In 2015, we expect to treat 487,291 people for LF and STH (the full population of the two states) and 190,259 people for onchocerciasis.

There is now a great need to scale up drug distribution for STH and schistosomiasis. The treatment of these diseases has been greatly neglected in Guinea Bissau, despite the fact they are prevalent in most regions of the country; apart from limited support that has been provided by the African Programme for Onchocerciasis Control in recent years, most regions of the country are not covered. Given the closure of APOC in 2015, as detailed in the introduction of this document, there is now a great need for Sightsavers to extend its support/interventions to cover these neglected diseases.

Schistosomiasis treatment has not taken place in Guinea Bissau before. A first round of treatment in Oio and Farim regions was planned for 2015, however this work has been delayed due to a recent fire in the central drug store destroying the stock of Praziquantel.

### Q1b. Results from recent years' activities, including # of people treated for each disease and amount spent

- In 2014, Sightsavers Guinea Bissau trachoma elimination program provided **401,565 people** with Zithromax treatment to prevent trachoma.
- The program's expenditure in recent years is:  
2014 expenditure - \$195,964 (£122,478)  
2013 expenditure - \$199,552 (£124,720)  
2012 expenditure – \$104,000 (£65,000)
- Sightsavers most recent Onchocerciasis project ran from 2007-2011. Project expenditure during this period was on average \$51,101 per year.

### Q1c. Sightsavers spending (and that of other players if available), broken down by activity type and/or disease target

- Please see spreadsheet

Sightsavers does not have access to information on the spending of other NGO players in Guinea Bissau.

The co-endemicity of the five preventative chemotherapy as shown in Table 1

**Table 1. Summary of disease co-endemicity by region**

Region	Disease endemicity	Number of health zones
Bafata	LF, Schisto, STH, Trachoma & Oncho	2
	LF, Schisto, STH & Trachoma	12
Bijagos	LF, Schisto, STH & Trachoma	11
Biombo	LF, Schisto, STH & Trachoma	8
Bolama	LF, STH & Trachoma	3
Cacheu	LF, Schisto, STH & Trachoma	18
Quinara	LF, Schisto, STH & Trachoma	6
Gabu	LF, Schisto, STH, Trachoma & Oncho	15
	LF, Schisto, STH & Trachoma	4
Oio	LF, Schisto, STH & Trachoma	10
Farim	LF, Schisto, STH & Trachoma	5
Tombali	LF, Schisto, STH & Trachoma	8
Bissau	LF, Schisto, STH & Trachoma	14

## Q1d. Prevalence information for each targeted NTD

### Trachoma

Sightsavers is the key Ministry of Health partner for trachoma elimination activities in Guinea Bissau and is supporting the distribution of the antibiotic treatment Zithromax, the training of trichiasis (TT) surgeons and the provision of TT surgeries, and the improvement of environmental sanitation in target areas through the construction of water points and latrines, alongside behaviour change activities to ensure their use. The prevalence of trachoma in Guinea Bissau ranges between 10%-39.9%. (see Map 1) We are supporting the MoH to meet the WHO recommended target of reducing the prevalence of active trachoma (TF) to less than 5% among children aged 1-9 years, to reduce the prevalence of TT to less than 1 case per 1000 population above 15 years old, and to maintain (TT) recurrence to below 10%. The implementation of the SAFE strategy has resulted in the reduction of prevalence as shown in Table 2. Other NGO partners involved in implementing the SAFE strategy for trachoma elimination in Guinea Bissau include The International Trachoma Initiative (supporting Zithromax distribution). Sightsavers plans to support the writing of a trachoma Action Plan for Guinea Bissau in October 2015, in partnership with the International Trachoma Initiative and the London School of Hygiene and Tropical Medicine.

**Table 2. Showing TF and TT prevalence rates in 2005, and subsequent TF impact study conducted in 2013.**

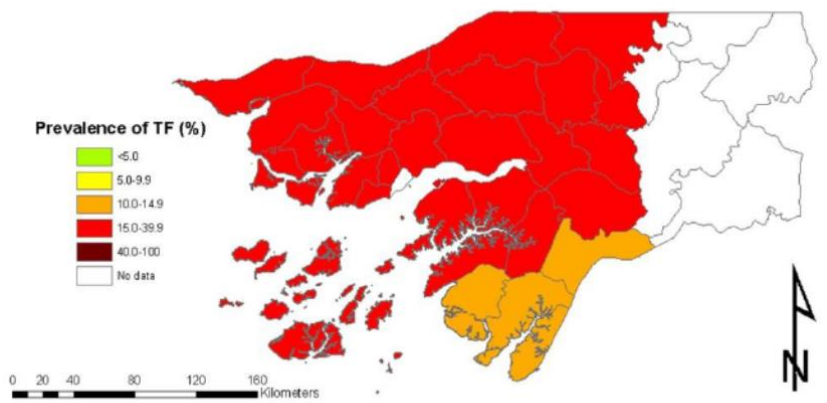
*Please see previously submitted trachoma impact study (Q2c) on impact survey conducted in the Oio Bafata and Farim regions of Guinea-Bissau for further information.*

Region	Trachoma (TF) prevalence (2005)	Trichiasis (TT) prevalence (2005)	Impact survey (TF prevalence) (2013)	Years of Sightsavers support	Notes
<b>Bafata</b>	28,7%	1,2%	1,38%	2010 - 2012	3 rounds of MDA completed and impact study conducted in 2013. We have been able to stop MDA in this region.
<b>Gabu</b>	9,5%	0,2%			
<b>Cacheu</b>	30,3%	5,0%		2011-2013	3 rounds of MDA completed in 2013 but impact study not conducted.
<b>Oio</b>	21,7%	2,9%	2,94%	2009-2011	3 rounds of MDA completed and impact study conducted in 2013. We have been able to stop MDA in this region.
<b>Farim*</b>	21,7%	2,9%	4,21%	2009 - 2011	3 rounds of MDA completed and impact study conducted in 2013. We have been able to stop MDA in this region.
<b>Bijagos</b>	21,4%	7,7%			
<b>Bolama</b>	19%	3,1%			MDA will start in 2015. It's in this year's work plan
<b>Biombo</b>	17,2%	3,9%		2014	MDA started in 2014 and will continue in 2015 and 2016
<b>Quinara</b>	16,6%	1,2%			MDA will start in 2015. It's in this year's work plan
<b>Tombali</b>	15,3%	1,0%			MDA will start in 2014. It's in this year's plan
<b>Bissau/S AB</b>	15,9%	1,2%		2014	MDA started in 2014 and will continue in 2015 and 2016

## **Map 1. Prevalence of trachoma in Guinea Bissau**

*A larger print version of all the maps in this document is included as a separate attachment.*

### Prevalence of trachoma in Guinea Bissau



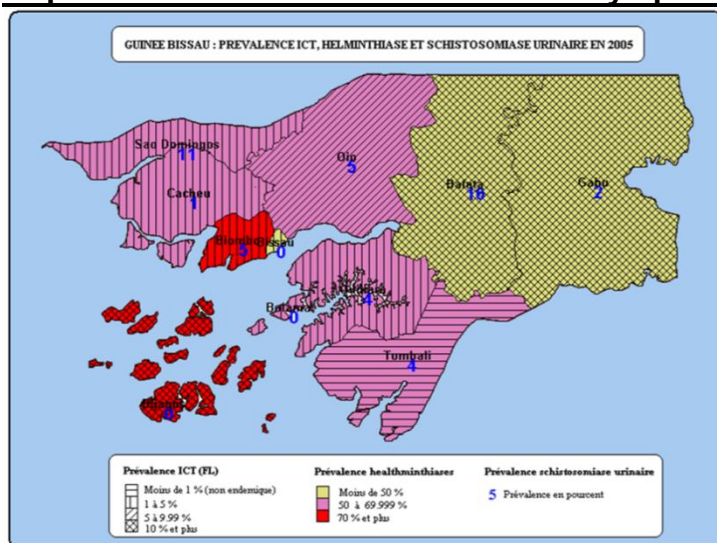
Maps were developed by the International Trachoma Initiative and present the prevalence of TF in children aged 1-9 years. Information is based on the most recent population-based surveys in each region as reported by programme managers.

## Soil Transmitted Helminths

In the Sightsavers supported regions of Bafata and Gabu, Albendazole treatment is currently given through the Ivermectin + Albendazole drug distribution package for LF, once per year through a house to house distribution platform using community volunteers. The prevalence of STH in Guinea Bissau ranges between 13% to 93% (See Map 2.) This once per year treatment is also in line with WHO guidelines for the treatment of STH in school age children, in areas where the baseline STH prevalence is  $\geq 20\%$  but  $< 50\%$ . Sightsavers is working towards scaling up once per year drug distribution to reach all endemic areas in the remaining 9 regions for the first time in 2016. Our partners in STH in Guinea Bissau are APOC, WHO and the World Food Programme.

However, in areas where the baseline prevalence is  $\geq 50\%$  the WHO guideline is to treat all school age children twice per year. As seen in the table below, prevalence is higher than 50% in nearly all regions, highlighting a need to scale up drug distribution to twice per year in all these regions.

**Map 2. Prevalence of STH/schisto and Lymphatic Filariasis in Guinea Bissau (2005)**



**Table 4. showing STH prevalence rates, assessed in 2005**

Please see spreadsheet for information on proposed scale up activities

Region	2005 baseline survey	Years STH MDA	Key partners / unmet needs	Distribution platform and frequency (i.e. once or twice a year)
Bafata	31% (2003)	2008+	Sightsavers (& APOC, prior to 2015)	Alb is distributed through the Ivm+Alb package for LF, house to house, once a year
Gabu	49%	2008+	Sightsavers (& APOC, prior to 2015)	Alb is distributed through the Ivm+Alb package for LF, house to house, once a year
Oio/Farim*	67% (2003)		WHO – Guinea Bissau Office	MDA twice a year will start in 2015
Biombo	93%		World Food Programme	School based MDA (we anticipate this is linked to the WFP school feeding programme)
Tombali	65% (2003)	Treatment not started	<b>Unmet need</b>	Sightsavers plans to start supporting MDA in each region once per year from 2016, funding permitting
Bolama	67%	Treatment not started	<b>Unmet need</b>	
Bijagos	88%	Treatment not started	<b>Unmet need</b>	
Cacheu	64%	Treatment not started	<b>Unmet need</b>	
Sao Domingo	63%	Treatment not started	<b>Unmet need</b>	
Quinara	55%	Treatment not started	<b>Unmet need</b>	
Bissau	13%	Treatment not started	<b>Unmet need</b>	

\*Includes Oio and Farim. Note that Farim was formerly part of Oio.



## Lymphatic Filariasis

The first and only prevalence study of lymphatic filariasis (LF) was carried out in 2004-5. This study found that all regions of the country remain endemic, with an average prevalence of 6%, ranging between 0.5% and 24%. According to WHO guidelines, areas with a baseline disease prevalence of >1% should treat the whole population. Bafata, Gabu and Bijagós have the highest prevalence rate in the country (see Map 3). Drug distribution activities for LF began in Guinea Bissau in 2008, in all 33 health areas of the two regions of Gabu and Bafata. There is now a great need to scale drug distribution for LF to reach the remaining 9 regions from 2016 onwards (Table 5.). Sightsavers recently met with the Ministry of Health in Guinea Bissau and is drawing up plans to undertake LF drug distribution once per year in endemic areas of all additional nine regions from 2016 onwards. (This is the same treatment regimen that will also provide one round of treatment for STH, as the same drugs treat both diseases in areas with STH prevalence below 50%).

### Map 3. Co-endemicity of Lymphatic Filariasis and onchocerciasis in Guinea Bissau (2005)

A large print version of this map is included as a separate attachment.

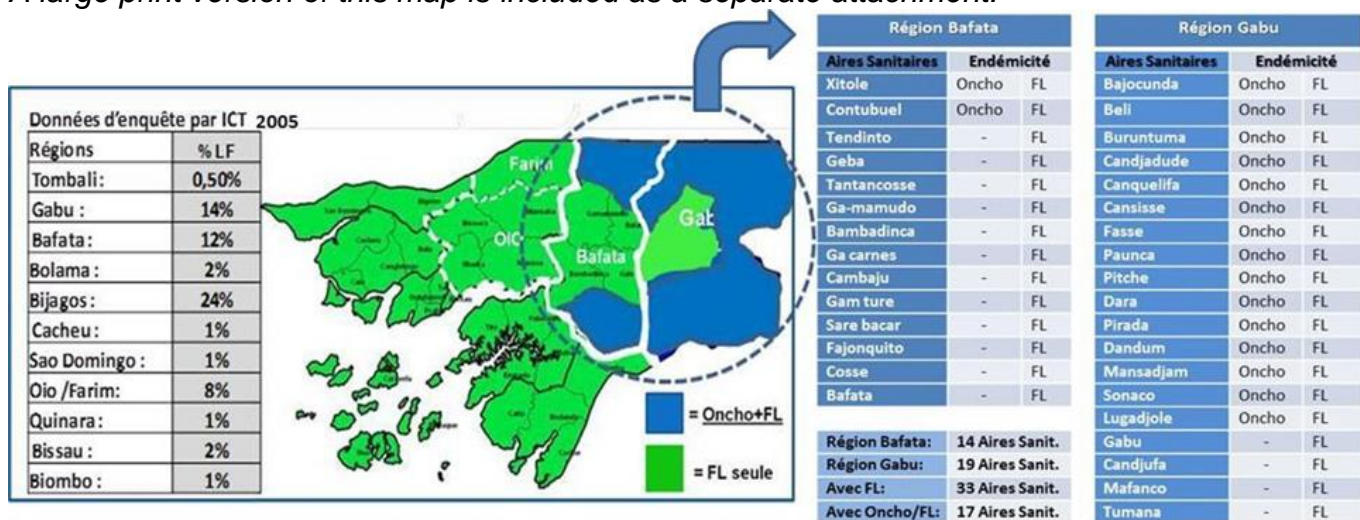


Table 5. showing LF prevalence rates, assessed in 2005

Region	LF prevalence (%) (ICT) 2005	Years LF MDA	Key partners / unmet support	Comments
Bafata	12%	2008+	Sightsavers (& prior to 2015, Sightsavers & APOC)	Treatment assessment surveys are scheduled for 2015. This will assess LF and STH prevalence.
Gabu	14%	2008+	Sightsavers (& prior to 2015, Sightsavers & APOC)	Treatment assessment surveys are scheduled for 2015. This will assess LF and STH prevalence.
Tombali	0.5%	Treatment not yet commenced	Unmet support	Sightsavers plans to start supporting MDA in each region once per year from 2016, funding permitting
Bolama	2%	Treatment not yet commenced	Unmet support	
Bijagos	24%	Treatment not yet commenced	Unmet support	
Cacheu	1%	Treatment not yet commenced	Unmet support	
Sao Domingo	1%	Treatment not yet commenced	Unmet support	
Oio/Farim	8%	Treatment not yet commenced	Unmet support	
Quinara	1%	Treatment not yet commenced	Unmet support	
Bissau	2%	Treatment not yet commenced	Unmet support	
Biombo	1%	Treatment not yet commenced	Unmet support	

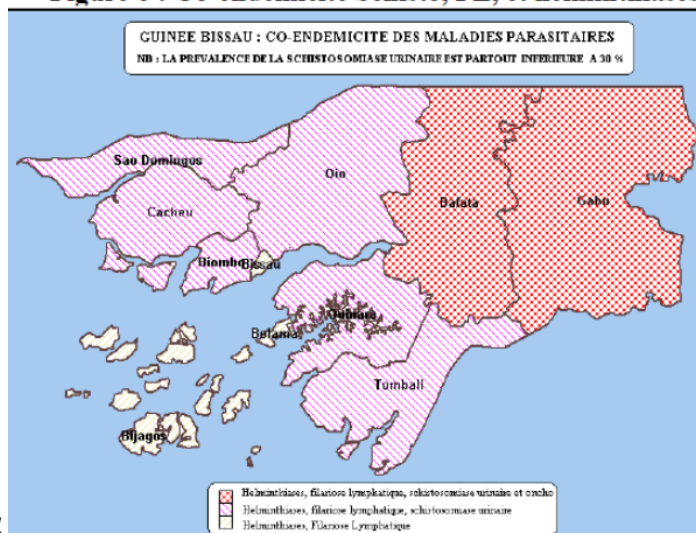
## Schistosomiasis

Mapping for schistosomiasis took place in 2005. Mass drug administration has not taken place before, however the table below shows a clear need. It has been planned for funding from the World Health Organisation and World Food Programme to support initial MDA in Oio/Farim and Biombo regions in 2015, however, a fire which recently destroyed the drug supply has delayed 2015 activity. According to WHO guidelines, areas with a baseline disease prevalence of <10% should treat school age children twice during primary school year e.g. once on entry and once on exit.

## Co-endemicity of Lymphatic Filariasis, STH and schisto in Guinea Bissau

A large print version of this map is included as a separate attachment.

Figure 6 : Co-épidémicité Schisto, FL, et helminthiases



Map 4.

Table showing schistosomiasis prevalence rates, assessed in 2005

Region	Baseline mapping (2005)	Key partners / unmet support	Comments
Tombali	4%	Unmet support	
Gabu	2%	Unmet support	
Bafata	16%	Unmet support	A high priority region
Bolama	0%	Unmet support	
Bijagos	0%	Unmet support	The epidemiological survey showed a 0% prevalence, however, the survey questionnaire was positive. As the two methods are complementary, we consider the region endemic for schisto.
Cacheu	1%	Unmet support	
Sao Domingos	11%	Unmet support	
Oio/Farim	5%	World Health Organisation office	School and community integrated MDA was planned for 2015, to reach children aged 5-14 years old (LF, STH and schisto). The planned budget for the two regions was \$54,400. However a fire which destroyed the praziquantel drug supply has put 2015 activity in jeopardy
Quinara	4%	Unmet support	
Bissau	0%	Unmet support	The epidemiological survey showed a 0% prevalence, however, the survey questionnaire was positive. As the two methods are complementary, we consider the region endemic for schisto.
Biombo	5%	Unmet support	



## Onchocerciasis (river blindness)

The distribution of Mectizan to protect communities from river blindness began in Guinea Bissau in 1989, soon after the country's independence. Sightsavers' first support for national activities ran from 2007-2011, and has recently re-started in 2014. To date, drug distribution has focused on the regions of Gabu and Bafata as these are the only regions now endemic for river blindness. These two regions comprise 33 health districts and a total population of about 500,000. Of the 33 districts 17 are considered endemic for river blindness – representing a total at risk population of approximately 195,247 people. Surveys (Map. 5) conducted between 1988 and 1990 recorded a prevalence of infection of 0-30% around the River Geba and 0-73% around the River Corubal. In the River Geba area 6-monthly ivermectin treatment was supported from 1989 to 1996, while in the River Corubal area 3-monthly ivermectin treatment was supported from 1991 to 1996 (Borsboom et al 2003).

In 2001, the prevalence of river blindness was zero in the high basin of the River Geba and between 0-35% around the River Corubal. Since 2003, the management of residual programme activities has been supported by WHO, APOC and since 2008, Sightsavers. Epidemiological evaluations (Map 6.) conducted in 2007 / 2008 recorded prevalence of 0% around the River Geba and prevalence values <9.7% in the high basin of the River Corubal. In 2013, reports indicated a population of 185,563 were at risk and 114,414 treated, reflecting a therapeutic coverage of 62%.

Current epidemiological and entomological disease information is not currently available, however new entomological surveys will take place in June 2015 and epidemiological evaluations will take place in September 2015. Treatment assessment surveys will also take place in 2015 in Gabu and Bafata to assess the impact of the drug distribution that has taken place to date, and guide when it will be possible to stop mass drug distribution. Drug distribution activities will then expand from 2015-2019 to include the other 9 regions of Guinea Bissau, with treatment assessment surveys for those regions then planned for 2020.

### **Prevalence of onchocerciasis in Guinea Bissau before and after treatment**

*A large print version of these maps is included as a separate attachment.*

Map5.

#### **Prévalence des mf des villages évalués en 1988/1990**

