

# ORIGINAL ARTICLE

## Missionaries and the Politics of Quinine in the Gold Coast (1939-1943)

### Abstract

While there exists a rich history on anti-malarial drugs and quinine, in particular, the attention of scholars has not reflected the nexuses between the Second World War, quinine shortage and missionaries in the Gold Coast. In contemporary discourses on malaria, less information exists on the historical role of quinine; how the Second World War affected the political economy of quinine and how its consequence impacted missionaries in the Gold Coast. The current contribution gleaned data from a compendium of government records, letters, circulars and reports from the Public Records and Archive Administration in Kumase to discuss the relationship and politics of quinine shortage and missionaries on the Gold Coast between 1939 and 1943. Since its introduction into Western medicine, quinine has been an effective remedy for malaria across the world. However, during the Second World War, the Japanese and German occupation of the Islands of Java troubled the political economy of the distribution of quinine. In response, the colonial administration called for the use of alternative remedies such as quinacrine and mepacrine against malaria in the Gold Coast. From the study, it was realized that the politicization of quinine shortage and related questions reduced the status of missionaries to ordinary citizens who were instructed to acquire their medical supplies in the same manner as the general public.

**Key words:** Second World War, Quinine, Missionaries, Gold Coast, Malaria, Politics

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## Introduction

Throughout human history, malarial diseases have caused greater mortality than any other known diseases. In contemporary times, one-third of the global population is burdened with the threat of the disease; it claims about 600, 000 lives per year (Renslo, 2013, p. 1126). Across Africa and Ghana in particular, malaria stands as the major cause of illness and death, particularly, among children and pregnant women. A world report on malaria posits that nineteen countries in sub-Saharan Africa and India bear about 85% of the global burden of malaria (World Health Organization, 2019).

The impact of malarial infections has been well documented. In Africa, earlier sources point out that, yearly, malaria causes an estimated 435,000 deaths, with the majority of the burden present in sub-Saharan Africa (Gething, et al., 2014, p. 39). Evidence from Ghana suggests that in 2012 alone, malarial infections accounted for 38.9% of all outpatient illnesses and 38.8% of all admissions (Ministry of Health, 2014). Concerning pregnant women, malaria has been reported to result in maternal anemia and placental parasitaemia, both of which occasionally result in miscarriages and under-weight babies. In 2012, malaria accounted for 3.4% of all maternal mortality cases across Ghana (Ministry of Health, 2014).

The existing literature establishes the fact that earlier European expeditions were heavily affected by various tropical diseases, including malaria. In Mungo Park's second expedition, 39 out of the 44 Europeans who accompanied him from the Gambia died from fever and dysentery (Findlay, and Stevenson, 1944, p. 168). Similarly, in West Africa, the white man's grave, 483 of 1000 soldiers died annually from malaria and other diseases during the colonial era (Arpad, 2009). In cognizance of the above, the fight against the burden of malaria started very early in Africa, even before formal colonization and the discovery of quinine.

Missionaries played important roles in the discovery of quinine. It has been established that the Jesuits missionaries from Spain in 1648 introduced the cinchona bark into mainstream medicine in Europe. In Peru, the Jesuits identified the anti-malarial property of the tree (Greenwood, 1992, p. 417; Renslo, 2013, p. 1126). It was from this cinchona bark that quinine was extracted. For almost 400 years when its effectiveness was first documented, quinine has remained a relevant anti-malarial drug across the world (Achan, et al, 2011, p. 1).

The discovery of quinine in Europe served as a major breakthrough in the search for an effective drug against malaria. Since its discovery, quinine has been used to combat various forms of malarial infections through time. Historically, several noblemen, including King Charles (II) of England and the son of Louis (XIV) of France were successfully cured from malaria by practitioners using the bark of cinchona (Greenwood, 1992, p. 422). In contemporary times, the importance of the drug as an effective substance against malaria cannot be gainsaid. However, the continued use of quinine is challenged by "its poor tolerability, poor compliance with complex dosing regimens, and the availability of more efficacious anti-malarial drugs" (Achan, et al, 2011, p. 1).

Despite the role of missionaries in the discovery, advancement and development of quinine as an important remedy for various types of malaria, the discourses on quinine and malaria has rarely featured them. The historical literature is silent on how quinine shortage burdened missionaries in the Gold Coast during the era under study. While there



exists a rich history on anti-malarial drug and quinine in particular, the attention of scholars has not reflected the nexuses between the Second World War, quinine shortage and missionaries in the Gold Coast. In contemporary discourses on malaria, there is scarce information on the historical position of missionaries and quinine shortage.

Therefore, the purpose of this study is to raise a discourse on quinine and tie same to how the Second World War impacted on its distribution in the Gold Coast. Specifically, the study examines how quinine shortage affected missionaries in the Gold Coast. The current contribution seeks to add to the information in the existing historical literature on Ghana and quinine. By trying to reveal how the World War II impacted the economy of quinine distribution across the Gold Coast. The rest of the paper has been arranged as follows: *A History of Quinine, World War II and the Economy of Quinine; Quinine Shortage and Related Questions; Missionaries and the Politics of Quinine and conclusion.*

The current contribution uses a qualitative research approach based on both primary and secondary sources. Primarily, data was collected from a compendium of government records, letters, circulars and reports concerning quinine and the World War II. Also, a number of letters written by missionary groups to the colonial government proved worthy to the objectives of the study. The data from primary sources were obtained from the Public Records and Archive Administration Department (PRAAD) in Accra and the Manhyia Archives of Kumase. In selecting relevant data for the study, attention was paid to sources that contained information that covered the period of the War, specifically from 1939 to 1943. The secondary data for the research was derived mainly from books, journal articles and internet sources. The data from both sources have been analyzed thematically.

### **A History of Quinine**

Historically, quinine was obtained from evergreen cinchona trees referred to as “*quina-quina*” (bark of barks) in native Indian tongue (Achan et al, 2011, p. 1). The first instance of using cinchona bark to ward-off malaria is unknown. Nevertheless, it appears that native Indians were aware of the medicinal content of the tree. Significantly, they referred to it as ‘fever stick’ due to its efficacy in treating cases of fever for centuries –before the arrival of the Spaniards. In 1677, the bark was officially introduced into pharmacy and by 1681, it had been universally accepted as anti-malarial substance (Kaufman, and Ruveda, 2005, p. 856).

As already highlighted, the cinchona bark was discovered in Peru in 1648 by the Jesuits missionaries as an effective anti-malarial substance. For its effectiveness against malaria and other fevers, the demand for quinine sharply rose. The increasing demand for the substance increased the monopolistic power of Peru and neighboring countries like Bolivia. The monopoly of the cinchona bark in Peru and Bolivia led to the smuggling of its seeds and seedlings by several stakeholders into Netherlands and Britain. From Peru, it found its way into Europe and across the world (Rocco, 2003, p. 3). Subsequently, the Dutch and British established plantations in Java Island and in India. This coincided with the age of plantation of sugar, coffee, cocoa, tea and oil palm among others (Arpad, 2009).

Historical evidence suggests that the genesis of East Indies’ superiority and/or monopoly of the quinine economy began after the Dutch transported cinchona seeds and seedlings from Peru. When the East Indies region became the center of quinine industry,



Java Islands subsequently became the largest quinine production site across the globe (Worthen, 1996, p. 143) (Figures 1 and 2).



Figure 1. Bark of Quinine Tree (Eyal, 2018, p. 491).



Figure 2. Dried Cinchona Bark (The Editors of Encyclopedia Britannica, 2018).

The importance of quinine has been well documented. Among other things, quinine has been used to treat marsh fevers, tertian or quartan fevers, ague and Roman fevers. Among all these fevers, quinine has been a major remedy against malaria fever. Initially, the disease was believed to be caused by bad air or *mala aria* (Carter, and Mendis, 2002, p. 565). According to Dr. Baikie, quinine was not only curative but also served as a preventative substance (Arpad, 2009). Aside being used as a drug, it was equally used to make soft drinks like the Indian tonic water and coke (Ward, and Morgan, 1988, p. 555).

Concerning Africa, the literature reports that the 1840s witnessed the genesis of quinine in the region (Jedwab, Meier zu Selhausen, and Moradi, 2019, p. 10). Prior to this period, malaria had become the greatest anathema to Europeans and had led to significant levels of mortality amongst them. This resulted in sub-Saharan Africa being tagged as the “grave of the white man” (Curtin, 1961, p. 103). In response, European settlers and explorers who wanted to protect themselves against malaria almost immediately imported quinine. Quinine became the standard cure and prophylaxis for malaria for more than 300 years (Kaufman, and Ruveda, 2005, p. 856; Jedwab, Meier zu Selhausen, and Moradi,



2019, p. 10).

Within Africa, Europeans used the bark in diverse ways and in different combinations with other substances against malaria fever. In Sierra Leone, fire and the bark were recommended as important remedies against different kinds of fever (Findlay, and Stevenson, 1944, p. 168). Evidence suggests that on the Guinea Station, large quantities of the bark –in the form of powder and of wine- were occasionally delivered to Europeans who moved into Africa in boats (Arpad, 2009).

According to Arpad, as a preventive drug, Europeans who followed it diligently could survive several forms of fever. For instance, Arpad reports that when Dr. William Baikie in 1854 insisted that his crew “took 6-8 grains of quinine dissolved in sherry twice a day, all 54 crew survived the four-month expedition” to the Oil Rivers (Niger).

The use of the bark for malaria treatment in West Africa became paramount in the last quarter of the 18th century. By the early 20th century, Kina Bureau in Amsterdam controlled the bark and quinine outputs. At the outbreak of the Second World War, the economy of quinine distribution highly affected the market of the drug and led to its shortage across the world (Carter, and Mendis, 2002, p. 567). Regardless of the above, there is less information on missionaries and the question of quinine across the world and in the Gold Coast, in particular.

### **World War II and the Economy of Quinine**

The World War II had tremendous impacts on all aspects of life. Concerning the British Empire and the Gold Coast in particular, the war led to a decline in the transportation of valuable commodities to and from the colonies. Similarly, the war disrupted the quinine industry and the subsequent distribution of the drug across the world. This shortage clashed with unhealthy situations among soldiers during the war (Shanks, 2016, p. 269). It is imperative to state that the camps and barracks of military men had always raised questions on sanitation prior to the inception of the two major world wars. These unhealthy environments bred different kinds of vectors, including the malaria vector, the female anopheles mosquito. Evidence suggests that during the outbreak of the First World War, at least, some 1.5 million soldiers contracted malaria, with case fatality between 0.2 and 5.0% (Brabin, 2014, p. 1). The extension of the war to other parts of the world responded sharply to the rapid spread of the disease. Consequently, leading epidemics were recorded in Macedonia, Palestine, Mesopotamia and Italy (Brabin, 2014, p. 1).

In a similar manner, during the advent of World War II, Africa recorded an upsurge in malarial cases. While the lack of statistical data makes it difficult to quantify and report the degree of affection in Gold Coast, evidence from other parts of the world can be used to generalize the condition and nature of the spread across spaces. In the United States alone, Beadle and Hoffman (1993, p. 320) have reported that “during World War II, there were 113,256 new cases; 3,310,800 sick-days; and 90 deaths”. Although quinine was already known, stakeholders adopted a more preventive than curative approaches, towards malaria and mosquito breeding. Across the world, attention was given to draining of swamps, spraying, and employment of mosquito swatters (Ockenhouse et al., 2005, p. 13). In addition, the British government in the Gold Coast and within several other British colonies passed several ordinances and employed an anti-mosquito brigade whose task was to destroy mosquitoes at sight and to ensure more sanitary conditions (Deb Roy,



2013, p. 7; Adu-Gyamfi, Brenya, and Egyir, 2017, p. 9).

Despite the above, a more robust approach was the use of quinine as both a preventative and curative strategy against malaria. During World War II and among troops in particular, quinine was used to suppress malaria infections in the blood with the aim of maintaining soldiers fit for their daily tasks (Joy, 1999, pp. 201-203).

The Second World War massively affected the political economy of the quinine industry. Importantly, the disruptions caused by World War II affected the global economy of quinine and raised several questions among stakeholders. The disruption was further intensified by Japanese occupation of Java. At the beginning of the WW II, the Dutch were the sole controlling force of the quinine industry with about 90% production of the total global supply (Worthen, 1996, p. 143). Evidence gathered from documentary sources indicates that during the Second World War, Java, the Island that produced and supplied the majority of the world's total quinine, was occupied by Japanese forces (Manuscript No. ARG 54/42, 1942).

At the height of World War II, stakeholders of the Java Island sensed trouble from the German forces. Consequently, the threat of the Second World War compelled stakeholders of the Java Island to effectively pass its management body from Amsterdam to Bandoeng on 14th May 1940 (Worthen, 1996, p. 143). This move was to prevent Nazi Germany from gaining total control of the industry after their forces invaded the Netherlands. This notwithstanding, in March 1942, the East Indies was invaded by Japanese forces leading to the seizure of the world's source of quinine supply (Worthen, 1996, p. 143). Subsequently, the Allied Forces or Allies who relied on Java became heavily affected and were deprived of consignments of quinine from the Island (Manuscript No. ARG 54/42, 1942).

The occupation of Java and subsequent deprivation compelled stakeholders to make several reforms and policies to respond to the expected shortage of the commodity in the near future. In the United States, her soldiers had to rely on stored portions of quinine. In addition, an appeal was made by the military for pharmacies and other stakeholders to actively donate their excess or reserved quinine dosages to be used by soldiers (Shanks, 2016, p. 269).

In the Gold Coast, the secretary of state informed the governor that after the stored quantities were dispatched, no further quinine would be received. In fact, the shortage of quinine across the world and Gold Coast, in particular, prompted local reforms to address the menace (Manuscript No. ARG 54/42, 1942). In response, the British government gave motivations to the production of alternative substances to control malarial cases. Across the world and within the Gold Coast in particular, mepacrine became renowned among the citizens as an alternative to quinine. Mepacrine was to be produced in large quantities to assume the role of quinine for ordinary usage. Among other things, mepacrine was intended to be used for the treatment of malaria. The government encouraged the colonial officers and their families to habitually rely on mepacrine for prophylaxis (Manuscript No. ARG 1/14/21, 1943).

### **Quinine Shortage and Related Questions**

As already reported in this study, the Second World War and the activities of Japanese and German forces influenced the economy of quinine. In essence, the demand for



quinine increased and was countered by the low production and supply of same. It can be suggested that as a future anticipatory action and for fear of disruption in the supply of quinine globally, the US military forces were quick to establish a reserve of quinine before the proceedings of WW II. However, this reserve was not enough to address the global demand for quinine (Worthen, 1996, p. 143).

In the Gold coast, important companies and firms became the most affected by the global crises of quinine shortage during the period under review. Among these important entities included workers of the Konongo Gold Mines, hospitals and dispensaries, missionaries and colonial officers. Concerning the Konongo Gold Mines for instance, prior to the commencement of the War in 1939, the company had imported three gross bottles of 100 tablets each from the United Kingdom. The company had only 590 bottles of quinine at 1939. At the inception of the war and as Japanese occupied Java, they made smaller purchases from the West African Drug Company (WADC) to cater for about 1700 African and 40 European workers in the mining company (Manuscript No. ARG 1/14/21, 1943). In addition to the 590 bottles, the following purchases were made from the WADC (Table 1):

**Table 1:** Quinine Purchase from WADC (1939-1943) (Manuscript No. ARG 1/14/21, 1943)

Year	Items Purchased
1939-1940	10 ½ lbs. Powdered Quinine; ½ lb Liquid Quinine; 6 bottles of 100 tablets Quinine
1940-1941	10 lbs Powdered Quinine; 72 bottles of 100 tablets
1941-1942	8 ½ lbs. Powdered Quinine
1942-1943	5 lbs. Powdered Quinine; 180 bottles of 100 tablets of Quinine; Quinicrine 40 x 100

In addition to the 590 bottles, therefore, there were 258 bottles purchased between 1939 and 1943 bringing the total to 848. Also, the sale and distribution of quinine tablets from 1939-1943 are as follows (Table 2):

**Table 2:** The Sale of Quinine by Konongo Gold Mines (1939-1943) (Manuscript No. ARG 1/14/21, 1943)

Year	Quinine Sold (in bottles)
1939-1940	259
1940-1941	169
1941-1942	176
1942-1943	206
Total	810

Information from Table 2 indicates that at the end of 1943, 810 bottles of quinine tablets were sold out to both workers of the company and other stakeholders in Konongo. Therefore, as at September 1, 1943, there were only 38 bottles of quinine in stock. This compelled the general manager and other stakeholders to approach the government for further actions with the hope to control the situation at hand. In a letter written on 15th November, 1943 and addressed to the Chief Commissioner of Asante, the General Man-

ager of the Konongo Gold Mines expressed concern on the shortage of quinine. In the letter, the manager emphasized that the imports of quinine between 1939 and 1941 was nil in the Konongo Gold Mines.

In response, the Commissioner responded on December 14, 1943 that:

...the West African Drug Company in Kumase had received 4,000 tabs, 10 ½ lbs salts, and 60 Ampoules and will further receive 17 ½ lbs salts from the United Kingdoms to be used for six months... (Manuscript No. ARG 7789/SF/369, 1943).

Out of this, Konongo Gold Mines, per the arrangements of the governor, was to receive 500 tabs, 5 lbs salt and 30 ampoules from the director of supplies (Manuscript No. ARG 7789/SF/369, 1943). While the consignments were in waits, the Chief Commissioner advised the workers and other stakeholders to use mepacrine. Consequently, on 22nd November, 1943, 1200 tablets of mepacrine were dispatched to the company to be supplied to its employees (Manuscript No. ARG 7789/SF/369, 1943).

There were notable differences between quinine and mepacrine for treating malaria. Documentary sources indicate that while quinine was efficacious for various types of malaria in the Gold Coast, mepacrine was not that efficacious in treatment against malaria (Manuscript No. ARG 54/42, 1942). However to the shortage of quinine, all stakeholders in the Gold Coast were to adapt to the use of mepacrine for malarial issues. As a result, every colonial officer was to receive “a bottle of tablets” each from medical officers as quarterly supply (Manuscript No. ARG 54/42, 1942) (Figure 3).

1- Bottle of quinine hydrochloride tablets produced by Burroughs Wellcome and Co., London, 1901-1930. Quinine was used as a treatment for malaria because of its fever reducing and pain relieving qualities. Four or more tablets were taken each day and could be taken two, three or four times daily in an attempt to prevent and control the disease. Burroughs, Wellcome & Co. was one of the pharmaceutical companies to place quinine research on a scientific footing. From 1895 onwards Henry Wellcome set up laboratories for chemical and physiological research. Source: Science Museum Group Collection by Burroughs Wellcome and Company Limited, London, 1901-1930.



Figure 3. Bottle of Quinine, 1901-1930 (Wellcome, and Company Limited, 1901-1930).<sup>1</sup>



### **Missionaries and the Politics of Quinine**

As a result of the shortage of quinine during World War II, the distribution of the limited amount of reserved quinine to Europeans in Gold Coast was handled with care. It was rationed among stakeholders. Commercial firms found different outlets to get their supplies, rather than imports from England. In the case of the Konongo Mines, the WADC served its needs. On the part of missionaries, little evidence exists on their fate. In fact, inferences from documentary sources lead one to the conclusion that no special arrangements were made as some missions were unable to provide the needs of their missionaries. But why is the question of missionaries important in the discourse of quinine?

Since earliest times, missionaries have laid the foundation upon which different facets of colonial rule thrived. For instance, the role of Ramseyer in Asante's subjugation to British colonial rule cannot be gainsaid (Asamoah-Prah, 2011). In their roles as evangelizing missions, these groups were exposed to various levels of tropical diseases of which malaria cannot be ignored (Patterson, 1974, p. 146). Among the earliest missionaries, malaria and yellow fever among other tropical disease had a heavy blow on them. Evidence from the literature suggests that in the 19th century, the mortality rate associated with malaria among the Basel missionaries was very high. Among other missionaries, Peter Peterson Jager, Johann Philipp Henke and Christian Frederick Heinze all contracted tropical African diseases associated with malaria and died of same diseases. Similarly, both Johannes Zimmerman and Andrea Riis also contracted malaria; the latter contracted it in September 1832. In their case, they were healed successfully by indigenous healers when the efforts of biomedicine proved futile (Mohr, 2009, pp. 444-445).

The deaths and challenges associated with malaria began to decrease as quinine was introduced in the 1840s. As a result of its introduction, the number of missionaries started to increase across Africa and Ghana in particular (Jedwab, Meier zu Selhausen, and Moradi, 2019, p. 10). Evidence attests that before the establishment of colonial rule in the country, missionaries had started using quinine as early as 1833 (Fischer, 1991, p. 73-76).

Aside the use of quinine, subsequent missionaries devised strategic means to control the incidence of malaria. Among these measures included settling in places with lower incidence of malaria. In the case of the Basel Mission, Riis and his followers selected Akropong and Abetifi in 1835 due to the lower incidence of malaria in these areas (Mohr, 2009, p. 431). Irrespective of their exposure to malaria, missionaries were underrepresented in quinine distribution and further actions concerning the shortage of the during WWII.

As a result of the shortage of quinine, stakeholders and the colonial administration politicized the limited stock of quinine by rationing its distribution among other steps. Importantly, the politicization of the distribution of quinine that was in stock before the war did little to factor in the question of malaria and its impact on missions. The colonial secretary's office reported in a circular:

...I have spoken to ADMS again. He says that he did mention the matter briefly to HH at the end of last week. The present position is that the Roman Catholic and Methodist Missions are getting their quinine at the Licensing Office, Kumasi Town Council. It is not very good quinine for Europeans –only four grains. ADMS has written to DMS to ask if missions cannot be supplied in the same way as the employees of the firms –through his bulk supply depot- but has had no answer.



DMS is probably taking it up with the Director of Supplies but ADMS will get on to DMS again and ask him to expedite the matter if HH wishes (Manuscript No. ARG 1/14/23, n.d.).

The data above suggests that when the shortage of quinine hit Gold Coast, missionaries were expected to compete for the little stock with ordinary citizens. In fact, information from documentary source indicates that no proper arrangements were made to reserve some quinine, specifically, for missionaries. Also, little efforts were made to direct quinine to the offices of missionaries across the country. Unlike other European employers who received their supplies from their respective firms, missionaries were to join the general public to obtain quinine from licensed shops or offices for stated fees. While this raises several concerns, it appears that the decision of the government was based on earlier experience from missionaries and the quinine question. To the government:

...some missionary bodies have not in the past been importers of quinine but the quinine import of the firms normally selling quinine are intended to cover their wants together with those of others as far as possible (Manuscript No. ARG 228/30/35, n.d.).

From this extract, it can be deduced that prior to the war, while some missionaries depended on firms like the WADC for their quinine supplies, others directly imported them from European countries and possibly the Island of Java. In that regard, the others who never imported quinine gave a justification for the government to politicize the distribution of quinine based on the above arrangement. In fact, just like the ordinary citizen, the colonial administration directed missionaries to purchase their quinine from post offices and through postal agencies including important entities like the Konongo Gold Mines (Adu-Gyamfi, Brenya, and Egyir, 2017, p. 11). The settlement on post offices as distribution stations arose from consideration of various schemes. In a circular written by the Medical Department on 11 May, 1935, it was hinted that:

...His Excellency the Governor has sanctioned that a scheme for the distribution of quinine at Post Offices throughout the Gold Coast should be brought into force in the current year. Medical Officers are no doubt aware that schemes of this nature for the purpose of popularizing the use of quinine already exist in other malarious countries (Manuscript No. ARG 228/30/35, n.d.).

In 1935, the government resorted to use postal offices as the major outlet for quinine distribution. This idea was shaped by the limited supply of quinine and the incessant rise of malaria cases across the world and in Gold Coast in particular. In doing so, quinine was imported and distributed to various post offices and further dispatched to the various stakeholders by post masters (Manuscript No. ARG 228/30/35, n.d.). Across the country, this was done from the Post Office General Store at Takoradi. Prior to this arrangement, missionaries obtained their supply of quinine from dispensaries and hospitals under special arrangements (Adu-Gyamfi, Brenya, and Egyir, 2017, p. 11). Shifting the collection point to post office, therefore, was an entirely new arrangement.

The Assistant Director of Medical Services (ADMS) countered the new arrangement on behalf of missionaries. The ADMS advocated for missionaries to be supplied in bulk and in depots but this yielded no positive results from the colonial administration. While one might argue that the above sharply deviated from the political will of the day, it nevertheless makes sense on the part of the colonial administration. This was due to the



fact that most missionary bodies in the Gold Coast were never importers of quinine since earliest times (Manuscript No. ARG 14/285/37, 1943). They relied on larger companies like the Konongo Mines, hospitals and dispensaries for their supplies.

On 14th September, 1943, Rt. Rev. Bishop Paulissen of the Catholic Mission in Kumase petitioned the Chief Commissioner of Asante concerning the difficulty in procuring regular supply of quinine for their mission. The mission comprised of 17 fathers and 5 sisters from Europe. Paulissen inquired of the Chief Commissioner to contact the medical department concerning the double burden of quinine shortage and malaria. Significantly, this position of Paulissen can be attributed to the fear of malaria and its impacts concerning the death of early missionaries. In support of this argument, he stated in his letter that: “most of us (fathers and sisters) are here over six years without a change of climate, and I fear that the privation of a regular dose of quinine might prove fatal” (Manuscript No. ARG 15/7/43, 1943).

The chief commissioner replied on 16th September signaling the steps taken to address the Catholic Mission’s petition. In a response letter, the Chief Commissioner wrote: “...I have asked the A.D.M.S to ring up Accra at once to see what can be done about ensuring you a regular supply of quinine, and I will write to you again as soon as I have a reply” (Manuscript No. ARG 1/14/21, 1943).

As the response from Accra delayed, missionaries were advised to obtain their supplies from firms (Manuscript No. ARG 14/285/37, 1943). However, missionaries became reluctant to acquire quinine from firms. The major hindrance was that they believed the limited quantity of quinine imported by the firms were to be used exclusively by the employees of the firms. In a letter dispatched from the Medical Department and addressed to the Chief Commissioner, the ADMS expressed missionaries’ reluctance as follows:

I infer that missionary’s representative is under the impression that allocation of quinine to the various firms is only for the use of the employees of those firms. This is not the case except in respect of the Mines, etc. Quinine is allocated to firms normally selling quinine for the purpose of sale to the general public as well as for the use of their employees (Manuscript No. ARG 14/285/37, 1943).

Existing evidence is not clear concerning the reactions of firms to the shortage of the drug vis-à-vis their supplies to the general public. However, it may be suggested that as the shortage of the drug burdened stakeholders, firms could resort to the making of stringent adjustments to cut their supplies to the general public and missionaries in particular. It can be partially suggested that awareness of the above cautioned missionaries to be reluctant in obtaining their supplies from such firms.

Their reluctance to obtain quinine from firms led to several propositions from the chief commissioner and the medical department in particular. As an alternative to firms, missionaries were advised by the ADMS (on 22nd September, 1943) to acquire liquid quinine from licensing offices in Kumase. Further, it was proposed in a letter written by the ADMS on November 18, 1943 that as a result of the shortage of quinine, there should be an exclusive resort to mepacrine (Manuscript No. ARG 14/291/3, 1943).

### **Conclusion**

There is a body of literature on the history of the search for anti-malarial drug and quinine in particular across time and space. Scholars have reported widely the discovery,



role and advancement of quinine as an anti-malarial remedy through time. However, the purpose of this study was to examine how quinine shortage burdened missionaries in the Gold Coast during the era of the Second World War.

The Second World War impacted all facets of life across the globe. Importantly, one area that the war impacted most was the quinine industry. In this study, it has been reported that during the initial stages of the war, Japanese and German forces occupied Java, the Island that was the leading producer of quinine. In response, the economy of the distribution of quinine became troubled. This called for the use of alternative remedies such as Quinidine and mepacrine against malaria.

The occupation of Java Island and the subsequent shortage of quinine troubled all stakeholders including missionaries. In this study, attention has been paid to how the question surrounding quinine shortage called for the attention of the colonial administration towards the distribution of quinine and mepacrine in the Gold Coast. But why is the question of missionaries important in the politics of quinine? Despite the role of missionaries in the discovery, advancement and development of quinine as an important remedy for various types of malaria, the group was alienated during the shortage of quinine in the era of Second World War within the Gold Coast. Importantly, analysis of the data has revealed that the politicization of quinine shortage and related questions reduced the status of missionaries into regular or ordinary citizens who were instructed by the colonial administration to acquire their supplies in the manner in which the general public does.

### Conflict of Interest

None.

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