

Health insurance in Cameroon: current situation, impacts and development prospects

Farikou Oumarou ^{1*}

¹Support Framework for the Ministry of Public Procurement of Cameroon. Email: oumaroufarikou32@gmail.com

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Abstract:

This paper provides a comprehensive analysis of the health insurance system in Cameroon, focusing on its institutional framework, socio-economic impacts, and future development prospects. It highlights the progress made toward Universal Health Coverage (UHC) and the persistent challenges, including low coverage (less than 10% of the population), institutional fragmentation, and overreliance on out-of-pocket health expenditures.

The study shows that health insurance serves as a key mechanism for social protection and economic stability, reducing households' financial vulnerability and improving productivity. However, its effectiveness remains constrained by weak governance, insufficient public funding, and low insurance literacy.

Achieving sustainable UHC in Cameroon requires a structural reform based on national solidarity, inclusion of the informal sector, digitalization of community health schemes, and a unified legal framework. Health insurance thus emerges as a strategic instrument for sustainable development, ensuring every citizen's fundamental right to health.

Keywords: Health Insurance, Universal Health Coverage, Social Protection, Health Financing, Community Mutuels.

JEL classification code: I13, I15, I18, H51,O55.

1. Introduction:

Health constitutes a fundamental human right and a central determinant of human development. Beyond its intrinsic value, population health directly influences economic productivity, social cohesion, and political stability. In low- and middle-income countries (LMICs) such as Cameroon, persistent inequalities in access to healthcare continue to

* Corresponding author

undermine development efforts. The lack of a comprehensive and effective health insurance system exposes households to severe health and financial risks, often leading to impoverishment following illness episodes (WHO, 2023).

The Cameroonian health system is historically characterized by chronic underfunding and a strong reliance on out-of-pocket payments. According to the World Bank, direct household expenditures account for over 70% of total health spending, placing Cameroon among the African countries with the highest financial burden borne by individuals (World Bank, 2022). This financing structure significantly exacerbates social inequalities: low-income households frequently delay or forgo medical care, while higher-income groups can access private and better-equipped health facilities. Such disparities contribute to unequal health outcomes and reinforce cycles of poverty.

In this context, health insurance emerges as a key instrument of social protection and poverty alleviation. By pooling health risks across populations, insurance mechanisms reduce catastrophic health expenditures and promote equitable access to healthcare services. The World Health Organization identifies Universal Health Coverage (UHC) as a critical prerequisite for achieving the Sustainable Development Goals (SDGs), particularly SDG 3, which aims to ensure healthy lives and promote well-being for all at all ages (WHO, 2010).

Despite several public initiatives launched since the early 2000s, health insurance coverage in Cameroon remains below 10% of the population (Afrobarometer, 2022). This limited penetration can be explained by multiple structural constraints, including the predominance of informal employment, insufficient public financing, governance weaknesses, limited institutional coordination, widespread public mistrust toward insurance mechanisms, and the absence of a comprehensive and coherent legal framework.

Against this backdrop, this study seeks to address the following research questions: How is the health insurance system in Cameroon structured, and how has it evolved over time? What reforms and policy measures are necessary to ensure its sustainable development and effectiveness ?

The objective of this paper is therefore threefold : to analyze the institutional and operational functioning of the Cameroonian health insurance system, to assess its economic and social impacts, and to propose strategic directions for reform aimed at strengthening health protection and advancing universal coverage.

2. Analysis of the Cameroonian social protection system

Cameroon's social protection system is primarily anchored in a social insurance scheme covering a relatively small portion of the population—approximately 10%, mostly formal sector employees affiliated with the National Social Insurance Fund (CNPS). Despite demographic growth and periods of economic recovery, effective coverage has remained persistently low. This reflects the structural predominance of informal employment and the narrow contributory base of the social security system, which remains largely misaligned with the realities of labor markets in low- and middle-income countries (ILO, 2021; World Bank, 2022).

Historically, the system's sustainability was undermined by structural adjustment programs in the late 1980s. Although these reforms aimed at macroeconomic stabilization, their social consequences were largely neglected. Enterprise closures, wage freezes, and public sector downsizing led to declining contribution revenues, depletion of social security reserves, and an increase in early retirement claims. Similar patterns have been observed across Sub-Saharan Africa, where adjustment measures weakened social insurance systems and heightened household vulnerability (Mkandawire, 2005; ILO, 2017).

Economic recovery from the mid-1990s—supported by currency devaluation, export growth, and infrastructure investments—did not fully stabilize the labor market. Employment growth occurred mainly in the informal sector, fueled by micro-enterprises, self-employment, and the spread of information and communication technologies. Today, informal employment represents over half of total jobs and a substantial share of GDP in Cameroon, yet most informal workers remain excluded from formal social protection (INS, 2020; World Bank, 2023).

Institutionally, delays in implementing legal frameworks for voluntary and self-employed contributors have limited CNPS's ability to broaden its revenue base during periods of financial strain. This inertia has constrained the integration of informal workers and limited opportunities to stabilize the system, a challenge common to contributory social insurance schemes in developing economies (Barrientos, 2013; ILO, 2021).

Macroeconomic factors also constrain coverage expansion. Income growth has not translated into higher household savings or contributions to social insurance. Wage gains in the formal sector have been offset by rising living costs, reducing real purchasing power and contributory capacity. Additionally, the lack of deep, diversified financial markets has

restricted investment options for social security funds, resulting in conservative, low-yield allocations such as treasury bonds and bank deposits (World Bank, 2020).

Despite these constraints, internal measures have enabled CNPS to gradually clear pension arrears and restore short-term fiscal balance. Nevertheless, demographic pressures, along with health challenges such as HIV/AIDS and increasing chronic disease prevalence, continue to worsen dependency ratios, heightening long-term financial risks and threatening the actuarial sustainability of the system (UNAIDS, 2022; ILO, 2017).

Cameroon's social protection landscape is further marked by institutional fragmentation. Beyond CNPS, public sector pensions and family benefits are managed directly by the Ministry of Finance, while private banks and insurance companies provide complementary schemes, mostly in health insurance and long-term savings. Access to these private mechanisms is limited to higher-income groups, exacerbating inequalities and system segmentation (OECD, 2019; World Bank, 2022).

Given that a large share of the population lives below the poverty line, expanding health coverage has become a policy priority. Outpatient care, representing the majority of medical consultations, offers a pragmatic entry point for scalable and cost-effective health insurance schemes. Financing options under consideration include contributory mechanisms, general taxation, and earmarked excise taxes on products such as alcohol and tobacco, in line with international best practices (WHO, 2010; McIntyre & Kutzin, 2016).

Moving forward, broadening social protection coverage will require innovative legal and institutional mechanisms to integrate informal workers, rural populations, cooperatives, and professional associations. Strengthening the attractiveness of benefits—particularly through health insurance and complementary pensions—is essential to enhance the competitiveness of the public system relative to private insurers and traditional informal savings mechanisms, such as tontines, which remain deeply embedded in local socio-economic practices (Barrientos, 2013; ILO, 2021).

Ultimately, the successful expansion of Cameroon's social protection system depends on the State's ability to ensure macroeconomic stability, reduce poverty, manage demographic transitions, and develop financial markets. Recent economic recovery, infrastructure investments, and social sector reforms provide a potentially favorable environment for inclusive and sustainable social security reforms, provided persistent challenges in governance, financing, and institutional coordination are effectively addressed (World Bank,

2023; African Development Bank, 2022). The following table summarizes the main branches of social security in Cameroon :

Table 1. Social security branches in Cameroon

Branch	Total Contribution Rate	Employer/Employee Allocation	Remarks
Family Benefits	7.0%	Employer : 7% / Employee : 0%	Reduced rate of 5.65% applies to the agricultural sector
Old-age, Disability and Survivors' Pensions	8.4%	Employer : 4.2% / Employee : 4.2%	Applicable to employees in the formal sector
Employment Injury and Occupational Disease Insurance	1.75% to 5.0%	Employer : 100%	Rate varies according to the level of occupational risk
Voluntary Insurance	8.4%	Insured person : 8.4%	Designed for self-employed workers and former employees

Source: (CNPS, February 15, 2016)

The structure of contributions within the Cameroonian social security system demonstrates a clear orientation toward the formal sector, while significant gaps remain in coverage and inclusivity. The family benefits branch, which carries a total contribution rate of 7.0%, is entirely financed by employers, with no employee contribution. A reduced rate of 5.65% applies to the agricultural sector. This employer-driven model provides social support to employees' families without reducing their net income. However, because it relies solely on formal employment, informal workers and self-employed individuals remain excluded, particularly in rural areas where informal agricultural work predominates (ILO, 2021 ; World Bank, 2022).

The old-age, disability, and survivors' pensions branch requires a total contribution of 8.4%, shared equally between employers and employees. This arrangement forms the core of contributory social protection, offering retirement, disability, and survivor benefits. Equal cost-sharing creates an incentive for both employers and employees to maintain regular contributions. Nevertheless, its scope is limited to formal sector employees, leaving the majority of Cameroonians, particularly informal and self-employed workers, vulnerable to income shocks and old-age poverty (WHO, 2023; ILO, 2021).

Employment injury and occupational disease insurance is entirely employer-funded, with contribution rates varying between 1.75% and 5% depending on the level of occupational risk. This structure ensures that employers internalize the costs of workplace hazards, promoting safer work environments. Despite these advantages, the coverage remains

confined to the formal workforce, leaving informal and agricultural workers without protection against work-related injuries or occupational illnesses (World Bank, 2022).

Voluntary insurance, with a total contribution rate of 8.4% borne entirely by the insured, is intended to extend coverage to self-employed individuals and former employees. While it represents an attempt to address inclusivity gaps, participation remains low. Many potential contributors face barriers such as limited financial capacity, low awareness, or lack of trust in the system. Without adequate incentives or subsidies, voluntary insurance alone is unlikely to achieve meaningful coverage expansion (ILO, 2021; WHO, 2023).

Overall, the Cameroonian social security system exhibits a strong focus on formal employment, leaving the informal sector—the majority of the workforce—largely unprotected. Employer-driven funding reduces the financial burden on workers but simultaneously limits coverage to formal employees. While voluntary schemes attempt to extend protection to the self-employed, low participation rates constrain their effectiveness. Consequently, the system disproportionately benefits urban and formal sector employees, perpetuating structural inequalities and leaving rural and informal workers exposed to economic and health risks. To achieve broader and more equitable coverage, Cameroon may need to implement compulsory mechanisms for informal workers, subsidize voluntary contributions, and strengthen community-based health insurance schemes (World Bank, 2022; ILO, 2021; WHO, 2023).

3. The foundations of health insurance in Cameroun :

Health insurance is fundamentally grounded in the principles of inter-individual and intergenerational solidarity, wherein contributions from healthy and economically active individuals are pooled to finance the healthcare needs of the sick and to provide support for the elderly. Arrow (1963) emphasized that health insurance serves a dual purpose: economically, it reduces uncertainty and mitigates the risk of catastrophic expenditures, thereby facilitating an efficient allocation of scarce healthcare resources; socially, it promotes equity by ensuring that individuals contribute according to their ability and benefit according to their need (Pauly, 1968). This dual logic underscores the role of health insurance not merely as a financial mechanism but also as a critical instrument for social protection and redistribution.

Nonetheless, health insurance systems face intrinsic challenges, notably the issue of moral hazard. As Zweifel (2000) notes, insured individuals may be prone to overutilize medical services when the direct cost of care is not borne personally. Such behavior can lead to

unnecessary expenditure and strain on healthcare resources. To address this, health systems must incorporate carefully designed mechanisms, such as co-payments, deductibles, and managed care protocols, which balance accessibility with responsible use while preserving financial sustainability and service efficiency (Cutler & Zeckhauser, 2000). These measures are particularly important in contexts where public funding is limited and the burden of healthcare costs on households is high.

At a global level, health insurance systems are generally classified into three principal models (Dror, 2002; WHO, 2021). The Beveridge model, financed primarily through taxation, offers universal coverage with public provision of healthcare services ; examples include the United Kingdom and Ghana. The Bismarck model, in contrast, relies on mandatory social security contributions shared between employers and employees, as exemplified by France and Germany. Finally, the community-based model depends on local solidarity arrangements, such as mutual health organizations, which are predominant in many sub-Saharan African countries.

3.1. Cameroon's health insurance system

Cameroon's health insurance system reflects a hybrid arrangement, positioned at the intersection of these models. The country exhibits a strong reliance on community-based schemes while gradually incorporating elements of the Bismarck model through the National Social Insurance Fund (CNPS). This hybrid structure mirrors the country's socio-economic realities, particularly the predominance of informal labor markets and the limited reach of state-funded programs. Consequently, while some formal sector workers benefit from structured social insurance, the majority of the population, especially in rural and informal sectors, remains largely outside the formal coverage system (ILO, 2021; World Bank, 2022). The institutional organization of health insurance in Cameroon is pluralistic yet fragmented, combining multiple schemes with minimal integration. The mandatory public scheme, administered by the CNPS, provides coverage for formal sector employees against risks such as illness, maternity, disability, and old age. While legally mandated, this scheme predominantly benefits formal sector workers, leaving informal and self-employed individuals largely excluded from its protective scope (ILO, 2021; WHO, 2023).

Complementing the public system, private insurance companies such as NSIA and AXA target mainly middle- and upper-class urban populations, offering high-cost insurance products. However, these schemes remain inaccessible for the majority of Cameroonians due to high premiums and limited geographic reach, thereby reinforcing socio-economic inequalities in access to healthcare (World Bank, 2022).

In addition, community health mutuals (MCS) operate predominantly in rural areas as non-profit organizations, relying on voluntary contributions and local self-management. Although these mutuals enhance social solidarity and provide a measure of coverage for underserved populations, their financial sustainability is constrained by small risk pools, limited regulatory oversight, and insufficient integration with national health financing mechanisms (CIMA, 2019; Dror & Preker, 2002).

The fragmented nature of these parallel systems undermines national coherence. Each scheme functions independently, with no interoperability of databases, standardized benefit packages, or coordinated funding mechanisms. As a result, nationwide risk pooling is limited, administrative efficiency is reduced, and equitable access to healthcare remains challenging to achieve (WHO, 2021).

In response to these structural challenges, Cameroon has pursued a policy of Universal Health Coverage (UHC) since 2015, in collaboration with the WHO and the World Bank, with the goal of extending coverage to 60% of the population by 2030 (MINSANTE, 2023). The national health mutual development plan, adopted in 2006, represented an early attempt to formalize and coordinate community-based schemes. Despite its promise, the plan's impact has been constrained by insufficient financing, weak governance structures, and a lack of monitoring and evaluation frameworks.

Recent years have seen the introduction of digital health initiatives aimed at modernizing the system. Notably, a pilot program supported by GIZ since 2020 uses the open IMIS platform to manage enrollment, claims, and reimbursement processes digitally. This innovation is expected to enhance transparency, improve traceability of funds, and strengthen administrative efficiency, thereby creating the conditions necessary for scaling UHC across fragmented schemes (WHO, 2021; GIZ, 2022).

Despite these advances, health coverage in Cameroon remains highly concentrated among urban populations and formal sector employees, while informal and rural populations remain underrepresented. The persistence of these disparities reflects deeper systemic issues, including low public health expenditure, limited risk pooling capacity, weak regulatory enforcement, and insufficient engagement with informal sector actors. Expanding coverage and achieving equitable access will therefore require not only financial and digital innovations but also reforms in governance, regulatory oversight, and institutional coordination (ILO, 2021; World Bank, 2022).

3.2. Challenges to access to healthcare in Cameroon

Cameroon's healthcare system is marked by deep structural weaknesses in both financing and insurance coverage, which severely constrain equitable access to health services and hinder progress toward Universal Health Coverage (UHC). Available evidence shows that health insurance coverage remains exceptionally low, estimated between 6% and 9% of the population, with some assessments placing effective coverage at just 2.06% (Nkafu Policy Institute, 2023; Science Publishing Group, 2023; WHO, 2023). The insurance landscape is highly fragmented: the National Social Insurance Fund (CNPS) primarily serves formal sector workers, covering approximately 3% of the workforce; community-based mutual schemes reach about 4% of the population; and private insurance remains confined to affluent urban households. This fragmented architecture entrenches social, occupational, and territorial inequalities while undermining effective risk pooling (WHO, 2023; Nkafu Policy Institute, 2023).

As a result, healthcare financing in Cameroon relies predominantly on out-of-pocket payments, which represent around 72% of total health expenditure—nearly double the sub-Saharan African average. Such a regressive financing structure disproportionately affects low-income households and exposes many families to catastrophic health expenditures exceeding 10–20% of annual income. These financial pressures frequently lead to delayed care, treatment abandonment, and increased risks of impoverishment (Knoema, 2022; World Bank, 2022; Xu et al., 2007; Afrobarometer, 2022). Public investment in health remains critically insufficient, with health spending accounting for only 2.86% of total government expenditure and approximately 3.5% of GDP—well below the 15% target set by the Abuja Declaration and below the average for lower-middle-income countries (Data Intelligence Centre, 2021; World Bank, 2022). This chronic underfunding translates into low per capita health expenditure (USD 63.79 in 2021), inadequate infrastructure, shortages of qualified personnel, and compromised quality of care, thereby reinforcing existing social and geographic disparities.

Territorial inequalities further exacerbate access barriers. Rural and peripheral regions face significant shortages of healthcare facilities, with more than half of households in the North and East located over 10 kilometers from a functional health center. In contrast, urban areas concentrate medical infrastructure and skilled health professionals. These disparities are reflected in health outcomes, such as assisted childbirth rates, which exceed 85% in urban areas but fall below 45% in rural zones (MINSANTE, 2023; WHO, 2023). Moreover, the exclusion of nearly 80% of the labor force employed in the informal sector from formal insurance mechanisms forces households to finance healthcare directly, often at the expense

of essential expenditures such as food and education, perpetuating cycles of health-related poverty and vulnerability (INS, 2023; Wagstaff & van Doorslaer, 2003).

Although recent reforms—such as the National UHC Implementation Plan launched in 2015 and the introduction of digital tools like openIMIS to improve enrollment, transparency, and financial management—represent important steps forward, their impact remains limited. Persistent fiscal constraints, weak institutional coordination, low levels of public trust, and limited financial literacy continue to undermine their effectiveness (MINSANTE, 2023; World Bank, 2021). At the macroeconomic level, insufficient coverage and heavy reliance on out-of-pocket payments negatively affect labor productivity, increase absenteeism, and contribute to avoidable mortality, with nearly 45% of preventable deaths in Cameroon linked to inadequate access to essential healthcare services (WHO, 2023). Conversely, international evidence consistently shows that expanding health coverage yields significant economic returns through improved human capital, higher labor participation, and more inclusive growth (Bloom et al., 2018; WHO, 2023; World Bank, 2022).

Thus, Cameroon faces a dual structural challenge: the urgent integration of informal sector workers into sustainable and equitable risk-pooling mechanisms, and the need for a substantial and strategically reoriented increase in public health financing. Without decisive action on these fronts, Universal Health Coverage is likely to remain an aspirational objective, and health insurance will continue to function as a socially selective mechanism rather than as a universal instrument for equity and social cohesion.

4. Health and clinical impacts of health insurance in Cameroon

Health insurance is a critical instrument not only for alleviating financial constraints on healthcare access but also for influencing clinical practices and population health outcomes within healthcare systems. In Cameroon, where insurance coverage remains both limited and highly fragmented, evaluating the health and clinical effects of existing insurance schemes is essential to assess their contribution to equity, health system performance, and overall population well-being. Available evidence indicates that even incremental increases in insurance coverage can affect healthcare-seeking behaviors, service utilization, and the uptake of preventive care, particularly among vulnerable groups such as women, children, and rural populations (WHO, 2023; Dror et al., 2005). Nevertheless, these benefits are unevenly realized, as they are constrained by persistent structural challenges, including insufficient infrastructure, shortages of qualified health personnel, administrative inefficiencies, and pronounced regional disparities.

This following provides a critical analysis of the health and clinical outcomes associated with health insurance in Cameroon, structured around three interconnected dimensions: access to healthcare services, quality of care, and considerations of equity and efficiency. By examining these dimensions, the analysis identifies both the positive effects and the limitations of current insurance arrangements, while highlighting the institutional, organizational, and social factors that shape their effectiveness. Such an understanding is vital for guiding policy reforms aimed at advancing Universal Health Coverage (UHC), strengthening service delivery, and ensuring that financial protection mechanisms translate into meaningful and measurable health gains for the entire Cameroonian population.

4.1. Improved access to healthcare services

The implementation of health insurance schemes in Cameroon has been associated with observable increases in healthcare utilization, particularly in maternal and child health services, routine pediatric care, and immunization coverage. Empirical findings suggest that areas where mutual health insurance initiatives have been introduced have recorded approximately a 25% rise in outpatient consultations (WHO, 2023). However, these improvements remain unevenly distributed, largely confined to pilot regions with relatively robust administrative structures and technical support systems. Although insured individuals experience reduced financial and administrative obstacles to curative care, the use of preventive services remains limited. This shortfall is mainly attributable to low levels of health literacy, weak community engagement, and the lack of sustained awareness and education campaigns, reflecting broader deficiencies in health promotion and behavioral change strategies (Dror et al., 2005; Lagomarsino et al., 2012; Saksena et al., 2011).

Evidence from other low- and middle-income countries further demonstrates that financial coverage alone does not guarantee consistent utilization of preventive services. Social norms, community trust, and effective health education are equally decisive in shaping healthcare behaviors (Kutzin, 2013; Fadlallah et al., 2018). As a result, the influence of health insurance on access to care must be assessed through a combined perspective that considers both financial protection and behavioral responsiveness, underscoring the need for complementary interventions addressing sociocultural and informational barriers.

4.2. Quality of healthcare services

The expansion of insurance coverage has also increased demand for healthcare services, placing additional strain on public health facilities and exposing significant supply-side constraints. Persistent challenges include overcrowded facilities, extended waiting times, and

inconsistent service quality. Moreover, delays in reimbursement and claims processing have been associated with postponed elective procedures and limitations in inpatient care, potentially affecting clinical outcomes (MINSANTE, 2023). These patterns reflect a common tension observed in many African health systems, where increased utilization driven by insurance expansion outpaces system capacity (Kruk et al., 2018; Bitrán et al., 2004; Barasa et al., 2018).

These findings suggest that improving access through insurance mechanisms cannot be achieved independently of investments in health system capacity. Strengthening human resources, upgrading infrastructure, and improving operational efficiency are essential to prevent service degradation. Experiences from countries such as Rwanda and Ghana illustrate that the parallel expansion of insurance coverage and healthcare supply is necessary to avoid overburdening facilities and to sustain acceptable levels of care quality (Nguyen, 2020; Lagomarsino et al., 2012). Consequently, the clinical effectiveness of health insurance in Cameroon depends on the extent to which financial access is matched by adequate supply-side readiness.

4.3. Equity and efficiency considerations

Despite gradual progress, health insurance coverage in Cameroon remains highly selective, disproportionately benefiting formal sector workers and urban populations, while informal workers, subsistence farmers, and homemakers are largely excluded. This structural bias reinforces existing inequities in access to healthcare and runs counter to the equity objectives central to Universal Health Coverage (WHO, 2023). Furthermore, the lack of effective mechanisms for interregional resource redistribution exacerbates both geographic and socioeconomic inequalities.

Addressing these challenges requires a financing strategy that combines vertical solidarity—redistribution across income groups—with horizontal solidarity—redistribution across regions—to enhance both efficiency and fairness in healthcare financing (Lagomarsino et al., 2012; Nguyen, 2020; Wagstaff & Cotlear, 2019). Without such measures, selective insurance coverage risks entrenching intergenerational and occupational disparities, leaving the poorest households disproportionately vulnerable to catastrophic health expenditures and preventable illness (Xu et al., 2007; Wagstaff et al., 2009). Achieving equitable and efficient access to healthcare therefore necessitates comprehensive reforms that extend risk-pooling arrangements to the informal sector, rural populations, and marginalized groups, alongside governance reforms that promote transparency, accountability, and responsive allocation of health resources.

5. Toward a sustainable and equitable health insurance system in Cameroon

Establishing a sustainable and equitable health insurance system in Cameroon necessitates a comprehensive reform agenda that simultaneously addresses legal, institutional, financial, technological, and sociocultural dimensions. Given the structural fragmentation and limited coverage that currently characterize the system, isolated or incremental interventions are insufficient. Instead, a coordinated, multidimensional strategy is required to ensure both financial protection and equitable access to quality healthcare.

5.1. Strengthening the legal and institutional architecture

The consolidation of Cameroon's fragmented health insurance landscape constitutes a fundamental prerequisite for progress toward Universal Health Coverage (UHC). At present, the coexistence of community-based mutual schemes, occupational arrangements, private insurance products, and public initiatives—operating under disparate regulatory and financial accountability frameworks—generates inefficiencies, duplication, and persistent inequities (Lagomarsino et al., 2012; Wagstaff & Cotlear, 2019). The absence of a unified legal framework weakens coordination among stakeholders and undermines the system's redistributive capacity.

The adoption of a comprehensive national UHC law would represent a critical step forward. Such legislation should clearly define the mandates and responsibilities of all actors involved, including the state, the National Social Insurance Fund (CNPS), private insurers, mutual health organizations, and decentralized authorities. Clarifying institutional roles would reduce regulatory ambiguity, strengthen inter-institutional coordination, and promote policy coherence (World Bank, 2022). Furthermore, the law should establish a centralized national health insurance fund capable of pooling resources across schemes and redistributing them equitably between regions and income groups. Health economics literature consistently demonstrates that large-scale risk pooling enhances both efficiency and equity through cross-subsidization and reduced fragmentation (Kutzin, 2013; Xu et al., 2007).

Equally important is the creation of an independent Health Social Protection Regulatory Authority tasked with overseeing governance, ensuring transparency, and mitigating risks related to fraud and mismanagement. Evidence from countries such as Rwanda and Ghana shows that centralized regulatory oversight—combined with operational autonomy for implementing agencies—can accelerate coverage expansion, improve compliance with quality standards, and strengthen public confidence in insurance systems (Nguyen, 2020; Lagomarsino et al., 2012; Saksena et al., 2011). Through robust monitoring, evaluation, and

auditing mechanisms, such an authority would also enhance financial sustainability and support continuous policy refinement.

From a theoretical standpoint, this institutional reform agenda aligns with institutional economics, which emphasizes the importance of clear rules, enforceable contracts, and impartial regulatory bodies in reducing transaction costs and facilitating collective action (North, 1990; Culyer & Wagstaff, 1993). It also reflects principles of good governance in health systems, which link regulatory clarity, accountability, and transparency to improvements in both equity and efficiency (WHO, 2007; Savedoff et al., 2012). In the Cameroonian context, institutional unification is therefore not merely a technical adjustment but a cornerstone of UHC as a sustainable and equitable social policy.

5.2. Extending coverage to the informal sector and rural populations

With nearly 80% of Cameroon's labor force employed in the informal sector (INS, 2023), expanding health insurance coverage to this population is both a social imperative and a central determinant of UHC success. Informal employment is characterized by income volatility, limited financial literacy, and the absence of contractual arrangements, all of which complicate enrollment, contribution collection, and effective risk pooling (Dror et al., 2005; Saksena et al., 2011).

To address these challenges, enrollment procedures must be simplified and adapted to local contexts. Digital tools, mobile money platforms, and community-based enrollment agents can significantly reduce administrative barriers and transaction costs, particularly in rural and remote areas (Lagomarsino et al., 2012; Kazi et al., 2020). Mobile technologies, in particular, have demonstrated strong potential for facilitating micro-contributions and enabling real-time monitoring of membership and compliance.

Contribution structures should be progressive and proportional to income, ensuring affordability while minimizing exclusion. Targeted subsidies for vulnerable groups—such as pregnant women, youth entering the labor market, and smallholder farmers—should be financed through a national solidarity mechanism, thereby reinforcing both vertical and horizontal equity (Wagstaff & Cottle, 2019; Xu et al., 2007).

Experiences from Senegal and Benin highlight the effectiveness of legally recognized and financially sustainable community-based mutual organizations in improving enrollment and retention. In these settings, mutuals serve not only as insurance mechanisms but also as vehicles for social mobilization, participatory governance, and local health promotion (Dror,

2002; Dror et al., 2005). These lessons suggest that Cameroon should adopt hybrid models that combine top-down regulatory support with bottom-up community engagement.

Theoretically, such an approach is consistent with inclusive social protection frameworks and collective action theory, which emphasize that trust, participation, and institutional design are as critical as financial incentives in sustaining voluntary enrollment (North, 1990; Culyer & Wagstaff, 1993). Extending coverage to informal and rural populations would thus address structural inequities, reduce exposure to catastrophic health expenditures, and strengthen the social contract underpinning UHC.

5.3. Ensuring financial sustainability through solidarity-based financing

Financial sustainability requires diversification of funding sources grounded in intergenerational and interprofessional solidarity. Heavy reliance on formal-sector contributions or sporadic public subsidies constrains fiscal capacity and perpetuates inequities, particularly in an economy dominated by informal employment (INS, 2023; Wagstaff & Cotlear, 2019).

Policy options include earmarked excise taxes on tobacco, alcohol, sugary beverages, and luxury goods, which simultaneously generate revenue and promote positive public health externalities by discouraging harmful consumption (Verguet et al., 2015; Saksena et al., 2011). Public-private partnerships leveraging digital payment technologies can further enhance contribution collection, reduce administrative costs, and improve compliance (Lagomarsino et al., 2012; Kazi et al., 2020).

The establishment of regional equalization funds is equally critical to correcting geographic disparities in fiscal capacity and healthcare access (Xu et al., 2007; Nguyen, 2020). Such mechanisms operationalize horizontal equity, while intergenerational solidarity stabilizes risk pools by redistributing resources from younger, healthier contributors to older and chronically ill beneficiaries.

International development financing can complement domestic efforts, particularly during initial phases of expansion. World Bank simulations indicate that a modest 1% increase in public health expenditure could extend insurance coverage to approximately 500,000 additional Cameroonians, illustrating the leverage effect of targeted fiscal adjustments when combined with efficient risk pooling (World Bank, 2022).

5.4. Digitalization and transparency enhancement

The nationwide deployment of digital management platforms, such as openIMIS, constitutes a powerful lever for improving efficiency, transparency, and accountability. These systems enable real-time membership tracking, automated claims processing, streamlined contribution collection, and systematic monitoring of service delivery. Integration with biometric identification systems can significantly reduce fraud, duplicate enrollment, and financial leakages (Bitrán et al., 2004; Saksena et al., 2011).

Beyond operational gains, digitalization strengthens institutional transparency and social accountability—factors strongly associated with public trust and scheme sustainability (WHO, 2023; Lagomarsino et al., 2012). Moreover, the availability of high-quality, real-time data supports evidence-based policymaking, enabling adaptive resource allocation and improved cost-effectiveness (Kazi et al., 2020; Kruk et al., 2018).

From a governance perspective, digital reform aligns with principal–agent theory by reducing information asymmetries between administrators, providers, and beneficiaries, thereby reinforcing institutional credibility (North, 1990; Culyer & Wagstaff, 1993).

5.5. Enhancing quality of care and participatory governance

Expanding insurance coverage without parallel investments in healthcare quality risks undermining public confidence and exacerbating inequities. Priority interventions include continuous professional development and incentive schemes to improve provider competence, motivation, and retention, particularly in underserved regions (Frenk et al., 2010; Kruk et al., 2018).

Facility accreditation and quality assurance mechanisms are essential to maintaining clinical standards and patient safety amid increased utilization (Bitrán et al., 2004; Lagomarsino et al., 2012). Infrastructure investments in peripheral areas are likewise necessary to reduce geographic disparities (Nguyen, 2020).

Participatory governance—through beneficiary representation in insurance fund oversight—enhances accountability, aligns services with community needs, and builds trust (Criel, 2003; Saksena et al., 2011). Empirical evidence across Africa confirms that such governance models strengthen the effectiveness and sustainability of insurance schemes (Kruk et al., 2018).

5.6. Promoting an insurance culture and social awareness

The development of a strong insurance culture is a decisive factor for voluntary enrollment and long-term sustainability. Research shows that participation is influenced not only by affordability but also by trust, perceived fairness, and understanding of risk pooling (Dror et al., 2005; Saksena et al., 2011).

National awareness campaigns, school-based education, and engagement with community, religious, and traditional leaders are essential for addressing misconceptions and fostering social legitimacy (WHO, 2023; Lagomarsino et al., 2012). Evidence suggests that perceptions of fairness and social justice account for over 40% of insurance uptake in African contexts, underscoring the importance of transparency and equity (WHO, 2023).

From a theoretical perspective, this emphasis aligns with behavioral economics and social capital theory, which highlight the centrality of trust, reciprocity, and collective benefit in sustaining participation (Putnam, 2000).

6. Conclusion

Health insurance in Cameroon remains underdeveloped and fragmented, with low coverage, heavy reliance on out-of-pocket payments, and pronounced institutional and geographic inequities. Although existing schemes have generated measurable benefits—particularly in maternal and child health and financial protection—their impact is constrained by selective coverage, capacity limitations, and governance weaknesses. Achieving Universal Health Coverage therefore requires a comprehensive reform strategy encompassing legal unification, inclusive coverage expansion, solidarity-based financing, digital governance, quality enhancement, and sociocultural engagement. Together, these reforms can transform health insurance from a fragmented safety net into a robust, equitable, and socially legitimate pillar of Cameroon’s health system.

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