

Indigenous and European Policies and Strategies for Combatting Asante Trypanosomiasis during the Colonial Period

Domorodne in evropske politike ter strategije za boj proti asantski tripanosomiozi v kolonialnem obdobju

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Abstract

The presence of trypanosomiasis in Asante was not well known until the 1900s. The people of Asante believed that the presence of the disease was attributed to a spiritual cause. However, the impact of the disease on the human population and on economic activities prompted the colonial administration to take swift actions against its spread. Using information from archival sources, the study provides detailed information on the history of trypanosomiasis in Asante, the nature of its spread, and strategies employed by both the colonial administration and the indigenous population to combat it.

Keywords: trypanosomiasis, Asante, colonial administration, strategies, policies, Gold Coast

Izpleček

Prisotnost tripanosomioze v Asanteju ni bila dobro poznana do 20. stoletja. Ljudje v Asanteju so verjeli, da je bila bolezen posledica duhovnih vzrokov. Vendar je vpliv bolezni na človeško populacijo in gospodarske dejavnosti spodbudil kolonialno upravo, da je hitro ukrepala proti njenemu širjenju. Na podlagi podatkov iz arhivskih virov raziskava ponuja podrobne informacije o zgodovini tripanosomioze v Asanteju, naravi njenega širjenja ter strategijah, ki sta jih uporabila tako kolonialna uprava kot avtohtono prebivalstvo za boj proti bolezni.

Ključne besede: tripanosomioza, Asante, kolonialna uprava, strategije, politike, Zlata obala

Introduction

The major diseases which have infected the people of Ghana include trypanosomiasis, cerebrospinal meningitis, influenza, smallpox, and onchocerciasis among others. Trypanosomiasis has played a very deadly role in human society since ancient times; research indicates that the disease existed 100 million years

ago. African trypanosomiasis is an infectious disease caused by *T. congolense* that affects humans and animals of similar aetiology and epidemiology (Steverding and Huzcynski 2017). Trypanosomiasis involves various trypanosomes.¹ It appears in different forms and is affectively different

¹ African trypanosomes cause human African trypanosomiasis and animal African trypanosomiasis. They are transmitted by tsetse flies in sub-Saharan Africa (Cayala et al. 2019)

in the epidemiological and ecological process, which makes it difficult to pin it down (Dietmar 2008). The earliest report on human trypanosomiasis can be traced to the Arabic historians who described the death of King Diatta II, sultan of Mali, in 1373 (Steверding 2008). Nash (1969) and Brun et al. (2010) have reported that trypanosomiasis as an epidemic disease ravaged the continent in three different periods. The first was from 1896 to 1906, which killed over 800,000 people. The second phase of the epidemic was from the 1920s to the late '40s, which prompted the colonial administration to invest in vector control and spraying programmes. The effectiveness of these aggressive actions reflected positively in the 1960s (Brun et al. 2010). The third period was from the beginning of the 1990s. The emergence of trypanosomiasis in the 1990s was as a result of the collapse of surveillance and control activities in most endemic countries. This was often exacerbated by civil warfare (Brun et al. 2010). In several respects, there has been continuous controversy about how to control the disease of trypanosomiasis, and this has caused a great constraint in economic development on the continent of Africa. Coker et al. (2011), and Zinsstag et al. (2011), among others, have argued that trypanosomiasis is an ideal candidate for what some have called a 'One Health' approach, especially given the interaction of humans, animals and eco-systems. The rate of infection and distribution is largely and widely based on the different fly vectors that are highly dependent on a particular habitat for their survival. Indeed, ecological and land-use change has a major impact on the population, including associated disease risk (Zinsstag et al. 2011).

In addition, the Scottish missionary David Livingstone (1813–1875) is credited to be the first to discover the *nagana trypanosome* in East Africa. He suggested that it is caused by the bite of the tsetse fly (Steверding 2008). In 1852, he reported the occurrence of the disease in the valleys of the Limpopo and Zambesi rivers as well as the banks of the lake of Nyasa and Tanganyika, from which all cattle he carried died after

they had been bitten by tsetse flies. However, some scholars are of the view that animal trypanosomiasis (*Nagana*) was predominant in East Africa long before the nineteenth century. This is due to the fact that pastoralism existed in the region centuries earlier (Nash 1969). For example, archaeological evidence has proven that pastoralism existed in East Africa before the fifteenth century (Smith 1992).

Concerning East Africa, Graboyes (2010) reported that the term 'sleeping sickness' is used to refer to two distinct forms of human trypanosomiasis. The first is *trypanosoma brucei rhodesiense*, which is the form that occurs across parts of Eastern and Southern Africa. TB *rhodesiense* is transmitted by tsetse flies that live in woodland regions. Graboyes (2010) further argues that it is particularly acute, typically killing infected individuals in a matter of weeks. This strain is in contrast to the other forms of sleeping sickness that affect parts of Central and Western Africa. In particular, that strain (TB *gambiense*) is transmitted by tsetse flies that reside near water sources, and represents a more chronic disorder. Moreover, it is noted that people who are infected with TB *gambiense* have been known to live for years after being bitten by an infected tsetse fly. However, the ultimate outcome of both forms of sleeping sickness is death (Graboyes 2010, 2).

Making inferences from the above, trypanosomiasis might have existed long before Livingstone's discovery. However, it was in the 1900s when former research on the disease came to light. In 1901, the first unequivocal observation of trypanosomiasis in human blood was made by the British colonial surgeon Robert Michael Ford when he examined a steamboat Captain in Gambia. It was the English physician, Joseph Everett Dutton, who identified them as trypanosomes a few months later and also proposed in 1902 the species name *trypanosoma gambiense* (T.B Gambiense). In 1903, Castelli and Bruce discovered trypanosomes as the causative agent of the disease and the tsetse fly was seen as the main vector (Coghe 2017).

These developments were possible partly as a result of the nineteenth century medical revolution, which basically dealt with investigations into scientific causes of diseases (King 1960). These developments changed the sleeping sickness therapy and its associated theories that had thus far proven ineffective (Coghe 2017). In contrast, Ford's (1971) study of the tsetse fly problem in Africa argued that wider developments or progress was the answer to the tsetse fly question, while not overlooking the fact that pre-colonial indigenous systems were also highly effective. This was partly due to the fact that trypanosomiasis had long existed on the continent and hence, the indigenous population had developed traditional strategies to combat the disease. Similarly, in an article "Trypanosomiasis Control in African History: An Evaded issue", Giblin (1990) referred to Ford concerning the fact that pre-colonial African societies successfully co-existed with trypanosomiasis. Ford (1971) has again lamented that the early colonial epidemics of trypanosomiasis was a direct result of changing ecological dynamics influenced by colonial conquest as well as the pattern of recovery following the rinderpest (infectious viral disease of cattle). However, in their research "A Historical Review of Diseases and Disease Prevention in the Gold Coast; A Focus on Asante", Adu-Gyamfi and Donkoh argued that trypanosomiasis existed in sub-Saharan Africa long before 1903. However, when the vector was identified in Asante, they raised arguments concerning the limited knowledge of the local population concerning the disease. This resulted in several fatalities within the period until 1905 when a survey research was done to ascertain the cause of the outbreak.

Following a series of research committees and scientific surveys, the vectors and the causative agents were recognized and this was followed by practical measures that were put in place to combat the disease. These included the use of the first arsenical compounds to treat the disease, resettlement of the exposed population, an attempt to eliminate wild game ani-

mals as hosts of tsetse and trypanosomes and extensive bush clearing (Adu-Gyamfi and Donkoh 2013). Preventive measures that were implemented within the period include eradicating the tsetse fly in certain areas, most notably the destruction of their habitat. Again, another strategy employed within the period was the relocation of people. Often, it was the relocation of the entire population or a whole village from tsetse fly zones (Coghe 2017). Notwithstanding the existing research on trypanosomiasis, the African population attributed the disease to supernatural causes (Cunningham et al. 2016). To emphasize, the indigenous population attributed the scourge of the disease to the offences the local population had committed against the gods. Sometimes it was also attributed to a purported misdemeanour they had committed against their ancestors. This was due to the fact that the Asante, explained diseases within the social context of health hence, the social causation element suffices as the cause for such explanations. The above discourse also proves that the trypanosomiasis question has persisted over a century and cannot be defined or attributed to a recent phenomenon.

Adu Gyamfi (2010) and Adu-Gyamfi, Osei-Wusu, and Owusu Ansah (2013) paid attention to broader studies which captured aspects of the fight against trypanosomiasis in Ghana. Grieschow (2006) also did some general studies on trypanosomiasis in Ghana. The above notwithstanding, there is still the need to re-interrogate the nature of the disease and the type of indigenous responses that came from Asante. In particular, within the twentieth century, the nature of the relationship between the British Colonial Administration and Asante traditional authority, as well as the effort of the indigenous population to prevent and combat the trypanosomiasis scourge, has not been fully explicated. This needs further interpretation especially within the framework of the impact of ill health on the socio-economic space of the people of Ghana and Asante in particular. The current contribution is guided by the following ques-

tions: What led to the outbreak of trypanosomiasis in Asante? How did the Native Authority or traditional leadership, together with indigenous practitioners, deal with the disease? How did British colonial policies and the administration in particular collaborate and co-operate with the indigenous people to combat the disease? What were the post-colonial strategies that were put in place to prevent and combat the disease within the socio-economic spaces of Ghana and Asante in particular? Among other things, the objectives of this study include the following: to bring to light the origin of trypanosomiasis in Asante and to highlight the roles played by the existing traditional institutions and practitioners to curb the spread of the disease, and finally, to highlight the collaborative efforts of the colonial administration and the traditional authority within Asante to combat trypanosomiasis.

Methodically, this study is based on a qualitative approach. Information from both primary and secondary sources were used to supplement the research. Primary sources were gathered from the Public Records and Archive Administration Department both at the Regional (Kumase) and National level (Accra) as well the Manhyia Palace archives in Kumase. The data gathered supported the discussion concerning trypanosomiasis in Asante and its associated policies in combatting the spread of the disease. However, data was also gleaned from internet sources. These books and articles provided useful information for the study. The data from both the primary and secondary sources have been analysed and presented thematically to reflect the history of trypanosomiasis in Asante within the colonial period and how the same is relevant in the twenty-first century.

Discussions

The discussions hereunder are captured under the following themes: trypanosomiasis in Asante from 1900 to 1957, colonial strategies and collaboration with the indigenous people in combatting the Asante trypanosomiasis, and the

conclusion of the study, which highlights the key issues arising from the discussions of the findings from the data sources.

Trypanosomiasis in Asante (1900–1957)

By 1903, the case and vector of human trypanosomiasis, which is also known as sleeping sickness, was known. Though the disease is an ancient one, since the nineteenth and twentieth centuries, its basic behaviour has been the same (PRAAD Kumase MAG1/1/4 Kumase Public Health Board Gold Coast Colony, Estimates of revenue and Expenditure, 1927–1928). The late discovery of the disease in Asante can be attributed to the fact that the disease was not endemic in the territory. A letter from the chief commissioner to the governor on the general health condition in Asante reported that investigation by the medical authorities showed that there was a considerably greater spread of sleeping sickness in the country before it was recognized by the local population. In areas where the disease was endemic, natives recognized the symptoms. Reference can be made to the northern territories where natives in places like Wenchi, Yeji, and Kintampo had considerable knowledge about the insect and the type of disease it caused (PRAAD, Kumase, ARG 1/14/16, Captain Beal's Report on losses Amongst Cattle Brought to the Coast Alleged to be due to Trypanosomiasis, 1926). Unlike Gambia, Uganda, and Nigeria, the disease was minimal in the Gold Coast and in Asante in particular, compared to the other colonies, according to Dr Marshall. The tsetse fauna in the Gold Coast and the other colonies were different. Elaborating on this he argued that, most of the flies' habitats in East Africa were dominated by *Glossina morsitans*² which carries the trypanosomes that are deadly in animals. However, in

² *Glossina morsitans* is a tsetse group species which do not live in the wettest areas, but are present throughout much of the Savannah. Their distribution appears to be limited in cold regions like South Africa, Zambia, and Botswana and the hot dry season in the North [north?] of West and Central Africa (Encyclopaedia Britannica n.d.a)

the case of Asante, *Glossina palpalis*³, *Glossina fusca*⁴ and *Glossina tachinoides* were the most common species of the tsetse fly and the trypanosomes carried by these insects were less virulent in animals. This is in line with contemporary scholarship in physiology, parasitology and medicine. Letch (1984) argued that *Glossina palpalis* has a long term effect on an infected person; for this reason, he called it an ineffective trypanosome. Inferring from this, the less virulent nature of the trypanosomes made it difficult to identify an infected person in Asante. This is because one can harbour the disease for weeks or months before symptoms are exhibited, and this was a contributory factor to the spread of the disease in the Gold Coast, especially in Asante (PRAAD, Kumase, ARG 1/14/16, Captain Beal's Report on losses Amongst Cattle Brought to the Coast alleged to be due to Trypanosomiasis, 1926).

Beginning in 1909, Dr Kinghorn spent a year surveying central Asante and portions of Bono Ahafo. He found only 106 cases out of 1,800 people examined. In 1912, Dr W.M Wad completed a thorough survey of Western Asante. In this area, people were aware of sleeping sickness and attempted to treat it. Out of 39,742 people examined in 196 villages, 102 were infected. Most of the victims were migrants from the northern territories. Vegetation that harboured the fly which caused sleeping sickness was cleared (PRAAD, Accra, ADM 11/1/1560, Human Trypanosomiasis Committee and best means of combating, 1935.). Trypanosomiasis was virtually eliminated in Lawra, Wa and Tumu districts. However, despite a small outbreak in the 1950s, it was largely confined to a few areas in the south, Mamprusi and

other scattered locations in the north. Control of the northern epidemic reduced the incidence in Asante because fewer of the labourers going south were infected with trypanosomiasis (Patterson 1981).

In districts like Damango, which had very little sleeping sickness, many cases were imported from Asante by returning migrant workers. While the spread of the disease was associated with rivers in the north, in Asante its distribution was linked to the road network. The outbreak of trypanosomiasis in Asante came from two main sources: travellers and animals (PRAAD, Kumase, ARG 1/14/16, Captain Beal's Report on losses Amongst Cattle Brought to the Coast alleged to be due to Trypanosomiasis, 1926). The geographical location of Asante served as a factor which contributed to the outbreak of the disease. Asante served as the epicentre of the north and the southern territories where all traders from diverse places passed. Disastrous consequences followed when traders from Wenchi, Yeji, Bawku, and Kintampo brought the disease to Asante. These areas were reported by Dr Young and Kinghorn as tsetse-prone areas. In their expedition from Accra to Bawku, they reported that there was a considerable number of tsetse flies in these areas (PRAAD, Kumase, ARG1/14/16 Report by A.M.J Pomeroy, Medical Entomologist 1925). Recent reports in the twenty-first century, especially from the World Health Organization (WHO), highlight that the mode of transmission is not only from tsetse fly bites but can be transmitted through other means, which include mother-child infection (the trypanosome can cross the placenta and infect the foetus) and mechanical transmission through another blood-sucking insect, among others (World Health Organization 2016). Together, the presence of these traders in Asante and the various means of transmission contributed greatly to the spread of the disease. Again, the report from WHO specified that an infected person might not experience any symptoms for weeks or months (World Health Organization 2016). It is worth emphasizing that traders

3 *Glossina palpalis* is a vector of the sleeping sickness which occurs primarily in dense streamside vegetation and which feeds in more open woodlands. *Glossina palpalis* is the chief carrier of the parasite *Trypanosoma brucei gambiense*, which causes sleeping sickness throughout Western and Central Africa (Encyclopedia Britannica n.d.b).

4 *Glossina fusca* and *Glossina tachinoides* [tachinoides?] are groups of tsetse species that are predominant in East Africa, and their trypanosomes are virulent in cattle.

who were infected mostly did not experience any symptoms or sign for months or even years depending on the nature of the trypanosome. For this reason, they served not only as individuals who had been infected by trypanosomiasis, but also became causative agents.

On the other hand, cattle that were brought from foreign lands to the Gold Coast contributed greatly to the spread of trypanosomiasis. Bearl, in a letter explaining the origin of animal trypanosomiasis in Asante, hinted that the principal source of supply of cattle for the Gold Coast and Asante was from the territories of Haute Senegal and Niger and Haute Volta, and the French territories. These cattle were infected with trypanosome *vivax* and trypanosome *brucei* which were not severe, or in other words, were less virulent in cattle. This made it difficult for an infected cow to be identified. Therefore, most of these cattle brought from the north to Asante were already infected (PRAAD, Kumase, ARG1/14/16, Dispatch from the Secretary of State to the Governor, 16th December 1925). This was attributed to the fact that quarantine centres for livestock in the northern territory chiefly dealt with appreciable diseases such as cattle plaque, lung sickness and anthrax, and after a few days of checks at the various quarantine stations the cattle were passed as having a clean bill of health. From here, they commenced their trek down to the various market centres in the south. Trypanosomiasis tests were not conducted on these animals and Bearl suggested that this was as a result of limited personnel at the quarantine stations. For this reason, most of these cattle were brought to the various Asante markets possibly infected with trypanosomiasis.

By September 1942, there were forty-one reported cases of trypanosomiasis resulting in two deaths in Asante. However, by December 1947, there were only two reported cases; both victims did not survive the scourge of the disease (MAG, Kumase, MAG 1/1/35, Reports of the Medical Officer of health Kumase, 1942). Surprisingly, the construction of roads, and the

increase in motor vehicles played a very key role in reducing the intensity of the spread of trypanosomiasis. A report to the director of medical health (Accra) stated that there had been an increase in the number of vehicles on the Kumase–Tamale roads and the reduction in the disease was partly as a result of the noise from these vehicles which is said to have disturbed and driven the game further away and caused the tsetse flies to follow (PRAAD, Kumase, ARG1/14/16, The Influence of Wild Game on Tsetse Distribution, 1926). Consequently, the development of roads concurrently with urbanization and modernization played a very key role in eliminating trypanosomiasis, especially when these developments came with mass clearing of forests.

With regard to the forest regions, including Asante, an imminent danger was pointed out by one entomologist, Dr Morris, who concluded that of the vectors that cause sleeping sickness, *G. longipalpis* was probably second to *G. palpalis* in the distribution of the disease in the Gold Coast (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). It was known that the forest of the Gold Coast was receding from both north and south. This recession was due principally to the practice of shifting cultivation, assisted by the mining communities, which induced a secondary type of scrub, which was very difficult to deal with, but eminently suited the colonization of *G. longipalpis* (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935).

Colonial Policies/Strategies and Collaboration with the Indigenous People in Combatting the Asante Trypanosomiasis

Creation of Trypanosomiasis Committee

The first step taken by the colonial administration was the setting up of a trypanosomiasis committee and the committee of civil research. The trypanosomiasis committee and the committee of civil research were appointed

by the Economic Advisory Council (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). In particular, the human trypanosomiasis committee consisted of members of the various health organizations and agencies in the colony, which included representatives from the Society of Tropical Medicine and Hygiene,⁵ the Imperial Bureau of Entomology, and the Medical Research Council.⁶ At the local level, the committee was comprised of health professionals in the district (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). The committee was tasked with performing the following functions:

- Prepare a practical scheme and British enquiry and actions, which aimed at controlling the tsetse fly as carriers of trypanosomiasis.
- Increase knowledge on trypanosomiasis by research work, whether at home or overseas, and improve the coordination and scientific knowledge and administrative actions in different parts of Africa.
- Map out tsetse-fly-prone areas and administer treatment.

These functions helped the committee in respective ways to achieve its aims and objectives.

To ensure proper coordination and accountability of service, the subcommittee was charged with collaborating with the local administration in the different territories in the colony (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). This was possible as a result of the indirect rule system introduced by the British government, which made use of the local authority as part of the administration. Due to this, a system of powers and functions in the form of devolution were given to the

various chiefs, especially at the paramount level, to perform certain administrative roles which supported the effective outcome of the fight against trypanosomiasis.

Clearing of Sites

Another strategy employed by the colonial administration to control trypanosomiasis in Asante was site clearing. Writing in the 1960s, Morris reported that during the colonial period, several territories were affected, and emphasis was placed on vector control. Also, a method for the complete eradication of *Glossina palpalis* and *Glossina tachinoides* was enacted by selectively clearing suspected areas (Morris 2006). Coghe's (2017) research has also emphasized the need for rampant site clearing and other vector control programmes. He reported that preventive measures were introduced in this period to combat the spread of the disease since curative drugs were scarce. This, therefore, demystifies the reason why the Gold Coast medical department concentrated strongly on mass clearing as a preventive health care strategy to combat trypanosomiasis. According to the Gold Coast medical department, site clearing was the most effective method of eliminating trypanosomiasis since this had a greater impact on larvae destruction. Site clearing was twofold, namely, aggressive and offensive clearing (PRAAD, Kumase, ARG.1/14/16, Tsetse Eradication-Kumase, 23rd November, 1936 and PRAAD, Kumase, ARG.1/14/16 Report by A.M.J Pomeroy, Medical Entomologist 1925). Concerning aggressive clearing, a specific site or territory which was declared by health officials as a high-prone tsetse area was cleared. The clearing was done by persons who had undergone some form of training to get rid of the tsetse. This method of clearing was mostly done in the dry season (PRAAD, Kumase, ARG.1/14/16, Site Clearing, 1936 and PRAAD, Kumase, ARG.1/14/16. Notes on Kumase Clearing and Tsetse flies, 1936). The reason is that during the dry season, the tsetse stay in shade and bushes where they can have a conducive temperature for their survival. Therefore,

⁵ The Society of Tropical Medicine was formed in 1907 by the British government to help control both non-communicable and communicable diseases in the tropics.

⁶ The Imperial Bureau of Entomology was formed in 1908 to control and prevent insects which in many ways affect human activities.

clearing bushes during the dry season helped to provide an uncondusive environment that drove the tsetse flies away. In addition, their exposure to sunlight also destroyed the pupae.

The clearing crew was grouped into gangs; the first gang was in charge of the felling of trees while the second gang was in charge of grass cutting. This exercise was successful due to the indirect rule system, which used the traditional leaders or nature heads (chiefs) to influence or compel the local population to adhere to their administrative goals at the local level (Mamdani 1999). A letter from the Chief Commissioner to the District Commissioner highlighted the importance of the local chiefs in the exercise (site clearing). Their roles included organizing communal labour in areas that needed clearing, and the supply of funds to the colonial administration to embark on an anti-trypanosomiasis campaign (PRAAD, Kumase, ARG.1/14/16, Tsetse Eradication-Kumase, 23rd November, 1936). This shows that the support of the traditional chiefs was consequential in ensuring the success of this policy. The aim of aggressive clearing was to have a wider impact on the population. In the early 1930s and 40s, the colonial administration noted that the source of the flies was from the Nabbogo River in the northern territories. Therefore, an aggressive system of clearing was adopted along the bend of the river. Reports from the medical and public health department indicated that there was a drastic decline in tsetse flies in Asante after the exercise (PRAAD, Kumase, ARG.1/14/16, Site Clearing, 1936 and PRAAD, Kumase, ARG.1/14/16. Notes on Kumase Clearing and Tsetse flies, 1936).

Significantly, there was also defensive clearing, which was aimed at safeguarding the population from the attack of the tsetse during their normal work or while they were travelling along the main routes. Defensive clearing involved clearing the banks of rivers and streams, cattle paths, road networks closer to tsetse-prone areas and any other area suspected to host tsetse flies. In 1936, the director of public health embarked on some general clearings in suspected

places in Kumase. These included bushes close to Wesley College, abattoir areas, and the Agricultural Cadbury area. The abattoirs were believed to be danger zones for persons to contract trypanosomiasis. A report from the office of public health indicates that there was a drastic reduction in the incidence of flies in Asante after embarking on this exercise (PRAAD, Kumase, ARG.1/14/16. Notes on Kumase Clearing and Tsetse flies, 1936)).

After taking into consideration the immense difficulties involved in clearing the territories of Asante, especially when it was noted that the cutting down of economic crops such as cocoa could double the cost of clearing in Asante, which was already five times higher than the northern territories, the Committee for trypanosomiasis still proposed the formation of paid gangs assisted with communal labour organized by the indigenous people. However, colonial action over a wider area was to be deferred until an expert survey of Asante threw further light on the extent to which the various districts in Asante were infected (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935).

Farming and Spraying Programmes/Policies as Preventive Health Care Strategies

Still focussing on site clearing, one of the propositions put forward for the eradication of the menace of human trypanosomiasis was the need for an improved system of indigenous farming, that is, the reduction in shifting cultivation to control *G. longipalpis*. Such a system was not only intended to ward off the vector, as put forward by Dr Morris; it was at the same time to serve as a means of improving the food value of the crops of the farmers, thus raising the general standard of health of the indigenous people ((PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). Giving evidence before the Trypanosomiasis Committee, the Acting Director of Agriculture stated that the problem of shifting

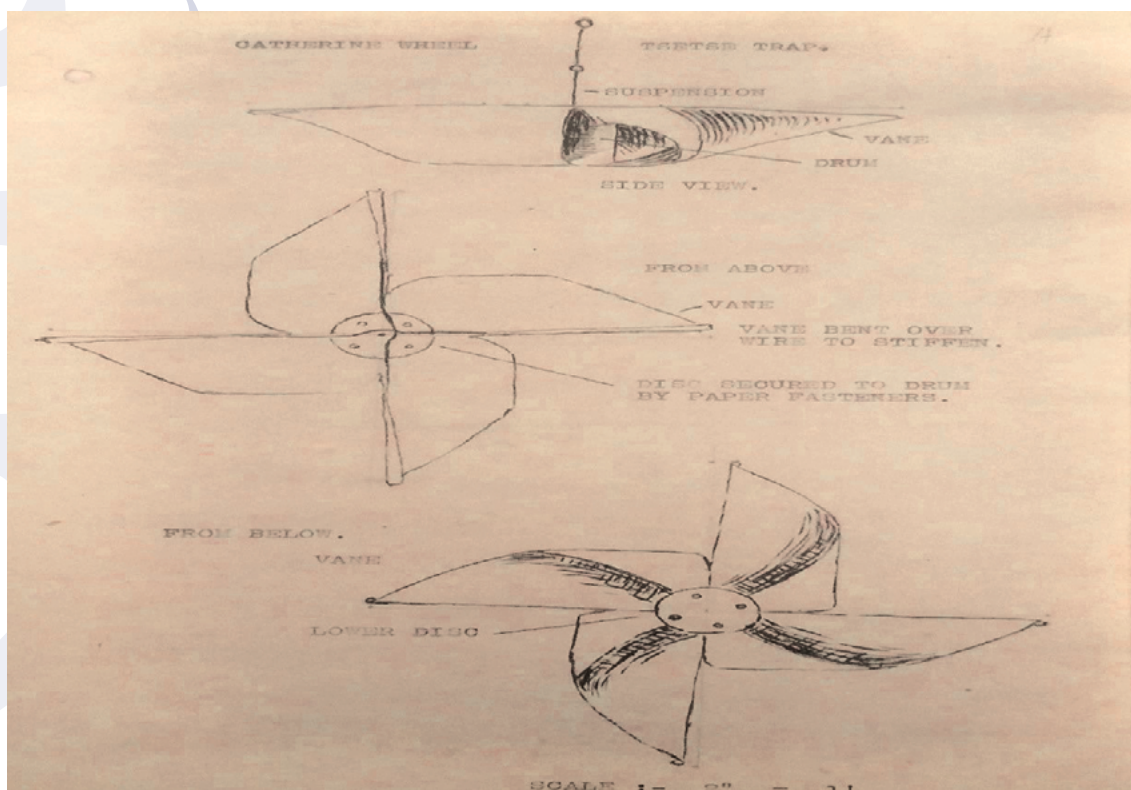


Figure 1 A sketched image of Catherine wheel trap. Source: PRAAD, Kumase, ARG 1/14/16, Tsetse Traps, 1935)

cultivation was not to be noted as that which could not be addressed but rather there was the need to learn from the success of green manuring, which was experimented with in Nigeria.

Primarily, the control of trypanosomiasis was to be undertaken with the spraying of the vector with insecticides and the defensive clearing of the vegetation where the vectors reside. This was under the instruction of the Director of Public Health and the Senior Veterinary Officer. On 29 August 1940, the Assistant Director of Medical Service, Kumase, informed the District Commissioner of Asante that Dr McPherson, who had a considerable experience in treating trypanosomiasis, would address the urgent need for taking preventive measures in Asante against the spread of the disease (MAG, Kumase, MAG 1/1/85, Correspondence between the Assistant Director of Medical Service, Kumase and the District Commissioner, Asante and Manhyia

Archives of Ghana, Kumase, MAG 1/1/85, Report of Dr. Saunders, 21st October, 1941).

The Use of Tsetse Traps

Bruto da Costa (1916) has argued that the use of tsetse traps were among the earliest development in eliminating the Human African Trypanosomiasis. According to da Costa, the history of these developments can be traced to 1910 on the island of Principe where the first indication occurred that tsetse flies could be controlled by the employment of artificial devices. A black cloth coated with lime carried on the back of a plantation worker served as the first tsetse trap. Since this development, many traps have been invented. The first was the *Harris Trap* (Kuzoe and Scofield 2004). However, these traps were not effective compared to the other strategies put in place by the colonial administration. Kuzoe and Scofield (2004) recounted that

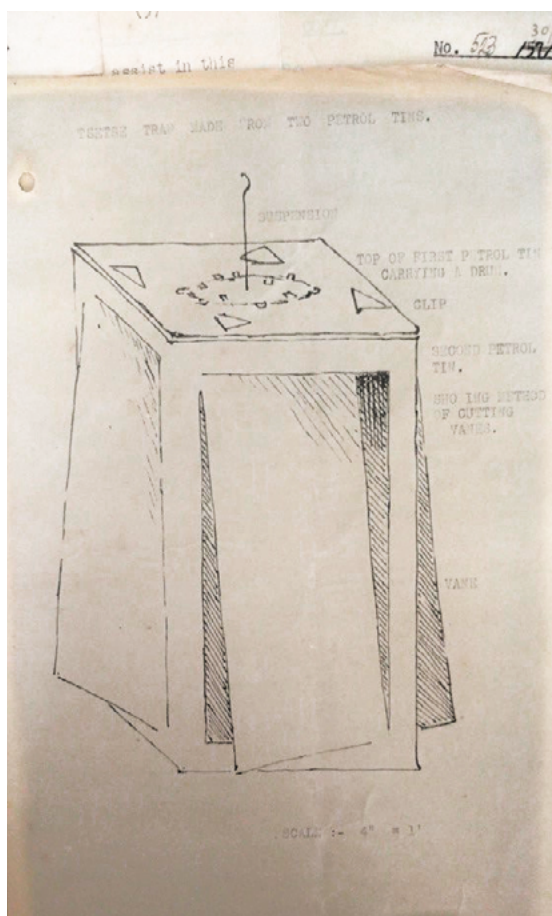


Figure 2 A sketched image of two petrol tin tsetse trap.
Source: (PRAAD, Kumase, ARG 1/14/16, Tsetse Traps, 1935).

tsetse traps became the most effective means of sampling the tsetse population and examining their distribution but also impacted efforts made at reducing the incidence of trypanosomiasis in tsetse-prone areas. In Asante, the colonial administration resorted to the use of several tsetse traps. These included the Catherine wheel trap, two petrol tin traps, and the basin trap among others (PRAAD, Kumase, ARG 1/14/16, Tsetse Traps, 1935). Four of these traps will be discussed in subsequent paragraphs.

Catherine Wheel Trap

The Catherine wheel trap was made from metal casings used to import matches. The vanes are

stiffened with wire to prevent drooping. A drum made from an old tin is inserted between the upper and lower centres. It is fixed with paper fasteners. Suspension is through the upper part of the drum. Around the drum is wrapped a strip of Tanglefoot paper (PRAAD, Kumase, ARG 1/14/16, Tsetse Traps, 1935).

Two Petrol Tin Traps

This trap is quite difficult to make, unlike the Catherine wheel trap. It is mostly made by cutting three patterns in brown paper. These patterns are marked and cut on a tin of metal. One tin is converted into the top part through which a suspension is placed, and a drum a sixteenth of the circumference is reverted to the top. Slots are cut in this top to take clips from the lower tin. The side of the second tin is converted into vanes by cutting along their edges, leaving sufficient tin at the edges to give support and leaving uncut similar diagonal ends. When the cuts are made in the top of the second tin the centre falls away, leaving four triangular clips which are bent up to slip through the slots in the top. Four further triangles running from clip to clip are left. These are bent down into the tin and the upper free ends of the vanes are fastened to these by bending over the edge of the vane. The drums is then covered with a piece of Tanglefoot paper and lowered into the second tin, and the clip passes through the slots and are bent over. The materials for this trap could be found almost everywhere within the Gold Coast (PRAAD, Kumase, ARG 1/14/16, Tsetse Traps, 1935).

Basin Trap

Another tsetse trap used in Asante was the basin trap. The trap consisted of a drum cut down to a tin basin in which vanes have been cut, similar to the vanes in a smoke diffuser for chimney tops. Tanglefoot paper is wrapped around the drum and fastened to it by paper. It is important to note that these traps alone could not exterminate flies; in places where tsetse traps were used there was also some degree of clearing

(PRAAD, Kumase, ARG 1/14/16, Tsetse Traps, 1935).

Enactment of Laws and Ordinances as Preventive Health Care Strategies

To ensure that the various policies and strategies put in place by the colonial administration functioned effectively, the colonial government, together with the trypanosomiasis committee, enacted several ordinances. There was the enactment of the Disease of Animals Ordinance, also known as the Registration of Cattle Ordinance in Kumase. According to the ordinance, 'disease' refers to any disease of epizootic character, which the governor in council might declare as a disease. The law provided room for other health officials to be in charge in case there was the absence of a veterinary officer. Furthermore, in situations where there is an absence of the aforementioned officials, the district commissioner was to be in charge (PRAAD, Kumase, ARG1/14/16, Dispatch from the Secretary of the Governor 31st December, 1925 and PRAAD, Kumase, ARG1/14/26, Native Doctors and Physician). Under this law, every person owning cattle was required to register at the office of the veterinary officer with no fees or cost. However, punishment was attached to those who did not comply. A penalty not exceeding more than 10 pounds or imprisonment not exceeding three months was imposed (MAG, Kumase, MAG 1/1/85, Section 15 of the Native Authority Ordinance, Cap 79. Regulations made by the Governor in Council under Section 18 of the Infectious diseases Ordinance, Gazetted in 1935). In 1919, an amendment was made to section 17 of the Disease of Animals Ordinance of 1918. The new amendment ensured that all foreign cattle coming into the Gold Coast were confined in government Kraals from 6pm to 6am. The government was to abide by the rules in force for the control of the Kraal, and a fine of 6d per head of cattle was to be paid to the veterinary officer (MAG, Kumase, MAG 1/1/85, Section 15 of the Native Authority Ordinance, Cap 79. Regulations made

by the Governor in Council under Section 18 of the Infectious diseases Ordinance, Gazetted in 1935). The objectives of the ordinance could be argued as threefold: first, to determine the number of cattle in Asante, next to determine the number of unhealthy cattle in order for the administration to take swift action to determine the cause, and lastly to determine the death rate among cattle in Asante to ascertain whether the mortality of the cattle was as a result of *nagana* (animal trypanosomiasis).

In addition, by 1940, rules were proposed to help curb the spread of the disease, but it was not obligatory for any person to undergo a course of treatment for trypanosomiasis. Significantly, the rules applied to only the indigenous people who started treatment of their own free will. The rule ensured that those who offered themselves for treatment continued with it until the Medical Officer discharged them (MAG, Kumase, MAG 1/1/162A, Rule 27 of 1940 published in Gazette 71 of 2nd November 1940 and Manhyia Archives of Ghana, Kumase, MAG 1/1/162A, Rule 27 of 1940 published in Gazette 71 of 2nd November 1940, page 24. Regulations made by the Governor in Council under Section 18 of the Infectious diseases). These rules were applied in places like Kumase, Mampon, Dwaben, Esumeja, Kokofu, Nsuta, Adanse, Kumawu, Offinso, Edweso, Agona, Banda and Wenkyi in the Bono Ahafo region which formed part of northern Asante. Others places included Mo, Abeasi, Nkoranza, Gyaman, Bere-kum, Techiman and Dormaa or Wampamu in the Bono Ahafo.

The proposed rules were made by the Native Authority in the Asante Confederacy Council with the approval of the governor under sub-section 15 of the Native Authority Ordinance, Cap 79. It was enshrined that the rules would apply to the whole Native Authority area. Again, it was stated, here to emphasize, that whoever began the treatment of human trypanosomiasis had to continue the treatment without intermission until discharged as cured by the medical authority. In addition, any person who

contravened the rules was liable on conviction to imprisonment with or without hard labour for a term not exceeding three months (MAG, Kumase, MAG 1/1/85, Report of Dr. Saunders, 21st October, 1941).

General Screening and Inspection as Preventive Health Care Strategies

To eliminate trypanosomiasis in Asante, the colonial authority resorted to general screening and inspection through the use of sanitary inspectors. The inspection team consisted of native inspectors (village overseers) of at least six in number, a special medical officer and sanitary officers. Free transport was provided for them to travel from village to village (MAG, Kumase, MAG 1/1/35, Reports of the Medical Officer of health Kumase, 1942, PRAAD, Kumase, ARG.1/14/16, Tsetse Eradication-Kumase, 23rd November, 1936 and PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). The Medical Officer was given the judicial powers to deal with all sanitary offences. The team was tasked to inspect various houses, especially places that were close to bushes, including where animals were reared. Again, another special assignment given to the team was to seek the isolation of persons with advanced cases of trypanosomiasis. The effectiveness of this strategy was demonstrated in 1910 when a general inspection and screening was done in Odumase Zongo (MAG, Kumase, MAG 1/1/35, Reports of the Medical Officer of health Kumase, 1942; PRAAD, Kumase, ARG.1/14/16, Report on Tsetse Survey of Mr. Egremont's Land and around Bekwai). During the exercise, two females, named Kai and Adissa, were discovered to be infected with the disease. Inspectors noted that these two individuals had not received any medical treatment for the past month. Hence, their stay in Odumasi was a major threat to the entire society. They further ordered immediate medical care for them (MAG, Kumase, MAG 1/1/35, Reports of the Medical Officer of health Kumase,

1942; PRAAD, Kumase, ARG.1/14/16, Report on Tsetse Survey of Mr. Egremont's Land and around Bekwai).

On 15 October 1941, Dr Saunders proposed to make a preliminary survey in some of the suburbs of Kumase namely, Patasi, Dakodwom, Kwadaso, Amakom, Aboabo, Dichemso and New Tafo, Tafo, Suame, and Kaase to investigate cases of trypanosomiasis. The team started work on Monday, 20 October 1941. The sleeping sickness survey team took blood tests of the inhabitants. They were charged not to take any fee or render any tests or engage in any other medical service apart from running of tests on sleeping sickness patients (MAG, Kumase, MAG 1/1/85, Report of Dr. Saunders, 21st October, 1941). A comprehensive report was obtained at the end of the survey. At Patasi, ninety-five people were examined but only two people were found to be infected. Also, at Kwadaso one hundred and forty-five people were examined, and seven people were found to be infected. One of the infected persons was an *Odikro*⁷, who has been described in the archival document as an old and feeble man. Another report which came in on 23 October 1941 stated that at Dakodwom, seventy-three people were examined but two were discovered to be infected. At Asokwa one hundred and twenty people were examined, of whom eight were infected (MAG, Kumase, MAG 1/1/85, Report of Dr. Saunders, 21st October, 1941).

On 21 September 1943, Captain Holden R.A.M.C made a trypanosomiasis survey at Kwadaso, Owhimasi, Adumanu, Kokoso, Abase, Apatrapa, Bokankye, Tanoso, and Esuyebao, all in Kumase and its environs. Other areas included Ampabame, Abrepo, Boanim and Yankomase. In this survey, reported cases were treated at the African Hospital (MAG, Kumase, MAG 1/1/85, Report of Dr. Saunders, 21st October, 1941). Also, the Military Authorities at the 52nd General Hospital carried out a survey on sleeping sickness in soldiers' settlements such as

7 The head of a village or smaller community.

Esuyeboa, Tanoso, Abuakwa, Asonomaso, Manhyia, Akropon, Afrofrom, Dadiase, Bokankye, Apatrapa, Abase, Adumanu and Owhim. Again, on 7 September 1945, it was proposed that Kumase villages should be re-surveyed. A centre was opened by the Colonial Administration at Abrepo in 1945 to cater for cases that came from areas within a five-mile radius of Kumase and places that were not surveyed. Significantly, the survey of villages for trypanosomiasis persisted up to the 1950s. Again, in spite of the good work done by the medical team, they were not successful at some of the places they went because of the attitude of the indigenous people. Dr Saunders is noted to have reported in 1941 that he had trouble at the village called Aboabo. He said the inhabitants did not come for treatment. Dr Saunders further proposed that as the place was by a railroad to Accra, it was important that the people were examined.

At Mo, Dr Saunders encountered a similar problem. He also suggested a further survey at Adiebeba, Ahodwo, Tuase, Nhyiaeso and Adiembra (MAG, Kumase, MAG 1/1/85, Report of Dr. Saunders, 21st October, 1941). Nevertheless, it was noted by the Colonial Administration that the indigenous people were ignorant of the true nature of the disease and that became their greatest obstacle in dealing with it. Superstition and semi-religious accounts of the origin of trypanosomiasis and of the process by which an individual could be infected abounded. The Colonial Administration called for a gradual enlightenment of the indigenous people by means of persistent although not blatant propaganda (MAG, PRAAD, Accra, ADM 11/1/1560, Human Trypanosomiasis Committee and best means of combating – Recommendations as to clearing in Asante). Significantly, rule number 27 of 1940 of the Gold Coast empowered a chief to compel a trypanosomiasis patient undergoing treatment at the hospital to complete the course of treatment. For example, in Bekwai, trypanosomiasis patients were compelled by the authorities at the Bekwai Hospital to report to the *Bekwaihene* (The Chief of Bekwai) to guarantee that

such patients reported to the hospital until they were cured (MAG, Kumase, MAG 1/1/162A, Rule 27 of 1940 published in Gazette 71 of 2nd November 1940; MAG, Kumase, MAG 1/1/162A, Rule 27 of 1940 published in Gazette 71 of 2nd November 1940, page 24. Regulations made by the Governor in Council under Section 18 of the Infectious diseases). Here, you see a policy that was aimed at building a relationship between the British Colonial Administration and the Chiefs to fight against the scourge of trypanosomiasis in Asante.

Patients were mostly quarantined. In addition, in cases where people were examined in villages, they were referred to hospitals for further treatment. By 26 February 1943, it came to the notice of the Chief Commissioner that the *Asantehene* and the Confederacy Council were unhappy about the scourge of trypanosomiasis in Asante (MAG, Kumase, MAG 1/1/162A, Rule 27 of 1940 published in Gazette 71 of 2nd November 1940; MAG, Kumase, MAG 1/1/162A, Rule 27 of 1940 published in Gazette 71 of 2nd November 1940, page 24. Regulations made by the Governor in Council under Section 18 of the Infectious diseases). As a result of this, the Chief Commissioner was asked by the Asante Confederacy Council to recommend an amendment under the Native Law and Custom Order making it an offence to refuse to report to the Native Authority the occurrence of any infectious or contagious disease. Again, all District Commissioners in Asante were charged to make it known in their districts, especially to persons or Officers in charge of Infectious Disease Regulation, to report cases of sleeping sickness or any other infectious disease and to also make known to the people the penalties attached to the failure to report such cases (MAG, Kumase, MAG 1/1/85, Correspondence between the Assistant Director of Medical Service, Kumase and the District Commissioner, Asante).

Significantly, Table 1.0 represents the toll of human trypanosomiasis within the period under review. However, the table might not be considered as a definite proof of the alleged large

Table 1.0 Human Trypanosomiasis Cases Treated at the Various Hospitals Set Up by the Colonial Administration in Asante, 1928-1934

Date	In-Patient	Outpatient
1928-1929	15	13
1929-1930	40	28
1930-1931	35	1
1931-1932	76	46
1932-1933	167	113
1934	206	164

Source: Report of Meeting of Local Committee on Anti-Trypanosomiasis Measures held at Kumase in June, 1935.

increase of the disease. It was discovered by the Colonial Administration that the indigenous people looked upon the disease as a curse and consequently refrained from reporting it or obtaining treatment from modern health care facilities. Rather, they patronized the services of indigenous practitioners. However, it was concluded that trypanosomiasis was certainly on the increase (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). In the northern territories where chiefs refrained from reporting deaths to the Colonial Authorities, the indigenous people considered such deaths as abominable, and those who died by the disease were not given befitting burial (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). In 1934, four (4) Europeans and two hundred and fifty-two (252) indigenous people were treated in Kumase (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935).

The archival sources, among other records, have shown that majority of the cases appeared to be amongst the labourers from the north. However, it was certain that a considerable number of the infected people in Asante were treated and further, the disease was well known among the indigenous population of Asante for

years (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). This notwithstanding, it was noted that in Asante, several cases were reported from Sunyani and Kintampo areas but only very few were reported from Bekwai and Obuasi (PRAAD, Accra, ADM 11/1/156, Human Trypanosomiasis Committee and best means of combating, 1935). This is because the infection rates in Sunyani and Kintampo towns were high. As found in the above records, a majority of the cases appeared to be among the labourers from the north. However, from the available information, it was certain that a considerable number of the people in Asante were treated. Indeed, for several years the disease was well known among the indigenous population of Asante. This contrasts with the earlier assertions or arguments that the local population had no knowledge of trypanosomiasis.

The Role Played By the Traditional Medical Practitioners in Eliminating Trypanosomiasis in Asante

The period from the 1900s marked a change in the activities and practices of the traditional medical practitioners in Asante. Twumasi, referring to Parson, the sick role theorist, argued that disease should not be only examined from the biological point of view but also from the social angle. Thus, to him, illness was seen as a deviant behaviour. Here it is argued that the individual could not perform certain social functions that are performed by normal persons in the society. He states that if every man within the society falls sick then it will have a dysfunctional impact on the society, therefore, the sick role theory requires some control mechanisms and the ones responsible were the health professionals; in traditional society this includes elders of the family and the traditional medical practitioner (Twumasi 1975). Significantly, traditional health care in Asante in the 1900s also operated on the sick role theory. Within this period, when one fell sick, it was the duty of the family head or anyone of high authority within the society to confirm

it. When this happens, the next step was to take the sick person to the traditional medical practitioner for treatment. Treatment was administered based on symptoms and signs shown on the person (Twumasi 1975). Kudzo and Scofield (2004) have argued that at the haemolymphatic stage of the disease, there are no specific symptoms or infections, and the infections are mostly confused with malaria. Again, the 1935 reports from the Gold Coast medical department describe that the disease generally starts with fever (unaccompanied by malaria) for about 20 days, then a recovery followed by relapse (PRAAD, Kumase, ARG 1/14/16, Tsetse Control, 1935). Thus, it was obvious that the traditional medical practitioners within the period under review were making efforts to cure many diseases that were likely to include trypanosomiasis prior to the twentieth century. The colonization of Asante brought sudden changes in the traditional medical profession. In the early 1900s, native practitioners were ordered to seek for licenses before they could operate. Cap 17 of section 75 of the Native Physician Ordinance gave some criteria to native physicians concerning the extent to which they could operate, and this included the dress code of native physicians and the therapeutic system of practice (PRAAD, Kumase, ARG1/14/26, Native Doctors and Physician).

In addition, the Native Physician Ordinance instructed traditional practitioners to report to the traditional chiefs concerning any contagious disease or any disease the colonial administration perceived to be dangerous to the entire population, and this did not exclude trypanosomiasis. It is obvious that the powers of the traditional practitioners, as well as their ability to administer their medicines and practices freely, were reduced during the colonial period. However, within this period, the traditional practitioners were first enlisted before an alternative choice of medicine was taken into consideration (Twumasi 1975). Although their role in combatting the disease was limited, there were some significant contributions made by the traditional practitioners since they served as the

first point of contact. Although there was limited knowledge on trypanosomiasis in Asante, there were some herbs that the traditional practitioners used in combatting the disease, especially in areas where the disease was known. Some of these herbs included *khaya Senegalensis* (*Kuntukuri*), *terminalia avicennioides*, and *ximenia americana* among others. Maikai et al.'s (2010) research in northern Nigeria on trypanosomiasis indicates that these herbs were useful, especially at the haemolymphatic stage of the disease. Thus, it can be argued that while the contribution of traditional medical practitioners to the fight of trypanosomiasis was not so intense within the period, they played a very useful role (Makai 2010). Their compliance with the ordinance Cap 17 of section 15 was important because cases that were reported were basically at the preliminary stages, aiding the smooth and fast treatment of patients.

Conclusion

Drawing inferences from the above, it can be argued that there is the need to enhance vector control and spraying programmes to prevent the breeding of tsetse, which is the vector for trypanosomiasis. Brun et al. (2010) have recounted that the main reason for the emergence and spread of trypanosomiasis in the 1990s in Africa was the collapse of surveillance and control activities in most endemic countries, which was done earlier during the colonial period. This brings to light the need to encourage mass surveillance and vector control programmes at tsetse-fly-prone areas, especially the Northern part of Ghana. Another critical issue to look at is decentralization of the systems or structures that support the fight against infectious diseases. Efforts to curb the spread of trypanosomiasis in Asante was done through the indirect rule system superintended by the British Colonial Administration. This system allowed the traditional authorities to independently make laws through the native administration ordinance. The practice of a decentralized system during the colonial period helped to promote the effectiveness of policies

governing trypanosomiasis. Inferring from this, there is the need for current governments to strengthen decentralization/devolution in order to ensure effective health policies and regulation at the grass-roots level since trypanosomiasis is basically endemic in several peripheral and underdeveloped areas in rural communities across the West African region in particular and the Sub-Saharan region in general.

Archival sources

MAG: Manhyia Archives of Ghana.
PRAAD: Public Records and Archives
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Summary

Different authors have undertaken different research concerning the trypanosomiasis scourge in Africa, and the need to pay attention to the same, from the historical and policy perspectives. This current contribution pays attention to British Colonial policies/strategies, including local collaboration with local chiefs and interest groups to fight against trypanosomiasis in the territory of Asante. By way of introduction, we argue that indigenous knowledge about trypanosomiasis is over a century old and local efforts to fight against diseases that were endemic within their regions or territories might have seen them make efforts to treat trypanosomiasis, using some local herbs and other spiritual or intangible sources to treat individuals. Notwithstanding the ills of colonization, we highlight the fact that the indirect rule system and the strategies that were deployed by the British Colonial Administration by way of using local agency and other European or Western medicines culminated in some successes in the fight against trypanosomiasis. Some of the strategies or policies discussed in this research include the following: the creation of a trypanosomiasis committee, clearing of sites, health screening and surveys, as well as the creation of new ordinances, among others. We conclude by emphasizing the need to encourage mass surveillance and vector control programmes at tsetse-fly-prone areas, especially the Northern part of Ghana. Another critical issue to look at is decentralization of the systems or structures that support the fight against infectious diseases. Efforts to

curb the spread of trypanosomiasis in Asante was done through the indirect rule system superintended by the British Colonial Administration. This system allowed the traditional authorities to independently make laws through the native administration ordinance. The practice of a decentralized system during the colonial period helped to promote the effectiveness of policies governing trypanosomiasis. Inferring from this, there is the need for current governments to strengthen decentralization/devolution in order to ensure effective health policies and regulation at the grass-roots level, since trypanosomiasis is basically endemic in several peripheral and underdeveloped areas in rural communities across the West African region in particular and the Sub-Saharan region in general.

Povzetek

Različni raziskovalci so obravnavali problematiko tripanosomiaz v Afriki in nakazali pomen te bolezni tudi z zgodovinskega ter političnega vidika. Pričujoči prispevek se osredotoča na britanske kolonialne politike/strategije, vključno z lokalnim sodelovanjem z lokalnimi poglavarji in interesnimi skupinami v boju proti tripanosomiaz na ozemlju Asanteja. Uvodoma trdimo, da avtohtono znanje o tripanosomiaz sega več kot stoletje nazaj in da so lokalni napor za boj proti boleznim, ki so bile endemične v tamkajšnjih regijah ali na njihovih ozemljih, morda vključevali prizadevanja za zdravljenje tripanosomiaz z nekaterimi lokalnimi zelišči ter

duhovnimi ali neoprijemljivimi viri za zdravljenje posameznikov. Kljub negativnim posledicam kolonizacije poudarjamo dejstvo, da je sistem posrednega vladanja in strategij, ki jih je uporabljala britanska kolonialna uprava s pomočjo lokalnih virov in drugih evropskih ali zahodnih zdravil, privedel do določenih uspehov v boju proti tripanosomiaz. Nekatere strategije ali politike, o katerih razpravljamo v raziskavi, med drugim vključujejo: ustanovitev odbora za tripanosomiozo, čiščenje območij, zdravstvene preglede in ankete ter sprejem novih odlokov. Zaključujemo, da je treba spodbujati množični nadzor in programe za obvladovanje vektorjev v območjih, kjer je prisotna muha cece, zlasti v severnem delu Gane. Drugo pomembno vprašanje je decentralizacija sistemov ali struktur, ki podpirajo boj proti nalezljivim boleznim. Prizadevanja za zaježitev širjenja tripanosomiaz v Asanteju so bila izvedena skozi sistem posrednega vladanja pod nadzorom britanske kolonialne uprave. Ta sistem je tradicionalnim oblastem omogočal, da preko odloka o domači upravi neodvisno sprejemajo zakone. Uvedba decentraliziranega sistema med kolonialnim obdobjem je pripomogla k učinkovitejšemu izvajanju politik za obvladovanje bolezni. Na podlagi tega sklepamo, da bi morale sodobne vlade okrepiti decentralizacijo, da bi zagotovile učinkovite zdravstvene politike in regulacijo na ravni lokalnih skupnosti, saj je tripanosomiaz večinoma endemična v številnih obrobni in nerazvitih območjih podeželskih skupnosti v zahodnoafriški regiji ter širše v podsaharski regiji.