

# NEO-MEDICAL PRACTICE AND DISEASE CONTROL IN GHANA: PERSPECTIVES ON ATIWA DISTRICT (1960–2010)

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## ABSTRACT

Using a qualitative research approach, this study focuses on the major medical systems; traditional and western medical practices in the Atiwa District of Ghana from 1960 to 2010 with particular emphasis on western medicine. The people of Atiwa District accessed the two medical systems to combat diseases and also to ensure a healthy life. Before the advent of western medical practice in the Atiwa District, people travelled to Nkawkaw, Koforidua, and Kyebi for medical treatment. Upon the establishment of health centres and hospitals with related impediments, that is, lack of access to health facilities due to long distance, bad roads and low levels of finance from the indigenous population among other things, the local population were not entirely convinced from discontinuing to access the services of traditional medical practitioners in addition to these basic neo-medical facilities. Diseases that were common among the people were malaria, skin diseases and stomach pains among others. However, new and different diseases in other regions also gradually infected the people within the district. They include cerebro-spinal meningitis (CSM), tuberculosis and HIV/AIDS among others within the period under review.

*Keywords:* diseases, public health, hospitals, health centres, Atiwa district, Ghana.

## INTRODUCTION

It has been argued that Hippocrates and other Greek doctors had the belief that the work of the priest should be separated from that of a physician (Risse, 1993; Ronan, 1982). It was the belief in medical care that observation of a patient

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was an essential tool, so practitioners examined patients accompanied with a longer period of observation and kept records. This idea of diagnosis and prognosis through proper observation and the keeping of records of patients is a principle that is embedded in western medicine today on which this study is persistently situated. This notwithstanding, Washington (2007) has argued that Africans did not cordially receive western medical practices because of fear and the lack of trust in the medical practitioners (Washington, 2007). However, the tensions are found within the larger or broader discourse on the nature of traditional medicine and practitioners as compared to biomedicine/scientific medicine/western medical practices also referred to in this study as neo-medicine. Referring to the distinctions between neo-medicine or western medicine and traditional medicine, Edwards (1986) argued that the western oriented medicine is structurally well organised system which is in contrast with more locally culturally relative humoral, functionally strong, traditional healing approaches (Edwards, 1986). He further argues that traditional medicine is commonly practiced in rural areas with limited or no modern healthcare facilities. Essentially, traditional medicine is tied to the supernatural causative theories orientation against the natural biomedical orientation (Edwards, 1986). Similarly, Abdullahi (2011) like Twumasi (1975) have argued that traditional healers try to re-connect the social and emotional equilibrium of patients based on community rules and relationships. This is safely anchored in the social causative theory of disease (Abdullahi, 2011; Twumasi, 1975).

Significantly, concerning the case of Ghana, modern medicine gained better and greater traction due to British Colonial policies and post-colonial pursuit of similar or related policies. For example, the post-colonial governments also continued in the legacies bequeathed to them by the Europeans. For example, the issue definition was not based on a determination for either biomedicine or traditional medical approaches to treatment. Attention was focused on health financing, building of medical infrastructure to support the services of biomedical physicians and other health professionals among others (Brenya and Adu-Gyamfi, 2014). It is therefore legitimate to argue by inferring from Abdullahi (2011) that modern medicine is seen as a legacy of European encroachment of Africa and Ghana's Eastern Region in particular was not an exception. Here it is important to emphasize from Abdullahi (2011) that indigenous knowledge systems including medicine was not given the opportunity to systematise. Concerning, Ghana, hitherto referred to as the Gold Coast, individuals who had officially been licensed had the legitimacy to continue with little or no encumbrances (Adu-Gyamfi, 2015).

The above notwithstanding, Oyebode *et al.* (2016) have argued among other things that the use of traditional medicine is less frequent than commonly reported. They argue that it may be unnecessary and futile to employ traditional medicine for population health needs when populations are increasingly using modern medicine (Oyebode *et al.* 2016). For example, in 2016, they reported that less than three per cent of their respondents reported that they use traditional medicine as their most

frequent source of care in countries like Ghana, China, Mexico, Russia and South Africa (Oyebode *et al.* 2016).

Irrespective of the challenges that were largely found within the twentieth century Africa western medical practice and the activities of practitioners, the literature on the nineteenth century Gold Coast and Asante in particular records that in 1817 Thomas Edward Bowditch, an European, gave medical advice and medicine to the people of Asante on his arrival and during his stay in Kumasi (Bowditch, 1819). Bowditch argues that every morning, slaves and children were brought to him for medical advice and also for treatment of diseases such as dropsy, craw, yaws, fever, and bowl complaints.

In his 'Medical system in Ghana', Twumasi (1975) argued that western medical services in Ghana could be dated to the colonization of the country by the British in 1844. He agrees with Addae (1996) based on records that formal medical work in Ghana started in 1878 (Twumasi, 1975). Twumasi (1975) argued that western medical practice did not find its way smoothly into Ghana. Initial opposition was felt from the population because the traditional cosmology was against the scientific explanation of disease; it was rather in support of supernatural or social causation of illness. Twumasi (1975) noted that under the leadership of the British governor, Sir Gordon Guggisberg, the first health plan was enacted to give Ghana its first scientific medical institution. Korle Bu hospital was built in 1924. In 1957, the government built the first health centres through the country with the exception of western and the central region with the excuse that the Kole Bu Hospital in Accra gave medical care to patients from the two regions. The government also established medical field units to control environmental diseases (Twumasi, 1975).

In his publication, 'Health in colonial Ghana: disease, medicine, and socio-economic change 1900–1955' Patterson (1981) agreed with Twumasi (1975) that the preventive and curative medicines that were introduced by the British in the twentieth century had a significant impact on the health of Ghanaians. Especially, by the 1920s, the British colonial administration showed a commitment toward improving the level of health among the indigenous population partly because of their self-interest and partly because many administrators and physicians wanted to do away with human suffering (Patterson 1981). Within the period, there was an improvement in the Medical Department, advances in scientific knowledge and awareness of local health conditions, a growing sense of responsibility towards the African population, and increasing public acceptance of an alien medical system was slow but made real progress possible (Patterson 1981). It could be inferred that this new medical policy by the British Colonial Administration could have influenced the people of Atiwa in the Eastern Region of Ghana.

Concerning environmental issues that are critical to public health and preventive healthcare in particular, Addae (1996) has put forward the argument that before 1880, in Gold Coast, the towns along the coast were known for their

insanitary condition (Addae, 1996). He further postulates that with the exception of Cape Coast which until 1877 was the seat of government, no town had streets, no organized lay-out existed for any town, drains did not exist, and drinking water was horrible, consisting of dirty water obtained from swamps and ponds (Addae, 1996). In contrast, in 1824, as referenced by Maier, Dupuis argued that even though the coastal settlements were unhealthy, that of the inland towns were clean, pleasant and good to live there (Maier, 1979). However, writing an edited volume on West-African History in 2006, Akyeampong, (2006) argued that the environment of Africa, more importantly the tropical rainforests, corroborated a mass of bacteria and parasite where single-celled organism flourish (Akyeampon, 2006). Disease like malaria, trypanosomiasis, onchocerciasis, and schistosomiasis were seen as tropical disease that originated in West Africa (Akyeampong, 2006). Also, Akyeampong stated that some other diseases which afflicted humans that were transferred directly to others were new to West Africa. For example, measles, common cold, chickenpox, syphilis, and tuberculosis were cited as diseases that were transported to West Africa through the Trans-Atlantic trade. Similarly, Adu-Gyamfi and Donkoh (2013) have argued that the people of Asante including those in the hinterlands suffered from different kinds of diseases including cerebro-spinal meningitis (CSM), common colds, malaria, sexually transmitted diseases among others (Adu-Gyamfi and Donkoh, 2013). These were largely attributed to the environment and the lifestyle of the people.

Also, concerning disease control in Ghana, the literature pays attention to curative and prophylactic as well as general preventive and public health measures. Writing in 2004, Parry argued that countries used vaccines to deal with diseases found in Africa. Some of the vaccines included: Bacille Calmette-Guérin (BCG) for TB and leprosy; Oral Poliomyelitis Vaccine (OPV); Diphtheria, Pertussis and Tetanus (DPT) as a triple vaccine; Measles; Yellow Fever; Haemophilus Influenza type B (HIB); and Hepatitis B Vaccine (HBV) (Parry, 2004). Patterson (1981) argued that throughout the twentieth century, there were Laval control mechanisms. The killing of adult mosquitoes was ineffective until the introduction of *dichloro diphenyl trichloroethane* (DDT) (Patterson, 1981). The other strategies employed to prevent disease as found in the literature include quarantine, segregation, lagoon drainage, reclamations and persistent spraying of vectors (Addae, 1996). Significantly, a deeper appreciation from the narratives, archival sources and reports from the existing health facilities has the proclivity to shape the thoughts of policy makers and researchers concerning what has been tested and what could be tried in the future in rural and peri-urban communities in Africa and Ghana in particular. Significantly, the literature points to the fact that neo-medicine was introduced to the people of Ghana by the Europeans. However, there remains a serious hiatus because the existing literature does not pay attention to the neo-medical narratives of the Atiwa District in the Eastern Region of Ghana.

To emphasize, in this study, ‘neo-medicine’ refers to western medicine, scientific medicine, biomedicine, orthodox medicine or modern medicine. Opoku *et al.* (2015) defined the term as “a system of care that is based on knowledge attained from scientific process” (Opoku, Addai-Mensah and Wiafe, 2015). Significantly, the people of Atiwa District in the Eastern Region of Ghana with Koforidua as the regional capital were influenced by western medical practice. Due to belief systems, inadequacy of orthodox medicine and personnel, inaccessibility, inconveniences and cost involved in having biomedical treatment, the people of Atiwa continued to use traditional medicine. Atiwa District was not void of diseases even with western therapeutics. Some diseases such as malaria, tuberculosis, diarrhoea, skin diseases and other sexually transmitted diseases were common during the period under review. This particular study has been categorised into four sections. The first section comprises of background to the study which includes the method. The third section focuses on western medical practices in Atiwa and the fourth and final section studies the prevalent diseases that infected the people of Atiwa District and the measures put in place by the western medical practitioners, the government as well as the local people to control these diseases before and after independence. Same section also captures the conclusion of the study.

#### METHOD

To obtain data for this research, the research design and method of study were as follows: the study employed a qualitative approach to investigate Ghanaians’ use of western medical therapy to control diseases. The purpose of the study was to gain understanding of the use of western medicine among the people of Ghana, specifically those at the Atiwa District. The researchers consulted both primary and secondary sources. The primary sources included interviews; to investigate personal experiences of ten purposefully selected members of the Atiwa District. These were men and women advanced in years and have knowledge of the history and medical practices within the period under review. Every interview conducted was recorded on tape. Archival sources were also consulted. The archival sources included correspondence on health and annual health/medical reports on the Atiwa District within the period under review. Specifically, reports from the Enyiresi Government Hospitals covering different years and the Atiwa District Health Administration Reports among others were found useful. Other relevant online sources from the Ghana health services were duly sourced.

The secondary sources that were used included health and medical journal articles, reports, books, and other related literature. Specifically, references were made from works like Twumasi (1975), Patterson (1981), Ashitey (1994), Akyeampong (2006) and Abdullahi (2011). The others include Edwards (1986), Washington (2007), Oyebode *et al.* (2016), Brenya and Adu-Gyamfi (2014), Addae

(1996) and Adu-Gyamfi (2015) among others. Data analysis was generated manually to form a narrative that reflects disease combat and prevention within the Atiwa District of Ghana with wider ramifications on different communities within Africa and the rural as well as the emerging urban spaces across the globe.

## DISCUSSIONS

The following questions have been asked to serve as a guide in the writing of the discussions of this paper: When was western medicine introduced into Atiwa District and how was it embraced by the people? What were the prevalent diseases in the Atiwa District during the period under review? What efforts were made by the western medical practitioners, the people within the Atiwa District, as well as twentieth and twenty-first century governments to cure and prevent the prevalent diseases which infected the people before and after independence?

### *Traditional Medicine at the Atiwa District*

Prior to the introduction of western medicine, the people of Atiwa used indigenous forms of medicine to treat their diseases. According to P.A. Twumasi, a sine qua non of traditional medicine is that the service is performed through the utilization of magico-religious acts and concept, but the practitioners have notion about physical cure and treatment (Twumasi, 1975). During that period, Herbalist, Traditional Birth Attendants, Traditional Bone Setters, Wanzams, and Spiritualist were consulted when someone was sick (Subject 1, 2017). Knowledge about the use of some particular herbs to treat certain diseases were passed from generation to generation within families, hence, lay care was common among the people. Each household prepared their own 'dido/dudo' [herbal concoction]. Every morning one would take a cup of the 'dudo' [herbal concoction] after brushing the teeth with grinded plantain sucker and charcoal which was also perceived to be medicinal (Subject 2, and Subject 3, March 2017). The use of *dudo* (herbal concoction) was taken at least three times a day. This was to ensure good health among family members and the community as a whole. Causes of sickness were seen to have some spiritual explanations. People believed that sickness was caused as a result of a charm or bad spirits. Subject 2, who is the former '*Dwantoahene*' of Akyem Anyinam hinted that:

Sometimes we believe that there were spiritual causes for sicknesses. For instance, I had a swollen leg and people claimed I have been "charmed/cursed by someone". I did not give in but I went for Chinese drugs and now my leg is healed. My leg could have been amputated if I had waited on spiritual healing (Subject 2, March, 2017).

People who suffered from diseases which were alien to the indigenous people and had no explanation were accused of possessing evil spirits or had done something evil and had to confess before they were given any form of treatment. For example, females experiencing menopausal symptoms such as burning sensations in the body were asked to confess. In order to be relieved of their predicament, they say things they know nothing about just to obtain treatment. Some were flagellated and sometimes booed. Subject 1 hinted that:

When people suffer from burning sensation in their body, they were accused of having been struck by a deity and must confess. People who were in pains at the time just say anything to be treated early. It was through the western medical practitioners like the nurses that we got to know that it was menopause. I suffered the same thing but the nurses explained the condition to me. But if it were to be the olden days, they would have accused me of witchcraft. People were beaten severely to confess so-called evil deeds to facilitate their cure (Subject 1, 2017).

These challenges, notwithstanding, the indigenous or traditional medical field remained highly enlisted even in the twentieth century. The presence or the influx of western medical ideals made the Atiwa District medically dualistic. Most importantly, attention modern neo-medical practitioners paid attention to health conditions that indigenous practitioners were considered to be deficient in rendering quick and efficacious treatment. Significantly, the people of Atiwa also fell within the larger macro policies of the British Colonial Administration which had wider ramifications on the social lives of the people including their health and well-being.

#### *Western Medical Practice in Atiwa District*

By the middle of the twentieth century, there were no modern health facilities in the Atiwa District. Patients travelled to Kyebi, Koforidua, and Nkawkaw for medical treatment (Subject 4, 2017). From the 1950s, nursing sisters visited Anyinam to give nursing care to the sick (Subject 1, 2017; Subject 2, 2017, subject 10, 2017). Two stalls/spaces in front of Opanin Kwabena Agyapong and Maame Adwoa Apea's houses, the parents of Nana Kwame Agyapong, the 'Dwantoahene' of Akyem Anyinam were rented and used as the first health post within the Atiwa District, which was then part of East Akim District. People from the towns and villages around Anyinam namely: AbomosuKwabeng, Asamang Tamfoe, Enyiresi, Kankan (now Akyem Sekyere), Fankyene Ko (now Akyem Hemang) and others met the white and black Nursing Sisters who came from the Holy Family Hospital at Nkawkaw in this facility (Subject 2, 2017). Figure 1 shows the stalls in Opanin Kwabena Agyapong's house that were used as First Health Post in Atiwa District.

This facility did not have any bed capacity for the admission of patients. Those who had severe health challenges were referred to Nkawkaw Holy Family

Hospital for intensive care (Subject 5, 2017). As the number of visitors increased, the facility was later moved to Opanin Ahyia Asiedu's house. Opanin Ahyia Asiedu was a catholic merchant who started a Catholic Church service in his house. He brought the church from Cape Coast. He started the church with three people; Papa Kofi Tawia, Papa Tenge, and Opanin Tawiah. Some Priests came from Koforidua and Accra to have mass with them every month. They were accompanied by a Catholic convert called Maame Awerempoa (Subject 6, 2017). Nursing Sisters from Nkawkaw and other trained practitioners from Koforidua visited the new health post. They visited the facility once every week and sometimes based on extenuating circumstances, they did same in a month. Cards were issued to patients whenever they visited the facility for the first time (Subject 6, 2017). Figure 2 shows the stall at Agya Ahyia's house that was later used as health post. Figure 3 shows Agya Ahyia's house that was used as the first Roman School in Anyinam. The health post was later moved from Opanin Ahyia Aseidu's house to Opanin Kwadwo Badu's house. During this time, patients who had travelled long distances to seek for medical care and were referred to Nkawkaw, Koforidua or Kyebi but could not go back were given accommodation by Agya Badu (Subject 5, 2017). Figure 4 shows the modern state of the place that was used later as health post in Agya Badu's house.



Figure 1. The space used as the First Health Post in Atiwa District at Anyinam. The stalls were used for reception (OPD) and Consulting room. Source: Field Data, Saturday, March 25, 2017.



Figure 2. The stall that was used as health post in AgyaAhyia's house at Anyinam.  
Source: Field Data, March 25, 2017.



Figure 3. AgyaAhyiaAsiedu's House. Source: Field Data, March 25, 2017.



Figure 4. The modern state of the house that was used as Health Post in Agya Badu's house.  
Source: Field Data, March 25, 2017.

### *Health Centre in Atiwa District*

By 1969, there were thirty-eight rural health centres. Eight were in the Eastern Region of Ghana. What would eventually be referred to as the current Atiwa District benefitted from one of such facilities (Personal Correspondence, 1999). The Anyinam Health Centre which is the first major medical facility found within the Atiwa District was commissioned in 1963 (Correspondence, 1993). The leaders that ensured the successful establishment of the health centre in the district during Nkrumah's government (Kwame Nkrumah was the first president of Ghana) were the then minister of health, Immoro Igala, the District Chief Executive of East Akyem District Assembly, D.C E. Bofo, and the Chief of Anyinam, Odikro Kwaku Buabeng (Subject 2, 2017). The Anyinam Health Centre served all the towns and villages that form part of the current Atiwa District. The first Medical Assistant and male nurse posted to the district were both stationed at the Anyinam Health Centre. They were Agbodoku and Asheley. Agbodoku was nicknamed 'Chief' and Asheley was nicknamed '*obi mra*' which literally translates as 'the next person should come' (Subject 7, 2017). Benjamin Tabbie took over from Janet Boampong as the Principal Medical Assistant on 13<sup>th</sup> September, 1993 (Correspondence, 1993). The Anyinam Health Centre under Benjamin Tabbie won two awards as the best managed sub-district in 1994 and 1997 respectively (Correspondence, 1993 and 1997). In 1971, a Health Post was constructed at Abomosu, a community within the Atiwa District (PRAAD, Koforidua, and kc.13/157). Until 1979, the facility was not fully completed but had begun operations. The facility was upgraded to a health centre status in 2004.

### *Hospitals in Atiwa District*

The first hospital in Atiwa District started as a Non-Governmental Organization called Children Help Work for Ghana Association. It was established at Akyem Enyiresi in 1987 (Enyiresi Government Hospital Half Year Report, 2008). The focus of the NGO was to cater for the health needs of children (Enyiresi Government Hospital 2008 Half Year Report). A native of the Akyem Enyiresi township; Opong, travelled to Germany and upon his return brought some Europeans to establish the Non-Governmental Organization (Subject 8, 2017). Later, the facility extended its health care services to the general public within its catchment areas (Subject 8, 2017). The community, the Non-Governmental Organization, and the Ghana Health Service discussed at length the absorption of the facility into the mainstream health system. This led to the signing of memorandum of understanding culminating into the final takeover of the facility on 16<sup>th</sup> January 2006. The name was then changed to Enyiresi Government Hospital. The Ghana Health Service started to post professional staff such as Medical Doctors, Health Service Administrator, Nurses, and Paramedical Staff. The hospital then became the referral facility for health centres, clinics, and

Community-based Health Planning and Services (CHPS) compound within the Atiwa District. During the midyear of 2008, the hospital had seventy (70) bed complement. Also it had an average monthly attendance of two thousand eight hundred (2,800), an average monthly admission of about two hundred patients (200), and fifty-eight percent (58%) bed occupancy, staff strength of sixty-one and doctor and patient ratio of 1: 33,219 as well as nurses and patients ratio of 1: 2,693. Table 1 shows the profile of the Enyiresi Hospital in the year 2008.

*Table 1*

The Profile of the Enyiresi Government Hospital, 2008.

Bed Complement	70
Bed Occupancy	58%
Average Monthly Admission	200
Average Monthly Attendance	2,800
Staff Strength	61

Source: Enyiresi Government Hospital, 2008 Half Year Report

#### *Reception of the New Medical Practice in Atiwa District*

The advent of western medical practice in the Eastern Region where Atiwa district is located attracted high outpatient attendance and inpatients admission in the twentieth and the early part of the twenty-first century. In 1996, the outpatient attendance was seventy thousand, two hundred and twelve (70,212) but increased to ninety-nine thousand five hundred and fifty-five (99,555) by 2007 (Ghana Health Service, 2017). Inpatients admission in 1996 was seven hundred and fifty-eight thousand, seven and fifty-five (758,755) but soared to two million, one hundred and eighty-six thousand and twenty-four (2,186,024) by 2007 (Ghana Health Service, 2017). This indicates that the people within the region had accepted the new medical practice as well as the increasing number of dwellers in the region and District in particular. Table 2 and Table 3 show the outpatient attendance and inpatient admission from 1996-2007.

Like some parts of Africa and Ghana in particular, there were some setbacks that prevented some people from accessing the new medical practice. They included challenges such as proximity, bad roads and beliefs, but the people of Atiwa embraced the new medical practice after it was formally introduced in 1963. This was because they perceived the medical practitioners were well trained and the drugs they prescribed were efficacious. Our informant, Subject 1, hinted that 'drugs given by western medical practitioners were quick and efficacious but traditional medicine takes a longer time to cure diseases (subject 1, 2017)'. With the inauguration of the new health centre in the District in 1963, the people saw an improvement in health services as compared to the traditional system with its inherent spiritual inclination (Subject 9, 2017). Table 1 above shows that with a

population of about 170,073 in Atiwa District in 2008, there were about an average monthly admission of 200 inpatients and average monthly attendance of 2,800 at the District Hospital (Enyiresi Government Hospital 2008 Half Year Report). This meant that about 1.64 percent visited the District Hospital every month.

*Table 2*

Outpatient Attendance in Eastern Region 1996–2007.

Year	Outpatient Attendance
2007	99,555
2006	91,578
2005	100,222
2004	82,859
2003	99,469
2002	90,329
2001	87,163
2000	71,106
1999	65,108
1998	58,681
1997	68,362
1996	70,212

Source: GHS-The Health Factor in Ghana: Facts and Figures 2008

*Table 3*

Inpatient Admission in Eastern Region 1996–2007.

2007	2186,024
2006	1,477,204
2005	1,278,852
2004	1,186,311
2003	1,057,649
2002	984,570
2001	962,951
2000	923,226
1999	780,550
1998	741,171
1997	800,724
1996	758,755

Source: GHS-The Health Factor in Ghana: Facts and Figures 2008

### *Health Infrastructure*

Atiwa District had two health centres by 2006. However, the only hospital which was carved out of a Non-Governmental Organisation had operated since 2006. There was a sole private midwife operating in the District but by 2008 it had increased to six. Four CHPS Compounds were in existence in 2006 but had

reduced to one by 2008. Table 4 shows the health facilities in the District from 2006 and 2008.

*Table 4*

Health Facilities in Atiwa District 2006–2008.

Facility	2006	2008
Hospital	1	1
Health centre	2	2
RCH centres	2	6
CHPS	6	1
Private midwife	4	6

Source: Atiwa District Health Administration (ADHA),  
2006 Half Year Feedback & Report, July, 2006.  
2008 half year reports–Atiwa District.

#### *Medical Staff in Atiwa District*

Since the number of outpatient attendance and inpatient admission began to soar, there was the need to increase the doctors and nurses to meet the increasing attendance and admission in Eastern Region. In 2002, the ratio of doctors to population was increased from ninety to twenty-four thousand and sixty-eight (90: 24,068) to one hundred and twenty-eight to eighteen thousand one hundred and forty-one (128: 18,141) by 2007 (Ghana Health Service, 2018). The nurses to patients population ratio also moved upward from one thousand eight hundred and eighty-seven to one thousand one hundred and forty-eight (1887: 1148) in 2002 to one thousand nine hundred and seventy-seven to one thousand one hundred and seventy-three (1977:1173) in 2007 (Ghana Health Service, 2018).

Significantly, the situation in the Atiwa District was worsening between 2006 and 2008. Whereas the number of doctors and nurses at the regional level increased in 2007, the number of doctors in the Atiwa District remained same by the mid-year of 2006 and 2008. The doctor to patient ratio at the only hospital within the District was 1: 33,219, nurse to population Ratio was 1: 2,693 by the mid-year of 2008 (Enyiresi Government Hospital 2008 Half Year Report). There was change in number of some of the staff categories in the District. For instance, in 2006, the number of community nurses had increased to thirty but decreased to twenty-eight in 2008. The number of public health nurses increased from two in 2006 to six in 2008. Number of midwives in the District also increased from seven in 2006 to nine by 2008.

*Table 5*

Doctor to Population Ratio in the Eastern Region of Ghana.

YEAR	Number of doctors	Doctor population ratio
2007	128	18,141
2006	104	22,019
2005	86	26,260
2004	76	29,305
2003	66	33,279
2002	90	24,068

Source: GHS-The Health Factor in Ghana: Facts and Figures 2008.

*Table 6*

Nurse to Population Ratio in the Eastern Region of Ghana

YEAR	Number of nurses	Nurses population ratio
2007	1,977	1,173
2006	1,831	1,251
2005	1,878	1,203
2004	1,851	1,203
2003	1,650	1,331
2002	1887	1148

Source: GHS-The Health Factor in Ghana: Facts and Figures 2008.

*Table 7*

Medical Staff in Atiwa District 2006/2008.

	2006	2008
Medical Officer/doctors	1	1
Public Health Nurse	2	6
Practical Midwives	6	9
Non-Practical Midwife	1	
Community Health Nurses	30	28
Enrolled Nurses	10	6
Disease Control (T.O)	1	7
Field Technicians	14	
Medical Assistance	2	2
Medical Records Assistance	2	

Source: 2006 Half Year Feedback &amp; Report..., July, 2006. Half Year 2008 Report – Atiwa District Health Administration (ADHA).

### DISEASES AND DISEASE CONTROL IN ATIWA DISTRICT

This section identifies some of the prevalent diseases that infected the people at the Atiwa District. They include malaria, schistosomiasis, and yaws among others. The efforts made by governments, and western medical practitioners and local authorities (chiefs and elders) to cure and prevent disease before and after independence in the district have been studied.

#### *Diseases in Atiwa District*

Diseases as societal menace remain a challenge for Ghanaians and the people of Atiwa District. At the regional level, there were common diseases that caused high outpatient morbidity between 2001 and 2007 in the Eastern Region. These diseases include malaria which has higher mortality followed by upper respiratory tract infections, diarrhoea and skin diseases among others (Ghana Health Service, 2008). As shown in the table below, malaria cases in 2001 was two million, six hundred and forty-seven thousand, and ninety-nine (2,647,099) but increased to five million, two hundred and seventy thousand, one hundred and eight (5,270,108) in 2007 (Ghana Health Service, 2008). Upper respiratory tract infections (UPTI) also increased from four hundred and sixty thousand, nine hundred and ninety-five (460,995) in 2001 to nine hundred and twenty thousand, eight hundred and six (920,806) by 2007. Diarrhoea increased from two hundred and sixty-eight thousand, two hundred and eighteen (268,218) in 2001 to five hundred and thirty-nine thousand, one hundred and ninety-seven (539,197) in 2007. Skin disease soared from two hundred and seven thousand, and forty-two (257,042) to five hundred and thirty-nine thousand one hundred and ninety-seven (539,197) in 2007. Table 10 shows the top four outpatient morbidity in the eastern region from 2001 to 2007.

The Atiwa District from time immemorial had naturally faced certain diseases. The common ones among them were malaria, skin diseases, and stomach pains (Konadu, 2017). However, some diseases that were later introduced in the district were cerebro-spinal meningitis, tuberculosis, gonorrhoea, and HIV/ AIDS. In 1997, the Atiwa district recorded the first case of Cerebro Spinal Meningitis (CSM) when two mourners who attended a funeral at Nkonya – Ahenkro at the middle section of the Volta Region at their return brought the disease into the District. This was diagnosed at the Anyinam Health Centre (Correspondence, 2017). Between 2006 and 2008 the disease that made the people to frequently visit the District Hospital were malaria, hypertension, arthritis, Urinary tract infections, diabetes, miletus, skin disease, and ulcers. The others included, diarrhoea, pregnancy related complications, anaemia, and road traffic accidents among others.

Table 8

Common Disease in Atiwa District, 2006.

Disease	Number
Malaria	4265
ARI	753
Home Accident	596
Diarrhoea	443
Rheumatism	345
Hypertension	180
RTA	168
Typhoid Fever	143
Anaemia	70

Source: Atiwa District Health Administration (ADHA), 2006 Half Year Report.

Table 9

Common Diseases in Atiwa District 2009–2010.

Diseases	2009	2010
Malaria	39481	39180
TB	47	56
HIV/AIDS	144	288
Yaws	403	678
Yellow fever	2	2

Source: Atiwa District Health Administration, 2011 Annual Health Report

Table 10

Top four causes of outpatient morbidity in the Eastern Region.

Year	Malaria (1)	%	Upper respiratory tract infection (2)	%	Diarrhea (3)	%	Skin disease (4)	%
2007	5,270,108	41.6	920,806	7.3	539,197	4.3	539,197	4.3
2006	3,861,348	37.83	632,755	6.20	345,454	3.8	341,044	3.34
2005	3,799,158	44.76	581,323	6.85	352,384	4.15	352,295	4.15
2004	3,379,527	44.1	549,398	7.2	331,998	4.3	314,436	4.1
2003	3,359,191	43.9	519,652	6.8	322,404	4.2	325,262	4.3
2002	3,140,980	43.7	532,531	7.4	287,816	4.0	308,848	4.3
2001	2,647,099	43.3	460,995	7.5	268,218	4.4	257,042	4.2

Source: GHS-The Health Factor in Ghana: Facts and Figures (2008).

### *Malaria*

To cure malaria, the Europeans used the bark of *cinchona* as an antidote in the seventeenth century but it had a mixed reaction. Segregation was adopted as a policy to prevent malaria. This policy was mooted by J. W. Stephens and S.R. Christopher, members of the Royal Society of London to study malaria in 1900. In the nineteenth century, Quinine was used as antidote to malaria. During the twentieth century, the high incidence of malaria cases in Kumasi, Sekondi, Cape Coast and Koforidua indicated that there were high increases of malaria but there was no obvious solution for it (Patterson, 1981). Quinine was distributed as a preventive measure in early 1910 but the general distribution began in August 1935. Four grains of Quinine tablets in tubes of sixteen were sold at 270 post offices (Patterson, 1981). Subject 2 hinted that 'Tablets were sold at the post office. It was called the 'post office quinine.' it was powerful but tastes bitter. It was used to cure malaria (Subject 2, 2017). Another measure put in place was larval control. Holes, puddles, borrow pits, and ponds were filled. Oiled, or treated with arsenicals like Paris green. DDT was used as insecticides spray (Patterson, 1981). Malaria remained the leading disease with high reported cases in the Atiwa District before independence and after independence. All respondents attested to this. An interview with Subject 2 (82 years) and Subject 9 indicates that before the advent of the health centre in 1963, the people were fraught with malaria as the common disease (Subject 2, 2017). For instance, out of the top ten diseases reported at the District by April 2006, malaria topped with 4265 cases (Atiwa District Health Administration (ADHA) Half Year Report, 2006). It was the leading case in 2009 and 2010 respectively (Atiwa District Health Administration (ADHA) Half Year Report, 2011). At the Enyirsi hospital, in 2006 there were 783 recorded cases of malaria which is 27.3% of reported cases of diseases in the area. In 2007 it was still leading with 3315 cases representing 28.0%, and in 2008 it led with 5620 cases which represented 35.0% (ADHA; Half Year Report, 2006). Annually, the statistics indicated that the incidence of malaria continued to increase in the District. Table 11 shows the top ten causes of OPD attendance at Enyirsi hospital from 2006 to 2008.

Before the advent of western medicine, the people of Atiwa District had knowledge about the treatment of malaria with the use of herbs. According to Subject 1; here a direct quotation: 'my husband for instance, when someone was infected with fever[malaria], he fetched cassava leaves, guava leaves, 'afama', 'nunum', and bitter leaves; and put them in water to extract medicines from them and uses same to bath the sick, seven times a day with no cost (Subject 1, 2017).

Table 11

Top ten causes of OPD attendance at Enyirisi Hospital 2006–2008.

Diseases	2006	%	2007	%	2008	%
Malaria	783	27.3	3315	28.0	5620	35.0
Hypertension	119	4.1	725	6.1	1543	9.5
Arthritis	143	5.0	1351	11.4	1268	8.0
URTI	108	3.8	1344	11.3	787	5.0
Diabetes Miletus	0	0	156	1.3	630	4.0
Skin Disease and Ulcers	96	3.3	471	4.0	435	4.0
Pregnancy Related Complications	72	2.5	258	2.2	266	1.0
Diarrhoea Disease	43	1.5	431	4.0	242	1.5
Anaemia	68	2.4	326	3.0	207	1.3
Road Traffic Accident	74	2.6	54	4.5	189	1.2
All Other Disease	1365	47.5	3417	29.0	4923	30.5
Total	2872	100	11,794	100	16,110	100

Source: Enyiresi Government Hospital 2008 Half Year Report.

*Schistosomiasis (Bilharzia)*

Schistosomiasis is also known as Bilharzia; which is also known to be one of the common diseases in Ghana. The higher level of prevalence is found among children in various localities. In 1970, the ministry of Health in collaboration with World Health Organization (WHO) and United Nations Development Programme set up a schistosomiasis research project to study the methodology of the control of schistosomiasis in man-made lakes (Ashitey, 1994). There was high incidence of bilharzia during the twentieth century in the Atiwa District. For instance, in 1996 Adasawase recorded high incidence of bilharzia due to the bad nature of the source of water for domestic use; River Tini, now ‘Tini Falls’ (Correspondence, 1993, 1996). Subject 10 hinted that in 1975, those who swarm in River Brim at Akyem-Anyinam were infected with schistosomiasis. She further indicated that her son suffered from the disease and was sent to Nkawkaw Holy Family Hospital for treatment (Subject 10, 2016). The case of bilharzia reported at the mid-year of 2007 was sixty-nine (69). It rose to eighty-one (81) in mid-year of 2008 but reduced to seventy-one (71) in mid-year of 2009 (Atiwa District Health Administration (ADHA), Mid-Year Report, 2009). Table 1.8 shows suspected cases of bilharzia, 2006–2009 Mid-Year.

Table 12

Suspected Cases of Bilharzia, 2006–2009 Mid-Year.

Half Year	No. of Suspected Cases
2007	69
2008	81
2009	71

Source: Atiwa District Health Administration (ADHA), Mid-Year Report 2009.

*Yaws (Frambosia)*

Yaws was one of the endemic diseases in Ghana that afflicted rural communities (Ashitey, 1994). Yaws is caused by *Treponema Pertenuae*, a motile spirochaete. It is usually classified as primary, secondary and tertiary. Goundou and gangosa are extreme forms of tertiary yaws (Addae, 1996). It was among the initial disease for which western treatment was available in the Gold Coast. Potassium iodide was used in the 1920s to treat yaws (Ashitey, 1994). In 1930, about one in four of all patients in Ghana suffered from yaws (Addae, 1996). From the 1956 to 1961, a mass campaign was sponsored by WHO and UNICEF. In 1966, cases of yaws were reduced to about five thousand (5,000) by the use of penicillin. However, more than fifty-six thousand (56,000) yaws cases were reported in 1976. Another mass campaign was mounted in 1980 together with yellow fever immunisation (Ashitey, 1994). This helped to reduce the incidence in the country.

Yaws in Atiwa District were very low with eight cases in 2007. It was reduced to one in 2008 but increased again to eleven in 2009. By the end of 2009, it increased to four hundred and three (403) and six hundred and three (603) by the end of 2010 (Atiwa District Health Administration, Annual Health Report, 2011). Table 13 shows suspected cases of yaws among children below fifteen (15) years, within the 2006–2009 mid-year review.

Table 13

Suspected Cases of Yaws among children under 15 years.

Half year	Number of suspected cases
2007	8
2008	1
2009	11

Source: Atiwa District Health Administration (ADHA), Mid-Year Report 2009.

*Disease Control in Atiwa District*

Sound community health principles require that ‘disease whose origin, maintenance and spread in the community are essentially due to defects in the

social, economic and cultural structures of that community cannot be eradicated or controlled unless the social, economic and cultural defects are themselves corrected (Ashitey, 1994). Several measures were put in place by various administrations or respective governments to check the increasing rate of infections and diseases across the country including the Atiwa District.

*Governments' efforts to Control Diseases Before and After Independence*

Poor sanitation was seen as a major factor among the causes of disease in Gold Coast. In the 1920s, Guggisberg government took remedial steps to ensure good sanitation. Guggisberg facilitated health instruction by introducing Health Week and Health Days from 1925. Hygiene and environmental health was taught in classrooms and sanitary inspectors engaged in the task to bring it to adult Ghanaians in their respective homes. Sanitary schools were first established at Accra in 1922. The Maude Commission in the 1950s encouraged house to house inspection to prevent the breeding of flies and mosquitoes due to accumulating filth. In the 1950s, the government through its medical and sanitary officers exercised a general control and supervision over the many sanitary operations. In the rural communities, sanitary administration came under the native authorities, who were responsible for sanitary conditions of villages. Rural sanitary officials supervised the labourers who removed 'night soil' (toilet) and refuse, collection of conservancy fees, inspection of houses and issuing of summons for sanitary offences such as accumulation of water, rubbish and other nuisance. These officials were empowered by the town council ordinance of 1943. Subject 2 emphasised that the government employed sanitary inspectors who were known among the people as 'tankas' [town councillors]. He opined that:

There were sanitary overseers but now we call them '*tankas*' [town councillors]. They visited individual homes to help prevent disease like malaria. They educated us on hygiene. If they visit your house and found out that your containers or barrels were not covered, they used ladle to stir the water in your tanks and if dirt was found you will be summoned and put before court. Pestles, mortars were checked if they were properly kept, washed or maintained. If they were not properly kept, the owner was summoned to appear before an appropriate authority to answer. The individual is fined if he is found culpable (Subject 2, 2017).

Subject 1 also indicated that a 'tankase' [town council] denoting sanitary inspector could use ladle to stir your water tank. He looked for worms and larvae. Pestles and mortar for the pounding of fufu were also checked. This was aimed at disease prevention. If worms, larvae or other vermin was found in the receptacle, the individual was put before a court (Subject 1, 2017). Between 1951 and 1960, the Nkrumah government embarked on rural health education through mobile and static cinema and developing broadcasting. Instruction was given on village

hygiene, infant care, and improved nutrition. Also, whenever report on a disease outbreak was sent to the Regional Health Administration and to the National for recognition, the government took action through the Ministry of Health. Significantly, vaccination was used as a useful tool by the government for disease prevention. Our interviewee hinted that vaccination was done in a form of cuttings/incisions. It was later that injection was introduced (Subject 2, 2017).

*Western Medical Practitioners' Efforts to Control Diseases Before and After Independence*

In order to promote health, inhabitants of the Atiwa District were reached through midwives, itinerant health officers, and the establishment of village health centres. Whenever there were outbreaks of diseases, personnel from the health facilities were discharged to visit homes and check river banks to find out if there were open defecations. They reported their findings to the chief and elders of the town and to the Regional Health Administration at Koforidua. From here, an action was taken to curb any occurrences. There was also an influx of quack physicians within the realm. Official government health personnel were weary of them and cautioned the indigenous population against these charlatans. They embarked on immunization of people against disease outbreak. For instance, in 2009, the people of the Atiwa District were immunised on BCG, OPV3 Penta 3, measles, Yellow fever, and TT2+ by the district health personnel (Atiwa District Health Administration (ADHA), Mid-Year Report 2009).

*Efforts by Chiefs and Elders, and the People Before and After Independence*

It has been argued that there was no information about which local leaders actually did participate in health programmes, how they participated, and extent to which the leadership cadre of a given study reflects the reported leadership structure of the community as a whole (Atiwa District Health Administration (ADHA), Mid-Year Report 2009). However, the narratives from informants point to the beliefs of the indigenous people. The people believed that outbreak of diseases or increase in child mortality could be as a result of the offence against a river deity. The chief and elders consulted chief priests to mediate on their behalf. Sacrifices were made to the gods for pacification. Our informant emphasised that:

We are enclosed by ninety-nine rivers in Kwabeng. At first, sacrifice was made for those rivers when there was an outbreak of disease. For example, sheep was used as a sacrifice for River 'Kotoani'. But mashed yam or plantain with palm oil was sprinkled on the banks of River 'Awusu' and the outskirts of the Kwabeng Township (Subject 9, 2017).

After the sacrifice, prayers were said to the river gods to intervene. Our interviewee hinted that prayers through libations were made: 'When there is an outbreak of certain diseases, the gods of the ninety-nine rivers in this town were implored or propitiated to take away the disease' (Subject 9, 2017).

Also, funds were raised by the indigenous people of Atiwa District to control outbreak of diseases. Due to the impact of Christianity in the Akyem Abuakwa area from the nineteenth century, most of the people who were Christians disengaged from traditional practices. Several of the traditional practices and initiatives; including the imploring of deities were not supported by some Christian converts. Again, some failed to pay the charges allocated to each adult member of a household under the pretext of the newly found religion; Christianity. One interviewee explained that, there was an increase in child mortality in Akyem Anyinam and the then 'odikro'[chief] of Anyinam, Nana Kwaku Buabeng (I) asked the people to pay 'srene' [cedi] that would be used to buy cow for sacrifice but others did not pay. She further explained that they did not pay because with the advent of Christianity and westernisation, these Christian converts with their western influence no longer believed in the dictates of traditions and sometimes traditional authority (Subject 10, 2016).

#### CONCLUSION

Findings from the research have shown that the people of Atiwa District placed much emphasis on the relevance of the two forms of medical practices in Ghana. However, attention was given to the neo-medical practice since those who had been Christianised and influenced by modernity did not find the former as the safest and acceptable mode of cure. Though attention was given to western medicine in the District by respective governments, the potential of traditional African medicine in treating diseases was not undermined. Majority still resorted to the traditional medical practitioners after they had visited the hospital.

Secondly, it was found that governments did well by ensuring that good health was promoted in the District by employing sanitary inspectors to visit homes and educate the people on hygiene. The western medical practitioners also embarked on immunization and vaccination of people against outbreaks of diseases in the District. The indigenous people also heeded to the instruction given to them to ensure good health. There were no records of physical and scientific intervention by the local authorities. Significantly, this study has projected the relevance of public health in the history of the people of Atiwa and the significance of modern health facilities which have aided existing traditional forms of medical care to facilitate the delivery of healthcare for the people of Atiwa. To a large extent, this study is exemplary and has larger ramifications on the studies in preventive healthcare and curative care among indigenous populations in Africa and Ghana in particular.

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