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Case study: Strengthening pharmaceutical pricing and reimbursement

Ghana

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Acronyms

CHAG	Christian Health Association of Ghana
CMS	Central Medical Store
ERP	External Reference Pricing
EUD	European Union Delegation
GFDA	Ghana Food & Drug Authority
GHS	Ghana Health Service
GIZ	Gesellschaft für Internationale Zusammenarbeit
INN	International Non-proprietary Names
IRP	Internal reference Pricing
HTA	Health Technology Assessment
MoH	Ministry of Health
NHIA	National Health Insurance Authority
OTC	Over The Counter
PHIA	Private Health Insurance Association
PHFA	Private Health Facilities Association
PMAG	Pharmaceutical Manufacturer Association of Ghana
PSGH	Pharmaceutical Society of Ghana
PSP	Pricing Strategy for Pharmaceuticals
UHC	Universal Health Coverage
WHO	World Health Organization

Context

Worst economic crisis in a generation

Ghana has been experiencing a significant economic crisis in recent years, marked by soaring inflation, substantial currency depreciation, and rising public debt. Inflation reached 54.1% in December 2022 and fluctuated around 42.5% in May 2023, with projections estimating it to stabilize at approximately 20% by the end of 2024.

The Ghanaian cedi (GHC) has faced considerable depreciation, losing about 40% of its value against the USD in 2022, with an additional estimated decline of 25% by mid-2023. This depreciation has exacerbated inflation by increasing import costs, straining local businesses reliant on foreign goods.

Public debt has surged to over 80% of GDP, prompting the government to seek assistance from the International Monetary Fund (IMF) to stabilize the economy. The economic crisis has led to job losses and reduced incomes for many citizens, particularly affecting low-income households and increasing poverty levels.

In response, the Ghanaian government has implemented various austerity measures, including tax reforms and expenditure cuts.

Procurement

The pharmaceutical sector in Ghana includes 40 large manufacturers, 300-500 small manufacturers, over 350 importers, and 2,000 wholesalers.

Retail comprises 5,000 formal retailers and 30,000 OTC sellers and chemists. One key regulation mandates that a new retail pharmacy must be situated at least 400 meters away from the nearest existing pharmacy or licensed chemical shop. The noncompliance with this regulation can reduce the number of potential clients for a pharmacy and in turn incentivize the pharmacist to increase or maintain high markups. Regarding dispensing practices, Ghana imposes a dispensing per unit (not per box) reducing de facto the potential waste.

The Central Medical Store (CMS) of Ghana is a unit under the Procurement & Supply chain Directorate of the Ministry of Health (MoH). Unlike most CMS in Sub-Sahara Africa, it has therefore no managerial nor financial autonomy (for instance, salaries are paid by the MoH as any unit of any directorate). In Ghana, the procurement of pharmaceutical products in public healthcare facilities is decentralized and done by Regional Medical Stores (RMS) and teaching hospitals. The role of the CMS is to facilitate (framework contract, quality assurance etc.) the procurement of the list of 65 essential products. It is noticeable that all products (locally manufactured or internationally supplied) procured in the public sector

are purchased locally (RMS do not resort on international tendering). Our understanding is that CMS acts only as a facilitator, the procurement is done by RMS as per the decentralization in Ghana.

The pharmaceutical market in Ghana was valued at USD 443 million in 2021[1] - the largest in West Africa, with 74% were prescription medicines and 26% were OTC. The same year, patented drugs accounted for USD 47 million, corresponding to only 11.4% of the prescription value. In other words, generic drugs accounted for 88.6% of the prescription value. Approximatively 70% of the market value is imported, against 30% manufactured locally.

Ghana FDA

Ghana FDA has many functions: product registration, facility licensing, laboratory, market control, pharmacovigilance and product advertisement. Ghana FDA is not involved with the pricing of pharmaceutical products and doesn't account for price consideration when processing the marketing authorization.

Ghana FDA must process the market authorization within 6 months, and suppliers must avail the products to the Ghana market within 1 year after the market authorization, or the authorization is withdrawn. The committee held by Ghana FDA does not account for HTA or pharmacoeconomic criteria in the registration process, nor account for the number of equivalent products already on the Ghana market. Any pharmaceutical product must have a market authorization to enter and remain the Ghana market (no exemptions).

Ghana FDA is funded by the Government though salaries and generate internal revenues via registration fees (1200 USD), administrative fines, inspection fees, and import taxes at 1.8%.

The organization has many regulatory partners through Memorandums of Understanding: Senegal, Rwanda, Sierra Leone, Gambia, Egypt, El Salvador.

Objectives

The general objective of this case study is to strengthen African actors who make an essential contribution to the affordability of health products to meet local needs. This translates into documenting and analysing pricing & reimbursement policies for pharmaceutical products and their implementation in 2 case studies: Senegal and Ghana.

Specific objectives can be defined as follow (in Senegal & Ghana):

1. Describe pricing & reimbursement mechanisms for pharmaceutical products

[1] Sector Industry Analysis – Pharmaceutical Industry Report 2022, By GCB Strategy & Research Department

2. Identify bottlenecks, challenges, success factors and best practices related to the design and implementation of these policies
3. Analyse the impact of these policies on the accessibility and affordability of pharmaceutical products
4. Propose recommendations for improving health policies based on the results of the two case studies.

Methodology

Analytical Framework

The approach is based on the following analytical framework:

1. Pharmaceutical market, policies, and regulation,
2. Pharmaceutical product pricing policies,
3. Reimbursement of pharmaceutical products, and
4. Impacts on the availability and financial accessibility of pharmaceutical products.

Methods

The methods include a literature review, a one-week mission (from December 16th to 20th, 2024) to Accra, Ghana, to conduct interviews and site visits with stakeholders (see list below), and data collection. Finally, analysis and reporting were carried out after the mission.

Results

Stakeholders

Regulation and procurement

- Ghana Food & Drugs Authority (FDA)
- Ministry of Health / Pharmaceutical department
- National Medicine Pricing Committee (NMPC) under the MoH
- Central Medical Store / procurement unit of MoH
- Ministry of Trade & Industry
- Ghana Health Services (GHS)
- Private Health Facilities Association of Ghana
- Pharmaceutical Manufacturer Association of Ghana (PMAG)
- Ghana Chamber of Pharmacy
- Pharmaceutical Society of Ghana (PSGH)

Coverage mechanisms

- National Health Insurance Authority (NHIA)
- Private Health Insurance Association

Legislative and Regulatory Framework

The review of the legislative and regulatory framework shows that major acts related to the prices and coverage of pharmaceutical products were passed between 2003 and 2013. The framework exists for over a decade and enables the authorities to regulate the prices in the public sector. Except VAT exemptions, the legislative and regulatory framework seems to make no mention of prices of pharmaceuticals in the private sector.

Law/regulations	Reference to prices and coverage mechanisms
Public Procurement Act, 2003 (Act 663)	Mandates procurement entities to ensure value for money in the procurement of goods, works, and services, which includes pharmaceuticals.
National Health Insurance Act, 2003 (Act 650)	Establishes the National Health Insurance Fund to subsidize the cost of healthcare services, including medicines, for members of the National Health Insurance Scheme (NHIS).
National Health Insurance Regulations, 2004 (Legislative Instrument 1809)	Specifies that the NHIS shall reimburse healthcare providers for medicines, with the reimbursement rates determined by the prices listed in the National Health Insurance Drug List. This ensures a standardized approach to medicine pricing and reimbursement within the NHIS framework.
Value Added Tax (VAT) Act, 2013 (Act 870)	Lists pharmaceutical products that are exempt from VAT to reduce their cost to consumers.

Strategies & Policies

The prices of pharmaceutical products in Ghana are regulated through 2 major policies and strategies:

1. The National Medicine Policy 2017, MoH
2. The pricing strategy for pharmaceuticals and other health technologies 2022, MoH

The NMP 2017 recommended 8 pricing policies for both the public and private sectors.

Pricing Policies (NMP 2017)	Rationale / Strategy (PSP 2022)
External reference pricing (ERP)*	Setting maximum sales prices for both private and public sectors: single ceiling price for the market Definition of maximum sales prices at the time of registration Definition of reimbursement price levels of individual pharmaceutical products or classes of products for the NHIS
Price-setting strategy by NHIS	Development and implementation of measures to regulate the mark-ups applied by all wholesale and retail suppliers in the public and private sectors
Annual framework ("rate") contracts	Leveraging economies of scale for better prices as part of procurement for medicines. It makes a case for a structured markup regime to be made operational at key levels of the supply chain, including the Regional Medical Stores.
Scheme of recommended markups	Sets a structured markup regime to be made operational at key levels of the supply chain
Competition	Promote competition within the medicines supply chain
Health technology assessments	Promote the use of HTA to inform prices of pharmaceuticals. It seeks to introduce value-based assessments to guide price negotiations
VAT exemption on selected essential medicines	The VAT exemption policy was specifically drafted to remove this significant aspect of the price component of selected essential medicines
VAT exemption on raw materials for local pharmaceutical manufacturing	The VAT exemption policy was specifically drafted to remove this significant aspect of the price component of medicines locally manufactured In Ghana

*internal reference pricing (IRP) was added in 2022 in the pricing strategy

The NMP 2017 also stipulates that a National Medicine Price Committee (NMPC) shall be established by the Minister of Health and reporting to the MoH (secretariat by the pharmacy department) to manage the medicine pricing system in Ghana.

The *pricing strategy for pharmaceuticals and other health technologies* 2022 develops the strategies and provides operational guidance to implement the NMP 2017 pricing policies.

Despite well-written and comprehensive policies and strategies, the price regulation of pharmaceutical products in Ghana remains limited (see the pricing policies section

below). An illustration of this limited implementation is the NMPC that has not met since 2022.

In practice, medicine pricing and reimbursement in the public sector are primarily managed by the National Health Insurance Authority (NHIA). The NHIA maintains a pharmaceutical reimbursement list that defines which medicines are covered under the National Health Insurance Scheme (NHIS) and at what prices they are reimbursed. The private market is largely unregulated, with prices adjusting based on competition and payment terms.

Literature review

The literature review indicates that the availability and accessibility of medicines remains a challenge in Ghana, despite significant achievements towards Universal Health Coverage (UHC).

The Ghana Harmonised Health Facility Assessment (HHFA) Implementation Update and Preliminary Findings (2023) by the MoH found a high variability in the availability of essential medicines across health facilities, especially for chronic and non-communicable diseases. In some rural and underserved areas, availability rates for essential medicines are as low as 60%, compared to urban centers, where rates exceed 80%. Supply chain inefficiencies and infrastructure gaps (inefficient procurement, poor inventory management, and last-mile delivery issues) contribute to medicine shortages and disparities, especially in remote areas. Finally, public facilities offer better affordability of medicines on the Essential Medicines List (EML), but stock-outs often force patients to seek higher-priced alternatives in the private sector.

According to Sarkodie (2021), enrolment in the NHIS increases healthcare utilization by 26%, showing a significant positive effect on individuals' likelihood of seeking healthcare services, including medicines. As the scheme covers over 90% of diseases in Ghana, enrolling in the NHIS reduces barriers to accessing treatments and medicines for insured individuals. However, the enrolment in the NHIS reduces total out-of-pocket payments (both services and treatment) by only 4%, suggesting that insured individuals still incur costs for services, potentially due to unofficial fees or exclusions under the NHIS, and therefore that many individuals still face financial constraints when accessing healthcare in Ghana. Finally, the article highlights the very high dropout rate among the insured (30% don’t renew their insurance) and that 48% of the population remains uninsured.

According to Asuma et al (2023), healthcare facilities under the NHIS face reimbursement delays of up to 9 months, leading to cash flow issues and undermining service delivery. Some facilities have resorted to charging "top-up" fees, which are illegal under the NHIS

Act but have become necessary for operational survival. The NHIS's inability to reimburse claims promptly disproportionately affects vulnerable populations and exacerbates health inequality.

Rising inflation and economic instability have worsened the affordability of medicines. Importers and wholesalers have begun requiring upfront cash payments before supplying medicines, citing unsustainable business conditions. The cost of imported pharmaceutical products has increased, further straining availability and affordability.

Pricing policies

In Ghana, prices of pharmaceutical products are set differently whether it is the public sector or the private sector.

Wholesalers purchase from manufacturers or suppliers and sell them with a markup to private retail pharmacies (called chemists in Ghana). The chemists apply a markup on their purchasing price and sell them to clients/patients. The price of pharmaceutical products in the private sector is not regulated. There is therefore no standard or maximum markup applied by level. In practice, the consensus is that, on average wholesalers and importers apply a 10% to 20% markup (except for products sold directly by local manufacturers as they are in direct competition). The consensus is that retail pharmacies apply an average markup between 30% to 45% (lowering the markup to 20% for expensive products).

In the public sector, our understanding is that the RMSs apply a 10% markup on products they buy from local manufacturers, wholesalers or importers. As the price of medicines is fixed annually by the NHIA, there is no single markup applied by healthcare facilities. Their margin is the result of the NHIA prices minus the purchasing price paid to RMS or to private wholesalers (for products not available at RMS). The methodology used by the NHIA corresponds largely to a 15% markup on RMS prices (markup setup in the 1990s).

According to WHO, there are 10 pricing policies for pharmaceutical products.

1	External reference pricing
2	Internal reference pricing
3	Value-based pricing
4	Mark-up regulation across the pharmaceutical supply and distribution chain
5	Promoting price transparency
6	Tendering and negotiation
7	Promoting the use of quality-assured generic and biosimilar medicines
8	Pooled procurement
9	Cost-plus pricing for setting the price of pharmaceutical products
10	Tax exemptions or tax reductions for pharmaceutical products

Source: Guideline on country pharmaceutical pricing policies, WHO

External Reference Pricing (1) and Internal Reference Pricing (2) are not yet implemented in Ghana, not by the Ghana FDA in the process of the marketing authorization nor by the NMPC. These 2 policies, the first mentioned in the NMP 2017 and pricing strategy 2022 are the next step to be taken by the NMPC.

Value-based pricing (3) refers to setting prices based on the measured and quantified value or worth that patients and health systems attribute to pharmaceutical products based on health technology assessment (HTA) such as DALYS and QALYS. Cost-plus pricing (9) refers to setting the price considering the manufacturing costs, costs of R&D, overhead and other operational expenses, and a profit. Both policies are rarely implemented globally and none of them is implemented in Ghana. Mark-up regulation (4) is referred to in 3 policies of the NMP 2017 and pricing strategy 2022: i) Price-setting strategy by NHIS; ii) Annual framework ("rate") contracts and iii) Scheme of recommended markups. The first policy refers to markup to be applied by NHIA to fix medicines prices for reimbursement. The second policy refers to the markup to be applied by RMS. The third policy refers to markups across the levels of the supply chain. Our understanding is that markups have not been revised yet in the public sector. The private sector is not regulated.

Promoting price transparency (5) is a policy already in place in Ghana in the public sector, as NHIA reimbursement prices are publicly available. The private sector is however not price-transparent, as various markups apply to various purchasing prices along the supply chain, resulting in varying prices at the chemist's level.

Tendering and negotiation (6) are implemented in the public sector, through framework contracts between the MoH, GHS and pharmaceutical compagnies. Framework contracts fix price and quantity for 1 year. Price adjustments are possible upon request and variation of certain factors (variation of the consumer price index (CPI) in the country of origin and in Ghana, depreciation of the GHC etc.).

For the list of 65 products to be processed centrally, the CMS unit under the MoH facilitates the process to ensure economies of scale. In this sense, this constitutes a pooled procurement at the national level (8).

Promoting the use of generics and biosimilar medicines (7) is a universally recommended policy recommended pertinent in all contexts. This policy is already implemented in Ghana as i) it is mandatory to prescribe in international non-proprietary names (INN) in public healthcare facilities, ii) the NHIA lists for reimbursement is in INN, iii) NHIA reimburses medicines based on generic prices and iv) most products sold in Ghana are generics (88.6% of prescription medicines).

Tax exemptions (10) are already in place for both medicines and some active substances/raw materials for the manufacturing of medicines in Ghana. However, interviews with key stakeholders during the field visit in Accra suggest that manufacturers sometimes face challenges when it comes to taxes on certain substances or raw materials despite the exemption. It was reported that Ghana Revenue Authority (GRA) sometimes applies some small taxes including on donated drugs while exempted.

Coverage mechanisms

The health coverage of the population of Ghana comprised 2 major mechanisms: i) the National Health Insurance Scheme (NHIS) managed by the National Health Insurance Authority (NHIA) and ii) private insurances.

By law, all Ghana residents must enrol with the NHIS. The NHIS offers 4 benefits packages: Inpatient services, outpatient services, maternal care and eye care.

The definition of benefit packages and the setting of service including health product prices by a national agency such as NHIS is a difficult task. It must balance availability and access to healthcare services for all and financial sustainability of the healthcare facilities on one hand, with the necessary financial sustainability of the scheme on the other hand.

Unfortunately, we were not able to meet with the NHIS nor to dig into their methodology to define packages and setup prices. Our appraisal is that the NHIS has managed to define a restricted list of medicines (approx. 500 items) which are covered for NHIS members. For these products, they have set up prices to control their expenses. In doing so, the NHIS

seems to have prioritized cost containment for the paying agency over the financial sustainability of the providers and the number of services available. A 2024 study[2] suggests that NHIS packages are restrictive when it comes to conditions such as type-1 diabetes treatment (health products such as test strips, glucometers, HbA1c tests don't seem to be covered) and while diabetes patients covered under NHIS can obtain two vials of 10 ml insulin free of charge for 2 months, the availability in health facility can be lacking, pushing patients to fill their prescription in retail pharmacies (often requiring a top up or needing to pay full price)

A review of the current packages and prices, to include more health products could improve accessibility for the patients (and availability in healthcare facilities) without jeopardizing the financial situation of the NHIS, provided robust actuarial analyses and HTA methods.

There is no copayment for enrolees with the NHIS. All services are paid entirely by the NHIS to the healthcare facilities. Medicines in the NHIS list are reimbursed as per the prices set annually, based on the prices of generics. As the NHIS also contracts retail pharmacies, the patient who cannot fulfil the prescription at the healthcare facility can complement it at the pharmacy. Interviews suggest that the price setting mechanism by NHIA can lead to voluntary non-dispensing by healthcare facilities (if the price set by the NHIA is lower than the price paid at the RMS) or financial "top-ups" requested to patients to dispense the medicine.

NHIS subscribers fall into three groups:

1. Formal sector employees and the self-employed who contribute to the Social Security and National Insurance Trust (SSNIT contributors - 2.5 % of salary per month)
2. The informal group, who pay premiums
3. Exempted groups are:
    - Children (persons under 18 years of age)
    - Women in need of ante-natal, delivery and post-natal healthcare services
    - Persons classified by the Minister for Social Welfare as indigents,
    - Disabled persons determined by the Minister responsible for Social Welfare
    - Persons with mental disorder
    - Pensioners of the Social Security and National Insurance Trust (SSNIT pensioners)
    - Persons above seventy years of age (the elderly)

[2] Owusu et al, Health Economics Reviews (2024)

In addition to the premium, subscribers also pay a processing fee or renewal fee for their ID cards, except pregnant women and indigents.

Several categories of healthcare facilities have been credentialed by the NHIA to provide services to subscribers: Community-based health planning and services (CHPS), maternity homes, health centres, clinics, polyclinics, hospitals (including faith-based and private primary hospitals), licensed chemical shops, pharmacies and diagnostic centres[3].

The NHIS is funded by i) The National Health Insurance Levy (2.5% levy on goods and services collected under the Value Added Tax (VAT)), ii) 2.5 % of Social Security and National Insurance Trust contributions per month, iii) return on National Health Insurance Fund (NHIF) investments, iv) premiums paid by informal sector subscribers, and v) a government allocation[4]. A key aspect that was highlighted during the interviews is that the NHI Levy is not directly wired to the NHIA but instead transit via the general budget first. The NHIA needs to apply for the funds regularly. This is given to be a major bottleneck to the adequate and timely funding of the NHIA to reimburse the healthcare facilities in a timely manner.

There are 16 licensed private insurances in Ghana, among which 13 are part of the association of private insurances of Ghana. Private insurances cover approximately 450,000 beneficiaries[5]. Packages offered by private insurances are based primarily on the NHIS packages but cover additional services such as brand medicines, VIP wards, tooth polishing etc. The patients insured through private schemes have no copayments until they reach a pre-defined ceiling, above which they pay the full price. The association coordinates and negotiates tariffs of healthcare services on behalf of its members. In the case of medicines, the association collect the prices of medicines applied by the main wholesalers and apply a markup to determine the price reimbursed at the retail level (similar to Rwanda). Medicine prices are reviewed every 3 months by the association. The committee deciding the price of medicines is comprised in the great majority of pharmacists.

As of the 2021 census, 68.6% of Ghana's population is covered by either the National Health Insurance Scheme (NHIS) or private health insurance plans.

[3] www.nhis.gov.gh
[4] www.nhis.gov.gh
[5] Approximately 1.3% of the population

Financing arrangements of healthcare facilities

A key factor impacting the accessibility to medicines is the financing arrangements of facilities.

Tariffs applied in public healthcare facilities are flat-rates for the consultation and diagnostic tests (laboratory and imaging) based on the diagnostic, and pure fee-for-service for medicines (per unit). There seems to be a consensus that flat rates are not always adequate, and tariffs from NHIS are not revised yearly. Consequently, patients sometimes pay laboratory tests separately and pay top-ups for medicines. The consensus is that these practices of patient payments have developed in the last 2 years due to the economic crisis (inflation, depreciation of the GHC etc.). A striking example of the crisis is the commercial interest rate peaking at 35 to 40%. For medicines, the problem is apparent when the NHIS set tariffs based on RMS prices with a markup, but healthcare facilities must procure themselves at a higher price on the open market or at the RMS at a later stage after RMS has revised its prices upward.

Ghana Health service (GHS) tries preventing patient copayments and ensure compliance from healthcare facilities. One interesting example is the use of mystery clients, where patients are sent anonymously to facilities to assess the availability of services and payments requested.

The inadequacy of prices may cause greater concerns in private facilities, as tariffs also include personnel costs – while salaries of civil servants are paid directly by the government in public facilities. New tariffs were developed in June 2024 by the NHIS in collaboration with key stakeholders (NHIS, GHS, etc.) but have not come into effect yet.

In addition to inadequate prices, another factor identified was the delay of payment from the NHIS to healthcare facilities (reaching 6 to 9 months now against 2 to 3 months before the crisis) and debts accumulated by the NHIS.

In public healthcare facilities, the sources of income include salaries paid directly by the Government for the civil servants (the greatest share of the personnel) and internally generated revenues (NHIS, private insurances and cash patients – non-insured). Public facilities do not receive Government grants or subsidies. Although there is no patient copayment in the NHIS scheme, public healthcare facilities may be tempted to charge top-up fees on some laboratory and health products when they estimate that the NHIS prices do not cover at least their purchasing price paid to RMS, as they don't have other sources of funds to compensate.

SWOT Analysis of pricing policies and coverage mechanisms

Strengths	Opportunities
➢ Legislative and regulatory framework in place for the public sector ➢ Existence of Ghana FDA ➢ Existence of a National Medicine Pricing Committee (NMPC) ➢ Existence of a National Medicine Policy 2017 with extensive reference to pricing policies ➢ Existence of a comprehensive Pricing Strategy for pharmaceuticals (2022) ➢ Existence of NHIS as a single national scheme for the population with standard packages and publicly available prices ➢ EML and NHIA list based partially on HTA, with Committee including health economists. ➢ Framework contracts between MoH, GHS, teaching hospitals and pharmaceutical compagnies, with a price adjustment formula	➢ Strong backing from Government has facilitated and most likely will continue facilitating the implementation of medicines pricing policies
Weaknesses	**Threats**
➢ Pricing policies and strategies not yet implemented ➢ NMPC not operational since 2022 ➢ Outdated markups in the public sector ➢ Prices in the private sector not regulated ➢ Over 30 % of the population not covered by any mechanism ➢ Additional payments by patients (Top-ups) for medicines and for laboratory tests occur	➢ Price level and rigidity by NHIS can cause artificial stockouts and/or patient payment for medicines (top up), especially with high depreciation of the GHC and high inflation ➢ Funding arrangements of the NHIS, that needs to apply for the NHIS levy to be transferred from the general budget (instead of earmarking it and wiring it directly), causing delays in fund transfers to NHIS and in turn disbursements delays to healthcare facilities ➢ Financing arrangements of healthcare facilities, relying only on 2 sources of income, making them vulnerable to tariff levels ➢ Current economic crisis: depreciation of the GHC and inflation, very high commercial interest rates (30% to 40%)

Good practices identified:

1) A national regulatory agency for pharmaceutical products (Ghana FDA)
2) National medicine policy (NMP), with emphasis on pricing policies
3) A pricing strategy for pharmaceuticals, and a national medicine price committee (NMPC)
4) Mandatory prescription in INN in public healthcare facilities
5) A national single coverage mechanism (NHIS) with standard benefit packages and resorting on mystery clients.

Recommendations

In Ghana, pricing policies for pharmaceutical products are addressed in the NMP 2017 and the pricing strategy for pharmaceuticals 2022, that detail policies in place (such as VAT exemption in place since 2013) and policies to be implemented.

The findings of this case study suggest that the policies and strategies - although very well written and comprehensive, are not yet implemented. The **first recommendation is to implement the policies and the pricing strategy, starting with terms of reference and a workplan for the NMPC**.

1. We recommend starting with defining and enforcing maximum markups across the supply chain in both the public sector and the private sector. It is recommended, in the long run, to define regressive markups based on product prices (rather than a single markup) and to implement dispensing fees in pharmacies to reduce the incentive to dispense the most expensive products. This revision should include a detailed financial analysis and negotiations among stakeholders. It would help ensure a balance between financial profitability for actors in the distribution chain and financial accessibility for the population.

2. At a later stage, the NMPC could work on external reference pricing (ERP) and select 3 to 6 countries comparable to Ghana and for which medicines prices are available (through partnership with regulatory agencies, regional cooperation, twining projects, online database etc.) to benchmark against prices in Ghana. This is often implemented concomitantly with the internal reference pricing (IRP) by which the NMPC would compare the price of similar products within the Ghana market. The combination of maximum markups and maximum prices based on ERP and IRP would guarantee price containment and improve accessibility for the population, especially in the private sector. When implementing pricing policies, the NMPC will need to differentiate policies according to the type of product (generic or biosimilar drugs versus innovative medicines).

The **second recommendation is to include pharmacoeconomic criteria in the marketing authorization process**, such as cost-effectiveness and budget impact, in the frame of health technology assessment (HTA), rather than relying solely on clinical criteria (such as the benefit/risk balance). In addition, the FDA committee in charge of the marketing authorization should include a pharmacoeconomics/HTA expert. Including these criteria and inviting or including the expert in the FDA committee would ensure that products entering the Ghanaian market are cost-effective and have a controlled budget impact, especially for innovative and expensive medicines. In addition, the committee

could also explore the relevance of Managed Entry Agreements (MEAs)[6] to share the financial risk with the manufacturer when introducing innovative and expensive products.

The **third recommendation is to extend the coverage of the NHIS.**

1. Adjust medicine reimbursement prices more regularly (semesterly instead of annually for instance) or account for slightly higher reimbursement prices to prevent artificial stockouts and/or patient additional payments (top-up).

2. Revise the list of essential medicines reimburse to account for products often prescribed and fully paid by patients, provided that they are clinically relevant (clinical audit)

3. Extend the coverage to more Ghanaian (increase and maintain enrolment). Latest estimates suggest a 30% drop out and 68% population coverage irrespective of the scheme. In other words, 32% of the population is not covered by any mechanism, and therefore pay healthcare services including medicines entirely out of pocket.

To extend the coverage of the NHIS while ensuring its financial sustainability, **the fourth recommendation is to earmark the NHIS levy 2.5% to NHIS and wire it directly to the NHIS account**, without transiting through the general budget and requiring a transfer from NHIS. This will secure the funding of NHIS and reduce the disbursement time to pay healthcare facilities.

Finally, the **fifth recommendation** is to conduct every 2 to 3 years a pharmaceutical products pricing survey to compare prices paid across the levels of care and across the country for pharmaceuticals, but also internationally with similar countries. A regular patient health expenditure survey should also be conducted in parallel to assess the catastrophic and impoverishing expenditures causes by healthcare services and quantify barriers to access. Our understanding is that the Ghana Living Standards Survey round 8 is in progress and should provide insights in this regard. These surveys will also inform decision-makers and the NMPC and facilitate adjustments of pricing policies.

[6] Agreements between a pharmaceutical company and a payer or regulator to improve access to innovative medicines. They allow for the sharing of financial risk associated with introducing an expensive new technology to the market. Essentially, the pharmaceutical company agrees to bear part of the risk in exchange for market access, through mechanisms such as discounts, price-volume agreements, free doses, price caps, margin rebates, and other arrangements

Annexes

List of stakeholders met:

- GIZ
- Diabetes Youth Care
- Ghana Food & Drugs Authority (FDA)
- Ministry of Health / Pharmaceutical department
- Central Medical Store / procurement unit of MoH
- Ghana Health Services (GHS)
- Private Health Facilities Association of Ghana
- Private Health Insurance Association
- Chamber of pharmacy (Audrey)

List of stakeholders that the consultant was not able to meet:

- NHIS
- CHAG
- UNICEF
- USAID
- WHO

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