Realigning and Improving Health Systems for Healthy Ageing: a strategy to improve Health Service Utilization among the Ageing Population in Rural Ghana

Master Thesis

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List of Abbreviation

ANC	Antenatal Care
CEO	Chief Executive Officer
CHAG	Christian Health Association of Ghana
CHST	Catholic Health Service Trust
FDA	Food and Drug Authority
GHS	Ghana Health Service
HMIS	Health Management Information System
IPD	In-Patient Department
LHIMS	Lightwave Health Information Management System
LWEHS	Lightwave e-Healthcare Service
MDG	Millennium Development Goals
MoH	Ministry of Health
NCD	Non-Communicable Diseases
NCHS	National Catholic Health Services
OLA	Our Lady of the Apostles
OPD	Out-Patient Department
SARA	Service Availability and Health Assessment
SDG	Sustainable Development Goals
UN	United Nations
WHO	World Health Organization

Declaration

I wish to declare that I have duly acknowledged all other people's work that I used in writing my thesis. To the best of my knowledge, I have duly acknowledged other people's work (either from a printed source, internet, or any other source. All sources of information either from the internet, printed and any other source were clearly referenced and acknowledged in accordance with academic writing rules of the University of Oslo. This study entitled: Realigning and Improving Health Systems for Healthy Ageing: a strategy to improve Health Service Utilization among the Ageing Population in Rural Ghana – is my own work.

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Abstract

Healthy Ageing is emerging as the next public health threat in Africa as there are concerns that the health systems in Ghana are not robust enough to provide geriatric responsive health care services to the ageing population.

The aims of this study were to first explore the perceived health service utilization needs and challenges of the older population in rural communities. And secondly to ascertain the current state of geriatric healthcare services in the rural healthcare system. The study utilized secondary data analysis of electronic medical aggregated records of the Lightwave Health Information Management System (LHIMS).

Data on health service utilization and health needs of older people from 2020 to 2022 was abstracted from the LHIMS at St. Francis Xavier Hospital in the Central Region of Ghana. The abstracted data was entered and cleaned in Microsoft Excel 2016 and then imported into SPSS 22 software for descriptive analysis to be carried out.

This study found that slightly more than one-third of the hospital attendances were within the aged population in Ghana, and this is for the age 60 years and above. There was almost no difference in terms of numbers when it comes to healthcare access by both aged females, compared to their aged male counterparts.

The findings concur with existing literature, that African healthcare systems are still far from providing geriatric-friendly care services to their ageing population.

INTRODUCTION

Globally, there has been an alarmingly rising trend in ageing population in all the six regions[1]. Europe has the highest older adult population, and the percentage is predicted to reach 36.6% by 2050[2]. However, the number of older adults in less developed countries is estimated to rise even greater than 250%, in comparison to a 71% increase in advanced countries[3]. For instance, in 2010, the Ghanaian adult population aged 60 years and above was projected to hit 1.5 million, representing 6% of the total population and that was already a 220% increase in adult population since independence[4]. By 2025, this age group is predicted to increase to 2.5 million and is expected to reach around 6 million by the year 2050 representing 14% of the total population[4].

BACKGROUND OF THE PROJECT AND CHALLENGES IN THE DISCIPLINE

The World Health Organisation (WHO) indicates that about 23% of the total global burden of disease is recorded within the adult population aged 60 years and above[5]. Following the trend of the total global burden of disease among the adult population, the WHO suggests that the swift shift is the leading cause of mortalities from infectious diseases to non-communicable diseases as a result of the rapid increase in the adult older population[5,6]. Non-communicable diseases are now the leading cause of mortalities globally[7,8]. It is recorded that about 75 percent of these mortalities happen in less developed countries[9]. Also, the proportion of older adults aged 65 and above is likely to be more than children under age 55. The worst scenario is that it is estimated that more than one-half and three-fourths of the disease burden in low- and middle-income countries respectively shall be attributable to Non-Communicable Diseases (NCDs)[5].

Thus, it leaves low- and middle-income countries in a complex situation to battle with the agony of a double disease burden – communicable and non-communicable diseases[10]. Another terrifying situation is that about 80% of NCD mortalities occur in less developed countries[9]. With these scenarios, it is strongly conclusive that the emerging trend of NCDs would extremely affect low- and middle-income countries due to the already existing several other health challenges. Evidence suggests that older adults are at higher health risk as a result of multiple chronic conditions[11]. Further research done on NCDs indicates that within developing countries, the odds ratio of having a chronic condition is twice the minimum for those who live in rural areas compared to those living in urban areas[12]. Another study conducted in 13 African

Countries, including Ghana, found that about 49% of its respondents had a minimum of three chronic disease conditions to manage[13].

Studies indicate that there are varying issues regarding rural and urban demographic differences in ageing[13]. It is not surprising therefore to note that an overwhelming fraction of older adults in developed countries live in urban areas while in developing countries most older adults live in rural areas[13,14]. In 2000, the census figures indicated that there had been a remarkable increase from 4.1% of the total older adult population in 1960 to 7.9%. It further showed that there were older women than men in rural Ghana[15]. Undesirable findings indicate that older adults in Ghana are experiencing neglect and a lack of support in their daily lives. The unpleasant revelation is that it is the older women who are most affected negatively by social neglect yet experience the poorest social and cultural discrimination (e.g., witchcraft) in societies[13]. The existence of a guiding policy on ageing could be the best mechanism to help reduce these mishaps. Though some developing countries have a national ageing policy the gaps between the policy advocacies and the operational levels are so undesirable. It could be worst for countries without a national aging policy like Sierra Leone[16]. Tanzania and Nepal had their national aging policies in 2001 and 2003 respectively compared to Ghana in 2010[17].

The UN's Sustainable Development Goals (SDGs) are surrounded by the universal drive of "leaving no one behind"[18]. Therefore, knowing today's achievements and gaps for the health-related SDGs should be paramount for decision formulators and global health governance as they aim to advance global health outcomes. Sustainable Development Goal 3 specifically is to 'ensure healthy lives and promote well-being for all at all ages' – young, youth, and the aged[19]. From lessons gathered within the era of the Millennium Development Goals (MDGs), all nations have the mandate to embrace multiple sets of actions and governance mechanisms that would promote health at all levels including steps to address all inequities and barriers to health service utilization, especially for the marginalized and vulnerable groups19 – until then achieving the objective of 'leaving no one behind' might be another mirage as being predominantly vulnerable to poor health outcomes[20]. Also, in a similar analogy, senior citizens are categorized as a vulnerable population[21]. In developing countries, the attention of most nationally and internationally funded health interventions has mostly been on communicable diseases and maternal and child survival. As a result, many developing countries can now boost a significant reduction in the incidence of infectious diseases, and maternal and infant, and child mortalities. Nevertheless, as children survive and grow, they are increasingly exposed to the same several health threats associated with chronic diseases. Studies have found that poorer

health outcomes are normally characterized by vulnerable groups including older adults as indicated above. Health is a human right[21] yet most health systems especially in low- and middle-income countries do not have adequately what it takes to respond to the health and care needs of the adult population[6, 22].

Health systems in most developing countries are and would be highly vulnerable[19] to the shocks that the shift in demographics would pose to health for all in the near future if remarkable mechanisms are not integrated into the mainstream of health systems now in preparedness for the near future health demands[22,23]. In recent times, health systems and global health governance have been on the high agenda in the quest to attain the Sustainable Development Goals (SDGs). For instance, in April 2018, there is a scheduled health conference in Oslo, Norway on health systems. Similarly, there would be another conference in Bergen on SDGs. This points to the fact that health systems require greater attention in the bit to achieve SDGs 3 by 2030. Several studies have indicated that the older population often struggle to access the health and care services they need[24] due to: physical and financial barriers; lack of appropriate services; low levels of awareness of health conditions; lack of knowledge on their rights and entitlements; poor utilization of health services; inadequate preparedness of the health workforce to care for older people; Poor communication and lack of awareness about health issues of elderly[24,25]. Several studies have been done on health and ageing mostly on self-reported health, stress-related issues and depression, determinants of health, cognitive functioning, and dementia, among others significantly correlating with healthcare utilization among the older population and health systems[25]. Through these studies, a lot of critical findings have emanated either as facilitators or hindrances to healthy ageing yet less has been done with reference to relooking deeply into why the current health systems cannot integrate these essential evidence-based recommendations and secondly how health systems could be strengthened thereafter designing a health system model to integrate these issues in full support of healthy ageing in low- and middle-income countries[24,26,27]. Though resource constraints have been a major hindrance to redefining the health systems, it is very necessary as a matter of urgency to set the pace now in tackling the emerging health challenges through realigning health systems as the many predicted health challenges that would emerge as a result of the ageing population can never be a totally misleading prediction. Hence the earlier health systems in low- and middle-income countries began to relook at their health systems in support of healthy ageing the better[28,29,30].

As many countries are battling with measures to handle these emerging future health problems, evidence-based information requires a change in the present healthcare system from one which focuses on diagnosis and treatment of disease to a system that attends to the major issues that affect health and care needs as well as the quality of life of older adults[31,32]. A study done in the USA on critical areas influencing the quality of life of older American adults recommended the following: providing resources to individuals to help manage chronic medical conditions, assuring a sufficient number of primary health care providers educated in geriatrics and gerontology, removing financial barriers to accessing health care and medications, and changing the American cultural value system that emphasizes disease treatment over providing emotional, educational, and support resources[11,33.34]. Developing long-term care systems for the elderly has become an increasingly urgent policy issue in China also, especially for the adult population in rural areas. It is because of this need that most countries in developed countries like South Australia and New Zealand Health Care Authorities identified the need to redefine their traditional service models to include systems that met the health and care needs of the older population as well as make their health systems 'age friendly'[35,36,37]. Even though some countries in low and middle-income countries – Cambodia, Mozambique, Peru and Tanzania - have piloted some mechanisms in support of healthy ageing,[38] these were done only at the community levels as social interventions. Hence limiting findings to the community and social levels. It therefore could be a challenge to transfer lessons from such pilot projects to the main health systems considering the differences in characteristics among other parameters[35].

In summary, the shift in demographics has led to an increase in the prevalence of chronic conditions. These conditions pose important challenges to healthcare systems, especially in developing countries. The concerns here are whether the healthcare systems in less and middle-income countries are robust enough to meet the healthcare needs of the older population[39,40]. If not then in what ways can the structure and the delivery mechanisms of health systems best adapt to the needs of older populations considering the emerging rise of chronic conditions? Health systems therefore need to be realigned to promote healthy ageing otherwise we risk putting the older population in a situation where their quality of life would experience worst outcomes by 2030 which would have defeated the United Nations (UN) goal of leaving no one behind.

History of St. Francis Xavier Hospital, Assin Foso, Central Region [42]

St. Francis Xavier Hospital started as a small rural community health centre by the Assin District Council in the early 1950s and, was under the direct leadership of the Council. The motivation to set up this health centre was coordinated by three smaller community councils sharing borders around the Assin land. And these comprised of the Afotuakwa, Atendansu, and Apemanim Traditional Councils. At the time, the Catholic Health Service System was acknowledged as the best healthcare service partners, so in their quest to embrace modern and improve on health care delivery to their people, the trustees of this health centre, called on the then Metropolitan Catholic Archbishop the late Most Rev. John Kwadwo Amissah, Metropolitan Catholic Archbishop of the Metropolitan Province of Cape Coast and Sekondi/Takoradi Dioceses, to partner with them to manage the health centre. The Archbishop gracefully accepted the partnership request and took over the leadership responsibilities of the health centre. He further assigned the Our Lady of the Apostles (OLA) Sisters to run the health centre, as this Catholic Organization was already into health care delivery in Ghana.

The OLA Sisters, after managing the health centre for a while, had to withdraw their services due to overburdened responsibilities coupled with limited personnel resources. Fortunately, there were a lot of Dutch health practitioners within the time that the OLA Congregation has withdrawn, and since the Dutch Health Practitioners were already fraternizing with many Catholic health institutions in Ghana, and as a matter of urgency, the management of the health centre was entrusted to the care of the Dutch Lay Organisation in the late 1950s. In attempts to find long term solution to the management of the health centre, the St. John of God Brothers in Sefwi Asafo were brought in in 1962 to man the health facility. These Religious White Brothers dedicated their lives to service to mankind, lived over ten years in Ghana serving the sick both in Asafo, Assin and Koforidua; Western, Central and Eastern Regions respectively. However, the workload became unbearable for them too, so the Sisters Hospitaller of the Sacred Health of Jesus were later invited to assist with the management of the health centre. This Congregation were equally advanced in health knowledge and were greatly resourceful in expertise and material resources to support and manage health care delivery systems in poor countries. With zeal to service the sick, strong passion and commitment dedicated by the Sisters Congregation, the Archbishop finally entrusted the management of the health facility to the sister, ensuring outright ownership of the hospital to the Sisters Hospitallers.

Following the visits of the Superior General, Mother Maximina, and her secretary, Maria Lina, and the Counsellor for the English Delegation to Ghana on 16 August 1963, to meet, assess and finalize ownership arrangements and agreements with the Archdiocese of Cape Coast, processes for the final coming of the Sisters started with all earnestness. The processing of visa documentation for the Sisters was not without challenges, especially at the Ghana Embassy in London. Eventually, the Sisters would have to go to Rome to finalize their visa documentation.

Finally, in 1965, everything was set for the Sisters to come to Ghana. On 22nd February 1965, the four Sisters came by Alitalia to Ghana and were welcomed at the Ghana Airport by His Grace the Late Archbishop John Kojo Amissah, the Hospitaller Brothers, and the Vicar General of the Archdiocese of Cape Coast. The quartet passed the first night in Ghana in Cape Coast at the Archbishop's House. So, the first four (4) Spanish Sisters Hospitallers to come to Assin Foso to what later became known as Catholic Hospital were Sisters: Rita de Jesus Labiano (Mother Superior), Rosa de Puy Munarriz, Candida de San Luis and Marina de Maria. Among them were three general Nurses and a Midwife. This also was in line with the specific request contained in the final letter of His Grace, the late Archbishop John Kojo Amissah, through the Provincial Delegate, Fr. Gornollon, to the Sisters Hospitallers Council in 1963. Interestingly, the Dutch Lay Organization did not leave right away but rather left behind lay Nurses to ensure smooth and successful handing over and transitional processes.

The Sisters Hospitallers inherited not only lapidated but also very skeletal infrastructures from their predecessors. The Sisters took over a small OPD with Dispensary, a small Maternity Ward, General Ward, and a Theatre. Decisively, the Sisters were very strategic. They took leading roles in the day-to-day running of the facility by appointing themselves as in-charges of all the units with the help of other skilled locals they came to meet. The total bed capacity then was 50. They also inherited a convent that could inhabit six to seven Nuns at the time.
The first Medical Doctor to work with the Sisters in Foso Catholic Hospital was Dr. Antonio Miralles from Zaragoza in Spain. Dr. Miralles had already been in Ghana for the past two (2) years but working with St. John of God Brothers in Koforidua whilst awaiting the arrival of the Sisters Hospitallers. He was a bi-specialist as a surgeon and internist. Of course, the Sisters did not live without some initial challenges. They faced climatic challenges as well as social and economic difficulties even though they were heavily supported by both the provincial and general councils. Under the Sisters Hospitallers, the hospital was upgraded to the District Hospital status. Until 1988, the hospital was simply known as Foso Catholic Hospital. But when

it was christened, the name of the hospital became St. Francis Xavier Hospital and so it has been known to date. Being missionaries, the Spanish Congregation of the Sisters Hospitallers preferred the hospital to be named after St. Francis Xavier, the patron saint of the missionaries. At present, the hospital is a full member of the Christian Health Association of Ghana (CHAG). Currently, it has a bed complement of 135 and a catchment population of over 230,000, serving both Assin and beyond.

Currently, the facility can boast of very good and state-of-the-art infrastructures. There are new Medical, Surgical and Paediatric Wards. There is also an OPD complex which accommodates quite several Units. The facility also has up-to-date medical care equipment and modern technological diagnostic equipment.

Ownership, and Managerial Structure[42]

St. Francis Xavier Hospital is owned by the Catholic Health Service Trust (CHST), Ghana formerly called the National Catholic Health Services (NCHS) and its partners, the Sisters Hospitallers of the Sacred Heart of Jesus. CHST is one of the agencies under the Christian Health Association of Ghana (CHAG). CHAG is an agency of the Ministry of Health (MOH). CHST currently has five (5) hospitals in the Central Region. The Regional Diocese has the power to transfer staff in consultation with the Institutional Management. The Sisters group report to their Superior Provincial through the local Superior as well as the CHST through the Regional Secretariat.

The Head of the hospital is the Sister in Charge who acts as the Chief Executive Officer (CEO). The CEO directly supervises the tripartite committee. CHST operates through a tripartite managerial team comprising three departmental heads-Health Services Administrator, Nurse Manager and Medical Director who form the core management team. The successful implementation of a management team concept naturally relies on teamwork.

In the absence of a sister in Charge, CHST mandates one among the tripartite to lead. The Head of the Management Team is a functional position, not a professional position. The appointment of the Head of the tripartite team is by nomination by the core members and approval and official appointment would be given by the Arch/Bishop. The term of office of the team leader is for a three-year period renewable once consecutively.

Specific Management grades of the Ministry of Health are expected to be co-opted regularly for management meetings. The co-opted members are the Human Resource Manager, Accountant, Pharmacist and Chaplain.

JUSTIFICATION FOR THE STUDY

Although there is awareness that this vulnerable group – the ageing population are exposed to a wide range of poor health as a result of the double burden of disease (Chronic and Non-Chronic) that affects healthy ageing and health outcomes in low- and middle-income countries[40] however little research has systematically documented how health systems could be realigned to improve and sustain healthy ageing in low- and middle-income countries vis-à-vis limited available resources[41]. Moreover, evidence-informed strategies as health interventions to sustain healthy ageing in low- and middle-income countries are relatively unknown and hence less patronized[40]. Given research suggests that the ageing population are the most affected category with the double burden of disease episodes, yet most low- and middle-income countries do not have proper functioning ageing policies hence critical health needs of the older population continue to widen due to the absence of appropriate health-related interventions in support of healthy ageing[43]. Increasing research evidence suggests that the predicted demographic shift could compound the existing health problems in low- and middle-income countries soon[11,44]. To avert these predicted tendencies of compounding negative health outcomes, it is possible that the health systems could be readjusted to improve and sustain the health needs of the ageing population in low- and middle-income countries. With that, health outcomes would improve among this population group thereby eliminating demands for huge health expenditure in the future. It is for this reason that utilization patterns vis-à-vis health systems realignment for this population group should be of high interest to researchers, policymakers, society, and healthcare providers in low- and middle-income countries[45].

SIGNIFICANCE OF THE RESEARCH PROJECT, ORIGINALITY AND BENEFITS FOR THE PATIENTS AND SOCIETY, SKILLS DEVELOPMENT IN HEALTH SERVICE AND STRENGTHENING OF THE DISCIPLINE

This project seeks to identify key health service utilization patterns of the ageing population alongside the health systems' issues thereafter recommending an intervention to facilitate adequate integration of the healthcare needs of the ageing population into the main health systems. This would improve the health service utilization of this population group thereby improving and sustaining healthy ageing. An intervention to meet the health needs of the ageing population would improve the general health outcomes of the ageing population. Though the existing workforce is dedicated and professional, this project would provide them with the needed additional support to enable them to respond to the increasingly complex needs of the ageing population. The health workforce would improve on their skills and knowledge in delivering 'elderly friendly'[45]. Through this project, the health systems would be presented with evidenced-based effective models and delivery mechanisms of health systems that best adapt to the needs of ageing populations. Finally, this project would seek to outline policy and intervention options that can stand the test of time for health systems realignment focusing on improving and sustaining healthy ageing in low- and middle-income countries[46]. Evidenced-based recommendations and findings would be shared with the research community to enrich and strengthen this field of research discipline for future health research needs.

SCIENTIFIC SIGNIFICANCE OF THE STUDY

Geriatric healthcare is increasingly becoming a component of the healthcare delivery system globally as the reality of healthcare needs for the ageing population continues to vary due to changes in demographics especially in low- and middle-income countries[46]. The healthcare system will need to prepare adequately for the increasing incidences of chronic conditions within the ageing population. With chronic conditions on the rise in this population, their health care becomes more complex. With an ageing population that continues to grow, our healthcare systems are required to change by integrating health service models that would adequately meet the health needs of the older population[47]. An important challenge that this project would assist to resolve is the designing and implementation of new approaches in health care delivery to address the changing health needs and status of this ageing population. In order to provide an effective guide and support for the development of such interventions, researchers are required to gather and provide all the most relevant evidence-based informed strategies in support of the

need for an improved health system that can sustain healthy ageing. The results from this study will enrich the existing literature on health systems strengthening policy initiatives on healthy ageing, especially for low- and middle-income countries[48].

RESEARCH QUESTIONS

1. What are the epidemiological medical conditions of the aged population in rural communities in Ghana?
2. How prepared is the healthcare system in Ghana towards providing the desired geriatric healthcare services to the aged population in rural communities in Ghana?

STUDY OBJECTIVES

The study is specifically aimed at the following:

1. To document reported and perceived health challenges of the older population in rural communities.
2. To explore health service utilization needs among the ageing population in rural communities.
3. To explore the current state of geriatric healthcare services in the rural healthcare system

METHODOLOGY

STUDY DESIGN

The study was a secondary data analysis using aggregate and averaged hospital data on the aged population from the age of 60 years and above. This data was generated from the current Health Management Information System (HMIS), currently being deployed to all health facilities in Ghana. This HMIS is an electronic medical record of the Lightwave Health Information Management System (LHIMS)[41]. The LHIMS is a nationwide electronic medical record and patient management system officially launched by the Ministry of Health (MoH), to offer Ghanaians a paperless form of healthcare delivery. The system involves the networking of all hospitals, clinics, and community health centres in all the regions, as well as districts, and the networking of all agencies under the Ministry of Health (MoH) such as the Food and Drugs Authority (FDA) and the Ghana Health Service (GHS) [41].

This electronic medical record project is managed by Lightwave e-Healthcare Services (LWEHS), a healthcare infrastructure solution with the mission of providing products and services that make the lives of clients and health facilities easier. The system has a centralized data centre with a 24-hour recovery unit, which would serve to revolutionize the healthcare industry. It also provides an electronic medical record for all citizens in the country, develops a real-time bio-surveillance system, as well as develops a patient management system which streamlines the admission, discharge, and transfer system [41].

Outpatient Department (OPD) Attendance

In order to populate OPD Attendance, an electronic search is performed to determine if the patient has visited the facility during demographic registration. If patients have not visited before, a patient number is assigned, and a folder is issued.

The patient is then designated as a new patient or an old patient as appropriate. Patients are then registered using the appropriate register. The OPD attendance is populated by adding facility ANC attendance, Outreach ANC attendance, Total OPD attendance, Facility OPD attendance and Outreach OPD attendance. The OPD data is generated from LHIMS via Statement of Out-Patient and filtered to select the preferred age group. Detailed steps in generating these statements can be found in Appendix 1.

GHANA'S DEMOGRAPHIC AND EPIDEMIOLOGICAL TRANSITION

Ghana's socio-economic transformation, with a quest to achieve high standards of healthcare outcomes, thus leading to an improvement in healthcare services like management of the double burden of diseases – both communicable and non-communicable diseases, in addition to maternal and child health, vaccinations, and immunization among other key health indicators have seen progressive improvement over the years[43]. As a result of improved healthcare services in the Country, Ghana's life expectancy has progressively increased past the 60-year-old mark, which the World Health Organisation defines as old age[44]. According to the 2020 population census report, the life expectancy stands at 64.9 for both sexes with 66.1 years for the female and 63.8 for the male population[45].

As indicated in the data analysis above, the burden of infectious diseases seems to be declining, just like in other sub-Saharan African countries. However, there is a notable increase in the burden of non-communicable diseases in Ghana reference to the data analysis above, and similarly for other Sub-Saharan African countries according to available literature[46-48]. Although a high in non-communicable diseases could be associated with the 'ageing process, changing lifestyles and the nutrition transition' for the aged population[49,50]. It is therefore critical that Ghana's healthcare system is re-structured and re-aligned to handle the healthcare needs of the aged population, who are naturally more likely to suffer more chronic non-communicable diseases, once the aging process set in.

Data Collection and Analysis

Data on health service utilization and health needs of older people from 2020 to 2022 was abstracted from the LHIMS at St. Francis Xavier Hospital in the Central Region of Ghana. This data was retrieved from the annual performance reports for the years 2020 through 2022. There was no access to individual data apart from the available and non-sensitive secondary data. The abstracted data was entered and cleaned in Microsoft Excel 2016 and then imported into SPSS 22 software for descriptive analysis to be carried out. To facilitate trend comparison and analysis, percentages, frequencies, and graphs were generated. Corrections were made for incorrectly entered data and all missing data were excluded from the analysis.

Permission to access secondary data/Ethical Consideration

Permission to have access to the secondary data to conduct the research was sought from the administration of the National Catholic Health Service and St. Francis Xavier Hospital. The data needed for the study was non-sensitive and didn't violate individual privacy information. And because this type of data is non-sensitive in nature, it didn't require process and approval by both the ethical boards from Norway and Ghana. And the secondary data extracted for this study were treated with the utmost confidentiality and were not passed on to a third party.

RESULTS/FINDINGS

Aged Outpatient Attendance 2020 - 2022

Chart 1 illustrates the relative OPD attendances made by the aged group (60 to 70+) years old, from the catchment population of the facility between 2020 and 2022. Over the whole period, the significance of total OPD attendance inclined steadily while female-aged attendance grew in importance year by year. A different pattern emerged for female attendance; it showed an increasing percentage in attendance from 2020 onwards.

The year 2020 contributed the lowest general OPD attendance, peaking at 17,947, but it then inclined in steady increments to a high of 20,345 in 2021 and a further increase to 20,601 in 2022. The age category, on the other hand, had more females seeking health care as compared to males, for the age group of 60-69, female attendants of 6233 to males 3174 over a 66 percent difference. Ages of 70 years and more female attendance of 5373 to male attendance of 3167, 63 percent difference.

In 2021, contributed general OPD attendance of the aged (60 to 70+), peaking at 20,354. The age category had more females seeking health care as compared to males, with respect to the age bracket of 60-69, the female attendant was 7213 as to 3693 males. An incremental percentage of 66 percent over male attendance. Similarly, the Ages of 70 years and above (with a population of 9,448), recorded female attendance of 6142 to male attendance of 3,306, a percentage difference of 65% of females.

Relatively in 2022, contributed aged OPD attendance for all categories was 20,601. With the two age categories, there were higher female attendances for (60 to 69) years which was 7397 to the male attendance of 3693. Similarly, the Ages of 70 years and above recorded a population of 9511. The female population recorded 6119 to male attendances of 3392.

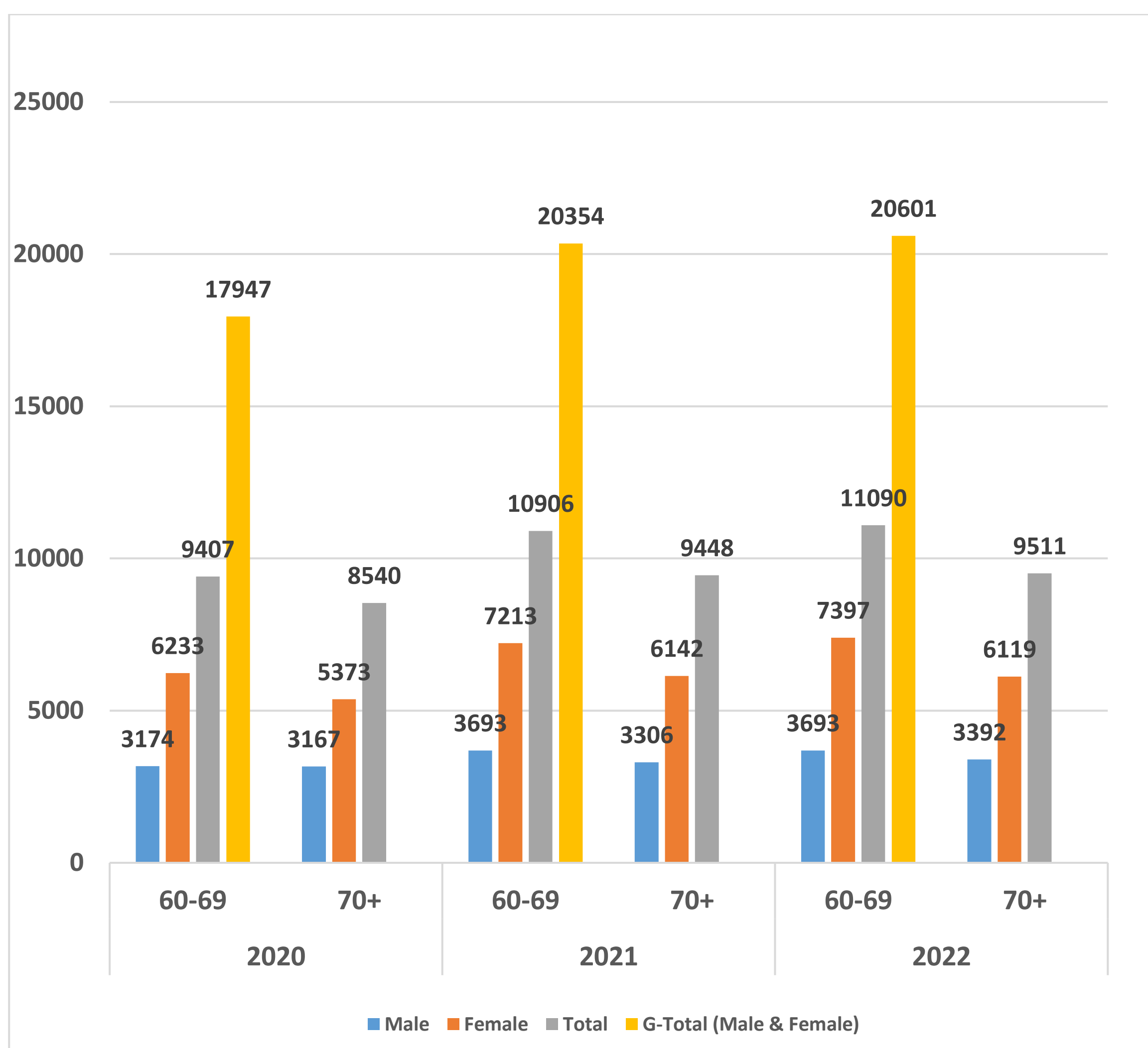

Chart 1 - *Aged Outpatient Attendance 2020 – 2022 (Source – St Francis Xavier Hospital Annual Report 2020 to 2022)*

Aged Outpatient Morbidity 2020 – 2022

Over 90% of all OPD adult morbidity recorded at St. Francis Xavier Hospital occur because of 10 causes. Over the past 3 years, the main causes of OPD attendance in this facility have remained fairly consistent. In the past 3 years, the top 3 adult OPD attendance accounted for around 52% of all-cause admission.

The top causes of OPD morbidity are associated with three broad topics:

1. Rheumatism & Joint Pain (myalgia, headaches, and various form of body pains/aches),
2. Cardiovascular (hypertension, ischaemic heart disease, stroke) and

3. Respiratory (pneumonia, obstructive pulmonary disease, lower and upper respiratory infections).

These OPD morbidities can further be grouped into three categories: communicable (infectious and parasitic), non-communicable (chronic), and body aches/ injuries.

Rheumatism & Joint Pain has been the leading cause of admission in 2020 and 2021. However, it was overtaken in 2022 by Hypertension. This change can be attributed to the insertion of the LHIMS operating system. LHIMS is programmed with more specificity of the diagnoses. Hence, composite diagnoses like Rheumatism & Joint Pain are further broken down into various morbidities.

Morbidities such as Diabetes, ulcers (various forms), lower and upper respiratory disease, and eye infection feature in the top 5 of 2020, 2021, and 2022.

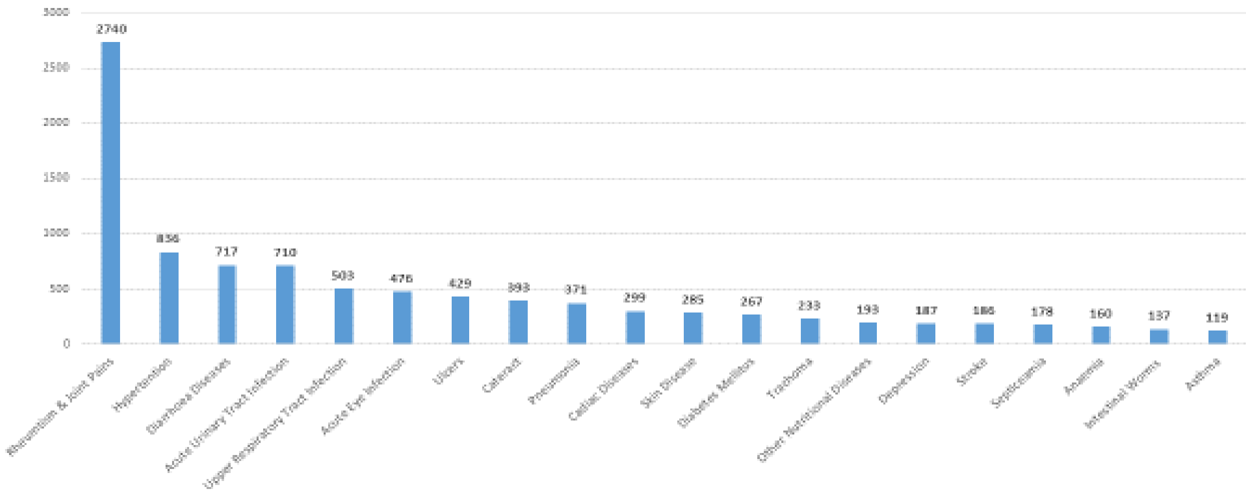

Chart 2 - Aged Outpatient Morbidity 2020 (Source – St Francis Xavier Hospital Annual Report 2020)

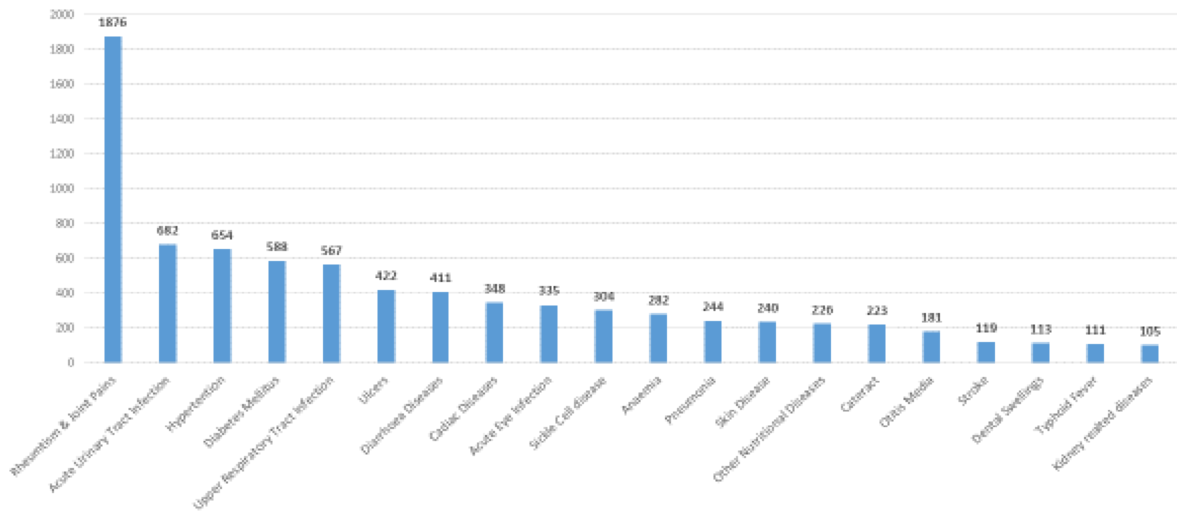

Chart 3 - Aged Outpatient Morbidity 2021 (Source – St Francis Xavier Hospital Annual Report 2021)

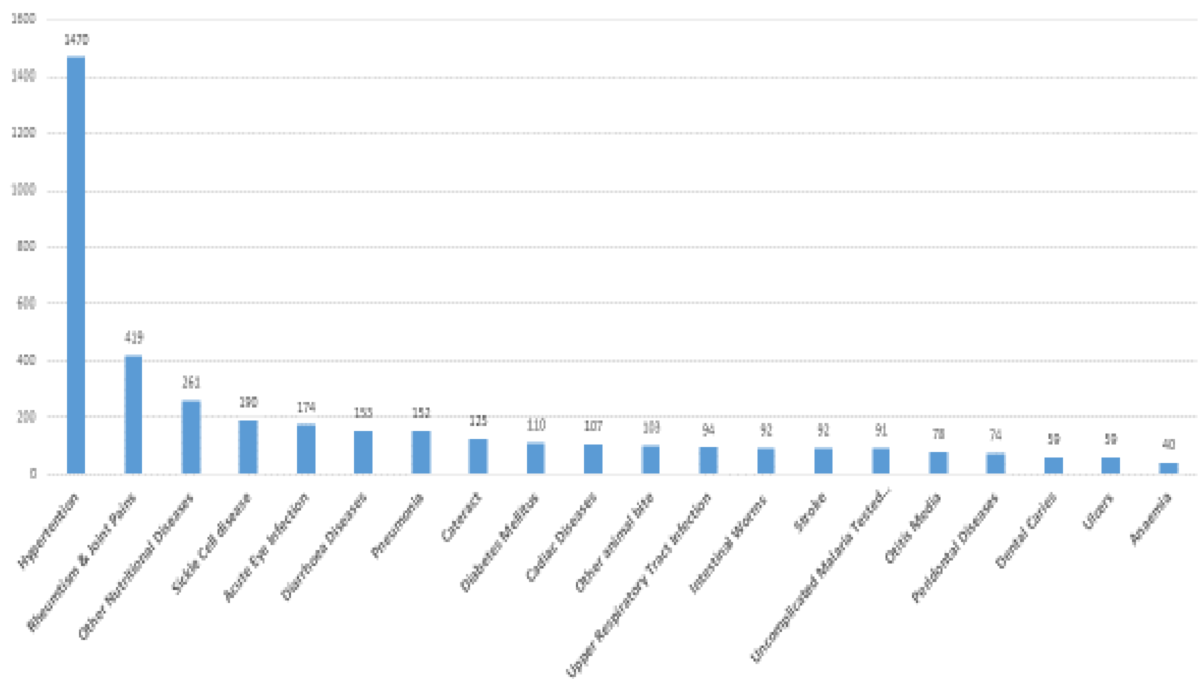

Chart 4 - Aged Outpatient Morbidity 2022 (Source – St Francis Xavier Hospital Annual Report 2022)

Aged Admission 2020 – 2022

The facility recorded yearly average attendance of 1120 of the aged group. There was a slight increase of admission in 2021 from 2020, but slightly decrease in 2022 from 2021. There were relatedly similar numbers of male and female admissions.

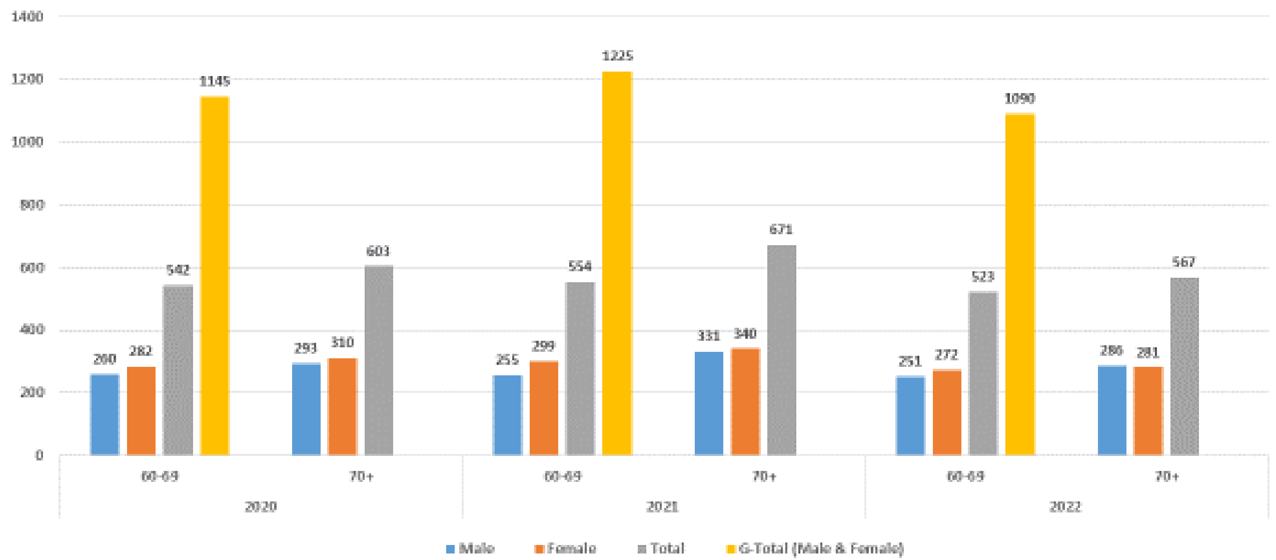

Chart 5 - Aged Admission 2020 – 2022 (Source – St Francis Xavier Hospital Annual Report 2020 to 2022)

DISCUSSION

This study found that slightly more than one-third of the hospital attendance is within the aged population in Ghana. And that there is almost no difference in terms of numbers when it comes to healthcare access by both aged females, compared to their aged male counterparts. This categorically implies that their demand for health services within their health needs in the aging phase of life is therefore frequent. From the results analyzed, it is possible to assume that they mainly accessed health care during the point of need; thus, when they were sick, and less preventive utilization of health services, comparing the leading causes of hospital visits within the three-year morbidity trend. This conclusion is reinforced by the fact that the top-ranking reason for visiting the hospital by this population was because of communicable diseases. The health needs of the elderly can get complicated as most of them must battle with both communicable and non-communicable diseases. This therefore points to the fact that recommendable health service alignment in health services in Ghana needs to integrate geriatric services to serve and meet the health needs of the aged population, this therefore strongly calls for professionally trained health professionals in geriatric medicine and health services to professionally provide services suitably. In most African Countries, there are no nursing home facilities, and geriatric specialized health services, compared to what pertains in developed countries.

No Nursing Home Facilities in Africa

In some developing countries, the aged population is discriminated against in their communities notably if they are women, and worst if they are childless. General some of the social challenges the aged population face in Africa are ‘social isolation, elder abuse, neglect, and abandonment’[51,52]. And these are very common for the aged who have no children and direct family members to assist them. Unlike the system in the developed countries, there are no nursing homes and long-term care facilities in Africa, hence the aged with no support system from their direct family members are neglected to their fate[51]. Even if there should be nursing homes in Africa, it is highly likely that those facilities would be highly underutilized. And that is because of the stigma and insults that society will ‘curse’ whichever family member that proposes to send their parents to a nursing home. In Africa, due to the difference in the culture of the people, the aged preferred to live with their family, instead of being sent to an aged home for long-term care as it is believed that it is the responsibility of their children to care for them in their old age, hence sending them to an aged home or long-term care home is seen as a

taboo[53]. This is also applicable to Ghana as the Ghanaian elderly are still cared for by their families[54]. One of the reasons why in some African Countries such as Ghana, children or family members cannot take the elderly persons to a long-term home is the belief that the elderly might place a curse on the person that proposes the idea, hence no person can have the courage to make proposals like these[53,54].

In the absence of nursing homes and long-term care facilities, Geriatric Health Care Services would be incomplete[55]. Health systems that have these facilities help to provide some support and relief for family members who must combine their personal day-to-day running around with the care of their aged parents or family members. And because of the absence of these support health systems for the aged population in Africa, most of them experience challenges with their general health and well-being. Some literature has suggested that elderly persons in some parts of Africa including Ghana commonly experience numerous challenges regarding their health, well-being, and mental state[56]. This points to the fact that most health systems in Africa are not adequately designed to care for the health needs of the aged population.

Geriatric Care in Africa

Geriatric medicine is still a new medical specialty in some parts of the world particularly in Africa; therefore, creating significant gaps in the knowledge, work experience, and practice in geriatric care as a specialized profession[57]. Generally, and in all countries, the aged population encounters numerous challenges with their health. And therefore, require similarly intentionally designed systems to meet their needs[58]. Geriatric medicine is gaining high recognition in health systems and health plans as it directly focuses on the unique needs and health challenges of the aged population[59]. There is generally a paucity of specialized healthcare services for the elderly in Africa, some of the reasons may be the absence of training facilities in most African countries, inexperience, and lack of adequate expertise of critical concern to the peculiar needs of the elderly, in addition to the inadequate availability of both personnel and material resources[59]. Geriatric medicine is important because most doctors deal with elderly patients no matter their specialty[60].

In Ghana, the training in geriatric medicine is still new, and only one hospital is accredited by the West African College of Surgeons for the training of geriatricians in Africa. Most geriatricians working in Africa have had to undergo the training overseas[56]. And due to the absence of training facilities and opportunities, the few doctors who have the interest in

specializing in geriatric medicine are forced to opt for other programs, if they are unable to secure opportunities overseas. So, in the absence of geriatricians, it is the general family doctors and physicians who have gained experience by long service practice, and are devoted, and extend their services to caring for the elderly[57]. And these arrangements are only possible in the big cities. Even with experience in caring for older persons, their knowledge will be limited because they do not have any specialist training in geriatric medicine[61].

Governments in developing countries have a significant role in the delivery of healthcare for elderly persons[52]. Governments must own the responsibility to enact policies that will protect the vulnerability of senior citizens. The care of elderly citizens must be of great and critical essence and concern to the policymakers in most African countries.

Geriatrics in the Context of Ghana's Healthcare System

Similarly, to other middle- and low-income countries, the healthcare system in Ghana is not robust enough to provide the recommendable and desired geriatric healthcare services to the aged population in Ghana[58]. Reviewing existing policy documents mainly points to focus on social support for some categories within the aged population. Relatedly, the national health policy and Ghana's Vision 2040 policy documents do not directly and explicitly state measures with a main focus on reviewing the healthcare system to capture a direct focus on improving the health system in order to enable the aged population to access the desired geriatric health care services[62]. And with the absence of a focus on geriatric healthcare services, just as for other developing countries, could challenge the attainment of the Sustainable Development Goal (SDG) 3 objectives, especially on the call for equitable healthcare access for all[63].

Evaluating Preparedness for Provision of Geriatric Health Care Services in Ghana

Preparedness in a healthcare system is very essential as it defines the ability of the health facilities within the healthcare system or structures to provide a given desired health service to the patients needing those services[64], and for geriatric healthcare services, the World Health Organization's (WHO) 2008 Age-friendly Primary Health Care Centres Toolkit[65] outlines a comprehension guide on the main essential systems that a healthcare system should comprise of to be in full readiness to provide comprehensive geriatric healthcare services to the aged population. WHO's recommended comprehensive guide on the preparedness of a healthcare system indicates that "the measuring service availability and readiness health assessment

(SARA) methodology for monitoring health systems strengthening"[66] and the USAID and health systems 20/20's "The Health System Assessment Approach: A How-To Manual. Version 2.0"[67] to enable health systems and health facilities to evaluate their preparedness and in this case the readiness of the current health system in Ghana to provide geriatric healthcare services.

In highly resource constraint countries, the SARA methodology has been tested and proven to be very effective in evaluating the following key health systems' compositions: general health facility readiness[68], progress towards universal health coverage[69], maternal and child health services, and non-communicable diseases in Bangladesh[70,71], surgical services in Africa[72], and readiness of Ugandan health services for the management of outpatients with chronic diseases[73]. As indicated above based on a wide review of internet-based review of literature search, there are almost no many studies that have been conducted to evaluate the preparedness of health facilities to provide geriatric healthcare services in Ghana, and in the Sub-Saharan Continent. To facilitate the evaluation of a health system, and to determine how such a health system could be re-structured and re-aligned to meet the requirements for the provision of geriatric healthcare services, it is highly recommendable that we consider the WHO building blocks approach as these elements are the essential pillars for every successful healthcare system, and these critical elements include the following: Human resources for health, leadership and governance, health service delivery, health financing, medical products, health management information systems (HMIS), and logistics and technologies[74] as depicted in fig 1 below.

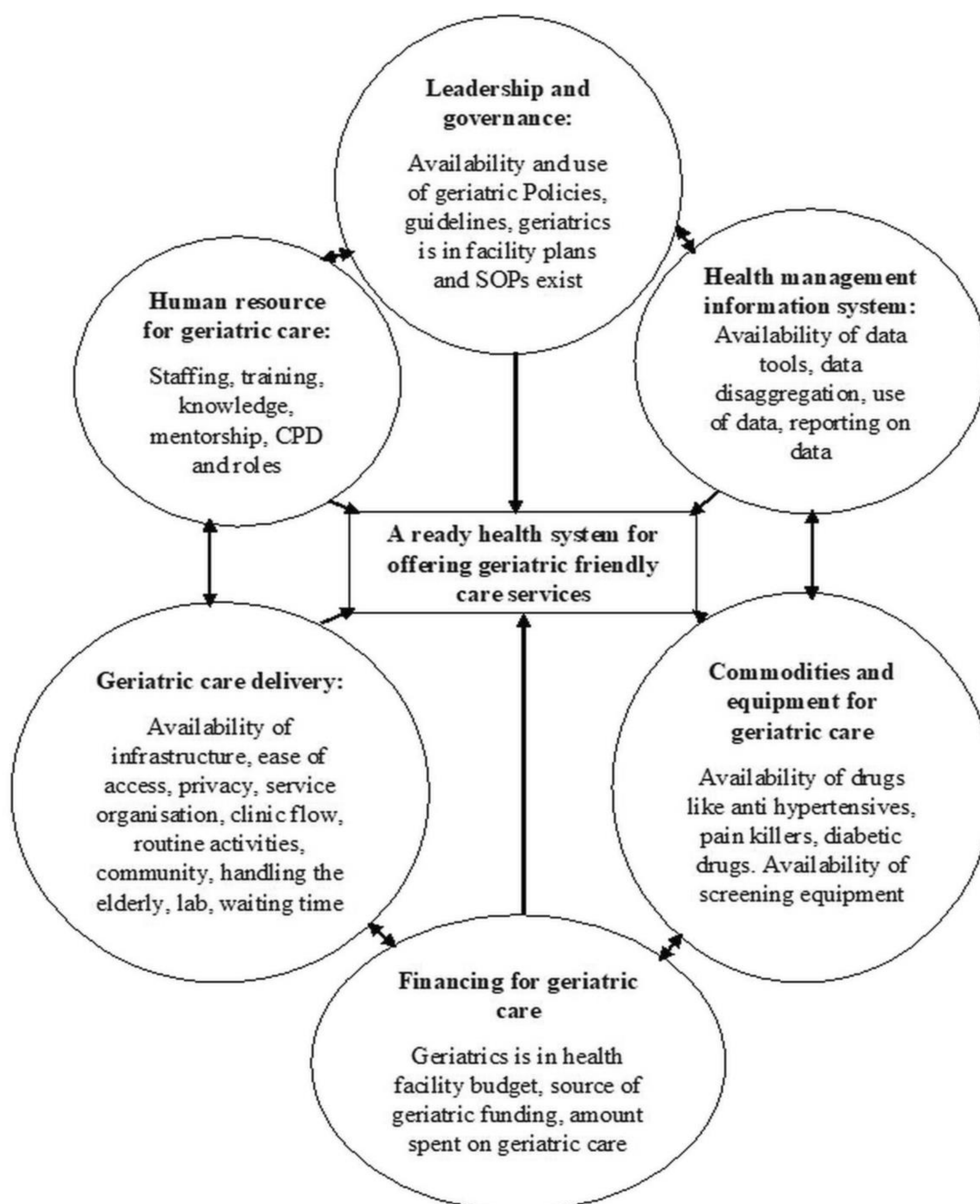

Fig 1 – WHO's building blocks framework for geriatric healthcare services (reproduced from Ssebsamba et al 2019)

Excellent leadership and governance are key essential pillars for the institutionalisation of geriatric healthcare services in every country, and for that matter in Ghana. This is because without this crucial element in a health system, comes challenges with the formulation of suitable 'geriatric policies and guiding documents, providing enabling environments and forging strategic partnerships with all key stakeholders[64,75] to facilitate the provision of standardized geriatric healthcare services for the aged population in Ghana. In addition to the above, leadership and governance are critical for offering strategic focus and the desired

enabling work environment for this kind of specialized service delivery[75]. With the existence of excellent leadership and governance, the health system would be able to implement the Global Strategy and Action Plan on Ageing and Health call for all countries to integrate geriatric healthcare services into the mainstream healthcare service delivery[68]. This points to the fact that for SDG 3 to be achieved by 2030, it is an urgent call for all countries, especially developing countries to ensure that essential measures are put in place to provide equitable health and well-being for all within the population[65]. It is therefore of great urgency for the Health Care System in Ghana to initiate measures to institutionalize geriatric healthcare service delivery in all health facilities in Ghana.

Additionally, human resources for health are another significant element to facilitate the provision of geriatric healthcare service delivery[75]. Therefore, the Ghanaian Healthcare System must initiate measures to train and retain the necessary health workforce with specialised geriatric training backgrounds comprising geriatricians and geriatric nurses[65] among other categories to enable the system to provide a comprehensive geriatric healthcare service package for the aged population. Correspondingly, medical commodities and equipment complemented with an excellent service delivery setting are essential, not to mention financing which provides fluidity for the availability of all the other WHO blocks, and HMIS which includes vital information for research and strategic decision-making[71].

In Ghanaian's healthcare system context, although no studies have looked at the full scale of the state of geriatric care services at public health facilities, factors for low readiness identified in this study have been documented in other studies. These highlighted that Ghana lacks specialised geriatric facilities[64], trained geriatric specialists, and geriatric training institutions[31] and those older adults face healthcare access challenges[55]. For this, a system-wide response is vital if Ghana is to achieve the 2020 global health ageing goal[50].

STRENGTHS

To the best of my knowledge, this paper is one of the few scientific studies that have attempted to examine geriatric healthcare services in the African continent. Also, this study shares vital discussions and information on the current state of health facilities regarding their preparedness to offer geriatric healthcare services in Ghana and the Sub-Saharan continent, thus providing useful information for policy action. Furthermore, this study employed data from the state-of-art health management information system currently operated by most health facilities in the country, hence granting the possibility to make the findings more generalizable. Lastly, the tools used for the discussions were retrieved from published, internationally proven documents like the SARA[66], the Health Systems Approach Manual[67], and the Age-friendly primary health care centres toolkit[65], all developed by the World Health Organization.

LIMITATIONS

Data used for this study was restricted to only secondary data from one main source – LHIMS. This management information software was implemented in 2020 by St Francis Xavier Hospital, hence implementation challenges normally associated with new systems could have had an influence on the data from the early stages of the implementation. And because the data used was secondary data for analysis, this leaves an information gap on geriatric readiness by the health facilities. I, therefore, recommend country-based surveys that should include secondary data analysis, primary data from both public and non-public health facilities, and a wider evaluation of the Ghanaian healthcare system to ascertain and validate the current state of geriatric healthcare services in the country.

CONCLUSION

There are a rising number of people getting older and living up to 60 years and above. This group of people in Africa is faced with several challenges, and they are prone to vulnerability. They are faced with health and social problems. This study indicates that Ghana's healthcare system is not adequately ready to provide geriatric healthcare services to the increasingly aged population in the country. This is due to the gaps identified from other literature which encompasses the WHO building blocks ranging from effective and efficient leadership and governance, financing, human resource, HMIS and equipment and commodities for geriatric healthcare service provision. For the healthcare system in Ghana to align with the 2020 global healthy ageing goal, requires amendments in 'policy, financing, and human resource for geriatric care, creating a favourable environment for older adults and HMIS for geriatrics need improvement, more so at lower-level community health facilities where the majority of older adults seek care'.

This study was, therefore, conducted to ascertain the epidemiological medical conditions of the aged population in rural communities in Ghana and to assess the preparedness of the Ghanaian healthcare system towards providing the desired geriatric healthcare services to the aged population in rural communities.

There is a need for more research on the elderly in Africa. The different states in the African continent should enact policies and laws to protect senior citizens in Africa.

Appendix 1

Outpatient Attendance

Step 1: Click on Statement Out-Patient, and the Statement Out-Patient Forms Screen will Display.

Step 2: Select the date from the drop-Down, Click on the "Download" icon, and the Outpatient sheet will get downloaded for the selected date Range.

● Data on the Number of Studies scheduled in an Appointment Calendar for OPD is shown in this sheet According to Insurance & Non-Insurance Patients.

Inpatient Attendance

Step 1: Click on Statement In-Patient, and the Statement In-Patient Forms Screen will Display.

Step 2: Select the date from the drop-Down, Click on the "Download" icon, and the In-patient sheet will get downloaded for the selected date Range.

● This data is related to Patients admitted to IPD

● Data of Number of Studies Schedule IPD is shown in this sheet According to Insurance & Non-Insurance Patients.

● Data of No. of Malaria Patients is reflected in this sheet according to Age and Complications.

Outpatient Department Morbidity

Step 1: Click on OPD Morbidity, OPD Morbidity Forms Screen will Display.

Step 2: Select the date from the drop-Down, Click on the "Download" icon, OPD Morbidity Register sheet will get downloaded for the selected Criteria.

● Diagnosis No. count data is displayed in this sheet according to age & gender.

● Added Malaria, Reattendance & Referral Fields.

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