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Medicines in Health Systems: Advancing access, affordability and appropriate use

Chapter 3 - Annex 2

BU Center for Global Health & Development

Medicines in Universal Health Care Coverage

Case Study of the National Health Insurance Scheme in Ghana

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Paul G. Ashigbie

Center for Global Health and Development Boston University Boston, Massachusetts, USA

In-Country Reviewer: Daniel Arhinful, PhD

Nougouchi Memorial Research Institute Medical Research University of Ghana, Legon Accra, Ghana

Technical Lead: Veronika Wirtz, PhD

Department of International Health School of Public Health Boston University Boston, Massachusetts, USA

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Summary

The purpose of the case study is to describe the medicines policy and management approaches under Ghana's National Health Insurance Scheme (NHIS) and illustrate potential consequences of these strategies (see Table 1 and Annex).

Selection of medicines under the NHIS

<u>Use of formularies</u>: The NHIS has developed a list of medicines which the scheme covers(1). Currently contains 548 medicines, more than the number of medicines on the Essential Medicines List (EML) of the country (which has 334 medicines). Even though health facilities are not mandated to procure or stock only medicines on the NHIS list, the list may influence the selection of medicines for procurement because medicines dispensed off the list are not reimbursed.

<u>Policies on cost sharing</u>: Since the implementation of the NHIS, medicines on the NHIS medicines list are provided for free to the insured patients with no official copayments(2,3).

According to Witter and Garshong, the NHIA reported the number of medicines per prescription increased from 4.5 in 2004 to 6.0 in 2008(3). Two health facility surveys conducted by the World Health Organization (WHO) in 2002 and 2008 showed the number of medicines per prescription increased from 3.3 to 3.6 between the two years (4,5). Corollary to the increased utilization of medicines is an increase in medicines cost as a proportion of total health insurance claims costs increased from 25% to 46% between 2006 and 2008(6). There have also been reports of decrease in self-medication and out of pocket expenditure (00P) on health care among those insured (3,7).

Policies on generic substitution: For institutions providing care for beneficiaries of NHIS (and for all institutions in Ghana) the substitution of generic equivalents for branded products is allowed at the point of dispensing or sale(8,9). According to the Ghana Medicines Policy, the selection, procurement and prescribing of medicines are required to be carried out using international non-proprietary names (INNs). Even though this policy might have contributed to standardization of prescribing practices and the rational use of medicines, only 60% of medicines are prescribed by INN name(10). The reasons for the low adherence to prescribing by INN include: prescribers and dispensers are more familiar with brand names and find them easier to write, senior physicians with preference for certain brands serve as role models for junior physicians, the perception that the risk of mixing up medicines in the pharmacy is lower when brands are prescribed, and patient preferences for specific brands(11). There is little or no oversight on implementing generic substitution in the private sector which may have resulted in promotion of more costly products to consumers in the private sector.

Purchasing of medicines

<u>Procurement:</u> The public procurement law in Ghana requires public facilities to procure through a competitive tender process (12,13). Public facilities at the regional level and

below are required to first contact the regional medical stores (RMS) or central medical stores (CMS) for their pharmaceutical supplies. Facilities are given a certificate to purchase medicines that are not available at the medical stores (including medicines on the NHIS list) directly from private wholesalers and manufacturers (14). Public facilities thus have the opportunity to procure at lower prices through competitive tender. Private facilities most of which do not procure through competitive tender may procure at higher prices.

Central Medical Stores operate at only 50% capacity due to indebtedness(14). Lower level facilities (regional medical stores and hospitals) end up purchasing from the private market at higher cost. In some cases prices tend to be higher at the RMS because of high margins and emergency procurements(14).

Reference pricing: The NHIS determines a fixed maximum reimbursement rate for the prices of medicines on its list(1). This price is based on the median market price of each medicine(14). The NHIS medicines list is not updated every six months as scheduled and current market prices of some medicines tend to be higher than prices indicated on the NHIS list. Key informants report that in cases where retail prices are higher than the NHIS reimbursement price, private facilities often ask patients to pay out of pocket for the full price of the medicine. Furthermore according to key informants, providers tend to procure brands that will earn them more profit when sold at the NHIA defined maximum reimbursement price.

Contracting of services

<u>Provider payment methods</u>: Medicines are currently reimbursed on a fee for service basis and separately from other services which are reimbursed under the diagnosis related group model (2). This may be responsible for the supplier induced demand for medicines which has been documented for private hospitals in parts of the country (15).

<u>Reimbursement:</u> Reimbursement prices for medicines are the same for both public and private providers(1). Claims submitted by providers are reviewed against Standard Treatment Guidelines before reimbursement. The NHIA does not have adequate pharmaceutical expertise to vet all claims for compliance with treatment protocols(14).

Reimbursement rates seem low for retailers (especially the private sector which most often does not conduct competitive tender to benefit from low procurement prices)(14). Delays in reimbursement sometimes result in NHIS patients being denied treatment unless they pay out of pocket(14).

<u>Preferred provider networks</u>: Private health facilities play a crucial role in the delivery of health services in the country especially with their accreditation to provide services under coverage by the NHIS(2). These private institutions include for-profit standalone pharmacies and licensed chemical sellers, for profit hospitals and clinics and not-for-profit health providers. While public health facilities in the country usually receive automatic accreditation from the NHIS, private health facilities have to apply to be accredited to provide services under coverage from the scheme. The NHIA inspects the facilities of

applicants before accrediting them as service providers. The NHIA also conducts routine inspection of accredited health facilities. As of 2011 the total of 3,344 facilities had been accredited, including 1,804 public facilities, 202 mission facilities, 23 quasi-government facilities, 297 pharmacies and 222 Licensed Chemical Sellers (LCS) and about 796 private hospitals (2).

The inclusion of private pharmacies and LCS may have increased geographical access to medicines provided under NHIS. However, according to key informants, reimbursement delays compel some providers especially those in the private sector to drop out of the scheme. Shortage of qualified human resource may make the delivery of quality pharmaceutical services sub-optimal especially in the private sector.

Utilization

<u>Payment methods:</u> The salary of physicians, medicines dispensing outlets and pharmacists are not performance dependent in the public sector. In private hospitals where prescribers may also be shareholders of health facilities, there is an economic incentive to induce demand for medicines as discussed under contracting of services.

<u>Prescribing and dispensing:</u> There are legal provisions that require the separation of prescribing and dispensing(8,9). Lack of human resource in the private hospitals makes the separation of prescribing and dispending less practicable.

<u>Patient satisfaction:</u> Patients perceive prices to be low at public institutions while private institutions are noted for short waiting times (16). The main reasons for not using health services were patient's perception of low quality care, lack of medicines and absence of health workers.

Information sources for monitoring consequences of medicines under the NHIS

There are limited sources for routine information on how policies affect access, use and affordability of medicines in Ghana. The most comprehensive source of information come from the World Health Organization and the Ministry of Health of Ghana levels I and II facility and household surveys(10,5). The most recent of these studies available are those carried out in 2008 and focused on the availability, affordability, geographical access, quality, and rational use of medicines at the facility and household levels in six regions. The Medicines Transparency Alliance (MeTA)is currently planning for the next phase of this project(17).

Potential consequences of fee for service medicines re-imbursement system(that is not part of the diagnosis-related group reimbursement) in Ghana

Figure 1 below lists the stakeholders in the supply and demand sides of medicines under the NHIS system. The arrows represent the direction of supply or demand for medicines. The stakeholders are represented in white rectangles. Yellow rectangles indicate the potential consequences of the fee for service medicines re-imbursement system (see also Table 1).

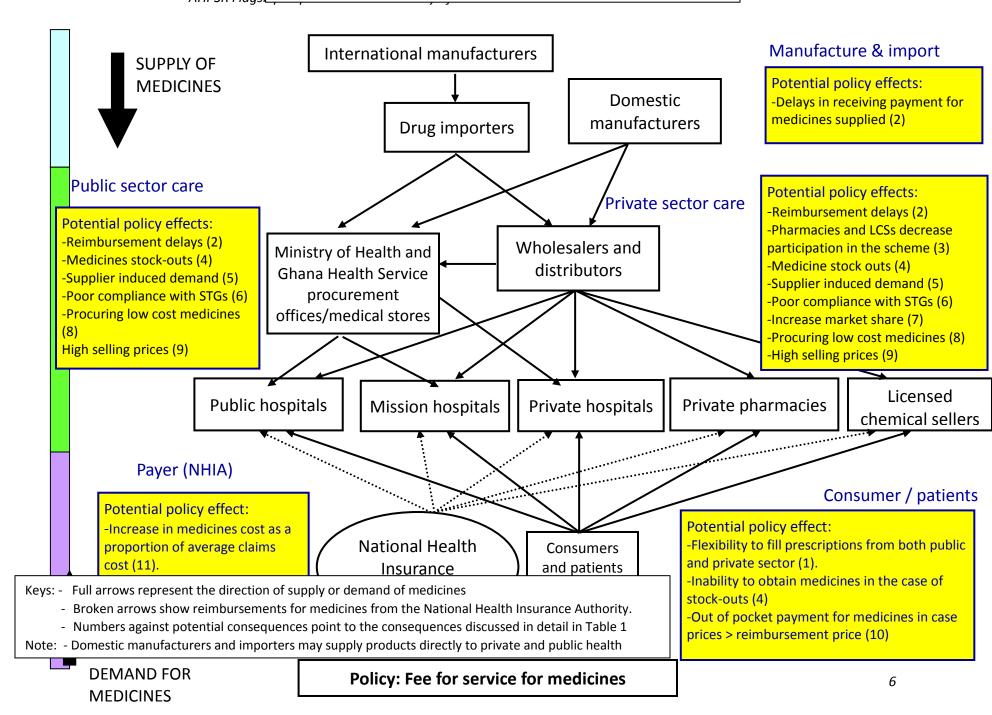


Table 1. Consequences of Fee for Service Medicines			
Consequences	Stakeholders affected	Sub system	Reference
Potential Consequences	Stakeholders affected	Sub system	Reference
(1) In the case of stock outs at hospitals, patients have flexibility for obtaining medicines at private medicines outlets under insurance.	Patients	Service delivery	Observation
(2) Processing medicines claims by NHIS results in delays in medicines reimbursement which also delays payments to manufacturers, importers and wholesalers who supply health facilities with medicines	Private and public health facilities; Manufacturers, wholesalers and importers	Service delivery	Seiter A, Gyansa- Lutterodt M. 2009
(3) Delays in medicines reimbursement resulted in a decrease in participation of standalone pharmacies and licensed chemical sellers to provide medicines under coverage.	Private pharmacies and licensed chemical sellers.	Service delivery	Seiter A, Gyansa- Lutterodt M. 2009
(4) Delays in reimbursement may also result in stock-outs of medicines as providers become cash strapped.	Private hospitals Private pharmacies Licensed chemical sellers Public hospitals	Service delivery	Speculation
(5)Supplier induced demand for medicines (especially in private hospitals as private prescribers are in some cases owners of these institutions and are interested in making profit). This results in increased utilization of medicines.	Private hospitals Public hospitals Patients	Service delivery, financing	Amporfu E. 2011 Witter S, Garshong B.
(6) Supplier induced demand may lead to poor compliance to STGs. E.g. 35% of children under age 5 were inappropriately prescribed antibiotics for diarrhea. Lack of adherence to malaria treatment guidelines especially in the private sector which provides about 60% of first line malaria treatment. Medicines utilization patterns do not match NHIS enrollment rates across regions.	Patients	Service delivery, governance, human resources	Saleh K. 2013 Makinen et. al. 2011
(7) Since medicines prescriptions can be reimbursed separately from other care, individual medicines retail outlets dispense medicines under coverage and private standalone pharmacies and licensed chemical sellers maintain or increase their market share.	Private pharmacies and licensed chemical sellers.	Service delivery	NHIS Annual report 2011
(8) Providers tend to procure brands that will earn them more profit when sold at the NHIA defined maximum reimbursement price.	Private hospitals Private pharmacies Licensed chemical sellers Public hospitals MOH procurement offices	Service delivery	Observation and key informants
	Manufacturers, wholesalers and importers		,

(9) Fee for service reimbursement allows providers to fix their own mark-up which in turn pushes the selling price high.	Private hospitals Private pharmacies Licensed chemical sellers Public hospitals	Financing	Observation
(10) In situations in which mark-ups push the prices beyond the price of the medicine on the NHIA list, private institutions ask patients to pay for the full cost of the medicine out of pocket.	Patients Private hospitals	Financing	Seiter A, Gyansa- Lutterodt M. 2009
(11) Increased medicines cost as a proportion of total health insurance claims costs from 25% to 46% between 2006 and 2008. Average medicines cost per claim increased by about 400% between 2006 and 2008	NHIA has to pay more money for medicines	Financing	Witter S, Garshong B. 2009

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Annex

Medicines policies under the NHIS in Ghana and potential consequences

_		Description (discoult	-	TT . '	T . C
Domain	Poli cy in plac e?	Description of the policy	Intended potential consequences	Unintended potential consequences	Information sources
Selection of	medici	nes		'	
Formularies		The National Health Insurance Scheme (NHIS) has its list of medicines (listed by international nonproprietary name (INN)) which the scheme covers. The NHIS list has more medicines compared to the EML. Independent of NHIS, national essential medicines list (EML) and standard treatment guidelines (STG) exist and are publicly available. The NHIS uses the STGs to vet claims though it has its own abbreviated version which may differ from the STG in some details. Teaching hospital(s) have their own formulary though not enforced.	75% and 94% of public facilities have available a copy of the EML and STG respectively(9).	No oversight on the use of EML and STGs in private hospitals may lead to poor prescribing practices. NHIS List does not cover ARVs	Pharmaceutical country profile 2012 Medicines Transparency Alliance, Ghana 2008 World bank, Policy Note, The Pharmaceutical Sector in Ghana, 2009
Cost sharing	Yes	Medicines on the NHIL are provided for free to the insured with no copayments Teaching hospital(s) charge NHIS members cash for medicines although it accepts insured patients for other services. In case the medicines are included in the NHIL	Access to health care and medicines increased as can be seen in outpatient visits per capita (increased from 0.6 in 2006, to 1.2 in 2012)). Medicines utilization increased(number of medicines per prescription increased from 4.5 in 2004 to	When generics listed on the NHIA formulary are not available, some providers ask patients to pay for brand-name drugs not on the NHIA list Increase in drug utilization. Medicines cost as a proportion of total health insurance claims costs increased from 25% to 46%	NHIS Ghana World bank, Policy Note, The Pharmaceutical Sector in Ghana, 2009

		insured patients have the option to obtain medicines for free at private pharmacies which have contracts with regional NHIS schemes.	6.0 in 2008) Decrease in out of pocket expenditure (OOP) though OOP still remains relatively high - 24 Ghana cedis per capita per year Decrease in self medication	between 2006 and 2008. Average medicines cost per claim increased by about 400% between 2006 and 2008	Witter S, Garshong B. 2009 MOH 2013, Holistic Assessment of the Health Sector Program of Work
Generic substitution	Yes	Substitution of generic equivalents for branded products is permitted at the point of sale in both public and private sector facilities. Prescription by INN name is required in the public sector.	Standardization of prescribing practices and promotion of rational use of medicines.	When generics listed on the NHIA list are not available, some providers ask patients to pay for brand-name medicines There is difficulty associated with implementing this policy in some private hospitals with inadequate human resource capacity to separate the role of prescribing and dispensing.	Pharmaceutical country profile 2012 Medicines Transparency Alliance, Ghana 2008 World bank, Policy Note, The Pharmaceutical Sector in Ghana, 2009

Purchasing

Purchasing					
Negotiation		The NHIS sets a national reimbursement price based on the median market price of each medicine without any negotiation with suppliers. Providers may negotiate with pharmaceutical manufacturers and suppliers for better procurement prices.	Refer to the section on reimbursement below	Refer to the section on reimbursement below	
Procurement	Yes	The public procurement law in Ghana requires public facilities to procure through a competitive tender process. Public facilities may procure a particular medicine from different manufacturers at the same time. The procurement system is decentralized such that lower level facilities can obtain products that are not available at the regional or central medical stores directly from the private market. The Christian Health Association of Ghana (CHAG) had implemented a pooled procurement system to lower cost. Private hospitals mostly purchase directly from the representatives of suppliers that visit them. They could also purchase products, especially those not available in the open market from the CMS or RMS.	Public facilities are able to procure at lower prices through competitive tender. Patients who prefer and/or do well on specific "brands" of medicines may have their choice Cost savings on tender purchases in the public sector can potentially be passed to the NHIS or to patients especially those who have to pay out of pocket	Private facilities most of which do not procure through competitive tender may procure at higher prices. Central Medical Stores operate at only 50% capacity due to indebtedness. Lower level facilities (regional medical stores and hospitals) end up purchasing from the private market at higher cost (2) Public medical stores first make sure there is enough supply for public facilities before considering selling to private hospitals.	MoH 2012 Half Year Report Medicines Transparenc y Alliance, Ghana 2008 World bank, Policy Note; The Pharmaceuti cal Sector in Ghana, 2009
Reference pricing	Yes	The NHIS determines a fixed reimbursement rate for the prices of medicines. This price is based on the median market price of each medicine.	There is likely to be uniformity of medicines prices among facilities providing NHIS.	Generally, margins are lower in the public sector compared to the private sector. Providers tend to procure brands that will earn them more profit when sold at the NHIA defined maximum	World bank, Policy Note, The Pharmaceutics Sector in Ghan 2009

reimbursement level.	Level II Survey 2008
Fee for service reimbursement allows providers to fix their own mark-up which in turn pushes the selling price high.	

Contracting

contracting	_				
Provider payment methods	Yes	Medicines are currently reimbursed separately (on a fee for service basis) from other services which are reimbursed under the diagnosis related group model.		Supplier induced demand for medicines especially in the private sector. The NHIA does not have adequate pharmaceutical expertise to ensure compliance with treatment protocols. Use of DRG creates problems with reimbursement among patients with co-morbidities	World Bank, The Health Sector in Ghana 2012 Amporfu E. 2011
Reimburse- ment	Yes	Reimbursement prices for medicines set by the NHIS are the same for both public and private providers. Claims submitted by providers are reviewed against STGs. Approved claims are reimbursed according to the prices on the NHIA Medicines List. The prescription of certain medicines is restricted to higher levels of care or reimbursed on condition that certain tests are performed before prescribing the medicine.	The restriction of medicines to various levels of care could contribute to rational use of medicines.	Reimbursement rates set seem too low for retailers (especially the private sector which most often does not conduct competitive tender to benefit from low cost prices). Reimbursement delays resulting in NHIS patients occasionally being denied treatment unless they pay out of pocket, and retailers opting out of the scheme. In the private sector, revenues generated from the sale of medicines may be used to pay salaries of health workers. This may lead to supplier induced demand. Providers still submit claims for reimbursement at full NHIS price for antimalarials which are provided at subsidized cost by donors. Patients pay out of pocket or get referred to higher levels of care if the laboratory tests requested by the NHIS	World bank, Policy Note, The Pharmaceutical Sector in Ghana, 2009 E. Ampofu 2011

				cannot be done at the hospital visited	
Preferred provider networks	Yes	Pharmacies need an accreditation to be eligible to provide services under a service agreement. The reimbursement prices of medicines are not provider base, they are set at national level and apply to public and private providers.	Increased geographical access to medicines provided under NHIS.90% of private pharmacies are located in urban areas, licensed chemical sellers which operate more in rural areas have been accredited to provide health insurance under the NHIS.	Reimbursement delays compel some providers especially those in the private sector to drop out of the scheme. Shortage or unavailability of qualified human resource may make the delivery of quality pharmaceutical services suboptimal especially in the private sector	World bank, Policy Note, The Pharmaceutical Sector in Ghana, 2009
Utilization					
Pay for performance	No	Not applicable. The salary of physicians, medicines dispensing outlets and pharmacists are not performance dependent in the public sector. There is an economic incentive in the private sector (see below).		There is an economic incentive in the private sector as described under contracting of services There might be little motivation for the public sector for performance improvement.	
Prescribing and dispensing	Yes	Legal provisions requiring the separation of prescribing and dispensing. Medicines have to be prescribed using their international non-proprietary (INN) name. Regulations require hospitals to have drugs and therapeutics committees (DTCs).	About 88% of medicines prescribed in the outpatient public health care facilities are on the EML and 60% are prescribed by INN name. More than half referral and regional hospitals have DTCs. This can promote the delivery of quality pharmaceutical services.	Lack of human resource in the private hospitals makes the separation of prescribing and dispending less practicable. DTCs are not a requirement at private hospitals.	World bank, Policy Note, The Pharmaceutical Sector in Ghana, 2009
Disease management	No				

programs				
Patient satisfaction	No routine data collection on patient satisfaction by the NHIS were identified in the public domain	According to a study published in 2001 prices are perceived to be low at public institutions; short waiting times at private institutions while mission hospitals are perceived to offer services with courtesy.	A study published in 2011 found that the main reasons for not using health services were patient's perception of low quality care, lack of medicines and absence of health workers. Among patients who went to private for profit institutions, access to medicines was the most important reason given. A 2010 qualitative study in six mission hospitals showed that patients were less satisfied with the availability of medicines.	Makinen et al 2011 Shojo, Tsimpo, and Wodon 2012.
Rational use	NMP covers rational use of medicines	Of the adult patients with an acute condition in a two-week recall period, 81% took all medicines prescribed by an authorized prescriber. Only seven percent did not take all medicines prescribed to them because they could not afford them (refer to page 33 for the rest of this statistics). The % of patients receiving injection decreased from 35% in 2002 to 31%	Poor compliance to STGs. A recent study in 5 regions showed a decline in adherence to EML. Only 79% of medicines prescribed were on the EML. 56% of medicines were prescribed using INN.	The World Bank, The Health Sector in Ghana 2012 Saleh 203, The health sector in Ghana