

Cerebrospinal meningitis in the Colonial History of the Asante of Ghana

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Abstract

The incidence of diseases in the Gold Coast (now Ghana) shaped encounters between colonial officials and indigenous people, yet this subject has merited minimum attention in the Ghanaian historiography. This paper examines the colonial healthcare interventions to combat the outbreak of cerebrospinal meningitis (CSM) in Asante and how the presence of the disease transformed the relationship between the people of Asante and Europeans. The outbreak of cerebrospinal meningitis (CSM) in Asante was sporadic especially in the early 1900s. The incidence of the disease in Asante was socially constructed and attributed to spiritual cause at its initial stages. The impact of the disease on economic and social activities prompted the colonial administration to take swift actions against its spread. The study provides detailed account on: the history of CSM in Asante during the colonial period; the nature of its spread; the colonial administration's strategies to combat the disease; and the effect of the disease on the socio-economic activities among the Asante people of Ghana. This paper argues that the fight against diseases in Asante; CSM in particular, required a synergy between local and institutional actions.

Keywords: *Disease, Cerebro Spinal Meningitis (CSM), Policy, Ghana, Asante.*

Introduction

The incidence of diseases in the Gold Coast (now Ghana) shaped encounters between colonial officials and indigenous people, yet this subject has merited minimum attention in the Ghanaian historiography. The outbreak of cerebrospinal meningitis (CSM) in colonial Asante of the Gold Coast from the 1900s represents an important historical event that shaped European encounters with indigenous people. The incidence of CSM called for the implementation of colonial healthcare interventions such as the territorial survey / inspection and quarantine, erection of caravansaries, the use of the police and other security agencies, public education,

culture restrictions, and disinfection programmes to combat the disease. These measures, though of the past, have contemporary implications in the twenty-first century.

Cerebrospinal Meningitis (CSM), also known as meningococcal meningitis is a respiratory and a contagious disease caused by a bacterium called *N. meningitides*. The World Health Organization (WHO) reports that the disease has twelve Serogroups in which six of them constituting A, B, C, W, X and Y have been identified to cause epidemics (World Health Organization, 2014). Infections ranging from viral, fungal and bacterial sources have been the main cause of the disease (Haddar et al., 2020). African countries have been noted for the incidence of such disease on the African continent, the WHO has referred to the “African belt” as the region with high incidence of CSM. The African belt comprises of twenty-five countries with extremely high incidence of cerebrospinal meningitis (Jafri et al., 2013, p. 17). This area stretches from Ethiopia in East Africa to Senegal in West Africa, and it is within the range of 300-1100mm annual rainfall (WHO, 2014, p. 6.s). Countries within the meningitis belt include Benin, Burkina Faso, Chad, Ethiopia, the Gambia, Ghana, Mali, Northern Nigeria, Northern Cameroon, Senegal, and Sudan among others (WHO, 2014, p. 6).

Like other respiratory infections, the mode of transmission of CSM is from person to person through droplet of respiratory or throat secretions from carriers. Scholars have indicated that unlike gonorrhoea, CSM is associated with colonising the lining of the throat and spreading rapidly through respiratory infection (Owusu et al., 2012). Therefore, activities including smoking, close and prolonged contact such as kissing, sneezing or coughing with infected person or living in close quarters with a carrier facilitate the spread of the disease (WHO, 2014, p. 6). According to Moore and Broome (1994), *Neisseria Meningitides*, the bacterium that facilitates the spread of cerebrospinal meningitis thrives in the lining of the throat. When the said organism enters the bloodstream and gains access to the meninges, the illness begins. The pathogen grows rapidly in this environment “inflaming the meninges¹ and causing fever, neck stiffness, headache, and often coma.” (Moore & Broome, 1994, p. 41).

Symptoms of the disease vary from person to person but the most common ones are stiff neck, high fever, sensitivity to light, convulsion, headache, and vomiting (Codjoe & Nabie, 2014). However, there are exceptional instances where a person can exhibit symptom of shock (loss of blood pressure) (Codjoe & Nabie, 2014). Almost 5-10% of patients die typically within 48 hours of the onset of the

¹ Meninges are the membrane that covers the brain and the spinal cord.

symptoms (WHO, 2014, p. 7). Studies have recounted that, early intervention and treatment with antibiotics reduce the mortality rate to about 10 percent (Moore & Broome, 1994, p. 39). On the contrary, early detection of the causative organism leads to better treatment and effective management (Owusu et al., 2012, p. 4). This notwithstanding, Codjoe and Nabie (2014, p. 6926) argue that in some instances, the recovery from the disease comes along with different health implications ranging from brain damage, hearing loss, or hearing disability in 10 to 20 percent of survivors.

Although observed worldwide, the highest burden of CSM is in sub-Saharan Africa due to the hot climatic conditions in the region. The disease is highly contagious and spreads at a rapid pace during the dry season, relative to the cold season and causes great deal of fatalities during the dry season (Codjoe & Nabie, 2014, p. 6923). In 1996, Africa experienced a major outbreak of the meningitis epidemic in history with over 250,000 cases and 25,000 deaths (WHO, 2014, p. 7). The WHO in 2018 indicated that nearly 30,000 cases were reported annually in sub-Saharan Africa. Moreover, there were over 800,000 reported cases in sub-Saharan Africa between 1972 and 2000 (WHO, 2014, p. 6).

CSM has been recorded across almost all parts of Ghana. The Northern zone of the country has the highest recorded cases (Codjoe & Nabie, 2014, p. 6926). The mortality rate of infections in Ghana has been estimated to range from 36 to 50 percent. The historical antecedent of the disease can be traced to the beginning of the 19th century when the disease was first discovered by Viessieux in 1805. Later, the causative agent, *Nuessena Meningitides*, was identified by Weichel Baum in 1887 (WHO, 2014, p. 7). The earliest incidence of CSM in Africa was documented in the 1840s (Codjoe & Nabie, 2014, p. 6926). Since then, the disease has become well known throughout the continent. The historical development of CSM in the Gold Coast has been traced to 1900 when the disease was detected at Cape Coast (Forgor, 2007, p. 15). Codjoe and Nabie (2014) report that earlier studies on CSM concentrated on the rate of mortality. The outbreak died out rapidly without causing an epidemic among the indigenous population. The next epidemic was in 1906 which occurred in the Northern territory during the dry season and was responsible for about 20000 deaths between 1906 and 1908 (Codjoe & Nabie, 2014, p. 6926).

CSM is not new in the discourses concerning Ghana's health care system. There are several studies on CSM in Africa and Ghana in particular. For example, Codjoe and Nabie (2014, p. 6926) focused on CSM among the people of Nayaginis and Vunania but captured briefly, the history of the disease in Ghana. Leimkugel et al. (2007) also did an general study of cerebrospinal meningitis in

Kassena Nankana District in the Northern Region of Ghana but paid attention to how levels of meningococcal colonisation with different bacterial serogroups change over time, and how the pattern of the disease relates to such changes. Adu-Gyamfi's (2010) study on Asante pays attention to broader diseases in colonial Asante which touched less on the subject of cerebrospinal meningitis. Kwarteng et al. (2017) studied the current meningitis outbreak in Ghana and captured briefly a historical study of the disease. Considering the existing historiography on CSM in Ghana, little is known about the historical role of the disease in shaping the colonial history of Asante. The current research aims at building on same.

This paper examines the colonial healthcare interventions toward the prevention and control of CSM in Asante; the nature of responses and spread of CSM in Asante; and the impact of the disease on the socio-economic development of Asante during the era under review. The current study has the potential of informing policy makers on the need to tap into these relevant past policies for contemporary social and healthcare policies in Ghana and Asante in particular.

The research is based on a qualitative research approach. Information from both primary and secondary sources were used to generate relevant historical analysis. Data from primary sources were gathered from the Public Records and Archive Administration Department (PRAAD) and the Manhyia Archives of Ghana in Kumase. The data gathered supported the discussion concerning cerebrospinal meningitis in Asante and its associated policies in combating its spread. Data from books and journal articles provided useful information to augment fragmentary data from the archives. Also, data was gleaned from internet sources. The data from the primary and secondary sources have been analysed and presented thematically to construct a history of cerebrospinal meningitis in Asante within the colonial period and how the account is relevant in the twenty-first century amid the outbreak of epidemic diseases.

Cerebrospinal Meningitis in Asante during the Colonial Period

Asante in this context refers to the old Asante territory that included the present-day Bono-Ahafo, Central, Eastern and Western Regions of Ghana as well as some parts of Ivory Coast and Togo (Collins & Burns, 2007, p. 8). Apart from metropolitan Asante, our work basically focuses on territories in the Northern Province of Asante which included Bono Ahafo.

In the first half of the twentieth century, the people of Asante were faced with cerebrospinal meningitis (CSM). The earliest recorded incidence of CSM in Asante was in 1906, at Kintampo (PRAAD, Kumase, 1950, ARG1/14/2/27).

Evidence suggests that the incidence of CSM in Asante differs across time and space. Its symptoms included fever, stiffness of neck, pains in the head, ears and the spinal column which were severe during the night. Traces of cases of CSM were found in some villages and towns in Asante including metropolitan Kumase (PRAAD, Kumase, 1950a, ADM 3/2/5). The disease was sporadic in the region. This was as a result of limited transport services at the time which limited mobility (PRAAD, Kumase, 1950, ARG1/14/2/27).

From the first outbreak in 1906, it was until the 1920's that the second wave of the disease broke out in Asante including Kumase. The development of railways and road networks in the Gold Coast partly contributed to this outbreak. On 19th February 1920, Nkoranza, a town in the Northern Province of Asante recorded 40 deaths within a week. Medical report on Nkoranza shows that CSM impacted negatively on the lives of the people (PRAAD, Kumase, 1950, ARG1/14/2/27). A report from the Medical Officer of Sunyani to the Provincial Commissioner at Asante stated that:

Nkoranza Division, between Kintampo and Nkoranza, along with the Neighbouring part of the Western Province has been investigated by Medical Officers and their assistants. The number of cases more or less definitely accounted for in Nkoranza Division was 132 with 78 deaths and in the Western Province the numbers ascertained were 33 cases with 28 deaths. The total figures were therefore 165 cases with 104 deaths, a case mortality of 63 percent but countless others occurred which have not been accounted for. (PRAAD, Kumase, 1950, ARG1/14/2/27)

This report shows that Nkoranza and its environs were deeply affected with CSM and this resulted in the colonial administration placing bans on social and economic activities in the area. The literature has emphasised the role of bans in controlling CSM across Ghana. It has been reported that in the past and in contemporary times, the outbreak of CSM in Northern Ghana has prompted community leaders to always place bans on the performance of funerals and other communal social-cultural activities (Codjoe & Nabie, 2014, p. 6932). In 2001, such bans were placed on the performance of funerals, naming ceremonies and weddings among other economic activities to prevent the spread of the disease.

In 1926, there was an outbreak of the disease in Ejura (PRAAD, Kumase, 1927, ARG 14/2/27). Notably, infected persons living within Ejura fled to safe havens within and around Asante. This behaviour contributed to the spread of the epidemic to other towns. To control the spread, the colonial administration located and arrested people who fled from communities with CSM outbreak. In February 1926 for instance, five infected persons namely Moshi and his son, Kwadwo Bio,

Adwoa Fodjuor, and Okyere fled to Akpa and Abosofo, which were villages near Mampong. On 19th February 1926, the police arrested these persons and sent them to isolation centres (PRAAD, Kumase, 1927, ARG 14/2/27). Series of reported cases of infected persons who fled, prompted the colonial administration to entrust powers in the hands of the traditional institution under the Native Jurisdiction Ordinance to sanction patients found culpable (PRAAD, Kumase, 1940a, ARG1/14/2/7).

On 13th January 1926, after a series of recorded cases and deaths, the district commissioner together with the Director of Health in Asante under the Infectious Disease Ordinance declared the town of Ejura and its environs as an infected area. Restrictions were placed on social and economic activities (PRAAD, Kumase, 1940a, ARG1/14/2/7). On 26th January 1926, there was an outbreak of CSM in Sunyani (PRAAD, Kumase, 1926, ARG 1/14/2/7). The 1926 medical report indicated that the prevalence of the disease in Sunyani was devastating. Several deaths were recorded within the first six months of the disease. This was as a result of the failure of the indigenous population to report CSM cases to the medical department at the initial stages of the disease in Sunyani (PRAAD, Kumase, 1926, ARG 1/14/2/7).

Report on July 1921 shows that the presence of CSM in Asante was closely linked to culture. The way of life by the indigenous population (villages) was a contributory factor for the spread of the disease. The report stated “when there is no Rest House, the Asante villages eked out a precarious livelihood by taking in the few wanderers who passed by the boarders for the night” (PRAAD, Kumase, 1940a, ARG1/14/2/7). Obviously, some of these traders might have contracted the disease and spread it along their journey. This hospitality can be attributed to the Asante concept of reciprocity.

Dankyi, Mazzucato and Manuh (2017) have argued that social solidarity which include the concept of reciprocity based on the notion of kin based mutual support are solidly anchored in traditional Ghanaian culture even in contemporary times. The traditional Asante man was of the view that, helping an unknown person attracted “blessing” from the gods and further lead to additional support from others (Dankyi, Mazzucato & Manuh, 2017). It was based on this background that the people of Asante at the time were more hospitable to strangers. This notwithstanding, providing shelter for these traders were sometimes detrimental to the health of the native population in the various villages.

Again, Asante funerary customs led to the spread of the infection. Evidence from the outbreak of Ebola Virus across Africa indicate that funerary and burial rituals contribute immensely to the spread of infectious diseases (Park, 2020). In

West African culture and among the Asante, proper burial and funerals mark the unity between the living and the ancestral world. In the past, such proper funeral rites included the washing and cleaning of the dead body and dressing for burial (Adu-Gyamfi et al., 2020). Contact with dead bodies that were infected with CSM necessitated a further spread of the infection. Aside from this, people washed their hands in a single bowl. This led to the upsurge of CSM cases among the indigenes. Importantly, the mass assembling of people with exposure to infected corpse and social visiting between houses and villages contributed to the spread of the disease.

The first recorded case of the third wave of CSM in Kumase was on 31st April 1940.² The disease is believed to have been brought to Kumase by travellers from northern Ghana and by a man called *Zamebarrima* who according to the medical records had the symptoms of the disease at the start of his journey from Tamale (PRAAD, Kumase, 1940a, ARG1/14/2/7). The outbreak of the disease in Asante could be attributed to the 1940's CSM epidemic in Northern Ghana and subsequent movement of pathogens across borders. On 16th March 1940, there were over 55 recorded cases of CSM in Northern Ghana; Tamale, Yendi, Gambaga and Navorongo.

Table 1.0: *Number of CSM Cases in Major towns in Northern Ghana on 18th March 1940*

TOWNS	CASES	DEATH
YENDI	4	0
TAMALE	36	15
GAMBAGA	9	4
NAVORONGO	6	0

Source: PRAAD, Kumase, 1940b, ARG1/14/2/7.

From the above, it can be suggested that the spread of the disease in the Northern territories around March 1940 was responsible for the outbreak of the disease in Asante. This is because, during the era under review, Kumase continued to be the epicentre of Gold Coast where goods as well as traders from the north and the south passed. It is therefore obvious to state that, these traders might have contracted the disease from the north before reaching Asante, hence leading to the spread of the same.

On 9th May 1950, there was a reported case of CSM at Dompase, a village in Adanse. Again, on 15th May 1950, according to the report of Dr. A Brack, a Medical Officer of Health at the Basel Mission Hospital, Agogo in Asante, there were cases of CSM in Dwaso. In the same year, there were several reports from

² Kumase is the capital of Asante.

the General Hospital and South Wing Hospital in Kumase on cases of CSM (PRAAD, Kumasi, 1950b, ADM3/2/5). In addition, on 28th February 1952, the Medical Officer of Health in Kumase reported that Amadu Kanjaga, a prisoner at the Asantehene's prison had contracted CSM on 24th February, 1952. The reported case at the prison was something to be worried about because of the possibility that the disease could be communicated among prisoners in the same cell and the entire prison community including the prison officers (PRAAD, Kumasi, 1950a, ADM3/2/5). It was observed that CSM reported from out-stations was not shown in the Weekly Infectious Returns. These omissions could have had serious repercussions on the Consolidated Weekly Epidemiological Information (PRAAD, Kumase, 1952, 20th March).

Colonial Health Intervention in Combating Cerebrospinal Meningitis

Within the period under study, several measures were employed by the colonial administration to prevent, curtail and to cure people of CSM and its debilitating effects. This section discusses some of the important interventions employed by the colonial administration to fight CSM.

TERRITORIAL SURVEY/ INSPECTION AND QUARANTINE

The colonial office surveyed the whole Asante Province and the Gold Coast in general to control the spread of the CSM infection. This survey was organised in two-folds; preliminary surveys and full surveys. Preliminary surveys occurred when a medical officer together with sanitary inspectors organised a random inspection in a suspected area for a week and reported any case of symptoms among the indigenous people with the least possible delay (PRAAD, Kumase. (1952, ADM 3/2/5).

This was followed by the full survey. The full survey required the stationing of health professionals in an infected area for a long period of time after the area had been declared as an infected area. On 26th February 1952, as a result of a reported case of Yaa Afrɛ, a native of Twedɛ in Asante, the Sanitary Overseer of the station was instructed to conduct daily inspection of the station for a week and report any case of fever among the population. The chief of Twedɛ and the school teachers were advised to cooperate with the Sanitary Officer to duly discharge his duties.

At Twedɛ, people who were infected with the disease were properly quarantined to avoid infecting other people in the community (PRAAD, Kumase, 1952, ADM 3/2/5). Also, on 11th February 1951, there were seventeen reported cases at Afrantwo near Kumase. The patients were isolated and discharged after

discovering that their temperatures had come to the normal level (PRAAD, Kumase, 1952, ADM 3/2/5).³ In essence, it ensured that several people did not contract the disease through daily contacts with the infected.

Aside from quarantine, patients were given tablets by the colonial medical authorities to help cure the disease during the survey. The colonial administration introduced the use of sulphanilamide tablets. These tablets were given to infected persons to cure them. In addition, the temperatures of patients were checked at regular intervals to find out the progress they were making in their treatment. Mostly, the temperature of CSM patients were beyond one hundred degrees celsius (PRAAD, Kumase, 1952, ADM 3/2/5).

ERECTION OF CARAVANSARIES

Caravansaries have had rich history in Ghana.⁴ Since pre-colonial era, caravansaries or zongos have been constructed across Ghana. In most instances, caravansaries have been historically linked with Muslim traders around market areas (Casentini, 2018). Aside serving as rest houses, it served other purposes during the outbreak of CSM in Asante. To prevent long distance traders from mixing with the Asante population and its environs, the colonial administration embarked on the expansion of caravansaries. These facilities provided accommodation for long distance traders trekking from either the north or southern Ghana (PRAAD, Kumase, 1927, ARG1/14/2/7). Significantly, during the colonial era, most of the major trade routes linking Asante to the north lacked zongos. As a result, most traders ended up taking their rest in most of the villages along their way. A new solution that emerged thus involved the creation and expansion of these communities. The creation of these settlements along the main trade route from Asante helped to reduce contacts and reduced the spread of CSM (PRAAD, Kumase, 1927, ARG1/14/2/7).

Also, most of the Caravansaries served as isolation centres for long distance travellers. These zongos were located at the outskirts of the various towns along the main trade routes from Kumase to the Northern Province. To ensure the success of this policy, the colonial administration used the police to patrol during the night to direct travellers to the established zongos. Among many others, Techiman and Kintampo zongos became the well renowned ones along the major trade routes from the North to Kumase that served as isolation centres (PRAAD, Kumase, 1927, ARG1/14/2/7). Also, the Chiefs were advised to build Isolation

³ PRAAD, Measures adopted to Control CSM, 1952.

⁴ Caravansaries in this context refers to zongo which literally means rest house for strangers. However, the original meaning of zongo has been corrupted as a segregated settlement for people from northern Ghana.

Camps North East in all towns and villages to contain the infected. The natives were advised not to communicate with an infected person, they were to isolate him upon seeing any sign or symptoms related to CSM.

THE USE OF THE POLICE AND OTHER SECURITY AGENCIES

Historically, security forces have been used as agencies to enforce the observance of protocols during epidemics. Public health emergencies have raised the concerns of security services through time. In most instances, law enforcement agencies enforce public health orders including quarantine and travel restrictions. During the influenza pandemic of 1918, the security services discharged immense roles in its control (Ghendon, 1994). Similarly, military officers together with medical officers were stationed in infected areas so that thorough survey as well as strict enforcement of CSM protocols were ensured (PRAAD, Kumase, 1927, ARG1/14/2/7). Again, the military were tasked to divert traders to use routes that were located at the outskirts of towns. In Nkoranza, military guards together with medical officers were stationed to ensure that this policy was effectively implemented. The benefit of this policy was demonstrated in the report of Dr. Brohier:

These measures appeared to have been successful ... that military guards are effective is illustrated by the case of a man who left Kintampo for Kumase, but was stopped at Nkoranza. Having slept in several infected villages on the journey to and from Nkoranza, he developed symptoms of the disease the day he returned and died two days later. (PRAAD, Kumase, 1927, ARG1/14/2/7)

Inferences from the above suggest that this strategy reduced the spread of CSM in Asante as all travellers returning from the North to Asante were effectively checked before entering Asante. However, persons whose duties required that they travel extensively along the road especially from Bamboi northwards were to apply for passes at the office of the Medical Officer of Health, Kumase. In the 1930s, several restrictions were placed on labourers moving from the north to Asante and the ban was removed only when the medical authorities in Asante found out that the northern epidemic had reduced drastically. For example, in 1939, Zongo headmen in Asante received reports that the outbreak of CSM had reduced in the Northern Territories and no restrictions were further placed on labourers returning to their homes (PRAAD, Kumase, 1945, 18th December, ADM 3/2/5). Also, on 18th December 1945, based on the Infectious Disease Ordinance, Cap 59, codified by the Colonial Administration, travel restrictions were imposed on the indigenous people of Asante to prevent the spread of CSM.

PUBLIC EDUCATION

Public education has been the major tool in ensuring good health care among a given population. Public education is designed to raise awareness on subjects that are not frequently discussed or are largely unknown to the general public (Spielman & Sunavala-Dossabhoy, 2021). Similarly, in Asante and in line with the social conditions, Asante used public education to fight CSM. During the period, Asante had handful elites in the society who could read and write. The existence of high illiteracy rate in Asante during the colonial period meant that general awareness on CSM was limited. This prompted the colonial administration to organize mass educational campaign programmes that were simplified to the understanding of the masses concerning the burden of CSM.

The public education culminated in the preaching of important messages concerning ways to prevent the acquisition and spread of the disease. Chiefs, elders and the inhabitants of Asante, and for that matter Kumase, were advised by the Medical Officer of Health, to open their doors and windows to ensure free flow of air. The indigenes were advised to ensure that rooms were well ventilated to prevent infection (PRAAD, Kumase, 1952, ADM 3/2/5). Again, Chiefs together with the local people were advised to report any suspected case of CSM to the health authorities within their jurisdictions.

CULTURE RESTRICTIONS

Culture has been a major determinant of health across societies. Dressler (2004) has argued that disease risk varies in relation to culture. As already hinted, the Asante concept of reciprocity and burial rites were major factors that contributed to the spread of CSM in Asante. With their allegiance to reciprocity, the people of Asante believed that to maintain good social balance, one had to render any form of assistance to kin groups, community members and strangers. With this in mind, long distance traders within the period under review were accommodated in villages along the various trade routes in Asante (PRAAD, Kumase, 1927, ARG1/14/2/7). As argued elsewhere in this study, this was sometimes detrimental to the health and well-being of entire villages as these traders might have contracted CSM along their journey to Asante.

Again, the Asante burial rites was a contributory factor that enhanced the spread of CSM. Asante funeral customs, which included mass movements of people, filing pass the corpse and social visiting in houses and villages contributed greatly to the spread of the disease. Significantly, since this tradition was inextricably interwoven with the social life of the people, during the period under review, the people of Asante contracted various forms of communicable diseases, including CSM.

Another major cultural practice that necessitated the spread of CSM involved reporting diseases to indigenous healers. In the case of CSM, the colonial records reported that the cases were difficult to be diagnosed by indigenous healers. This called for alternative means that included reporting suspected and confirmed cases to the colonial officials. It was believed that the delay in reporting had the tendency to facilitate the spread of the disease. As a result of this, reported cases reaching the colonial health authorities were severe. According to the colonial records, this mostly happened as a result of the initial interventions from traditional medical practitioners during the early stages of the disease (PRAAD, Kumase, 1927, ARG1/14/2/7).

To protect the local population from being infected by CSM, restrictions were placed on some of these customs and practices. Native practitioners were instructed to seek for licenses before they could operate. Cap 17 of section 75 of the *Native Physician Ordinance* gave some criteria to native physicians on the extent to which they could operate and this included the dress code of native physicians and the therapeutic system of practice (PRAAD, Kumase, 1940s-50s, ARG1/14/26, Native Physician). Again, the *Native Physician Ordinance* instructed traditional chiefs to report any contagious disease or any disease perceived by the colonial administration to be dangerous to the entire population and this did not exclude CSM (PRAAD, Kumase, 1940s – 50s, ARG1/14/26, Native Physician). Furthermore, restrictions were placed on the Asante funeral rites and other cultural practices that involved the intermingling of many people.

DISINFECTION PROGRAMMES

Another strategy that was adopted to curtail the spread of CSM was disinfection campaigns. The most effective method of disinfection was the burning of thatch roof houses and setting up fire in the interior of the room. This was done in a way to prevent the destruction or burning of the building. Report from the Medical Department revealed that, this method was the best as it destroyed the CSM pathogens in large scale. There were other fumigation methods which included spraying with disinfectant solution or Sulphur fumigation that equally destroyed the CSM parasites. Fumigation programmes were organized across the length and breadth of Asante especially in Kumase. This programme helped to curtail the spread of CSM in Asante.

The Effect of Cerebrospinal Meningitis on the Socio-economic Activities of the People of Asante

Diseases have a negative implication on the economy of the infected region (Jordà, Singh & Taylor, 2020). The literature emphasizes that health crisis interacts negatively with the economy of an infected territory (Philipson, 2000). The outbreak of CSM in Asante had a negative implication on the socio-economic development of the people of Asante. Herhily and Cohn (1997, p. 13) have categorized the economic effect of disease on a given population into two, long term and short-term effects. They argue among other things that the immediate effect of diseases on the economy has to do with shortage in labour output due to high mortality.

Drawing inferences from the above, the outbreak of CSM had negative impact on the lives of the local population in Asante. Various reports from the Consolidated Weekly Epidemiological Information revealed that there was high rate of mortality especially among the youth in Asante. As argued by Codjoe and Nabia (2014), “recovery from the disease comes along with different health implications ranging from brain damage, hearing loss, or hearing disability from 10 up to 20 percent of survivors” (p. 6930). Therefore, high mortality especially among the youth coupled with the side effects of CSM after recovery had negative repercussion on labour and productivity in Asante. This further affected the income of families due to high health expenditure spent on the sick. Apart from the loss of key family members which had a direct social and emotional cost on the local population in Asante, the major effect of CSM on socio-economic activities in Asante was the decline in productivity due to shortage of labour.

Conclusion

The study paid attention to the history of CSM in colonial Asante. From the discourse, it has been realised that CSM in Asante had negative effects on the lives of the local population. However, the presence of various health interventions within the colonial period helped to reduce the spread of the disease in Asante. Despite several efforts made to curtail the spread of the disease, the colonial administration together with the traditional institutions within the period under review, encountered several challenges. From the analysis of the study, lessons can be drawn from these past policies for further integration into current health policies. The role played by the security agencies toward the combat of the disease is very useful in contemporary times as evidence of this could be seen during the COVID-19 pandemic in Ghana. However, the question of service professionalism

from the military and other security agencies during the outbreak of diseases are critical issues that need critical attention. Also, the collaboration between the traditional authorities and the colonial administration as a result of the indirect rule system cannot be gainsaid. Current actions may require effective decentralization of the health sector of Ghana and public health in particular. Again, the role of chiefs and traditional leadership in promoting health care and for that matter local health, must be strengthened to promote health care from the grassroots.

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