Introduction

Botswana’s health system is at a crossroads. Despite generous public spending in the health sector and high levels of access to health facilities, issues related to quality of care and efficient use of resources pose serious challenges to strengthening the health system and realizing universal health coverage. Thus, the Botswana Ministry of Health and Wellness (MOHW) is exploring various health financing reforms aimed at mobilizing revenue for the health sector and introducing mechanisms for efficiency. To that end, USAID’s Health Finance and Governance (HFG) project provided technical assistance to the MOHW to develop Botswana’s National Health Financing Strategy, which calls for analyzing diverse options for resource mobilization, including exploring National Health Insurance (NHI) as one option for reform. This is linked to other important initiatives, including the preparation of an NHI Blueprint and an Actuarial Costing of the proposed Universal Health Services Package (UHSP), which have also been completed as part of the HFG Project (Gutierrez et al. 2018; Kelly 2017). Deciding whether to move forward with health insurance reforms—and if so, what that health insurance system should look like—requires the careful consideration of costs as well as revenue that could be generated by such reforms.

Fiscal Space Analysis provides one methodology for estimating the potential revenue of health insurance reforms. This brief summarizes the main findings and policy implications of a Fiscal Space Analysis conducted by HFG (Jefferis 2018). The purpose of the analysis is to contribute to the policy dialogue concerning NHI in Botswana by estimating the potential revenue that could be gained from health insurance contributions. By estimating this potential revenue, the report is intended to advance the conversation related to NHI and universal health coverage in Botswana.
This policy brief has three sections. The first discusses the fiscal background to health spending in Botswana. The second section contains modeling and quantification of the revenues that could be raised for NHI in Botswana, using the approaches laid out in the NHI Blueprint. The third section concludes with a discussion of the implications for the structuring and implementation of the proposed Botswana NHI Scheme.

Fiscal Background

Botswana’s fiscal space is relatively unconstrained in absolute terms, in the short term at least, due to high fiscal revenues from diamond exports and a history of prudent public financial management. The government budget has been roughly balanced in recent years. Debt levels are low, with public and publicly guaranteed debt totaling only 21.1 percent of Gross Domestic Product (GDP) in 2016/17, well below the statutory limit of 40 percent of GDP. The government also has accumulated cash savings almost equivalent to the level of debt, so that net indebtedness was only 2.3 percent of GDP as of March 2017. The government could in principle increase spending, in the short term at least, by borrowing more or drawing upon accumulated savings. However, this would be inconsistent with the country’s principles of fiscal policy and debt management, and the need to support long-term structural change.

Government revenues are mainly derived from external sources (diamonds and the Southern African Customs Union), which cannot be relied upon indefinitely, and domestic fiscal revenue generation is low, at around 35% of the total. A steady, long-term contraction of fiscal space is taking place as the fiscal contribution of the highly taxed diamond sector diminishes. Over time, it is expected that government revenues will decline from the historical average of over 40% of GDP towards the upper-middle income country average of 25-30% of GDP. For fiscal stability, spending will have to be similarly reduced, meaning that government spending will have to be cut, relative to GDP, by around one quarter. In this context, the high level of public spending commitments—much of which involves inefficient spending generated on the basis of high historical revenues—has to be managed downwards while ensuring that public resources are allocated as optimally as possible in improving social welfare. In addition, potential new revenue sources have to be explored.

Modeling Potential Revenues from National Health Insurance

As a starting point, the modelling of potential revenues that could be earned from an NHI scheme used data on individual incomes from a household income and expenditure survey carried out by Statistics Botswana. Unfortunately, data from the most recent survey (2015/16) was not available at the time that the analysis was carried out, and hence data from the previous survey in 2009/10 was used. This was updated to 2017 values in line with the growth of various macroeconomic aggregates (such as GDP, employment, and household expenditure), but rests on the assumption that the distribution of income did not change over the intervening period. In addition to income levels, the 2009/10 survey contained information on the source of individuals’ income (employment, business, agriculture, remittances etc.) and whether they were members of health insurance schemes.

Potential NHI revenues were based on the structure outlined in the NHI Blueprint document, which is broadly as follows:

1. **Levies on formal sector incomes**
   a. Paid by employees in the formal sector, at a general rate of 1% of incomes. However, employees with income below the income tax threshold (P36,000 a year) would be exempt from the levy, while those with incomes between P36,000 and P72,000 a year would pay 0.5%.
   b. Paid by employers at a rate of 1% of incomes for all employees.
   c. The above levies would be collected by the Botswana Unified Revenue Services (BURS), in parallel with the collection of Pay-As-You-Earn (PAYE) taxes from employers.

2. **Levy on those outside the formal sector**
   a. In order to make the levy base as broad as possible, and to promote inclusiveness, a levy would be imposed on those earning incomes from informal sector activities such as agriculture or others. This would be payable as a fixed annual (or monthly) amount on a sliding scale, with exemptions for those with incomes below the tax threshold.
b. As these levy payers are outside of the tax net, effective mechanisms for collection of the levy payments would still need to be determined.

3. Contributions to the NHI Fund would be compulsory for all income earners (subject to the low-income exclusions noted above).

Individuals could join either the proposed new National Health Insurance Scheme (NHIS) or an accredited Medical Aid Scheme (MAS), so that membership of either the NHIS or a MAS would be compulsory. The NHI Fund would make UHSP capitation subventions to either the NHIS or MAS, depending on which scheme members belong to.

Adjustments were made for likely collection costs (BUNS fees, etc.) and likely difficulties in enforcing compliance in the informal sector. These potential levy revenues were then compared with the estimated costs of the UHSP, of P2,211 per person per year (Kelly 2017).

### Baseline Results

The projected revenues from the NHI levy (at 2017 values) totaled P571 million a year, as follows:

<table>
<thead>
<tr>
<th>Baseline Results: Estimated Revenue of NHI Levy</th>
<th>P, mn</th>
<th>% of UHSP Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Employees</td>
<td>216.6</td>
<td>4.3%</td>
</tr>
<tr>
<td>B. Employers</td>
<td>256.9</td>
<td>5.2%</td>
</tr>
<tr>
<td>C. Other income earners</td>
<td>97.2</td>
<td>2.0%</td>
</tr>
<tr>
<td>Total</td>
<td>570.8</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

Source: Jefferis 2018.

This amount raised would cover only 11.5% of the projected costs of the UHSP, and would be equivalent to just 7.9% of the 2017/18 health budget. The amount that the proposed levy would raise reflects (i) the relatively low proportion of working age adults (18-64 years) in formal employment (340,000 out of 1.33 million), as well as (ii) the low incomes of many of those in formal employment (only half of whom have incomes high enough to fall into the income tax bracket). The counterpart of point (i) above is that many income earners are in the informal and agricultural sectors, with low incomes, and from whom collection of an NHI levy could be difficult. This also raises the issue of how NHI membership would be enforced for those outside of the tax net with its compulsory deductions. It is important to note that these estimates do not incorporate the administrative or set-up costs of the proposed NHI Fund, which could be substantial.

This would still leave a very substantial NHI financing gap – estimated at P4.4 billion a year - which would have to be financed by government, most likely by using funds from the current health budget.

Sensitivity analysis was carried out, modelling the impact of higher levy rates and lower UHSP costs. If the formal employer/employee levy was doubled to 2% each, the projected amount raised would increase to P1,044 million a year. If the UHSP cost could be lowered by one-third, the proportion of the cost that the NHI levy would raise (at double rate) would increase to 31%, leaving a smaller financing gap to be met by government of P2.2 billion.

### Policy Implications

The modelling shows that some of the initial expectations of the revenue raising capacity of an NHI fund are unlikely to be met. First, the revenues raised would not make a significant additional contribution to health funding resources in the country.

Second, the anticipated cross-subsidy from better-off MAS members to the public NHIS would not occur (because in most cases the NHIF contributions from MAS members would not be sufficient to cover the cost of the UHSP). As a result, a government subsidy to MAS members would be necessary under the proposed capitation fee structure, resulting in a reduction in funding available to the public health service.

Third, raising the rate of the NHI levy to a level that would raise significant additional funds would impose a tax on employment that would run counter to the urgent need to create jobs and increase employment. It would also provide an (undesirable) incentive for firms to be informal and outside the tax net.

Fourth, possible mechanisms of collecting NHI levies from the informal sector need to be carefully thought through. The experience of secondary school fees, which are in principle compulsory but are in practice paid only by an estimated 25% of parents, is instructive, even though the fees are modest.

The results raise important implications for the structuring and sequencing of a potential NHI Scheme.
The following issues need to be considered:

**Making it compulsory for all eligible income earners to pay the NHIF levy, but allowing a choice of either NHIS or MAS membership.** An alternative is to exempt MAS members from paying the NHIF levy, thereby removing the capitation fee transfer from the NHIF to MAS. This would reduce the financing burden on government, but eliminate the social solidarity component (under which everybody pays the NHIF levy) entailed in the proposed structure. The solidarity component could be sustained by making the NHIF levy payable by everybody, even by MAS members in addition to their MAS premiums. However, this would have the impact of undermining the MAS and private healthcare, as some MAS members (and their employers) would not pay two sets of premiums, and MAS membership would fall.

**The focus of sustainable financing should be on improving the efficiency of health system spending rather than raising new revenues.** As many observers have noted, Botswana’s public health system demonstrates low levels of efficiency; it is well-funded by comparative standards, but achieves poor results. Providing additional revenues without addressing inefficiencies (“spending more money badly”) would be counterproductive.

**The broader NHI proposal contains several elements that could help to improve efficiency, over a number of years, and it is important that the sequencing focuses on implementing these components first.** A central component is the proposed purchaser-provider split, whereby the NHIS would purchase medical services under the UHSP provided by facilities run by the MOHW District Health Management Teams (DHMTs) (similar to the purchase of health services from private facilities by the MAS). This would require DHMTs to have accurate information relating to the costs of the services they provide, so that they can determine tariffs. This in turn requires major changes in the way in which MOHW budgets are provided. Information relating to the cost of health services provided by the public sector is generally not available; collecting, analyzing and using cost data for benchmarking is an important step towards identifying waste and inefficiency, and providing the basis for both cost savings and improving outcomes.

Hence the priority should be establishing the purchaser-provider split within the MOHW, building the budgeting and information base for cost-reflective tariffs charged by DHMTs, and using this to improve efficiency in the public health service and reducing the cost of the UHSP. An NHI could then be established, but initially financed purely by government from tax revenues, and all citizens would automatically become a member (free of charge). At some point consideration could then be given to replacing part of the government funding with NHI levy funding—such funding could contribute to diversifying the sources of revenue for the health sector. Ultimately, however, the purchasing reforms described above provide the best mechanism for introducing incentives for quality and efficiency, thus safeguarding the long-term sustainability of the health system and advancing towards universal health coverage for current and future generations of Batswana.

**References**


**Photograph:** The Ministry of Health and Ministry of Finance and Development Planning buildings in Gaborone, Botswana. © 2007 Lee Mantini, Courtesy of Photoshare.