

# Leprosy Control in Colonial Sierra Leone: A Historical Overview

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## Introduction

The purpose of this article is to provide an overview of the historical development of leprosy control in colonial Sierra Leone. Presently, literature on leprosy and its control in colonial Sierra Leone is scant. For example, while *Leprosy Review*, a journal published by the British Empire Leprosy Relief Association (BELRA), founded in 1923, contains several local reports from leprosy experts who visited Sierra Leone during the colonial period (e.g., Innes, 1958a, 1958b, 1961; Muir, 1936), there are almost no full-fledged research articles that historically consider leprosy control in colonial Sierra Leone.

Therefore, in this article, I describe the historical evolution of leprosy control in colonial Sierra Leone based on the historical materials I obtained from the Wellcome Library in London, England. I examined, in particular, annual medical reports released by the Sierra Leone colonial government from 1905 to 1958, stored at the library and currently available online, and materials of the British

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Leprosy Relief Association (LEPRA),<sup>1</sup> which too are stored at the library but are not available online as they are part of a special collection. I divide the historical development of leprosy control in colonial Sierra Leone into three periods — (1) before World War I (WWI), (2) between the two World Wars, and (3) after World War II (WWII) — and consider the circumstances and characteristics of leprosy control in each.

## 1. The Pre-World War I Period: Pre-1918

Sierra Leone has its historical roots in the settlement built by British slave trade abolitionists for the Black Poor in Britain in 1787. Later, former slaves from the United States and Jamaica and their families began to settle there; in the early 19th century, a law prohibiting the slave trade was passed by the British Parliament, and the British Navy captured slave ships in a wide area off the west coast of Africa. Sierra Leone then became a base for bringing in the so-called 'recaptives' from the captured ships, and many freed slaves came to the area. After landing in Freetown, the centre of the Sierra Leone Colony (hereafter, 'the Colony'), those freed slaves formed ethnic group settlements in the surrounding areas. Sierra Leone then expanded to the whole are of peninsula, as well as the surrounding islands such as Sherbro Island. There was also a transition to a colonial administration named the Colony and Protectorate of Sierra Leone with the inland area declared as a protectorate in 1896 (see Figure 1); while the Colony, centred around Freetown, had direct rule as a system of governance, with a

governor at the top, the Sierra Leone Protectorate (hereafter, 'the Protectorate') was under indirect rule, a system in which local leaders called paramount chiefs, sub-chiefs and headmen collected taxes and performed other tasks under the supervision of a small number of administrative officers, including district commissioners, deployed by the government.

Hundreds to thousands of freed slaves (then called 'Congo') arrived at the Colony each year through the first half of the 19th century. This is why the Colony was at perennial risk of infectious disease epidemics, such as smallpox, yellow fever, dysentery, and yaws, brought by the new arrivals such as liberated slaves and sailors. Moreover, many of the newly released slaves suffered from illnesses such as ulcers, dropsy, and ophthalmia, and complained of symptoms such as severe diarrhoea and fever (Clarke, 1856). The government then opened a hospital for freed slaves in Leicester, a suburb to the south of Freetown, in 1817, and moved it to Kissy, a suburb to the east of Freetown, in the mid-1820s. Eventually, in Kissy, several facilities were established to address various symptoms and treat different types of patients, and not only the newly released slaves but even the colonial residents and European sailors were accommodated there. In addition to sick people, individuals housed in those facilities included the socially displaced and those engaging in problem behaviours, including the physically challenged, the needy, vagrants, the mentally ill, and people with leprosy.

In 1837, a doctor named Robert Clarke was appointed as the medical officer in charge of the Kissy institutions. In a speech in

Glasgow, Scotland, in September 1855, Clarke said that black people in Sierra Leone were susceptible to skin diseases such as leprosy, and among them were lepers in various stages of the disease (Clarke, 1856: 67–68).

By the 20th century, a colonial hospital had been established in Freetown. In Kissy, there was an asylum for the mentally ill, separate hospitals for male and female patients with incurable diseases (hereafter, 'Male Incurable Hospital' and 'Female Incurable Hospital'), a smallpox hospital, and a lazaretto for isolating sailors suffering from infectious diseases such as yellow fever, in three different locations. In addition to these, in the Colony, there was a nursing home exclusively for Europeans in Freetown, and several dispensaries with permanent medical staff called dispensers in and outside the city; in the Protectorate, small hospitals administered by medical officers were opened in major towns, and dispensaries managed by dispensers in various locations.

According to the government's 1905 Annual Medical Report, of these medical facilities, the colonial hospital in Freetown had 12,651 new outpatients that year, including Europeans and natives — of these, only two — one male and one female — had leprosy, both of whom were local residents. Also, while the number of outpatients treated in 1905 at hospitals and dispensaries other than the colonial hospital in the Colony and the Protectorate reached 39,022, only 14 amongst them had leprosy — 11 male and three female patients,<sup>2</sup> all local residents. Thus, in 1905, very few people with leprosy visited medical facilities, almost all of which were occupied by local residents. Leprosy was initially considered a low-incidence disease

in Sierra Leone with a low morbidity risk for Europeans, and therefore, was neglected, or practically ignored, by colonial officials.

However, in the 1908 Annual Medical Report, a medical officer stationed in Moyamba, a town in the Ronietta District in the southern part of the Protectorate, wrote the following about leprosy: 'Looking back over a period of some ten and a-half years I find evidence of this disease having made extensive inroads amongst the aboriginal population'.<sup>3</sup> The officer also reported advising local leaders to establish a leper reservation colony to isolate them. Then, in the 1910 Annual Medical Report, a medical officer stationed in Kabala in the Koinadugu District in the northern part of the Protectorate recorded coming across people with leprosy in mobile clinics and instructing the local chiefs to isolate them.<sup>4</sup> As such, in the pre-WWI period, some medical officers stationed in different parts of the Protectorate had already become aware of leprosy's prevalence in some areas.

Some of the people with leprosy living in the Protectorate came to the Colony (Freetown and its surrounding areas), instead of going to the hospitals and dispensaries in the Protectorate, for treatment and protection. The incurable hospitals in Kissy hospitalised and treated them — it seems that the Female Incurable Hospital initially also had an exclusive segregation ward for people with leprosy, but after 1910, only the Male Incurable Hospital had such a ward. This ward at the Male Incurable Hospital, later known as the Leprosy Asylum, had eight patients, for example, at the beginning of 1911, and while there were three new admissions, two died later; thus, ultimately, there were nine hospitalised patients at the end of that year.<sup>5</sup>

In the Protectorate, people with leprosy were not subjected to compulsory segregation. As mentioned above, when European medical officers stationed in the Protectorate encountered them in mobile clinics, they advised local traditional rulers such as paramount chiefs to segregate them, but neither the medical nor the administrative officers ordered their compulsory segregation. At that time, leprosy's prevalence in the Protectorate was not considered to be very high, and therefore, countermeasures were left at the discretion of the local communities, including traditional rulers. Perhaps this is why, in the Protectorate, segregation villages, where people with leprosy (the disease became widespread in other British West African colonies such as Nigeria) and their families lived, were rarely voluntarily set up by the local communities after that time.

In contrast, in the Colony, people with leprosy were subjected to limited but forced quarantine. For example, Article 11 of the Prisons Ordinance of 1924 stipulated that the Governor may transfer prisoners with leprosy from the prison to a hospital; Article 53 of the Public Health Ordinance of 1924 allowed the sanitary authority of the government to hospitalise people with infectious diseases, including leprosy, based on medical certificates; and Article 55 allowed police officers and others to hospitalise people with leprosy seen on the streets.

However, as also symbolised by the small number of those housed in the Leprosy Asylum (the leprosy ward at the Male Incurable Hospital in Kissy) (up to 10), compulsory segregation in the Colony was merely a nominal matter.<sup>6</sup> Also, many of those housed there

fled because they disliked the isolation and treatment. For example, at the beginning of 1913, only three patients were housed in the Leprosy Asylum, and 10 others were admitted over the course of the year, with ultimately one dying and 10 fleeing.<sup>7</sup> In other words, compulsory segregation of people with leprosy in the Colony at that time was not very effective.

Leprosy control was first addressed seriously in the 1914 Annual Medical Report — it introduced cases of leprosy control over a considerable duration in Nigeria and South Africa, stating that voluntary segregation of patients was preferred, but if compulsory segregation was opted for, then Bunce Island at the mouth of the Sierra Leone River near Freetown was a good candidate.<sup>8</sup> However, due to the outbreak of WWI in 1914, the debate over such leprosy facilities did not immediately begin in earnest.



Figure 1. Administrative Divisions in Sierra Leone (1896)

Source: Ochiai (2017: 63).

## 2. The Interwar Period: 1919–1938

In 1922, after the end of WWI, treatment using chaulmoogra (*Hydnocarpus wightianus*) oil was tried for the first time in Sierra Leone on two male patients in the Leprosy Asylum at Kissy. A fatty oil obtained by pressing the seeds of a plant called chaulmoogra, it has long been used as a folk remedy for leprosy in India, Myanmar, and China. The first dose in Sierra Leone in 1922 was an ester mixture called 'Moogrol' made from the ingredients of chaulmoogra oil, and it was administered to the patients through weekly intramuscular injections — consequently, visible improvement in symptoms was observed in one patient, but the treatment was discontinued due to severe side effects such as headache and fever; moreover, the symptoms of the other patient did not improve even after multiple injections.<sup>9</sup>

Treatment involving administration of chaulmoogra oil and its ingredients through subcutaneous or intramuscular injections often caused the patients severe pain due to suppuration at the injection site. Moreover, while the treatment seemed to provide relief initially, it gradually became clear that the symptoms worsened or recurred. However, in Sierra Leone, the chaulmoogra oil treatment continued until the 1950s, when drug therapy with sulfones such as dapsone became widespread.

Initially, the number of patients willing to undergo the chaulmoogra oil treatment was small, as it was often painful — for example, in 1924, 25 new patients were reported across the Colony and Protectorate of Sierra Leone, but only five of them agreed to

receive the treatment; and later, after just the first injection, all of them failed to show up for the subsequent doses.<sup>10</sup> However, as awareness of the treatment's effectiveness in improving symptoms and curing leprosy became widespread, especially among the Protectorate residents, the number of patients receiving it gradually increased — as mentioned above, only two at the Leprosy Asylum were administered the treatment in 1922, but the number increased to 45 in 1926, 80<sup>11</sup> in 1927, and 127<sup>12</sup> in 1929 across Sierra Leone.

As such, in the latter half of the 1920s, the number of people with leprosy taking treatment at hospitals and dispensaries in various parts of the Colony and the Protectorate increased, but behind this was the spread of the bismuth treatment, which is effective for yaws, besides the introduction of the chaulmoogra oil treatment. Yaws is a bacterial infectious disease that mainly afflicts children — at that time, drugs containing bismuth began to be administered to patients and showed impressive therapeutic results. Thus, those with leprosy, expecting the chaulmoogra oil treatment to have the same dramatic effect as the bismuth treatment for yaws, visited hospitals and dispensaries in various places to receive injections. However, unlike the bismuth treatment, the chaulmoogra oil treatment took some time to be effective; it was also often accompanied by side effects such as pain. Therefore, many of those with leprosy were soon left disappointed with the oil and stopped the treatment. For this reason, to improve the treatment's effectiveness, the government realised that dedicated colonies or settlements were needed to enable the patients to voluntarily segregate and receive regular treatment while living in a group

setting.<sup>13</sup> However, with the Great Depression taking hold in the 1930s and the subsequent rapid deterioration of its finances, the colonial government abandoned this idea. The first leprosarium was opened in Sierra Leone during the British colonial rule — in the Protectorate where many had the disease — but in the late 1950s when the country was on the verge of gaining independence.

In 1929, as mentioned above, 127 people with leprosy across Sierra Leone received the chaulmoogra oil treatment, but the number of those who visited hospitals and clinics in each region in the same year was much higher at 431. While the number of new patients peaked at 521<sup>14</sup> (or 531<sup>15</sup>) in 1930, it fell to 293<sup>16</sup> in 1931, 244<sup>17</sup> in 1932, and 206<sup>18</sup> in 1933. It again rose slightly, to 212<sup>19</sup> in 1934 and 245<sup>20</sup> in 1935, but this increase was temporary and the numbers fell again, to 195<sup>21</sup> in 1936 and 126<sup>22</sup> in 1937, further dropping to 96<sup>23</sup> in 1941 during WWII. In other words, the number of new patients between the two World Wars in the Colony and the Protectorate increased in the late 1920s following the start of the chaulmoogra oil treatment in the early 1920s, peaking in 1930 and then declining throughout the 1930s.

There are two notable points regarding leprosy control in Sierra Leone during this interwar period. First, prevalence studies, the basis for leprosy control, were conducted at least twice. The first was conducted in the Protectorate by D. B. Blacklock, a professor of tropical diseases at the University of Liverpool; he travelled in the northern part of the Protectorate four times, from November 1927 to April 1928, to examine 4,337 people, and surveyed the southern part five times, from October 1928 to October 1929, examining 5,153

people — thus finding 183 and 60 leprosy patients respectively. Based on this data, leprosy's prevalence in the northern part was estimated 42.2 per 1,000 people, which was nearly four times the prevalence rate in the southern part, 11.6 per 1,000. Blacklock thus noted that leprosy needed to be recognised as an important disease, at least in the northern part of the Protectorate (Blacklock, 1930). The second was a survey conducted by the government in 1935, which confirmed about 3,600 people with leprosy across the Colony and the Protectorate.<sup>24</sup>

The second notable point regarding leprosy control in Sierra Leone during the interwar period concerns the establishment of hospitals by Christian missionary societies. In 1929, two North American Christian missionary groups — the American Wesleyan Mission and the United Brethren in Christ — opened hospitals in the Karene District in the north and the Kono District in the east of the Protectorate respectively (see Figure 2).<sup>25</sup> Like the government hospitals and clinics, the mission hospitals too started leprosy treatment.



Figure 2. Administrative Divisions in Sierra Leone (1931)

Source: Abraham (1978: 229).

### 3. The Period After the Outbreak of World War II: 1939–1961

In 1940, the year after the outbreak of WWII, the British Parliament enacted the Colonial Development and Welfare Act. Although the Colonial Development Act of 1929 was used as a template for this one, the 1929 Act had focused on improving Britain's economic interests, including measures against unemployment, while the 1940 Act was aimed at promoting the welfare of colonial residents and the development of colonial resources. It was a pathbreaking law that set it apart from the 1929 Act in that it was the first to recognise the home country's responsibility for the development and welfare of people in colonies. However, due to the war and other factors, the actual amount of aid under the 1940 Act was low. Under these circumstances, the British Parliament passed an

amendment in March 1945, just before the end of the war. The essence of the amendment was that Britain would provide a total of £120 million to implement the development and welfare plans of its colonies during the 10-year period from 1946 to 1955. Thus, after the war, the Colonial Office ordered the colonies to develop a 10-year development and welfare plan, with assistance for its implementation to be provided under the Colonial Development and Welfare Act of 1945 (Havinden and Meredith, 1993).

Accordingly, a 10-year development and welfare plan was formulated in Sierra Leone, and since the 1940s, medical facilities such as hospitals have been expanded and measures against infectious diseases such as malaria and trypanosomiasis promoted through financial support from the fund established under the 1945 Colonial Development and Welfare Act. By 1948, the Endemic Diseases Control Unit (EDCU) was established based on the Yaws and Sleeping Sickness Campaign, which was promoted with this financial support.<sup>26</sup> The EDCU investigated, treated, and raised awareness of endemic as well as infectious diseases, and was also responsible for training staff necessary for these activities. It later assumed responsibility of implementing countermeasures for leprosy in addition to yaws and trypanosomiasis.

Also noteworthy under the Colonial Development and Welfare Act of 1945 is the establishment of health centres. The government planned to open 50 health centres, financed by the Colonial Development and Welfare Fund, in the Protectorate over a 10-year period. Health centres were conceived as facilities with trained midwives providing midwifery and health education services, in

addition to the functions of the traditional government dispensary with permanent dispensers.<sup>27</sup> Their establishment was not swift though, partly due to the rapid rise in demand for other public works after the war.<sup>28</sup> Health centres were, however, gradually established in various areas of the Protectorate, replacing the previous dispensaries. In Sierra Leone today, primary healthcare facilities are called peripheral health units (PHUs). There are three types of PHUs: maternal and child health posts for 500–5,000 people, community health posts for 5,000–10,000 people, and community health centres (CHCs) for 10,000–30,000 people (Robinson, 2019). The health centres opened across the Protectorate after the war, financed by the Colonial Development and Welfare Fund, are likely the historical origin of CHCs, the largest of these post-independence PHUs in Sierra Leone.

After the war, the government planned a large-scale leprosy survey, financed by the Colonial Development and Welfare Fund. The survey was part of the preparations to open the first full-scale leprosy settlement in the Protectorate.<sup>29</sup> However, it was ultimately not conducted due to insufficient manpower and other issues,<sup>30</sup> and no such settlement was opened either. The first leprosarium in the Protectorate was opened just a few years before Sierra Leone's independence in 1961.

It was the BELRA, and not the colonial government, who made the move to open this leprosarium in the Protectorate. In June 1957, an unofficial meeting was held at the BELRA Secretariat in London to discuss leprosy control in Sierra Leone; the meeting participants confirmed that sufficient leprosy countermeasures had not been

implemented in Sierra Leone despite the high need for them. They arrived at a consensus to send Dr Charles Ross, Senior Leprosy Officer of the Northern Provinces of Nigeria, to Sierra Leone for several months to conduct an investigation to promote leprosy control, and that prior to Dr Ross's full-scale investigation, a BELRA leprosy worker named Alan Waudby would be dispatched to Sierra Leone for advance preparations.<sup>31</sup> In October 1957, Waudby arrived in Sierra Leone and started preparations, after which, Dr Ross conducted the investigation over three months, starting that December.<sup>32</sup> Following this investigation, the Protectorate's first leprosarium was opened with BERLA funding in 1958 in the village of Masanga in the Tonkolili District (see Figure 3). Sierra Leone achieved independence from Britain in 1961, and in 1965, the Masanga Leprosarium was transferred to the Seventh-day Adventist Church.

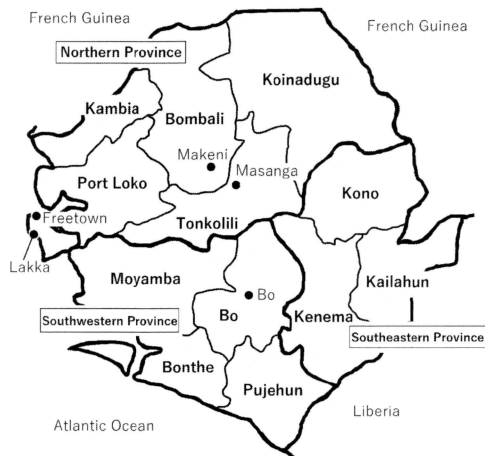


Figure 3. Administrative Divisions in Sierra Leone (the early 1950s)

Source: Lewis (1954).

## Conclusion

This article summarised the historical development of leprosy control in colonial Sierra Leone in three periods: (1) the pre-WWI period, (2) the interwar period, and (3) the post-WWII period. Sierra Leone, before WWI, did not have full-scale leprosy control. In the early 20th century, some medical officers stationed in the Protectorate encountered people with leprosy in mobile clinics and other places and realised that the disease had spread to some extent among the local residents. However, compulsory segregation was not imposed on those people. At that time, leprosy's prevalence in the Protectorate was not considered to be very high, and countermeasures were left at the discretion of the local communities, including traditional rulers. In contrast, in the Colony, people with leprosy were subjected to limited but forced quarantine. However, there were only up to 10 patients housed in the Leprosy Asylum at Kissy before WWI. In other words, compulsory segregation of people with leprosy in the Colony was only a nominal matter.

During the interwar period, the government began to develop leprosy control, albeit in a limited fashion. For example, chaulmoogra oil treatment was piloted in Sierra Leone in 1922 by administering it to two male patients in the Leprosy Asylum at Kissy. Later, as the treatment gained in reputation, people with leprosy began visiting hospitals and dispensaries throughout the Colony and the Protectorate, and the number of new patients at such facilities continued to increase throughout the 1920s. Partly due to the effects of the Great Depression, this number peaked in

1930 and then began to decline, showing a downward trend throughout the 1930s.

Full-scale leprosy control was finally achieved after WWII. In particular, a BELRA-led leprosy survey was conducted for three months, starting in December 1957, and based on its results, the first leprosarium was opened in the Protectorate, in Masanga in the north, in 1958. Sierra Leone achieved independence from Britain in 1961, and in 1965, the management of the Masanga Leprosarium was transferred to the Seventh-day Adventist Church.

After independence, leprosy control in Sierra Leone was greatly promoted by Catholic Relief Services, a Christian charity, with support from several other organisations like the German Leprosy and Tuberculosis Relief Association. Exploring this historical development of the post-independence leprosy control in Sierra Leone sounds interesting, but it is beyond the scope of this article. The post-independence leprosy control in Sierra Leone will be discussed in another article.

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## **Notes**

- 1 LEPRO is the successor organisation of the aforementioned BELRA, and it was renamed LEPRO Health in Action in 2008.

- 2 Sierra Leone (1906). *Annual report on the Medical Department, for the year ending 31<sup>st</sup> December, 1905*. London: Waterlow and Sons, p. 19, 30.
- 3 Sierra Leone (1909). *Annual report on the Medical Department for the year ending 31<sup>st</sup> December, 1908*. London: Waterlow and Sons, p. 31.
- 4 Sierra Leone (1911). *Annual report on the Medical Department for the year ending 31<sup>st</sup> December, 1910*. London: Waterlow and Sons, p. 34.
- 5 Sierra Leone (1912). *Annual report on the Medical Department for the year ending 31<sup>st</sup> December, 1911*. London: Waterlow and Sons, p. 23.
- 6 Sierra Leone (1914). *Annual report on the Medical Department for the year ending 31<sup>st</sup> December, 1913*. London: Waterlow and Sons, p. 6.
- 7 Sierra Leone (1914). *Annual report on the Medical Department for the year ending 31<sup>st</sup> December, 1913*. p. 25.
- 8 Sierra Leone (1915). *Annual report on the Medical Department for the year ending 31<sup>st</sup> December, 1914*. pp. 5-7.
- 9 Sierra Leone (1923). *Annual medical and sanitary report for the year 1922*. Freetown: Government Printing Office, p. 19.
- 10 Sierra Leone (1925). *Annual medical and sanitary report for the year 1924*. Freetown: Government Printing Office, p. 9.
- 11 Sierra Leone (1928). *Annual medical and sanitary report for the year 1927*. Freetown: Government Printing Office, p. 17.
- 12 Sierra Leone (1931). *Annual report of the Medical and Sanitary Department for the year 1929*. Freetown: Government Printer, p. 33.
- 13 Sierra Leone (1931). *Annual report of the Medical and Sanitary Department for the year 1929*. p. 33.
- 14 Sierra Leone (1931). *Annual report of the Medical and Sanitary Department for the year 1930*. Freetown: Government Printer, p. 11.
- 15 Sierra Leone (1933). *Annual report of the Medical and Sanitary Department for the year 1931*. Freetown: Government Printer, p. 11.
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- Department for the year 1933*. Freetown: Government Printer, p. 11.
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- 27 Colony of Sierra Leone (1949). *Annual report of the medical and health services for the year 1947*. Freetown: Government Printer, p. 4.
- 28 Colony of Sierra Leone (1951). *Annual report of the medical and health services for the year 1949*. Freetown: Government Printer, p. 2.
- 29 Colony of Sierra Leone (1949). *Annual report of the medical and health services for the year 1948*. p. 2.
- 30 Colony of Sierra Leone (1952). *Annual report of the medical and health services for the year 1950*. Freetown: Government Printer, p. 2.
- 31 'Memo for Sierra Leone File', WTI/LEP/C/3/1 (Special Collections, Wellcome Library).
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