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EXPLORING THE POTENTIALS AND CHALLENGES OF IMPLEMENTING CAPITATION BASED PAYMENT FOR PRIMARY CARE IN GHANA

BY

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by

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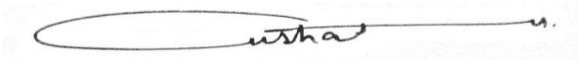
Signature: 

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Abstract

As cost of reimbursement continues to soar over the years, the NHIA has experimented with different payment systems to achieve sustainability. For this purpose, a new payment system of capitation was introduced for primary care reimbursement to control cost at this level. A pilot was implemented in 2012 which was met with several implementation challenges leading to adjustments in the design.
This study aimed at exploring the potentials and challenges of implementing a capitation based payment system for primary care, in order to formulate recommendations for a successful roll-out by the NHIA in Ghana.

Methods: A literature review was conducted using the "Axes of per capita PHC system impact" framework to assess the available mechanisms needed for a successful PHC per capita system of funding.

Findings: All payment mechanisms have their advantages and challenges. However at the primary level, capitation payment can be a tool to drive health system change to build the primary care sector. Also depending on the design, it can be helpful to health purchasers to improve resource allocation to where it's most cost-effective and it may be instrumental for the purpose of cost containment. However, certain structures and arrangements are needed for the system to achieve these potentials which seem not so apparent in the Ghanaian context.

Recommendations include improving efforts to increase provider and subscriber engagement to increase acceptability of the new system. Separating PHC from Hospital sector and defining the scope of services to be provided at the primary level. Defragmenting the current health financing schemes and improving efforts for stewardship by the Ministry.

Key words and combination of keywords used; capitation; primary care reimbursement, PHC, per capita payments; cost effectiveness; provider payment methods; impact.

ABBREVIATIONS

ANC	Anti-Natal Care
CG	Case Group
CHAG	Christian Health Association of Ghana
CPPA	Community Practice Pharmacists Association
DHS	Demographic Health Survey
DMHIS	District Mutual Health Insurance Scheme
DIC	District Implementation Committee
DPT3	Diphtheria, Pertussis (whooping cough), and Tetanus
FFS	Fee-For-Service
GDP	Gross Domestic Product
G-DRG	Ghana Diagnostic Related Groups
GGHE	General Government Health Expenditure
GHS	Ghana Health Service
GoG	Government of Ghana
GSS	Ghana Statistical Service
Hb	Haemoglobin
HDI	Human Development Index
HIV	Human-immunodeficiency Virus
IPD	In-Patient Department
MA	Medical Assistent
M&E	Monitoring and Evaluation
MOH	Ministry of Health
MOFEP	Ministry of Finance and Economic Planning
MHIS	Municipal Mutual Health Insurance Scheme
NHIA	National Health Insurance Authority
NHIF	National Health Insurance Fund
NHIL	National Health Insurance Levy
NHIS	National Health Insurance Scheme
OOP	Out Of Pocket
OPD	Out-Patient Department
PC	Primary Care
PHC	Primary Health Care
PNC	Post –Natal Care
PPM	Provider Payment Mechanism/Method
PPP	Preferred Primary Provider
PSCG	Pharmaceutical Society of Ghana
PvHE	Private Health Expenditure
RIC	Regional Implementation Committee
SPMDP	Society of Private Medical and Dental Practitioners
STG	Standad Treatment Guidelines
TSC	Technical Sub-Committee
UHC	Universal Health Coverage
UNDP	United Nations Development Program

USAID	United State Agency for International Development
WB	World Bank
WHO	World Health Organisation

Definitions of Important Terminologies

Bundling: Grouping health care services into a higher aggregated unit (such as hospital bed-days and all tests and procedures grouped into a "discharge"), and charging or paying for the group of services rather than for each individual service

Diagnosis-Related Group: A classification of hospital case types into groups that are clinically similar and are expected to have similar hospital resource use. The groupings are based on diagnoses, and may also be based on procedures, age, sex, and the presence of complications or comorbidities

Economic adjustment coefficient: An adjustment factor multiplied by the base rate in a provider payment system to adjust for economic factors external to the health sector that would affect expenditures, such as inflation or regional variations in resource cost

Enrollment period: The fixed period for which an individual is enrolled with a health care provider before the next opportunity to choose the same or a new provider

Health purchaser: An entity that transfers pooled health care resources to providers to pay for services for a defined population

Hospital pool: An estimate of the amount of funds that will be available to pay for hospital services in a defined administrative or geographic region for a specified time period

Incentive: An economic signal that directs individuals or organizations (economic entities) toward self-interested behavior

International Classification of Diseases: A system of categories used to classify morbidities according to established criteria. The classification system is currently in its 10th edition (ICD-10) and is published by the World Health Organization.

Line-item budget provider payment method: The allocation of a fixed amount to a health care provider to cover specific input costs (such as personnel, utilities, medicines, and supplies) for a certain period. Typically, providers have limited flexibility to move funds across line items.

Open enrollment: The process by which individuals select a health care provider and are then assigned to that provider for a fixed period (the enrollment period)

Open enrollment registration period: The designated fixed time during which individuals can enroll (or reenroll) with a health care provider

Pooling of health funds: Accumulating all state or public funds allocated to pay for health services for the entire population of an administrative or geographic area in a single budget. Pooling includes horizontal consolidation of the budget across all parts of the health care system, and vertical consolidation across levels of local administration in a given area.

Prospective: The payment rate for a set of a set of services determined prior to the services being delivered
Retrospective: The payment rate for a set of services determined after services are delivered.
Solidarity: A pooling mechanism where the rich pays for the poor and the healthy subsidize for the sick to achieve equity.
Universal Health Coverage: ensuring that all people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship.

Introduction

I am Aishatu Agyekum from Ghana, currently working with the National Health Insurance Authority (NHIA, a social health insurance scheme) as a Research Officer with the Research and Development Directorate. My directorate led the introduction of the capitation based provider payment system as the new mechanism for reimbursement for primary care which was piloted in the Ashanti region (1 of the 10 administrative regions in Ghana).

Capitation payment is now being rolled out in phases and it will ultimately become the choice of payment system for primary care services by the NHIA nationwide. However, the pilot was met with several challenges and resistance from our two important stakeholders who are providers (resistance mostly by private providers) and clients[1]. These led to series of changes and modifications of the design and implementation process. This thesis is aimed at exploring potentials and challenges of implementing a capitation based payment system for primary care. This objective will be reached by reviewing the available literature for theoretical and empirical evidence on the implementation of capitation. Results will be used to make recommendations to the NHIA for a successful roll-out of the payment system.

With the growing global public health concern to achieve universal health coverage (UHC), health financing options and the sustainability of the financing mechanism are important determinants towards the progress of UHC. Studies in 2011 estimated that, with the trends of expenditures and incomes of the National Health Insurance Fund (NHIF), the National Health Insurance Scheme (NHIS) may not be sustainable. It further projected that the NHIS would be running into deficits from 2013.

It is a matter of public health urgency to try all means to make efficient use of available resources by employing cost containment measures to ensure sustainability. Expenditure data from the NHIA show an exponential growth in reimbursement with primary care (PHC) cost constituting the fastest growing part. This led to the introduction of the capitation payments to control cost at the primary level. The success of the capitation system in Ghana is therefore of a public health importance and needs extensive studies for practical recommendations for a successful implementation.

[1] Clients, subscribers and patients will be used interchangeably to refer to

Exploring the Potentials and Challenges of Implementing Capitation Based Payment for Primary Care in Ghana

Chapter 1

Background of Study Area

1.1 Geographical Profile

Ghana is situated on the West African Coast a few degrees north of the equator between latitudes 4^{o}N and 12^{o}N and longitude 4^{o}W and 2^{o}E. She is bordered in the north by Burkina Faso, west by Ivory Coast, east by Togo and the Gulf Of Guinea (Atlantic Ocean) in the south. She covers a landmass of 238,535 km^2 with 2,093km of international land borders and consists of 10 administrative regions. Ghana is a sovereign state and unitary presidential constitutional republic and was the first African country to declare Independence from British colonization in 1957.

1.2 Demographic Profile

Ghana has a population of approximately 24,658,823 with a growth rate of 2.5% as per the 2010 population census. She has a youthful population with 38.3% under 15 years, 57% between 15 and 65 years and 4.7% over 65 years with a median age of 20 and a sex ratio of 95 male/100 female (1). 71.5% of the total population is literate. The rate however varies by gender, with a male literacy rate of 78.3% and female 65.3% (2).

1.3 Socio-economic Profile

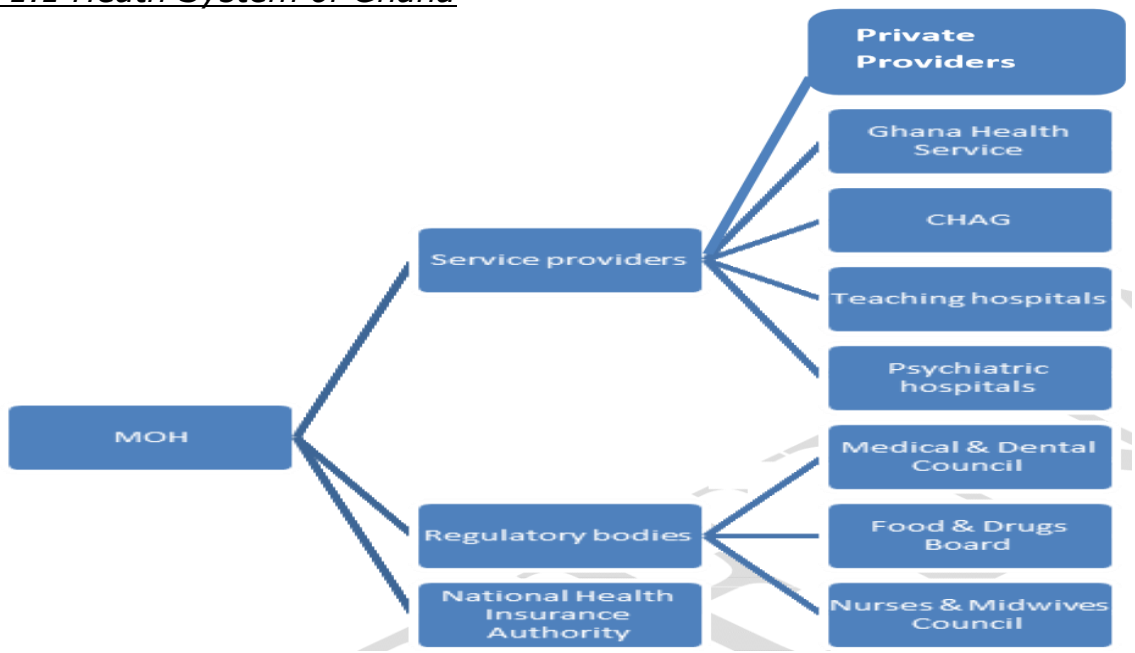
Ghana is endowed with natural resources ranging from gold, diamonds, and other precious metals to vast oil reserves. However majority of the population are poor with about 28% of the population living below the poverty line. The 2013 HDI ranked Ghana 135 out of 185 countries(3). Over 50% of the population is in the productive age and majority of the labour force operate in the informal sector. Ghana is currently ranked as a lower middle income country with GDP of $48,678million (2013 est.) with a growth rate of 24.7%, and income per capita of US$1,838 (4).

1.4 Overview of the Health System

The Ministry of Health is the government administrative body responsible for policy formulation, resource mobilization and allocation within the health sector, and monitoring and evaluation of overall sector performances (Act 525, 1996). Agencies under the ministry include the Ghana Health Service (GHS), Medical and Dental Council, Nurses and Midwives Council, Pharmacy

Council, Food and Drugs Authority (FDA) and NHIA. Health service delivery in Ghana follows a three-tier arrangement: primary, secondary and tertiary levels. The government is the largest healthcare provider with the GHS being the agency responsible for health care delivery at the public sector providing primary, secondary and some specialist care. The Teaching (National) Hospitals function as semi-autonomous health institutions with responsibility for tertiary level health care under a Board appointed by the President. Faith based organisations (CHAG) also contribute to about 10% of health services mainly in the rural areas. Others include quasi-government, private non-for-profit and private commercial providers (5).

Fig 1.1 Heath System of Ghana



Source: Ministry of Health, modified by World Bank (5)

Distribution of health services varies across regions and also in rural urban distribution. Most urban centers are well served while rural areas are underserved. Majority of hospitals, clinics and pharmacies especially privately owned are concentrated in the cities while modern healthcare services are lacking in the rural areas where almost 50% of the population resides (5).

1.5 Health status

Ghanaians have a life expectancy at birth of 64.6 years (3). In 2009, infant mortality rate was at 47 per 1000 live births and under five mortality was 69 per 1,000 live (6). Immunization coverage (DPT3 and measles) is 87%. Ante-natal coverage (4 visits) is estimated at 78% with a contraceptive prevalence rate of 24% in 2008 (7). Unmet need for contraceptive in the

period 2000-2007 was 34% (6). The maternal mortality ratio as of 2008 was 350 per 100,000 live births.

Ghana suffers a double burden of disease with communicable diseases as well as increasing prevalence of non-communicable diseases (5). The main causes of morbidity and mortality are poverty related diseases such as malaria, HIV and diarrheal diseases (7). There is an increasing trend of non-communicable diseases which is increasingly becoming of public health concerns. The major ones are cardiovascular diseases, hypertension, diabetes mellitus, cancers, asthma and sickle cell disease. Though there is limited data on burden of disease, there has been increased reporting of hypertension and diabetes (8).

1.6 Health Financing

Ghana's health system was founded on the basis of free healthcare to ensure equity in access to care starting from free health care in the post-colonial period (9). Fees had to be introduced as a means of necessity because the system could not be sustained due to economic hardships. Beginning from insignificant fees, to the introduction of user fees and ultimately the infamous 'cash and carry' system with a higher cost shared by the patient (10).

The cash and carry system was highly criticized because it prevented the poor access to care (9). Responding to the criticisms, deliberations then started on finding an alternate system of health financing. This led to the establishment of Community Based Health Insurance pilot schemes in the late 1990s and the introduction of the Act 650 in 2003 which established the National Health Insurance Scheme (NHIS) (Kotoh 2013). The establishment of the NHIS has been a major step towards the achievement of universal health coverage (11). By the end of 2013, 38% of the population had a valid NHIS subscription (active membership) (12).

1.7 Overview of the National Expenditure on Health

Over the period of 1995 through 2009 and 2012, the composition of health spending has changed with the public share increasing from 44% in 1995 to 53% in 2009 and 57% in 2012 [ie General Government expenditure on health (GGHE) as % of total health expenditure (THE)]. The private expenditure on health (PvHE) as a percentage of THE has declined from 56% in 1995 to 44% in 2009 and 43% in 2012. Out-of-pocket (OOP) expenditure as a percentage of PvHE has declined from 44% (1995) and 37% (2009) to 28% in 2012 still above the WHO 20% recommendation (13). GGHE as a percentage of general government expenditure (GGE) was 10% in 2012, still below the 15% Abuja target[2] (5).

[2] Refer to Annex 1.1 for Abuja Declaration

Chapter 2

2.1 Problem Analysis

Introduction

A provider payment system (PPM) is a mechanism used to transfer funds from purchasers of health services to service providers. It includes all supporting systems such as contracting, management information systems and accountability mechanisms that accompany the payment method. 'Provider payment systems can be a powerful tool to promote health systems development and achieve health policy objectives (14). The incentives[3] that are created by the payment methods and the responses of the providers to those incentives, the management information systems to support the provider payment methods, and the accountability mechanisms established between providers and purchasers can have profound effects on the way health care resources are allocated and services are delivered (15). Table 2.1 in the annex gives a description of PPMs, their characteristics and incentives they bring.

Several payment systems have been employed by the NHIS since inception in 2003. At the onset of implementation, itemized fee-for-service policy was used to reimburse providers for all services and medications. This system resulted in a series of challenges such as increase in quantity of services regardless of quality with no lever to contain cost (16). Also there was no uniformity in reimbursement rates such that different rates were reimbursed for treating similar conditions by different facilities resulting in confused and arbitrary situations (5).

In an attempt to address the escalating cost and other challenges associated with the fee-for-service, the Ghana Diagnosis Related Groupings (G-DRG) was adopted in 2008 (16). DRGs are standard grouping of diseases that are clinically similar, have comparable treatments or operations and use similar healthcare resources (5). Under this system, prices of similar procedures are bundled[4] and priced prospectively[5] to standardize prices, and payment was done retrospectively[6] for number of services only, while the Itemized billing still ensued for medicines. Also a standardized medicines list and pricing mechanism was introduced and reviewed yearly with stakeholder participation.

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[3] An economic signal that directs individuals or organizations (economic entities) toward self-interested behavior

[4] See annex on important terminologies for definition

Bundling: Grouping health care services into a higher aggregated unit (such as hospital bed days and all tests and procedures grouped into a "discharge"), and charging or paying for the group of services rather than for each individual service

[5] Refer to definitions of important terminologies

[6] Refer to definitions of important terminologies

The current G-DRG system of the NHIA has not been able to address the challenges with containing the escalating cost of reimbursement which threatens the sustainability of the scheme (17). Other challenges with the DRG system include; cumbersome claims processing, increased transactional cost for the providers and purchaser, difficulty in budgeting and forecasting, persistent delays in provider reimbursement and problems of moral hazards(18).

As an attempt to mitigate the challenges of the DRG system, the NHIA introduced a per capita payment system in 2012 for a defined primary care services (PHC) (17). Under this system, all service providers at the primary level are paid in advance a predetermined fixed rate to provide a defined package of services for each subscriber enrolled with the provider for a fixed period (15) (17).

The capitation system is expected to ensure efficiency by distributing risk and benefits to all three stakeholders (providers, patients and scheme) and improve quality of service at an efficient cost as well as address some challenges posed by the DRG system as described above (16). Due to the great diversity within and between countries and the differences in incentives to stakeholders involved, there has not been a perfect single PPM that has been appropriate for all countries (19) . This calls for a mix of complementary PPMs that can fit the health system and policy goals of the Ghanaian or any other context (16).

Currently, the NHIA plans to use all three payment systems; a Capitation for a defined basket of services at the primary level, G-DRG for services that are not covered by the capitation basket and FFS for medicines. The focus of capitation is on primary care (17). Primary care facility as defined in LI 1809[7] is the first point of attendance except in cases of emergencies. This includes CHPS, Health Centers, District Hospitals, Policlinics or Sub-Metro Hospitals, Quasi-Government Hospitals, Private Hospitals, Clinics and Maternity homes. However, in localities where the only health facility is a Regional hospital (secondary or referral level), the general out-patient department (OPD) shall be considered a primary care facility (16). This clause brings a complexity in the definition such that the same facility can function as primary and secondary care facility.

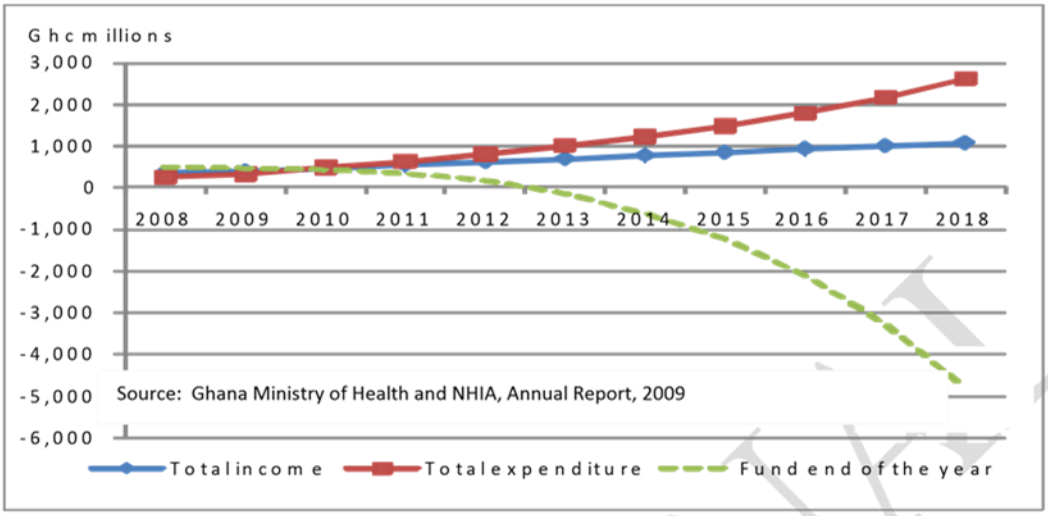
The capitation system was piloted in 2012 to test the effectiveness of the per capita payment system in achieving its objectives, and to identify key features of implementation essential for success to make recommendations for a nationwide scale-up (20).

[7] The legislative instrument establishing the National Health insurance.

2.1.1 Problem Statement and Justification

The continuous rise in the cost of reimbursement[8] which does not commensurate with the rise in incomes generated from the National Health Insurance Fund (NHIF) is a threat to the sustainability of the National Health Insurance Scheme (NHIS) (21). With the current trends in NHIA's incomes and expenditures, studies by the World Bank in 2011 estimated the NHIA could be running in deficits since 2013 (22) as shown in figure 2.1 below.

Fig. 2.1 Financial sustainability of NHIS



[9]Source: (22)

The introduction of the G-DRG in 2008 was to contain the escalating cost posed by the fee-for-service. The G-DRG rather worsened reimbursement rate about three times over and above the rate during fee-for-service (16). Whereas this increased cost may be attributed to the increased membership and hence utilization, the relation is not clear whether this is a genuine phenomenon or is due to moral hazards common with any of such social insurance schemes worldwide (16).

The G-DRG payment system was adopted in 2008 without piloting nor prospective evaluation to assess possible outcomes with respect to cost-containment, impact on provider behavior and the provision of quality service (16). Though the system is generally well understood and accepted by providers, it has not been able to address the cost escalation challenges (18). Most affected was cost at the primary level. According to Mr. O.B. Acheampong (Director of Research NHIA), total outpatient claim cost increased by almost 211% from 2007 to 2009 accounting for about 70% of total cost of claims. Also, the average cost of services per outpatient claim

[8] Though may have positive implications such as increased access to and utilization of healthcare, it can however negatively impact on the sustainability of the scheme.

[9] Fund end of the year is the estimated cumulative deficit of the fund over the years

rose from GH¢2.03 to GH¢4.77 nearly 135% (18) much higher than inflation rate for the period.
To address the cost challenges at the primary level, a per capita payment system (capitation) has been introduced for primary care outpatient cases (18). The new system of capitated payment was piloted in the Ashanti region in 2012 as a way of testing the effectiveness in achieving cost containment, quality of care and efficiency objectives of introducing capitation. Also, to identify key features of implementation that is essential for success in order to make recommendations for a nationwide scale-up (18). The implementation of the pilot was met with agitations and negative reactions from both providers and subscribers which led to adjustments and disruptions of the original design at the pilot stage (18).

This explorative study is necessitated owing to the implementation challenges that arose from the pilot. These challenges need to be identified and addressed, in order not to defeat the purpose and objectives of the capitation payment system. For a successful implementation of the roll-out, there is the need to assess if the available systems, both internal and external to the NHIA will be able to foster smooth implementation of the roll-out.

2.2 Objectives

To explore potentials and challenges of implementation of a capitation based payment system for primary care, in order to formulate recommendations for a successful roll-out by the NHIA in Ghana.

Specific Objectives

1. Explore and analyze potentials and challenges for implementing per capita provider payment system for primary care.
2. Describe the design and implementation arrangements of the capitation pilot in Ashanti region
3. Explore the pilot experience and challenges.
4. Draw upon theoretical and empirical review to identify measures to fill the gaps in order to make informed recommendations to the NHIA for a successful nationwide roll-out.

2.3 Methodology

A literature review on implementing per capita PHC payment system was conducted using scientific and grey literature from PubMed database, Google Scholar, Journal articles, documents, reports, working papers and technical manuals from WHO, World Bank and the NHIA. Literature on the theory and practice was accessed from both developed and developing country settings.

Limitations

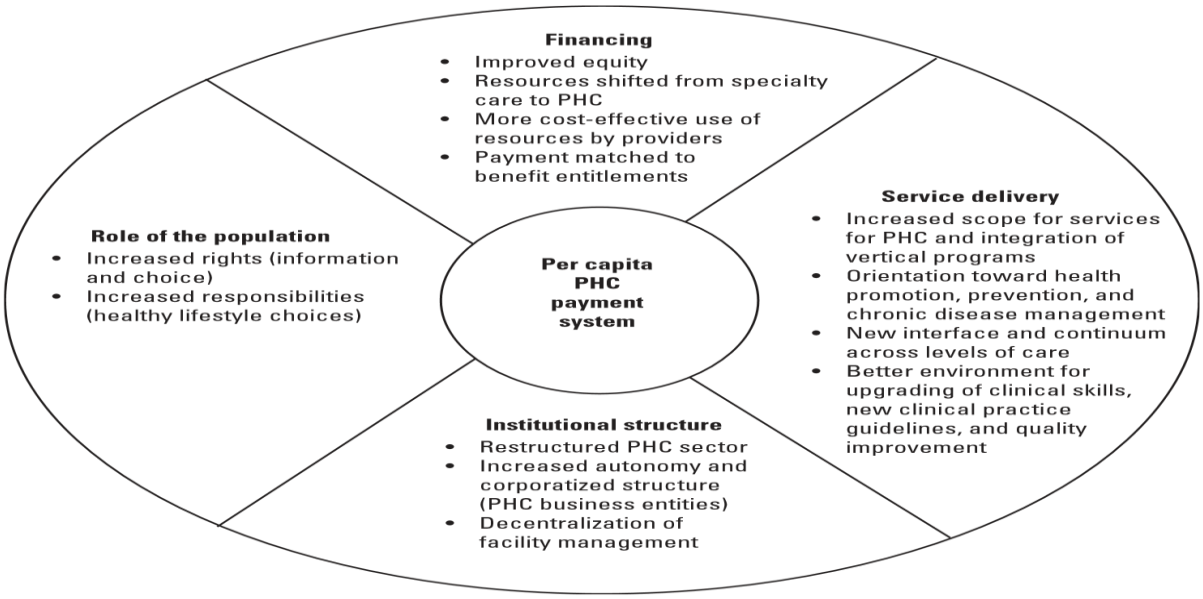
There was language limitation in the search for literature; only documents in English were accessed. Also capitation payment is relatively a new phenomenon in the context of the health system of Ghana therefore not so much literature was available on the payment system in Ghana. This limits the extent to which a close description could be made. Most evidence sited from Ghana was from unpublished documents from NHIA who were the implementers of the program. There can be some chance of bias in the information from this source due to conflict of interest.
Key words and combination of keywords used; primary care reimbursement, PHC, per capita payments; capitation; cost effectiveness; provider payment methods; impact.

2.3.1 Primary Care (PC) and Primary Healthcare (PHC)

The concepts of primary care and primary health care still have conflicting definitions. This is evidenced by the current acknowledgement by the WHO over the confusion on the distinction between the two terms and the current world discourse in defining both terms. According to the WHO, there was ambiguity in the Alma Ata declaration where PHC concept was discussed as a level of care and an overall approach to health policy and service provision. Therefore, "no uniform, universally applicable definition of primary health care exists"(23). For the purpose of this study, the term primary care and primary health care (PHC) will be used interchangeably to refer to the first level of contact for healthcare.

2.4 Conceptual framework

The World Bank "Axes of per capita PHC system impact" will be adopted to assess the available mechanisms needed for a successful PHC per capita system of funding. This model identifies the key aims of a per capita payment system for PHC according to four domains; financing, service delivery, institutional structures and the role of the population.
FIGURE 2.2 Axes of Per Capita PHC Payment System Impact



Source: Authors.

(14)

Per Capita PHC Payment Systems as Triggers of Reform

This was chosen because, the goals of the model conform to the goals and components of the capitation system in Ghana as illustrated in annex table 2.2.

"The relatively simple design and implementation of the model can create a rapid change in the relationship among actors in the health sector. The new per capita PHC payment system can play an important role as a transition and culture specific trigger of a much more comprehensive reform process" (14).

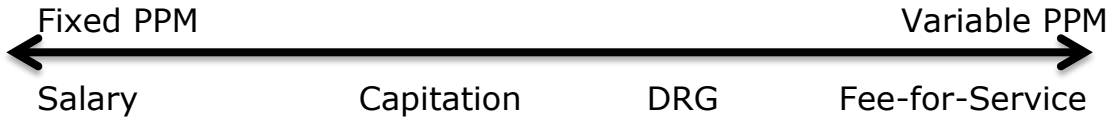
Variability Spectrum

The degrees of variability of PPM will be used in making comparisons with other payment methods. The three main payment systems with many combinations are the fee-for-service (FFS) payment, the capitation-based payment and the salary payment. In a FFS system physicians are paid per item or performance; in capitation-based system physicians receive an annual capitation fee per patient; and in a salary system physicians receive a fixed salary per period. In a FFS system, a clear relationship exists between workload and income, whereas in a capitation system, income is related to the number of registered patients. In a salary system, income is neither directly linked to workload nor to patient-list size (24).

A variability spectrum shows the degree to which a PPM is fixed at one end of the spectrum or variable at the other end. Fixed PPMs do not vary with services provided such as in Salary. Variable PPMs are directly related to the amount of services provided such as in FFS. Capitation payment has both a fixed and variable component. Capitation fees are fixed payments per

patient for a period of time but also have a variable component thus dependent on the number of patients enrolled (25).
Studies have shown that the degree of variability in the provider payment method has profound incentive on how services are delivered to achieve health system goals.

Fig.2.3 Variability Spectrum



2.5 Organization of Thesis

Chapter 1 gives background information on Ghana, elements considered include; geographical, demographic and socio-economic characteristics, health system, status, financing and health expenditure. Chapter 2 introduces the problem and justifies the problem of study, the study objectives, methodology and a description of the theoretical framework. Chapter 3 describes theoretically the potentials and challenges of implementing a per capita payment system for primary care with practical examples along the four axes of PHC impact. Chapter 4 describes the design and experiences of the pilot and implementation challenges along the four axes. Discussions and conclusions of the findings will be made in chapter 5 to identify the gaps in the implementation of the per capita payment pilot in Ghana leading to recommendations.

Chapter 3

Theoretical background of the potentials and challenges of implementing a per capita payment system for primary care along the four axes of PHC impact

Primary care sector is the first point of contact and the most used part of the health care system. It is also the part that potentially has the largest impact on the population's health (15). International evidence shows a stronger primary care sector, particularly in low-income countries, is associated with greater equity and improved access to basic healthcare, higher patient satisfaction, and reduced aggregate healthcare spending for the same outcome (26). An efficient PHC sector can aid in improving the interaction between government, purchasers, providers and the population. Therefore, the financing of PHC and the provider payment system(s) that are used play a critical role in driving health system change well beyond that of financial incentives (14).

There is remarkable acceptance that, regardless of the structure of the health system, a policy of cost containment and devolved responsibility for healthcare system requires the need to set prospective budgets on the basis of capitation (27). Depending on its design, a capitation payment system for primary care can stimulate changes in other parts of the health sector. For example a capitation payment may create an incentive for primary care providers to keep the population healthy. A shift from curative to preventive and chronic disease management at the primary level can reduce hospitalization rates for preventable diseases that can be managed at the primary level.

These links with the other sectors makes it critical that a capitation system of payment be designed in the context of broader health policy goals, the current capacity of the system and the desired and expected changes. Planning of a new PHC payment system should include an analysis of the expected and unexpected impacts in the broader health system and community (14).
The following paragraphs describe the potentials and challenges of implementing a per capita payment system for primary care along the four domains of potential impacts i.e. financing, service delivery, institutional structures and role of the population.

3.1 Financing

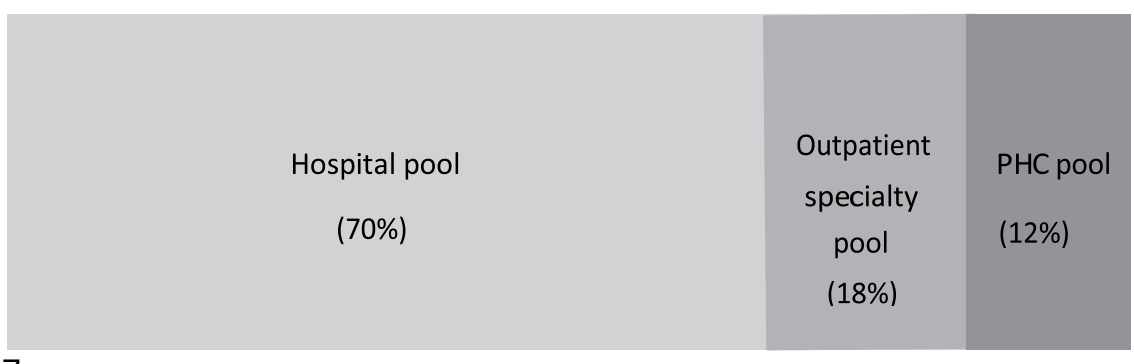
A per capita payment system can create an immediate mechanism for improving equity and transparency in the allocation of resources for basic healthcare services. It can also initiate a shift in health resources to its most cost-effective use and match payments to benefits entitlements.

- **Resources shift from specialty care to PHC and Improved equity:** Capitation payment can stimulate a mechanism to **improve equity** in the allocation of resources for basic health services (14). Health resource allocation in most low and middle income countries are skewed towards the hospital sector (14). A per capita payment system if designed properly with a strong gatekeeping[10] function can stimulate a shift in resources from specialty care to the primary level.

  Countries in Central Asia witnessed profound inefficiencies in the healthcare system mostly due to the imbalance between the hospital and PHC sectors inherited from the Soviet regime. Hospitals consumed more than 70% of the healthcare budget. The hospital sector was overdeveloped at the expense of the PHC sector, which was underdeveloped, underfunded and underused. An oversupply of physicians contributed to PHC practitioners having a narrow scope of services and largely serving as indifferent dispatchers to the specialists. PHC services were provided by specialists who were attached to large polyclinics. The enormous excess capacity became unsustainable given that the health budget had largely collapsed which necessitated greater efficiency (14).

  The government then decided that, to solve this problem systematically required a complete restructuring of the PHC sector. PHC practitioners were pulled from the health system and a new corporatized structure was established for PHC. These PHCs functioned as business entities with the autonomy they needed to develop (14).
  A per capita payment system was introduced which was the major driver in the PHC restructuring process which gradually increased the share of resources for the primary sector as illustrated below (14).

Fig 3.1 Evolution of the PHC Pool in Karaganda Region, Kazakhstan



[10] Primary care providers serving as the first point of contact for healthcare and guard the gates of high level facilities by preventing unnecessary visits.

Hospital pool (60%)	Outpatient specialty pool (19%)	PHC pool (21%)

Source: Karaganda Regional Center for Medical Statistics 2007.

Capitation payments are mostly designed targeting primary care reimbursements. In low-income countries, evidence shows that **expenditure on PHC is more pro-poor than aggregate expenditure that includes hospitals,** and has a desirable distributive impact benefiting the poorer segment of the population proportionately more than the richer segment (26). Through a capitation system, policy makers can ensure a shift in resource allocation from secondary and tertiary level towards primary level. Studies from developed and developing countries demonstrate that an **orientation towards a specialist-based system enforces inequity in access** (26,28).

Challenges of inequity such as cream skimming can also arise with enrollment in a per capita payments system. Providers may select only healthy enrollees such as the youth and discourage enrolling high risk populations (29). As was the case in private clinics in Thailand, providers intentionally delayed non-emergency cases to defer their responsibilities. High risk patients were delayed needed treatments to deter them from re-registering with the facility (30). This can be avoided by setting a 'risk adjusted'[11] capitated rates to compensate providers for high risk enrollees (14). The capitation formula can be adjusted by coefficients for the different needs of the population leading to cross-subsidization and improved equity in resource allocation (31). Risk adjustment mechanism has been used to secure fairer distribution of resources and also to reduce incentives for cream skimming in Israel (27).

[11] Risk adjusted capitated rate are cost adjusters set to compensate for variations in cost related to population health needs such as age, sex, historical medical expenditures, or other factors that may be associated with expected individual cost variations. Geographical coefficients may be developed if there are significant cost variations for delivering the same package of services in different locations.

- **More cost effective use of resources by providers**: Efficiency objectives are implicit in most capitation payment systems. The system is embedded within a budget which seeks to make providers more responsive to issues of the cost and benefits of their actions (27).
  When a PHC payment system is implemented simultaneously with an increased management autonomy and increased population choice, it can create financial incentives for the provider to make more cost effective internal resource allocation decisions to attract more patients and also to keep costs low to generate surpluses (14). For example a provider can reduce cost or improve efficiency by modifying their input mix such as employing more nurses and fewer doctors for PHC services (32). Also providers can improve technical efficiency by using more cost effective procedures such as using rapid test kits instead of laboratory examinations for simple tests.

  Payment methods with low variability such as capitation motivates providers to avoid unnecessary care to patients (25). It however has a risk of reduced incentive for quality of care because additional services such as counseling for TB patients are not compensated as in FFS payments (29). While more variable methods such as fee-for-service generate incentives for 'supplier induced demand'[12] (25). Studies by Christel van Dijk (2012) show that more quantities of care are delivered where providers are reimbursed with FFS as was evident with publicly insured patients in the Netherland (24).

- **Payments matched to benefits entitlements:** A per capita PHC payment system enables the purchaser to directly match payments to benefits entitled to and received by the population under the approved benefits package (14). This is especially important in situations characterized by input-based budgets, where there is no clear connection between payment and the benefit entitlement (32). Also with FFS there is incentive for over provision of services for financial gain. In a per capita payment system, there is a clearly defined benefit package with a per capita fee and providers are paid according to benefit package and enrolled population. This shifts the financial risk to providers and improves budgeting and forecasting for purchasers clearly matching benefits to entitlement.
  This system can however be played by PHC providers by increasing referral rates and reducing efficiency of the PHC sector (25). Evidence from Norway shows that after changing PPM from FFS to capitation,

[12] providing higher quantities of care for financial gain

more patients were referred to hospitals for services that could have been offered by PHC providers (25).

3.2 Service delivery

- **Increased scope of services for PHC and integration of vertical programmes**: Per capita PHC payment systems can drive significant changes in which services are provided and how they are delivered. The payment system can be a mechanism for defining the scope of services provided at the primary care level. Such systems can have a direct link with the approved package of services that providers must offer to their enrolled populations.
  As clinical capacity of PHC providers increases, the scope of services can be expanded gradually accompanied by an increase in the capitated rates to compensate PHC providers for the additional services. The additional services can include traditional vertical programs such as immunization and STI/HIV programs to be integrated into PHC services as was the case in most Ex-Soviet countries (14).

- **Orientation towards health promotion, prevention and chronic disease management**: Incentives for prevention activities by providers decline with increasing variability in the payment method. On one hand, fixed payment systems such as salaries and capitation do not remunerate providers for additional care such as counseling. Providers on capitation prefer patients to enroll and subsequently remain healthy and therefore could have a higher incentive to provide preventive services (25).

  As financial incentives associated with per capita payments become significant to providers, they will respond with changes in their input and output mix in order to reduce cost and generate surpluses from their incomes (14). These changes are likely to favor low cost health promotion, disease prevention and chronic disease management, thus creating a shift from the more expensive curative services. Providers are paid for keeping people well, not just for treating sick patients (26). Keeping the population healthy will generate surpluses for PHC providers which can be used to improve services to enrollees and increase its attractiveness for new enrollees.

  According to Wranik et al (2011), capitation may be the best choice of PPM if the goal is to increase delivery of preventive care and health

promotion. However, it may be necessary to adequately monitor the effects of these activities on quality of care.

- **New interface and continuum across levels of care**: The concept of continuum of care involves creating a system of care that guides and tracks patients overtime through a comprehensive array of health services spanning all levels of intensity of care (33). The concept basically means good patient care with a goal to facilitate client's access to appropriate services quickly and efficiently (34). Continuity of care is supported when the provider payment method places a provider in charge of an overall care package (25).

  In fixed PPMs such as capitation, PHC providers become responsible for the wellbeing of the patient during the period patient is tied to provider and coordinates among other needed services outside of their scope (16). Access to higher levels of care is by referral from the PHC provider which facilitates a collaborated effort of providers to ensure wellbeing of clients. Due to the information asymmetry in the health market, the provider can provide guidance to patients for needed referral services. He can also give adequate information on patient's health to specialist and additional information that guarantees continuity and discourages disjointed care.

  Fee for service physicians have the incentive to perform all tasks within their scope of practice. This is because each item of service increases his incomes. The incentive to collaborate with other providers increases with salaried payments and capitation (25). However with fixed payments, there is also the risk of unnecessary referrals even when the procedure can be addressed at the PHC level (25). This incentive arises when referral is not associated with a loss of income. In cases such as the UK, PHC providers are fund holders therefore referrals also means losing some funds and therefore there is limited incentives for referrals (25).

- **Better environment for upgrading of clinical skills, new clinical practice guidelines, and quality improvements:** A per capita payment system can also influence quality improvement practices of providers. The system can help ensure that financial incentives encourage appropriate use of health services and that more efficient or higher quality clinical practices are rewarded (14). Fixed PPMs have the incentive of choosing appropriate care to avoid repeated visits from the same patient (25). In some cases however, the payment system can be a disincentive for introducing new practices such that

health practitioners may be discouraged to use new knowledge and skills obtained which may not be reimbursed under the package.

3.3 Institutional structure

- ✓ **Restructured PHC sector**: In many countries, determining the optimal roles of PHC practitioners and specialists and their interrelations remains a challenge. An element of broader health system reform may be required to enhance the role of PHC practitioners as well as focus specialists care on interventions requiring their expertise (14). This process may involve changing the basic structures of the health delivery system to enable further development of PHC sector. The financial incentives accompanying per capita payments can drive this restructuring process. The percentage of healthcare budget allocated to primary care can be a policy tool to shift resources to the PHC sector and jumpstart the upgrading and restructuring of the sector (14).

- **Increased autonomy and corporatized structure (PHC business entities):** A per capita PHC payment system should be designed to be accompanied by greater management autonomy and possibly encourage PHCs to be more of a corporate entity. This will create an interest among providers for effective and efficiency in resource use (14). In most developed countries such as UK and the Netherland with a developed primary sector, GPs (General Practitioners) are autonomous and function as a cooperate entity (24). This has enhanced the optimal roles of the primary and specialist levels of care.

  In many low and middle-income countries, publicly funded PHCs are mostly publicly owned and managed. The bureaucracy accompanied by the centralized decision making can lead to gross inefficiencies in the allocation of resources and unmotivated PHC providers. With an increased autonomy of PHC sector, PHC providers will be able to make resource allocation decisions to minimize cost and maximize returns (14). Providers can allocate their lump-sum per capita budgets across inputs and outputs in the most cost-effective way to benefit from the efficiency gains achieved (32). In some cases, not all costs are covered by the capitation payment e.g. salaries. Providers should have increasing autonomy in making the following decisions:
  - ✓ *Staffing*—hiring and firing, remuneration, and fringe benefits
  - ✓ *Other inputs*—quantity and type of drugs, supplies, and other inputs used to produce PHC services

- ✓ *Physical assets*—disposing of existing capital stock, including buildings and equipment, or acquiring new capital, such as equipment
- ✓ *Organizational structure*—management structure and processes, and contracting out of services
- ✓ *Output mix*—types of services provided
- ✓ *Use of surplus revenues*—manner of using surplus revenues generated from efficiency gains.

- **Decentralization of facility management:** The increased level of autonomy of the PHC sector should be consistent with the broader health system decentralization. Decision rights given to PHC providers in the facility management should be increased to manage their input and output mix in response to the incentives created by the new payment system (14).
  Challenges in increasing decision rights are apparent in most low and middle income countries because different agencies may have authority to grant decision rights in these areas. For example, if providers are government employees, the Ministry of Health may not have the authority to grant providers the right to make hiring/firing and salary decisions (14). This aspect of implementing a per capita payment system therefore requires coordination across multiple ministries or agencies.

3.4 Role of population

- **Increased rights and responsibilities:** For a per capita PHC payment system to achieve its potential for driving broader health system change, an informed and involved population is essential. Increasing population engagement in decisions on their health is important in the context of PHC development because, informed consumers are more likely to become active consumers who hold providers accountable and thus play a role in improving the quality and efficiency of health care (14). Providing the population with adequate and relevant information will empower them to take advantage of the incentives the new system brings to demand for quality service and play an active role in the health delivery system.

  Per capita PHC payment creates a mechanism to actively involve the population in matters of their health. Depending on the design, if for example there is open enrollment, patients will make their choice of providers and can change if unsatisfied with the services provided. Evidence from Central Asia affirms that changing the provider payment system can alter the behaviors of providers and how they relate to the population they serve. Under the new system, payment to providers is

directly linked to how attractive they are to the population. The direct relationship changed the way PHC providers see and value the population.

As the population becomes more conscious about the health system, they will become more responsible for their own health (14). This is most especially when PHC systems shift their focus to health promotion and disease prevention, which relies on individuals taking more responsibility for their own health.

Chapter 4

Experiences of the Capitation System in Ghana

4.0 Background

Per capita PHC payment systems are often introduced as part of a general health reform in response to fundamental shortcomings in the performance of a country's health system which requires a major reorientation of the overall financing and service delivery (15).

The early post-soviet period witnessed an unprecedented decline in the health status of the population throughout the region. This was a result of a combination of factors such as the neglect of the PHC sector, overdependence on specialized and fragmented care, unsustainable hospital infrastructure and limited involvement of the people in matters of their health. Many of the ex-Soviet countries embarked on comprehensive health financing and service delivery reforms, with the restructuring and strengthening of PHC, supported by new per capita payment systems, at the center of the reform strategy (14).

The cash and carry system of health financing (OOP) in Ghana was heavily criticized because it prevented the poor from accessing healthcare and in most cases led to catastrophic health expenditures leading to impoverishment and preventable deaths (35). The National health Insurance scheme of Ghana was established by Act 650 with the purpose of providing financial risk protection against catastrophic health expenditures with equity in financial access to health care as one of its fundamental goals. The scheme has since inception been the vehicle moving Ghana towards the achievement of universal health coverage with 38% of the population as active subscribers (12). However, this initiative has come under threat of sustainability due to the increasing expenditures (mostly claims reimbursement) relative to increase in income. Projections by the World Bank in 2011 predicted the scheme would be running in deficits from 2013 (22).

After 10 years of implementation, the NHIS has made successes in improving access and utilization of health services and contributing to improving the health status of the population(36). However, the threat to its sustainability has called for the NHIA to adopt measures to control the escalating cost. Reimbursement rates have been increasing exponentially on a yearly basis since inception. Although the increasing cost may be attributed to the increasing enrollment or increased utilization of health services in the absence of financial barriers, it is not clear whether this is a genuine coverage of unmet needs or is due to moral hazards common with any of such social insurance schemes worldwide (16).

In an attempt to control the escalating cost and moral hazards, the NHIA has adopted different payment methods. First was fee-for-service which came along with its moral hazards[13]. After 4 years of FFS a DRG system was introduced in 2008 to salvage the situation. The G-DRG system has also not been able to address the challenges with containing the escalating cost of reimbursement and other challenges with financial management (17). To address these challenges, a capitation payment system was introduced in 2012 to contain cost at the primary level (16).

4.1 Description of the Capitation Pilot

Under the capitation system, each NHIS subscriber would voluntarily indicate their Preferred Primary-care Provider (PPP). The NHIA as the purchaser negotiates with the primary-care providers to pay an agreed amount per subscriber on a monthly basis which will be advanced to providers at the beginning of the month. The provider takes the responsibility of managing the primary care needs of enrolled subscribers for the agreed period. Secondary and specialist care can only be by referral from primary providers who will act as gatekeepers (37).
Subscribers can change their PPP every six months if unsatisfied with services or for other reasons and payment will be redirected to follow the subscriber (17). It was envisaged that the tying of subscribers for a period will minimize subscriber shopping. However in cases of emergency, subscribers could go directly and be treated by any nearest service provider who will be reimbursed by the G-DRG for services and FFS for medicines (NHIA, 2011b).

The overall goal for introducing the capitation payment system in Ghana was to contribute to sustainable financial access to quality health care for all people living in Ghana (37). The objectives were formulated as follows:

- Control cost escalation by sharing financial risk between schemes, providers and subscribers
- Introduce managed competition for providers and choice for patients as a way of increasing the responsiveness of the health system.
- Improve efficiency through more rational use of resources and to correct some imbalances created by the G-DRG such as supplier-induced demand.
- Simplify claims processing
- Address difficulties in forecasting and budgeting. (17)

[13] refer to table 2.1 in annex

4.2 Design and experiences of the pilot and implementation challenges

The per capita payment system in Ghana was designed with six main components;

1) Enrollment/registration
2) Package of services paid through the per capita rate
3) Base per capita rate
4) Adjustment coefficients
5) Financial management and reporting system
6) Quality monitoring system

1. **Enrollment**

   Providers; A single provider or a group of providers either public or private can be accredited and paid by capitation. For facilities to be accredited, providers have to demonstrate the ability to deliver all the services within the PHC bundle within the single institution or the institutions in the group also called 'group practice'[14]. A group practice must be able to provide all components of the per capita package, and must be geographically close enough to each other not to unduly inconvenience clients. Individuals will be able to enroll either with an individual provider or with a group of providers (20).

   Facilities that could participate as primary care providers included CHPS compound, health center, Polyclinic or District Hospital OPD. Regional and teaching hospitals can also apply to be accredited as primary care providers. Tertiary hospitals have to provide evidence that they have set up a primary care unit in order to be eligible. All PPPs irrespective of level, participating in capitation receive the same capitated fee. Each primary care provider is allowed a predetermined maximum number of members. The enrolment capacity was computed based on the physical capacity, human resource, availability of primary care facilities in the catchment area and quality of care of facilities (20).

   Subscribers "Client enrollment was based on the principles of equity in access, managed open enrollment, flexible for portability[15] and the promotion of quality service provision and efficiency of providers" (20). This required all subscribers to make a choice of a preferred primary-care provider (PPP) who will serve as their first point of care by first

[14] A group of providers coming together as a single entity or provider to form a PPP in order to satisfy the enrollment criteria for a primary care provider. The group will he headed by a cluster manager to whom the capitation fee will be paid to be distributed among members. The group will be headed by a designated cluster manager. As part of the accreditation criteria, the cluster manager should demonstrate the ability to manage the cluster appropriately.

[15] The ability to change providers if unsatisfied with services or for other reasons

choosing three PPPs for 1st, 2nd and 3rd choice. One of the choices was then allocated to the subscriber administratively based on the availability and capacity of the facility chosen. Subscribers were tied to that provider for a period of time (6 months) after which they could decide to maintain or change the provider depending on their level of satisfaction with service provided and respective capacity of PPPs (20).
The NHIA through district offices could do administrative assignment for two groups of members; members who had not chosen their PPP and members who selected PPPs that have already got its maximum number of enrollees (18). About 90% clients indicated they chose their PPP by themselves (37).

About 66% of the NHIS population in the region was enrolled with their PPP two months before the start of implementation, lower than the 80% target. Reasons may be insufficient knowledge on the need for enrollment, the 'wait and see' attitude, politicization[16] of the pilot and implementation challenges (37).
A system of blanks was introduced as a temporary measure to assign all active subscribers and start the pilot. The concept was to allow clients who fall sick before they are properly assigned to a PPP to access care from any provider the first time, and would automatically be assigned to that provider as their PPP.

- Challenges: The concept of group practice could not materialize because it was difficult for providers to work out the revenue sharing arrangements
- The blanks became an avenue for clients to seek services with providers who were not their assigned PPP leading to double enrollments. The system of blanks has been discouraged for the nationwide roll-out.
- At the start of implementation in January, private providers opted out of the capitation system and refused to provide services to NHIS clients till March when their concerns were addressed[17].

2. **Package of services**
   Design: A minimum package of services expected to be available at every walk-in OPD was agreed upon by the Technical Sub-Committee (TSC) as the capitation basket. This was to ensure the routine package of services be paid for at a standardized rate. The package of services in the PHC basket included:

[16] Fierce political propaganda was tagged to the pilot being started in the Ashanti region which is the stronghold of the opposition party
[17] Refer to annex for concerns of private providers and their responses

- General OPD consultation with a trained primary care prescriber for most common PHC diagnosis (see table 4.1 in Annex)
- Routine maintenance care for non-insulin-dependent diabetes and hypertension (ambulatory care sensitive chronic conditions) once clients have been stabilized at a specialist clinic and instructions provided by the specialist clinic. Periodic specialist review and related laboratory tests will be covered by DRG with a referral from the PHC provider giving maintenance care.
- Maternity consultation and services with a midwife or doctor
    - Antenatal care
    - Postnatal care
    - Normal delivery (including episiotomy)
- Selected laboratory examinations that match the selected primary care conditions
    - Urine routine examination (dipstick if no laboratory is present)
    - B/F for Malaria parasites (Rapid Diagnostic test kit is available for where there is no laboratory)
    - Hb (rapid test kit if no lab present),
    - Blood Sugar (rapid test if no laboratory is present)
- Selected medicines for the most common diagnosis at PHC level and maternity conditions were included. A set of well-defined medicines, that link to a clearly defined and limited set of diagnoses and selected based on the Standard Treatment Guidelines (20).

    Implementation: Cost wise, the original package proposed for capitation accounted for 70% of total claim costs (37). Services such as Maternity care, medicines and routine maintenance from chronic diseases was taken out of the capitation package during the pilot due to the agitations by providers at the start of implementation (18). The bundle of services that now remained under capitation constituted only 22% of total claim costs (37).

3. **Base per capita rate**: The base per capita rate for the year was computed from the estimated funds available to the NHIA in one year to pay for PHC services from all providers included in the payment system, divided by the total number of enrolled individuals across providers in the region. The base per capita rate was calculated using a combination of top-down[18] and bottom-up[19] costing[20]. The facility

[18] A fixed percentage of the total revenue of purchaser to be allocated to PHC.
[19] Based on utilization data and actual claims or expenditures in previous months.
[20] Because actual claims may be inflated due to supplier-induced demand, gaming of the payment system, or inefficiency, the rate may be adjusted downward. Alternatively, if utilization of PHC services is still low given the built-in inflation of the claims, the rate may be adjusted upward.

ownership[21] was considered in developing the capitation fee and different rates were calculated for; Private self-financing facilities, Mission facilities and GHS and quasi-government facilities. Situational analysis was made to derive the per capita rate.

Implementation: These rates were however seen by providers as woefully inadequate, provider agitations as a result led to increment of the per capita rate in addition to the removal of some services from the basket[22].

4. **Adjustment coefficient:** Weaknesses in the availability of data in this context informed the decision to start with a simple design without individual risk adjustment. However, it was recommended the individual and geographic risk adjusters be added to compensate providers for the differences in cost of treating different population groups including age, sex, chronic disease status and historical medical expenditures (18).
   Risk adjustment coefficients ideally reflect the true variations in healthcare needs across the different population groups and the actual cost of meeting those needs. To analyze the variations in healthcare needs require data on the patterns of disease, mortality by age and sex of the whole population for both users and non-users of the system (14). Such data can be obtained through population based surveys. The lack of risk adjustment lightens the administrative burden but increases the likelihood of patient selection (38)

5. **Financial management and reporting system:** The financial incentives of capitation system can create a more responsive and efficient PHC service delivery. These include quality improvement to attract more enrollees, improving efficiency in input mix to generate savings and reinvesting savings in service development to attract more enrollees. However, for providers to tap this potential, they need to understand the incentives and to combine their clinical skills with some entrepreneurial skills and have the required autonomy to be able to rationally plan and improve cost efficiency (14).

   Draft guidelines for a financial management and reporting system and training modules for providers were developed to be used to train and

[21] The private self-financing sector receives no subsidy for recurrent expenditure, infrastructure development or salary from government. Similarly, the mission facilities only receive support in the form of secondment of staff on government payroll but do not receive a subsidy for infrastructure development. The public sector receives salaries and support from government for recurrent expenditures and infrastructural development, though adequate.

[22] Refer to annex for concerns of private providers

orient providers on the financial and other management changes that a per capita payment system would introduce. A situational analysis was conducted to determine the kind of support providers needed to upgrade existing internal management systems or develop and implement new systems (18).
The process was however challenged by the lack of clear budgetary support leading to a drastic reduction in the number of providers to be trained. This posed a real danger on the intended impact of the training to reorient providers to the new financial management and reporting system that the new payment system brings (18).

6. **Quality monitoring system**: As shown in table 4.1, Capitation payments potentially create financial incentives to reduce inputs in the provision of services. This financial incentive may have a positive effect of shifting service orientation towards less expensive health promotion and disease prevention, but there can also be a negative effect of reducing quantity and quality of services provided. There are also incentives for unnecessary referrals to shift responsibilities and make more surpluses which can further increase cost of reimbursement for the purchaser. Checks and balances were needed in the system to ensure that resources were devoted to maintain quality and access to necessary services.
Although claims data were no longer necessary for calculating reimbursement under capitation, providers were required to continue submitting claims data initially until an alternative reporting system is developed. This was to enable a close monitoring of the payment system for intended and unintended effects and provide information for continuous quality improvement. Also for facilities with primary and referral services, the claims data was also used to monitor internal referrals (18).

   Existing data sources to be used for monitoring included NHIA Claims, expenditures and enrollment data, utilization data, and GHS/MoH health facility budget and expenditure data. Surveys were conducted to obtain first-hand information from clients, providers and schemes.

4.3 Potentials and challenges of implementing a per capita payment system for primary care along the four axes of PHC impact: The Ghana Experience

4.3.1 Financing

- **Resources Shift from Specialty Care to PHC and Improved Equity:** In most low and middle income countries, the PHC sector has

been underutilized and underfunded with the majority of healthcare resources channeled to the hospital sector. Low level facilities such as CHPS and Health centers that are mostly focused on primary care services are underfunded and underutilized while the hospital sector is over-utilized. The hospitals perform both primary and specialist services and there is no clear separation between the hospital sector and PHC in the Ghanaian context.

The capitation system was targeted at PHC services, as described above, health expenditure targeting PHC has proved to be more pro-poor and can improve equity in the allocation of resources. However, during the pilot, facilities such as district, regional and tertiary hospitals could register as a PPP. Although they were all paid the same fee, it further worsened the plight of low level facilities that could not compete with the hospitals for enrollees mostly in urban areas (37). The pilot instead of being a mechanism to shift resources to PHC rather reinforced the growth of the hospital sector at the expense of PHC sector. In rural areas or areas with less competitive facilities, this trend was not realized and PHC services improved (37).

Furthermore, the fact that hospitals could perform both primary and secondary functions also poses strong incentives for internal referrals especially when there is such a weak gatekeeping in the system. As referral costs were not included in the capitation fee but rather reimbursed by different mechanisms.

- **More cost effective use of resources by providers:** The capitation system in Ghana aimed at improving efficiency through more rational use of resources. In order to reduce the incentives for supplier-induced demand associated with FFS and DRGs, the system shifted the financial risk to providers for primary care services. Providers are paid a fixed amount for the care of patients throughout the period which reduces the incentives for unnecessary visits since it will not attract additional payments. If providers have adequate decision rights in the allocation of their funds, they can rationalize and plan for input and output mix to use interventions that reduce cost at the highest benefit and be allocatively efficient.

  However, the fragmentation in the sources of revenue of providers can limit the effectiveness of this goal in this context. Healthcare is funded from different streams and the capitation payment only constitutes 22% of NHIS OPD claims while the other services outside the basket are financed by DRGs and FFS. Also vertical programs, salaries, infrastructure and other recurrent

expenditures are financed from different sources as will be illustrated in figure 5 later.

- **Payment matched to benefits entitlements**: The PHC basket should be doable with a per-capita fee matching the benefits to entitlements. The pilot project faced some challenges at the onset because providers thought of the fee as woefully inadequate for the proposed basket of services. This led to resistance and even private providers refused to part-take in the project. Finally most services including maternity and chronic disease management were removed from the basket of services. Cost wise, the original package proposed for capitation was profound as it accounted for 70% of total OPD claims cost. Following concessions by the NHIA to accommodate the concerns to smoothen the implementing process, the bundle of services that now remained under capitation constitute only 22% of total OPD claim costs (37). This was a priori a risk for the new payment system to make significant impact on cost containment.

  Among the goals of capitation was to address the difficulty in budgeting and forecasting and also to simplify claims processing. Lapses in data quality, coupled with a significant portion of claim costs that continue to be reimbursed by GDRG still limit the effectiveness of NHIA's budget forecasting. However during the pilot, the number of claims that continued to be submitted under DRG in the region reduced drastically by 75% thus falling from an average of 541,000 claims per month in 2011 to about 135,000 per month in 2012 (37).

4.3.2 Service Delivery

- **Increased scope of services for PHC and integration of vertical programmes:** A per capita payment system can be used as a tool to define services provided at the primary level. This can have a direct link to the approved package of services that providers must offer to their enrolled population. Whereas this can be a good policy tool, the fragmentation in the health financing system in Ghana makes it difficult for the capitation system to achieve this goal. Salaries and most vertical programmes have their own funding schemes which are paid directly by the ministry to the health facilities mostly public and CHAG. Private facilities who are also accredited as PPPs do not provide services such as vertical programs provided at the primary level.

- **Orientation towards health promotion, prevention and chronic disease management**: The per capita payment system can improve

the relationship between providers and patients by enhancing collaborated efforts towards a shift to disease prevention and health promotion, which relies on an informed population actively involved in seeking and complying with wellness services (14). This shift was however not apparent in the pilot project of capitation. However, the improved relationship witnessed as the payment system became gradually accepted by providers gives a positive sign for a gradual shift towards health promotion and prevention through collaboration between providers and patients (37).

- **New interface and continuum of care across levels of care:** One of the goals of capitation was to control cost escalation by sharing financial risk between the purchaser, providers and subscribers. Prior to the introduction of capitation, there were incentives for subscriber shopping and other provider related moral hazards[23]. The capitation system was designed to tie a subscriber to one service provider for a fixed period of time. Apart from the incentive to the purchaser of reducing unnecessary cost from subscriber shopping, it also protects the subscriber from the dangers of disjointed care. It will ensure continuity of care and shift the financial risk to providers by making them take the responsibility of managing the primary healthcare needs of their enrolled populations. This creates an incentive for providers to ensure good patient care both to attract more enrollees and to make surpluses from lump sum.

  There can also be good coordination between PHC providers and specialists. PHC providers can coordinate all healthcare needs of clients and provide adequate patient information to specialist to be able to make informed treatment decisions for cases requiring their expertise. However continuity of care in the context of having one provider is not realized in case of a hospital as a PPP because a patient can hardly get the same PHC physician at every visit.

  Also in the Ghanaian context, the capitation system can reinforce continuity of care since PHC practitioners could refer to specialist in the same hospital premise and enhance smooth coordination across levels of care. However, this can provide incentives for unnecessary referrals by PHC practitioners because; providers are paid whether or not they deliver services. And in hospitals these incentives could be more since there is high financial incentive for internal referrals when they are under the same administration. Adding to that, the capitation payment is also mixed with other payment systems such as DRG for services

[23] See annex on types of PHC out-patient payment systems, characteristics and incentives

not covered in the capitation basket and FFS for medicines. This mix can also dilute the incentives of per capita payment, as they are mixed with incentives to increase those services that are paid separately by fee-for-service and DRG (14).

- **Better environment for upgrading of clinical skills, new clinical practice, and quality improvements**: With an objective to introduce managed competition for providers and a choice for patients, prospective PPPs had to prove they had the capacity to provide all the services in the capitation basket in order to be accredited as a PPP (18). Also the open enrollment of subscribers created an incentive for providers to improve their services to be competitive or risk being a least choice for clients.

  However, in settings where there are limited health services available, clients may have a limited choice of providers as was evident in the pilot experience. Facilities that are better equipped, with good infrastructure, human resources and perceived quality of care reported gains in income in 2012 over 2011. Comparatively less endowed facilities in urban areas where many other facilities offered choice to clients suffered significant losses in income putting some in dire state and risk of closure. The negative impact on smaller facilities in rural areas where there were fewer alternatives was less significant compared to urban areas (37).

  Evidence from subscriber survey also showed a drive in service improvements initiatives including good customer care and relations. From clients' perspective, 36% of clients who visited a health facility for health care rated the services they received as very good, whilst 54% rated it good. About 7% rated satisfactory whilst 3% rated bad. Whilst there is no baseline data for a pre-capitation period comparison of clients' perspective, evidence suggests that providers soon understood that their continued income depended on their ability to retain their clients (37). This understanding could have driven service improvements initiatives, including good customer care. About 33% of clients felt services they received in 2012 from their PPPs had improved over the 2010/2011 levels, 59% felt service quality levels remained the same and 8% felt service quality had declined in 2012, compared to the last two years (37). Although service quality in subscriber perspective is subjective, evidence has shown that a per-capita payment can improve the relationship between providers and patients (14).

4.3.3 Institutional Structures

- **Restructured PHC sector**: Most of the countries with successful per capita payment system did so with a restructured PHC sector mostly by decoupling it from the hospital sector and making them independent (15). There is no clear separation between the PHC sector and hospital or specialist care in the Ghanaian health system. PHC providers in the capitation system include District Hospitals and polyclinics where hospital and specialist care are also presented. In this system, a facility can function both as primary and secondary care and referrals are being made within the same facility.

  Also the capitation payment forms only a small proportion of healthcare funding which may have little impact on restructuring of the health sector towards PHC. There is over fragmentation in health care funding in Ghana and the NHIS funding constitute about 14% of total health expenditure (13). Furthermore, capitation expenditure in the pilot constituted only 22% of NHIS OPD reimbursements with about 78% funding to other hospital and specialist services (37). If funding trends continue as such then it will be difficult for the capitation system in Ghana to have any significant impact to restructure the PHC sector.

- **Increased autonomy and corporatized structure (PHC as business entities):** An important component of PHC per capita payment may also depend on the level of autonomy of PHC facilities. The composition of funding from capitation constituted only 22% of NHIS claims reimbursements in the pilot region with the remaining 78% from FFS and DRGs. Also total Social security funding (including NHIF) constituted 22% of general government health expenditure (GGHE) in 2011 (13). Salaries, infrastructure and other vertical programs are funded directly by government to GHS and CHAG facilities and possible OOP payments. It is therefore challenging for the capitation payment to make an impact to increase autonomy of PHC providers.

- **Decentralization in facility management**: Decentralization in healthcare is a key element to the primary care approach (39). It is important that primary care managers have a wider decision space in facility management to be able to respond to the incentives associated with the new payment system. One challenge common with most low and middle-income countries is that, the government is the largest provider of health services. Most publicly owned facilities are also publicly managed and health administrators do not have enough

decision rights on mostly capital investments and human resources (15).
The GHS being the largest provider of health services in the country practices the de-concentration type of decentralization in its facility management. It has 3 main layers; national, regional and district levels functions in a hierarchy. The current policy has proved to give very limited decision space to the district level which mostly performs PHC service (40). District managers have little control over the allocation of human and financial resources (41). In this system of decentralization, PHC providers may not be motivated enough to act on the incentives the new payment system brings.
Therefore even if PHC providers improve services and increase enrollees, they have limited power to increase the number of staff to compensate for the increased workload.
An effective functioning of the PHC sector will require an increased decision space of PHC providers to be managerially independent and to also have some degree of autonomy in the allocation of funds. This can be achieved through a multi-sectorial coordination with all actors in health.

4.3.4 Role of the Population

Increased rights and responsibilities: 'Previous studies have tried to explain the relationship between knowledge, perceptions and utilization, acceptability and smooth implementation of health care interventions. Implementing a new system of health care financing demands an in-depth understanding of the risks and benefits associated with the programme on the part of both providers and clients' (42). Client's level of understanding of the payment system influenced enrollment onto the NHIS under the capitation system. Evidence from Agyei-Baffour (2013) showed that demand side barriers to access to services such as the lack of knowledge is as important as supply side barriers deterring people from using health services. The study showed that clients attitude towards the payment system was poor due to several reasons such as the restriction to one PPP, low service utilization, perception about low per capita rate, unauthorized co-payments and low service provision coupled with other administrative challenges of the pilot.

There was inadequate communication of relevant information between NHIA and the population which led to them getting distorted information from third party (37). They did not have adequate information on the benefits of capitation to them and how they could

contribute to the system. The uncertainties of the new payment system, its politicization, refusal of private providers to partake in the pilot, massive copayments and improperly managed PPP placement all contributed to over 20% drop in NHIS membership in the region from January to April 2012. Also OPD per capita for insured clients fell from 2.83 in 2011 to 2.16 in 2012. It is however not clear whether the difference is a result of curtailed frivolous use, or a net reduction in access to health care services for insured clients.

Chapter 5

5.1 Discussions

There has not been a perfect PPM anywhere in both high income and low income settings. All payment mechanisms have their advantages and challenges as evidenced in the literature. However at the primary level, a per capita payment can be a tool to drive health system change to build the primary care sector. Also depending on the design, per capita payment can be helpful to health purchasers to improve resource allocation to where it's most cost-effective and it may be instrumental for the purpose of cost containment.
To discuss all the nitty-gritty of each element of the design and its impact will require a more advanced study into the subject. For the purpose of this thesis, I have selected a shortlist of the main bottle-necks and effects of the capitation system that the Ministry of Health and NHIA can look at addressing to improve the implementation process of the capitation system in Ghana.

5.1.1 Clear distinction between PHC and Hospital sector

First, there is the need for a **clear definition of PHC** in Ghana.
Doing so can enhance the role of the PHC level to realize its potentials of continuity of care in time, comprehensiveness of care, close relationship to client, providing integrated care, gatekeeping roles, etc. In the present situation, hospitals perform both primary and specialist functions and are accredited as PPPs. This appears not as an ideal situation, as hospitals don't fulfill the conditions for an ideal PPP, and besides, the gatekeeping function gets a bit confounded or confused.
This has also created a situation where hospitals compete with PHCs for PPP enrollment which poses a threat to sustaining the PHC sector. As evidenced in the pilot, when people are given the choice, they prefer hospitals to PHC. This is due to their perceptions of better and more sophisticated doctors, equipment, etc; the perception is that they are better served there.

Also the current definition of PHC in the LI 1809 included referral level hospitals such as regional and tertiary hospitals where primary, secondary and in some cases tertiary services were being delivered under the same management. This poses a challenge to the implementation of the capitation system. it provides an incentive for unnecessary referrals to benefit from claiming for services that could be performed at the PHC level for capitation fee further increasing cost to NHIS.
However in areas where there is no PHC, but only a hospital; a separate PHC operating independently can be created in the physical hospital premise as a compromise to the situation.

5.1.2 Defining scope of Services to be provided by PHC

Other challenge of the payment system is that, the package of services covered by the capitation fee:

- Is not comprehensive, some services are paid through vertical programmes: Drugs, maternal services, vaccinations, follow up for chronic disease are not included; these services would normally be comprised in a package for primary level.
- Salaries are also not part of the game, but they are in the case of private providers: needing two distinct capitation fee for public and private; (from perspective of NHIF, it's cheaper if people enroll at public facilities ……)
- Some PPP's offer a more limited package than others (eg. CHPS, private clinics etc. The group practice that was suggested for such cases, didn't effectuate.
- The capitation fee for the public services covers only a small part of all income for a PHC facility (more so for public) – vertical programs, salaries, part through DRG, OOP, FFS (drugs) –
- For capitation to fulfill the aim of stimulating efficiency. Providers would require managerial autonomy (to get the staff they need, input/output mix, etc.) but this autonomy may be there partly for private providers, but for public providers, there are many other streams of money, all with their rules and accountability mechanisms. Evidence from both developed and developing countries have proven that the managerial autonomy of the PHC sector is essential for a per capita payment.

Capitation payments can be used as a policy tool to define the scope of services to be provided at the primary level. It can have a direct link with the approved package of services that providers must offer to their enrolled populations. For providers to be able to provide a comprehensive primary care package all programs performed at the primary care level including vertical programmes can be integrated into the capitation package and be provided by all eligible providers.
It is necessary to define PHC and improve their capacity to provide the defined package of services.

5.1.3 Fragmentation of Health Finances

As illustrated by fig5.1 below, different streams of money exist in the present situation to fund PPP's. All come along with their own accountability mechanisms and authority lines.

The current system makes managerial autonomy of PHC practitioners complicated. While this would be a condition to improve efficiency through capitation.

Defragmenting healthcare finances into a single pool would harmonize all funding schemes and allow health purchasers pay the right and uniform prices to providers regardless of facility ownership. This will further enhance competition between public and private facilities to improve responsiveness to the health system. This can also enhance the ability of PHC providers to act on the incentives of the payment system by managing resources and improving their cost effectiveness in allocating resources.

The restructuring process could go simultaneously with pooling all healthcare funds together in a single pool as shown in fig.5 below to enhance optimal roles of purchaser-provider split. This would require a redesign of the system, with MOH, GHS, NHIA, MOFEP involved, all with their own political power and interests, so complicated…

Fig 5 PHC funding streams – Defragmenting healthcare financing

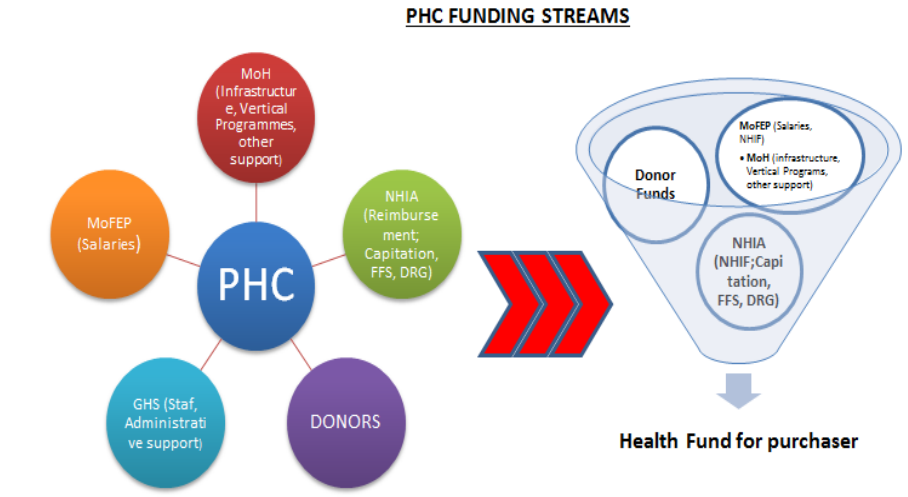


Fig 5.1 fig. 5.2

5.1.4 Increased Population Involvement

Studies from the literature have shown the need to inform the population adequately of the risks and benefits associated with a program when it is being introduced. Their level of knowledge and perceptions has a direct relationship with acceptability, utilization and smooth implementation of healthcare interventions.

Providing the population with adequate and relevant information will empower them to take advantage of the incentives the new system brings to demand for quality service and play an active role in the health delivery system. Client's level of understanding of the payment system influenced enrollment into the NHIS under the capitation system. There is the need to give adequate information to the population in order to improve their responsiveness to the health system. Effective communication is a two way affair. The health system must also be responsive to the needs of users and not only informing them but also being attentive to their expectations and perceptions.

5.2 Conclusion

After 10 years of implementation, the NHIA has made successes in improving financial access and utilization of health services especially benefiting the poor. Though the system has not been perfect, achieving universal coverage has never been an easy task. Germany took about 100 years to achieve universal coverage, South Korea took 30 years. There will be challenges on the way but it is the ability to learn from those challenges that makes the difference between successes and failures.

The implementation of the capitation system was met with lots of challenges with acceptability, finances, and adequate institutional arrangements. These challenges experienced should be a learning platform for the scale-up. Were there adequate M&E and information systems? Were all stakeholders involved? Were sufficient lessons learned from the pilot before rolling out? What do we know on Corruption and fraud, effect on provider behavior, referral rates, equity, and quality of care? Further studies are required on these and many other issues to learn from the successes and failures in order to be improved.

A per capita payment system forms part of an overall restructuring of the health system. Therefore the success of the capitation payment system in Ghana will depend on collaborated efforts and **adequate engagement of providers, subscribers and all other direct actors** in the healthcare delivery system.

5.3 Recommendations

5.3.1 Recommendations to NHIA for scale-up

- ✓ Conduct situational analysis and research to know the knowledge, attitudes and perceptions of providers and clients about the new system to be addressed in order to improve its acceptability.

- ✓ Provider participation in payment reforms: the understanding and acceptability of the payment system by providers is needed in order to provide the needed support to spearhead its implementation. Physician behaviors may not only respond to financial incentives. Non-financial incentives such as appealing to their professionalism, rewarding and ethical considerations can be explored to improve provider acceptability and compliance to the program.
- ✓ Education, training and sensitization program: the quality and quantity of sensitization programs before and after the introduction of the payment system are essential. Providers and subscribers all need to be adequately informed of the purpose of the system, the incentives it gives them and how they can benefit from the incentives. Involvement of community leaders and the media in sensitization program is recommended to improve acceptability.
- ✓ Avenues to address subscriber complaints such as the NHIS call center should be explored to encourage subscriber participation and confidence to increase responsiveness.
- ✓ NHIA should introduce adjustments to the capitation fees in order to avoid cream skimming and other equity challenges. According to criteria such as, risk profile of people, regional differences in health status, etc.
- ✓ The accreditations of hospitals as PPPs confound the gatekeeping functions of PPPs and should be discouraged. In instances where there are no PHC facilities, hospitals may be required to set up a PHC post which will be managerially independent to limit the negative incentives.
- ✓ Information systems permitting a good monitoring of the system, with adequate checks and balances for fraud detection, access of different groups (equity), etc. On the other hand, too heavy structures may lead to huge overhead costs.

5.3.2 Recommendations to MOH

Although the capitation system was being implemented by the NHIA, broader health system changes are necessary for a successful implementation. These changes may be from medium to long-term measures which go beyond the capabilities of the NHIA and therefore can be led by the MOH which is the government oversight agency for all actors in healthcare. The MOH can lead collaboration between providers and purchasers and other ministries as recommended to;

- ❖ Lead collaboration with its agencies to make a clear definition of PHC, define its scope of services and appropriately decide on its financing mechanisms to improve service delivery and responsiveness of PHC.

- Facilitate the restructuring of PHC by decoupling PHC from hospital sector with increased management autonomy and improve their capacity to provide a comprehensive PHC package of services.
- Defining optimum roles of the PHC sector and hospital sector to allow specialist to handle cases requiring their expertise and enforcing the gatekeeping function of PHC.
- Influence policy decision to enhance the optimum performance of purchaser-provider split by defragmenting the financing system into a single pool that will empower purchasers to pay the right price for services. This will improve competition and responsiveness to the health system. This measure may need the collaboration of other ministries such as MOFEP.
- Facilitate stakeholder engagement and interests to improve responsiveness and improve trust relations among the stakeholders.

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Annex

1.1 Abuja Declaration (2001):

"We commit ourselves to take all necessary measures to ensure that the needed resources are made available from all sources, and that they are efficiently and effectively utilized. We pledge to set a target of allocating at least 15 per cent of our annual budget to the improvement of the health sector".

Table 2.1 Types of PHC out-patient payment systems, characteristics and incentives

Payment Method	Payment rates determined prospectively or retrospectively?	Payment to providers made prospectively or retrospectively?	Payment based on inputs or outputs?	Incentives for providers
Line-item budget	Prospectively	Prospectively	Inputs	Under provide services; refer to other providers; no incentive or mechanism to improve the efficiency of the input mix; incentive to spend all remaining funds before end of financial year
Per capita	Prospective	Prospectively	Output	Improve efficiency of input mix; attract additional enrolees; decrease inputs; underprovide services; refer to other providers; focus on less expensive health promotion and prevention; atempt to select

				healthier enrollees
Fee for service (fee schedule)	Prospectively	Retrospectively	Outputs	Increase number of sercvices including above the necessary levels; reduce inputs per service
Fee-for-service (no schedule)	Retrospectively	Retrospectively	Inputs	Increase number of services; increase inputs
DRG	Prospectively	Retrospectively	Output	
Global budget	Prospectively	Prospectively	Inputs	

Table 2.2
Goals supported by Per capita PHC payment system

Goals supported by the per capita PHC system	Goals of the capitation system in Ghana
• Introduce competition for providers and choice for patients to increase the responsiveness of the health system to patients and the population • Create incentives for PHC providers to improve efficiency through more rational resource use, including increasing health promotion and disease prevention services, and supplying higher-quality services with the resources available • Improve equity in the distribution of health care resources, access to basic health services, and health status • Improve the transparency of resource allocation • Improve PHC service delivery and quality of care, and expand the scope of services delivered in PHC • Drive restructuring of the	• Introduce managed competition for providers and choice for patients (compatible with portability) to increase the responsiveness of the health system • Improve efficiency and effectiveness of health services through more rational resource use • Improve cost containment • Share financial risk between schemes, providers and subscribers • • Correct some imbalances created by the G-DRG (e.g. OPD supplier-induced demand) • Simplify claims processing (NHIA, 2013)

health delivery system • Create or strengthen PHC institutions that have the capability to operate autonomously and provide comprehensive, integrated, first-contact care for individuals and the wider community • Increase provider management autonomy (in effect, decentralize health facility management) • Engage communities in PHC and change the relationship between the community and providers.	

Table 4.1 CLASSIFICATION OF PHC OPD DIAGNOSES

Classification	OPD diagnosis
PHC	Acute Ear infection
PHC	Acute Eye infection
PHC	Acute Urinary Tract
PHC	Anaemia
PHC	Chicken Pox
PHC	Cholera
PHC	Diarrhoea Diseases
PHC	Domestic Violence
PHC	Genital Ulcer Disease
PHC	Gonorrhoea
PHC	Guinea worm
PHC	Home Accidents and
PHC	Intestinal worms
PHC	Malaria
PHC	Malaria in Pregnancy
PHC	Malnutrition
PHC	Measles
PHC	Mumps
PHC	Other ARI(Acute
PHC	Other Nutritional
PHC	Pneumonia
PHC	Pregnancy and Related

PHC	Rheumatism and Joint
PHC	Schistosomiasis
PHC	Sickle cell Disease
PHC	Skin Diseases & Ulcers
PHC	Tuberculosis
PHC	Typhoid/Enteric
PHC	Urethral Discharge
PHC	Vaginal Discharge
PHC	Yaws

PRIMARY HEALTHCARE PROVIDERS (PHC) PROVIDERS

The following can participate as a primary care provider:

1) A CHPS compound
2) Health Center
3) Polyclinic or District Hospital OPD
4) Teaching and other tertiary hospitals, including regional hospitals, can apply to be accredited as a primary care provider. If tertiary hospitals decide to participate in capitation for PHC, they must provide evidence that they have set up a primary care unit. Tertiary hospitals will receive the same capitation fee as the lower level facilities. Because of the incentives for hospitals to refer their primary care patients internally under capitation, it will be necessary to build in a monitoring system that will check the internal referral rates of the higher level.
5) Either a single provider or a group of providers can be accredited to be paid by capitation. To be accredited to receive the capitation fee, the provider must demonstrate the ability to deliver all services in the PHC bundle within that institution or within the institutions in the group. Individuals will be able to enroll either with an individual provider or with a group of providers.
6) Group Practice - A group of practitioners, whether public, private or a combination, could come together to form a Preferred Primary Provider (PPP) under the National per capita payment system. A group practice must be able to provide all components of the per capita package, and must be geographically close enough to each other not to unduly inconvenience clients in terms of travel time. The group will be headed by a designated cluster manager. The capitation fee will be paid to the cluster manager, and the manager will then have the responsibility of sorting out which specific provider within the group receives what out of the capitation fee. The "primary care cluster" will then be accredited as a single provider, with part of the accreditation requirement being demonstration of the ability to appropriately manage the cluster.

Table 4.2 Sample Monitoring and Evaluation Questions, Data Sources, and Analytical Approaches for Capitation Pilot Baseline Analysis

Objective	Possible Monitoring and Evaluation Questions	Possible Data Sources	Analytical Approach
Cost containment Correct some imbalances created by the G-DRG (e.g. OPD supplier-induced demand) Share financial risk between schemes, providers and subscribers	1. Does the payment system reduce (or slow the growth of) expenditure of the NHIS on outpatient services (total and per-subscriber)? 2. Does the payment system reduce (or slow the growth of) total expenditure of the NHIS (total and per-subscriber)?	NHIA claims and expenditure data	Descriptive baseline analysis, followed by econometric analysis of NHIS expenditure before and after capitation, controlling for other factors. [*Baseline can be done in conjunction with G-DRG assessment*]
	3. Are there significant variations in the cost of delivering the basic package of services based on age/sex, geography or other factors that create excessive risk for providers?	CHIMS utilization data	Descriptive analysis of costs and utilization of services by age/sex group and geography (e.g. urban/rural)
Introduce managed	1. What percentage of	NHIA enrollment data	Descriptive analysis

Objective	Possible Monitoring and Evaluation Questions	Possible Data Sources	Analytical Approach
competition for providers and choice for patients (compatible with portability) to increase the responsiveness of the health system	subscribers actively chooses their PHC provider? 2. What percentage of providers is able to enroll a minimum number of enrollees?		
	3. Are providers adding services and/or amenities to attract enrollees	Provider survey	Descriptive analysis [*Baseline can be done in conjunction with G-DRG assessment*]
nprove efficiency and effectiveness of health services through more rational resource use	1. How does the capitated payment system affect health facility resource allocation decisions?	GHS/MOH health facility budget/expenditure data	Descriptive analysis of health facility expenditure and input use patterns, followed by econometric analysis of expenditure patterns before and after capitation, controlling for other factors.
	2. Does the payment system increase the share of preventive services	CHIMS data Provider survey	Descriptive baseline analysis, followed by econometric analysis of NHIS

Objective	Possible Monitoring and Evaluation Questions	Possible Data Sources	Analytical Approach
	among all outpatient services?		expenditure before and after capitation, controlling for other factors. [*Baseline can be done in conjunction with G-DRG assessment*]
	2. Does the payment system lead to an increase in the share of priority conditions managed effectively at the PHC level?	Provider survey NHIA hospital claims data	Descriptive analysis of management of priority conditions. Statistical analysis of inpatient claims for primary care-sensitive conditions. [*Baseline can be done in conjunction with G-DRG assessment*]
	3. Is the capitated rate adequate for providers to deliver all necessary services at an acceptable level of quality?	Provider survey	Cost analysis of basic package of services.
Simplify claims processing	1. Does the payment	NHIA aggregate claims data and	Descriptive analysis of

Objective	Possible Monitoring and Evaluation Questions	Possible Data Sources	Analytical Approach
Address difficulties in forecasting and budgeting	system lead to a reduction in average claims processing time? 2. Does the payment system result in lower average amounts of outstanding payments to providers?	assessment of claims processing time	claims processing time and aggregate outstanding payments to providers.
Manage unintended consequences	1) Are inappropriate referrals increasing as a result of the capitation payment system? 2) Are providers reducing their costs excessively with a negative impact on patients?	Provider survey	Descriptive analysis of referrals Descriptive analysis of services provided and inputs into patient care [*Baseline can be done in conjunction with G-DRG assessment*]
	3) Are patients covered by capitation making additional payments (in cash or in kind) to	Patient focus groups	Qualitative analysis of patient experience [*Baseline can be done in conjunction with RBF pilot baseline*]

Objective	Possible Monitoring and Evaluation Questions	Possible Data Sources	Analytical Approach
	receive covered services?		

The baseline analysis will be based on two existing data sources and two new data collection activities.

Existing

1) NHIA claims, expenditure and enrollment data
2) CHIMS utilization data
3) GHS/MOH health facility budget/expenditure data

New

1) Provider survey
2) Patient focus groups

Data from all four of these sources will already be collected for other purposes—the claims data and provider survey for the G-DRG assessment, and the patient focus groups for the RBF pilot baseline. It is suggested to build on these planned data collection exercises for the baseline analysis of the capitation pilot. During the planning for these data collection activities, it will be necessary to ensure that the data will be available in the structure needed for the capitation baseline analysis questions, and that Ashanti region is oversampled.

Situational Analysis of the Pilot

This section presents a proposed implementation plan to complete the design and implementation of the capitation pilot. A team in Ashanti Region has performed situational analysis in the region on the following:

- Districts in the Ashanti region and their population
- Facilities by district classified according to ownership (GHS, Mission, Private self-financing)
- Services offered
- Staffing of facilities – types of prescribers e.g. doctor, MA etc and numbers, nurses by type and numbers, pharmacists, dispensary assistants
- Laboratory facilities available and tests that can be conducted
- Financing data – receipts and expenditure by source (Personnel emoluments by source, GOG, IGF from cash and carry and from NHIS, program funds, donor funds, donations, capital investment funds etc)
- Outpatient utilization (insured and uninsured)
- NHIS registration by district
- Availability of computers in health facilities

The situational assessment will be used to inform which facilities need to be ungraded to make the minimum package more uniformly available

3.2 Summary of concerns expressed by different stakeholders

Concerns expressed by stakeholders in the pre-implementation phase are summarized below by stakeholder.

Pharmaceutical Society of Ghana (PSCG) / Community Practice Pharmacists Association (CPPA)

- Inclusion of medicines in the capitation basket would disadvantage community practice pharmacies.
- Lack of enforcement of separation of services by prescriber and dispenser would reinforce this disadvantage. The enforcement of the separation of prescribing and dispensing needed to be strictly done before they would find it acceptable to have medicines included in a per capita package.

Providers (Society of Private Medical and Dental Practitioners (SPMDP)), Health Care Providers under Manhyia Health Insurance Scheme)

- Inclusion of medicines in the capitation basket would not be feasible
- Proposed rates per capita were too low
- Nonpayment of outstanding claims by the NHIA (they did not want to start the per capita payment system with debts still owed them by the NHIA)
- Agreement contracts not signed
- Region has not achieved initial target of 80% enrollment to PPP
- Drugs listed under capitation limited in scope
- Inclusion of maternal care (antenatal, delivery, postnatal) was a potential problem. It would compromise quality of maternal care and might increase maternal mortality
- The enrollment lists are not ready and providers do not know what their number enrollees will be and therefore their capitated budget
- Education has been inadequate, especially in the sub-metros of Kumasi

MDHIS (Schemes)

- The sub-metro schemes started the enrollment process late and misunderstood the target group
- Key outlets for enrollment (e.g. churches) misunderstands the enrollment information and considered it to be political propaganda
- Lack of education of the media, which then contributed to the spread of misinformation

Apart from these voiced concerns of stakeholders, many of which the PPM TSC agreed had some validity and needed to addressed, the PPM TSC itself observed persisting financial constraints to implementation. There were inadequate resources to engage additional specific stakeholders, i.e., traditional rulers, artisans, teachers and workers in first and second cycle institutions, university communities (students, lecturers and other workers). Many of the enrolment agents who were enrolling subscribers to PPP had outstanding payments. This was serving as a demotivator for them to continue the work. There were also inadequate resources to pay T&T allowances for the Regional Implementation Committees (RIC) and District Implementation Committee (DIC) members to continue with the client education.

3.3 Summary of responses to concerns

In the case of the per capita rate, apart from a genuine fear of the possibility that the rate was indeed too small; a major problem appeared to be a misunderstanding of the per capita rate by providers. Many providers assumed the per capita rate was a per encounter rate. At several forum the it was explained that the per capita rates were set based on utilization data from GHS utilization data and NHIS claims data. The rate should not be seen as payment for each visit of subscriber. Rather it should be seen as a per-capita rate (for both service users and non-service users). The differential in the rates address the fact that Private providers take care of over-head costs.

Sometimes, despite several explanations, providers would still say they did not understand. It was always not clear if in such cases it was a genuine inability to explain the issues clearly, inability to understand, or the repeated objections were a further reflection of the deep mistrust for the NHIA and its intentions that was a persistent backdrop to the pilot.

With regard to clearing all outstanding claims owed before starting the pilot, the NHIA advertised that providers should submit claims through August. Submission of claims was however slow. In the end the NHIA managed to reimburse outstanding claims through August by 1st December 2011.

Agreement contracts between the NHIA and providers were developed and distributed to GHS, CHAG and SPMDP through their representatives on the Capitation Technical Support Sub-committee for their inputs. The legal representative for both the NHIA and the GHS went through the contracts. CHAG signed the contract, but there remained some unexplained delays in signing from GHS. The private providers generally were not ready to sign

any contract given their continued mistrust of the process and perception that the per capita rate remained too low.

The fact that not all providers could be online to receive lists of subscribers who had chosen them as their PPP directly from the NHIA data base and be regularly updated remained an ongoing challenge. In the end a mix of printed lists, lists on CD and where the provider was online, lists sent and update regularly through the online system were developed to inform providers about clients enrolled to them. It was an imperfect process.

As at November 2011, Ashanti region had achieved 66% voluntary enrolment of active subscribers to PPP. This was lower than the target of 80% voluntary enrolment that had been set to be attained before administratively assigning remaining subscribers to a PPP. Enrolment was still actively ongoing at the end of November 2011.

The system of "blanks" was assigned as a temporary measure to be able to assign all active subscribers and start the pilot.

The M&E and improvement in data quality was needed to inform the application of any adjustment co-efficient to address areas that will be negatively impacted.

Providers were reassured that the G-DRG would run alongside Capitation for inpatient, emergencies (outside PPP), and Specialist Outpatient and other services outside the capitation basket.

Providers were also reassured that though not all medicines appropriate to treat the diagnoses may not be on the list, medicines needed to treat each diagnosis in the capitation basket at the primary care level were on the list of medicines. Cases which for some reason appeared to need a prescription beyond these medicines were to be referred as complicated cases for specialist OPD evaluation and care.

Data for the capitated rate included that for antenatal, normal delivery and post natal.

Among the strategies used to engage stakeholders and try to respond to their concerns included members of the PPM TSC spending time studying the concerns of stakeholders making sure concerns about design features do not compromise quality and the interest of consumers nor undermine the survival of the NHIS. The PPM TSC also responded in writing to concerns expressed by Pharmaceutical society of Ghana. TSC responded to similar concerns expressed by Society of Private Medical and Dental Practitioners.

Meetings were also held with key stakeholders to educate them and address their concerns. These included:

- Chief Executive, TSC and RIC met with Honourable members of Parliament representing all constituencies in Ashanti Region and Honourable District Chief Executives of the districts in the region to educate them on capitation, answer questions and formally seek their support for the implementation of the pilot in the region.

- TSC and NHIA Management met with key stakeholders (GHS, CHAG, Private Providers, MOH and Pharmacists).

- TSC met with Community Practice Pharmacists Association (CPPA) at the national level.

  RIC met with CPPA in Ashanti Region. TSC and RIC met with Private Providers in Ashanti Region.
- RIC and DICs met with scheme employees, providers and staff of health facilities, and workers of metropolitan/municipal/district assemblies.

Efforts were also made to educate and brief the media including.

  - Setting up enrollment teams and enrollment points and advertising them well.
  - District-wide education targeted directly to communities.
  - Enrollment officers located at the community level (going directly to households).
  - Engaging students and other members of the community to participate in enrollment.