ENSIGN COLLEGE OF PUBLIC HEALTH, KPONG,

EASTERN REGION, GHANA

QUALITY OF HEALTHCARE UNDER THE NATIONAL HEALTH INSURANCE SCHEME; EVIDENCE FROM PATIENTS AT THE ATUA GOVERNMENT HOSPITAL

BY

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A Thesis submitted to the Department of Community Health in the Faculty of Public Health in partial fulfilment of the requirements for the degree

MASTER OF PUBLIC HEALTH

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DECLARATION

I hereby declare that except for reference to other people's work, which I have dully cited, this project submitted to the Ensign College of Public Health, Kpong is the result of my own investigation and has not been presented for any other degree elsewhere.

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DEDICATION

This study is dedicated to my wife Kafui, our children Worlanyo, Worlase and Worlali and my parents for their encouragement, prayers and support.

ACKNOWLEDGEMENT

In the course of this study, I have accumulated debts of gratitude to a number of individuals. Firstly, I give thanks to the Almighty God for seeing me through this program.

I am greatly indebted to my supervisor Dr. Stephen Manortey of the Ensign College of Public Health for his patience, time spent to read, comment, and given pieces of advice in the course of this study. My sincere thanks go to the Medical Director of the Atua Government Hospital, Dr. Adams Mahami and his management staff for their immense support during the data collection process.

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DEFINITION OF TERMS

Abscondment	The act of running away secretly from the hospital without paying bills.
Adverse selection	Occurs when a group of high-risk individuals dominate an insurance pool, eliminating the benefits of pooling risk through an insurance scheme. It's a phenomenon that can occur in the context of voluntary enrollment of individuals into health insurance schemes. When a scheme covers a disproportionate share of people with a high probability of incurring expensive medical costs, this can jeopardize financial viability.
Benefit Package	Services and means of accessing services that the insurance scheme covers.
Cash and Carry	Direct out of pocket user payment of service delivery.
Co-payment	It is a part payment for a covered service made out of pocket when an individual receives service.
Coverage	This refers to the beneficiary population, for instance, the percentage of people who are covered by insurance or defined population groups (such as employees and dependents) who are covered.
Excluded services	Services or methods of using services that are not covered in the benefit package of an insurance scheme.

	Individuals are liable for the full costs of excluded services.
Moral hazard	The situation where insured individuals use health facilities more than they would have without insurance coverage. (i.e. free or subsidized services leading to over consumption of health care).
Re-imbursement	To make repayment to, for expense or loss incurred.
Risk pooling	Grouping of people covered by the same insurance scheme.
Tariffs	Charges for services provided by an organization or institution.

ABBREVIATION/ACRONYMS

AGH	-	Atua Government Hospital
CHAG	-	Christian Health Association of Ghana
CHPS	-	Community Based Health Planning Services
DHIMS	-	District Health Information Management System
DHMT	-	District Health Management Team
DMHIS	-	District Mutual Health Insurance Scheme
DWM	-	District Wide Mutual
FP	-	Family Planning
GHS	-	Ghana Health Service
GPRS	-	Ghana Poverty Reduction Strategy
JHS	-	Junior High School
KNUST	-	Kwame Nkrumah University of Science and Technology
LEAP	-	Livelihood Empowerment Against Poverty
LMKM	-	Lower Manya Krobo Municipal
MCE	-	Municipal Chief Executive
MOH	-	Ministry of Health
NHIA	-	National Health Insurance Authority
NHIS	-	National Health Insurance Scheme
OPD	-	Out Patient Department
RCH	-	Reproductive and Child Health
SHS	-	Senior High School
SPMDP	-	Society of Private Medical and Dental Practioners
SSNIT	-	Social Security and National Insurance Trust
WHO	-	World Health Organization

ABSTRACT

In Ghana, almost everyone recognized the fact that the payment of cash at the point of health service delivery popularly known as “cash and carry” posed a strong barrier to healthcare access and quality of healthcare for the majority of Ghanaians.(MOH 2003) This resulted in delays in seeking healthcare, non-compliance and delivery of poor quality service. To address this problem of financial barrier to healthcare access and quality of healthcare, the Government of Ghana in 2001 initiated the National Health Insurance Scheme (NHIS) as a humane approach to financing healthcare and subsequent provision of quality healthcare to the population.

However, patients often complained about the quality of services received at the health facilities especially under the NHIS. This research investigated the perspective of clients on the quality of healthcare service provided under the NHIS at the Atua Government Hospital (AGH) in the Lower Manya Krobo Municipal (LMKM) in the Eastern Region of Ghana.

The conclusions of the study included the following. Customer care was fair, using waiting time to see the doctor as a basis of prompt service received at the OPD. Hospital Staff were generally courteous to patients and there was no major difference in the level of service delivery rendered to NHIS and non-NHIS patients.

However, the level of promptness in service delivery during emergencies was not good and must be improved. Also relevant information such as diagnosis and time to pick up laboratory results were not effectively communicated to patients.

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CHAPTER I

INTRODUCTION

1.0 Background Information

Financing health care has gone through a chequered history in Ghana. Immediately after independence, health care provided to the people was "free" in public health facilities. This meant that there was no direct out of pocket payment at the point of service delivery in public health facilities. This situation continued until 1985 when the government introduced the user fees for all medical conditions except certain specified communicable diseases.(MOH 2004a)

The Ministry of Health (MOH) in Ghana has been concerned about quality of care, but improvements in quality have been slow partly because quality improvement activities have received inadequate priority.(Turkson 2009)

In the ensuing years, the standard of health care provision fell drastically. There was acute shortage of essential drugs in all public health facilities. Most importantly, the introduction of the user fees resulted in the first observed decline in utilization of health services in the country. In spite of this, the government went ahead to institute full cost recovery for drugs as a way of generating revenue to address the shortage of drugs. The payment mechanism put in place was termed "Cash and Carry". This resulted in delays in seeking healthcare, non-compliance and delivery of poor quality service.(MOH 2004a)

It is estimated that out of the 18% of the population who required health care at any given time, only 20% of them were able to access it, implying that an estimate of about 80% of people living in Ghana who needed healthcare at a point in time could not afford to pay out of pocket at point of service.(MOH 2004a)

In line with the Ghana Poverty Reduction Strategy (GPRS), the government of Ghana initiated a policy to deliver accessible, affordable and good quality healthcare to all Ghanaians especially the poor and the vulnerable in society.(MOH 2004a)

It was thought that if the health of the population was to be secured, then there is an urgent need to replace the cash and carry system with one that will enhance utilization and quality of health care services. Ultimately, the vision of government in instituting a health insurance scheme in the country is to assure equitable and universal access for all residents of Ghana to an acceptable quality package of essential health care. It is compulsory for every person living in Ghana to belong to a health insurance scheme type.(Bannerman et al 2005)

However, more than a decade after the introduction of the National Health Insurance, some patients still are not satisfied with the quality of service that they receive under the program.

1.1 Problem Statement

This research seeks to investigate whether the quality of healthcare service provided under the NHIS at the Atua Government Hospital in the Eastern Region of Ghana meets the required standards in the healthcare delivery system as perceived by the patient.

1.2 Rationale of Study

Some patients often complain about the quality of services they receive at health facilities under the NHIS,

The research work seeks to identify the factors that affect quality of health care from the perspective of the patient in the Atua Government Hospital and also as required

by professional standards. Based on the identified factors, the quality of healthcare services can be evaluated.

1.3 Research Questions

This study seeks to evaluate;

- the factors that affect quality of healthcare in an NHIS accredited institution from the perspective of the patient.
- the factors that affect quality of healthcare in an NHIS accredited institution from the perspective of the health professional.
- whether quality of service delivered differ between NHIS and non-NHIS patients.

1.4 General Objectives

The main objective of the study is to evaluate the quality of healthcare services delivered by NHIS accredited facilities from the perspective of the patient.

1.5 Specific Objectives

The specific objectives of the study are;

- to identify the factors that affect quality of healthcare delivery in the Atua Government Hospital from the perspective of the patient.
- to identify factors that affect healthcare delivery in the Atua Government Hospital from the perspective of health professionals.

1.6 Profile of Study Area

The study area is the Atua Government Hospital, Atua.

1.6.1 Location of study area

The Atua Government Hospital is located at Atua in the Odumase sub-municipal of the Lower Manya Krobo Municipal (LMKM) of the Eastern Region. The LMKM is one of the 26 Districts in the Eastern Region of Ghana. And it shares boundaries with the Upper Manya Krobo District to the north, Dangme West to the south, Yilo Krobo to the West, and Asuogyaman to the east. The administrative capital is Odumase. The district covers an area of 1,476 square kilometers and constitutes 8.1% of the total land area of the Eastern Region.

The major towns in the Odumase sub-municipal are Odumase township (which is made up of Atua, Agormanya and Nuaso), Akuse and Kpong.

1.6.2 Demography

Statistics from the LMKM Health Directorate shows that the population of the Odumase sub-district is estimated to be 99,019 as at 2014. The Odumase township where Atua is located has a population of 28,125 and this forms 28.4% of the Odumase sub-municipal's population.

1.6.3 Ethnic groups and religion

The main ethnic group within the LMKM is the indigenes, the Krobos who make up 70.5% of the population. This is followed by the Ewe's who comprise 18.2% of the population and are located mainly along the Volta river. Akans and other ethnic groups make up 7.7% and 3.6% respectively.

Majority of the inhabitants of the Odumase sub-district are Christians (76.4%). Moslems and Traditionalists form 17.5% and 6.1% respectively.

1.6.4 Household characteristics and economic activities

The average household size is 7.5 and women head 40% of the households in the urban areas of Odumase sub-district.

The major occupations of the inhabitants are farming, fishing, trading and artisanship. There are also public and civil servants in the communities.

1.6.5 Topography, climate and vegetation

The land is relatively flat with isolated hills to the north of the Odumase sub-municipal. The climate is tropical with major and minor rainy seasons in March to July and September to October respectively. The major economic trees found are mango (Mangifera indica).

1.6.6 Traditional and Political Administration

Chieftaincy is highly respected in Kroboland. The paramount chief is the Konor and his divisional chiefs are the “Wetsomantsemei”.

The political administration is governed from the Municipal Assembly Council which is located at Odumase. The political head is the Municipal Chief Executive (MCE) whilst the administrative head is the Municipal Co-ordinating Director.

1.6.7 Environment, water and sanitation.

Water is generally supplied through pipelines in the Odumase Township. Boreholes are also available in certain areas. Toilet facilities are available in most homes. However, drainage system is not adequate.

1.6.8 Health facilities

The LMKM has three hospitals namely Akuse Government Hospital located at Akuse, St Martins De Porre’s Hospital at Agormanya and the Atua Government Hospital at Atua. The Odumase sub-municipal also has a Reproductive and Child Health (RCH) /Family Planning (FP) Clinic, one private clinic and one private maternity home.

The Atua Government Hospital serves as a Municipal Hospital.

The average monthly outpatient department (OPD) attendance is estimated to be 5,257. Averagely, about 93% of OPD attendants are insured patients whilst the remaining 7% are non-insured.(Star Fm Online 2016) The Hospital has a staff strength of 254, out of which 150 (59%) are females. It is a 135 bed Hospital with 5 Medical Officers (none of whom is a specialist) and 80 nurses. The hospital has the following units from where it provides services. Consulting rooms, outpatient department, wards (male, female, maternity, and children) pharmacy, eye clinic, theatre, kitchen and an administration block.

1.7 Scope of Study

This study was limited to patients who attend the Atua Government Hospital and also key staff of the hospital over a period of three months from February 2016 to April 2016.

1.8 Organization of report

The thesis is organized into six chapters as follows.

Chapter One is made up of the introduction, problem statement, rationale of study, research questions, objectives of the study, and organization of the study.

Chapter Two reviews literature that is relevant to the study. This will involve the summarizing of existing materials, or ideas of other scholars so as to enable the study bring out a clear understanding of quality healthcare under health insurance. This chapter shall have an introduction, a theoretical framework of existing relevant materials and their review.

Chapter Three focuses on methodology of the study and it shall begin with of an introduction. This is followed by discussion of the research design, data collection methods, data management and analysis, and data presentation. There shall be a full explanation of the methods used in obtaining information from respondents.

Chapter Four presents the results of the study.

Chapter Five discusses the results in linkage with research questions, objectives, key variables and literature review.

Chapter Six contains the conclusion (summary of findings) and recommendations.

CHAPTER II

REVIEW OF RELATED LITERATURE

2.0 Introduction

Quality healthcare is a subjective, complex, and multi-dimensional concept. How health systems are financed plays a significant role in the kind and quality of healthcare delivered.(Mosadeghrad 2014)

The aim of this chapter is to take a look at the issue of health care quality under the National Health Insurance Scheme, review literature on the various factors that affect healthcare, look at health insurance as a vehicle for sustainable quality health care delivery. The chapter will further explore the various problems and challenges that have come up along the process of healthcare delivery under insurance.

2.1 Definition of quality healthcare

Donabedian defined healthcare quality as 'the application of medical science and technology in a manner that maximizes its benefit to health without correspondingly increasing the risk. W. Edward Deming, who led the quality revolution in Japan and the United States, said, "A product or service possesses quality if it helps somebody and enjoys a good and sustainable market".(Deming E. W 1994)

According to the Ghana Health Service (GHS), quality of healthcare is the degree to which healthcare services meet the expectations of an individual or group. Judgement or evaluation of quality of goods or services is based on the presence of a number of attributes. These attributes are called dimensions of quality. They can be grouped as follows; access, amenities, technical competence, efficiency,

effectiveness, safety, continuity of service and interpersonal relations.(Bannerman et al 2005)

Patients who receive quality care will be satisfied with the service. Patients' satisfaction is the state of pleasure or contentment with an action, event or service and it is determined considerably by the expectations of customers and their experiences.(Peprah & Atarah 2014)

The Institute of Medicine (IOM) has defined quality of care as a multidimensional concept. It is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.(IOM 2016)

People should get the care they need. When they don't, we call it underuse. This problem occurs when health care interventions that are known to improve people's health are not provided to those who could benefit from it. People should need the care they receive; when they don't, we call it overuse. This problem occurs when people receive health care interventions that are not expected to improve their health or may even be harmful. Taken together, these two elements characterize care that is effective. Care should be provided safely. When it isn't, we refer to the problem as medical error. Care should be provided in a timely manner, which means that patients do not experience unreasonable or unacceptable delays. Care should be patient centered. When it isn't, patients experience the health care system as unresponsive to their needs and preferences. Care should be delivered equitably. When it isn't, we observe differences in who receives appropriate or effective care that are not related to health needs. These differences are called disparities. Care

should be delivered efficiently. When it isn't, we find that the health care system is wasting resources.(WHO 2013)

2.2 Attributes that contribute to healthcare quality

Health quality is the degree to which services provided meet the expectations of an individual or group and the quality of the service may be attributed to the following.(Bannerman et al 2005)

2.2.1 Access to services

Access is the ability of the individual to reach and obtain services. Access to services may be geographical, financial or socio-cultural.(Bannerman et al 2005)

2.2.2 Clean environment

Clean environment reduces the transmission of disease and enhances good health outcomes

2.2.3 Availability of requisite equipment and supplies

This will ensure that health worker can do his work well without being frustrated by lack of these essential resources. It also reduces incidences of wasted health worker and patient time. Treatment outcomes are better with adequate equipment and supplies.

2.2.4 Qualified and competent staff

Knowledge and skills are needed to provide competent service. This can be obtained through basic training, on the job training and continuing education. The health workers must therefore upgrade their knowledge and skills regularly.

2.2.5 Good staff attitude

Good interpersonal relations make the healthcare delivery environment friendly to both the healthcare provider and user of the service. Therefore, conscious efforts must be made to improve the relationship among health workers and between health workers and patient, relatives and the community.

2.2.6 Prudent use of resources

Financing healthcare is so expensive that there is a never sufficient fund to cover fully the costs of providing adequate healthcare services. There is therefore the need to use available resources prudently so that as many persons and facilities as possible can benefit from it.

2.2.7 Safety and adherence to professional standards

The safety of patients and staff must be safeguarded at all times during procedures. Injuries, infections and harmful side effects must be reduced to the barest minimum. This can be achieved in part by adhering to professional standards.

2.2.8 Privacy and confidentiality

The patient must be assured that information concerning his disease condition will not be revealed to third parties without his consent. Also, the patient must have privacy with the service provider during the healthcare delivery process.

2.2.9 Adequate information.

Adequate information must be provided by both the health service provider and the patient. This will ensure that the service provider provides the best service based on relevant and adequate information received and the patient will also receive adequate feedback to keep healthy.

2.3 Factors for assessing quality of health

Peprah & Atarah (2014) identified the following factors that can be used as a basis for the assessment of quality of care. They include personal relationship, convenience and professional competence, communications, relationships between staff and patients, waiting time, admission and discharge procedures, visiting procedures, consultation time, understanding of illness, dignity, physical environment, food, and religious needs. Others are accessibility, courtesy, reliability, understanding the customer, patient outcomes, responsiveness, caring, collaboration and cleanliness.(Peprah & Atarah 2014)

2.4 The cost of poor quality health care

Poor quality healthcare results in costs, some of which are readily visible, and others not so visible.(Bannerman et al 2005)

Costs that are visible include the following.

- Wrong diagnosis
- Wrong treatment
- Prolonged illness
- Repeated OPD visits
- High expenses to patients
- Poor utilization of services
- Death.

Costs that are not obvious include

- Poor patient compliance
- Wasted health worker time
- Wasted patient time
- Frustrated patients

- Loss of patient and community trust
- Late presentations
- Unnecessary illness
- Low health worker morale
- Poor cost recovery
- Poor image of facility.

2.5 Benefits of good quality healthcare service

Quality healthcare is beneficial to all stakeholders, the patient, the community, the health care staff, the healthcare manager and the healthcare institution."

Benefits to patients include less frustration, value for money, good health outcomes and satisfaction. Benefits to healthcare service providers include a better understanding of staff by clients, availability of essential inputs.

The healthcare manager will also benefit from good quality healthcare service in the following ways.(Bannerman et al 2005)

- Efficient use of resources
- Competitive services
- High patient satisfaction
- High utilization
- Good reputation.

The health institution itself will also benefit from good quality care as it will earn a good public image and also enjoy high staff retention.(Bannerman et al 2005)

2.6 Barriers to quality healthcare service

Several barriers make it difficult to achieve quality healthcare service. These barriers

ought to be prevented, or identified and removed if quality healthcare service is to be achieved. The following are barriers to quality assurance.(Bannerman et al 2005)

- Non-commitment of management to quality healthcare service.
- Wrong staff attitude
- Lack of team work
- Poor understanding of the concept of quality
- Poor communication among health staff
- Fear of change as change is difficult and creates uncertainties
- Patient views not given adequate attention
- Low staff morale/motivation
- Weak supervision.

It is possible to overcome the barriers to quality assurance. He said "the single most important condition for success in quality assurance is the determination to make it work. If we are truly committed to quality, almost any reasonable method will work. If we are not, the most elegantly constructed of mechanisms will fail"(Donabedian 1996)

2.7 Introduction of National Health Insurance Scheme in Ghana

Health insurance is a risk pooling arrangement by which the cost of healthcare to any single individual becomes a collective responsibility of all the people in the society. It is thus an arrangement which suits the socioeconomic circumstances in Ghana, the LMKM which is situated in the Eastern Region not being an exception

The Government of Ghana in 2001 initiated plans for the national health insurance program. However the 2003 Parliament promulgated the National Insurance Act 650 and a subsequent Legislative Instrument (LI 1809) in 2004 leading to the

implementation of the NHIS in 2005 as a humane approach to financing healthcare and subsequent provision of quality healthcare to the population.(Manortey et al. 2014) The government supported the development of District Mutual Health Insurance Schemes (DMHIS) to serve this purpose.

2.8 Benefit package

The benefit package covers 95% of disease conditions in the country.(NHIA 2016) These include outpatient services (including HIV/AIDS symptomatic treatment for opportunistic infections), inpatient services, maternal health services and emergencies. There is also an exclusion list that is made up of cosmetic surgeries and aesthetic treatments, echocardiography, dialysis for chronic renal failure, heart and brain surgeries (except from accidents), mortuary services etc.

2.9 Persons exempted from paying premium

Apart from the persons 18 years and above in the informal sector who pay premium, the following other category of persons do not pay premium. They are persons under 18 years, 70 years and above, Social Security and National Insurance Trust (SSNIT) contributors, SSNIT pensioners, indigents, pregnant women and Livelihood Empowerment Against Poverty beneficiaries (LEAP). (MOH 2004b)

2.10 Risks and challenges associated with the NHIS

Akosa (2007) was of the view that "there is always the risk that administration of the 138 district wide mutual insurance will spiral out of control and consume significant proportion of premium payment in view of the decentralization of each District Wide Mutual (DWM) with its secretariat and board of management and this may in turn put pressure on the funds to save distressed DWMs."(Akosa 2007)

Years down the line, the NHIS is fraught with numerous challenges. A World Bank report released on August 14, 2012 said the NHIS could go bankrupt “as early as 2013”.(Schieber et al 2012) Indeed since 2005, the cost of providing health care to NHIS subscribers has increased much faster than the financial resources allocated to the scheme. The NHIS has therefore experienced persistent and increasing annual deficits since 2009. Delays in reimbursing providers have on several occasions led to the withdrawal of services to NHIS subscribers by providers. It has also led to unauthorized copayments and denial of service to NHIS subscribers which has had the effect of lowering confidence in the scheme.

A number of important health facilities fully or partially withdrew their services to NHIS subscribers. Kwame Nkrumah University of Science and Technology (KNUST) Hospital reverted to cash and carry in November 2014 due to NHIS indebtedness of about one million Ghana cedis. The Ghana Health Service (GHS), Christian Health Association of Ghana (CHAG), the Society of Private Medical and Dental Practitioners (SPMDP) and the Ghana Registered Midwives Association (GRMA) in March 2015 resolved not to supply NHIS card holders with medicine anymore due to huge indebtedness.(Star Fm Online 2016)

Figures at the time indicated that the National Health Insurance Authority (NHIA) is indebted to service providers to the tune GH¢553 million for a period of five months. A large number of service providers have their funds locked up and this is seriously affecting quality of health care service delivery.(Peace Fm Online 2016) It is therefore believed that this gap in healthcare finance is directly and indirectly affecting quality of healthcare nationwide.

Adverse selection is another challenge that often affects healthcare delivery under insurance. Here, groups of high-risk individuals dominate an insurance pool, eliminating the benefits of pooling risk through an insurance scheme. Moral hazard is another problem for health insurance and this occurs when the insured individuals use health facilities more than they would have without insurance coverage. This increases the cost of service delivery under NHIS.

CHAPTER III

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the methodology used for the study. It starts with the research design employed for the study and provides reasons for the choice of the research design. It also details the research processes, data collection techniques and tools, the study units and population, sources and methods of collection of data are also discussed.

3.1 Research Methods and Design

A mixed method was used. For the qualitative study, an in-depth interview was done with key staff. For the quantitative, a cross-sectional study was conducted.

3.2 Data Collection Technique and Tools

The data collection tool used was semi-structured questionnaires designed for interview of patients and in-depth interviews of staff. In addition to notes being taken, the in-depth interviews were recorded digitally with the participants' permission. Interview questionnaires were administered to 220 patients. In-depth interviews were conducted with 12 hospital management/key staff. For the in-depth interviews, the taped proceedings were transcribed and compared with recorder's notes taken during the discussions to ensure reasonable accuracy of transcriptions.

3.3 Study Population

The study target population was out-patients and key hospital staff.

The study unit was the Atua Government Hospital. The hospital is made up of a number of departments. However, exit interviews were done for patients after they had filled their prescriptions at the Pharmacy Department. In-depth interviews of key

staff were carried out at their respective offices in various departments of the hospital.

3.4 Study Variables

The study variables are mainly factors that affect quality of healthcare. These include adequate qualified and competent staff, medicine availability, availability of medical consumables and functional equipment, cleanliness of the facility, level of customer care and staff attitude, waiting time, accessibility of the facility, privacy and confidentiality, effective communication and overall satisfaction. The study also noted the number of patients who are accredited with NHIS.

3.5 Sampling

Systematic sampling procedure was adopted for the exit interviews of patients. This was done by selecting the first patient at random and consecutive patients were approached after leaving the dispensary and asked for consent for exit interviews. Purposive sampling procedure was adopted for selecting management/key staff for in-depth interviews.

3.6 Pre-testing

Pretesting of questionnaire was done at the Akuse Government Hospital. The reason for choosing Akuse Government Hospital was that, it has similar characteristics in terms of staffing and clientele base as Atua Government Hospital.

3.7 Data Handling

The average monthly outpatient attendance at the Atua Government Hospital is estimated according to the District Health Information Management System (DHIMS) to be 5,257. The sample size necessary for this study at a 95% confidence level and with 7% margin of error is calculated to be 189. However with an

estimated 10% attrition rate, the total working sample size was adjusted to about 208 respondents.

All questionnaires were rechecked for consistency and completeness. Data on the questionnaire was double-entered into a computer using a platform created in Microsoft Excel. Very extensive data cleaning were done after the data entry.

3.8 Data Analysis

Data for the study was captured onto Microsoft Excel. The data was then imported for analysis using the STATA statistical software package (StataCorp. 2007, Stata Statistical Software Release 14, StataCorp LP. College Station, TX, USA). The analysis was directed at meeting the objectives of the study as indicated above.

3.9 Ethical Consideration

Full information about the purpose and uses of participants' contribution were given to participants. Written informed consent was obtained from each participant before questionnaire was administered. Participants were assured that sensitive and confidential materials and issues being discussed shall be handled with utmost care. Participants were also assured that the data obtained shall be kept strictly confidential and made available to only persons connected with the study.

Ethical approval for the conduct of the study was obtained from the Ensign College of Public Health Institutional Review Board (IRB). Administrative approval for the conduct of the study was obtained from the Management of Atua Government Hospital.

3.10 Limitations of Study

Patient respondents are outpatients and the results of the study cannot be generalized

to be that of the entire patient community. Hence, future studies are required to explore and include the views of inpatients as well.

3.11 Assumption

The views of the respondents generally reflect the views of the patient population of the hospital.

CHAPTER IV

RESULTS

4.0 Introduction

This chapter presents the results of the study conducted and analysis of the findings. The results present an indication of the level of the quality of healthcare service received by patients at the Atua Government Hospital. It also presents the view of key staff on factors that affect quality of care at the Atua Government Hospital.

The analysis of findings will be in two parts. The first part presents the results and analysis of questionnaire I (Appendix 2). The second part presents the results and analysis of the views of some key health staff at the Atua Government Hospital based on questions in questionnaire II (Appendix 3).

4.1 Results and analysis of Questionnaire I

The survey questionnaire I (Appendix 2) was administered to a sample of 220 patients who attended hospital at the Atua Government Hospital.

4.1.1 Demographic background of patients.

This presents an analysis of the places from where patients attended hospital, their sex, age, level of education, religious belief and employment status.

Table 4.1 shows a summary of the various Regions in Ghana from where patients attended hospital whilst Appendix 4 shows the details of the various towns from where patients attended the hospital.

Patients attended the hospital from 34 different towns. The details as shown in Appendix 4 indicate that most (74.09%) of the patients came from Somanya

(24.55%), Atua (13.64%), Odumase (11.82%), Agormanya (10.9%), Kpongunor (6.82%) and Nuaso (6.36%) in that order.

Table 4.1: Summary of location (Region) from where patients attended hospital

Location(Region)	Frequency	Percentage
Greater Accra Region	7	3.18
Volta Region	2	0.91
Central Region	1	0.45
Eastern Region	210	95.45
Total	**220**	**100**

As shown in Table 4.1 above, majority of the patients (95.45%) came from the same region (Eastern) that the Atua Government Hospital is located.

Table 4.2 below shows the sex, age, level of education, religious and employment status distribution of the patients surveyed.

The sex distribution analysis showed that 22.73% of patients surveyed were males as against 77.27% who were females.

The analysis showed that 45.00% of patients fell within the age group of 31 up to 45 years. This was followed by the age group 15 up to 30 years representing 27.73% of respondents. Patients above 45 years represented 22.27% of respondents Patients below 15 years were the least represented by 5.00%.

81 (36.82%) out of the 220 patients had Junior High School/Middle school level of education. This was followed by 55 (25.00%) patients who had never had any formal

education. 48 (21.82%) patients surveyed had up to Secondary/Technical/Vocational level of education. 19 (8.64%) and 17 (7.73%) patients respectively had up to Primary and Tertiary level of education respectively.

Table 4.2: Distribution of patients' demographic characteristics

Variable	Categories	n (%)
Sex		
	Female	170 (77.27)
	Male	50 (22.73)
Age		
	<15	11 (5.00)
	15 – 30	61 (27.73)
	31 -45	99 (45.00)
	> 45	49 (22.27)
Level of education		
	None	55 (25.00)
	Primary	19 (8.64)
	JHS/Middle	81 (36.82)
	Sec/Tech/Voc.	48 (21.82)
	Tertiary	17 (7.73)
Religious belief		
	Christianity	215 (97.73)
	Islam	4 (1.82)
	Other	1 (0.45)
Employment status		
	Formal	18 (8.18)
	Self-employed	93 (42.27)
	Student	27 (12.70)
	Unemployed	64 (29.09)
	Others	18 (8.18)

215 (97.73%) of the 220 patients surveyed were Christians. 4 (1.82%) patients belonged to the Islamic faith whilst 1 (0.45%) patient did not belong to any religion.

The employment status distribution analysis of patients showed that majority (42.27%) of the respondents were self-employed. This was followed by unemployed persons who made up 29.09% of the respondents. 12.70% of the respondents were

students whilst 8.18% worked in the formal sector. Another 8.18% of respondents who belonged to the “others” group were retirees.

4.1.2 Patient enrolment in NHIS

This was to assess the level of enrolment or subscription of patients surveyed in the NHIS.

The analysis showed that 210 (95.45%) of patients surveyed were enrolled in the NHIS whilst 10 (4.55%) were not.

4.1.3 Patients’ assessment of level of promptness of service received on arrival.

The criterion used in the assessment of customer care with regards to level of prompt service was time to receive service.

90 (40.91%) patients said they did not receive prompt service whilst 130 (59.09%) of the patients said they did receive prompt service.

4.1.4 Waiting time.

This variable assessed the waiting time before one saw the doctor.

It was observed from Table 4.3 below that 100 (45.45%) of patients said they waited for 30 minutes or less before they saw the doctor. 57 (25.91%) of the patients said they had to wait between 31 to 60 minutes to see the doctor. 45 and 18 patients respectively waited for 61 to 120 minutes and more than 121 minutes before they saw the doctor.

Table 4.3: Waiting time

Waiting time	Frequency	%
< 30 mins	100	45.45
31 - 60 mins	57	25.91
61- 120 mins	45	20.45
> 121 mins	18	8.18
Total	**220**	**100.00**

4.1.5 Difference in assessment of prompt service, with or without NHIS card.

Patients' view of prompt delivery of quality service received, with or without NHIS subscription at the OPD was assessed.

192 (87.27%) of the patients were of the view that the level of prompt service delivery at the OPD did not depend on the NHIS subscriber status. 28 (12.73%) of the patients however believed that the level of service they received with regards to promptness of attention at the OPD depended on their NHIS subscriber status.

Of the 28 patients who said there was a difference in the level of customer care with regards to promptness in service delivery at the OPD, 13 (46.43%) of them believed that service delivery was quicker with NHIS clients whilst 15 (53.57%) believed that service was delayed with NHIS clients.

4.1.6 Patients' assessment of courtesy of the health service provider.

Customer care was assessed by asking patients if hospital staff spoke to them nicely/politely and if they were happy about the way the staff talked to them

214 (97.27%) of patients surveyed said that they were spoken to politely. 6 (2.73%) however said they were not spoken to politely.

Of the 6 patients who said that they were not politely spoken to, 2 (33.33%) of them said they experienced the incident at both the records and history taking table. 1 (16.67%) patient said she experienced the incident at the emergency unit whilst 3 (50.00%) patients experienced the incident at the history taking table.

4.1.7 Emergency hospital attendance

This was to determine the level of emergency attendance and how prompt patients were taken care of.

30 (13.64%) of patients surveyed said they had ever come to the hospital in emergency.

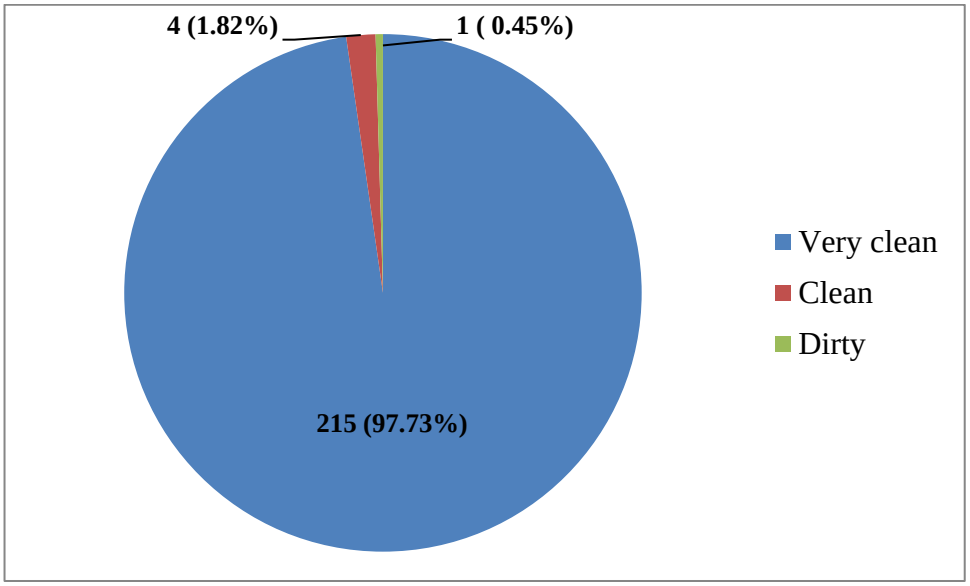
Of the 30 patients who had ever come to the hospital in emergency, 6 (20.00%) said they received prompt attention whilst 24 (80.00%) said they did not receive prompt attention.

4.1.8 Level of cleanliness.

This assessed the cleanliness of the hospital. The criteria for the assessment of cleanliness of the hospital were to look out if it was very clean, clean or dirty. Those patients who said the hospital was either clean or dirty were further requested to state their reasons for the choice of answer.

The surroundings and washrooms (toilet and urinal) of the hospital were specifically mentioned for assessment. The cleanliness of the surroundings were to look out for how clean or dirty the compound was, presence or otherwise of cobwebs, weedy surroundings, overgrown hedges and others for which the patient must specify. The criteria for the washrooms were to look out if they were very clean, clean or dirty. The analyses are shown in Figure 4.2 below.

Figure 4.1: Cleanliness of the hospital.



215 (97.7%) of the 220 patients said the hospital was very clean. 4 (1.8%) patients said the hospital was clean and 1 (0.5%) patient said the hospital was dirty.

Of the 5 patients who assessed the hospital as not being very clean, each one of them gave a different reason for the hospital not being clean. The reasons were as follows.

I. The surrounding was weedy.

II. The hedges were overgrown.

III. The compound was littered with dry leaves.

IV. The female ward was dirty

V. The male ward was dirty

As shown in Table 4.4 below, only 172 out of the 220 patients responded to the question on the cleanliness of the toilet facility. Of the 172 patients, 46 (26.7%) said the toilet was very clean. 98 (56.98%) said the toilet was clean and 28 (16.28%) said the toilet was dirty.

Table 4.4: Cleanliness of the washroom facility

Cleanliness of the washroom facility	Frequency	%
Very clean	46	26.74
Clean	98	56.98
Dirty	28	16.28
Total	**172**	**100.00**

4.1.9 Privacy during the visit.

This assessed the right of the patient to be alone with health care provider or freedom from interference or intrusion so as to express themselves freely. It also included the right to have some control over how personal information was collected and used. The analyses are showed that 209 (95.00%) of the patients said they had privacy during their visit. 11 (5.00%) of the patients however said that they did not receive privacy during the visit.

Of the 11 patients who said that they did not receive privacy, 10 (90.91%) of them gave reason for not having privacy as other patients or people coming in and out of the consulting room. The other 1 (9.09%) said he did not have privacy because of double consultation in the same room.

4.1.10 Reason for coming to hospital.

This was to find out if patients were asked what was wrong with them or what caused them to visit the hospital.

Of the 220 patients surveyed, 215 (97.73%) said they were asked what their problems were. 5 (2.27%) however said they were not asked.

4.1.11 Physical examination.

The patients were asked if they were physically examined during this visit.

137 (62.27%) of the patients said that they were physically examined whilst 83 (37.73%) of the patients said that they were not.

4.1.12 Communication of diagnosis.

Each patient was asked if he or she was told what the diagnosis was or what was wrong with him or her.

108 (49.09%) of the patients surveyed said that they were told their diagnosis. 112 (50.91%) patients however said that they were not told their diagnosis.

4.1.13 Advised or instructed about illness.

This sought to find out if patients were advised or given specific information related to their peculiar illnesses.

151 (68.64%) of patients said that they were not given any advice or specific instructions whilst 69 (31.36%) of the patients said that they did receive advice.

4.1.14 Time spent throughout the consultation process.

Here, the time spent throughout the consultation process was assessed on the basis of good or delayed.

206 (93.64%) patients assessed the time spent throughout the consultation process to be good whilst 14 (6.36%) patients assessed it to be delayed.

4.1.15 Difference in quality of service between NHIS and non-NHIS clients.

The level of quality of service with respect to customer care delivered throughout the consultation process was assessed to see if there was difference in service between NHIS and non-NHIS clients.

Of the 220 patients who were surveyed, 192 (87.27%) of them said that there was no difference in service delivery between NHIS and non-NHIS clients. 28 (12.73%) of the patients however said there was difference in the level of quality of service delivered.

Of the 28 patients who said there was difference in the quality of service, 13 (46.43%) of them said that service was quicker with NHIS subscription whilst 15 (53.57%) said service was delayed with NHIS subscription.

4.1.16 Laboratory investigations

Patients were asked if any laboratory investigations were done for them, and if so whether they were told how long it would take to receive the results.

172 (78.18%) of patients did not have any laboratory work done on them whilst 48 (21.82%) of patients had laboratory work done.

Of the 48 patients who had laboratory work done for them, 28 (58.33%) of them were not told how long the results would take. 20 (41.67%) of the patients were however told how long it will take to receive their laboratory results.

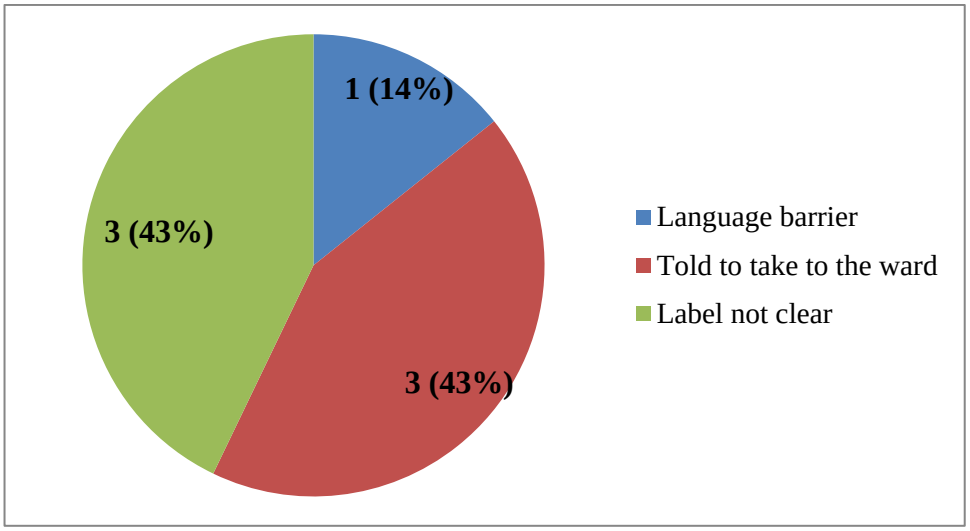
4.1.17 Understood medication directions

This variable sought to establish if patients understood the instructions from the pharmacy as to how to take their medicines. Patients who did not understand the medication directions were requested to give reasons or explain further why they did not understand the directions.

213 (96.82%) of the patients understood their medication directions. 7 (3.18%) of the patients did not understand their medication direction.

Of the 7 patients who did not understand their medication directions, Figure 4.3 below shows that 1 (14%) did not understand due to language barrier. 3 (43%) patients each did not understand their medication because they were either asked to take them to the ward or the labeling was not clear.

Figure 4.2: Reasons for not understanding medication directions



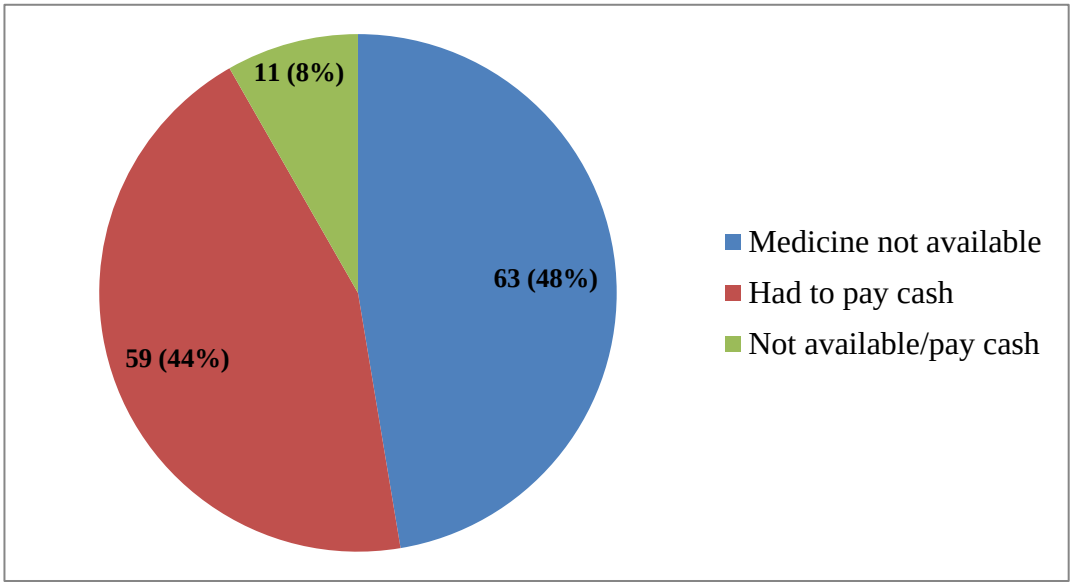
4.1.18 Obtained all medicines under NHIS

This was to determine if patients on NHIS received all their medicines. If they did not, the reasons for not obtaining all the medicines were also determined.

Of the 210 patients who are NHIS subscribers, 77 (36.67%) of them said they received all their medication on NHIS. 133 (63.33%) of them did not receive all their medication on NHIS.

According to Figure 4.4 below, of the 133 NHIS subscribers who did not receive all their medicines, 63 (48%) of them said some of the medicines were not available. 59 (44%) of the NHIS subscribers said they had to pay cash for those medicines that they could not access under the NHIS. 11 (8%) of the NHIS subscribers said they did not get all of their medicines on NHIS because some were not available and they also had to pay for others that were available but not accessible under the NHIS.

Figure 4.3: Reasons for not obtaining all medicines.



4.1.19 Overall level of satisfaction.

This assessed the overall level of satisfaction received by the patients on this particular visit to the hospital. The criteria for the assessment were very satisfied, satisfied and not satisfied.

Table 4.5: Overall level of satisfaction

Overall level of satisfaction	Frequency	%
Very satisfied	186	84.55
Satisfied	16	7.27
Dissatisfied	18	8.18
Total	220	100.00

Table 4.5 above shows that 186 (84.55%) of the 220 patients surveyed were very satisfied with their overall experience at the hospital on the said visit. 16 (7.27%) and

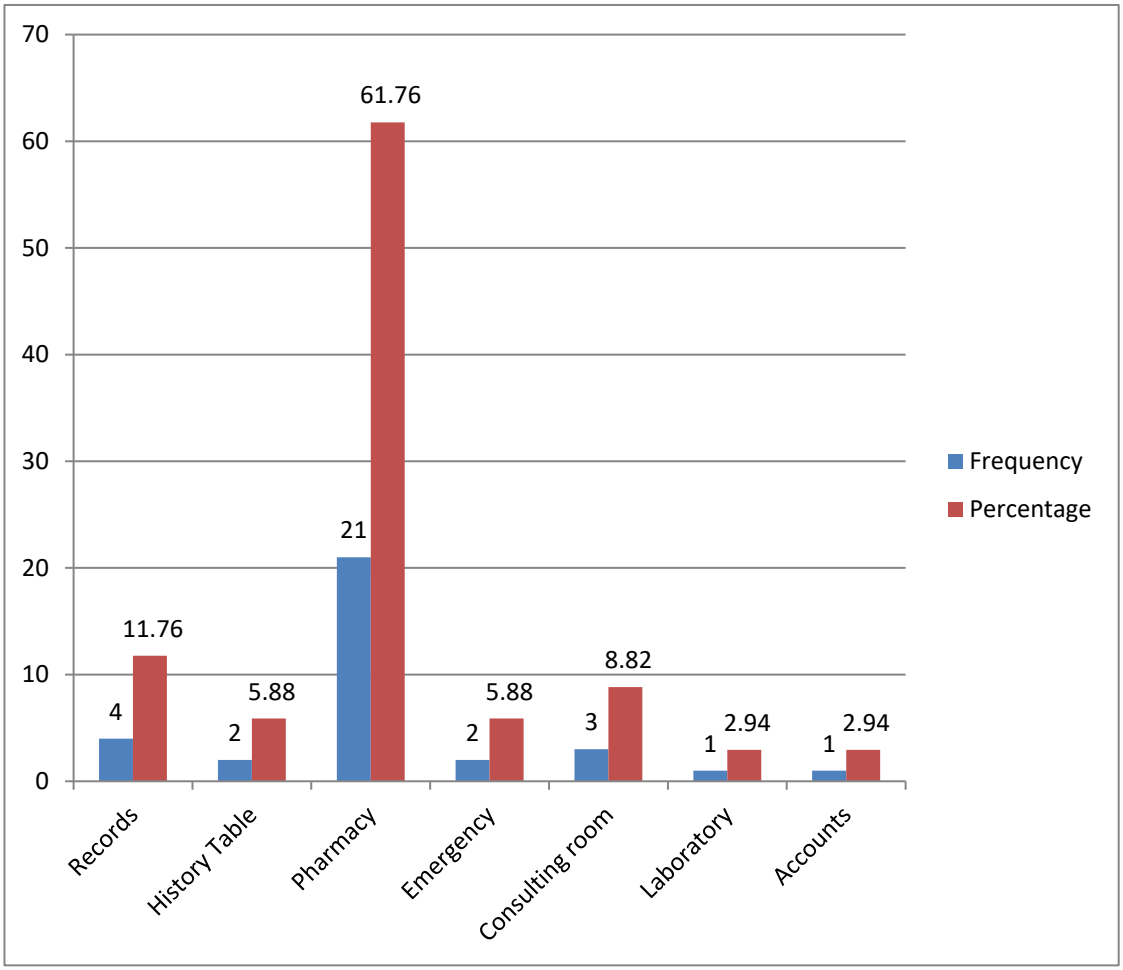
18 (8.18%) patients were satisfied and dissatisfied respectively with their overall experience

4.1.20 Service areas where patients were not very satisfied.

Patients who were not very satisfied were requested to state the areas or service points for which they were not very satisfied.

It was observed from Figure 4.5 below that 21 (61.76%) of the 34 not very satisfied patients had issues with the quality of services rendered at the Pharmacy service point alone.

Figure 4.4: Service points where patients were not very satisfied.



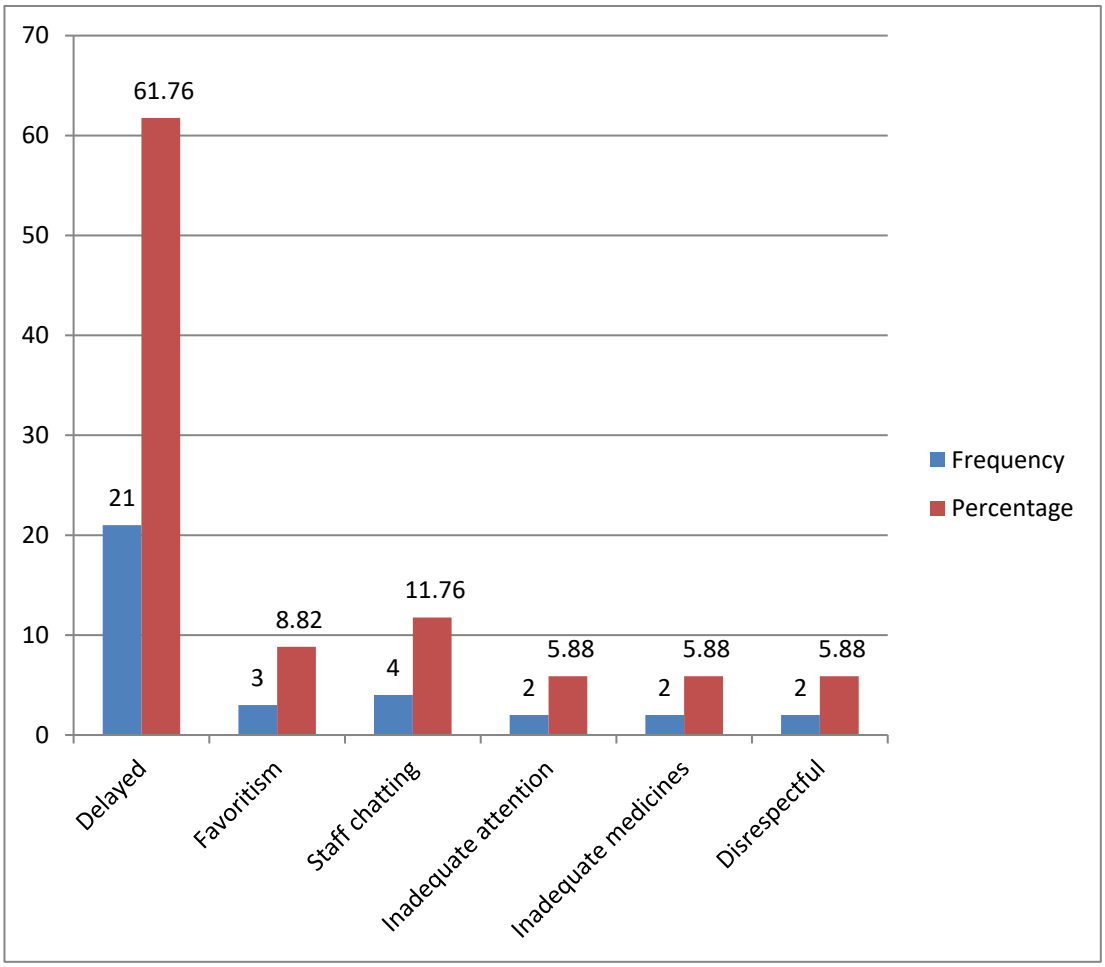
This was followed by the Records and Consulting Room service points where 4 (11.76%) and 3 (8.82%) respectively of the not very satisfied patients had concerns with quality of service The not very satisfied patients also had concerns with quality of service with the History Table, Accident and Emergency, Laboratory and Accounts service points.

4.1.21 What patients did not like about service areas not satisfied of.

Patients who were not very satisfied with certain service areas were requested to state what they did not like about the services delivered.

Figure 4.5 below shows the analysis of the patients' response

Figure 4.5: What patients did not like at service points.



21 (61.76%) of the 34 not very satisfied patients said that they delayed so much before getting service. 4 (11.76%) said some staff were chatting among themselves instead of providing them service. 3 (8.82%) complained of favoritism. Three different groups of 2 patients who were not very satisfied respectively complained of some staff being disrespectful, or hospital not having adequate medicines or receiving inadequate attention from some staff.

4.1.22 Suggested ways of satisfying patients better under the NHIS.

Based on the experience of the quality of service received at the Atua Government Hospital at this visit, patients were asked to suggest ways of satisfying patients better. The factors mentioned included the following.

I. Co-payment and requests for out of pocket cash payments from NHIS patients must stop
II. National Health Insurance medicine list must be expanded to cover more drugs.
III. Hospital must improve upon medicine availability at the Pharmacy.
IV. Services covered by NHIS must be expanded.
V. Employ more staff to improve on service delivery.
VI. NHIA must pay facilities on time.
VII. The public and patients need more education on how NHIS subscribers can benefit more from insurance.
VIII. Services offered under NHIS at the Laboratory must be expanded.
IX. Patients should be provided service based on the health problems that they present and not based on NHIS status.
X. Increase NHIS premium so that medicine list can be expanded and more services provided.

4.1.23 Will you recommend accessing healthcare under NHIS?

Patients were asked if they would recommend accessing healthcare under NHIS at the Atua Government Hospital to another person.

The analysis of the results is as follows. 9 (4.09%) of patients surveyed said they would not recommend accessing healthcare under NHIS at Atua to other persons whilst 211 (95.51%) of the patients said they would.

4.2 Results and analysis of in-depth interview

The survey questionnaire II (Appendix 3) was used as a basis for separate in-depth interview with 12 key staff of the Atua Government Hospital.

4.2.1 Professional distribution of staff interviewed.

This identified the various professions of staff interviewed and the details are as shown in Table 4.6 below.

Table 4.6: Professional distribution of staff interviewed

No.	Profession	Number interviewed	Percentage
1	Medical Officer	3	25.00
2	Nurse	3	25.00
3	Administrator	1	8.33
4	Pharmacist	2	16.67
5	Biomedical Scientist	2	16.67
6	Radiologist	1	8.33
	Total	**12**	**100.00**

4.2.2 Demographic distribution of staff interviewed.

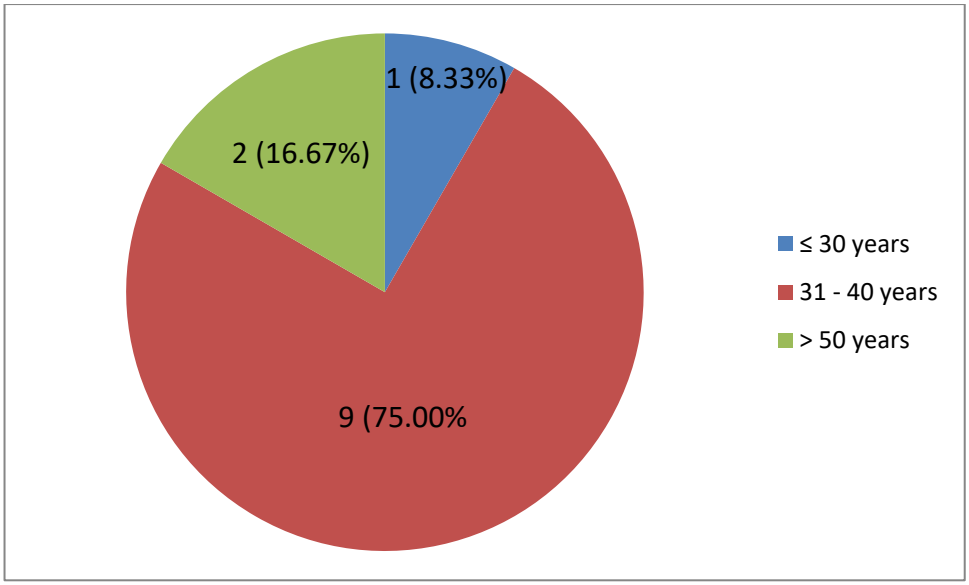
This presents an analysis of the sex, age, level of education, religious belief and employment status distribution of staff.

The sex distribution of staff interviewed shows that out of the 12 staff interviewed, 6 (50.00%) of them were males and the other 6 (50.00%) were females.

The age distribution analyses of staff interviewed are as shown in Figure 4.7 below.

The analysis shows that 9 (75.00%) of staff interviewed were between 31 and 40 years. 2 (16.67%) of the staff interviewed were above 50 years and the remaining 1 (8.33%) was 30 years or below.

Figure 4.6: Age distribution analysis of staff interviewed



The analysis of the highest level of formal education attained by the staff interviewed showed that all the staff interviewed had attained tertiary level of education.

All the staff interviewed were Christians.

4.2.3 Views of staff on the introduction of NHIS.

This presents analysis of the views of the staff on whether the introduction of the NHIS was helpful to the patients and the health facility or not.

Table 4.7: Views of staff on introduction of NHIS

Is NHIS helpful to?	Patient		Facility	
	Frequency	Percentage	Frequency	Percentage
Yes	11	91.67	2	16.67
No	1	8.33	10	83.33
Total	**12**	**100.00**	**12**	**100.00**

4.2.4 Views of staff on the introduction of NHIS on how it affects patients

The results as shown in Table 4.7 above indicates that 11 (91.67%) of the staff interviewed were of the view that the introduction of the NHIS had been helpful to the patient.

The reasons given by the staff included the following. It abolished the "cash and carry" system and took the financial burden off the patient and therefore made healthcare more accessible as far as finance was concerned. They said that "about 90% of patients who came to the hospital benefitted from free medical care under the NHIS." There was therefore no out of pocket payment for NHIS subscribers. It also reduced the incidence of abscondment. Another reason was that, it made it easy for service providers to continue with treatment as medicines and other consumables could be accessed even if relatives were not around to pay for them.

One of the staff interviewed said "NHIS served as a lifeline for most of the patients as the economic status of people is quite low."

1 (8.33%) out of the 12 staff was of the view that the introduction of the NHIS was not helpful to the patient.

Her reason was that, it caused some NHIS subscribers who had expired cards to delay in coming to the hospital until it was too late.

4.2.5 Views of staff on the introduction of NHIS on how it affects the NHIS accredited facility.

Analysis of the views as shown in Table 4.17 above indicated that 2 (16.67%) of staff viewed the introduction of the NHIS as helpful to the accredited facility.

The reason given was that it was the main source of Internally Generated Funds (IGF) for the Hospital. The Hospital relied on the NHIS re-imbursement, albeit delayed for survival.

10 (83.33%) of the staff said that the introduction of the NHIS had not been helpful to the facility.

Their reasons were that, the NHIS tariffs and medicine prices were low and therefore not good enough for the facility. They also said that the tariffs and medicine prices were not reviewed regularly as envisaged. Moreover, re-imbursement was consistently delayed. There were also complaints that the NHIS did not re-imburse the Hospital adequately for certain procedures performed just because they were a District Hospital.

4.2.6 Factors that affect the quality of healthcare.

This enumerated the factors that affect the quality of healthcare from the perspective of the staff. The factors mentioned included the following.

I. Adequacy of health professionals

II. Availability of medicines and other logistics

III. Waiting time

IV. Difficulty in sticking to appointment dates

V. Cost of services not covered by insurance

VI. Staff attitude

VII. Customer care

VIII. Doctor did not physically examine me

IX. Professional skills

X. Availability of functioning hospital equipment

XI. Short interaction time with patients

XII. Trust and confidentiality

XIII. Accessibility to facility

XIV. Discrimination between cash and NHIS clients or among patients.

XV. Patient education on health issues, and specific health conditions

XVI. Understanding medication directions,

XVII. Delayed re-imbursement

4.2.7 Views of staff on difference in quality of service received between NHIS and non-NHIS clients.

Interviewed staff stated their views on the difference in service delivery received by NHIS and non-NHIS clients.

1 (8.33%) out of the 12 staff stated that there was difference in the level of quality of service delivered between NHIS and non-NHIS clients. The reason was that, certain category of medicines or services were not accessible under the NHIS. Hence, in the view of the staff, this constituted a difference in the quality of service on the basis of the variety of service or quality of medicine received. This she said could lead to

delays in the provision of services as compared to the cash paying patient who will simply pay for those excluded services or medicines and receive relatively quicker service.

The remaining 11 (91.67%) staffs were of the view that the quality of service was the same across board between NHIS and non-NHIS clients.

Their reasons were that no folders are tagged or marked as belonging to insured or non-insured patients. Also, there was no separation between insured and non-insured patients during the service delivery process. All patients were treated equally or given same attention.

4.2.8 Views of staff on challenges in providing quality healthcare.

All the 12 staff interviewed accepted that there were challenges in generally providing quality healthcare to patients.

Staff interviewed also gave their views on how to improve quality of service. Of all the challenges mentioned, delayed re-imbursement was the most complained about among all the staff interviewed.

Below are some of the views expressed by staff during the in-depth interview.

- One of the Pharmacists said that “we often run out of medicines”. She explained that due to the late re-imbursement by the NHIA, it was difficult to get adequate funds to re-stock on time.
- One of the Nurses complained about inadequate health staff which had resulted in increased workload for the existing staff. She said the work load had increased due to relatively more patients coming to seek healthcare as a result of the introduction of the NHIS.

- The Biomedical Scientist complained of lack of adequate equipment in the Medical Laboratory. He said they sometimes turned away clients because they could not perform some of the laboratory requests. He also complained about the hospital not having a big enough generator to power all the relevant service points during light outs. Patients therefore had to wait longer during such times of power outage.
- The Medical Superintendent complained about lack of adequate funds to run the hospital. He said "even though the re-imbursement from the NHIA was often delayed, it still served as a lifeline for running the hospital"
- Another nurse said that, some patients report late to hospital in deteriorated health conditions. She said patients needed to be educated to come to hospital early.
- The Hospital Administrator stated that "some patients attend hospital with expired NHIS cards." Such patients had to pay for the services received.

4.2.9 Staff enrolment in NHIS.

All interviewed staffs were asked about their NHIS enrolment status. All of the 12 staff interviewed said that they were enrolled under the NHIS.

The reasons they gave included the following.

I. It is beneficial as it helps avoid/reduce out of pocket payment for health service.
II. Makes healthcare affordable and accessible
III. Contributes to SSNIT and pays NHIA levy so must benefit from those payments.
IV. It is a social responsibility to do so.
V. Use the NHIS card as an identification card

4.2.10 Will you recommend accessing healthcare under NHIS to a client?

Each staff interviewed was asked if they would recommend accessing healthcare under NHIS at the Atua Government Hospital to client.

All staff interviewed said that they would recommend accessing healthcare under the NHIS at Atua Government Hospital to a client.

The reasons they gave included the following.

I. So clients can access free medical care.
II. Makes healthcare readily accessible to clients.
III. Very helpful especially to those who cannot afford.
IV. Client can save himself some money by reducing/avoiding out of pocket payment.

CHAPTER V

DISCUSSION

5.0 Introduction

This chapter discusses the results in linkage with research questions, objectives, key variables and literature review.

5.1 Demographic background.

It is observed from Table 4.1 that patients attended the hospital from 34 different towns, some of which were outside of the Eastern Region where the Atua Government Hospital is located. It is obvious based on the profile of the study area with regards to ethnic groups (1.6.3) that language barrier may be a challenge due to the different locations from which patients come to the hospital; hence adequate provision should be made by the facility to be able to communicate effectively with patients. This is especially so when a quarter of patients (Table 4.2) who come to the hospital have never had any formal education and so may be illiterate.

The fact that 77.27% (Table 4.2) of the patients are females means that the hospital must be adequately resourced to provide the best of care for females. The hospital currently does not have an Obstetrician/Gynecologist to attend to the relatively large female patient population.

As shown in Table 4.2, a quarter of the patients had never had any formal education. This means that these patients were highly unlikely to be able to read and write. It is therefore important that in communicating with these patients, steps are taken to ensure that they understand the instructions well by asking for feedback.

The employment status distribution analysis of patients (Table 4.2) showed that 29.09% of the patients were unemployed. This showed that a relatively large number of patients may not be able to afford healthcare if they were not insured. Out of pocket payments and/or co-payment for certain services or medicines not covered under the NHIS may deny such patients quality care.

75.00% of staffs interviewed were between 31 and 40 years of age. 16.67% of the staff interviewed were above 50 years and the remaining 8.33% was 30 years or below. It was observed that all the staff interviewed had attained tertiary level of education and all staff interviewed happened to be Christians.

The fact that majority of the staff are between 31 and 40 years age bracket gives hope that the hospital was not likely to lose many staff through retirement, at least for the next 20 years.

The various professions of staff interviewed and the details were as follows. Medical Officers (3), Nurses (3), Administrator (1), Pharmacist (2), Biomedical Scientists (2) and Radiologist (1).

Interaction with staff indicated that the hospital did not have any specialist. Quality of service could go a step further if there were specialists such as Surgeon and/or due to numerous accidents along that route and Obstetrician/Gynecologist due to the relatively large female patient population. The facility could also attract the right tariffs from NHIA. In the current situation, similar procedures carried out by general practitioners attract relatively lower tariffs.

5.2 Patient enrolment in NHIS

It was observed that majority (95.45%) of patients who visited the hospital had enrolled with the NHIS. This means that the hospital must plan and prepare

adequately to receive NHIS clients. This is because the inflow of cash from cash customers will be reduced drastically and the hospital will have to devise strategies to sustain its operations especially when re-imbursement from NHIA is often delayed.

5.3 Staff enrolment in NHIS.

All of the 12 staff interviewed said that they were enrolled under the NHIS. The reasons they gave included the following.

It is beneficial as it helps avoid/reduce out of pocket payment for health service. It makes healthcare affordable and accessible. Those who contribute to SSNIT and pay NHIA levy are directly contributing to the insurance fund and so must benefit from those payments. Others also said it is a social responsibility to do so whilst others use the NHIS card as an identification card.

It is compulsory for every person living in Ghana to belong to a health insurance scheme type".(Bannerman et al 2005) It's therefore good to have a relatively high percentage of respondents as subscribers of the NHIS.

5.4 Views of staff on the introduction of NHIS.

91.67% of the staffs interviewed were of the view that the introduction of the NHIS had been helpful to the patient. The reasons were that it abolished the "cash and carry" system and took the financial burden off the patient and therefore made healthcare more accessible as far as finance was concerned. It also reduced the incidence of abscondment. Another reason was that, it made it easy for service providers to continue with treatment as medicines and other consumables could be accessed even if relatives were not around to pay for them.

One of the staff interviewed said “NHIS served as a lifeline for most of the patients as the economic status of people was quite low.” This supports the analyses of the employment status of patients which showed that a quarter of the patient population was unemployed.

8.33% of the staff was of the view that the introduction of the NHIS was not helpful to the patient. The reason was that, it caused some NHIS subscribers who had expired cards to delay in coming to the hospital until it was too late.

It was also noted that the introduction of the health insurance resulted in moral hazard which is abuse of use of NHIS accredited facilities because service users were not paying out of pocket cash for services received.

5.5 Views of staff on how NHIS affects the accredited facility.

16.67% of staffs view the introduction of the NHIS as being helpful to the accredited facility. The reason given was that it was the main source of Internally Generated Funds (IGF) for the Hospital. The Hospital relies on the NHIS re-imbursement, albeit delayed for survival.

83.33% of the staff said that the introduction of the NHIS had not been helpful to the facility. Their reasons were that, the NHIS tariffs and medicine prices were low and therefore not good enough for the facility. They also said that the tariffs and medicine prices were not reviewed regularly as envisaged. Moreover, re-imbursement was consistently delayed. There were also complaints that the NHIS did not re-imburse the Hospital adequately for certain procedures performed just because they were a District Hospital.

5.6 Patients’ assessment of level of promptness of service received on arrival.

Using time to receive service at the OPD as a criterion in the assessment of customer

care with regards to level of prompt service received, 40.91% patients said they did not receive prompt service.

5.7 Waiting time.

This variable assessed the waiting time before one saw the doctor at the consulting room. It is observed from Table 4.3 that 45.45% of patients waited for 30 minutes or less before they saw the doctor. 25.91% of the patients also waited between 31 to 60 minutes to see the doctor. 45 and 18 patients respectively waited for 61 to 120 minutes and more than 121 minutes before they saw the doctor. This means that 71.41% of patients saw the doctor within 60 minutes and this is commendable.

5.8 Difference in assessment of prompt service, with or without NHIS card.

Patients' view of prompt delivery of quality service received, with or without NHIS subscription at the OPD was assessed.

Majority (87.27%) of the patients said that the level of prompt service delivery at the OPD did not depend on the NHIS subscriber status. Of the 12.73% patients who said there was a difference in the level of customer care with regards to promptness in service delivery at the OPD, 46.43% of them believed that service delivery was quicker with NHIS clients whilst 53.57% believed that service was delayed with NHIS clients?

Based on the above, it can be said that there does not seem to be discrimination between NHIS and non-NHIS clients in the provision of prompt healthcare service in the Atua Government Hospital.

5.9 Patients' assessment of courteousness of the health service provider.

97.27% of patients surveyed said that they were spoken to politely. This means that staffs were generally courteous to patients. However, it is important to identify the

service points from where the remaining 2.73% of patients said that they were not spoken to politely. Analysis showed that the incidents occurred at the records, history taking table and emergency service points.

“Quality of healthcare is the degree to which healthcare services meet the expectations of an individual or group”.(Bannerman et al 2005) It is therefore important that each individual’s expectation is met.

Also, good interpersonal relations make the healthcare delivery environment friendly to both the healthcare provider and user of the service. Therefore, conscious efforts must be made to improve the relationship among health workers and between health workers and patient, relatives and the community.(Bannerman et al 2005)

5.10 Emergency hospital attendance

13.64% of all patients surveyed said they had ever come to the hospital in emergency. 20.00% of them said they received prompt attention whilst 80.00% said they did not. Emergencies often require prompt attention. It is therefore important that patients at the accident and emergency unit are given prompt attention.

Usually, effective communication with patients plays a role in assuring patients that they are being well taken care off. It is important that the views of the 20% of patients are taken into consideration. One of the barriers to quality healthcare is when the views of patients are not given adequate attention.

5.11 Level of cleanliness.

The surroundings and washrooms (toilet and urinal) of the hospital were specifically mentioned for assessment. The cleanliness of the surroundings were to look out for how clean or dirty the compound was, presence or otherwise of cobwebs, weedy surroundings, overgrown hedges and others for which the patient must specify. The

criteria for the washrooms were to look out if they were very clean, clean or dirty.

Figure 4.1 shows that 97.7% of the patients said the hospital was very clean. Of the 2.27% patients who assessed the hospital as not being very clean, they said the surrounding was weedy, the hedges were overgrown, the compound was littered with dry leaves, the male and female wards were dirty.

Table 4.4 shows that 16.28% said the toilet facilities were dirty. Cleanliness is one of the key variables in determining quality care service in a hospital. Clean environment reduces the transmission of disease and enhances good health outcomes.

5.12 Privacy during the visit.

Privacy assesses the right of the patient to be alone with health care provider or freedom from interference or intrusion so as to express themselves freely.

95.00% of the patients said they have privacy during their visit. The remaining 5.00% of the patients however said that they did not receive privacy during the visit because either other patients or people came in and out of the consulting room or double consultation was going on in the same room. Privacy, confidentiality and effective communication are some of the attributes of quality care.(Bannerman et al 2005) The patient must be assured that information concerning his disease condition will not be revealed to third parties without his consent. Also, the patient must have privacy with the service provider during the healthcare delivery process.

Adequate information must be provided by the patient. This will ensure that the service provider provides the best service based on relevant and adequate information received. This can be achieved if there is assurance of privacy from the health care provider.

5.13 Physical examination.

The patients were asked if they were physically examined during this visit. 62.27% of the patients said that they were physically examined whilst 37.73% of the patients said that they were not.

It was noted during the survey that some patients associated the quality of care received during consultation with whether they were physically examined by the doctor or not. Those who were physically examined or touched by the doctor seemed happy with the quality of care whilst some of those who were not physically examined said the doctor did not even touch me.

5.14 Effective communication

Each patient was asked if he or she was told what the diagnosis was. More than half (50.91%) of the patients however said that they were not told their diagnosis.

68.64% of patients said that they were not given any advice or specific instructions on their health condition.

58.33% of patients who had laboratory work were not told how long the results will take.

Adequate information must be provided by the health service provider. This will ensure that relevant information received by the patient will provide feedback that will improve his health outcome.

5.15 Time spent throughout the consultation process.

The time spent throughout the consultation process was assessed on the basis of good or delayed. 93.64% of patients assessed the time spent throughout the consultation process to be good.

“Care should be provided in a timely manner, which means that patients should not experience unreasonable or unacceptable delays”.(WHO 2013)

5.16 Views of patients on difference in quality of service between NHIS and non-NHIS clients during consultation.

87.27% of the patients said there was no difference in service delivery during the consultation process between NHIS and non-NHIS clients. 12.73% of the patients said there was difference in the level of quality of service delivered between NHIS and non-NHIS clients. Of the 12.73% patients who said there was difference in the quality of service, 46.43% of them said that service was quicker with NHIS subscription whilst 53.57% said service was delayed with NHIS subscription.

The results do not seem to indicate that there is discrimination in the provision of service during consultation.

5.17 Views of staff on difference in quality of service received between NHIS and non-NHIS clients.

8.33% of the staff stated that there was difference in the level of quality of service delivered between NHIS and non-NHIS clients. The reason was that, certain category of medicines or services are not accessible under the NHIS. Hence, in the view of the staff, this constituted a difference in the quality of service on the basis of the variety of service or quality of medicine received. This she said will lead to delays in the provision of services as compared to the cash paying patient who will simply pay for those excluded services or medicines and receive relatively quicker service.

The remaining 91.67% staffs were of the view that the quality of service was the same across board between NHIS and non-NHIS clients.

Their reasons were that no folders are tagged or marked as belonging to insured or non-insured patients. Also, there was no separation between insured and non-insured patients during the service delivery process. All patients were treated equally or given same attention.

This agrees with the following statement that; “Care should be delivered equitably. When it isn’t, we observe differences in who receives appropriate or effective care that are not related to health needs. These differences are called disparities.” (WHO 2013)

5.18 Understood medication directions

This variable sought to establish if patients understood the instructions from the pharmacy as to how to take their medicines. 96.82% of the patients understood their medication directions. The remaining 3.18% of the patients who did not understand their medication directions gave the following reasons. They are either due to language barrier or they were asked to take them to the ward or the labeling was not clear.

Understanding medication directions is important to obtaining good health outcomes. This is because giving the wrong dose of medication could be catastrophic. It could lead to under dose and therefore less optimum health outcomes or it may lead to overdose with its attendant problems including death. The safety of patients and staff must be safeguarded at all times.

Poor quality healthcare results in costs, some of which are readily visible, and others not so visible. Costs that are visible include the wrong treatment. Costs that are not obvious include poor patient compliance, wasted health worker time, wasted patient time, frustrated patients.(Bannerman et al 2005)

5.19 Obtained all medicines under NHIS

63.33% of patients did not receive all their medication on NHIS. This was either because the medicines were not available or they had to pay cash for those medicines that they could not access under the NHIS or because some were not available and they also had to pay for others that were available but not accessible under the NHIS.

One of the barriers to quality healthcare is not receiving all your medications at the hospital. This sometimes leaves patients frustrated especially if they do not have the means to buy the medicines from outside the hospital.

5.20 Overall level of satisfaction.

Using "very satisfied", "satisfied" and "not satisfied" as a basis for assessing the overall level of satisfaction of patients on the visit to the hospital, 84.55% of the patients surveyed said that they were very satisfied. 7.27% and 8.18% of the patients were satisfied and not satisfied respectively with their overall experience

As stated in the literature review, patients' satisfaction explains "the state of pleasure or contentment with an action, event or service and it is determined considerably by the expectations of customers and their experiences".(Peprah & Atarah 2014)

Patients who were not very satisfied stated the Pharmacy (61.76%), Records (11.76%0, Consulting Room (8.82%), History Table (5.88%), Accident and Emergency (5.88%), Laboratory (2.94%) and Accounts (2.94%) service points as service points that they were not satisfied with.

61.76% of the not very satisfied patients said that they delayed so much before getting service. 11.76% said some staff were chatting among themselves instead of providing them service. 8.82% complained of favoritism. 5.88% each of three groups of not very satisfied patients respectively complained of some staff being

disrespectful, or hospital not having adequate medicines or receiving inadequate attention from some staff.

It is observed that apart from non-availability of medicines, all the other reasons are associated with staff attitude. According to Bannerman et al (2005),"good interpersonal relations make the healthcare delivery environment friendly to both the healthcare provider and user of the service. Therefore, conscious efforts must be made to improve the relationship among health workers and between health workers and patient, relatives and the community".

5.21 Patients' view of ways of satisfying them better under the NHIS.

As part of meeting the specific objective of identifying factors that will affect the quality of service that they receive, the following suggestions were made by the patients surveyed.

I. Co-payment and requests for out of pocket cash payments from NHIS patients must stop
II. National Health Insurance medicine and service list must be expanded
III. Hospital must improve upon medicine availability at the Pharmacy.
IV. Employ more staff to improve on service delivery.
V. NHIA must re-imburse facilities on time.
VI. Educate the public on how NHIS subscribers can benefit more from insurance.
VII. Increase NHIS premium so that medicine list can be expanded and more services provided.

Several barriers make it difficult to achieve quality healthcare service. These barriers ought to be prevented, or identified and removed if quality healthcare service is to be

achieved. Bannerman et al (2005) lists “patient views not given adequate attention” as one of the barriers to quality assurance.

5.22 Staff’s view of factors that affect the quality of healthcare.

In an effort to meet the specific objective of identifying factors that affect quality of healthcare delivery in the Atua Government Hospital, from the perspective of the health professional, the following factors as stated in 4.2.40 were mentioned.

These factors were not very different from those investigated in this study.

5.23 Will you recommend accessing healthcare under NHIS?

4.09% of patients surveyed said they would not recommend accessing healthcare under NHIS at Atua to other persons whilst 95.51% of the patients said they would.

The fact that a relatively high percentage of patients will recommend the use of NHIS to others means that it is beneficial to them. Despite the complaints, accessing healthcare under NHIS is still beneficial than not having insurance.

All staff interviewed said that they would recommend accessing healthcare under the NHIS at Atua Government Hospital to a client. The reasons were that so clients can access free medical care, makes healthcare readily accessible to clients, very helpful especially to those who cannot afford, client can save himself some money by reducing/avoiding out of pocket payment.

Even though majority (83.33%) of staff thought that NHIS was not helpful to the facility, they still will recommend it to clients.

CHAPTER VI

CONCLUSION AND RECOMMENDATION

6.0 Introduction

Based on the outcome of the analysis and findings of the study, the following conclusions and recommendations were made.

6.1 Conclusions

Customer care was fair, using the level of prompt service at the OPD as a basis.

Customer care was good, using waiting time to see the doctor as a basis.

Staff of the Atua Government Hospital were generally courteous to patients.

Level of promptness in service delivery during emergencies at the Atua Government Hospital was not good.

There was no major difference in the level of prompt service delivery rendered to NHIS and non-NHIS patients

Privacy and confidentiality was good but can be improved further.

Communication of health information to patients was not good enough.

Majority of the patients did not receive all their medication on NHIS.

The overall level of satisfaction received by the patients on this particular visit to the hospital was assessed by majority of the patients to be very satisfied.

Delayed re-imbursement was a major challenge for the Atua Government Hospital.

6.2 Recommendation

From the conclusions, the following recommendations have been made.

6.2.1 Early re-imbursement by NHIA

NHIA must re-imburse the hospital early so as to enable the hospital obtain adequate funds to finance its operations.

6.2.2 Human resource and training

There is the need to adequately resource the Atua Government Hospital with additional qualified staff to enable them perform well. The health workers must upgrade their knowledge and skills regularly through training.

6.2.3 Hospital equipment and generator

The hospital needs to be resourced with new and more efficient equipment to enable the units function effectively. There is the need to acquire a generator that will be able to provide power to all essential service points during the frequent power outages.

6.2.4 Training in customer care

Staff must be trained specifically in customer care so as to enable them deliver service in a customer friendly manner and promptly too to patients.

6.2.5 Privacy during service delivery

Management of the hospital must educate staff to minimize the level of interference or intrusion during consultation. Also, double consultation in one room must be managed in such a way that privacy is achieved.

6.2.6 Communication of health information to patients

Patients must be told their diagnosis and all the necessary information required to help them achieve optimum health outcome. Patients that go in for laboratory work

must be told how long it will take for them to receive their laboratory results.

Pharmacy staff must ensure that patients understand their medication directions. In cases of language barrier, efforts must be made to get an interpreter to assist. Labeling must be legible, simple, clear and unambiguous so that patients can understand their medication directions.

6.2.7 Medicine availability

Medicine availability must be improved at the health facility.

6.2.8 Future research.

Future study should seek to explore the views of some of the patients on admission to the facility alongside that of the targeted respondents from the OPD to enable a more generalized conclusion be drawn on clients' view on quality of healthcare delivery system of the hospital.

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APPENDICES

Appendix I: Informed Consent form

STUDY TITLE: QUALITY OF HEALTHCARE UNDER THE NATIONAL HEALTH INSURANCE SCHEME; EVIDENCE FROM PATIENTS AT THE ATUA GOVERNMENT HOSPITAL.

PART 1: PARTICIPANT INFORMATION

1. Introduction

My name is Eric Kofie Borbi. I am from the Ensign College of Public Health, Kpong. I am conducting a study to evaluate the quality of healthcare services delivered under the NHIS at the Atua Government Hospital from the perspective of the patient.

I will be explaining all about the study to you. You will also receive a copy of the leaflet that explains all about this research study that you are being asked to join in. Please take all the time you need to read it carefully. You may ask me any questions about anything you do not understand at any time. You are a participant and you can choose not to take part. If you join, you may quit at any time. There will be no penalty if you decide to quit the study.

2. Why you are being asked to participate

You are being asked to take part in this study because you either sought medical care or work at the Atua Government Hospital in the Lower Manya Krobo Municipality of the Eastern Region.

3. Procedures

If you agree to be part of the study as a patient, a trained project staff will ask you a series of survey questions alone for approximately 15 - 20 minutes. Your responses will be recorded on paper and later entered into a computer database by study staff.

If you agree to be part of the study as a hospital staff, an in-depth individual interview will be conducted with you to explore your perspectives on quality of healthcare services provided under the NHIS. Your responses will be recorded both electronically and also on paper. You may choose not to have your voice recorded. The electronic data files will be transcribed and later entered into a computer database together with the manual data by study staff.

As a participant, if you agree to participate in this study, data from your responses may be used as part of the evaluation of the quality of healthcare services delivered by the Atua Government Hospital under NHIS.

4. Risk and Benefits

I do not anticipate any risk to you. There is no direct benefit to you for being in the study. However, study outcomes may lead to better understanding of the factors affecting quality of service delivered by NHIS accredited health facilities. This will provide evidence for making recommendations for improvement in the quality of healthcare service delivery at the Atua Government Hospital.

5. Confidentiality

All data will be de-identified and will be kept private. Your identifiable data such as name or date of birth will not be used in documents, reports, or publications related to this research. I will keep all documents secured and under lock. When typing your survey responses into the computer, all data will be entered without any information that will make it possible for your identity to be known. The information you provide will be kept strictly confidential and will be available only to persons related to the study. The Ensign College of Public Health Institutional Review Board may also have access to study records upon their request. Your responses will heard by other participants in the group discussion but measures will be put in place to ensure that

confidentiality is maintained. Participants will also be encouraged to keep confidential what they hear during the discussion.

6. Voluntariness and Withdrawal

Your participation in the study is completely voluntary and you reserve the right not to participate. Even after you have joined, you can decide to withdraw. This is your right and the decision you take will not be disclosed to anyone. It will not affect the care that will be offered to you at the health facility now or in future. Neither will it affect your NHIS subscriber status. Please note however, that some of the information that may have been obtained from you without identifiers, before you chose to withdraw, may be used in analysis reports and publications. You can opt not to have me use it.

7. Cost/Compensation

Your participation in this study will not lead to you incurring any monetary cost during or after the study.

8. Who to contact

This study has been approved by the Institutional Review Board of Ensign College of Public Health, Kpong. If you have any concern about the conduct of this study, your welfare or your rights as a research participant or if you wish to ask questions, or need further explanations later, you may contact the administrator of the Institutional Ethics Committee of the Ensign College of Public Health at +233 245762229.

Thank you.

Do you have any questions?

PART 2: CONSENT DECLARATION

"I have read the information given above, or the information above has been read to me. I have been given a chance to ask questions concerning this study; questions have been answered to my satisfaction. I now voluntarily agree to participate in this study knowing that I have the right to withdraw at any time without affecting future health care services"

Name of participant

Signature of Participant

Date: / / 2016

Name of witness

Signature of witness

Date: / / 2016

Name of investigator

Signature of investigator

Date: / / 2016

Appendix 2: Questionnaire form to patients

QUALITY OF HEALTHCARE UNDER THE NATIONAL HEALTH INSURANCE SCHEME; EVIDENCE FROM PATIENTS AT THE ATUA GOVERNMENT HOSPITAL

I am a graduate student of the Ensign College of Public Health, Kpong. The following questions will be used as a basis assessing the quality of healthcare services delivered under the National Health Insurance Scheme (NHIS) at the Atua Government Hospital.

You are assured that your information will be kept confidential. Please be as frank and accurate as possible. Thank you.

Town of residence…….……Date of interview……

Name of interviewer..……Script identification number……..

Enrollment status of the
participant……...

No	Item	Score
1	Sex of client: male = 1, female = 0	
2	Age of client: <15 = 1; 15 - 30 = 2; 31 – 45 = 3 Above 45 = 4;	
3	Highest level of education: None = 1; Primary = 2; JHS/Middle = 3; Sec./Tech./Voc. = 4; Tertiary = 5	
4	Religious belief: Christianity = 1; Islam = 2; Traditional = 3; Others (please state……) = 4	
5	Employment status: Formal employment = 1; Self Employed = 2; Student=3; Unemployed = 4; Others (please state……..) = 5	
6	Are you currently enrolled in the NHIS? yes = 1; no = 0	
7	Did you receive prompt attention on arrival at the hospital: yes = 1; no = 0	
8	How long did you have to wait before seeing your doctor? < 30 mins = 1; 31 – 60 mins = 2; 61 – 120 mins = 3; > 121 mins = 4	
9	Do you think service delivery would have been different if you were not (or were) an NHIS subscriber? yes = 1; no = 0 (**if no go to question 11)**	
10	If yes, would service be quicker or delayed? Quicker = 1; Delayed = 2	
11	Do hospital staffs talk to you nicely/politely? Are you happy about the way the staff talk to you: yes = 1; no = 0 (**if yes go to question 13)**	
12	If no, at what place or section of the hospital do you experience the unfortunate incident (State as many as applicable): Records = 1, History table = 2, Consulting room = 3, Lab = 4, X-ray = 5, Pharmacy = 6. Eye = 7; RCH = 8; Dental = 9; Other (please state……..) = 10	
13	Have you attended the hospital in an emergency (including night) during the last	

No	Item	Score
	six months? Yes = 1; No= 0 **(If no, go to question 15)**	
14	If yes, were you seen promptly? Yes = 1 ; No = 0	
15	How would you assess the cleanliness of the Hospital: Very clean = 1, Clean = 2, Dirty = 3 **(If very clean, go to question 17)**	
16	If not 'very clean' please give your reasons. Dirty compound = 1, cobwebs = 2, weedy surrounding = 3, overgrown hedges = 4, others (please state……) = 5	
17	In your opinion what is the state of the washrooms (toilet and urinal) in the hospital. Very clean = 1, clean = 2; Dirty = 3	
18	Did you have privacy during your visit: Yes = 1, no = 0 **(If yes, go to question 20)**	
19	If no, please give reasons: Nurse with doctor = 1; Student with doctor = 2; Other patients/people going in and out the consulting rooms = 3; double consultation in one consulting room = 4; others (please state……) = 5	
20	Were you asked what your problem was? yes = 1; no = 0	
21	Were you physically examined? yes = 1; no = 0	
22	Were you told what is wrong with you (diagnosis)? yes = 1; no = 0	
23	Were you advised or instructed about your illness? yes = 1; no = 0	
24	How would you assess the time spent throughout the consultation process in the hospital: good = 1, delayed = 2, Other (please state……...) = 3	
25	Do you think service delivery would have been different if you were not (or were) an NHIS subscriber? Yes = 1; No = 0 (**if no go to question 27)**	
26	If yes, would service be quicker or delayed? Quicker = 1; Delayed = 2	
27	Did you have any lab work done during your visit? Yes = 1, No = 0	
28	Were you told how long the lab result will take? Yes = 1, No = 0	
29	Did you understand your instructions from the pharmacist? Yes = 1, No = 0 (**If yes, go to question 31)**	
30	If no, please give reasons. Didn't understand the language used = 1 Dispenser was not patient = 2, Dispenser was chatting with someone = 3 I was not given any instruction = 4, I was insulted by dispenser = 5 Others (Please state……..) = 6	
31	Did you get all your medicines at the health facility pharmacy under? Yes =1; No =2 (**If yes, go to question 33)**	
32	If no, please explain. Medicine not available = 1, Had to pay cash = 2, Others (Please state……..) = 3	
33	Overall how satisfied are you with service offered? Very satisfied = 1; Satisfied = 2; Dissatisfied = 3	
34	If not very satisfied, what service area/points were you not satisfied with their services: Records = 1, History table = 2, Consulting room = 3, Lab = 4, X-ray = 5, Pharmacy = 6. Eye = 7; RCH = 8; Dental = 9, Other (please state……..) = 10	
35	What exactly did you not like about the service received at this particular service unit(s): spent too much time = 1, favoritism = 2, staff chatting with other	

No	Item	Score
	people = 3, received inadequate attention = 4, inadequate drugs dispensed = 5, extortion = 6, disrespect = 7, staff chatting on phone = 8, others (please explain……..) = 9	
36	Please suggest ways of satisfying patients better in the NHIS accredited health facility. …….. …… …… ……	
37	Will you recommend accessing healthcare service under NHIS at Atua Government Hospital to another person?: Yes =1, no =0	

Appendix 3: Questionnaire form used as a basis for interviewing key hospital staff

QUALITY OF HEALTHCARE UNDER THE NATIONAL HEALTH INSURANCE SCHEME; EVIDENCE FROM PATIENTS AT THE ATUA GOVERNMENT HOSPITAL

I am a graduate student of the Ensign College of Public Health, Kpong. The following questions will be used as a basis assessing the quality of healthcare services delivered under the National Health Insurance Scheme (NHIS) at the Atua Government Hospital.

You are assured that your information will be kept confidential. Please be as frank and accurate as possible. Thank you.

Town of residence……..…… Date of interview……

Name of interviewer..…… Script identification number……..

Enrollment status of the participant: **Staff**

No	Item	Score
1	Sex of client: male = 1, female = 0	
2	Age of client: ≤ 30 = 1; 31 - 40 = 2; 41 - 50 = 3; Above 50 = 4	
3	Highest level of education: None = 1; Primary = 2; JHS/Middle = 3; Sec./Tech./Voc. = 4; Tertiary = 5	
4	Religious belief: Christianity = 1; Islam = 2; Traditional = 3; Others (please state……) = 4	
5	Profession: Medical Officer = 1; Nurse = 2; Administrator = 3; Pharmacist = 4; Lab. Technologist = 5; Biostatistician = 6; Accountant = 7; Others (please state……) =8	
6	What are your views on introduction of NHIS? Has it been helpful to patient and facility? …… …… …… …… …… …… …… ……	
7	What are the factors that affect quality of healthcare? ……..…… …… …… …… ……	

No	Item	Score
	…… …… ……	
8	Does quality of healthcare service differ between NHIS and non NHIS clients for the factors mentioned above? yes = 1; no = 0 …… …… …… …… …… …… ……	
9	Are there any challenges in providing quality care generally? yes = 1; no = 0 …… …… …… …… …… …… ……	
10	In your view, how can quality of care be improved? …… …… …… …… …… …… ……	
11	Are there any challenges in providing quality care under the NHIS? yes = 1; no = 0 …… …… …… …… …… …… ……	
12	In your view, how can quality of care under the NHIS be improved? …… …… …… …… …… …… ……	
13	Do you think service delivery would have been different if a patient was (or was not) an NHIS subscriber? Yes = 1; No = 0 Kindly explain. ……	

No	Item	Score
	…… …… …… …… …… ……	
14	If yes, would service be quicker or delayed? Quicker = 1; Delayed = 2	
15	Are you personally currently enrolled in the NHIS and why? yes = 1; no = 0 …… …… …… …… …… …… ……	
16	Will you recommend accessing healthcare service under NHIS at Atua Government Hospital to a client?: Yes =1, no =0 …… …… …… …… …… …… ……	

Appendix 4: List of towns from which patients visited Atua Government Hospital

No.	Town	Frequency	Percentage	Region
1	Accra	3	1.36	Greater Accra Region
2	Ashaiman	1	0.45	Greater Accra Region
3	Nungua	1	0.45	Greater Accra Region
4	Osu	1	0.45	Greater Accra Region
5	Tema	1	0.45	Greater Accra Region
6	Ho	1	0.45	Volta Region
7	Hohoe	1	0.45	Volta Region
8	Kasoa	1	0.45	Central Region
9	Agormanya	24	10.91	Eastern Region
10	Atua	30	13.64	Eastern Region
11	Odumase	26	11.82	Eastern Region
12	Somanya	54	24.55	Eastern Region
13	Kpongunor	15	6.82	Eastern Region
14	Nuaso	14	6.36	Eastern Region
15	Kodjonya	5	2.27	Eastern Region
16	Mampong	4	1.82	Eastern Region
17	Kpong	5	2.27	Eastern Region
18	Korletsom	1	0.45	Eastern Region
19	Sawer	4	1.82	Eastern Region
20	Adukrom	1	0.45	Eastern Region
21	Madam	1	0.45	Eastern Region
22	Akropong	1	0.45	Eastern Region
23	Asitey	6	2.73	Eastern Region
24	Akosombo	5	2.27	Eastern Region
25	Saisi	1	0.45	Eastern Region
26	Dodowa	2	0.91	Eastern Region
27	Poponya	1	0.45	Eastern Region
28	Assesewa	1	0.45	Eastern Region
29	Tokpalime	1	0.45	Eastern Region
30	Toh	1	0.45	Eastern Region
31	Adormey	3	1.36	Eastern Region
32	Asutuare	2	0.91	Eastern Region
33	Oterkporlu	1	0.45	Eastern Region
34	Awukugua	1	0.45	Eastern Region
	Total	**220**	**100**	