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Fiscal Space Analysis for the Cameroon Health Financing Strategy

Final report

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Résumé Analytique

Introduction

Ce rapport présente les résultats préliminaires d'une analyse de l'espace budgétaire et fiscal dont les résultats sont destinés à informer la stratégie de financement de la santé du Cameroun que le Gouvernement travaille à finaliser et à valider d'ici 2018. L'analyse simule les enveloppes budgétaires pour le secteur de la santé qui pourraient être générées au Cameroun au cours des prochaines années par la mise en œuvre de plusieurs réformes clés, en tenant également compte du contexte macroéconomique du pays.

L'étape documentaire de cette étude a débuté à la mi-septembre 2017. Entre le 2 et le 6 octobre 2017, le consultant OPM Adrian Gheorghe et le consultant local Zakariaou Njoumemi ont rencontré divers intervenants du Ministère de la Santé (MINSANTE), du Ministère des Finances (MINFI) et du Ministère de l'Economie, de la Planification et de l'Aménagement du Territoire (MINEPAT) ainsi que des partenaires au développement et des experts indépendants (liste complète en Annexe A). L'analyse a débuté peu de temps avant la visite du pays, s'est poursuivie et a été finalisée mi-octobre 2017. Les résultats préliminaires ont été présentés aux parties prenantes camerounaises pour validation et discussion lors d'un atelier le mardi 24 octobre 2017 à Yaoundé, à l'issue duquel l'analyse a été finalisée et rapport final soumis.

Perspectives macroéconomiques

Bien que les taux de croissance de l'économie camerounaise ces dernières années n'aient pas atteint les objectifs de la Vision 2035 ou DSCE, ils sont toujours dans des normes raisonnables pour un pays à revenu intermédiaire. Cependant, il est important de noter que l'impact de ces taux de croissance ne semble pas avoir été significatif sur les niveaux de pauvreté. Étant donné que la pauvreté est un déterminant clé de la santé de la population, il y a certainement place pour une politique de santé plus favorable aux pauvres au Cameroun.

Les projections macroéconomiques à court terme suggèrent une croissance économique robuste, bien que leur ampleur varie entre 6% d'ici à 2019 (Gouvernement du Cameroun) et environ 5,5% d'ici 2022 (le Fonds Monétaire International, FMI). L'accord le plus récent entre le Gouvernement du Cameroun et le FMI «*vise à restaurer la viabilité budgétaire et extérieure du Cameroun et à libérer une croissance durable tirée par le secteur privé*» par un certain nombre de réformes visant à améliorer l'efficience et l'efficacité de la gestion des finances publiques et l'investissement public, ainsi que la diversification et le renforcement de l'économie non pétrolière pour augmenter les recettes fiscales. L'impact sur les dépenses budgétaires sera un resserrement des dépenses disponibles, mais avec la compréhension que les dépenses sociales seront protégées et l'amélioration des filets de sécurité sociale pour les plus vulnérables.

Les tendances récentes en matière de financement de la santé indiquent un manque d'investissement dans le secteur de la santé, à la fois en termes historiques et par rapport à d'autres pays. Les modalités de financement du secteur sont insoutenables à la fois en termes de ne pas suivre le rythme de la croissance de l'économie, l'inflation des prix et de la croissance démographique du pays, et en termes de dépendance vis-à-vis des paiements directs des citoyens et des sources externes. La santé étant un facteur clé de la réduction de la pauvreté, il semble clair que la croissance économique récente n'a pas encore «découlé» vers l'amélioration de la santé grâce à un financement public plus important.

Méthodologie

Le déficit de financement de la santé est la différence entre les besoins en ressources de santé et les dépenses de santé. Ces deux composantes sont calculées en utilisant une méthodologie établie pour trouver un écart de financement (Annexe B). L'analyse de l'espace budgétaire et fiscal est ensuite réalisée pour le secteur de la santé; c'est-à-dire comment fermer ou réduire ce déficit de financement. Les projections couvrent les années 2017-2035, avec 2016 comme année de base. Ils sont conformes aux plans nationaux de développement et à la stratégie du secteur de la santé du Cameroun, qui s'arriment tous deux l'objectif de la couverture sanitaire universelle (CSU) du Cameroun.

Un cadre de programmation financière est utilisé pour projeter des variables économiques clés pour la période, comme la croissance du PIB, les recettes et les dépenses du gouvernement, ainsi que pour la santé. Nous prenons les données macroéconomiques sous-jacentes principalement du gouvernement du Cameroun et du FMI. En l'absence de données, les indicateurs économiques de base sont alignés sur les moyennes des revenus moyens de la Banque Mondiale.

Le coût total des besoins sanitaires n'est pas encore totalement disponible pour le Cameroun. Le coût de l'ensemble des prestations de la CSU récemment validé est en cours de réalisation et n'était pas disponible à temps pour cette étude. Nous utilisons deux méthodes pour évaluer les besoins en ressources de santé:

- Scénario de coût minimum: le coût intérieur actuel, mais incomplet, couvrant 2016-2027. Il a été développé à l'aide du One Health Tool (OHT) et est cité à la fois dans le Programme National du développement Sanitaire (PNDS) 2016-2020 et la Stratégie Sectorielle de la Santé (SSS) qui va jusqu'en 2027. Cependant, les données sur les coûts sont incomplètes du fait que les coûts n'ont pas été estimés pour toutes les activités de santé dans les documents stratégiques cités. En tant que tel, cela est perçu comme une sous-estimation du coût réel de la prestation du paquet de services de santé à tous au Cameroun.

- Scénario de coût maximum: les normes internationales pour la réalisation de la CSU en utilisant un ensemble de services de santé de base, à savoir 86 USD par habitant par an (dollars de 2012) informés par McIntyre et Meheus (2014).

Les dépenses de santé sont la somme des dépenses de santé du gouvernement et des dépenses de santé des bailleurs de fonds: «Dépenses de santé officielles» (OHE). Pour cette analyse, nous prenons en compte uniquement les dépenses budgétaires du gouvernement sur la santé et le financement externe. Nous excluons les paiements directs des ménages et le secteur privé car nous nous concentrons sur le paquet de base des services de santé dans le cadre de la CSU et voulons évaluer la situation sans inclure les dépenses non planifiées ou catastrophiques associées aux paiements directs.

'Statu quo' scenario

Le scénario du statu quo suppose que le gouvernement n'apporte pas de grands changements de politique en termes d'augmentation du financement du secteur de la santé; et la diminution progressive des flux d'argent des donateurs (en termes réels) par rapport à la dernière décennie.

Dans les deux scénarios de besoins en ressources de santé, ceux-ci représentent une part importante du budget de l'Etat, soit entre 10% et 40%. En tant que tel:

- Scénario de coût minimum - coûts de la SSS : les besoins du secteur de la santé passent de 346 milliards de FCFA en 2016 à 815 milliards de FCFA en 2035; de manière équivalente, une croissance de 15,000 FCFA par habitant en 2016 (25 USD) à 21,500 FCFA par habitant en 2035 (34 USD).

- Scénario de coût maximum - coûts de la CSU : les besoins du secteur de la santé passent de 1,382 milliards de FCFA en 2016 à 4 319 milliards en 2035; de manière équivalente, une croissance de 58,000 FCFA par habitant en 2016 (98 USD) à 114,000 FCFA par habitant d'ici 2030 (183 USD).

Les dépenses de santé officielles devraient dépasser les 310 milliards de FCFA en 2016 à 852 milliards en 2035; de manière équivalente, une croissance de 13,000 FCFA par habitant en 2016 (22 USD) à 22,500 FCFA par habitant en 2035 (36 USD). Cependant, en termes réels, cela représente une baisse de l'investissement, l'OHE passant de 1,8% du PIB à 1,2% du PIB. Les dépenses de santé du gouvernement devraient représenter 92% de l'OHE d'ici 2035.

L'écart de financement résultant (différence entre les besoins de financement projetés et les dépenses de financement projetées) est positif et passera de 16 milliards de FCFA en 2016 à plus 37 milliards de FCFA en 2035 dans le scénario du coût minimum (Figure 1 ci-dessous). Dans le scénario de coût maximum, le déficit de financement est beaucoup plus important et passera de 1 186 milliards de FCFA en 2016 à 3,467 milliards de FCFA par an en 2035 (Figure 2 ci-dessous). Dans l'un ou l'autre scénario, les fonds injectés dans le secteur de la santé sont insuffisants pour atteindre les objectifs du pays, qu'il s'agisse de la CSU ou du financement des plans nationaux de santé.

Figure 1. Écart de financement domestique projeté, statu quo (millions de francs CFA)

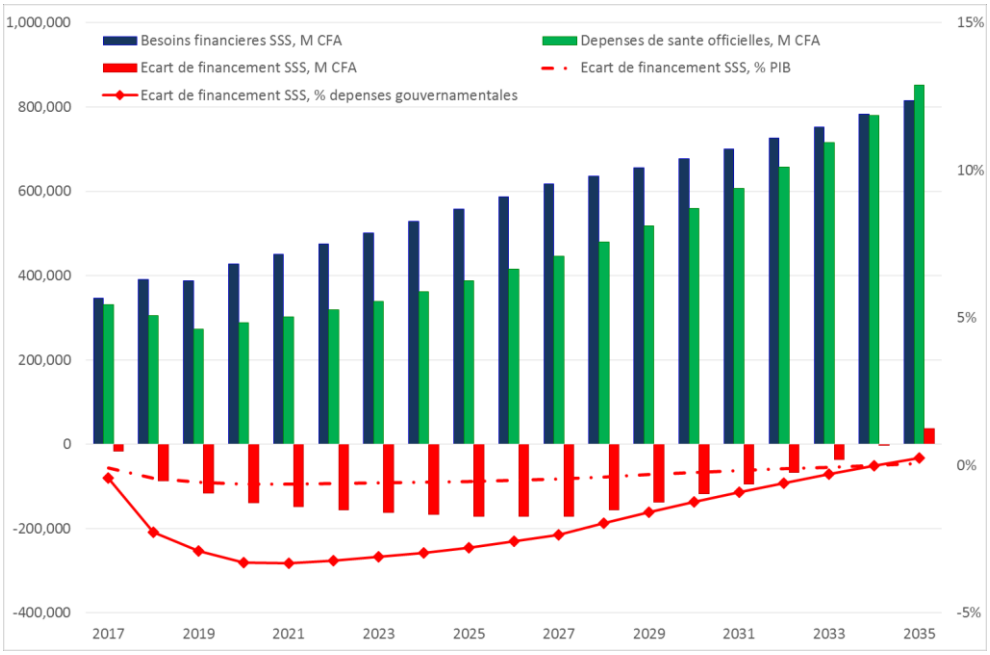
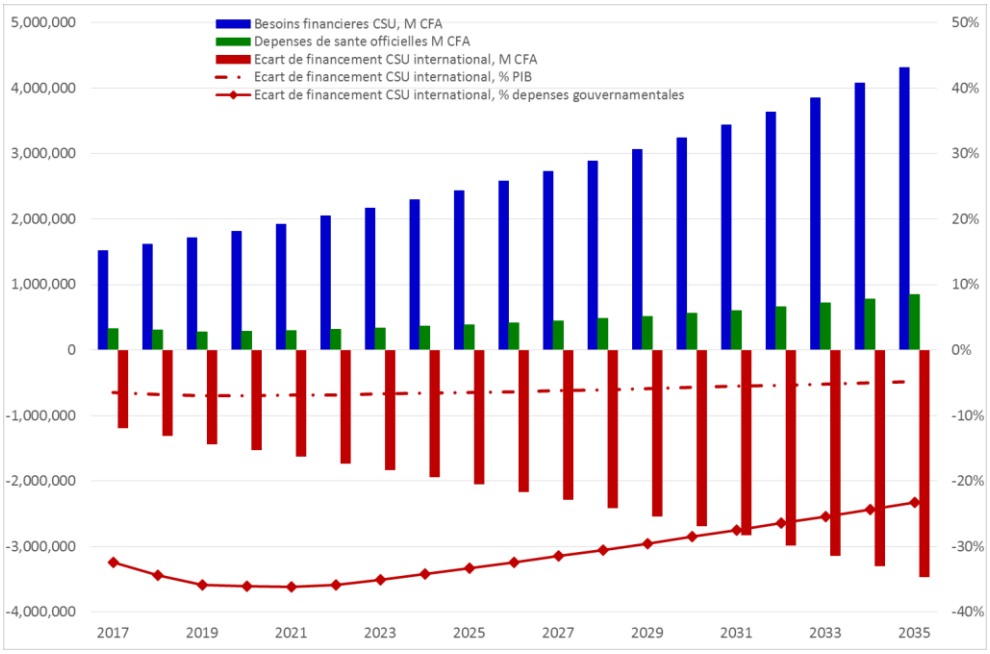


Figure 2. Écart de financement CSU projeté, statu quo (million CFA)



Le niveau d'OHE disponible maintenant peut couvrir un forfait santé coûtant seulement 14,000 FCFA par personne (22 USD). Si la politique actuelle de financement de la santé se poursuit, elle passera à 22,500 FCFA (36 USD) d'ici 2035.

Maximiser l'espace fiscal

Quatre grandes directions pourraient potentiellement combler le déficit de financement: améliorer l'efficacité du secteur de la santé; augmenter les allocations budgétaires générales; la mise en place d'une taxe spécifique pour la santé; et augmentation des contributions pré-planifiées du ménage. Compte tenu des limites des données sur les plans de santé calculés au niveau national, nous les modélisons en utilisant le déficit de financement de la CSU comme base de référence.

Nous construisons des options de politique distinctes pour maximiser l'espace budgétaire pour la santé:

- Le secteur de la santé au Cameroun améliore son efficacité globale en ligne avec les tendances observées les années précédentes, paramétrées à l'aide d'une analyse d'enveloppement des données (data envelopment analysis, DEA) de la performance du secteur de la santé dans 173 pays. Les entrevues menées auprès des intervenants dans le cadre de cette étude conviennent généralement que l'amélioration de l'efficacité du secteur de la santé devrait être une priorité, car il existe actuellement de nombreuses inefficiences. Des orientations spécifiques pour améliorer l'efficacité ont déjà été mises en évidence dans une série d'études stratégiques et analytiques.

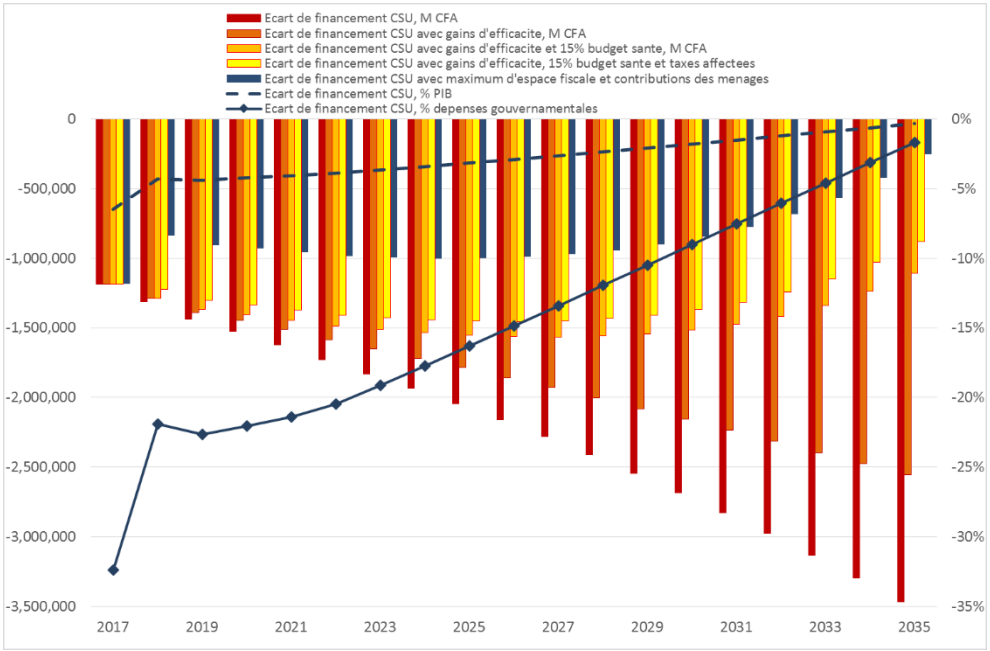
- Les dépenses de santé du gouvernement augmentent progressivement pour atteindre 15% des dépenses publiques d'ici 2035, conformément à l'objectif d'Abuja. Une augmentation progressive donnerait le temps à MINSANTE d'améliorer ses capacités d'absorption et de gérer les inefficacités. Il donne également le temps au MINFI de réévaluer les allocations totales et l'impact sur d'autres secteurs. Bien que le contexte politique et économique actuel ne semble pas favorable à cette option, il est également important de reconnaître qu'il est peu probable que même la mise en œuvre réussie de nombreuses mesures d'efficacité couvre le déficit de financement de la CSU dans un avenir prévisible.

- Nous avons examiné trois taxes et prélèvements potentiels différents: droits d'assises sur le tabac et l'alcool; remise de fonds (une taxe sur les transferts d'argent depuis l'étranger); et taxe de temps d'antenne (une taxe sur les appels de téléphonie mobile). Bien que nous comprenions qu'il y a eu une tentative infructueuse d'introduire des taxes affectées à la santé au Cameroun, cette option semble rester présente dans les discussions actuelles autour du financement de la CSU. Sur la base des résultats d'autres pays appliqués au contexte camerounais, nous avons estimé un gain cumulé supplémentaire de 122 milliards de FCFA jusqu'en 2035, soit 5% du déficit de financement.

- Enfin, nous considérons quel niveau de contribution des ménages pourrait être collecté pour réduire les dépenses de santé de poche et réduire le déficit de financement.

Les impacts de ces options de politique sont résumés dans la Figure 3. Dans le scénario le plus optimiste, cependant improbable, lorsque les économies d'efficience ont été réalisées, le budget de la santé a augmenté pour atteindre 15% du PIB en 2030, les taxes affectées pour la santé, et les contributions du ménage le déficit de financement pourrait passer de 2,232 milliards de FCFA à 252 milliards de FCFA - en moyenne sur la période 2017-2035. Cela implique un écart de 0,4% du PIB à 2030 contre 4,8% dans le scénario du statu quo. En tant que tel, quel que soit le scénario, indépendamment ou conjointement, le déficit de financement se réduit à divers degrés, mais n'est pas complètement clos d'ici 2035 par rapport aux indices de référence internationaux des dépenses de CSU.

Figure 3. Écart de financement prévu CSU, maximisation de l'espace budgétaire (million CFA)



Dans la Figure 3:

1. L'écart de financement initial (graphique à barres rouges) est l'écart qui en résulte dans le scénario 1 «statu quo». D'ici 2035, l'écart devrait atteindre 3,467 milliards de FCFA, soit 4,8% du PIB.

2. Le graphique suivant à barres orange montre comment l'écart peut être réduit grâce à des gains d'efficacité. Si l'accent était mis sur l'efficacité et la mise en œuvre, l'écart pourrait être réduit à 2,556 milliards de FCFA, soit 3,6% du PIB d'ici 2035.

3. Le troisième graphique à barres or montre la somme des actions du gouvernement en matière d'efficacité (au point 2 ci-dessus) avec une augmentation de l'allocation budgétaire. Le passage à l'objectif de 15% d'Abuja pourrait réduire l'écart à 1,107 milliards de FCFA, soit 1,5% du PIB en 2035. Cela a un impact considérable sur le déficit de ressources.

4. Le quatrième graphique à barres jaunes montre la somme des actions du gouvernement (au point 3 ci-dessus) avec les ressources potentielles provenant des taxes affectées. Ces mécanismes de financement innovants pourraient encore réduire le déficit de financement à 882 milliards de FCFA, soit 1,2% du PIB d'ici 2035.

5. Le dernier graphique à barres bleus prend la situation au point 4 ci-dessus et ajoute les contributions prépayées des ménages. Cela laisse un dernier déficit de financement de 252 milliards de francs CFA en 2035, soit 0,4% du PIB; si toutes ces actions sont considérées conjointement, le déficit de financement ne sera pas comblé.

6. Dans ce scénario, si le Gouvernement du Cameroun voulait combler complètement l'écart pour couvrir tous les besoins en matière de CSU pendant toute la période, il devrait attirer l'APD. Le montant nécessaire est représenté par le graphique à barres bleus, qui représente en moyenne 832 milliards de francs CFA par an sur la période de projection. En proportion du PIB, cela équivaudrait à 2,7% du PIB par an.

Recommandations

Nous suggérons les points suivants à l'attention des parties prenantes camerounaises:

- Il est prioritaire de finaliser l'exercice d'estimation des coûts en cours pour l'ensemble des prestations de la CSU afin d'obtenir des estimations réalistes des besoins du secteur de la santé. Néanmoins, les besoins globaux du secteur santé seront plus grands que le coût du panier des soins CSU. D'ici là, les résultats de cette analyse demeurent indicatifs dans une large gamme d'hypothèses.

- Les analyses existantes des inefficiences du secteur de la santé et l'accord des parties prenantes sur l'importance d'améliorer l'efficience sont des éléments clés sur lesquels s'appuyer pour prendre des mesures concrètes maintenant. Cependant, les analyses existantes sont principalement qualitatives. Il est nécessaire de développer des plans opérationnels qui tiennent compte des coûts opérationnels des mesures d'efficacité et de la taille réaliste des gains d'efficacité attendus.

- Bien que la réalisation des gains d'efficacité soit la première priorité, la contribution potentielle de l'augmentation des dépenses de santé vers l'amélioration du déficit de financement devrait être plus importante à long terme. Il est peu probable que les gains d'efficacité comblent l'écart. En tant que tel, la possibilité d'augmenter les allocations budgétaires pour le secteur de la santé devrait rester présente et active dans le dialogue entre MINSANTE, MINFI et MINEPAT, en particulier dans le cadre des discussions en cours sur les mécanismes de financement de la CSU.

Executive summary

Introduction

This report presents the preliminary results of a fiscal space analysis whose results are to inform Cameroon's Health Financing Strategy (HFS), which the Government of Cameroon is working towards finishing and validating by 2018. The analysis simulates resource envelopes of potential fiscal space for the health sector that could be generated in Cameroon over the next few years through implementing several key reforms identified in the HFS, also taking into account the country's macroeconomic context.

The desk review for this study began in mid-September 2017. Between 2nd-6th October 2017 OPM consultant Adrian Gheorghe and local consultant Zakariaou Njoumemi met with various stakeholders from the Ministry of Health (MINSANTE), Ministry of Finance (MINFI), Ministry of Economy and Planning (MINEPAT) as well as development partners and independent experts (full list in Annex A). The analysis began shortly before the country visit, continued throughout and was finalised mid-October 2017. Preliminary findings will be presented to Cameroonian stakeholders for validation and discussion in a workshop on Tuesday, 24th October 2017, following which the analysis will be finalised and final report submitted.

Macroeconomic outlook

Although growth rates for the Cameroonian economy in recent years have not managed to reach the aims of Vision 2035 or GESP, they are still within healthy norms for a middle-income country. However, it is important to note that the impact of these growth rates do not seem to have had a strong or significant impact on the poverty levels. Given that poverty is a key determinant of population health, there is certainly room for a more pro-poor health policy in Cameroon.

Short-term macroeconomic projections suggest robust economic growth, albeit they vary in magnitude between the Government's 2017 Finance Bill estimates (6% by 2019) and the International Monetary Fund (IMF) (around 5.5% by 2022). The most recent agreement between the Government of Cameroon and the IMF "*aims at restoring Cameroon's fiscal and external sustainability and unlocking sustainable private sector-led growth"* through a number of reforms targeting the improvements to efficiency and effectiveness of Public Financial Management (PFM) and public investment, as well as diversification and strengthening of the non-oil economy to increase tax revenues. The impact on fiscal spending will be a tightening of available expenditures, but with the understanding that social spending will be protected and improving social safety nets for the most vulnerable.

Recent health financing trends suggest a lack of investment in the health sector, both in historical terms and relative to other countries. The sector's financing arrangements are unsustainable both in terms of is not keeping pace with growth in the economy, prices and the population, and in terms of dependency on citizens' out-of-pocket (OOP) payments and external sources. With health as a key factor to poverty reduction it seems clear that the recent economic growth has not yet 'trickled down' to improving health through greater public financing.

Methodology

The health financing gap is the difference between health resource needs and health expenditure. These two components are calculated using an established methodology to find a financing gap. Fiscal space analysis is then carried out for the health sector; i.e. how to close or reduce this

financing gap. The projections cover the years 2017-2035, with 2016 as a base. They are in line with Cameroon's national development plans and health sector strategy, both of which detail the intention of achieving universal health coverage (UHC).

A financial programming framework is used to project forward key economic variables for the time period, such as GDP growth, government revenue and expenditure, also for health. We take underlying macroeconomic data primarily from the Government of Cameroon, and the IMF. Where any data is missing, core economic indicators are set in line with middle-income averages from the World Bank.

No fully complete costing of health needs is currently available for Cameroon. The costing of the recently validated UHC benefit package is under way and wasn't available in time for this study. We use two methods of costing health resource needs:

- Minimum cost scenario: the existing, but incomplete, domestic costing covering 2016–2027. This was developed using the One Health Tool (OHT) and is cited in both the NHDP 2016-2020 and the HSS which goes onto 2027. However, not all health activities were populated with costing data. As such this is seen as an underestimate of the true cost of delivering the package of health services to all in Cameroon.

- Maximum cost scenario: the international norms for achieving UHC using a basic package of health services, namely 86 USD per capita (2012 dollars) informed by McIntyre and Meheus (2014).

The health expenditure is the sum of government health expenditure and donor health expenditure: 'Official Health Expenditure' (OHE). For this analysis we take only the government budgetary expenditures on health and the external funding. We exclude OOP and the private sector as we are focusing on the basic package of health services under UHC and want to assess the situation without including the non-planned or catastrophic expenditures associated with OOP.

'Business as usual' scenario

The business as usual' scenario assumes no great policy changes from the Government in terms of increasing health sector funding; and gradual decrease of donor money flows (in real terms) compared to the past decade.

Under both scenarios for health resource needs, these represent a significant proportion of the Government's budget, namely between 10% and 40%. As such:

- Minimum cost scenario – HSS costs: health sector needs grow from 346 billion CFA in 2016 to 815 billion CFA in 2035; equivalently, from 15,000 CFA per capita in 2016 (25 USD), to 21,500 CFA per capita in 2035 (34 USD).

- Maximum cost scenario – UHC costs: health sector needs grow from 1,382 billion CFA in 2016 to 4,319 billion in 2035; equivalently, from 58,000 CFA per capita in 2016 (98 USD), to 114,000 CFA per capita by 2030 (187 USD).

Official health expenditures (OHE) are projected to rise from about 310 billion CFA in 2016 to 852 billion in 2035; equivalently, from 13,000 CFA per capita in 2016 (22 USD) to 21,000 CFA per capita in 2030 (36 USD). However, in real terms this represents a decline in investment as OHE declines from 1.8% of GDP to 1.2% of GDP. Government health expenditure is projected to account for 92% of OHE by 2035.

The resultant financing gap for HHS costs (difference between projected financing needs and projected financing expenditure) is positive and would increase from 16 billion CFA in 2016 to a surplus of 37 billion CFA in 2035 under the minimum cost scenario (Figure 1 below). Under the maximum cost scenario, the financing gap is much larger and would increase from 1,186 billion CFA in 2016 to 3,467 billion CFA per annum in 2035 (Figure 2 below). In either scenario, there is insufficient funding injected into the health sector to achieve country goals, whether it is UHC or funding domestic health plans.

Figure 1. Projected domestic financing gap, business as usual (million CFA)

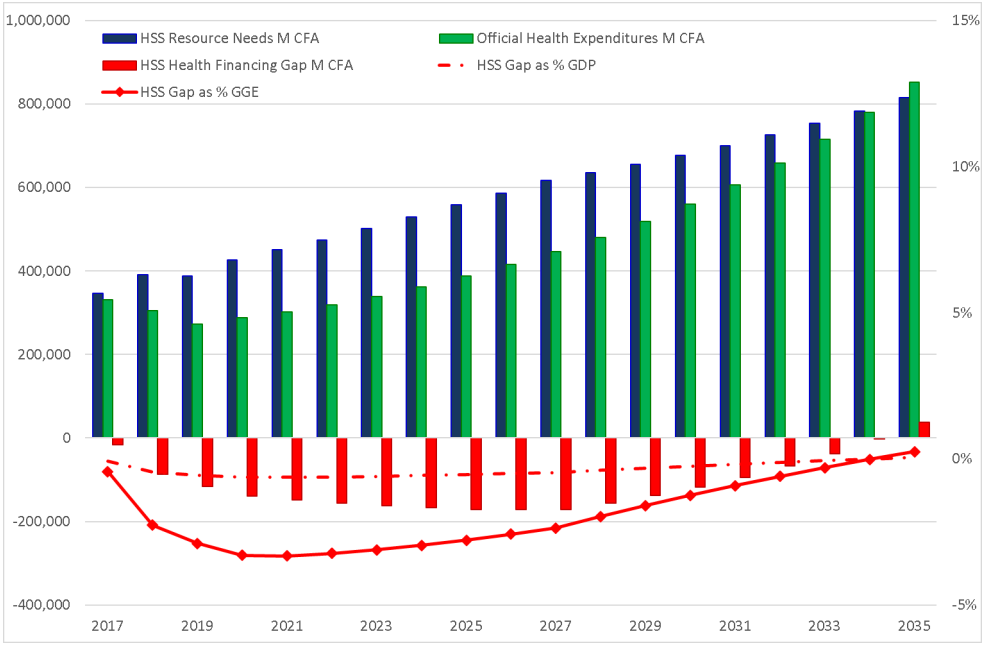
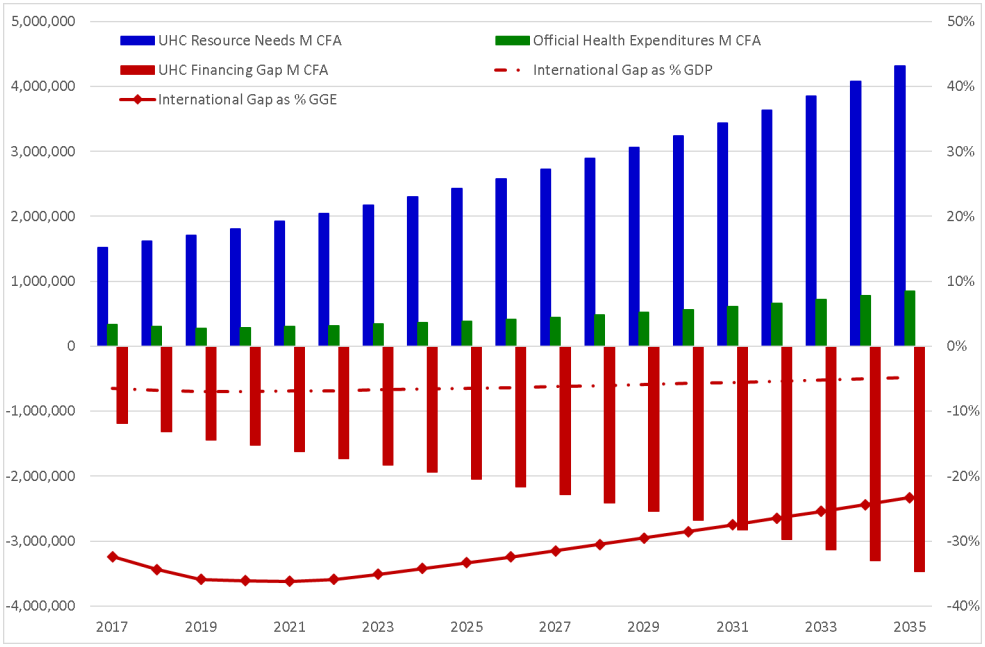


Figure 2. Projected UHC financing gap, business as usual (million CFA)



The level of OHE available now can cover a health care package costing only 14,000 CFA per person (22 USD). If the current health financing policy continues, this will rise to 22,500 CFA (36 USD) by 2035.

Maximizing fiscal space

Four major areas could potentially address the financing gap: improving efficiency in the health sector; increasing general budget allocations; implementing an earmarked tax for health; and increasing pre-planned household contributions. In light of the data limitations of the domestically costed health plans, we model these using the UHC financing gap as a baseline.

We construct distinct policy scenarios of maximizing fiscal space for health:

- Cameroon health sector improves its overall efficiency in line with trends observed in previous years, parameterised using a data envelopment analysis (DEA) of health sector performance across 173 countries. Stakeholder interviews conducted for this study are generally in agreement that improving health sector efficiency should be a priority as there are numerous inefficiencies at present. Specific directions for improving efficiency have been already been highlighted in a range of strategic and analytical studies.

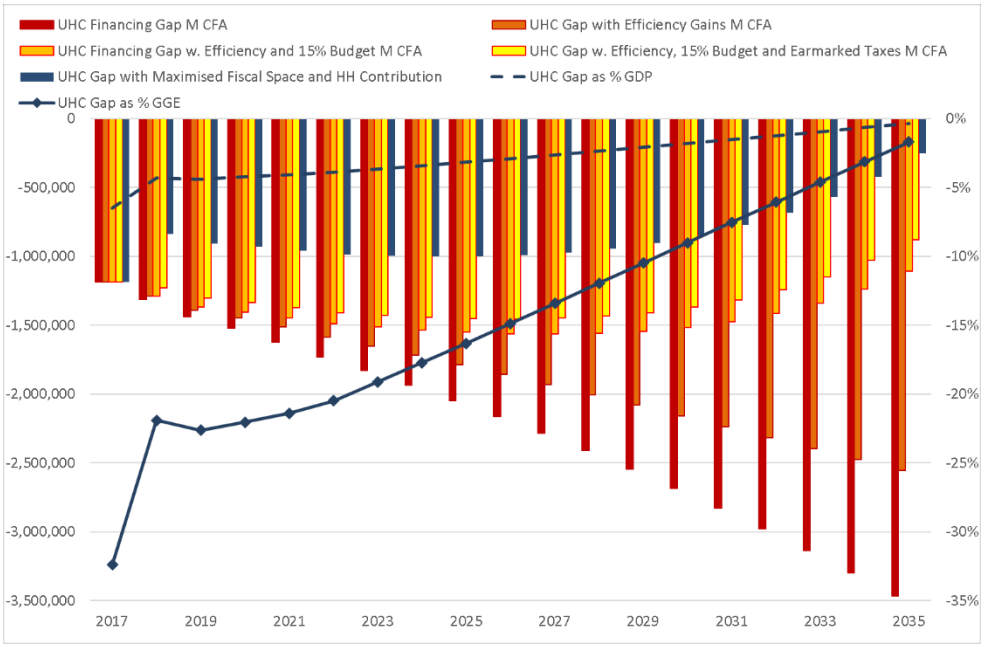
- Government health spending gradually increases to 15% of government expenditure by 2035, in line with the Abuja target. A gradual increase would provide time for MINSANTE to improve its absorption capacities as well as deal with inefficiencies. It also provides time for MINFI to reassess total allocations and the impact on other sectors. While the current political and economic context does not seem to favour this option, it is also important to acknowledge that it is unlikely that even the successful implementation of numerous efficiency measures is unlikely to cover the funding gap for UHC in the foreseeable future.

- We have considered three different potential earmarked taxes and levies: sin taxes (a tax on alcohol and/or tobacco); remittances levy (a tax on money transfers from abroad); and airtime levy (a tax on mobile phone calls). While we understand there is an unsuccessful history of attempts to introduce earmarked taxes for health in Cameroon, this option appears to remain present in current discussions around UHC financing. Based on findings from other countries applied to the Cameroonian context, we estimated a cumulative additional gain of 122 billion CFA per annum until 2035, equivalent to 5% of the funding gap.

- Finally, we consider what level of household contributions could be collected to reduce OOP health expenditures and reduce the financing gap.

The impacts of these policy options are summarised in Figure 3. In the most optimistic scenario, however unlikely, when efficiency savings were made, health budget is raised to reach 15% of GGE by 2035, earmarked taxes were implemented for health, and household contributions introduced the financing gap could reduce from 2,232 billion CFA to 832 billion CFA – on average over the 2017-2035 period. This implies a 2035 gap of 0.4% of GDP as compared to 4.8% in the business as usual scenario. As such, under any scenario, independently or in conjunction, the financing gap reduces to various degrees, but is not fully closed by 2035 relative to international UHC spending benchmarks.

Figure 3. Projected UHC financing gap, maximizing fiscal space (million CFA)



In more detail this chart shows the following:

1. The original financing gap (red bar chart) is the resultant gap under scenario 1 'business as usual'. By 2035 the gap is projected to reach 3,467 billion CFA, which is 4.8% of GDP.
2. The next bar chart (orange) shows how the gap can be reduced through efficiency savings. If a focus on efficiency was implemented and carried out the gap could be reduced to 2,556 billion CFA, 3.6% of GDP by 2035.
3. The third bar chart (gold) shows the sum of the government's actions on efficiency (in point 2 above) with an increased budget allocation. Moving towards the 15% Abuja target could reduce the gap to 1,107 billion CFA, 1.5% of GDP in 2035. This has a substantial impact on the resource gap.
4. The forth bar chart (yellow) shows the sum of the government's actions (in point 3 above) with the potential resources from earmarked taxes. These innovative funding mechanisms could further reduce the financing gap to 882 billion CFA, 1.2% of GDP by 2035.
5. The final bar chart (blue) takes the situation in point 4 above and adds in pre-paid household contributions. This leaves a final financing gap of 252 billion CFA in 2035, equating to 0.4% of GDP; i.e. if all these actions are considered in conjunction the financing gap would not be filled.
6. Under this scenario, if the Government of Cameroon wanted to fully close the gap to cover all UHC needs over the entire period they would need to attract ODA. The amount needed is represented by the blue final bar chart, which averages 832 billion CFA a year across the projection period. As a proportion of GDP this would be the equivalent of 2.7% of GDP a year.

Recommendations

We suggest the following points for consideration by Cameroonian stakeholders:

- It is a priority to finalize the ongoing costing exercise for the UHC benefit package in order to have realistic estimates of health sector needs. Nevertheless, the health sector needs are likely to be higher than the cost of the UHC benefit package. As such, the results of this analysis are indicative within a large range of assumptions.

- Existing analyses of health sector inefficiencies and stakeholders' agreement towards the importance of this avenue are key elements to build on for taking concrete action now. However, existing analysis are predominantly qualitative. They require development into operational plans which take into account operational costs of efficiency measures and the size of their expected efficiency gains.

- While making efficiency gains is the first priority, the potential contribution of increased health spending towards closing the financing gap is likely to be more substantial in the long run. Efficiency gains alone are unlikely to close the gap. As such, the option of increasing budget allocations for the health sector should remain present and active in the dialogue between MINSANTE, MINFI and MINEPAT, particularly in the context of current discussions for UHC financing mechanisms.

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List of tables and figures

List of abbreviations

ARV	Antiretroviral
CFA	Central African Franc
CHE	Catastrophic Health Expenditures
GDP	Gross Domestic Product
GESP	Growth and Employment Strategy Paper
GGE	General Government Expenditures
GHE	General Health Expenditures
HIVAIDS	Human Immunodeficiency Virus Acquired Immune Deficiency Syndrome
HFS	Health Financing Strategy
HSS	Health Sector Strategy
IMF	International Monetary Fund
MCH	Maternal and Child Health
MOF	Ministry of Finance
MOH	Ministry of Health
NHA	National Health Accounts
NHDP	National Health Development Plan
ODA	Official Development Aid
OHE	Official Health Expenditures
OOP	Out of Pocket
OPM	Oxford Policy Management
THE	Total Health Expenditures
UHC	Universal Health Coverage
USD	United States Dollar
WB	World Bank

1 Introduction

The objective of this project is conduct a fiscal space analysis whose results would inform Cameroon's Health Financing Strategy (HFS), which the Government of Cameroon is working towards finishing and validating by December 2017. One remaining analytical piece for the HFS is to conduct simulations/scenarios of resource envelopes of potential fiscal space for the health sector that could be generated in Cameroon over the next few years through implementing several key reforms identified in the HFS, also taking into account the country's macroeconomic context.

As per the technical proposal submitted to the World Bank (WB), the project was conducted in three phases:

- **Phase 1 (Design and inception)** consisted of a desk review of the data sources relevant for the health financing landscape in Cameroon.
- **Phase 2 (Data collection)** involved a one-week visit to Yaoundé to collect additional data and discuss with a broad range of stakeholders the current and future priorities for the health sector, particularly in terms of health financing policy.
- **Phase 3 (Data analysis and report writing)** entailed conducting the fiscal space analysis, writing the final report and organising a validation workshop with in-country stakeholders.

Given that the project work started in September 2017 and was due for completion by the end of October 2017, the three phases overlapped to a significant extent. Phase 1 (inception) began in mid-September 2017. The data collection visit (Phase 2) took place between 2nd-6th October 2017, when OPM consultant Adrian Gheorghe and local consultant Zakariaou Njoumemi met with various stakeholders from the Ministry of Health (MINSANTE), Ministry of Finance (MINFI), Ministry of Economy and Planning (MINEPAT) as well as development partners and independent experts (full list in Annex A). The actual analysis (Phase 3) began shortly before the country visit, continued throughout and was finalised mid-October 2017.

This report is a central output of Phase 3 and contains the main findings of the fiscal space analysis. Draft results were presented to Cameroonian stakeholders for validation and discussion in a workshop in Yaoundé held on Tuesday, 24th October 2017. The report is structured as follows:

- Section 2 summarizes Cameroon's economic and health sector trends;
- Section 3 presents the study methodology (with more details in Annex B);
- Section 4 presents the financing gap under a 'business as usual' scenario;
- Section 5 presents how alternative policy scenarios affect the financing gap; and
- Section 6 presents concluding remarks.

2 Economic and Health Sector Trends

This chapter presents a background to the economic environment in which the Cameroonian health sector is situated, and which underpins the projections for health financing. Trends in the financing of the health sector are then presented and their impact on health outcomes is discussed. The chapter concludes in outlining the focus of this analysis.

2.1 Macroeconomic Performance

Cameroon's long-term development plan - Vision 2035 - states the goal of becoming an 'emerging economy' by 2035[1]. In the Vision this would require growth rates of 10% and to reduce poverty incidence to less than 10% of the population[2]. The medium-term plan – Growth and Employment Strategy Paper (GESP) 2010-2020 – has less challenging goals of an annual growth rate of 5.5%, and to reduce poverty incidence from 39.9% in 2007 to 28.7% by 2020[3].

These high growth rates have not been realised over the past six years. Annual real growth has averaged 4.7% from 2010 to 2016[4] and poverty rates have fallen only 2.4 percentage points since 2007, to 37.5% in 2014[5]. The Government took action in 2014 and created the Emergency Plan for Accelerated Economic Growth[6], an economic plan to raise growth rates above 6% over the short-term, largely based on government infrastructure investments. However, the slump in international oil prices and slowdown in domestic oil production continued from 2014 into 2015 and 2016, which has depressed growth rates[7]. Cameroon has been protected somewhat due to a diversified economy outside of the oil sector, including the Government's continued investment in infrastructure, agriculture and forestry[8]. As such, Cameroon remains a lower middle-income country in 2016, albeit with a slightly lower per capita income of around 1,200 USD (down from 1,400 USD in 2014).

Additional pressures on the Government's finances have been the increased security threats and subsequent rises in security costs[9]. As such the government has suffered from falling revenues from the oil industry and increased costs of national security and humanitarian expenses. This has constrained government spending and resulted in a widening fiscal deficit; from around 2% in 2010-2013, to 4.5% from 2014-2016. There are now also increasing pressures on public debt which has doubled over the past six years from 12% of Gross Domestic Product (GDP) in 2010 to 24% in 2016.

Short-term projections for growth continue to be robust despite these external shocks but vary in magnitude. The Government's 2017 Finance Bill expects a more buoyant outlook with growth rebounding to 6% by 2019[10]. However, the International Monetary Fund (IMF) are less optimistic, projecting real growth of around 5.5% by 2022[11].

[1] Republic of Cameroon (2009a).
[2] Ibid, page iv.
[3] Republic of Cameroon (2009b), page 17.
[4] IMF World Economic Outlook April 2017.
[5] World Bank World Development Indicators Databank.
[6] Republic of Cameroon (2014).
[7] IMF (2017a).
[8] World Bank (2017a).
[9] This paragraph draws from IMF (2017a).
[10] Republic of Cameroon (2016), page 15.
[11] IMF World Economic Outlook April 2017.

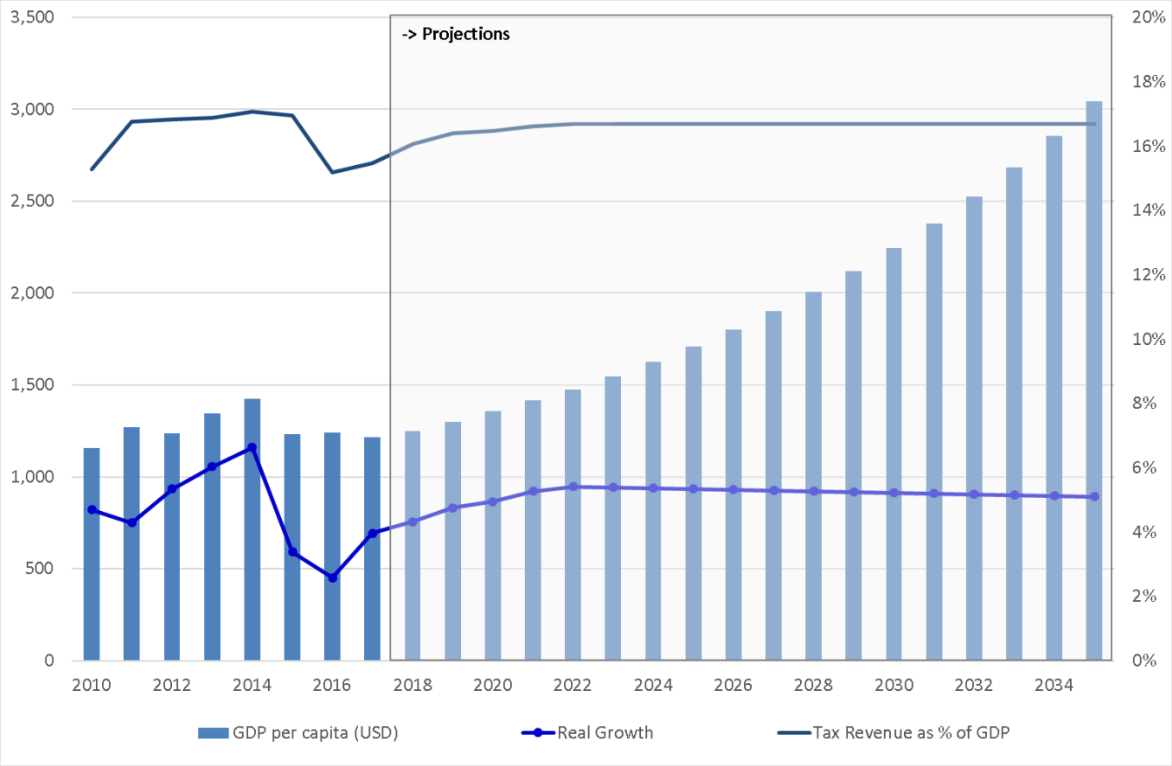
The most recent agreement between the Government of Cameroon and the IMF "*aims at restoring Cameroon's fiscal and external sustainability and unlocking sustainable private sector-led growth*"[12]. This is expected to occur through a number of reforms targeting the improvements to efficiency and effectiveness of Public Financial Management (PFM) and public investment, as well as diversification and strengthening of the non-oil economy to increase tax revenues. The impact on fiscal spending will be a tightening of available expenditures, but with the understanding that social spending will be protected and improving social safety nets for the most vulnerable.

The sum of this experience and long-term projections based on the planned policy changes are shown in Figure 1. Underlying long-term assumptions include:

- Real growth rate averaging 5% per annum;
- A stable tax to GDP ratio of 16.7%; and
- Inflation of 2.5%.

These result in a per capita income rising from 1,200 to 3,045 USD by 2035.

Figure 1: Historic and Projected Macroeconomic Indicators (USD)



Source: 2010 to 2022 IMF, 2023-2035 authors' own calculations.

The full methodology for macroeconomic projections is outlined in Annex B. It is important to note that these core assumptions will impact on the amount of government expenditures available; i.e. the amount the economy will grow and what proportion of that growth the Government can take in revenues. As such it is essential to highlight that the assumptions

[12] IMF (2017a), page 10.

are directed by the Government's goals outlined in the long- and medium-term plans, which are tempered with middle-income country norms. For example[13]:

- The growth rate of between 6% and 10% per annum cited in the GESP and Vision 2035, respectively, are significantly higher than the middle-income average growth rate of 5%.

- Tax to GDP ratio has been around 15-16% in recent years and there are plans to raise this. The middle-income average is only 13%. As such the medium-term rate outlined by the agreement between the IMF and the Government of Cameroon remains stable over the longer term; i.e. 16.7%.

The sum of these assumptions result in a projection of General Government Expenditures (GGE) rising from just less than 4,000 billion CFA in 2016 to just under 15,000 billion CFA in 2035. A significant nominal rise, but remaining relatively stable as a proportion of GDP. While GGE has oscillated recently around 21% of GDP, over the medium-term the Government plans to reduce this to around 19.5% of GDP as the austerity measures come into play. However, over the longer term it is expected that the government could be in a healthier fiscal position to raise spending to 20.7% of GDP by 2035. These levels of tax revenue will be the basis to allocate funding for the health sector in Cameroon.

In conclusion, whilst the country is experiencing a difficult period, the economy has remained robust. Although growth rates have not managed to reach the aims of Vision 2035 or GESP, they are still within healthy norms for a middle-income country. However, it is important to note that the impact of these growth rates do not seem to have had a strong or significant impact on the poverty levels in Cameroon. A key factor in poverty is the health of the people. As such there is certainly room for a more pro-poor health policy in Cameroon.

2.2 The Health Sector: Plans and Outcomes

Both the long-term and medium-term plans for Cameroon outline a commitment to developing the health sector with the aim of achieving Universal Health Coverage (UHC). This is articulated in the Health Sector Strategy (HSS) 2016-2027, which states that the vision for the health sector is that Cameroon will be a country "*where universal access to quality health services is ensured for all social strata by 2035*"[14].

One quality of UHC the Government is interested in that relates directly to health financing is reducing Out of Pocket (OOP) spending. The HSS outlines an aim to reduce OOP payments to 30% by 2027. As non-planned expenditures OOP payments represent a risk to citizens' abilities to gain health services.

Additionally, Cameroon is the signatory to a number of international commitments to health. The HSS lists 12 of these including the Sustainable Development Goal on health. Six agreements which are directly related to financing of a sustainable health system aiming towards UHC are[15]:

[13] Middle-income averages are sourced from the World Bank Development Indicators Database.
[14] Ministry of Health (2016c), page 120.
[15] Ibid, page 118-119.

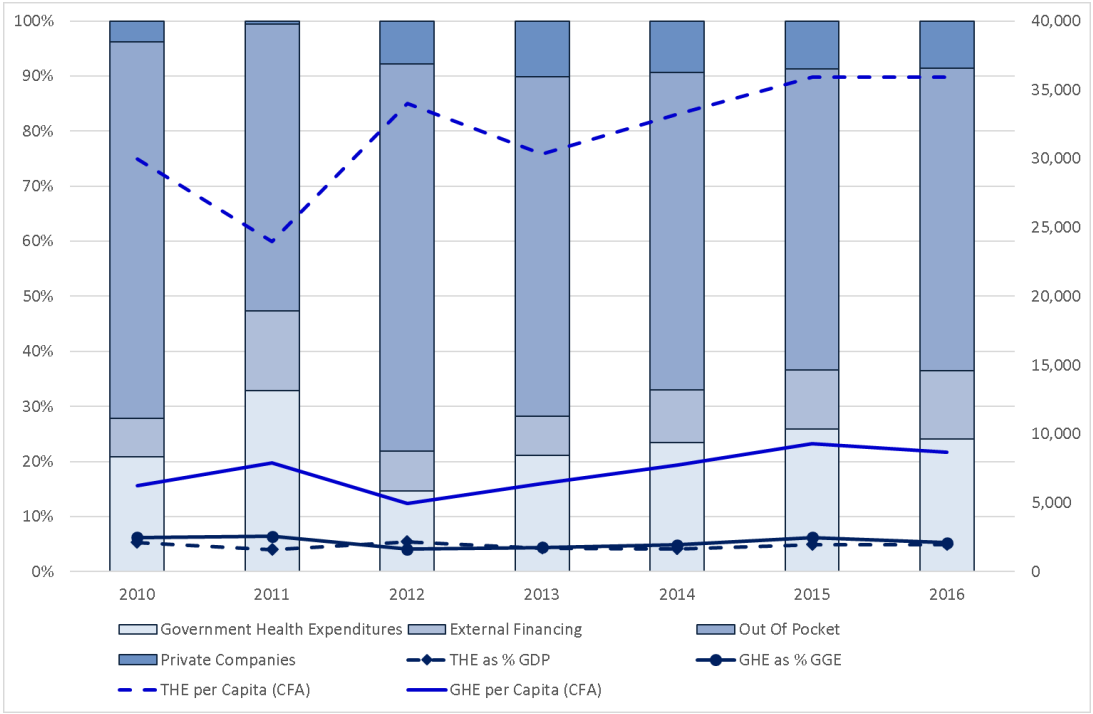
- The Abuja Declaration where countries stated their aim to allocate a minimum of *15% of budget to health* by 2015;
- Declaration on *UHC* to ensure equal access to health care;
- The Ouagadougou Declaration on *Primary Health Care and Health Systems* which sees health as a fundamental human right and that it is the responsibility of governments to provide for health needs;
- Ending Preventable *Child and Maternal Deaths*;
- Global Action Plan for *Vaccines* which aims to provide benefits of immunisation to all; and
- The Kampala Declaration on *Human Resources* to strengthen health systems.

With the national and international goals in mind, this section looks at health sector financing and outcomes.

2.2.1 Trends in Health Sector Financing

To provide a background to the health sector and a basis for policy outcomes, Figure 2 provides an overview of the recent health financing in Cameroon.

Figure 2: Historic Health Expenditures (as share of THE and in CFA)



Source: 2010-2014 NHA, 2015-2016 Government Budget and Author's estimates.

These key trends and indicators are compiled from WHO National Health Accounts (NHA) and Government budget data. Over the seven years these trends suggest the following:

- ***Nominally health spending is rising, but not fast enough in real terms.*** Total Health Expenditures (THE) have risen 40% over the past seven years; from 612 billion CFA in 2010 to 851 billion in 2016. However, with a rapid population growth this has resulted in a per capita rise of only 20%; from 30,000 CFA to 35,000 CFA (remaining relatively stable at 61 USD).

- ***As a proportion of the economy, investment in health is low and declining.*** As a proportion of GDP, THE has declined from 5.3% in 2010 to an estimated 4.9% in 2016, averaging 4.7%. The Situation Analysis for the Health Financing Strategy compared this level of investment to other African countries health spending and found Cameroon to be lower than the average 5.6% of GDP[16].

- ***Government spending on health is rising nominally, but is low and declining as a share of the total national budget***. Government Health Expenditure (GHE) per capita has increased by only 3,000 CFA since 2010 (from 6,000 to 9,000 CFA, or from 13 to 15 USD). As a share of General Government Expenditures (GGE), health spending has fallen from 6.2% in 2010 to an estimated 5.2% in 2016. A recent study found that nine middle-income SSA countries were investing 13% of GGE into health, and the lower middle-income countries 14%[17]. Cameroon is spending less than half of these peer countries.

- ***The health sector is dependent on donor funding and out of pocket payments putting the sustainability of the sector at risk***. 70% of THE comes from the populations' Out Of Pocket (OOP) payments, or, Official Development Aid (ODA).

    - Out of Pocket (OOP) payments have averaged 60% of THE. This is the third largest in SSA and highlights that the population is at risk of Catastrophic Health Expenditures (CHE) with links to poverty[18]. The World Health Report of 2010 states that: '*It is only when direct payments fall to 15–20% of THE that the incidence of financial catastrophe and impoverishment falls to negligible levels*.'[19]

    - External financing has averaged 10% of THE, which is low for a SSA country. The Situation Analysis for the HFS (2017-2017) found that other countries received between 10 and 40% of THE from external sources[20]. Whilst the level of dependency is low in Cameroon, these funds are highly concentrated into key vertical programmes such as HIV/AIDS ARVs, Maternal and Child Health and Immunisations[21]. This concentration risks the sustainability of these programmes.

- ***The private sector and other health insurance membership is low in Cameroon***. The private sector accounts for 7% of THE. Not more than 3% of the population were

[16] Ministère de la Sante Publique (2017) Page 28. Comparable countries are Ghana, Ivory Coast, Kenya, Senegal and Zambia.
[17] Lievens *et al.* (2015). Data refers to 2015. Countries: Angola, Botswana, Lesotho (Lower-Mid), Mauritius, Namibia, Seychelles, South Africa, Swaziland (Lower-Mid), and Zambia (Lower-Mid).
[18] Cited in page 72 of the Health Sector Strategy 2016-2027, Ministry of Health (2016c).
[19] WHO (2010).
[20] Ministère de la Sante Publique (2017) Page 28. Comparable countries are Ghana, Ivory Coast, Kenya, Senegal and Zambia.
[21] From 2011 to 2015, 28% of total external funding was from the Global Fund (HIV, Malaria and TB), and 6% from GAVI for immunisations, (cited in the National Health Development Plan 2016-2020, Ministry of Public Health (2016a)).

covered by insurance in 2011[22]. Private insurance is limited with only 16 private insurance companies in the country. There are a number of community based insurance schemes, *mutuelles de santé*. These cover only 0.2% of the population, or about 63,000 people. However, as the Health Sector Strategy (HSS) 2016-2027 points out the majority of the 43 organisations are bankrupt.

From these financial trends there seems to be a lack of investment in the health sector, both in historical terms and relative to other countries. The sectors financing arrangements are unsustainable both in terms of is not keeping pace with growth in the economy, inflation of prices and the population growth, and in terms of dependency on citizens OOP payments and external sources. With health as a key factor to poverty reduction it seems clear that the recent economic growth has not 'trickled down' to improving health through greater public financing.

2.3 Health Sector Outcomes

What has the impact of this limited financing been on health outcomes? The 2016 Health Profile for Cameroon has found three trends emerging from health indicators[23]:

- Improvement has occurred primarily within vertical programs such as malaria, HIV/AIDS, tuberculosis and immunization;
- Life expectancy, public funding and development of health districts have stagnated; and
- Maternal mortality, family planning, and disease coverage indicators are regressing.

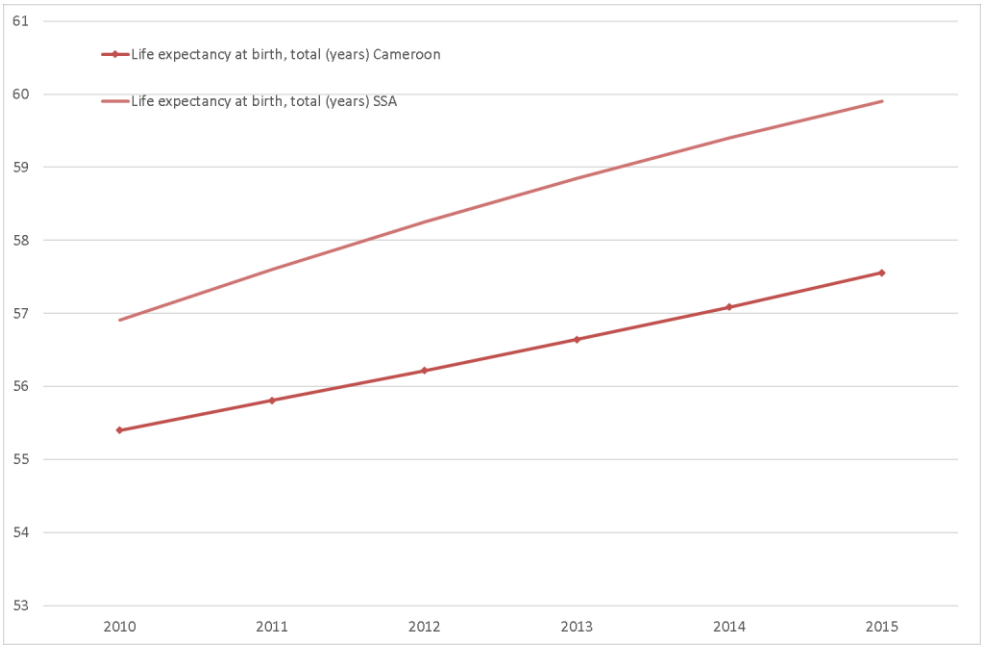
Key health indicator trends are shown in Figure 3 to Figure 6 and a full time series of the trends is in Annex C. The indicators show that:

- Although life expectancy has risen over the past few years Cameroonians can expect to live two years less than the average Sub-Saharan African (58 years compared to 60 years in 2015).
- Under-5 and Maternal Mortality rates have declined from 2010 to 2015, however, both remain higher than the SSA average.
- ARV coverage has improved from 16% of people living with HIV in 2010 to 37% in 2016. For pregnant women this rate has risen from 40% to 74%. But again, Cameroons performance is still lagging behind the average for SSA which provides 54% of HIV sufferers with ARVs and 77% of pregnant woman.
- However, the rate of immunisations for babies for DPT, Hepatitis B3, and measles have all increased and are higher than the average SSA country immunisation rates. Cameroon has achieved immunisation rates of 85%, 85% and 78%, respectively for the three diseases.

[22] This paragraph draws from information from the Ministry of Health (2016c), page 75.
[23] Ministry of Public Health (2016b).

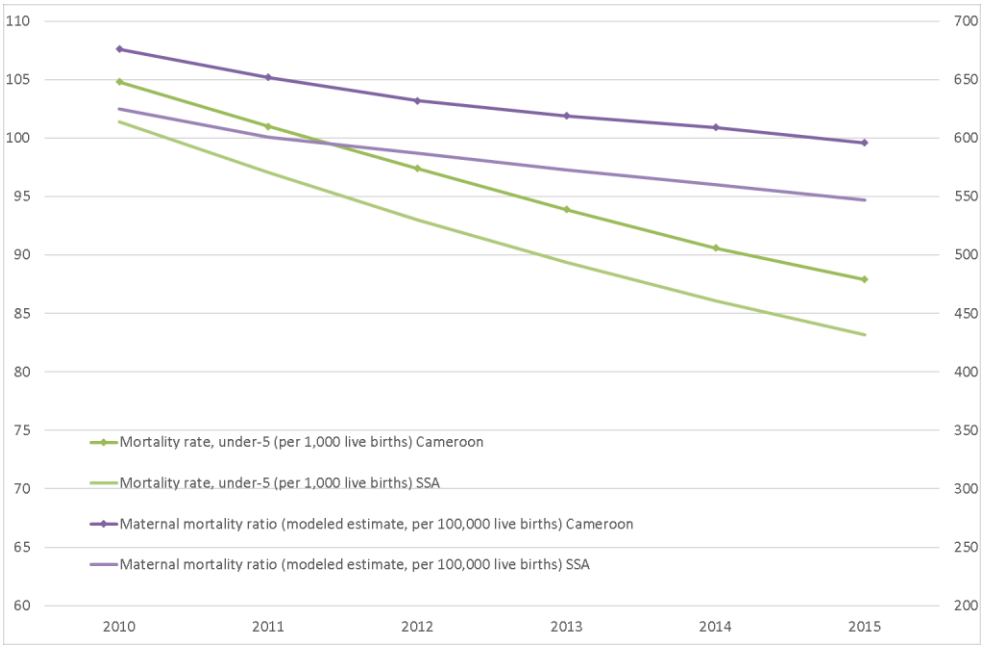
This pattern emerges again from the level of attainment of the health Millennium Development Goals (MDG)[24]. The target on halting and reversing the spread of HIV/AIDS has been achieved already by 2015 (MDG6). But both the under-five mortality and maternal mortality targets - MDG4 and MDG5, respectively - were assessed as only 'potentially' being able to be achieved by 2020. The level of achievement for MDG4 is only 37%, and even lower for MDG5 at 14%.

Figure 3: Comparing Cameroon and SSA Health Indicators - Life Expectancy



Source: World Bank Databank

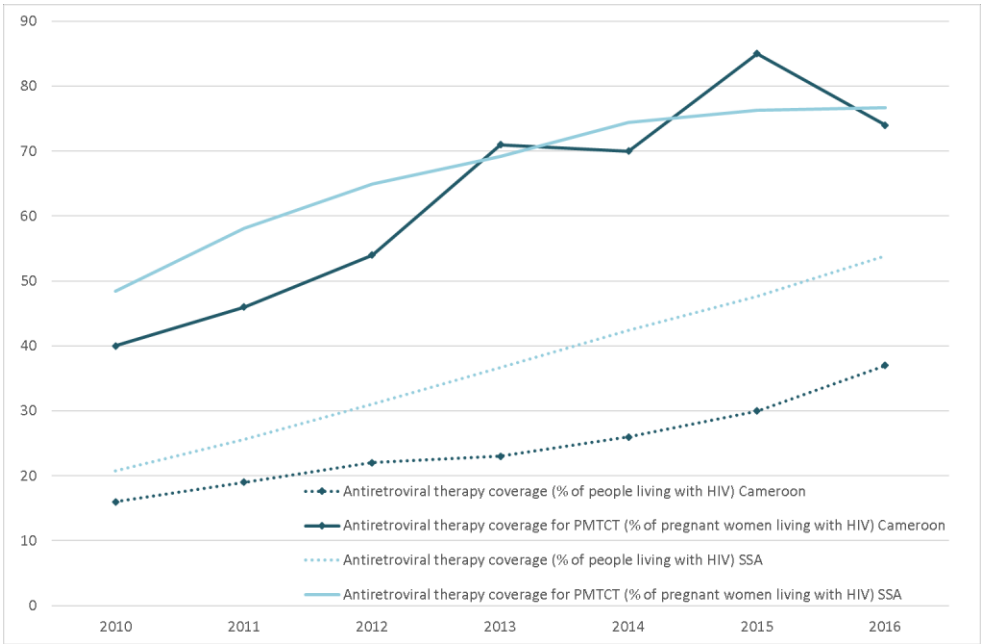
Figure 4: Comparing Cameroon and SSA Health Indicators - Maternal Mortality



Source: World Bank Databank

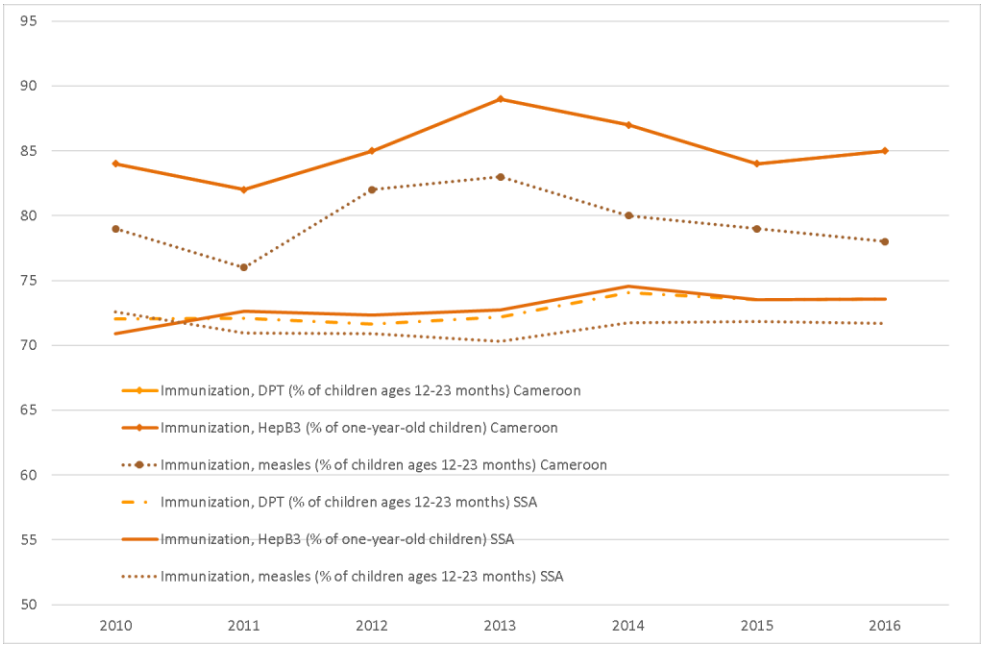
[24] Cited in Ministry of Public Health (2016b).

Figure 5: Comparing Cameroon and SSA Health Indicators - ARV Coverage



Source: World Bank Databank

Figure 6: Comparing Cameroon and SSA Health Indicators - Under-5 Immunisations



Source: World Bank Databank

The trends suggest that there has been a focus on externally financed vertical programs (such as HIV/AIDS, and infant immunisation) at the detriment of other primary health care areas such as maternal and child health. Indeed, one analysis asserts that areas in receipt of external funding also receive more domestic attention, for example HIVAIDS, maternal

health and malaria[25]. It concludes that the health sector is mired by isolated initiatives and a plethora of interventions, all constrained by limited resources.

The Situation Analysis for the HFS 2017-2027 maintains that the lack of real focus on financing is leading to the degradation of the health system due to poor PFM, corruption and lack of resources. It states that "*MINSANTE speaks very little about financing in general, but focuses on financing projects*"[26]. This is both in terms of the externally financed vertical programs and health investment on infrastructure, where there is little consideration of the ongoing recurrent costs. The HFS concludes that "*a large majority of Cameroonians have lost confidence in the health sector as a sector displaying the values of equity, humanism and social justice*"[27].

The recent World Bank Public Expenditure Review (PER) found that the "*Lack of targeting of resources to health priorities may also explain the persistence of poor health outcomes*"[28]. It provides an example of deteriorating maternal health indicators, and suggests a solution which highlights the current financing constraints to outcomes: "*An active approach to improving maternal health care would be to prioritize the implementation of high-impact interventions at health facilities. This approach would require a shift from the funding of these health facilities to a service or performance-based payments, replacing the current system that focuses exclusively on infrastructure-related operating costs (or the appropriations allocated in the previous year)*"[29].

The PER goes on to suggest that this lack of expenditure targeting is linked to the limitations of budget analysis which result in badly prepared budgets. These budgets are only weakly linked to planning in the health sector. The PER recommends that a more strategic approach to planning and budget allocation is implemented in Cameroon. In interviews with MINEPAT this problem was reiterated, namely that MINSANTE has proposed aggregated, opaque budgets which could not demonstrably support improvements in health spending performance.

The 2016 Health Profile concludes that the "*health system performance is poor*", but also add that "*health indicators are inadequate with available resources. There is therefore a great potential for improvement*". The report goes on to recommend "acceleration of the *building a more equitable financing system through the universal health coverage approach*"[30]. How plausible this is within the current health financing environment will be assessed in the remaining chapters.

[25] World Bank (2017c).
[26] Ministère de la Sante Publique (2017), page 65.
[27] Ibid.
[28] World Bank (2017d), page 19.
[29] Ibid, page 19.
[30] Ministere de la Sante Publique (2017), page 116.

3 Methodology

A full description of the methodology is set out in the annexes, particularly Annex B. In short, the health financing gap is the difference between health resource needs and health expenditure. These two components are calculated using an established methodology to find a financing gap. Fiscal space analysis is then carried out for the health sector; i.e. how to close or reduce this financing gap. The projections cover the years 2017-2035, with 2016 as a base. They are in line with Cameroon's national development plans and health sector strategy, both of which detail the intention of achieving UHC.

3.1.1 Macroeconomic Indicators

A financial programming framework is used to project forward key economic variables for the time period, such as GDP growth, government revenue and expenditure, also for health. We take underlying macroeconomic data primarily from the Government of Cameroon, and the IMF. Where any data is missing, core economic indicators are set in line with middle-income averages from the World Bank. It is expected that Cameroon will remain a middle-income country over the projection period (from model trends).

3.1.2 Resource needs

No fully complete costing of health needs is available for Cameroon. As a result, we present two methods of costing health resource needs.

The first method uses the existing, but incomplete, domestic costing covering 2016–2027. This was developed using the One Health Tool (OHT) and is cited in both the NHDP 2016-2020 and the HSS which goes onto 2027. However, not all health activities were populated with costing data. As such this is seen as an underestimate of the true cost of delivering the package of health services to all in Cameroon. There are eight cost areas in the OHT and one of these, programme costs, has almost no data. See Annex D for full information and an outline of the costs by programme[31]. OHT data are used up to 2027 and for the remaining years, 2028-2035, the annual data is inflated.

The OHT costing is used to portray health needs in Cameroon as there are no other up to data costing. Currently, MINSANTE are working on new cost projections for the UHC service benefit package, with support from USAID. Only preliminary results were available for this analysis and we discuss them separately in Annex F.

The second method for projecting health needs uses international norms for achieving UHC. This relates to the estimate from a recent analysis (McIntyre & Meheus, 2014) as a starting point to estimate the cost of universal access to a basic package of health services. The authors suggest public health funding of 5% of GDP, but not less than US$ 86 (2012 dollars) per capita.

[31] The eight cost areas are: Programme costs; Human resources; Infrastructure; Logistics; Medicines, commodities, and supplies; Health financing; Health information systems; and Governance.

3.1.3 Health expenditures

The health expenditure is the sum of government health expenditure and donor health expenditure: 'Official Health Expenditure' (OHE). For this analysis we take only the government budgetary expenditures on health and the external funding. We exclude OOP and the private sector as we are focusing on the basic package of health services under UHC and want to assess the situation without including the non-planned or catastrophic expenditures associated with OOP. The sum of Government and donor funding is titled 'Official Health Expenditure' within this report. The historic and projected expenditures are calculated as follows:

- The baseline spending figures are sourced from both the governments executed budgets and the WHO's National Health Accounts (NHA) estimates;
- The assumption for GHE projections is that the elasticity of government health spending to GDP is set at 1.1 (which implies that a 10% increase in GDP is expected to lead to an 11% increase in government health spending). This assumes that government funding to the health sector will rise at a slightly faster rate than nominal growth; i.e. as a country grows richer it invests proportionally more into its health services; and
- Projections for international funding set against the assumption that over the time period donor funding remains relatively stable nominally so as to represent a decline in real terms. This assumes that there will be a decline in external financing for health[32].

3.1.4 Resource Gap

From these assumptions, the model presents a 'business as usual' scenario. The two key points in this scenario are:

- There are no great policy changes from the Government in terms of increasing health sector funding; and
- Donor money is not flowing as rapidly into health as it has done over the past decade.

Two gaps will be presented: one with domestic costs and the other at international norms.

The gap shows how much money is available in a country for health compared to how much money is needed to provide basic needs for health. As mentioned above, this resource gap refers only to the 'official health expenditures'; i.e. those made by the Government and Official Development Assistant (ODA); OOP and private sector are excluded. From a UHC perspective, its main contribution lies in its characteristic feature to convert OOP direct payments at the point of health service into predictable periodic premiums. This health financing modality protects health care users from catastrophic financial risk when using health services, which is an essential dimension of UHC. And so, we are measuring the gap

[32] Cameroon is a middle-income country and, as such, there would be an expected decline in donor funding to the country in general. Currently the ODA:GDP ratio is estimated at 0.3% in 2016 and forecast to decline to 0.2% in 2022 (IMF). The average for a middle-income country is 0.3% (World Bank Development Indicators). As such, the model projects a decline in the ratio over the long term. ODA to health follows this downward trend.

between official health expenditures and resources needed to meet a basic package of health services.

3.1.5 Maximising Fiscal Space

A second scenario is then put forward using the international norms financing gap. This uses the same underlying assumptions as the business as usual scenario but with a stronger budget commitment to health. Four areas will be modelled:

- **Efficiency** - Countries have differing levels of health sector efficiency. If they can become more efficient, the country will need less money to provide the same levels of service. The potential for countries to improve their efficiency rates in the health sector have been calculated in a panel Data Envelopment Analysis (DEA) for 173 countries (Zeng *et al*, 2017). These potential improvements are then accounted for in the resource needs, reducing the amount of resources needed. A new resource gap is then calculated, which includes both additional funding and efficiency savings. This final financing gap presupposes the implementation of a number of policies by the government regarding implementing a more efficient health system.

- **Budget Allocation** - Government expenditures on health will be modelled to targeted values over the period, reaching 15% of GGE by 2035. This proportion relates to the Abuja Declaration, by which African Union members pledged to allocate 15% of national budgets to health.

- **Earmarked Taxes** - There are various types of health levies considered within the model as methods to fill the resource gap. For example, sin taxes such as a levy on alcohol or tobacco; tax on remittances; and a mobile phone levy. Estimations of potential levels of income from the health levies are calculated by using data found from other countries who have implemented these earmarked taxes. Their results have been summarised into an average return in terms of a percentage of GDP. These are summed and added to the available budget financing and a new financing gap is calculated. It must be noted that the sum of all these levies are included in the scenario and it is unlikely that all would be implemented, rather one or two may be chosen by a government. This would lessen the financial impact.

- **Household Contributions** - Finally, if a gap still remains after efficiencies and domestic financing are implemented how much could be filled by prepaid household contributions.

A revised financing gap is then found presenting a future health policy with renewed focus on health financing. This presents a possible future where government takes a pro-active stance to meet the health needs of citizens.

4 Business as Usual Health Financing Gap

This chapter presents the projections for health needs and expenditures and the resultant financing gap. Projections inform an overview of health policy direction in Cameroon.

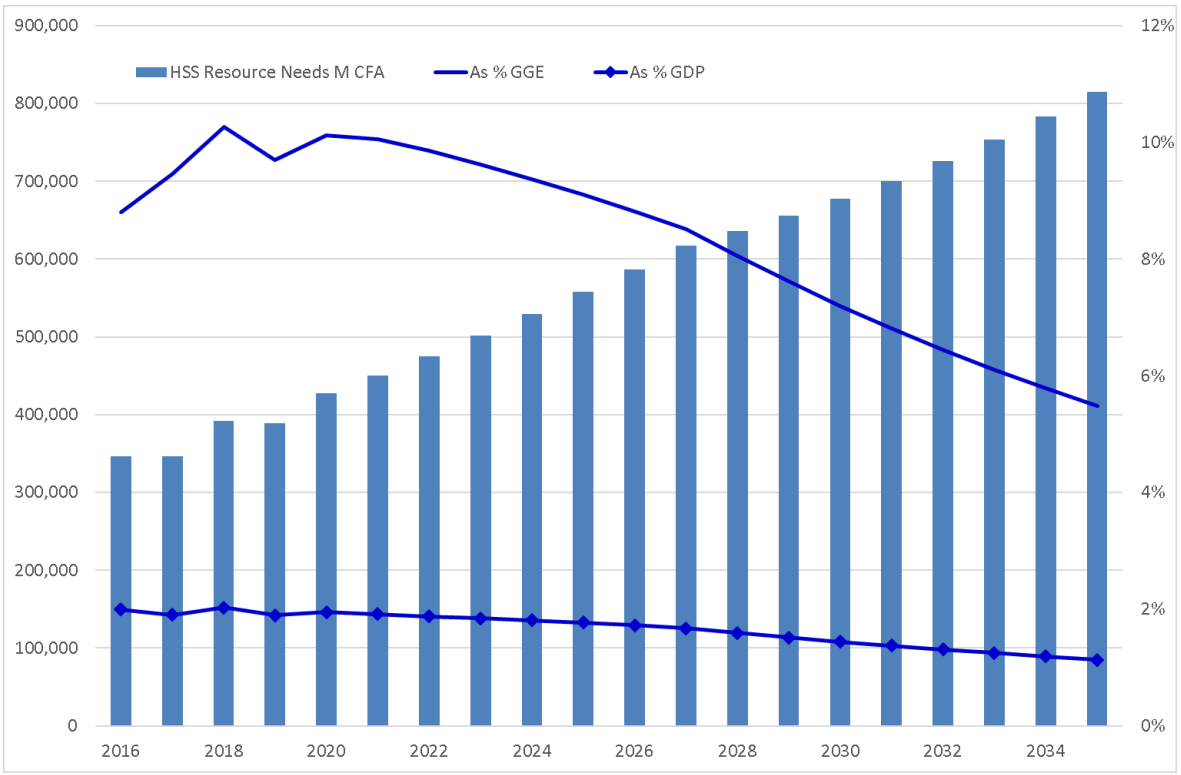
4.1 Health Needs

As mentioned in the methodology (section 3.1.2), there is no complete health costing for the Cameroon health sector[33]. The OHT analysis, cited in the NHDP 2016-2020 and HSS 2016-2027, is the best country-specific costing of health needs available. However, there are data limitations in that not all the health activities were populated with costs. As a result, the total costs are most likely an underestimate of the true costs of providing a basic package of health care to all Cameroonian citizens. Therefore, this OHT will act as a **minimum cost scenario** for health care costs. International norms of 86 USD per capita (2012 dollars) will be used to model the costs to achieving UHC and be seen as the **maximum cost scenario**.

4.1.1 Minimum scenario: Domestic Health Needs

Figure 7 presents the projections for domestic health needs under the minimum cost scenario, which grow from 346 billion CFA in 2016 to 815 billion CFA in 2035. This equates to almost 2% of GDP a year, and 8% of GGE, on average over the period. In per capita terms, the needs rise from 15,000 CFA in 2016 (25 USD), to 21,500 CFA in 2030 (34 USD).

Figure 7: Projected Domestic Health Needs (Millions CFA), minimum cost scenario



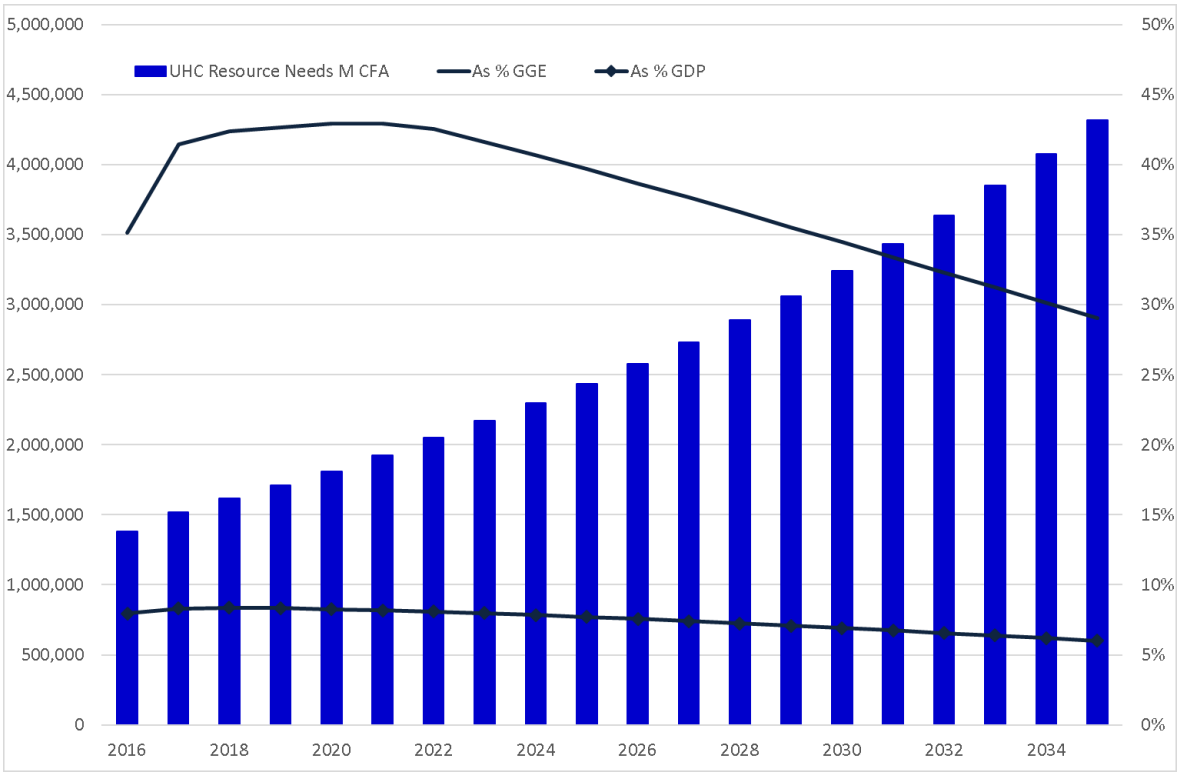
Source: 2016-2027 One Health Tool, 2028-2030 Authors' calculations.

[33] See also Annex for full description of the One Health Tool costing for Cameroon.

4.1.2 Maximum Scenario - International UHC Costs

Figure 8 presents the projections for UHC costs at international prices. These grow from 1,382 billion CFA in 2016 to 4,319 billion in 2035. This equates to 7% of GDP a year, and 38% of GGE, on average over the period. This would provide the required 86 USD (at 2012 prices) per person to each citizen in Cameron, which has been estimated as the minimum amount required to deliver UHC. In nominal terms the per capita cost would have been 58,000 CFA in 2016 (98 USD), and rise to 114,000 by 2035 (183 USD).

Figure 8: Projected UHC Costs (Millions CFA)



Source: Authors' calculations.

4.1.3 Health Needs in Cameroon

In sum, both scenarios of health sector needs represent a significant proportion of the Governments' budget, namely between 8% and 38%. Both would require a much larger investment in health than is currently undertaken, as shown previously (Figure 2, section 2.2.1).

4.2 Health Expenditures

Health expenditures within this analysis will furthermore refer to Official Health Expenditures (OHE) which are the sum of all government spending on health and ODA to the health sector (explained in section 3.1.3). In sum, inasmuch as household contributions are OOP, they are regressive and constitute a financial barrier to accessing health services. While they contribute to financing health services, they are at odds with the notion of UHC.

Government expenditures consist of public funds within the Ministry of Health (MINSANTE) and other funds directed to health activities under the responsibility of other ministries and

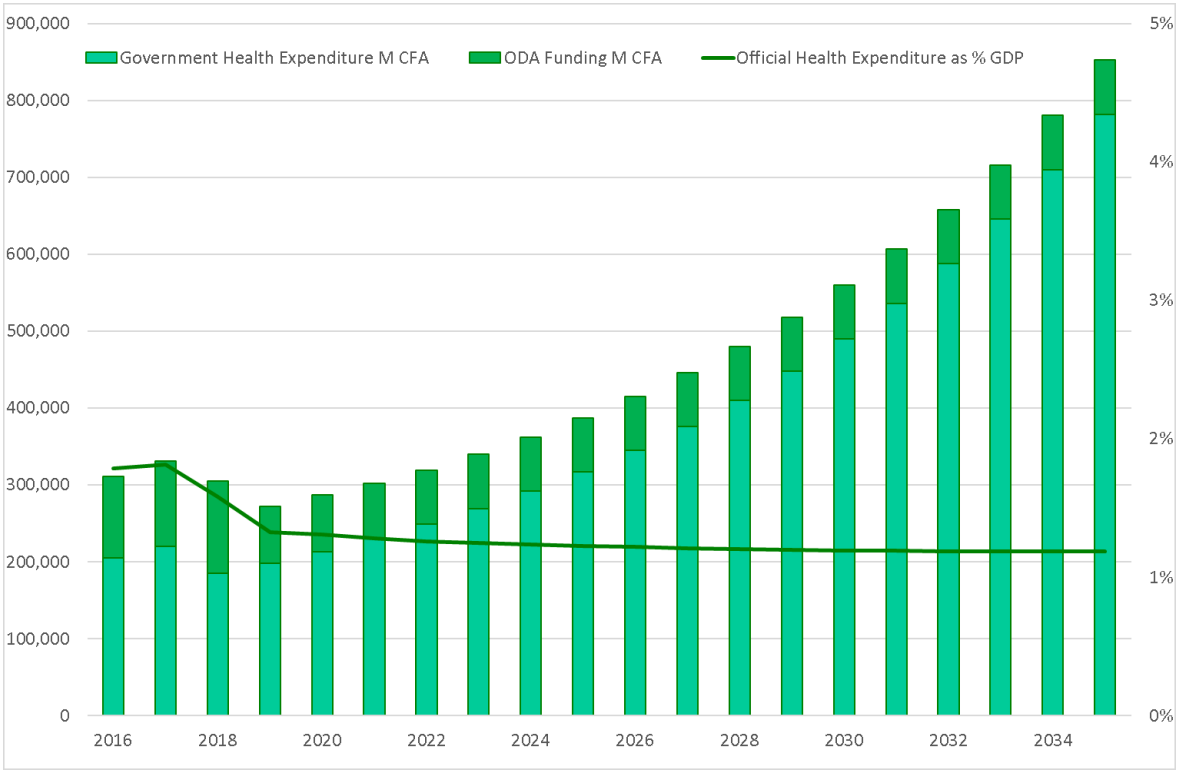
departments. Over the past ten years 95.5% of public health funding is carried out through MINSANTE[34]. Data was used from two main sources namely the MINSANTE and MINFI, as follows:

- MINSANTE executed budget for 2010-2016 plus MINFI PROBMIS data for other Ministry health expenditures; and
- MINSANTE allocated budget 2017-2018 plus allocation of other Ministry health expenditures from MINFI PROBMIS.

ODA data was sourced Cameroon's NHAs.

The resultant trend is of increasing nominal OHE from an estimated 310 billion CFA in 2016 to 852 billion in 2035 (Figure 9). In per capita terms, this implies a rise from to 13,000 CFA (22 USD) to 22,500 CFA (36 USD). However, in real terms this represents a decline in investment as OHE declines from 1.8% of GDP to 1.2% of GDP. Within this, GHE rises from 205 billion CFA to 782 billion CFA, and ODA averages 73 billion CFA per year. GHE accounts for two thirds of OHE in 2016, and is projected to account for 92% by 2035.

Figure 9: Projected Official Health Expenditures (Millions CFA)



Source: Government of Cameroon, WHO NHAs, and Authors' calculations.

This is a more cautious and realistic level of available government expenditures as compared to government plans. For example, the Growth and Employment Strategy (2010-2020) proposed a rise in allocations to health from 6% in 2011 to 9% of GGE by 2019[35]. To date, this trend has never been realised. The projections shown here equate to an allocation to health remaining relatively stable at 5% of GGE, more in line with recent trends.

[34] Ministry of Public Health (2016), page 48.
[35] Cited in Ministère de l'Economie, de la Planification et de l'Aménagement du Territoire (2016), Page 4.

Additionally, the 2017-2019 Budgetary Framework set out a plan to raise allocations to health from 240 billion CFA in 2016, to 250 billion in 2017, 280 billion in 2018, and 300 billion by 2019[36]. These levels of funding were never realised. Indeed, 2016 had an executed budget of 205 billion CFA (35 billion less), the allocated budget in 2017 is 220 billion CFA (30 billion less), and the initial budget allocation for 2018 is 185 billion CFA (almost 100 billion less)[37].

As such, for this 'business as usual' scenario it is reasonable to set projections within recent trends; i.e. assume that health financing policy remains stable. This is in line with the current fiscal tightening which is expected to continue over the medium term. Indeed, the latest agreement between the government and the IMF sets out a plan for 'fiscal consolidation' to be achieved through 'expenditure rationalization'[38]. However, this restriction on spending to close the fiscal deficit contains an important caveat: "*The program would preserve priority social spending and support an expansion of social safety nets. Staff and the authorities agreed that a floor will be set on spending on key sectors such as education, health, employment promotion, youth and women protection*"[39]. In other words, the Government has agreed to maintain spending on health over the medium term.

4.3 Resultant Gap

By offsetting the projected available expenditures against the resource needs, we find a financing gap. For the HSS health package it is estimated that the health sector would need an additional 16 billion CFA in 2017 to cover the basic package of services, as determined by the domestic needs (Figure 10). This gap would rise over the medium term to 172 billion CFA by 2026 before declining and arriving at a surplus of 37 billion CFA in 2035. This equates to 0.4% of GDP, and 1.9% of GGE, on average over the period. However, this costing data is not fully representative of the entire health care costs in Cameroon, and as such this financing gap may be underestimated.

Moving to the fully costed UHC scenario (using international norms), the financing gap is much larger, starting at 1,186 billion CFA and rising to 3,467 billion CFA by 2035 (Figure 11). This equates to 6.2% of GDP, and 31% of GGE, on average over the period.

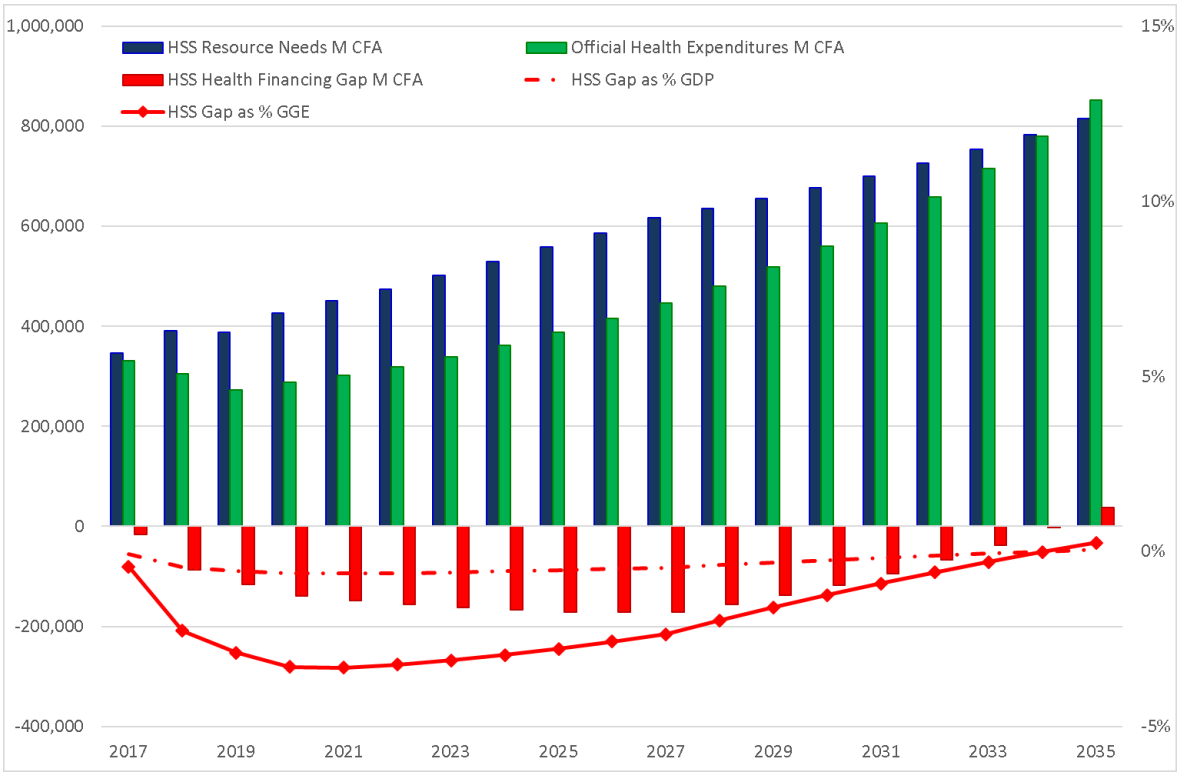
In sum, the international financing gap may be seen as a high-cost scenario, while the domestic financing gap represents a lower cost scenario. As MINSANTE finalises the revised costing of the benefit package for UHC, which was not available for this analysis, the gap can be recalculated and may possibly present a more realistic and relevant scenario. However, in either scenario presented here it is clear that there is insufficient funding injected into the health sector to achieve country goals, whether it is UHC or funding domestic health plans.

What is clear is that the level of Official Health Expenditures available now can cover a health care package costing only 14,000 CFA per person (22 USD). If the current health

[36] Ibid, page 16.
[37] 2016 and 2017 data from PROBMIS data extract, MOF (Oct 2017). 2018 data from Lettre de Cadrage Budget 2018, République du Cameroun (2017). 2018 allocation is 173bln but we need to remove budget support monies and add in non-MOH public spending on health.
[38] IMF (2017a).
[39] Ibid, Page 12.

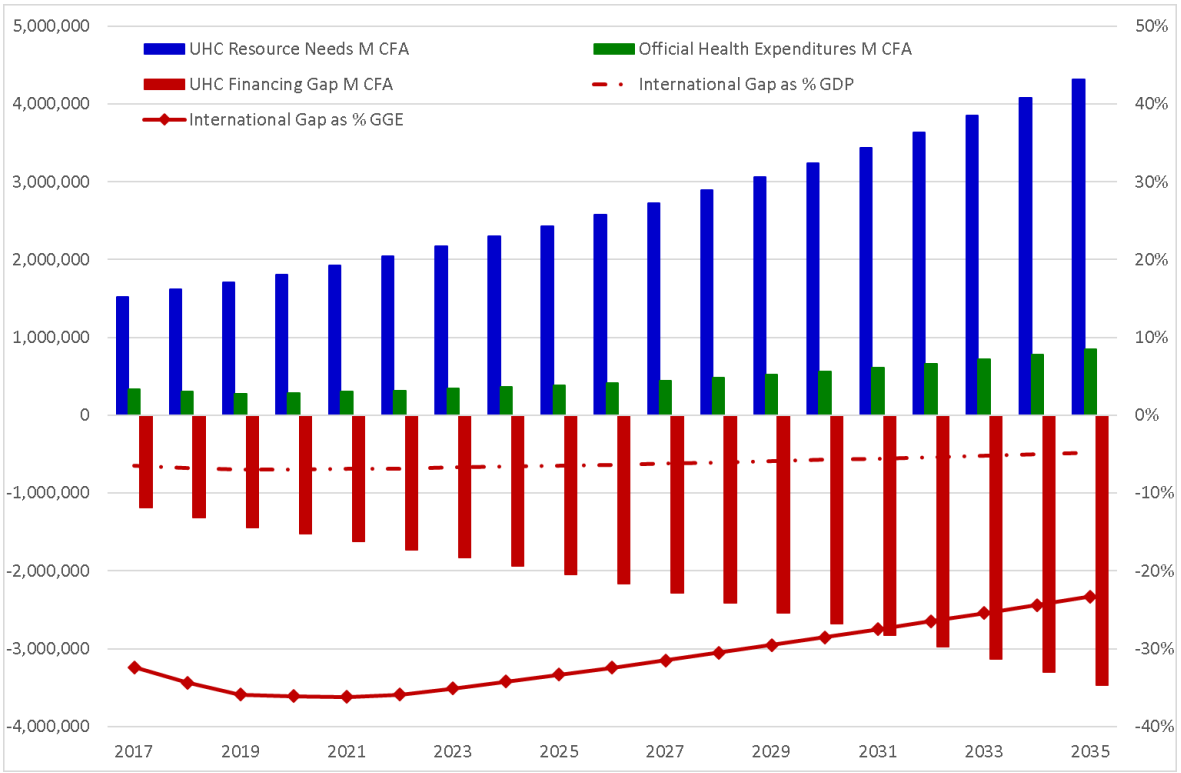
financing policy continues, this will rise to 22,500 CFA, or about 368 USD) by 2035. This is not a large rise when inflation and health technology change are taken into consideration.

Figure 10: Projected Domestic Financing Gap: Business as Usual (Millions CFA)



Source: OHT and Authors' calculations.

Figure 11: Projected UHC Financing Gap: Business as Usual (Million CFA)



Source: Authors' calculations.

4.4 Overview of health policy directions in Cameroon

We end the section on the 'business as usual' scenario with a brief overview of what 'business as usual' is set to achieve in the existing health policy context. The overall objective of the HSS 2016-2027 is to "*contribute to the development of a healthy, productive manpower capable of ensuring a strong, inclusive and sustainable growth*". The HSS is structured along five strategic axes, with corresponding strategic objectives. The overall objective of the PNDS 2016-2020 is to "*make accessible priority quality essential and specialized care services in at least 50% of regional and district hospitals by 2020*". Its specific objectives correspond to the five HSS axes (Table 1).

The health financing strategic sub-axis of Strategic Axis 4 "Strengthening the health system" of the NHDP 2016-2020 aims to "*reduce by at least 10% OOP payments of household through an equitable and sustainable policy*". The following implementation strategies are envisaged to this end:

- Develop risk sharing mechanisms, through the development of a national financial strategy oriented towards UHC; and reinforce financial risk protection mechanisms.
- Rationalize and strengthen institutional mechanisms of health financing, by producing annually and ensuring the availability of health financing analysis tools.
- Strengthen financial resource mobilization, by strengthening advocacy for increased budgetary allocation of the sector.
- Reinforce autonomy in the management of financial resources at the operational level, by drafting framework laws that give more autonomy in the management of revenues allocated to health facilities at the decentralized level; and annually adopt a distribution key for the MOH budget taking into account NHDP priorities.
- Strengthen the performance and efficiency of the health system, by gradually extending the performance purchasing system, taking into account the results of the performance-based financing (PBF) impact assessment; and preparing the National Health Accounts at regular intervals.

As such, the key development areas for health financing policy, as reflected in the existing strategic framework, include increasing resource mobilisation and improving efficiency, both under the umbrella of the UHC goal. Noteworthy, there is an explicit focus on continuous evidence generation and use for decision making, as well the need for advocacy/education across actors for the financing needs of the health sector.

Stakeholder interviews referred to the PBF and the Vouchers Schemes (Cheques Sante) programmes currently implemented in about 45 districts in 7 regions of the country as ongoing initiatives aimed at improving efficiency. The performance of these programmes was generally regarded as positive and their continuation/scale-up was suggested by some stakeholders as a way forward. In terms of resource mobilisation, there appears to be much less activity, however. Interviewees suggested this is more likely to come under the strategic framework for UHC implementation in the medium and long term.

Table 1: Strategic axes and development objectives for the Cameroonian health sector

Strategic axis	Strategic objectives (Health Sector Strategy 2016-2027)	Specific objectives (NHDP 2016-2020)
Health promotion	Enabling the population to adopt healthy behaviours by 2027	• Build institutional and community capacities, and strengthen community participation in the implementation of health interventions in 40% HDs; • Improve the living conditions of populations in at least 30% of health districts; • Develop promotion actions in at least 40% of HDs in order to strengthen health promoting skills for individuals and communities; • Bring 25% families to adopt essential family practices including family planning.
Disease prevention	Reducing premature mortality due to preventable disease	• Reduce by 10% the incidence/prevalence of the main communicable diseases (HIV, malaria and tuberculosis) and eliminate some NTDs (lymphatic filariasis and HAT); • Reduce in at least 50% of districts the risks of occurrence of major public health events and epidemic-prone diseases including zoonoses. • By 2020, increase by at least 70% the coverage of high-impact prevention interventions for the mother, newborn and child targets in at least 60% of HDs; • Reduce by at least 5% the incidence/prevalence of the main non communicable diseases.
Case management	Reducing overall mortality and lethality in health facility and in the community	• Ensure a curative management according to standards of the main communicable and non-communicable diseases as well as their complications in at least 30% of health facilities; • Ensure an overall management according to standards of the maternal, newborn, child and adolescent health issues at the community level and in at least 60% of health facilities; • Ensure the management of medical and surgical emergencies, and public health events, according to standard operating procedures (SOPs) in at least 60% of HDs; • Reduce by at least 10% the proportion of the population with at least one correctable disability.

Strategic axis	Strategic objectives (Health Sector Strategy 2016-2027)	Specific objectives (NHDP 2016-2020)
Strengthening of the health systems	Building the institutional capacities of health structures for a sustainable and equitable access of populations to quality health care and services	• Reduce by at least 10% out-of-pocket payments from households through equitable and sustainable financing policy; • Ensure the harmonious development of infrastructure, equipment and the availability of healthcare and service packages according to standards in at least 40% of category 3, 4, 5 and 6 health facilities; • Increase by 25% the availability and use of quality drugs and pharmaceutical products in all HDs; • Increase the availability of HRH in at least 40% of HDs, RDPH and central Departments according to prioritized needs; • Ensure the development of research in health and the availability of quality health information for decision-making based on evidence at all levels of the health pyramid.
Governance and strategic steering	Improving the performance of the health system at all levels	• To improve governance in the sector through the strengthening of standardization, regulation and accountability; • To reinforce planning, supervision, coordination as well as strategic and health surveillance in 80% of HDs and RDPH.

Source: Health Sector Strategy 2016-2027 and National Health Development Plan 2016-2020.

5 Maximising Fiscal Space for Health

In the previous section it has been shown that (and to what extent, given available data) the Cameroonian health sector is underfunded. Historically, real investment has been declining, actual expenditures cannot cover costed needs, and Cameroon is not investing as much of a share of its budget or GDP in health as other middle-income countries. This impacts on health sector performance and health outcomes, as discussed above.

Four major areas could potentially address the financing gap: improving efficiency in the health sector; increasing general budget allocations; implementing an earmarked tax for health; and introducing household contributions. These will be discussed in turn before presenting an alternative funding scenario to maximise fiscal space for health. In light of the data limitations of the domestically costed health plans, this section will use the UHC financing gap as a baseline.

5.1 Efficiency

Prior analyses and recent stakeholder interviews have highlighted that in addition to greater funds, and indeed some may suggest before more funds become available, the health sector is in need of improving efficiency. Here a nominal value will be estimated as to the potential cost savings that could be achieved in Cameroon. This will be followed by some recommendations on how to improve efficiency in the health sector.

Simply defined, inefficiency refers to a failure to fully exploit available resources. At its most basic level, efficiency gains can be thought of as achieving one of two things:

- Better health outcomes for the same level of investment; or
- The same health outcomes at a reduced level of investment.

The gains that are to be made by improving efficiency are those that would result from closing the gap between coverage levels and health outcomes that are currently achieved and those that could potentially be achieved with the same resources were they to be used more efficiently. Thus, what is important for efficiency is not simply the cutting of costs but increasing the impact of spending and improving the efficiency with which funds are spent. The emphasis, therefore, is fundamentally on value for money, i.e. containing or reducing costs without reducing health outcomes or, better yet, achieving better health outcomes for the same level of investment. Efficiency, therefore, includes a measure of both the quality and the quantity of outputs (i.e. health outcomes or services) for a given level of input (i.e. cost).

In this way, while inefficiency is traditionally thought of as involving excessive spending, it may, counterintuitively, result from insufficient spending. For example, low salaries for public sector health workers can result in these workers supplementing their income with second jobs during the hours of their primary employment, detrimentally affecting the quality of care delivered by the public health system.

A further component to efficiency is those gains to be derived from improving the global health architecture. Donors can reduce the fragmented way that their funds are delivered

and that countries are asked to report on their use. Donors could also contribute significantly to reducing duplication.

5.1.1 Projected Efficiency Savings

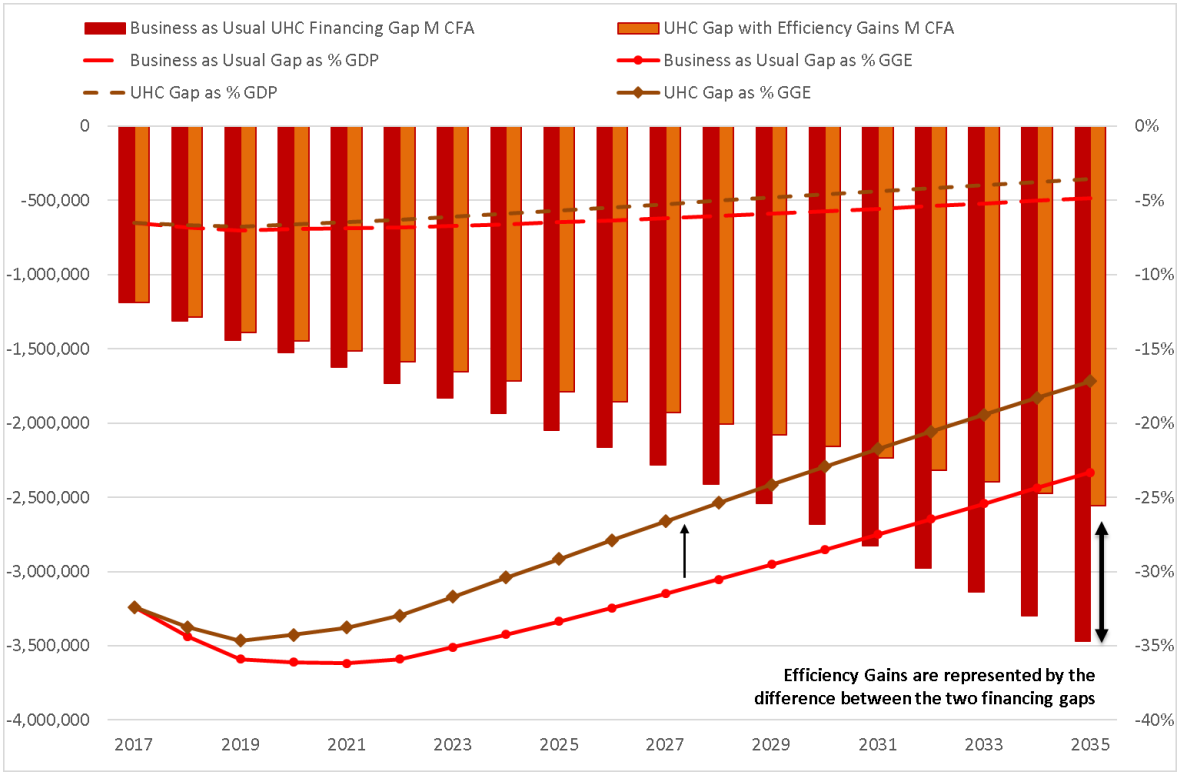
For the maximisation of fiscal space scenario, a proxy for improving efficiency is added to the projections. Specifically, this estimation reduced the resource needs for the UHC costed health package. The assumption is that if Cameroon can become more efficient, the country will need less money to provide the same levels of service. This is a theoretical estimate and much effort would be required to ensure any efficiency gains were actually achieved.

More detail on the method is set out in the methodology section. Specific findings for Cameroon from the DEA carried out by Zeng *et a*l. (2017) showed that the Cameroonian health sector was relatively inefficient, i.e. 55% less efficient compared with those countries on the production frontier. If Cameroon was to continue on this efficiency improvement path, it is projected to be 42% less efficient than the 'best performers' by 2030, meaning the country would be 58% as efficient as the most efficient countries.

If this prudent level of efficiency gains were made over the time period, it would reduce UHC resource needs by an average of 380 billion CFA a year. This would reduce the per capita cost of delivering UHC by 11,000 CFA a year (18 USD). These savings, in turn, could reduce the financing gap by 320 billion CFA a year (Figure 12). This would mean a reduction of the financing gap from the original 6.2% of GDP in 2030 under the business as usual scenario to 5.3%, and from the original 31% of GGE to 27%.

The estimate and subsequent projections are based on the performance of the Cameroonian health sector in 2010 and 2011, where no focused emphasis was placed on reducing efficiencies. These potential efficiency savings could be greater in the future if correct policies were put in place now.

Figure 12: Projected Efficiency Gains and Revised UHC Financing Gap (Millions CFA)



Source: Authors' calculations.

5.1.2 Directions for improving health sector efficiency

Efforts to improve efficiency are directed at one of two areas:

1. Improving the allocation of resources so that the health service implements a mix of services that maximises health outcomes (allocative efficiency); or

2. Improvements that optimise implementation so that interventions are implemented most efficiently (technical efficiency).

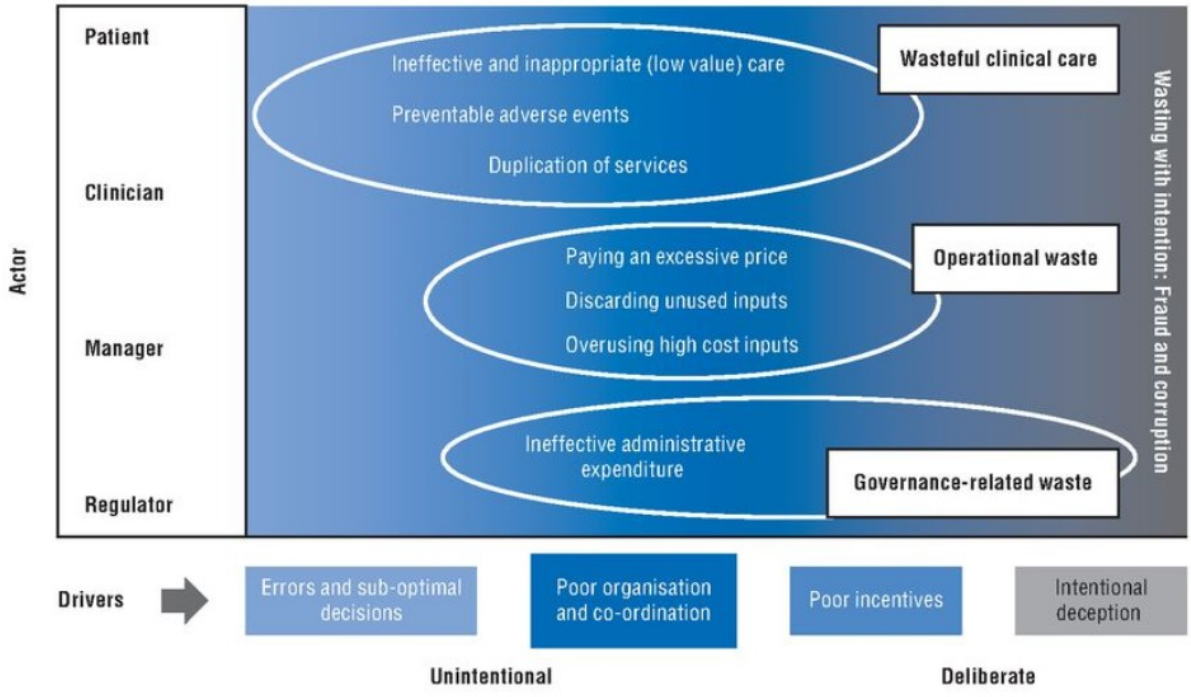
A number of frameworks identify the main sources of health sector inefficiency. Perhaps the most well-known categorisation is the WHO "the ten leading causes or sources of inefficiency" identified by the World Health Report 2010, mapped to health sector pillars (Table 2). More recently, OECD identified three main types of inefficiencies, mapped to health sector actors and drivers (Figure 10).

Table 2: The Ten Leading Causes or Sources of Inefficiency

Category	Inefficiency
Medicines	Underuse of generics and higher than necessary prices for medicines.
	Use of sub-standard and counterfeit medicines.
	Inappropriate and ineffective use.
Products and services	Overuse or supply of equipment, investigations and procedures.
Health workers	Inappropriate or costly staff mix, unmotivated workers.
Health-care services	Inappropriate hospital admissions and length of stay.
	Inappropriate hospital size (low use of infrastructure).
	Medical errors and suboptimal quality of care.
Health system leakages	Waste, corruption and fraud.
Health interventions	Inefficient mix/ inappropriate level of strategies. [allocative efficiency]

Source: World Health Report 2010

Figure 13: OECD categorisation of health sector waste



Source: Couffinhal, A. and K. Socha-Dietrich (2017), "Ineffective spending and waste in health care systems: Framework and findings", in *Tackling Wasteful Spending on Health*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264266414-4-en

A good qualitative understanding of the existing inefficiencies already exists in Cameroon, as illustrated by the volume and content of the available analytical studies. More research would need to be carried out within these areas to identify the best efficiency improvement strategy for the health sector, specifically to quantify potential gains and associated implementation costs. Cameroonian stakeholders shared with the consulting team a range of examples of

existing inefficiencies and potential avenues for improvement. We outline several below several of these:

- Improving budget execution rates in the health sector: budget data confirm the perception of some stakeholders that only a proportion of allocated budgets are actually spent, particularly in front line facilities. While the budget execution rate is in the region of 80% at the level of MINSANTE as a whole and its main programmes, there are major discrepancies in execution by types of facilities. Generally speaking, execution rates tend to exceed 90% in central administration and regional hospitals, and decrease further to below 50% for the least complex health facilities. While in principle it would make sense to allocate larger shares of the budget to frontline facilities such as *centres de santé intégrés* (CSI), it must also be borne in mind that the current public financial regulatory environment and the limited human and technical capacity at this level would make it difficult to spend wisely additional budget allocations at this level, if at all possible to spend. Furthermore, the current practice of depositing a part of patient OOP contributions at facilities in a single treasury account (STA) makes it difficult for facilities to make use of these funds.

- Reducing duplication across and within disease programmes: accounts referred to some vertical programmes being dispersed and incoherent, each supported by specific donors and targeting different priorities. One example of such an incoherence is vaccination in Littoral region, where vaccination communication campaigns are very well funded, but there is a lack of funds for providing the actual vaccines, with vaccination rates consequently dropping. Fragmentation within the same programme is another issue; one example is maternal and child health, with three institutional structures playing different roles (Directorate of Family Health; Directorate of Health Promotion; and the Programme for Fighting against Maternal Mortality), making coordination difficult.

- Reallocating budget in line with disease burden and projected expenditure needs: there appears to be no coherent strategy or mechanism to ensure the coherent allocation of health sector resources in line with the disease and investment needs. This reportedly leads to seemingly paradoxical situations, e.g. investment plans are put forward to build or refurbish health centres in areas where population size or disease profile does not necessarily warrant it. Another aspect to consider is the insufficient clarity in proposed health sector budgets, for example investment budgets masking operational expenses (an aspect also mentioned in the recent *Lettre du Cadrage Budgétaire*). There is a perception that increased transparency in resource allocation mechanisms would be conducive to improving health expenditure performance. To an extent, the same applies to ODA in the sense that budget support has varying levels of clarity and specification across the different donors, which makes it difficult to monitor expenditure performance.

These views are closely aligned with the findings of the recently conducted PER. The analysis identifies potential avenues for improving allocative efficiency (e.g. using global budgets for health facilities) and technical efficiency (e.g. strengthen supply chain) (Table 3). A distinct mention is made to the potential role that the private sector can play – with appropriate regulation, coordination and incentives – not only in service delivery, but also in the efficient provision of medicines, consumables and supply. The PER analysis recommends the nationwide scale-up of PBF together with measures for improving resource allocation, strengthening human resources and drug supply chain. PBF appears to be the

major ongoing initiative aimed at stimulating efficiency improvements, with encouraging results. Interviewees across the institutional spectrum generally shared an appreciation of the results that PBF has had to date and were in agreement that its continuation and scale-up are opportune.

Table 3: Potential avenues for improving health sector efficiency in Cameroon

Allocative efficiency	Technical efficiency
• Use of global budgets for health facilities (by creating a single line for each entity) • Distribute the existing budget more equitably among the different levels of institutions, especially in favour of levels of care that are closest to the user and where cost-effective care is provided, such as primary, preventive, and community health services • Fund transfers to peripheral-level providers should be done through a direct transfer to the health facilities' bank accounts • Implementing an intra-regional budget allocation system to deploy resources where the need is greatest • Increase budgetary allocations to primary and secondary care facilities • Eliminate any transfer of providers' revenues to the central government level • Extend to public budgetary allocations the equity-based allocation approach currently exists in areas implementing PBF for subsidy payments.	• Increase the number of health professionals, particularly in areas with greater disease burdens • Decentralize the management of human resources, improve motivation and incentives for employment in remote locations • Reduce staff absenteeism through individual performance-based payments • Revamp certain training programs to be more responsive and attractive to patient needs (for example, adolescents and reproductive health services • Increase and decentralize investment budget execution to level of the service provider • More and higher quality on-the-job training, coaching and supervision of service providers • Strengthen public supply chain and regulatory bodies • Reinforce regulation of the private pharmaceutical sector • Allow for service providers to procure medicines and equipment from all accredited suppliers (public or private) • Clarification and better structuring of the budget (especially for budget lines with high amounts) • Reduce service provider dependence on user fees by increased public investment in service delivery • Improve transparency in prices of services and drugs through public postings of price schedules and policies of having a unique cashier at health facilities

Source: Adapted from World Bank (2017) – Public Expenditure Review of the Health Sector in Cameroon.

Interviewees also revealed, however, that even if such measures for improving efficiency were taken, their impact would be limited without simultaneously addressing the existing structural limitations in the health sector – also identified in the PER report. One such example refers to the lack of trained nurses and doctors in certain types of health facilities, particularly in remote areas. The technical capacity to manage budgets in peripheral facilities is another limitation, as outlined above. There is, as such, a perception that some initial investment and careful operational planning are required in order to make operational any efficiency improvement measure.

5.2 Raising Budget Allocation

Public spending is the most important source of health funding, from a sustainability perspective, in a predominantly tax funded system. It is essentially a factor of the size of the economy (GDP) and the tax to GDP ratio (which provides the basis for government revenue).

There is a clear argument that efficiency needs to be dealt with before new funds are injected into the health sector. However, there are two points which show the need to consider raising budget allocations to health:

- Firstly, funds will be needed to research, develop, and implement efficiency measures before any savings emerge. For example, buying drugs in bulk to reduce per unit costs may require better storage facilities and improved IT management of drug stocks.

- Secondly, analysis has shown that the current system is heavily underfunded and performance and outcomes are suffering. As the IMF points out "*social spending, particularly on health, lags behind that of peer countries, and so do most social indicators*", and goes on to suggest an 'expansion of social safety nets'[40]. If Cameroon is to achieve its poverty reduction goals, then investment in health is crucial.

The budget allocation to health is around 5% of GGE. The HSS 2016-2027 establishes a projection where the allocation rises from 5% to 10% by 2027[41]. This is in more in line with the Abuja Declaration, which Cameroon has signed, where the aim is to allocate 15% of the budget to health.

Figure 14 shows the results if we move towards an allocation of 15% by 2035. This would more than double the annual average budget for health. By 2035 the allocation could be as much as 2,230 billion CFA compared to the 782 billion CFA in the business as usual scenario. This would reduce the financing gap substantially from 5.3% of GDP to 4.3% on average over the time period.

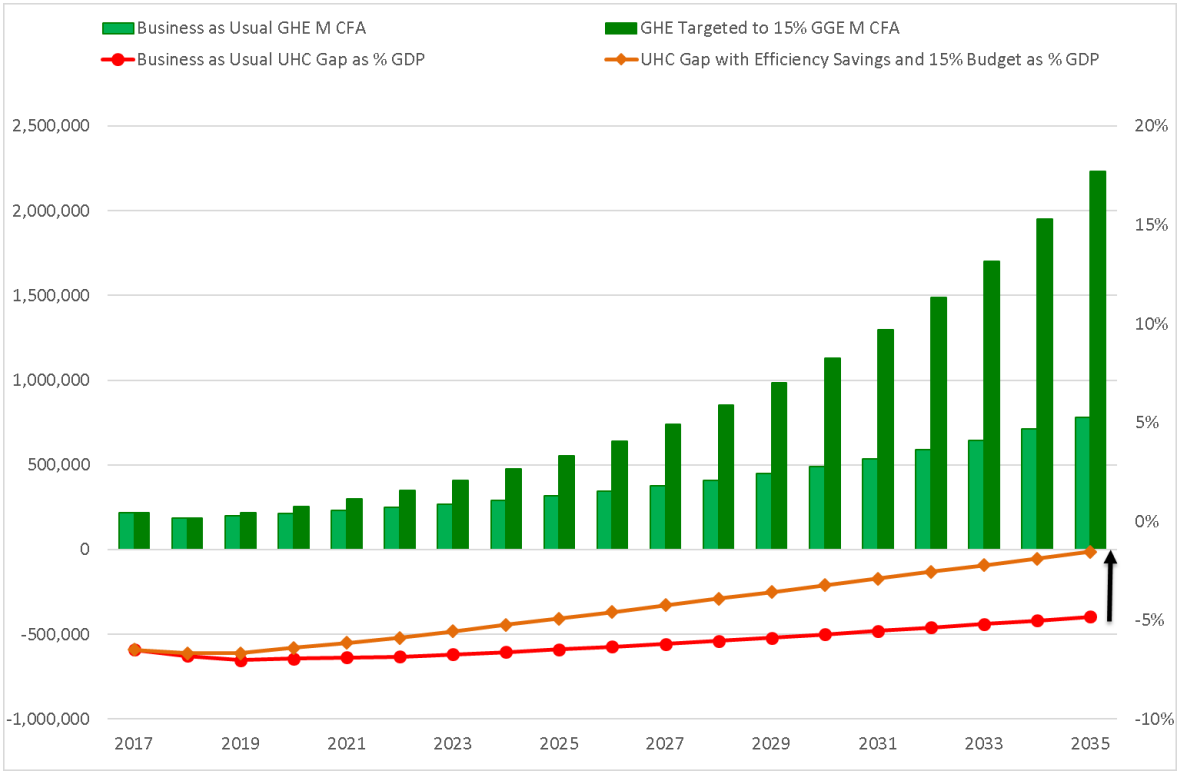
The increase in budgetary allocation is carried out over eighteen annual budgets. This would provide time for MINSANTE to improve its absorption capacities as well as deal with inefficiencies. It also provides time for MINFI to reassess total allocations and the impact on other sectors. Saying that, there are very few countries that do achieve the 15% allocation. And yet it is imperative to see that even with numerous efficiency measures the health sector will remain categorically underfunded and cannot deliver on basic services, let along UHC in the foreseeable future. A very decisive, uncomplicated and effective way in which to deal with this is to raise budget allocation.

Finally, it is important to note that the ability of the Government to raise budgetary allocation is not only linked to the political will to do so, e.g. moving priorities from transport infrastructure to health. It is also a function on the wellbeing of the economy – the Government wouldn't need to move as much in nominal terms if the entire budget envelop rose. For this to happen, the Cameroonian economy would need to incur solid economic growth and the tax to GDP ratio will have to remain stable if not rise. There is currently a push to widen the reliance of tax revenues from the non-oil sector[42]. Whilst tax reforms are

[40] IMF (2017a), page 5.
[41] Ministry of Public Health (2016c), page 203.
[42] IMF (2017a).

underway these take time, as such the public-sector financing may be a long-term goal for Cameroon, but as the financing gap for UHC shows, money for health is needed in the near term.

Figure 14: Projected GHE and Revised UHC Financing Gap (Millions CFA)



Source: Authors' calculations.

5.3 Earmarked Taxes

General taxation reform takes time. To raise general taxes to increase domestic budget spending can be a lengthy process. As we've seen from the section above the incremental rise in budget allocation to health makes a significant reduction in the resource gap, but over the short-term the health sector will rely on lower budget allocations. However, there is fiscal space to increase taxation and this can be done in the near term by implementing earmarked taxes. Indeed, Cameroon has already shown strong political commitment to the health sector by implementing the airline levy to raise funds for HIVAIDS through membership of UNITAD. This in essence is an Earmarked or Hypothecated Tax. A full description of earmarked taxes is set out in the Annex E, together with an overview of the theory and practical examples.

The main arguments against earmarked taxes and levies are that they may lead to inefficient allocation of resources by removing spending decisions from broader public resources allocation processes, introduce additional distortions into economic decision-making and may undermine parliamentary/democratic control of public finances. Nevertheless, there are some arguments in favour of specific taxes and the earmarking of spending.

International best practice for public financial management and taxation favours taxes being paid into the general (consolidated) fund with specific spending allocations being made as

part of the general public finance process. However, earmarking tax revenue also plays an important role in ensuring the political acceptability of additional taxes and levies. This is particularly the case where the taxes are put to a clearly defined social benefit (such as health services) or linked to particular social dis-benefits (e.g. sin taxes).

From a large list of potential sources of earmarked revenues this report has analysed different potential earmarked taxes and levies for Cameroon to consider. The full list is set out in Table 4 in order of their score within selection criteria to assess their effectiveness as sources of funding for UHC. Each has been measured on a five-point scale: 1) sustainability of resource flows over time; 2) stability of funding; 3) progressiveness (i.e. impact on equality); 4) administrative efficiency (how costly it would be to set up and maintain the levy); and 5) any potential side effects.

The table shows that the top scoring types of levy are: Airline (not included as UNITAID is already implemented) and Sin Taxes (Dormant funds are not relevant as there is no data). Whilst Remittances and Airtime have mediocre scores they have been discussed in country as so will be put forward for consideration.

Table 4: Overview of the Costs and Benefits of Innovative Funding Mechanisms

	General Findings					
Mechanism	**Sustainability**	**Stability**	**Progressivity**	**Administrative Efficiency**	**Side Effects**	**Total**
Airline levy	4	4	5	4	4	**21**
Dormant funds	4	4	5	3	4	**20**
Tourism levy	4	4	5	3	3	**19**
Sin taxes – Alcohol & Tobacco	4	4	2	4	3	**17**
Remittances levy	4	3	2	4	3	**16**
Private sector contributions	3	3	3	3	4	**16**
Airtime levy	4	4	2	4	1	**15**
Health bonds	1	5	3	1	4	**14**
Health lottery	2	2	1	2	4	**11**
						Total

Source: Adapted from Lievens (2012)
Note: Summarises findings from countries that have implemented, or carried out analysis on these earmarked taxes

The findings from other countries have been applied to the Cameroon macro - health framework for the three chosen. This suggests that Cameroon could gain an additional 123 billion CFA a year over the projection period if the various earmarked taxes were implemented. This would be the equivalent of raising an additional 0.4 percentage points of tax:GDP and would close the financing gap by 5% over the time period. However, it is unlikely that these all three taxes will be implemented. Therefore, the arguments for and against each type are summarised below.

- **Sin Taxes** – A tax on alcohol and/or tobacco. Sin taxes may be easier to digest for tax payers, in as much as they are taxing socially undesirable goods. If further analysis proved that the market could absorb a tax in these industries the sustainability of resource flows to health would be achieved. This is because there would be little pressure to reduce the taxation of these goods from a social standpoint. Furthermore, there would be little administrative cost in setting up this

levy as the taxation systems are already in place for both alcohol and tobacco. There are concerns that this type of tax is not progressive in that lower-income households will pay proportionally more of their incomes on this tax. Yet, it has been argued that the higher you raise this tax the poor are priced out of the market and so their health risks are taken out of the equation and this type of sin tax can also be viewed as a luxury goods tax.

- **Airtime Levy** – A tax on mobile phone calls. The industry is expected to continue to grow rapidly over the next few years and so revenues could be relied upon in a consistent manner. However, lower-income households spend proportionally more of their income on airtime than higher-income households. This, as well as the idea that new services such as mobile money could benefit the poor, suggests that this could be a regressive rather than progressive tax. Further research into the plans for mobile banking services (undertaken in many SSA countries) should be carried out before a decision to increase the tax on this industry is made. This should also include analysis of the potential side effects of raising taxes on airtime for businesses, finance and other industries.

- **Remittances Levy** – A tax on all money transfers from abroad. Although remittances provide a sustainable and rising base to raise health funds from they are not progressive. They are effectively a tax on those receiving remittances – usually the poor in a society. If this funding mechanism was chosen new administrative measures would have to be put in place to monitor and audit revenue flows, which would be costly. Given the important contribution that remittances make to economic development and poverty reduction, and the limited understanding of the behavioural effects that any policy change may cause, more research is warranted before this could be a recommended funding source

Our stakeholder interviews revealed that there is a recent history of attempts to introduce earmarked taxes for health, however these did not materialise and became general-purpose taxes instead. High-level leadership would be required to introduce such a mechanism under current legislation, i.e. through the creation of a *Compte d'Affectations Spéciales*. Nevertheless, the HSS 2016-2027 mentions (page 74) that "*The MOH and its technical and financial partners are engaged in innovative strategies to mobilize additional resources. These include the following amongst others: Participation in the global UNITAID initiative through funds obtained from a 10% quota from airport tax levied on airline tickets for international flights*". From discussions with members of the UHC taskforce, our understanding is that such mechanisms remain under consideration, nevertheless they remain at an exploratory stage. An additional consideration is that if revenues collected through earmarked taxes would go to the single treasury account, as per current fiscal practice in Cameroon, in theory the funds could be used by the Government for other objectives.

5.4 Household Contributions

The sum of these three domestic initiatives are not sufficient to reduce OOP to desired levels. The goal of attaining UHC and the linked aim to reduce OOP payments to 30% by 2027 would not be achieved[43]. Also, OOP payments would not be lower than 20% of THE

[43] As outlined in the HSS 2016-2027.

as required to avoid CHEs[44]. Figure 15 provides a snapshot of OOP as a proportion on THE in both financing scenarios. In the business as usual case, OOP remains high at 62% of THE in 2035. Maximising fiscal space makes the government the majority source of funding in the sector – contributing 56% of THE in 2035. However, OOP remains high at 40% of THE.

Figure 15: OOP as a share of THE Under the Business as Usual and Maximised Fiscal Space Scenarios

Source: Authors' calculations.

Given this situation of high OOP expenditures Cameroon has plans to try to capture household spending on health in a more organised and planned way. There has been a study undertaken to consider how the population could contribute towards the UHC benefits package[45]. In this study the capacity to pay is disaggregated by socio-economic status and all would benefit from the UHC package of health services. The study estimates the total amount that would be collected from household contributions could be around 385 billion CFA in 2017. If this level of contributions were able to be captured as a pre-paid insurance style mechanism these would account for 79% of all household health payments (currently classified as OOP). As a result, the remaining expenditure on health from households would be classified as OOP and account for only 11% of THE.

No projections of the potential contributions from each of the five socio-economic groups are given. This would need to be calculated with demographics and economic factors to create a more accurate projection. However, a rough back of the envelope calculation was carried out by inflating this figure annually up to 2035. This shows that the household contributions could rise from the 385 billion CFA to 629 billion in 2035. This could close the original health

[44] WHO (2010).
[45] Abanda (2017).

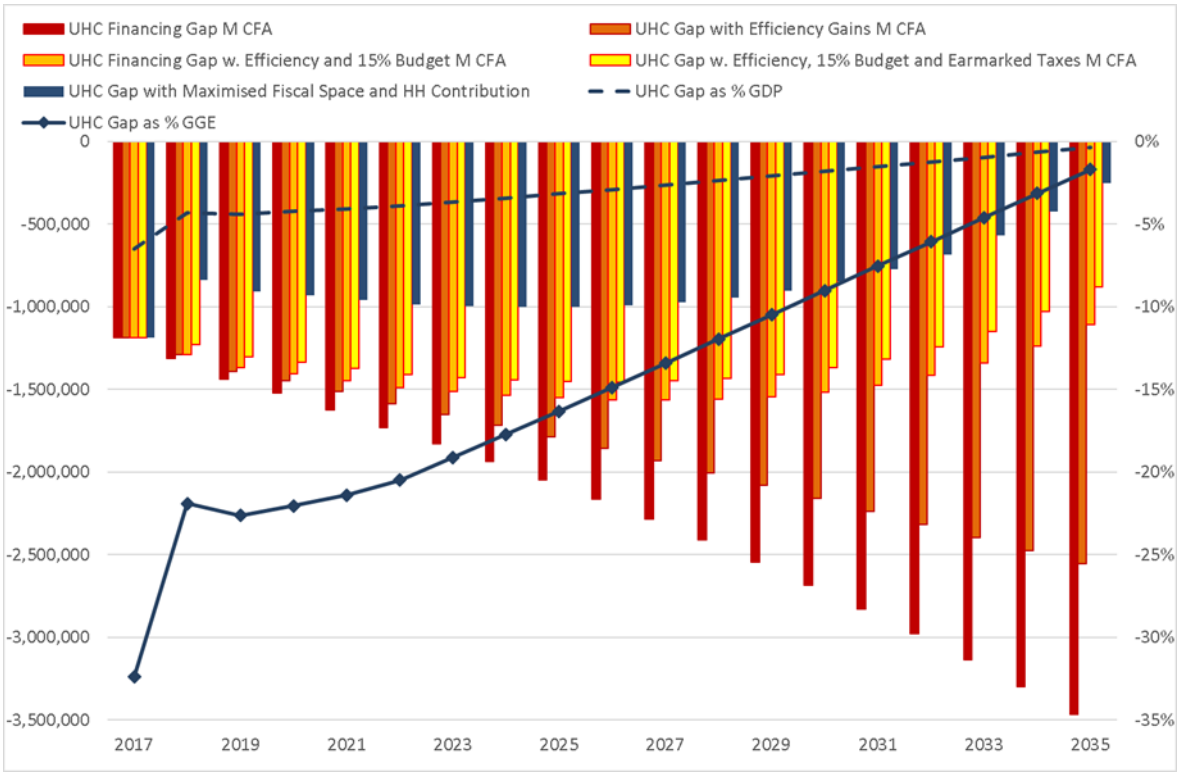
financing gap by 37%, and the remaining gap (after the three other policy options) by 63%, on average over the time period.

It must be noted that under this projection scenario the potential 2017 household contributions are insufficient to retain OOP payments under 20% of THE. By 2023 OOP spending is 21% of THE and in 2035 they are projected to rise to 24%. Therefore, additional policy options would need to be considered over time to ensure that OOP expenditures could be kept under CHE levels.

5.5 Resultant new fiscal gap

The sum of these health financing activities are set out in Figure 16. If efficiency savings were made, budget raised to reach 15% of GGE by 2035, earmarked taxes were implemented for health, and household contributions were introduced the financing gap could reduce from 2,231 billion CFA to 832 billion CFA – on average over the time period. This implies a 2035 gap of 0.4% of GDP as compared to 4.8% in the business as usual gap.

Figure 16: Projected UHC Financing Gap: Maximising Fiscal Space (Millions CFA)



Source: Authors' calculations.

In more detail this chart shows the following:

1. The original financing gap (red bar chart) is the resultant gap under scenario 1 'business as usual'. By 2035 the gap is projected to reach 3,467 billion CFA, which is 4.8% of GDP.
2. The next bar chart (orange) shows how the gap can be reduced through efficiency savings. If a focus on efficiency was implemented and carried out the gap could be reduced to 2,556 billion CFA, 3.6% of GDP by 2035.

3. The third bar chart (gold) shows the sum of the government's actions on efficiency (in point 2 above) with an increased budget allocation. Moving towards the 15% Abuja target could reduce the gap to 1,107 billion CFA, 1.5% of GDP in 2035. This has a substantial impact on the resource gap.
4. The forth bar chart (yellow) shows the sum of the government's actions (in point 3 above) with the potential resources from earmarked taxes. These innovative funding mechanisms could further reduce the financing gap to 882 billion CFA, 1.2% of GDP by 2035.
5. The final bar chart (blue) takes the situation in point 4 above and adds in pre-paid household contributions. This leaves a final financing gap of 252 billion CFA in 2035, equating to 0.4% of GDP; i.e. if all these actions are considered in conjunction the financing gap would not be filled.
6. Under this scenario, if the GoC wanted to fully close the gap to cover all UHC needs over the entire period they would need to attract ODA. The amount needed is represented by the blue final bar chart, which averages 832 billion CFA a year across the projection period. As a proportion of GDP this would be the equivalent of 2.7% of GDP a year.

5.6 Filling the Remaining Gap: ODA

After a number of scenarios raising domestic financing and increasing fiscal space for health, there remains a financing gap to achieve UHC. In other words, Cameroon does not have enough domestic resources over the foreseeable future to fund its health sector aims. One remaining option would be to raise external financing to deliver a basic package of health services to the population.

To protect the health sector for greater levels of unsustainable income flows the type of ODA required needs to be explicit. This means ODA that has better coordination of finance and programs which are aligned with government plans and budgets. Preferably on-budget, multi-year commitments.

Cameroon currently receives external financing from a number of organisations[46]. These include multinational institutions such as the UN, EU, World Bank, African Development Bank, Global Fund, and GAVI. Bilateral cooperation includes USAID, AFD, KFW, GIZ and CDC. A consultative framework for partners in health has been agreed between MINSANTE and these development partners to support the implementation of the Health Sector Strategy. Additionally, sector budget support would be provided by means of the C2D (*Contrat de désendettement et de développement*). However, there remains a need for real alignment between development partners and national priorities.

Other countries have developed more methods to achieve greater alignment and a more sustainable and manageable flow of external financing. For example, Rwanda has a strict division of labour to improve aid effectiveness by reducing duplication in accordance with the Paris Declaration. Sierra Leone has Service Level Agreements which were implemented to improve coordination and part of the government mandate is delegated to non-government

[46] This paragraph draws from Ministry of Public Health (2016b).

entities[47]. Both of these initiatives allow the respective Ministry of Health to capture which partner is implementing which activities in what locations, whilst allowing the Ministry to maintain the leading role in setting health priorities. These logistical advances can improve the efficiency of external funding and align available financing to health priorities.

However, there is a substantial financing gap to be filled: 832 billion CFA on average per annum over the time period. The government would need to find out what barriers exist to on-budget support. The reasons may be multifactorial and complex. A few common examples could be: a lack of trust in PFM of the government, more specific reservations about the budgeting and planning abilities of the health sector, or headquarters limitations to investing in a middle-income country.

Once the barriers and known and understood, the Government can work on these so as to attract more external financing on budget. Additionally, health policies and implementation plans, alongside costing estimates can be used as advocacy tools to gain extra external support. However, donors need more than strong political will to disburse funds. Short-term efforts to overcome these problems would benefit long-term commitments from donors and provide a stronger basis for more efficient external and domestic financing for the sector.

In sum, a more sustainable healthcare system would involve a closer alignment of donors with government systems and especially more on-budget funds. Without external support the health sector is unlikely to continue delivering services effectively.

[47] See MOHS website: http://health.gov.sl/?page_id=3761. Led by HSS Hub and in early stages of implementation.

6 Conclusions

We summarize below the main findings from our analysis:

- In the absence of recent, complete and robust costing exercise of the Cameroonian health sector, we used the One Health Tool costing for the National Health Development Plan (minimum cost scenario) and international UHC spending benchmarks (maximum cost scenario) to project future health expenditure needs. Under the minimum cost scenario, health sector needs grow from 346 billion CFA in 2016 to 815 billion CFA in 2035; equivalently, from 15,000 CFA per capita in 2016 (25 USD), to 21,500 CFA per capita in 2030 (34 USD). Under the maximum cost scenario, health sector needs grow from 1,382 billion CFA in 2016 to 4,319 billion in 2035; equivalently, from 58,000 CFA per capita in 2016 (98 USD), to 114,000 CFA per capita by 2035 (183 USD).

- Under a 'business as usual' scenario informed by recent trends and the existing macroeconomic outlook, official health expenditures (OHE) are projected to rise from about 310 billion CFA in 2016 to 852 billion in 2035; equivalently, from 13,000 CFA per capita in 2016 (22 USD) to 22,500 CFA per capita in 2035 (36 USD). In real terms this represents a decline in investment as OHE declines from 1.8% of GDP to 1.2% of GDP. Government health expenditure is projected to account for 92% of OHE by 2035.

- The resultant financing gap (difference between projected financing needs and projected financing expenditure) under 'business as usual' would increase by 2035 to 3,467 billion CFA per annum (maximum cost scenario). Under the minimum cost scenario, which likely understates health sector needs, the financing gap would rise over the medium term to 172 billion CFA by 2026 before declining and arriving at a surplus of 37 billion CFA by 2035.

- OHE available now can cover a health care package costing 14,000 CFA per person (22 USD). If the current health financing policy continues, this rises to 22,500 CFA (36 USD) by 2035.

- We construct distinct policy scenarios of maximizing fiscal space for health which include i) improving overall health sector efficiency based on trends seen in previous years; ii) increasing government health spending to 15% of government expenditure by 2030; iii) introducing earmarked taxes for health; and iv) Household Contributions to health. Under these scenarios, independently or in conjunction, the financing gap (maximum cost scenario) reduces to various degrees, but is not fully closed by 2035.

- At this stage, the size of the funding gap is more dependent on having a realistic, accepted estimate of health sector needs, than of the detailed policy directions that could minimize the gap. It is very likely that a funding gap will remain. As such, having a realistic health financing policy that acknowledges this reality is essential.

We recommend the following points for consideration by Cameroonian stakeholders:

- Finalizing the costing for the UHC benefit package is a priority in order to have realistic estimates of health sector needs. However, it is likely that the UHC benefit package will cover only a proportion of health sector needs. As such, the results of this analysis remain indicative within a large range of assumptions. With preliminary cost results for the UHC benefit package pointing to approximately USD 20 per capita in 2017 (projected to rise to 42 USD per capita by 2035), there would be a fiscal gap in the medium- and long-run. A mixture of efficiency savings, budgetary allocation, earmarked taxes and household contributions can work together to cover the financing needs of the UHC benefits package.

- Existing analyses of avenues to improve efficiency in the Cameroonian health sector can be built on to develop concrete implementation plans for making efficiency gains, taking into account operational costs and the size of their expected efficiency gains.

- While making efficiency gains is the first priority, the potential contribution of increased health spending towards closing the financing gap is likely to be more substantial in the long run. Efficiency gains alone are unlikely to close the gap. As such, the option of increasing budget allocations for the health sector should remain present and active in the dialogue between MINSANTE, MINFI and MINEPAT, particularly in the context of current discussions to identify UHC financing mechanisms.

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Annex A List of stakeholders met

Name	Institution, position
Mr. Luc Florent Andegue	MINSANTE, Directeur, Direction des Ressources Financières et du Patrimoine
Mr. Patrick Bandolo	MINSANTE, Sous-directeur Budget et Financement, Direction des Ressources Financières et du Patrimoine
Dr. Serge Billong	MINSANTE, Chef Section Recherche, Planification, Suivi et Evaluation ; Conseil pour la Lutte contre le SIDA
Dr. Jacqueline Matsezou	MINSANTE, Coordonnateur du Secrétariat Technique du Comité de Pilotage et de Suivi de la mise en œuvre de la Stratégie Sectorielle de Santé
Dr. Christine Ename	MINSANTE, Secrétaire Permanent du Groupe Technique Central, Programme Etendue de Vaccination
Dr. Bernard Chemaga	MINSANTE, Chef de Direction, Direction Promotion de la Sante
Dr. Oumarou Gnigninajouena	MINSANTE, Coordinateur du Secrétariat Permanent, Observatoire National Sante Publique
Mr. Enandjoum Bwanga	MINSANTE, Programme National de Renforcement de la Performance dans le Secteur Sante, Coordinateur National
Mr. Roger Wakou	MINFI, Chef de Division, Division de Planification Budgétaire
Ms. Eyeffa Ekoffo Sylvie M.L.	MINFI, Chef Synthèses Macroéconomiques, Division des Affaires Economiques
Mr. Nnanga Ernest	MINEPAT, Chef de Division, Division de la Prospective et de la Planification Stratégique
Mr. Nkou Guy Raymond	MINEPAT, Sous-Directeur, Sous-Direction de la Préparation du Budget d'Investissements Publics
Mr. Mendo Paulin Fritsh	MINEPAT, Chef Analyses Economiques, Division d'Analyse Economique
Mr. Bouba Bassirou	CIDR, Projet Cheque Sante, Chef projet
Mr. Simeon Nsabimana	CIDR, Projet Cheque Sante, Coordonnateur Technique
Mr. Jean-Claude Taptue Fotso	Banque Mondiale, Spécialiste de la sante
Ms. Alice Raymond	CHAI, Expert financement de la sante
Ms. Felicia Price	USAID Cameroun, Chef d'Equipe Sante
Mr. Dramane Batchabi	Bureau International du Travail Cameroun, Spécialiste pour les Activités de Protection Sociale
Dr. Etienne Nnomzo'o	Organisation Mondiale de la Sante Cameroun, Conseiller charge de la lutte contre les MTN
Ms. Antoinetta E.D. Awaga	GAVI, Senior Country Manager (par téléconférence)
Dr. Albert Ze	Expert Gestion Finances Publiques

Annex B Methodology

B.1 Introduction

The macroeconomic approach adopts a numeric framework, known as a financial programming framework, which is designed to assist in the development of a consistent approach to the different aspects of economic policy. The key feature of the financial programming framework is that it is based on a comprehensive view of the national economy, comprising four inter-dependent sectors. The four sectors are:

- the real sector, which relates to productive activities of the economy;
- the fiscal sector, which captures government transactions;
- the external sector, which includes all transactions between the country in question and other countries; and
- the monetary sector, which includes the transactions of the banking system and of the central bank.

While not a sector in its own right, attention is also given to the debt of the central government, as the stocks and flows of the government's debt are reflected in the fiscal, external and monetary sectors.

At the outset, it should be clearly understood that the macroeconomic framework is not an economic model. It does not constitute a set of equations that attempt to model the behaviour and interaction between different sets of economic agents. In economic terminology, it is not based on a set of econometrically estimated behavioural and/or structural relationships that drive economic outcomes.

The macroeconomic framework is instead a tool for ensuring consistency between different sets of assumptions about the future course of the economy. In other words, by starting with a set of assumptions about the economy (e.g. GDP growth), the framework assesses the impact of different policy options on the four sectors of the economy in a consistent manner.

B.2 Key components

The starting point for the macroeconomic framework is the tables published on the country's macroeconomic performance by the IMF. These tables are produced in a standard format for all countries as part of the IMF's Article IV surveillance activities. The standard IMF documents include five tables that are replicated in the macroeconomic framework used for this analysis. These are:

- Table 1: Selected Economic Indicators, containing summary data from the real, fiscal, monetary and external sectors;
- Tables 2 and 3: Fiscal Operations of Central Government, describing the government budget and its financing;
- Table 4: Monetary Accounts, showing the paths of broad money, net foreign assets and net domestic assets; and
- Table 5: Balance of Payments, including indicators on gross international reserves.

These tables are transposed into Excel and expanded further as necessary, to produce data for the four sectors of the economy described above. This is done through the following six work sheets:

- **Overview:** includes projections for headline macroeconomic variables such as real GDP growth, the GDP deflator and the exchange rate;
- **Real:** provides the projections of the real sector, including values for GDP and its components (including consumption and investment);
- **Fiscal:** provides information on the annual budget for the government, including projections for domestic revenue, expenditure, grants and deficit financing;
- **Money:** provides projections for the monetary sector. It includes the path of key monetary aggregates, such as credit to the private sector;
- **External:** provides forecasts for the balance of payments, including projections for imports, exports, and gross international reserves; and
- **Debt:** while the debt sheet does not reflect a sector as such, it performs a simple function by taking the debt disbursements, combining these with the existing debt stock and forecast repayments, to project the debt variables into the future.

The different sheets are all linked to each other to ensure consistency, as discussed below. Additional worksheets are used to group together the key macroeconomic assumptions, to include the data on health resources, and to present charts of macroeconomic indicators.

B.3 Theoretical approach

The framework uses four macroeconomic accounting identities to ensure consistency between the different sectors of the economy. A macroeconomic accounting identity is a relationship between a set of economic variables that must hold true by definition. For example, GDP must be equal to the sum of its components (investment, consumption, imports and exports). Each sector has its own accounting identity.

The framework ensures consistency between the sectors in two ways. First, the macroeconomic framework ensures that all of the accounting identities are met. It does this through the use of a 'residual' item, which is set via a formula to ensure that the identity is always true. For example, if we have already determined GDP, investment, imports and exports, then there can only be one value for consumption that is consistent with the accounting identity for the real sector (i.e. Consumption = GDP – Investment – Exports + Imports). In this case, consumption is known as the 'residual.'

Second, the macroeconomic framework ensures that wherever a variable features in more than one sector, the projections for that variable are the same in both sectors. For example, imports feature in both the real sector (as a component of GDP) and the external sector (as a component of the Current Account). Thus, the macroeconomic framework will ensure that whatever values are used for imports in the external sector are also used in the real sector.

B.3.1 Macroeconomic accounting identities

This section will examine the accounting identities used in each sector and the residual that is used to balance them.

The real sector

Basic identity:

GDP = Consumption (Private + Public) + Investment (Private + Public) + Exports – Imports

Residual:

Private Consumption

The primary assumption in this sector is that of growth in real GDP. This is used to extrapolate the current figure for GDP into the coming years. An assumption is also made about the future path of the GDP deflator to convert between real GDP and nominal GDP.

Having determined the value of GDP in future years, it is necessary to determine its composition. Public consumption (i.e. government current expenditure) and public investment (i.e. government development expenditure) are determined by the fiscal sheet (see below). By making assumptions about the share of investment in GDP, it is possible to produce forecast figures for investment. Finally, imports and exports are linked from the external sheet (see below).

Therefore, having determined the total value for GDP and all but one of its components, the residual component must be set to ensure consistency with the basic accounting identity. In this case, private consumption is used as the residual and is equal to GDP plus imports, less exports, private investment and total government spending.

The fiscal sector

Basic identity:

Total Revenue – Total Expenditure = Net Borrowing

Residual:

Net Disbursements of Domestic Debt

This sector is focused on the government budget. In the first place, tax revenue is determined (based on an assumption about its share of GDP), as well other sources of revenue, such as grants and non-tax revenue. External grants are converted to local currency using the exchange rate.

Assumptions are made about the government's expenditure (excluding debt service). The interest payments on debt are calculated in the debt sheet, such that a higher deficit in one

year is reflected in higher interest payments in the subsequent year. These factors determine the government's overall deficit and hence the government's borrowing requirement. Future disbursements and principal repayments on external debt are determined by assumption and converted to local currency using the exchange rate.

All that remains is to determine the net disbursements on domestic debt. This is the residual in this sector and it is set at a level to balance government borrowing with the overall deficit.

The monetary sector

Basic identity:

Net Foreign Assets + Net Domestic Assets = Broad Money

Residual:

Net Claims on Other Sectors (a component of Net Domestic Assets)

Net foreign assets are determined by the net flow of foreign currency into the country, which is given by the change in official reserves in the balance of payments (i.e. from the external sheet).

Net domestic assets includes net claims on government and net claims on other sectors (i.e. the private sector). Net claims on government is determined by the outstanding stock of government debt, which is taken directly from the debt sheet. Net claims on other sectors is the residual in this sector and therefore calculated at the end.

Broad money can be derived from the economic relationship between nominal GDP, broad money and the velocity of money (PY=vM). Broad money is therefore calculated by dividing nominal GDP by an assumed figure for the velocity of money.

Having determined everything else using the above assumptions, net claims on other sectors is the residual and is set to ensure compliance with the accounting identify for this sector. It is equal to broad money less net foreign assets and less net claims on government.

The external sector

Basic identity:

Current Account + Capital Account + Financial Account + Errors and Omissions = Change in Official Reserve Assets

Residual:

Change in Official Reserve Assets

The external sector is essentially a representation of the balance of payments, which captures the flow of foreign currency into and out of the country in question. The current account is determined by assumptions about the import and export of goods and services,

income and remittances. Also included in the current account are government interest payments on external debt (taken from the debt sheet) and external budget support grants (taken from the fiscal sheet).

The capital account includes external project grants (taken from the fiscal sheet). The financial account requires assumptions about foreign direct investment and portfolio investment. The only other significant components of the financial account are the disbursements and repayments of external loans to government, which are taken from assumptions in the fiscal sheet.

Errors and omissions are assumed to be zero in the future. The only item left is the change in official reserve assets, which is used as the residual to ensure consistency in this sheet. The change in official reserves is therefore given by the sum of the current account, the capital account and the financial account.

B.3.2 Key linkages between the sectors

As discussed above, the second source of consistency comes from the use of only one set of forecasts wherever a variable appears in two different sectors. Table B.1 summarises the linkages between different sheets. It is important to note that the link is created from the sheet listed on the left-hand side to the sheet list along the top of the table (i.e. imports from the external sheet are transferred to the real sheet.) To avoid confusion, only the most important linkages are shown, and these correspond with the linkages discussed in the text above.

Using the above framework, it is possible to condense the forecasting of the economy, and its various sectors, to just a handful of key assumptions. Using these assumptions, the linkages and identities described above, and a few further details, it is possible to then project a range of macroeconomic variables and indicators into the future.

The framework therefore operates by retaining the IMF projections for the short- and medium-term and then making a number of high-level assumptions for key macroeconomic variables over the long term. These assumptions are based on an extrapolation of the medium-term IMF projections and an analysis of the available information on the economy of the country in question.

Table B.1 Key inter-sector linkages in the macroeconomic framework

To From	Real	Fiscal	Debt	Money	External
Real		GDP (for revenue projections)		GDP (for broad money projections)	
Fiscal	Government spending		Net disbursements on domestic debt Disbursements on external debt		External grants Disbursements on external debt
Debt		Interest payments Principal repayments on external debt		Debt stock (for net domestic assets)	Interest on external debt Principal repayments on external debt
Money					
External	Imports Exports		Exchange rate	Change in official reserve assets	

B.4 Incorporating health resources

Health resources can be divided into two forms: revenues and expenditures. It is important to be clear on the distribution to avoid double-counting the resources. For example, a grant from a donor would be included as revenue but may also be counted as expenditure by the government. Table B.2 shows the health resources incorporated into the macroeconomic framework and the sectors to which they are directly linked.

Table B.2 Health resource flows in the macroeconomic framework

Resource flow	Sector linkages
Revenues	
External project grants included in the budget	**Fiscal, External**
External project grants not included in the budget	**None**
External project loans	**Fiscal, External, (Debt)**
Tax and non-tax revenues collected by the government and earmarked for health	**Fiscal**
Domestic borrowing by the government and earmarked for health	**Fiscal, (Debt)**
Expenditures	
Government (current) expenditure	**Fiscal**
Expenditure by external project grants not included in the budget	**None**
Expenditure by private individuals and companies	**Real**

These resources are integrated into the appropriate sectors of the macroeconomic framework. This ensures consistency in both the macroeconomic projections and the health expenditure projections in two ways.

First, those resources that are determined exogenously (either through external factors or by policy decisions) are linked to the macroeconomic framework so that changes in these variables have a macroeconomic impact. For example, higher grants from external donors may (i) increase government expenditure in the fiscal sector and (ii) increase the change in official reserves in the external sector (among other effects). Equally, a decision to increase taxes to finance health will (i) increase the deficit and domestic borrowing and (ii) by higher interest payments on that debt, further increase the deficit in future years (again among other effects).

Second, health resources can be linked to macroeconomic variables to model their size under different scenarios. For example, external grants and loans will be converted into local currency via the exchange rate and domestic resources can be linked to GDP growth to see how they change under different scenarios.

Using the framework above, it is then possible to insert different assumptions for key macroeconomic variables and different health financing mechanisms to examine scenarios for health expenditure into the future. These scenarios can be supported by various indicators to assess the plausibility of the scenario (e.g. is the share of health expenditure of GDP excessive?)

and its macroeconomic stability (e.g. is government debt sustainable? Is the balance of payments stable?).

B.5 Projecting macroeconomic and health variables in Cameroon

The theoretical model outlined was populated with Cameroon statistics and projections. The methodology and data sources are detailed below. All data is shown according to the calendar year, i.e. January to December.

B.6 Macroeconomic variables

Underlying macroeconomic data is taken from the IMF WEO database (April 2017) and the most recent IMF Article IV publications (2014, 2015 and 2017). The historic and near-term estimations are agreed by the Cameroon government and can be viewed as official country data.

The medium-term projections (from 2017 to 2022) are produced by IMF staff. For example, revenues, expenditures, growth, exchange rate and inflation were taken from the IMF.

Where any data is missing, core economic indicators are set in line with middle-income averages. It is expected that Cameroon will remain a middle-income country over the projection period (from model trends). The average rates for a middle-income country were found from the World Bank Development Indicators Database. These were set to be accomplished in a linear fashion:

- Inflation 4%;
- Real Growth 5%;
- Tax to GDP ratio 13%; and
- Recurrent Expenditures as a proportion of GDP 14%.

This provides us with a 'business as usual' scenario and allows us to compare resultant key macro indicators from imposing some restrictions. These are that the fiscal deficit should be declining and that public debt should be less than 40% of GDP (i.e. the IMF DSA suggestion).

B.7 Health sector estimates and projections

This section goes on to describe how fiscal space for health is impacted by the macroeconomic scenario set out above.

B.7.1 Baseline

The model provides a time series on available funding for health from all sources: government, donors, household OOP, and the private sector. Baseline data (2010–2014) are based on the NHA data. 2011 and 2012 are sourced from the NHA national reports. 2010 and 2013-14 are sourced from the WHO Global Health Expenditures Database.

B.7.2 Projections

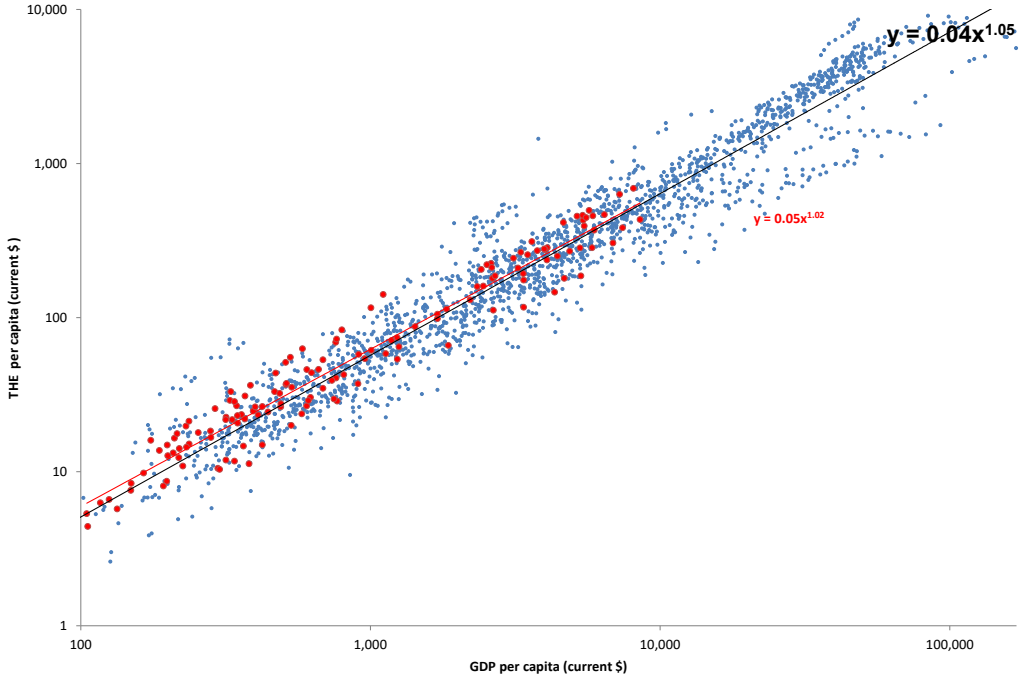
For projections, international datasets have been utilised to identify how spending behaviour changes as a country develops. This theory will be discussed before we look into the individual methods of projecting sources of health funding.

B.7.2.1 Health spending and GDP

THE: the global pattern of total health spending (which includes both public and private expenditure) is closely related to national GDP. Data from the WHO based on NHAs for the years 2001 to 2011 shows that the global average of THE is 7.2% of GDP. Public health spending (GGE on health only) averages 5.7% of GDP globally.

However, THE is not quite proportional to GDP. Figure B1 shows a scatter-plot of THE vs. GDP (both *per capita*) by country for the years 2001 to 2011. As can be seen, THE is strongly correlated to GDP (the r-squared value is 0.94, although the log-log plot conceals a large variance, particularly at high levels of GDP *per capita*). Globally, THE shows an elasticity of about 1.1 with respect to GDP, implying that THE will rise slightly faster than GDP on average.

Figure B1: Global health spending and GDP



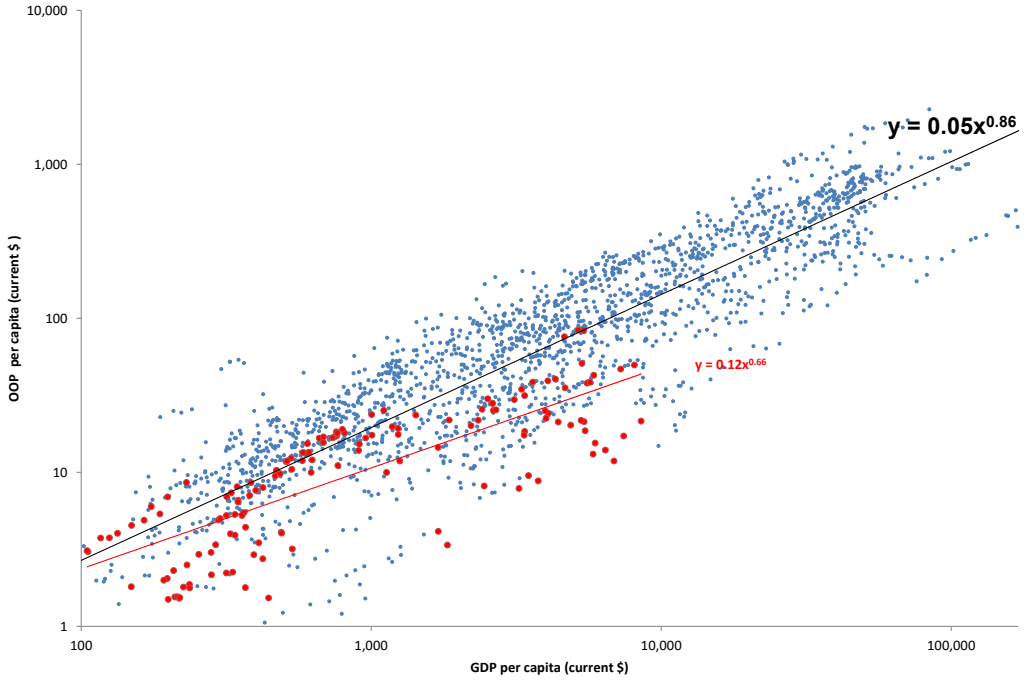
Source: Robert Greener, OPM

Note: Regressions used NHA data combined with IMF GDP estimates on a panel of data. The original purpose of these graphs was to position the Southern African Development Community (SADC) countries within a global context, not to come up with internationally valid SADC-specific elasticities.

OOP Spending: households' OOP spending on health is somewhat more variable than THE, but the NHA estimates also show a global correlation with GDP, as shown in Figure B2.

As can be seen, the global elasticity for OOP is about 0.86—implying that OOP rises more slowly than GDP, and that OOP is a larger proportion of household income in poorer countries. This implies that OOP is significantly lower as a proportion of household income in those countries with higher GDP *per capita*.

Figure B2 OOP expenditure and GDP



Source: Robert Greener, OPM

Note: Regressions used NHA data combined with IMF GDP estimates on a panel of data. The purpose of these graphs are really to position the SADC countries within a global context, not to come up with internationally valid SADC-specific elasticities. The findings are relevant for country-specific case studies.

B.7.2.2 Health resource needs

In lieu of this country-specific costing data, the model uses an estimation of total costs, or what is sometimes called resource needs. The focus is on the requirements for a basic package of services for UHC. We take a recent paper by McIntyre and Meheus (2014) as a starting point[48]. The paper examines the funding requirement to offer a basic package of services with financial protection to the entire population. The 'financial projection' requirement implies that the population should be able to access these services without risk of financial impoverishment. The authors suggest a double target: public health funding of 5% of GDP but not less than US$ 86 (2012 dollars) *per capita*. The latter condition is added in the knowledge that even if some low-income countries did spend 5% of GDP on health they would not reach US$ 86 *per capita*. These cases make a compelling argument for additional contributions from international donor sources.

Cameroon, as a lower middle-income country, requires resource needs at US$ 86 *per capita* as the 5% of GDP target is insufficient.

B.7.2.3 Health spending projections

The projections are then calculated using the following assumptions for the baseline or 'business as usual' scenario:

- *government health spending*: we utilise the finding that general health expenditure grows with nominal growth elasticity of 1.1. This assumes government funding to the health sector will

[48] The 5% GDP and 86 USD per capita targets were confirmed more recently in McIntyre D, Meheus F and Rottingen JA (2017) What level of domestic government health expenditure should we aspire to for universal health coverage? Health Economics, Policy and Law; 12(2):125-137. doi: 10.1017/S1744133116000414

rise at a slightly faster rate than nominal growth; i.e. as a country grows richer it invests proportionally more into its health services;

- *international funding:* over the medium term, donor funding remains stable, representing a decline in real terms. This assumes there will be a decline in external financing for health;

- *household expenditure*: this category relates to OOP expenditures made by households on health care. Internationally, OOP spending's elasticity to GDP is 0.86, i.e. OOP spending grows at a rate that is slower than nominal growth because as a country's income rises the health burden falls less on citizens for *ad hoc* expenditures; and

- *private sector:* grows in line with inflation to reflect the rise in health care costs. This sector makes up a small proportion of health care funding.

Based on these assumptions, the model presumes a 'business as usual' scenario. The two key points in this scenario are:

- ***there are no great policy changes from government in terms of increasing health sector funding; and***

- ***donor money is not flowing as rapidly into health as it has done over the past decade.***

B.8 Resource gap

From the macro, health, and resource needs data a financing gap is found; i.e. how much money is available in a country for health compared to how much money is needed to provide basic needs for health. This resource gap refers to only the 'official health expenditures'; those made by government and ODA; OOP and private sector are excluded. From a UHC perspective, the main contribution official health expenditure lies in its characteristic feature to convert OOP direct payments at the point of health service into predictable periodic premiums. This health financing modality protects health care users from catastrophic financial risk when using health services, which is an essential dimension of UHC. We are therefore measuring the gap between official health expenditures and resources needed to meet a basic package of health services. There are two scenarios built around this:

Scenario 1: Business as Usual: compares health needs against available expenditures from GOC and ODA.

⇨ ***Scenario 1*** presents the situation assuming needs continue as expected, there are no policy changes in spending, and donors begin to reduce their income flows, so there will be a shortfall of financing for health.

Scenario 2: Maximising Fiscal Space: as per scenario 1, but with a change in policy focus towards health. Improving efficiency (making efficiency gains), creating new earmarked taxes, attracting more ODS, and a stronger budget commitment to health; i.e. government expenditures on health rising to targeted values over the time period, reaching 15% of GGE by 2030.

⇨ ***Scenario 2*** present a possible future where governments are taking a pro-active stance to meet the health needs of citizens to meet health care needs.

Efficiency Gains and Savings: countries have differing levels of efficiency. If they can become more efficient, the country will need less money to provide the same levels of service. The potential for each country to improve its efficiency rates have been calculated by international Data Envelopment Analysis (DEA) (Wu Zeng). These are then accounted for in the resource needs, i.e.

reducing the amount of resource needs. A new resource gap is then calculated which includes both innovative funding and efficiency savings. This final financing gap presupposed the implementation of a number of policies from the national Governments regarding implementing a more efficient health system.

Annex C Health Indicators

Table C: Comparing Cameroon with SSA Health Indicators

	2010	2011	2012	2013	2014	2015	2016	Average
Cameroon								
Life expectancy at birth, total (years)	55	56	56	57	57	58	-	56
Mortality rate, under-5 (per 1,000 live births)	105	101	97	94	91	88	-	96
Maternal mortality ratio (modeled estimate, per 100,000 live births)	676	652	632	619	609	596	-	631
Antiretroviral therapy coverage (% of people living with HIV)	16	19	22	23	26	30	37	25
Antiretroviral therapy coverage for PMTCT (% of pregnant women living with HIV)	40	46	54	71	70	85	74	63
Prevalence of HIV, total (% of population ages 15-49)	5	5	4	4	4	4	4	4
Incidence of malaria (per 1,000 population at risk)	322	-	-	-	-	264	-	293
Immunization, DPT (% of children ages 12-23 months)	84	82	85	89	87	84	85	85
Immunization, HepB3 (% of one-year-old children)	84	82	85	89	87	84	85	85
Immunization, measles (% of children ages 12-23 months)	79	76	82	83	80	79	78	80
Sub-Saharan Africa								
Life expectancy at birth, total (years)	57	58	58	59	59	60	-	58
Mortality rate, under-5 (per 1,000 live births)	101	97	93	89	86	83	-	92
Maternal mortality ratio (modeled estimate, per 100,000 live births)	625	601	587	573	560	547	-	582
Antiretroviral therapy coverage (% of people living with HIV)	21	26	31	37	42	48	54	37
Antiretroviral therapy coverage for PMTCT (% of pregnant women living with HIV)	48	58	65	69	74	76	77	67
Prevalence of HIV, total (% of population ages 15-49)	5	5	5	5	4	4	4	5
Incidence of malaria (per 1,000 population at risk)	293	-	-	-	-	234	-	264
Immunization, DPT (% of children ages 12-23 months)	72	72	72	72	74	74	74	73
Immunization, HepB3 (% of one-year-old children)	71	73	72	73	75	74	74	73
Immunization, measles (% of children ages 12-23 months)	73	71	71	70	72	72	72	71

Source: World Bank Databank

Annex D One Health Tool Costing of Cameroon Health Needs

The costing data underlying the domestic health needs calculated by One Health Tool v4.47 are set out in Table D below. Notably, results have been generated using a more recent One Health Tool version than the one in which the projection file was originally constructed, therefore figures may differ from the ones cited in the HSS 2016-2020. There are eight cost areas: Programme costs; Human resources; Infrastructure; Logistics; Medicines, commodities, and supplies; Health financing; Health information systems; and Governance. Of these the programme costs are not populated – as highlighted in red text. This represents a distinct underrepresentation of the true health care package costs and so an underestimation of health needs in Cameroon.

Table D: Health Needs for Cameroon NHDP / HSS (Millions CFA)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Programme Costs														
Program-Specific Human Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Training	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Supervision	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Monitoring and Evaluation	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Infrastructure and Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Transport	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Communication, Media and Outreach	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Advocacy	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
General Programme Management	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	1,062	0	0	1,126	0	0	1,194	0	0	1,266	**4,646**
Total Programme Costs	**0**	**0**	**0**	**1,062**	**0**	**0**	**1,126**	**0**	**0**	**1,194**	**0**	**0**	**1,266**	**4,646**
Human Resources														
Staff salaries and benefits	57,694	94,945	109,121	124,241	140,327	157,512	162,228	167,085	172,087	177,239	182,546	188,011	193,640	**1,926,677**
Total in-service training costs	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Pre-service Training Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Human Resources Administration	0	51	510	170	216	155	191	230	199	167	207	174	215	**2,485**
Total Human Resources	**57,694**	**94,996**	**109,631**	**124,411**	**140,544**	**157,667**	**162,419**	**167,315**	**172,286**	**177,407**	**182,753**	**188,185**	**193,855**	**1,929,162**
Infrastructure														
Construction Costs	10,000	22,886	25,630	34,541	2,862	2,353	2,339	2,447	2,432	2,545	2,529	2,150	0	**112,716**
Equipment, furniture and vehicles	2,452	69,500	26,099	27,400	20,837	19,880	20,026	20,408	20,565	21,511	21,680	19,712	14,516	**304,585**
Rehabilitation Costs	0	4,397	10,857	11,071	9,439	10,166	10,367	10,572	10,780	10,993	11,210	11,431	11,657	**122,942**
Maintenance and Operating Cost	4,559	20,081	20,787	21,564	22,422	23,326	24,229	24,985	25,769	26,567	27,394	28,235	29,107	**299,025**
Infrastructure Administration	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total Infrastructure	**17,011**	**116,865**	**83,373**	**94,576**	**55,560**	**55,726**	**56,961**	**58,412**	**59,547**	**61,616**	**62,813**	**61,529**	**55,280**	**839,267**
Logistics														
Total warehouse costs	38,331	39,108	39,901	40,689	41,492	42,311	43,147	43,998	44,867	45,753	46,656	47,577	48,516	**562,348**
Total vehicle costs	244	1,064	1,296	1,492	1,696	1,906	2,125	2,351	2,586	2,829	3,080	3,340	3,609	**27,619**
Total worker costs	55	56	57	58	59	61	62	63	64	65	67	68	69	**805**
Third party logistics contracts	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Logistics Administration	0	502	493	503	928	232	236	402	246	251	426	261	266	**4,745**
Total Logistics	**38,631**	**40,730**	**41,748**	**42,743**	**44,175**	**44,510**	**45,570**	**46,814**	**47,763**	**48,897**	**50,229**	**51,246**	**52,461**	**595,516**
Medicines, commodities, and supplies														
Medicines, commodities and supplies (calculated from programme areas)	73,535	89,029	107,898	124,551	143,461	164,348	179,276	196,753	216,774	235,052	256,460	280,205	308,510	**2,375,851**
Medicines, commodities and supplies (user defined in Logistics)	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Safety stock purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Wastage	121	183	273	347	430	520	570	623	678	736	796	858	929	**7,064**
Total Medicines, commodities, and supplies	**73,657**	**89,212**	**108,171**	**124,897**	**143,891**	**164,868**	**179,845**	**197,376**	**217,452**	**235,788**	**257,256**	**281,063**	**309,439**	**2,382,915**
Health Financing														
Direct costs	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Programme management costs	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total Health Financing	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Health Information Systems														
HIS dimension costs	0	316	347	379	411	445	454	463	472	481	491	501	510	**5,270**
Functional domain costs	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Programme management costs	204	95	212	99	220	103	105	107	109	112	114	116	118	**1,715**
Total Health Information Systems	**204**	**412**	**559**	**478**	**632**	**548**	**559**	**570**	**581**	**593**	**605**	**617**	**629**	**6,986**
Governance														
Governance activities	0	4,280	3,205	3,253	3,838	3,749	4,073	4,301	3,976	4,054	4,560	4,320	4,299	**47,908**
Administrative Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total Governance	0	4,280	3,205	3,253	3,838	3,749	4,073	4,301	3,976	4,054	4,560	4,320	4,299	**47,908**
Grand Total	**187,196**	**346,495**	**346,686**	**391,419**	**388,639**	**427,069**	**450,552**	**474,787**	**501,605**	**529,548**	**558,215**	**586,960**	**617,228**	**5,806,400**

Source: One Health Tool

Annex E Earmarked Taxes

General taxation reform takes time. To raise general taxes to increase domestic budget spending can be a lengthy process. The incremental rise in budget allocation to health makes a significant reduction in the resource gap, but over the short to medium term Cameroon simply does not have the capacity to raise the financing required. However, Cameroon could increase taxation in the near term by implementing earmarked taxes. Indeed, Cameroon has already shown strong political commitment to the health sector by implementing the airline levy to raise funds for HIVAIDS through membership of UNITAD. This in essence is an Earmarked or Hypothecated Tax.

E.1 Theory

The main arguments against earmarked taxes and levies are that they may lead to inefficient allocation of resources by removing spending decisions from broader public resources allocation processes, introduce additional distortions into economic decision-making and may undermine parliamentary/democratic control of public finances. Nevertheless, there are some arguments in favour of specific taxes and the earmarking of spending.

International best practice for public financial management and taxation favours taxes being paid into the general (consolidated) fund with specific spending allocations being made as part of the general public finance process. However, earmarking tax revenue also pays an important role in ensuring the political acceptability of additional taxes and levies. This is particularly the case where the taxes are put to a clearly defined social benefit (such as health services) or linked to particular social dis-benefits (e.g. sin taxes).

The financing of health is characterised by the need for sustained expenditure well into the future, high donor dependency and uncertainty around future donor support caused by a tight fiscal climate globally. Many governments are therefore confronted with the certainty of important expenditure for health into the future but uncertainty about how to finance their programmes.

Cameroon currently does not have the economic growth levels to translate into a wider tax base whereby revenues can cover expenditures. Cameroon can be expected to self-fund through general taxation measures as growth and tax reform continues. However, in the short term the current tax systems cannot sustain the needs of the sector. Within the context of dwindling external resources Cameroon needs to take ownership of the sector. Given the limitations of the general taxation system it is therefore essential that the health sector increases fiscal space and investment for health outcomes through alternative funding sources.

E.2 Hypothecated Taxes in Practice

The Government in Cameroon has discussed a number of initiatives in this area, but none as of yet have been implemented. From a large list of potential sources of earmarked revenues this report has analysed three different potential earmarked taxes and levies for Cameroon to consider. The full list is set out in Table 4E in order of their score within selection criteria to assess their effectiveness as sources of funding for UHC. Each has been measured on a five-point scale: 1) sustainability of resource flows over time; 2) stability

of funding; 3) progressiveness (i.e. impact on equality); 4) administrative efficiency (how costly it would be to set up and maintain the levy); and 5) any potential side effects.

The table shows that the top scoring types of levy are: Airline and Sin Taxes (Dormant funds are not relevant in many countries). Whilst Remittances and Airtime do not score well they have been discussed in country as so will be put forward for consideration.

Table E: Overview of the Costs and Benefits of Innovative Funding Mechanisms

	General Findings					
Mechanism	**Sustainability**	**Stability**	**Progressivity**	**Administrative Efficiency**	**Side Effects**	**Total**
Airline levy	4	4	5	4	4	**21**
Dormant funds	4	4	5	3	4	**20**
Tourism levy	4	4	5	3	3	**19**
Sin taxes – Alcohol & Tobacco	4	4	2	4	3	**17**
Remittances levy	4	3	2	4	3	**16**
Private sector contributions	3	3	3	3	4	**16**
Airtime levy	4	4	2	4	1	**15**
Health bonds	1	5	3	1	4	**14**
Health lottery	2	2	1	2	4	**11**
						Total

Source: Adapted from Lievens (2012)
Note: Summarises findings from countries that have implemented, or carried out analysis on these earmarked taxes

Practical Example: UNITAD Airline Levy

Table 4 shows that the airline levy is the highest score in the subset of levies we have assessed. Cameroon has already implemented this type of levy within its membership of UNITAD[1]. The key benefit to highlight here is the fact that the majority of the population of Cameroon is not being taxed under this option, which can make such taxes politically acceptable to taxpayers – air travel being a luxury good and primarily tourists pay.

An airline levy can be implemented with relative ease as the levy would make use of the infrastructure already in place to collect indirect taxes on the sale of aeroplane tickets. There is strong international evidence of the success of such a levy. UNITAID, the International Drug Purchase Facility, was established specifically to oversee the use of aviation solidarity levies. UNITAID's mission is to provide people in the developing world with long-term access to quality drug treatment for diseases such as malaria, tuberculosis and HIV/AIDS at the lowest price possible. Since its creation in 2006 on the initiative of Brazil, France, Chile, Norway and the UK there are now 34 member countries, the majority of which contribute through aviation solidarity levies.

France, which was the first country to implement an international solidarity airline levy in 2006, charges 1 Euro on all European economy class flights (10 Euro in business class) and 4 Euro on international economy flights (40 Euro in business class) departing from its territory. It was meant to generate more stable and more predictable revenue in order to meet the needs of the developing countries in achieving the MDGs. At the time, the levy was projected to generate revenue of 200 million Euros per annum, to be spent on the fight against pandemics, including access to anti-retroviral treatments for HIV/AIDS[1]. In general, the air levy is applied to all passenger flights originating from the countries that impose it. The levy rate is normally adjusted for the destination and type of ticket class.

Some argue that the levy will reduce demand for plane tickets and therefore might not generate the expected revenue. However, there is evidence that the price elasticity on demand for plane tickets is low and that the airline industry is not affected by this additional tax[1].

E.3 Which Earmarked Tax for Cameroon?

The findings from other countries have been applied to the Cameroon macro – health framework for the three chosen. The findings were reported in the main body of the document and are not repeated here. However, it is unlikely that these three taxes will be implemented for health. Therefore, the arguments for and against each type will be examined below.

E.3.1 Sin Taxes

There is an established link between alcohol and tobacco consumption and health and hence a plausible argument that funds raised from a levy on these goods should be devoted to health. This taxation measure is simply a rise in the taxation on alcohol and tobacco that is earmarked for health. It penalises drinkers and smokers and is not paid by people who do not consume these goods. This type of taxation is referred to as a 'sin tax' as such taxes are attempting to regulate the consumption of a product that society deems undesirable. The revenue generated by sin taxes can be used for special projects. For example, in Sweden the proceeds of a tax on gambling are used to help people with gambling problems.[49]

Consumption of alcohol and tobacco has been linked to medical problems. For example, smoking causes lung cancer and heart disease.[50] Raising the cost of these goods to reduce

[49] European Commission (2006).
[50] Centres for Disease Control and Prevention (2014).

their consumption is argued to be a way in which to produce a healthier society. For example, once a person stops smoking their risks of mouth and throat cancers fall by half within five years.[51] Furthermore, since the consumers of these products are a greater burden on the health care system the argument is that they should be taxed more to pay for costs of treatment.

One possible side effect of a sin tax is that there may actually be some improvements in health as a result of the imposition of sin taxes. This assumes that if these goods are more expensive, demand will decrease and so less damage is done to the health of the consuming population. For example, the health, safety and socioeconomic problems attributable to alcohol can be effectively reduced and many evidence-based alcohol policies and prevention programmes are shown to work. A recent analysis of 112 studies on the effects of alcohol tax increases affirmed that when taxes go up, drinking goes down, including among problem drinkers and young people.[52] One of the most effective approaches is raising alcohol prices by raising taxes. The cost-effectiveness analysis of interventions to prevent hazardous alcohol use determined that taxation was the most cost-effective in populations with moderate to high levels of drinking (above 5% prevalence) and lower unrecorded consumption (below 50%).[53]

Arguments against sin taxes include such reasoning as a belief that rising taxes trigger a rise in the black market and that such taxes are regressive in nature.

A sin tax with proceeds earmarked for health is administratively similar to any other indirect tax. It should be relatively straightforward to collect the tax and to separate out the revenue for allocation to health programmes. Moreover, experiences in developed countries suggest that excise taxes cost less to administer than many other taxes. In a UK study, it was estimated that administrative costs as a percent of tax revenue were 1.53% for personal income taxes, 1.03% for VAT, and only 0.25% for excises.[54]

To conclude, while sin taxes may be easier to digest for tax payers, in as much as they are taxing socially undesirable goods. However, if further analysis proved that the market could absorb a tax in these industries the sustainability of resource flows to health would be achieved. This is because there would be little pressure to reduce the taxation of these goods from a social standpoint. Furthermore, there would be little administrative cost in setting up this levy as the taxation systems are already in place for both alcohol and tobacco. There are concerns that this type of tax is not progressive in that lower-income households will pay proportionally more of their incomes on this tax. Yet, it has been argued that the higher you raise this tax the poor are priced out of the market and so their health risks are taken out of the equation and this type of sin tax can also be viewed as a luxury goods tax.

E.3.2 Airtime Levy

A levy sufficiently small not to distort demand could in principle be imposed on mobile phone calls. However, the mobile phone industry in Cameroon affects a large and diverse

[51] Ibid.
[52] Wagenaar et al. (2009).
[53] Chisolm et al. (2004).
[54] Godwin (1995).

population. The mobile phone market is young and developing quickly and it is therefore uncertain how consumer demand will change in response to a tariff on calls.

It is not just outreach that is expanding. In many countries there are plans to develop services accessed through mobile phones, such as mobile money.[55] In other countries' experience once available the demand for this type of service will grow exponentially. As and when the mobile phone market covers more than just phone calls there will be increased concerns about this type of levy. If new financial services develop on the back of mobile phone penetration the introduction of an additional cost to using these services may have a detrimental impact on these services and more widely on the country's economic development. Some comments on the situation in Kenya, where the use of mobile phone technology in advancing economic development, may be useful to consider for Cameroon:

- Mobile banking is commonplace in Kenya, including transferring domestic remittances. This technological tool has been an important instrument in deepening financial services to the rural poor[56] and the World Bank sees the use of 'mobile money' as a potential engine for growth and poverty reduction, estimating that, by end 2010, '*15 million Kenyans (3/4 of the adult population) will use mobile money … transferring an estimated 7 billion USD annually (20% of GDP) by phone*'.[57]
- Two further initiatives are mobile phone-based health and agricultural insurance. One such example is the *Kilimo Salama* crop insurance, which relies on weather station information and pays out direct to policy holders by mobile phones.[58] Some of these initiatives are expected to lead to greater productivity in agriculture and have wider economic growth impacts.[59]

Mobile phones have thus become intertwined with a wide range of economic activities in Kenya, from subsistence farming to the urban financial sector, with a strong positive impact on the macro economy. Increased levels of semi-formal financing provide information to a country's central bank about liquidity in the financial system. At a micro level, the transfer of cash at low costs can offer safeguards to vulnerable populations. Moreover, a recent report suggests that airtime taxes are regressive in nature as they penalise the poorer sections of society.[60] It also claims that by lowering taxes on mobile phones, governments will in fact increase receipts as millions more people will be able to afford to use them. It is interesting to note that some countries such as Gabon, Kenya, Malawi and Burkina Faso contemplated introducing an additional airtime levy[61] but this levy faced criticism primarily due to the impact on the mobile phone industry and the disproportionate burden that it places on the poor, who use their mobile phones for economic decisions.

In sum, this levy could raise a source of financing for the health sector. The industry is expected to continue to grow over the next few years and so revenues could be relied upon in a consistent manner. However, lower-income households spend proportionally more of their income on airtime than higher-income households. This, as well as the idea that new

[55] See Mohapatra and Ratha (2011).
[56] Cited in Mohapatra and Ratha (2011), pages 170–72.
[57] World Bank (2010), page vi.
[58] See: http://opinionator.blogs.nytimes.com/2011/05/09/doing-more-than-praying-for-rain/.
[59] World Bank (2010), page vi.
[60] GSMA (2012).
[61] Lievens et al. (2012).

services such as mobile money could benefit the poor, suggests that this could be a regressive rather than progressive tax.

Further research into the plans for mobile banking services should be carried out before a decision to increase the tax on this industry is made. This should also include analysis of the potential side effects of raising taxes on airtime for businesses, finance and other industries.

E.3.3 Remittances Levy

Imposing a levy on international remittances has been identified as a potential revenue source for funding the health sector. This would be achieved by adding a small fee onto all money transfers from abroad. Remittances to Cameroon are estimated at around 270 billion CFA (0.5 billion USD) a year (five-year average from 2013-2017)[62]. As a proportion of GDP this is 1.6% and as such they constitute an important source of funds within the economy, comparable with external on-budget support which has been around 0.3% (averages for 2013 to 2017). Therefore, any taxation on this flow of money must be considered carefully.

Remittances can be made through both formal and informal channels, and this levy would relate to formal remittances only. Formal, or official, cash flows make up the majority of remittances. However, it must be noted that it is difficult to estimate the size of informal remittances. The difference between formal and informal flows is described below.

Formal channels include domestic and international banks and service providers. Providers include international firms such as Western Union. Factors affecting their use include:

- High transaction costs, which are believed to dampen the scope of money transfers;
- Banking requirements often excluding potential users from accessing banking services;
- Clearance times for money transfers being notoriously long; and
- Stringent exchange controls.

Informal channels include money carried by migrants themselves and remittances carried by friends and family or sent through taxis and buses. These are believed to have a number of advantages and disadvantages, including the following:

- Their costs are typically lower;
- They provide an opportunity to avoid government taxes;
- They do not require documentation and thus facilitate transfers from illegal immigrants; and
- They are less reliable and extremely difficult to monitor.

The policy option to impose a levy would only affect formal sector transactions. This additional cost to transferring money through formal channels may lead to a move from formal to informal channels, with consequent externalities associated with this.

It is possible that, if the diaspora is made aware that the extra charges are channelled to health programmes they will be sympathetic and this could mitigate the shift toward informal remittances. However, the importance of fully researching this policy option cannot be overstated, as remittances are a key flow of funds to developing countries:

[62] IMF Article IV 2017.

> *'Remittances are the second biggest source of external financing after foreign direct investments for developing countries. ... Remittances represent almost 2.5 times the volume of ODA. Due to lack of data, this amount is considered by the [World] Bank as grossly underestimated, since it only reflects transfers through official channels'.*[63]

International findings provide further evidence for treating any policy change to remittances with caution.[64] Research has shown that remittances can:

- Act as a safety net in times of hardship;
- Be used to support families in the face of unexpected health care expenditures; and
- Protect poor families from slipping into extreme poverty.

It is clear that remittances provide a crucial source of income for the population. They can be spent on health services and in doing so will contribute to the financing of health (mostly probably through OOP).

In February 2011, the United Nations Conference on Trade and Development (UNCTAD) held a conference to debate ways in which to maximise the development impact of remittances.[65] Although this area has not been well studied, there are some stylised facts on the positive and negative consequences of remittances. For example, UNCTAD note that remittances are known to have beneficial effects as follows:

1. Raise tax revenue – by raising consumption, and so in turn can increase fiscal space; and
2. Improve debt sustainability – thereby reducing the marginal cost of raising revenue; (reduced country risk).

However, some negative consequences include:

1. Dutch disease – remittances are found to be positively correlated with real exchange rate appreciation and this is stronger for low- and lower-middle-income countries (particularly those which are less open, in both trade and capital flow terms); and
2. Looser fiscal discipline – fiscal space opened up by remittances, allowing governments to take advantage by increasing consumption or borrowing.

For the amount of effort required to implement this type of taxation system and given the fact that these remittance resource flows are essential for low-income families such an approach is not be recommended as a long-term solution to the health financing gap. Moreover, there is an understanding that remittances play an important role in maintaining a stable macro economy.

To conclude, although remittances provide a sustainable and rising base to raise health funds from they are not progressive. They are effectively a tax on those receiving remittances – usually the poor in a society. If this funding mechanism was chosen new administrative measures would have to be put in place to monitor and audit revenue flows, which would be costly. Given the important contribution that remittances make to economic development and poverty reduction, and the limited understanding of the behavioural effects

[63] Lamontagne and Greener (2008), page 9.
[64] Lamontagne and Greener (2008).
[65] UNCTAD (2011).

that any policy change may cause, more research is warranted before this could be a recommended funding source.

E.4 Findings for Potential Earmarked Taxes in Cameroon

More effort may be best used in further research into earmarked taxes in terms of the value of revenues flows projected. The sin taxes have the most health-relevant factors and may be an easier argument to put to Government and the public. The remittances levy brings in very limited funds and is a risk to the economy and so this would not be advised. Finally, the mobile phone tax would not be recommended as it is regressive and risks potential growth in new financial services.

For the longer term, when the petroleum sector returns to strength there should be an idea to evaluate the potential of earmarked funds from their earnings. It could be a valid longer-term source of finance as the African Development Bank report finds that natural resource revenues could "*meet a significant proportion of financing gaps in the sample countries to provide universal health care*"[66]. In Cameroon the oil sector has accounted for 6% of GDP over the past five years (2012-2016). This constitutes a large potential revenue source. Specific research in Cameroon would need to be carried out to consider the feasibility of petroleum taxes for health.

[66] African Development Bank (2015), Page iv.

Annex F UHC Benefits Package for Cameroon

F.1 Introduction

The Government of Cameroon is moving towards Universal Health Coverage (UHC). For this they need a costed package of services outlining what is available to citizens and how much this will cost the government to supply. The working document "Elaboration des paniers des soins de la CSU du Cameroun" provides much of the essential background analysis on this. Some key factors:

The package of health care services is defined as "a basic package of care that can cover the priority health needs of the population". And for this a list of interventions were selected for UHC, categorized by target and specialty. "One hundred and eighty-five (185) interventions were selected, including 29 interventions from the Community Activities Package (15.93%), 156 interventions from the Minimum Package and the Complementary Activity Package (84.07%)".

The objective of this project in general is to conduct a fiscal space analysis whose results would inform Cameroon's Health Financing Strategy (HFS), which the Government of Cameroon is working towards finishing and validating by December 2017. This has been detailed in the main report *Fiscal Space Analysis for the Cameroon Health Financing Strategy*. This appendix is a rapid analysis of the newly distributed draft cost estimate for the Universal Health Coverage in Cameroon.

Given that the draft costing estimate is expected to be improved (data is still being received and the findings are still to be validated) a separate appendix has been created to become an easy access document to change when required. The methodology and background data can be taken for the main report and is relevant for this specific assessment of the UHC package costing.

F.2 Cameroons UHC Package: Cost Estimates

The UHC costing has been calculated using the One Health Tool. Data was supplied for 2018 to 2022 by the UHC Task Force. This estimates that the cost of supplying the UHC package of health services in Cameroon would be 306 billion CFA in 2018 and rise to 659 billion CFA in 2022. This was then inflated annually from 2023-2035 to produce the trend shown in Figure F. This shows the total cost rising to 984 billion CFA by 2035.

As a proportion of Government General Expenditure (GGE) the UHC package will cost 8% of the budget in 2018. This is high in relation to the recent government allocation to the health sector – 5% on average over the past five years. By 2022 this is projected to rise to 13.7% of the governments' budget.

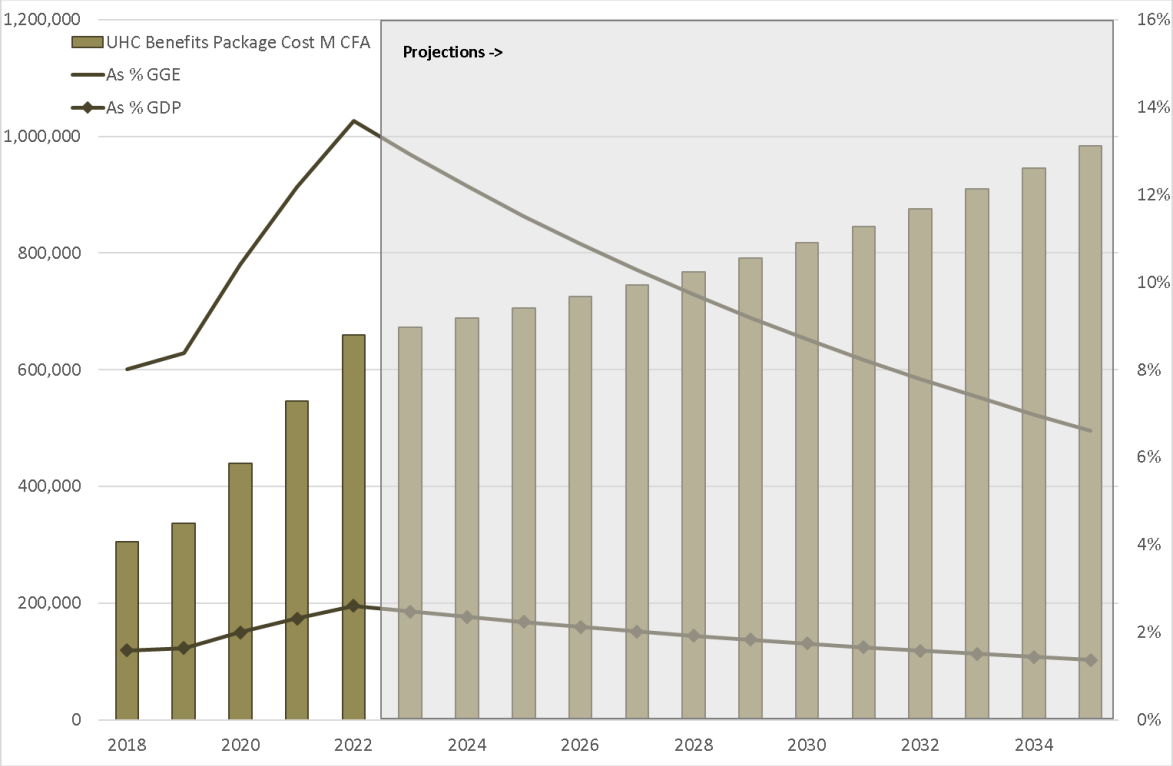
As a proportion of GDP the costs equate to 1.6% of GDP in 2018 rising to 2.6% in 2022, thereafter declining to 1.4% in 2035.

The cost of the benefits package is 12,000 CFA per person (20 USD) in 2017 doubling to 24,000 in 2022 (38 USD). By 2035 this rises to 26,000 per person (42 USD).

It is clear that the rate of growth in costs in the initial five years is far greater than when the projections use the domestic inflation rate. As such the longer-term projections could be an

underestimate of the costs over time. It is hoped that the full projection data will be available to revise this.

Figure F1: UHC Benefits Package Cost Estimates and Projections (M CFA)



Source: 2018-2022 UHC Task Force, 2023-2035 authors' projections.

F.3 Business as Usual Financing Gap

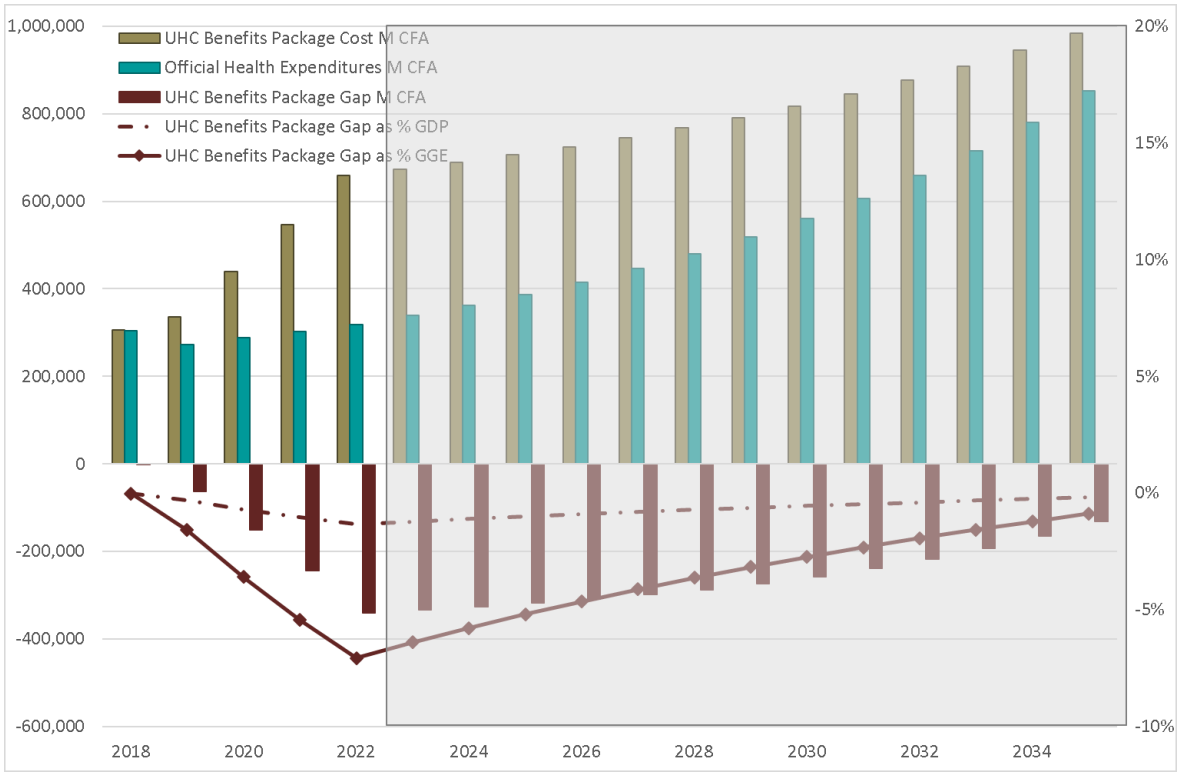
Setting the UHC benefits package costs against available official health expenditures (as discussed in the main report) provides a financing gap. The projections are set out in Figure F which shows a growing problem in covering the costs of the benefit package over time.

In the initial year the financing gap is 885 million CFA, which equates to only 0.02% of GGE, and so could be resolved with a small rise in budget allocation. However, by 2022 the expected available expenditures are significantly less than the rising costs. The gap grows to 340 billion CFA. This equates to 1.3% of GDP and 7% of GGE.

Over the longer term the gap declines to 132 billion CFA by 2035. This is 0.2% of GDP, and 0.9% of GGE. However, these projections are limited by the incomplete underlying costing data.

This implies that the entire health sector budget (including any official development assistance provided to the health sector) would need to be allocated to expenditures related to the UHC benefits package. If this is not possible the financing gap for the UHC benefits package will be larger.

Figure F2: Projected UHC Benefits Package Financing Gap – Business as Usual Scenario (M CFA)

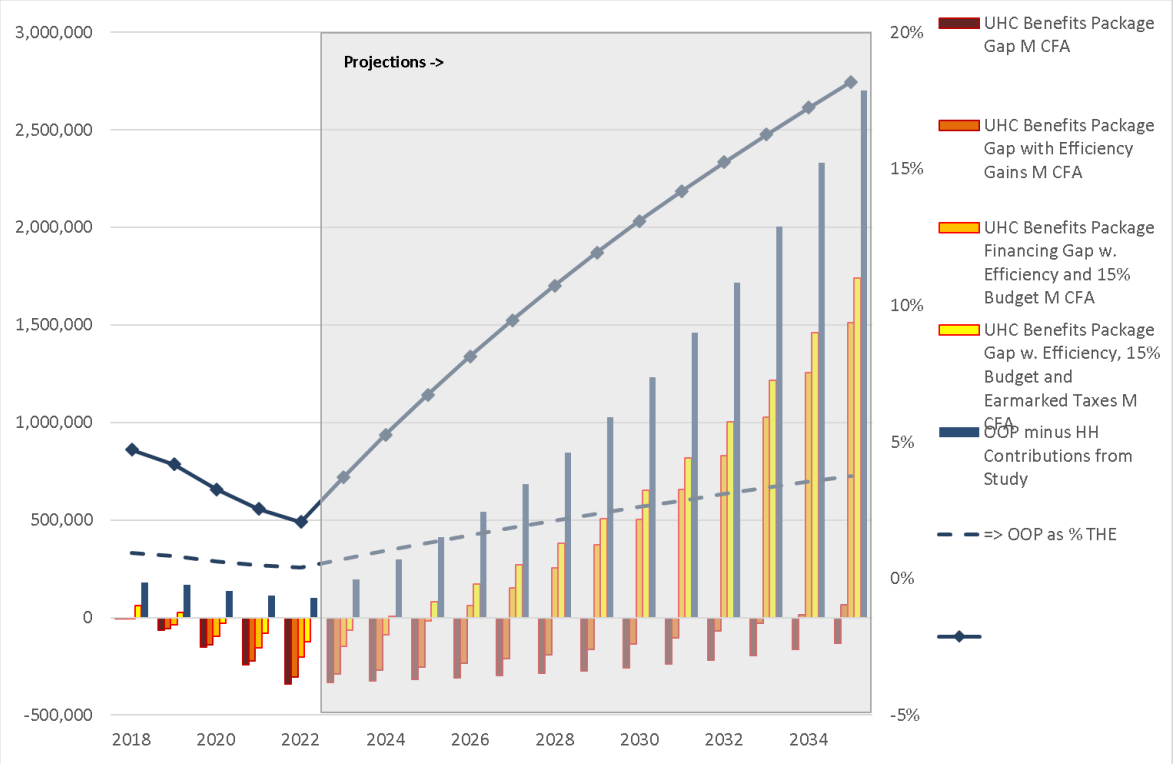


Source: Authors' projections.

F.4 Maximising Fiscal Space for the UHC Benefits Package

The various domestic policy options available to Cameroon to raise health expenditures to reduce the financing gap are discussed in detail in the main fiscal space report. These are repeated here for the UHC benefits package. The four mechanisms are: efficiency savings, raising budget allocation, implementing an earmarked fund, and raising pre-paid household contributions. Figure F provides the summary of the potential of the four domestic policy options to raise fiscal space for the UHC benefits package.

Figure F3: Projected UHC Benefits Package Financing Gap – Maximised Fiscal Space (M CFA)



Source: Authors' projections.

The chart shows the following:

1. The original financing gap (red bar chart) is the resultant gap under the 'business as usual' scenario. By 2022 the gap is projected to reach 340 billion CFA, which is 1.3% of GDP.
2. The next bar chart (orange) shows how the gap can be reduced through efficiency savings. If a focus on efficiency was implemented and carried out the gap could be reduced to 304 billion CFA, 1.2% of GDP by 2022.
3. The third bar chart (gold) shows the sum of the government's actions on efficiency (in point 2 above) with an increased budget allocation. Moving towards the 15% Abuja target could reduce the gap to 204 billion CFA, 0.8% of GDP in 2022.
4. The fourth bar chart (yellow) shows the sum of the government's actions (in point 3 above) with the potential resources from earmarked taxes. These innovative funding mechanisms could further reduce the financing gap to 125 billion CFA, 0.5% of GDP by 2022.
5. The final bar chart (blue) takes the situation in point 4 above and adds in pre-paid household contributions. This creates a financing surplus of 297 billion CFA in 2022, equating to 1.2% of GDP; i.e. if all these actions are considered in conjunction the financing gap could be more than filled.

F.5 Findings

Given the preliminary costing estimates for the package of health care services under Cameroon UHC we can say the following:

- The estimated cost of the UHC package is greater than the recent budget allocation to the entire health sector: 8% of GGE compared to 5% provided in the past five years.
- The health sector can almost cover the 2018 needs for the package of services if it was able to use its entire budget. However, the health sector will have insufficient funds to cover the costs over the next five years, and the longer term; i.e. a financing gap is found.
- If the health sector budget is required in other non-UHC areas the financing gap will be larger.
- None of the four domestic policy options can cover the financing gap alone. A mixture of efficiency savings, budgetary allocation, earmarked taxes and household contributions can work together to cover the financing needs of the UHC benefits package.