

**Issue Brief Series on:  
SUSTAINABLE HEALTH FINANCING IN BHUTAN**



**WORLD BANK GROUP**

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**COVER PAGE**

This cover page serves as an introduction to this series on sustainable health financing for Bhutan. By summarizing recent evidence and regional trends, this series is designed to provide Bhutan's policymakers a digestible resource through which to better understand and respond to existing as well as emergent health financing challenges.

Bhutan – a small mountainous kingdom with a population of 0.72 million – has made important strides towards a high-performing health financing system in recent decades. Current health expenditures have grown impressively—from US\$30 per capita in the year 2000 to above US\$134 in 2020. Public spending on health as a share of GDP is also among the highest in South Asia at 3.4%, meanwhile out-of-pocket expenditures are among the lowest in the region and among other lower-middle income countries.

However, serious health financing challenges lie ahead. As a result of lingering scars from COVID-19's economic shock and other subsequent global and local factors, Bhutan now faces both worsening macroeconomic growth prospects as well as a worsening macro-fiscal position. For example, per capita economic growth turned negative in 2020 and 2021 and is expected to slow again in 2023-24. While rising public debt means fiscal consolidation—i.e., reduction in public spending—by the Royal Government of Bhutan (RGoB) is needed. The key implication is that without a change in policy, Bhutan's per capita public expenditures on health are likely to shrink and then stagnate in the short term. At the same time, Bhutan's health system costs and healthcare needs are rising—and are expected to continue rising due to rapid population aging and an associated change in relative disease burden towards noncommunicable diseases.

The intersecting dynamics of rising healthcare costs, declining public resources, and an aging population mean that the broader sustainability of public health spending is at risk—and a policy response is necessary.

Accordingly, the objective of this Series is to provide Bhutan's health sector policy leaders with a common understanding of existing as well as emergent health financing challenges, such that a reform pathway to sustainable (and sufficient) health financing can then be charted.

**ISSUE BRIEF 1**

**Health Financing  
Challenges and  
Opportunities Ahead**

This issue brief presents and explores linkages between Bhutan's current macroeconomic crisis and public health financing—providing an evidentiary grounding for the challenges discussed in the briefs that follow.

**ISSUE BRIEF 2**

**Fiscal Space  
for Health in an  
Economic Downturn**

This issue brief, a mini-fiscal space for health analysis, identifies the policy levers that are—and are not—available to Bhutan's leaders as they try to maintain necessary public investments in health and human capital: a focus on improving efficiency of current health expenditures emerges as a clear implication of this analysis.

**ISSUE BRIEF 3**

**Efficiency in the  
Bhutanese Health  
System**

Building on the policy implications of the fiscal space analysis in Issue Brief 2, this brief gives policymakers a quick look at efficiency (and inefficiency) in Bhutan's health system. The short assessments provided here suggest that focusing on noncommunicable diseases (NCDs) management is both a need and a key opportunity to improve system efficiency.

**ISSUE BRIEF 4**

**Ageing & NCDs  
Impact on Health  
Financing**

Bhutan is experiencing rapid population ageing and a related change in mortality and disease burden attributable to NCDs. This brief highlights the particular health financing issues created by ongoing demographic and epidemiological transitions, and then outlines potential solutions to those challenges.



**ISSUE BRIEF 1**

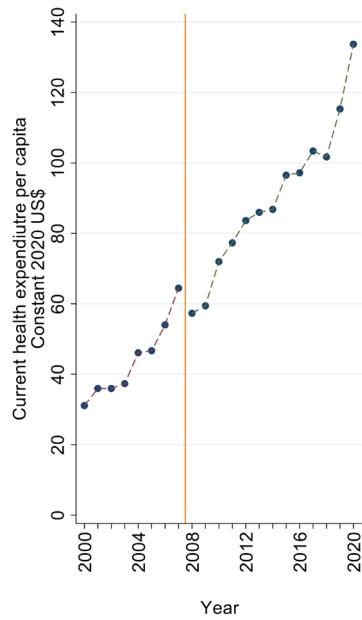
## Health Financing Challenges and Opportunities Ahead

This issue brief provides an overview of Bhutan's current macro-fiscal trajectory and summarizes the linkages between emergent macro-fiscal challenges and sustainable health financing in the country as it recovers from COVID-19's "Double Shock"—health as well as economic—and other shocks to the global economy in 2022/23.

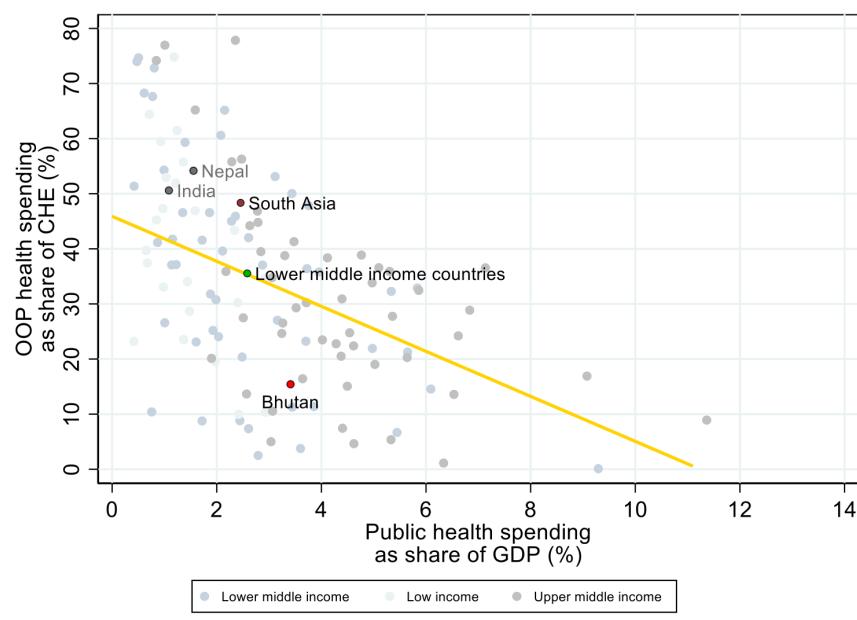
### BHUTAN IS AN IMPRESSIVE HEALTH FINANCING PERFORMER IN THE REGION...

Bhutan – a small mountainous kingdom with a population of 0.72 million – has made important strides towards a high-performing health financing system in recent decades. Current health expenditures, for example, have quadrupled since 2000, from US\$30 per capita to US\$134 in 2020 (Figure 1). Public spending on health as a share of GDP is also among the highest in South Asia (Figure 2). As a result of strong public investment and a constitutional mandate to provide "free access to basic public health services in both modern and traditional medicines," the burden placed on households for financing their healthcare (i.e., out-of-pocket (OOP) share of current health expenditures) was just 18% in FY2020/21.<sup>2</sup> Far lower than regional and lower-middle income country averages (Figure 2).

**Figure 1.** Bhutan's Health Expenditures<sup>3</sup>



**Figure 2.** Levels of Financial Protection, 2020<sup>4</sup>



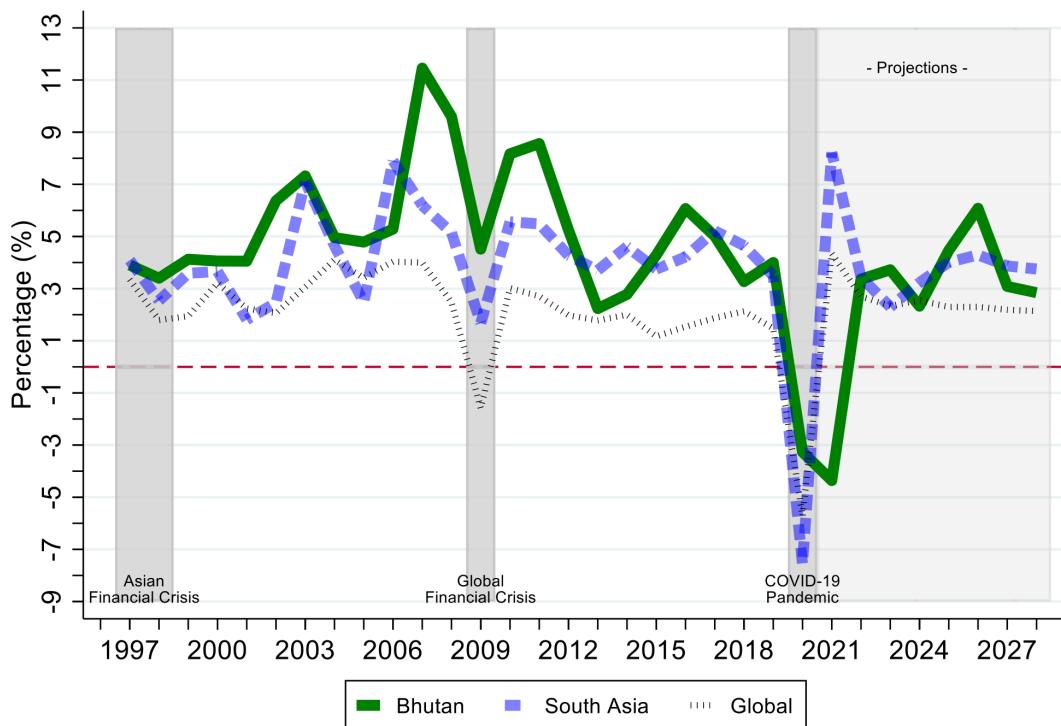
### ...BUT SERIOUS HEALTH FINANCING CHALLENGES NOW LIE AHEAD:

Bhutan today faces a fragile short-term macroeconomic situation.<sup>5</sup> The COVID-19 pandemic was not just a health emergency but also a major economic shock: Bhutan's per capita economic growth turned negative for two consecutive years (2020 and 2021) for the first time in nearly three decades (Figure 3). Although positive growth returned in 2022 alongside further easing of COVID-related restrictions, challenges in the global economy mean that growth is expected to slow again in 2023-24.<sup>6</sup> Growth in non-hydro power sectors, including tourism, is likely to remain suppressed as large drivers of global demand (i.e., the US, China, and the European Union) continue to experience slow economic recoveries.<sup>7</sup> Additionally, unemployment (3.6%), particularly youth unemployment (20.9%), is elevated. Together, these challenges have contributed to a serious outmigration challenge.<sup>8</sup>

<sup>1</sup> World Health Organization (WHO). 2017. "The Kingdom of Bhutan Health System Review." Health Systems in Transition Vol. 7 No. 2 2017.

<sup>2</sup> Bhutan National Health Accounts 2020/21. <sup>3</sup> Source: WHO Global Health Expenditure Database (GHED) (2023 Edition), vertical line represents a statistically determined break in trend. <sup>4</sup> Source: WHO Global Health Expenditure Database (GHED) (2023 Edition). <sup>5</sup> World Bank Macro Poverty Outlook (April 2023 Update). <sup>6</sup> World Bank Macro Poverty Outlook (April 2023 Update). <sup>7</sup> World Bank. May 2023. "Old Scars New Wounds" HNP Discussion Paper. Washington DC: World Bank. <sup>8</sup> Source: International Labour Organization. Labour Force Statistics database (LFS) ILOSTAT.

**Figure 3.** Per Capita GDP Growth in Bhutan, 1997-2028



The Royal Government of Bhutan's (RGoB) fiscal position is vulnerable. Bhutan's public revenues are expected to decline as a share of GDP from over 31% in 2019 (pre-COVID) to between 24% and 27% in 2023 and 2024 respectively.<sup>9</sup> Delays in completion of hydel projects are an additional source of risk for future revenues. Owing to high fiscal deficits in recent years, per capita government spending which has been declining since 2021 can be expected to continue to trend negatively in the near future (Figure 4 below). In this context, expansionary fiscal policy, including additional investments for health, are unlikely.

At the same time healthcare costs are rising—and rising faster than inflation. Total healthcare costs at Bhutan's referral hospitals have increased, even after prices are held constant, by 62%, and by 54% at the district level hospitals between 2018/19 and 2009/10.<sup>10</sup> Similarly, unit costs of healthcare services have increased at all levels of the healthcare system, from per visit costs at primary health care centers, to per-admissions costs at the large referral hospitals. The twin dynamics of rising healthcare costs and declining public resources mean the sustainability of public health financing is at risk—and a policy response is necessary “to secure the prioritization of health spending and avoid further setbacks on the path toward the health-related SDGs.”<sup>11</sup>

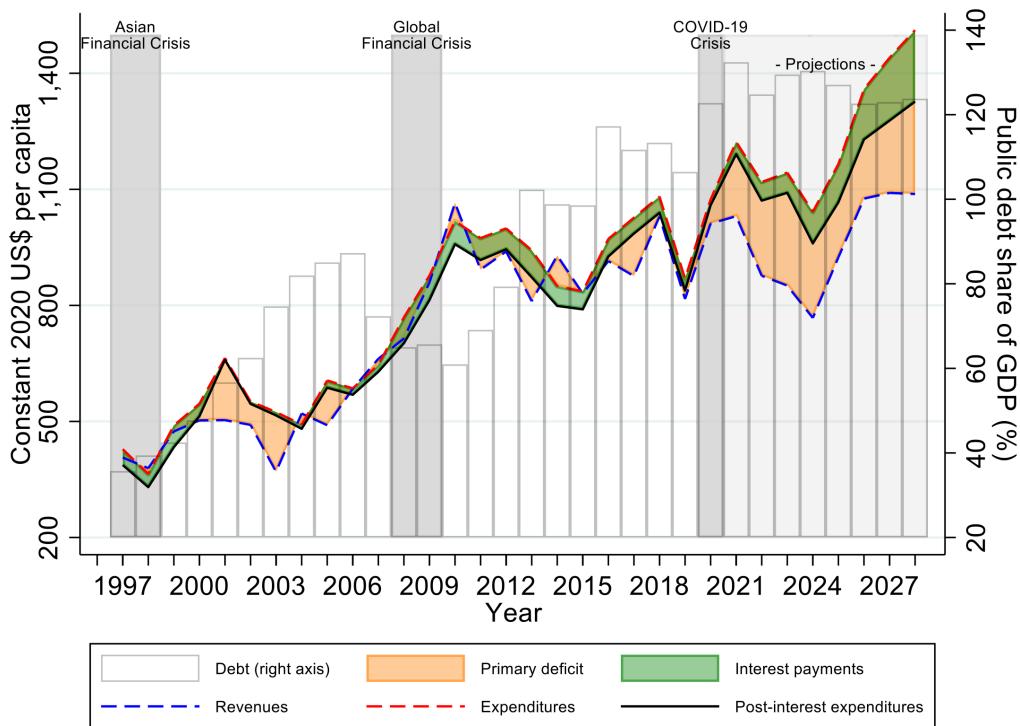
Accordingly, this series of issue briefs is designed to provide policymakers with a digestible introduction to existing as well as emergent health financing challenges. The objective of this series, therefore, is to help Bhutan's Ministries of Health and Finance build a shared understanding of challenges from which a reform pathway for more sustainable (and sufficient) health financing can be charted. To achieve this objective, each issue brief in this series provides data, recent evidence, and explanations for three core health financing challenges facing Bhutan today: (1) sustainable financing for health considering fiscal constraints; (2) addressing issues of efficiency in the health sector; and (3) health financing responses to rapid epidemiological and demographic transition. The challenges taken up here are consistent with those identified in the Ministry of Health's 2022 Policy Brief *Healthcare Financing in Bhutan (2018-2020)*.

<sup>9</sup> World Bank Macro Poverty Outlook (April 2023 Update). <sup>10</sup> RGoB, Ministry of Health. 2023. Bhutan Healthcare Costing Analysis 2018/19. <sup>11</sup> World Bank. June 2023. “Health Financing in a Time of Global Shocks – Strong Advance, Early Retreat” HNP Discussion Paper. Washington DC: World Bank.

## CHALLENGE 1: MAINTAINING ADEQUATE FISCAL SPACE FOR HEALTH

As Bhutan recovers from the double health and economic shock brought by the pandemic,<sup>12</sup> the RGoB will find it increasingly harder to grow its fiscal space for health in the next few years. The key reason is because the RGoB will not be able to continue its reliance on conducive macroeconomic conditions to finance rising health spending. After the RGoB's pursuit of counter-cyclical fiscal policies<sup>13</sup>, which resulted in increased spending on health during the first two years of the pandemic, fiscal tightening is now expected. Total annual public expenditures are expected to decline until about 2025 (Figure 4), while the share of the public budget spent on debt servicing is likely to rise continuously through 2028. The combined effect is that discretionary public expenditures – i.e., those expenditures that are most relevant to understanding available fiscal space for health – will likely not return to pre-pandemic levels until 2027. Given that Bhutan's health sector is almost entirely financed using public expenditures, it is important that policy makers clearly understand the implications of fiscal tightening on near- and medium-term health financing.

**Figure 4.** Key macro-fiscal Indicators for Bhutan 1997-2028 (Projected)<sup>14</sup>



Declining government expenditures over the next few years impact fiscal space for health via the mathematical relationship described in Figure 5 below. Firstly, per the IMF's latest economic forecasts, government expenditures as a share of GDP are expected to remain suppressed around 28%, more than 5 points lower than the 35% share seen in Bhutan in the pre-pandemic era. Lower levels of government expenditures directly constrain fiscal space for health. Secondly, Bhutan's GDP per capital is lower today than it was in 2019 – and is not expected to reach pre-pandemic levels until 2024-25.<sup>15</sup> Finally, as government expenditures fall, the share of the budget prioritized for health may become harder to maintain, as demands from other critical sectors which may have been de-prioritized during the COVID-19 health emergency may become more competitive.

<sup>12</sup> C Kuroski et al. 2022. From Double Shock to Double Recovery: Implications and Options for Health Financing in the Time of COVID-19. Health, Nutrition and Population Discussion Paper. World Bank, Washington, DC. World Bank. <sup>13</sup> Counter-cyclical policies are those policies that intend to balance the effects of the economic cycle. For example, fiscal policy measures that stimulate demand and spur economic activity during an economic downturn. <sup>14</sup> Source: IMF WEO Database April 2023 Edition. <sup>15</sup> IMF WEO Database (April 2023 Update).

**Figure 5.** Anticipated Pressures on Bhutan's Fiscal Space for Health<sup>16</sup>

	Health share of public expenditure	X	Public expenditure share of GDP	X	GDP per capita	=	Public expenditure on health per capita
2021	11%		%34		\$3,243		\$140
2023	11%		%34		\$3,498		\$132
2024	10%		%30		\$3,661		\$116

Most importantly, the combined effect of the downward pressures on the levers of public health expenditures is that the RGoB may not be able to sustain the same levels of public spending on health that have been observed in the past. While the overall pressure on fiscal space may be negative in the immediate term, policy makers nevertheless have important discretion over what happens to the status of health financing in Bhutan: If the high priority given to health during the peak of the COVID-19 crisis, where health's share of general government expenditures increased in Bhutan to above 10%, reverses back to earlier levels, that were much closer to 7.5%, then per capita health expenditures may not return to levels observed during 2020/21 until five years from now.

Ultimately, in the current context, Bhutan's policy makers must begin considering ways to protect or grow fiscal space for health. In addition to closely monitoring and ensuring that government investment in healthcare does not decline, supplementary resources for health may need to be explored through pro-health taxes and by generating efficiency gains. This is a more sustainable strategy than relying on external financing for health, which comprised around 7% of total health spending in 2019 – among the highest share of its kind in the region. Rather, good use of monies to improve quality service delivery would not only help fill gaps in Bhutan's preparedness for future crises but also sustain and/or improve its population health outcomes. The second issue brief in this series assesses fiscal space in greater detail and outlines the most promising options available.

## CHALLENGE 2: FINANCING BHUTAN'S EPIDEMIOLOGICAL AND DEMOGRAPHIC TRANSITION

The rise in share of NCDs in Bhutan's national disease burden has been dramatic. In less than two decades the NCD share of the national disease burden has increased from 35% to 62%.<sup>17</sup> At the same time, the share of the population aged 65 and older is expected to almost triple between 2020 and 2050, from 6% to 16%.<sup>18</sup> This means the share of NCDs such as hypertension, diabetes and other cardiovascular conditions – i.e., conditions that impact wellbeing in later years of life – in the national disease burden will increase further still. The policy response required from a service delivery perspective is to transition the care system towards the upstream management of chronic conditions in appropriately low-cost primary care settings to prevent unnecessary and costly acute exacerbations.

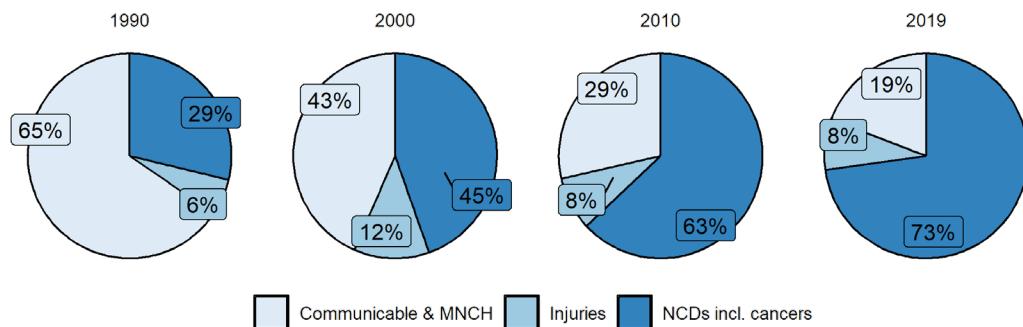
From the point of view of sustainable health financing, the key policy challenge is ensuring adequate financing for preventative NCD care at the primary health care (PHC) level. Specifically, policy makers might ask: is there adequate financing for PHC such that low-acuity conditions (e.g., diabetes or hypertension) can be effectively managed at lower-level facilities? Historically, Bhutan's health expenditures have been largely devoted to curative services for communicable diseases: amounting to nearly 55% of total health expenditures in FY 2018/19.<sup>19</sup> The share expended on communicable diseases is proportionately greater even though curative care for communicable diseases is often cheaper in per-unit terms relative to NCDs. This suggests that a health financing transition, both in how – and for what – health is financed is required in Bhutan.

<sup>16</sup> Source: Author's analysis using IMW WEO (April 2023 Update) and WHO GHED (2023 Edition).

<sup>17</sup> Institute of Health Metric and Evaluation, Global Burden of Disease Study (2019). <sup>18</sup> UN Population, World Economic Prospects Database (2022).

<sup>19</sup> Ministry of Health, Bhutan. 2021. Bhutan National Health Accounts, 2018/19.

**Figure 6.** Disease Burden Transition in Bhutan, 1990 - 2019<sup>20</sup>



### CHALLENGE 3: IMPROVING EFFICIENCIES AND STRATEGIC PURCHASING

Challenges 1 and 2 together point towards a need to improve efficiency and introduce greater strategic purchasing of health services in Bhutan's health financing system, especially as disease burden shifts and fiscal space for health tightens. Presently, the primary focus of Bhutan's public health delivery system is on the provision of "free" basic public health services, which generally include preventive, promotive, curative, and rehabilitative services, in addition to advanced diagnostic and organ transplant services. However, while the categories of services covered by the government are implicitly understood, the exact services that ought to be financed and then provided via the public health system are less well understood. In practice, services available to citizens are primarily supply driven: i.e., they are based on what services and medicines are already available and easily procurable at local health centers. As such, there is not a clear understanding or process for rationalizing expenditures within the public budget. This ambiguity, combined with escalating healthcare costs, rising public expectations, and the emergence of more complex and costly pathologies associated with noncommunicable diseases (NCDs) are putting the long-term financial sustainability of Bhutan's "free health services" at risk.

Accordingly, there is an opportunity to address growing issues of health financing sustainability by more clearly defining what it means "to provide free access to basic public health services." However, doing so will require introducing new criteria, methods, and data to inform the prioritization process. Finally, although the basic health service package may be "implicitly" defined, some of the services that are explicitly not-covered are easier to identify. For many specialty services, the RGoB has outsourced service delivery to neighboring countries, meaning patients often must travel to India or even Thailand for most tertiary care services. Faced with growing demands from an aging population the RGoB must begin evaluating the fiscal implications of providing such services through the public system.

<sup>20</sup> Source: Institute of Health Metrics and Evaluation (IHME) Global Burden of Disease Study. 2019.



**ISSUE BRIEF 2**

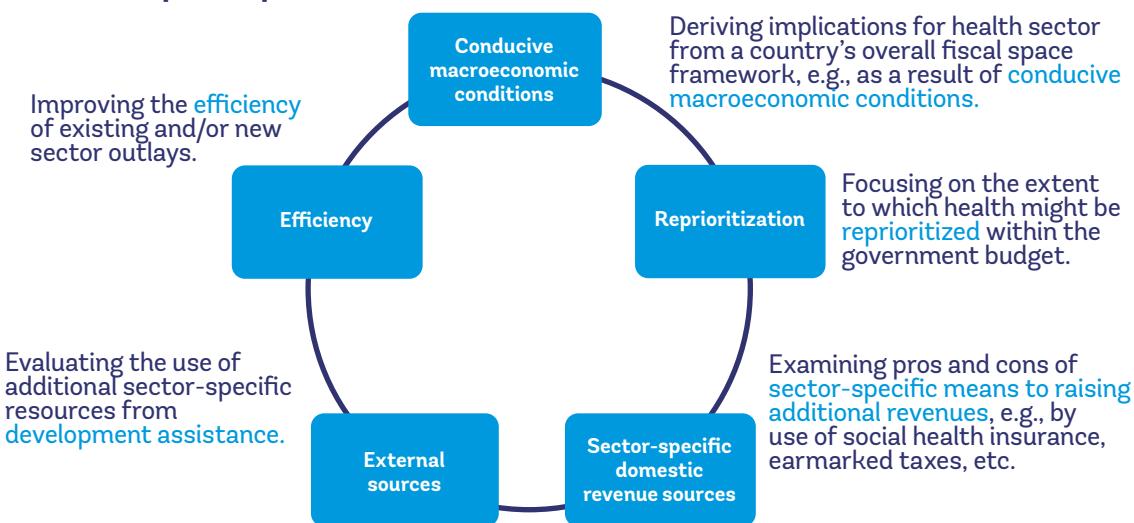
## Creating Fiscal Space for Health Amid an Economic Downturn

The aftereffects of the coronavirus pandemic – coupled with a worsening global economic outlook – mean that the sustainability of Bhutan's public spending is now an area of particular concern. Accordingly, this brief identifies policy levers available to maintain necessary public investments in health and human capital. Equally, it also reveals key financing constraints policymakers can expect in the short- (and medium-) term.

### ESTABLISHING THE DRIVERS OF FISCAL SPACE GROWTH:

The introductory brief in this series demonstrated that – due to falling public revenues, and rising debt burden – maintaining adequate fiscal space for health is an immediate challenge facing the health sector. Therefore, what Bhutan's policy leaders need now is a quick assessment of the options available to counteract the downward pressures that are likely to be placed on public health expenditures in the short- to medium term. Accordingly, this brief lays out available options and constraints to increasing or even sustaining Bhutan's public expenditures on health in the near and medium terms.

### The DRUM+ Framework to Evaluate Fiscal Space Options



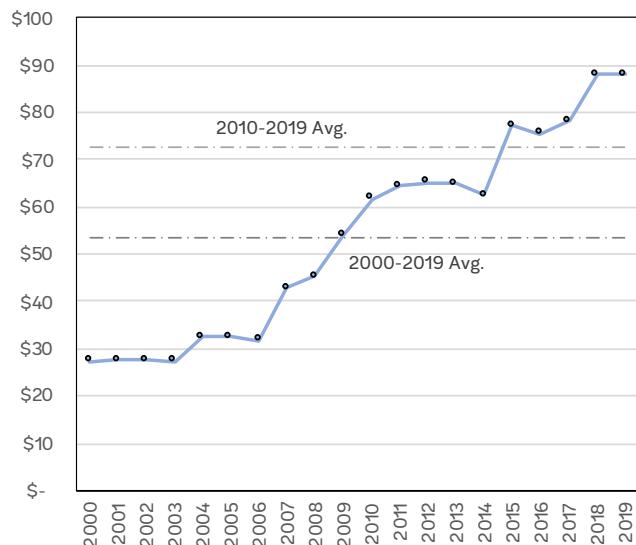
#### PILLAR 1. Conducive Macroeconomic Conditions:

#### MACRO CONDITIONS NO LONGER FAVORABLE FOR PASSIVE HEALTH SPENDING GROWTH

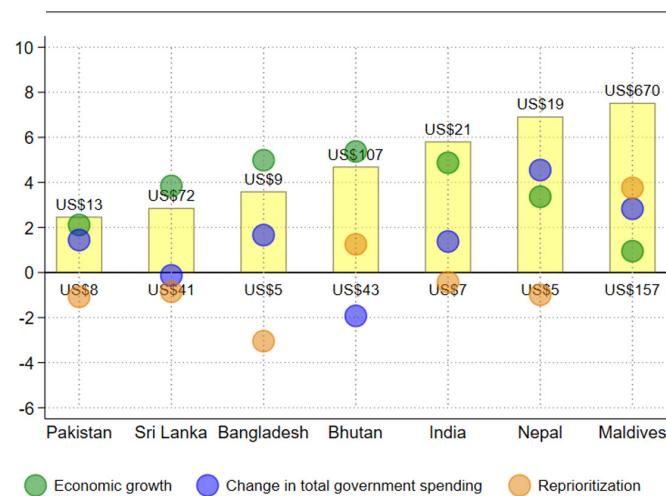
Strong economic growth can have transformative impacts on available fiscal space for health as it creates favorable conditions that both organically increase available resources and provide a foundation that allows for expansionary fiscal policy. Bhutan's own development history demonstrates the link between macro growth and health expenditures. Driven by strong hydropower and tourism sectors<sup>1</sup> the size of the national economy quadrupled between 2000 and 2020,<sup>2</sup> and in the same period, per capita current health expenditures increased nearly 3.75 times (Figure 1). This increase in realized fiscal space for health, measured in per capita public expenditures on health, is attributable primarily to macro-level economic growth (Figure 2). The case of neighboring India provides further evidence of how macro growth can directly unlock domestic fiscal space for health: although health's share in the public budget did not meaningfully change in India between 1995 and 2010, health expenditures nearly tripled because of average per capita GDP growth of roughly 6%.

<sup>1</sup> Asian Development Bank. Health Sector Development Program: Health Financing Assessment. <sup>2</sup> World Bank national accounts data, and OECD National Accounts data files.

**Figure 1.** Bhutan's Per Capita Public Spending, 2000-2020<sup>3</sup>

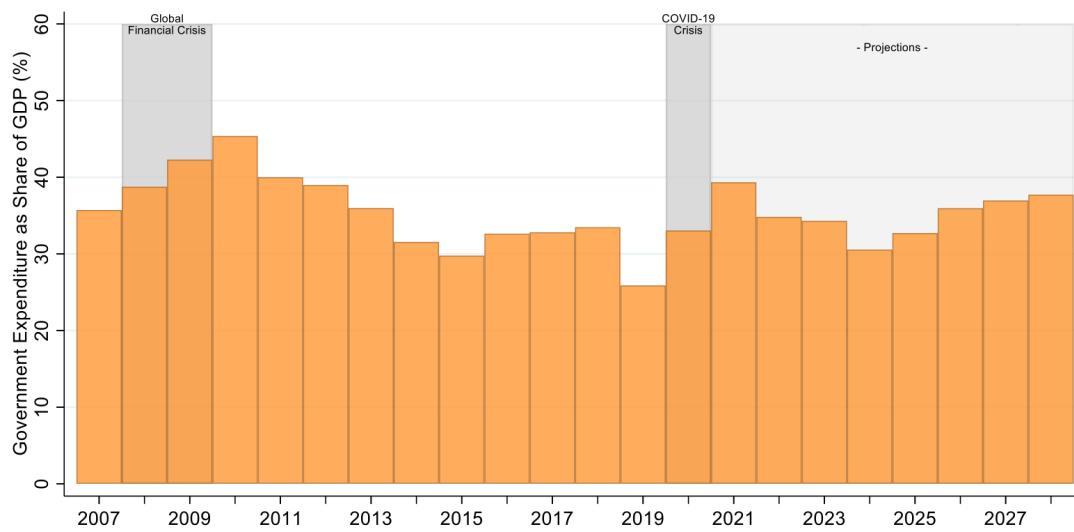


**Figure 2.** Bhutan's Historical Drivers of Fiscal Space for Health between (2000-2020 Average)<sup>4</sup>



The conducive macro environment which enabled continuous per capita public health expenditure growth since 2000 has changed. Sustaining Bhutan's public health expenditures is a challenge because (1) GDP per capita has declined in the last two years and because (2) government expenditures are declining at the same time. Like the region as a whole, Bhutan suffered sharp declines in per capita GDP across 2020 and 2021 – falling from Nu.95,000 pre-pandemic to Nu.87,798 after. Although positive growth is likely to return in 2023, per capita GDP is not expected to reach 2019 levels until 2024/25.<sup>5</sup> Additionally, total government expenditures, which were at a high in 2022 (Nu.73 billion) due to counter-cyclical<sup>6</sup> spending from the RGoB, are now headed into a contractionary phase (Figure 3) due, in part, to high public debt.<sup>7</sup> Total government expenditures as a share of GDP are likely to fall and remain at a historically low rate of 28% starting from 2023 until at least 2027. The combined impact on available fiscal space for health post-COVID-19 is as follows: Bhutan is starting from a lower base of per capita income and a decreasing share of that income is available for health.

**Figure 3.** General Government Expenditures as a Share of GDP, 2000-2028<sup>8</sup>



<sup>3</sup> Source: World Health Organization Global Health Expenditure database ([apps.who.int/nha/database](http://apps.who.int/nha/database)). The data was retrieved on May 30, 2023.

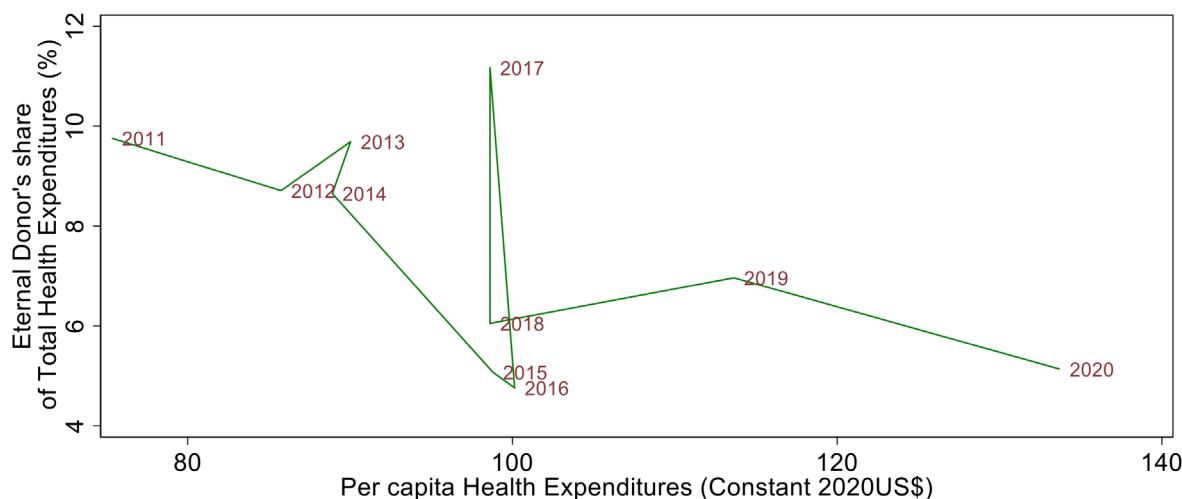
<sup>4</sup> Source: Author's calculations using WHO GHED 2023 Edition. <sup>5</sup> Ajay Tandon et al. 2023. "Old Scars New Wounds: Public Expenditures on Health in Times of Covid-19 in the Asia-Pacific Region." HNP Discussion Paper. Washington DC: World Bank. <sup>6</sup> Counter-cyclical policies are those policies that intend to balance the effects of the economic cycle. For example, fiscal policy measures that stimulate demand and spur economic activity during an economic downturn. <sup>7</sup> Ajay Tandon et al. 2023. "Old Scars New Wounds." <sup>8</sup> Source: IMF WEO April 2023 Edition.

## PILLAR 2. Donor Assistance for Health (DAH):

### PROSPECTS FOR SUSTAINING EXPENDITURES THROUGH EXTERNAL REVENUES ARE ALSO LOW

Increasing the level of donor (external) assistance for health is another means through which governments can increase fiscal space available for health. Although it may be possible to secure external assistance for health, Bhutan already relies on external funds to finance health at a higher rate than what might be expected for a country at its income level (Figure 6). Most other lower middle-income countries with a GDP per capita of greater than US\$3,000 have external financing ratios closer to 1%, whereas Bhutan's is 6.1%. As such, increasing the external financing share of total health expenditures may not be sustainable or even viable in the long term.

**Figure 6.** Donor Assistance for Health and Total Health Expenditures Over Time (2011-2022)<sup>9</sup>



## PILLAR 3. Reprioritization for Health:

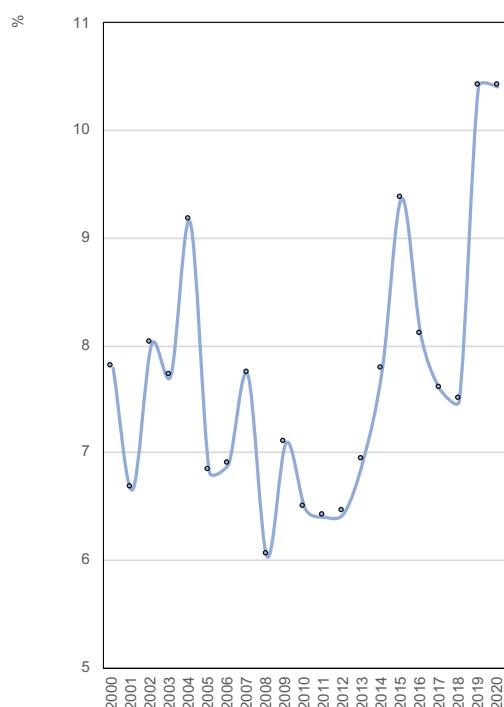
### REPRIORITIZATION CAN BE IMPACTFUL, BUT DIFFICULT TO ACHIEVE

Reprioritization refers to health's share of domestic government expenditures each year. In recent years, the priority given to health in Bhutan has ranged from a low of 6% in 2008 to above 10.4% in 2019/20 (Figure 4). Going forward the choice of the prioritization across the next five years can have a significant impact on the level of resources available for health. Modeling of two simplified health financing scenarios, each based on a different assumed health prioritization rate from 2022-2027, suggests that the difference could be as high as US\$60 per capita depending on the health reprioritization rate that takes hold in Bhutan in the coming years (Figure 5). In the high scenario (blue dashed line in Figure 5), where health's share of general government expenditures is maintained at its 2020 level (~10%), Bhutan can expect per capita health expenditures to remain within US\$135-145 between 2023 and 2026. However, if the priority given to health in the budget reverses back to the 2010-2019 average, approximately 7.6%, then per capita health expenditures may not return to 2020 levels until 2027 (orange dashed line in Figure 5).

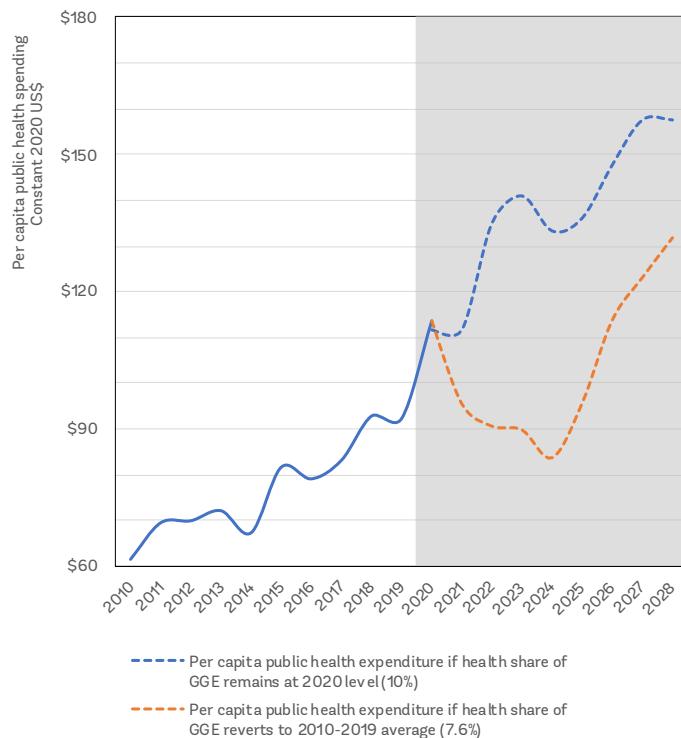
In FY2023/24 and beyond, as the health emergency recedes, fiscal constraints become tighter and de-prioritized demands from other social sectors come back to the fore, it may be difficult to make a strong case for raising, or even maintaining, historically high rates of prioritization for health in the public budget. The key reason for this is that Bhutan's interest payments on accumulated debts is set to rise from 3% of total government expenditures in 2021 to nearly 11% in 2027.<sup>10</sup> As a nation's debt servicing burden increases, demands from non-health sectors become more competitive in a relative sense. Furthermore, as can be seen in Figure 4, health's share of actual public expenditures was at a historically high rate of 10.4% in 2019 and 2020. Due to the ongoing coronavirus health emergency, high levels of budgetary prioritization for health have been easier to maintain in FY2021/22 and in FY2022/23: the budgetary allocation to the health was further increased to 12.9% of the total government allocation.<sup>11</sup>

<sup>9</sup>Source: WHO GHED 2023 Edition. <sup>10</sup>Author's analysis using IMF World Economic Outlook databases (October 2022 edition). <sup>11</sup>Ministry of Finance, RGoB. 2022. Budget-Report-for-FY-2022-23. <https://www.mof.gov.bt/wp-content/uploads/2022/06/Budget-Report-for-FY-2022-23-in-English.pdf>

**Figure 4. Health's Share of Public Expenditures**



**Figure 5. Potential Fiscal Space Pathways in Bhutan  
(Projected till 2028)**



#### PILLAR 4. Generating Health Sector Specific Resources:

#### BHUTAN MAY HAVE ROOM FOR INCREMENTAL “PRO-HEALTH” CONSUMPTION TAXES

Health-specific revenues are sourced generally from the form of either new earmarked taxes or from the collection of health contributions.<sup>12</sup> Given that Bhutan’s health sector relies almost exclusively on taxes to fund health – tax-financed government expenditures amounted to 78% of total current health expenditures in 2020, while voluntary or compulsory healthcare payment contributions were collectively just 2% – the revenue potential from contributions is low in the near term. Relatedly, a key financial protection indicator, the private out-of-pocket share of health expenditures, has trended negatively in the last few years, from 13 to 18%. In this context, introducing policies that increase the burden on private households should not be preferred. A secondary option is to raise additional revenues through earmarking for health – particularly by using “pro-health” consumption taxes.

Although tobacco products are banned, Bhutan may still have room to mobilize additional domestic revenues through consumption taxes on alcohol, sugar, and sugary sweetened beverages. A comparison of consumer prices across the South Asia region (SAR) and globally shows that Bhutanese pay less for alcoholic beverages relative to India, Nepal, Sri Lanka, and the world on average (Table 1). Specifically, the average price index for alcohol is 94 in Bhutan, which means that alcoholic products are nearly 40% cheaper than in India and more than half as cheap as in Sri Lanka. Even a tax that raises the average price of alcohol up by 6% would only bring Bhutan in line with the global average. This provides an initial economic justification for imposing new taxes on health impacting consumables as a mechanism through which to improve fiscal imbalances and secure fiscal space for health.

<sup>12</sup> A Tandon and A Belay 2015. <sup>13</sup> Includes sugar, jam, honey, chocolate and confectionery. Source: World Bank International Comparison Program.

**Table 1.** Average Price Index for Alcohol and Sugar Products

Country	Alcoholic Beverages	Non-Alcoholic Beverages	High-Sugar Products <sup>13</sup>
Bhutan	<b>94.28</b>	<b>82.49</b>	<b>81.14</b>
Pakistan	..	75.95	63.54
India	139.03	74.60	65.54
Bangladesh	..	77.48	84.33
Nepal	167.11	80.39	74.99
Sri Lanka	204.91	87.03	53.17
World	100.00	100.00	100.00

However, international evidence suggests that not only are the revenue implications of “pro-health” taxes often limited, securing these new revenues as earmarks for health can also be difficult and economically inefficient. Importantly, health taxes are considered “unlikely to bring a sustained net increase in revenue” due to the consumption offsetting effects caused by price increases.<sup>14</sup> Accordingly, the global literature on health taxes now emphasizes the health taxes as a public health tool best suited to curb unhealthy consumption rather than as an instrument of fiscal policy.<sup>15</sup> In short, pro-health taxes are an efficiency improving measure.

#### **PILLAR 5. Efficiency in Pooling and Using Resources:**

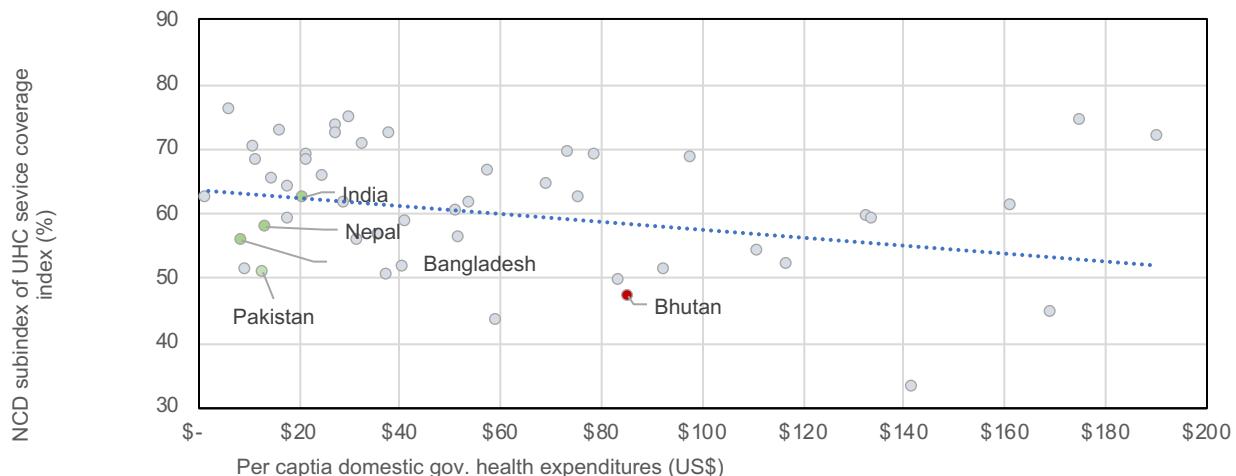
#### **GIVEN LOW REVENUE PROSPECTS, IMPROVING EFFICIENCY MUST BECOME A FOCUS**

Improving the efficiency of health expenditures, by which is meant getting more health output for the same level of input, can act as a final source of fiscal space.<sup>16</sup> This is because efficiency gains help free up previously committed resources, so that they can be re-invested into new health sector priorities, thereby creating fiscal space without needing to mobilize any new domestic revenues. This can be done either through reallocating resources from lower yield services to higher yield services, examples include spending more on primary care services to prevent acute exacerbations of noncommunicable disease (NCD) such as Type-1 diabetes and thus averting more disability adjusted life years (DALYs) than an inpatient hospital service that might be required once a disease has already progressed. Alternatively, efficiencies can also be gained by ensuring that the allocated resources are utilized optimally, this is known as technical efficiency and examples include hospital work-flow improvements that allow doctors and nurses to operate more effectively at “top-of-license” and see larger patient panels. In this way, there are always multiple complementary avenues through which to realize efficiencies in a health system.

Bhutan also has a significant opportunity to address both allocative and technical inefficiencies as they relate to NCDs. As noted in the introductory brief of this series, the rise in NCD’s share of total disease burden has been particularly rapid in Bhutan and is expected to continue growing until at least 2050. NCDs have increased from less than 35% of the disease burden in 2000 to over 62% by 2019, and the key drivers are heart disease, diabetes, stroke, and chronic obstructive pulmonary disorder (COPD). And yet, despite the rapidly growing NCD share, Bhutan’s health financing indicators have not yet begun to adequately reflect the new reality of disease in the country. Per the most recent national health accounts, in FY2019/20 Bhutan spent nearly 55% of its total health expenditures on curative services that relate primarily to communicable diseases. The share spent on curative services was up by over 1.5% as compared to FY2018/19. Additionally, not only is Bhutan allocating an inefficient proportion of its resources towards NCDs, but existing expenditures are being utilized in a technically inefficient manner. This inefficiency can be seen by comparing NCD-related outcomes across SAR: although Bhutan spends US\$116 per capita on health, nearly twice as much as India, Nepal, Bangladesh, and Pakistan, it scores worse on the NCD tracer indicators of the UHC essential service coverage index than each of these countries. Bhutan’s NCD service coverage score is 47% while the average for SAR is nearly 10 percentage points higher, at 56%.<sup>17</sup>

<sup>14</sup> Ozer et al. 2020. <https://openknowledge.worldbank.org/bitstream/handle/10986/34947/Health-Earmarks-and-Health-Taxes-What-Do-We-Know.pdf?sequence=1>. <sup>15</sup> See WHO’s “Health Taxes: Policy and Practice,” 2022. <sup>16</sup> A Tandon and A Belay 2015. p19. <sup>17</sup> Estimates taken from WHO Global Health Observatory databases (2022).

**Figure 7.** Public Spending on Health versus NCD Essential Service Coverage Index Performance<sup>18</sup>



Finally, beyond allocative and technical efficiency, strategic purchasing represents another important policy mechanism through which to achieve greater health for money. Conceptually strategic purchasing refers to the deliberate directing of pooled health funds towards “priority populations, interventions, and services, and actively creating incentives so funds are used by service providers equitably” and efficiently.<sup>19</sup> Together with financial risk pooling, strategic purchasing represents the “Plus” in the DRUM+ policy framework. However, in the case of Bhutan, the RGoB’s purchasing of “basic public health services” is currently not defined in an explicit package of essential health services that are guaranteed to citizens. Furthermore, health budgets “at all levels of government are done by line-item and are based on historic trends rather than on need.”<sup>20</sup>

To address growing issues of health financing sustainability, it may become necessary for the RGoB to more clearly define what it means to provide “free access to basic public health services” under an explicit health benefits package. Without an explicitly defined package, it is difficult for the RGoB, the largest purchaser of health services (78% of all current health expenditures in 2020), to intentionally and efficiently direct pooled resources towards priority areas. This is particularly important in the context of Bhutan’s ongoing disease burden transition, where service delivery needs to be re-oriented to meet growing NCD and mental health needs. Similarly, without explicitly defined benefits packages, pursuing strategic purchasing reforms such as capitated primary health care payments and incentive payments for quality improvement and value-based care are harder to pursue. Implementing a defined benefits package will require introducing new criteria, methods, and data to inform the prioritization process, as well as a national policy dialogue on the issue. Accordingly, there remains a significant opportunity for the RGoB to explore strategic purchasing reforms to increase available fiscal space in the medium to long term.

**Table 2.** Summary: Prospects for Fiscal Space

DRUM PILLAR	BHUTAN
<b>Macro-economic prospects</b>	<b>Limited:</b> Bhutan is starting from lower base of per capita GDP after COVID – falling from NU.95,000 in 2019 to NU.87,798 in 2021 – and total government expenditures as a share of GDP are likely to fall and remain at low until at least 2027. Macro conditions will not contribute to fiscal space for health and may shrink the level of available resources.
<b>Donor assistance for health</b>	<b>Limited:</b> Bhutan relies on external funds to finance health at a higher rate than what might be expected for a country at its income level, approximately 7% of current health expenditures. As such, increasing the external financing share of total health expenditures may not be sustainable or even viable in the long term.

<sup>18</sup> Source: Authors’ analysis using WHO GHED 2023 Edition. Latest year available for most countries was 2020. <sup>19</sup> A Munyam I Sieleunou, O Sory & C Cashin. 2022. “Why Is Strategic Purchasing Critical for Universal Health Coverage in Sub-Saharan Africa?” *Health Systems & Reform* Vol 8, 2022. <sup>20</sup> World Health Organization. 2021. Bhutan: Cross-Programmatic Efficiency Analysis. *Health Financing Case Study No 24*

<b>Health sector priority</b>	<b>Low/Moderate:</b> Reprioritization can significantly grow fiscal space, contributing up to US\$60 per capita between 2022-27 if health's share is maintained at 10.4%. However, as Bhutan's macro conditions tighten and demands from non-health sectors that were de-prioritized during COVID get louder, it may be difficult to convince MoF to raise, or even maintain, health's high priority in the budget.
<b>Sector-specific revenues</b>	<b>Moderate:</b> Although tobacco products are banned, Bhutan shows room to mobilize domestic revenues through consumption taxes on alcohol, sugar, and sugary sweetened beverages. For example, alcoholic products are nearly 40% cheaper in Bhutan than in India and 50% cheaper than in Sri Lanka. Accordingly, there is some economic justification for imposing new consumption taxes, which can in turn improve current fiscal imbalances and secure fiscal space for health.
<b>Efficiency in pooling and using resources</b>	<b>Good:</b> Bhutan has a significant opportunity to address both allocative and technical inefficiencies as they relate to NCDs. Given low or moderate prospects for fiscal space from other DRUM pillars, <i>improving efficiency and making additional room within the existing resource envelop should become a primary focus in the near term.</i>



**ISSUE BRIEF 3**

## Expenditure Efficiency in the Bhutanese Health System

This issue brief provides an introductory assessment of efficiency (and inefficiency) in Bhutan's health financing system—understood simply as health outputs and outcomes per given input. Through a comparison of system-level indicators against international benchmarks, broad areas of success as well as opportunity are highlighted.

Bhutan has increased its real per capita health expenditures at a fast rate—such that its per capita health spending has caught up to regional and income benchmarks. In 2000, Bhutan's current health expenditures was US\$48.7 per capita (measured in constant 2020 US\$), two decades later, current health expenditures had increased nearly threefold: to US\$133.7 per capita in 2020. In comparison, the region of South Asia and lower middle income (LMI) countries, on average, saw real increases in current health expenditures per capita of 2.3 and 2.2 times respectively. In short, Bhutan has been increasingly investing in health (Figure 1 below). The question from a sustainable health financing point of view now becomes—particularly during periods of limited fiscal space—how efficient are these health expenditures?

Definitive assessments of efficiency, particularly across complex systems like a national health sector, are often difficult, spanning across the domains of technical, allocative, and sometime administrative efficiency. One simplified approach to understanding efficiency in the health sector, however, is to consider system-level inputs against health outputs—i.e., to measure the total amount invested in health (e.g., current health expenditures per capita) against other aggregate output indicators (e.g., UHC attainment). Accordingly, the goal of this short policy brief is to place Bhutan's efficiency performance in international comparison and highlight, for policymakers, broad areas of relative spending efficiency (or inefficiency) in the existing health financing system.

**Figure 1. Relative Increases in Real per capita Health Expenditures in South Asia, 2000 to 2020<sup>1</sup>**



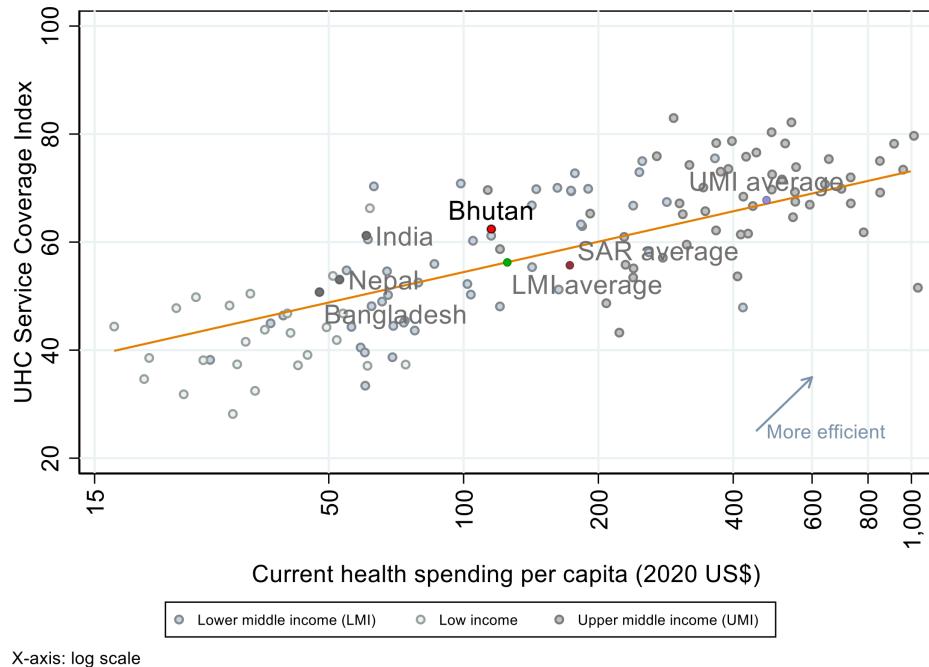
### **BHUTAN HAS BEEN AN EFFICIENT MATERNAL, NEWBORN AND CHILD HEALTH (MNCH) PERFORMER, HOWEVER A SIGNIFICANT UNFINISHED AGENDA REMAINS.**

Efficiency can be grasped by comparing Bhutan's MNCH outcomes directly against its income and regional comparators. For instance, Bhutan spends approximately US\$10 per capita less on health than the LMI country average<sup>2</sup> yet its performance on the MNCH essential services sub-index is approximately 15 percentage points higher than the LMI country average (83.3% compared to 68.8%) (Figure 2). Similarly,

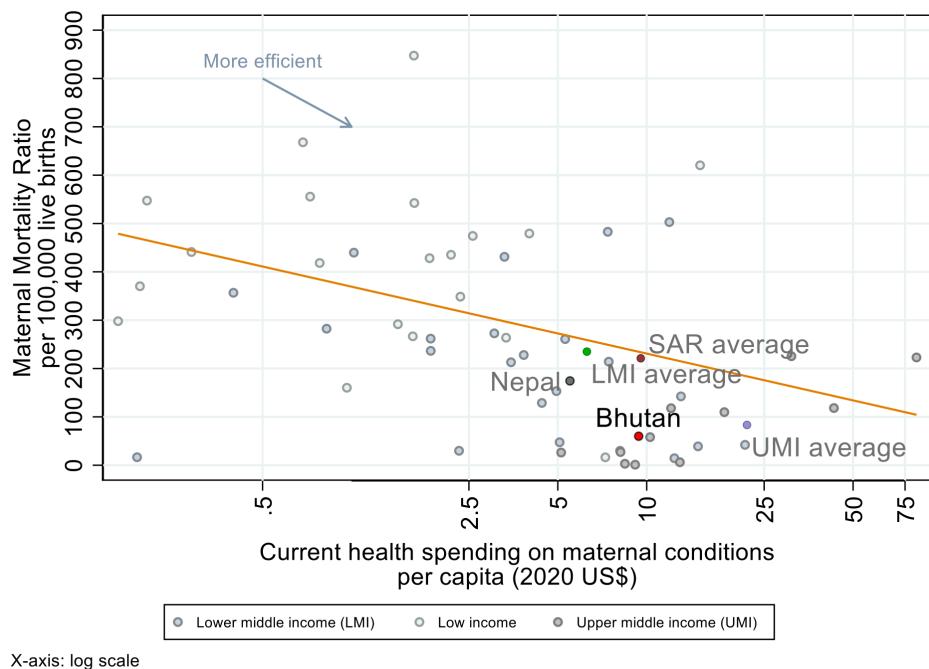
<sup>1</sup> Source: WHO GHED 2023 Edition. <sup>2</sup> Current per capita health expenditures in Bhutan were US\$115 compared to the LMI country average of US\$125 per capita in 2019, the latest year for which comparable UHC sub-index data was available.

using maternal mortality as a representative example of maternal health outcomes, Bhutan performs better than the expected indicator value given its specific level of per capita inputs: In 2020, estimates from the World Health Organization's Global Health Expenditure Dataset (WHO GHED) show that Bhutan invested approximately US\$7.25 per capita specifically on maternal conditions, while the maternal mortality ratio (MMR) was 60.0 deaths per 100,000 live births (Figure 3). Based on the experiences of 65 developing countries for which data was available, the expected MMR for a country investing US\$7.25 per capita on maternal conditions is approximately 243 deaths per 100,000.

**Figure 2.** MNCH Service Coverage vs. per capita Health Expenditures, by Country<sup>4</sup>



**Figure 3.** Maternal Mortality Ratio vs. per capita Health Expenditures on Maternal Conditions, by Country<sup>5</sup>



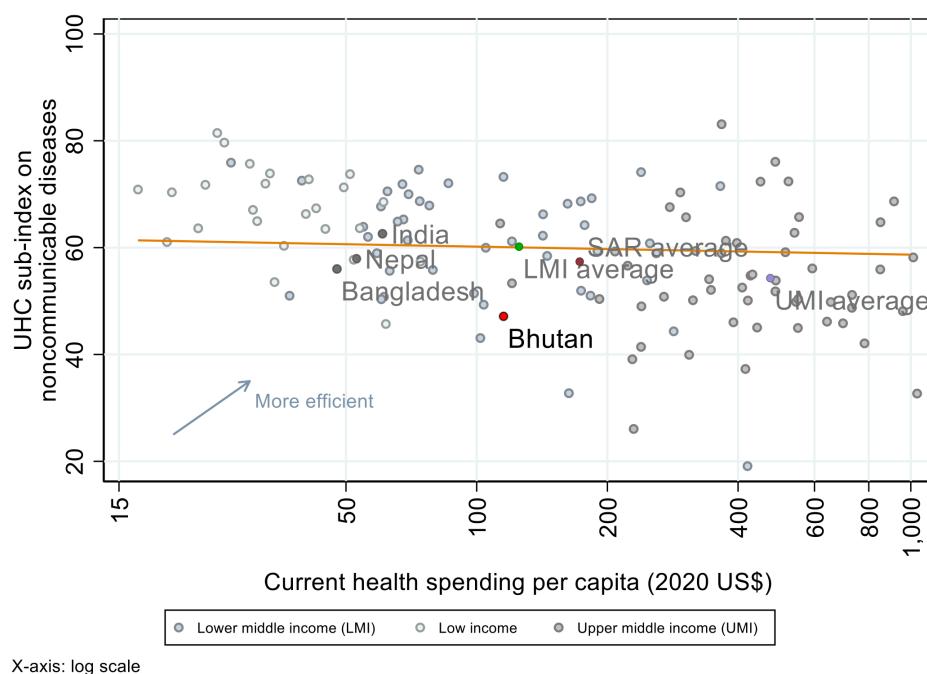
<sup>3</sup> Defined as low, lower-middle, and upper-middle income countries. <sup>4</sup> Source: UHC subindex for maternal, newborn, and child health estimates taken from WHO GHED Database 2023 edition (latest available year for most countries was 2019); current health expenditures estimates taken from WHO GHED Database 2023 edition. <sup>5</sup> Source: Maternal Mortality Ratio taken from WHO Estimates (latest available year for most countries was 2020); current expenditures on MNCH taken from WHO GHED (latest year available for all countries was 2020). Yellow trend line indicates expected value of the Y-variable for each value of the X-variable. For details on how health spending on maternal conditions is defined and estimated, see the GHED Methodology 2022 paper.

Although MNCH progress has been significant, serious issues remain with access, quality, and utilization of services—particularly for more rural residents. Under-5 mortality has been reduced from over 77 deaths per 1,000 live births in 2000 to 26.7 deaths per 1,000 live births in 2021—a 65% improvement. However, most pregnant women and mothers do not attend the minimum required number of antenatal and postnatal care visits set by the Ministry of Health due to financial burden linked to opportunity costs associated with transportation and loss of daily wages/workdays, competing household priorities of women (household chores and farm work takes precedence over accessing health care), and social and cultural beliefs and norms coupled with family pressure and health illiteracy. A clear need exists to further the MNCH agenda in Bhutan. The data show that Bhutan's public sector driven health system has been relatively efficient in utilizing available resources to improve MNCH outcomes to-date, suggesting that additional investments in this domain may also yield high value.

### **CONVERSELY, BHUTAN APPEARS AS AN INEFFICIENT PERFORMER WHEN IT COMES TO ADDRESSING NONCOMMUNICABLE DISEASES (NCDs)—MAKING NCDs AN OPPORTUNITY AREA.**

INCDs have been rising rapidly in recent decades in Bhutan. The total disability adjusted life years, or DALYs, attributable to the top four NCDs, heart disease, diabetes, COPD,<sup>6</sup> and stroke, have each increased by 20%-to-50% in the last ten years.<sup>7</sup> This trend is expected to continue: aging is a key risk factor for NCDs and the share of the Bhutanese population aged 65 and older will triple in the next three decades from roughly 6% to 16%,<sup>8</sup> all while fertility rates continue to fall. While a rise in the relative importance of NCDs is to be expected as societies age, the current demographic and epidemiological trends mean that a larger share of the Bhutanese population is increasingly impacted by NCDs. Equally, a larger and larger share of healthcare service utilization in Bhutan will be skewed toward the treatment of NCDs and the long-term management of chronic conditions such as cancers, diabetes and hypertension. Accordingly, it is important to understand the relative efficiency of Bhutan's healthcare system, as it stands today, in addressing the rising NCD challenge.

**Figure 4.** UHC Sub-index on Noncommunicable Diseases and per capita Health Expenditures, by Country



Bhutan's health system has historically been oriented towards communicable diseases and accordingly NCDs service access and outcomes are lower than what might be expected at its current health spending levels. Figure 4 (above) shows that service coverage for essential NCD services was 48% of the Bhutanese population (measured using tracer NCD indicators defined under the UN Sustainable Development Goal 3.8 regarding the achievement of universal health coverage (UHC)). However, the expected NCD essential service coverage at Bhutan's level of per capita current health expenditures is approximately 60%. Furthermore, regional neighbors Bangladesh, India, and Nepal each score higher on the NCD service coverage sub-index than does Bhutan, despite considerably lower per capita health spending.

<sup>6</sup> Chronic Obstructive Pulmonary Disorder. <sup>7</sup> Source: Institute of Health Metrics and Evaluation (IHME) Global Burden of Disease Study 2019.

<sup>8</sup> Source: UN World Population Prospect Dataset 2022 Edition.



**ISSUE BRIEF 4**

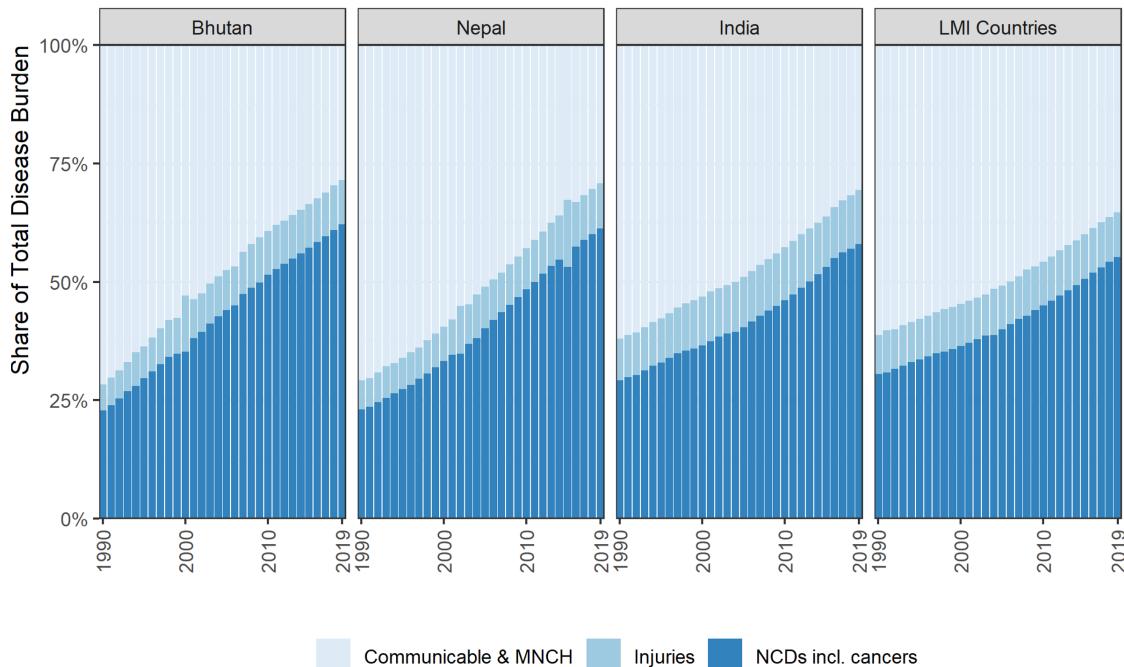
## Ageing & NCDs Impact on Health Financing

Bhutan is experiencing a rapid process of population ageing and a related shift in mortality and burden attributable to noncommunicable diseases. This brief first highlights the health financing challenges created by the ongoing demographic and epidemiological transitions, and then outlines the shape of potential solutions to those challenges.

Bhutan has experienced a rapid change in its burden of disease toward noncommunicable diseases (NCDs) over the last three decades: and its transition has been faster than in several peer countries (Figure 1). Measured as a percentage of total disease burden, disability-adjusted life years (DALYs) associated with NCDs has increased from 23% in 1990 to 62% in 2019. Over this period, ongoing population ageing as well as changing lifestyles and popular dietary habits<sup>1</sup> have meant that cardiovascular diseases, chronic respiratory disease, cancers, and diabetes have overtaken infectious, maternal, and neonatal disorders as the top causes of premature mortality.<sup>2</sup> Bhutan's epidemiological transition is faster than in neighboring India or Nepal, and even more rapid than the average experience of Lower Middle Income (LMI) countries.

While the trends from the last three decades are clear, looking thirty years forward, Bhutan's demographic indicators suggest that NCD share will continue to rise. Population estimates show that the share of the population aged 65+ will nearly triple between 2020 and 2050, from 6% to 16%.<sup>3</sup> As Bhutan's population ages, its NCD burden will commensurately increase given that ageing is itself a risk factor for NCDs, including cancers, hypertension, diabetes, and other cardiovascular conditions.

**Figure 1. Change in Disease Burden in Bhutan and Peer Countries (1990-2019)**



To date, Bhutan's healthcare delivery system has been primarily oriented towards the care and treatment of communicable and basic maternal and child health conditions. Improvements in maternal, newborn, child, and adolescent health (MNCAH) outcomes have been impressive over the last few decades: infant mortality reduced from 83 deaths per 1,000 live births (1990) to 23 deaths per 1,000 live births (2019).<sup>5</sup>

<sup>1</sup> Conclusions from Bhutan NCD Risk Factors WHO STEPS Survey 2014. <sup>2</sup> IHME Global Burden of Disease Survey (2019) edition. <sup>3</sup> UN Population Estimates. <sup>4</sup> IHME Global Burden of Disease Survey (2019) edition. <sup>5</sup> IHME GBD 2019.

Similarly, impressive improvements have been recorded in access to institutional deliveries: for example, the percentage of births attended by skilled health staff increased from 27% in 2000 to above 96% in 2019.<sup>6</sup> At the same time, through the implementation of a national strategy, mortality caused by malaria infections has been reduced by 99%.<sup>7</sup> Although aspects of the communicable disease agenda remain unfinished in Bhutan, the rapid growth of NCDs requires a transformation of the health service delivery system.

**Recognizing that preventing, treating, and managing NCDs is the future of healthcare in Bhutan, the Royal Government of Bhutan's (RGoB) Ministry of Health has already begun instituting important service delivery reforms.** First, starting as early as 2009, the World Health Organization's (WHO) package of essential NCD interventions (PEN) was incrementally introduced into the primary care system. Since then, the RGoB has passed The Multisectoral National Action Plan for the Prevention and Control of NCDs (2015)<sup>8</sup>, and piloted an innovative service delivery redesign initiative specifically to help manage NCDs in the population—the Service with Care and Compassion Initiative (SCCI).<sup>9</sup> Through the SCCI, the RGoB is pursuing a strategy of opportunistic screening for priority NCDs—whereby all patients entering health facilities are screened regardless of initial reason of visit. As of September 2020, the SCCI was scaled from four districts to all twenty districts across the country. Going forward, more dedicated efforts may be necessary, including population-based screening approaches.

## KEY INSIGHT 1

### ALONGSIDE TRANSFORMATION EFFORTS IN THE SERVICE DELIVERY SYSTEM, BHUTAN'S EPIDEMIOLOGICAL SHIFT WILL REQUIRE A STRATEGIC RESPONSE FROM THE PUBLIC HEALTH FINANCING SYSTEM AS WELL.

Global evidence indicates that a rising share of NCDs—even as overall disease burden decreases—will lead to higher system-level costs. This is primarily due to the chronic nature of most NCDs, including cardiovascular, respiratory, cancer and kidney diseases, which have higher medical costs and require longer-term medication regimens relative to most communicable diseases. As countries transition towards NCD-skewed disease burdens, per capita current health expenditures tend to steadily increase. The same trends are being observed in Bhutan as well.

Recent evidence from Bhutan shows that aggregate health system expenditures as well as per unit healthcare costs are increasing—even after controlling for inflation. Insights from the recently completed *Bhutan Healthcare Costing Analysis* (2023) show that at Bhutan's major referral hospitals, the total costs have increased by as much as 62% in the last 10 years—reflecting a rise that outpaces general inflation in the Bhutanese economy.<sup>10</sup> Similar trends have been observed in the same period in average per unit costs, measured as per bed day costs, at the major referral hospitals. At a system-wide level, the latest National Health Accounts exercise (NHA 2021) notes that there has been “an exponential increase of current health expenditures over the recent years.”<sup>11</sup> Total current health expenditures, which were approximately Nu.6.2 billion in FY2019/20, increased 22% year-over-year in FY2019/20 and 17% in FY2018/19 as compared to the previous fiscal year. In contrast, overall inflation in Bhutan in 2018 and 2019 was measured at only 1.8% and 0.9% respectively. Given that health is almost entirely publicly delivered—over 80% of total current health expenditures were financed by the government in FY2019/20—Bhutan's rising health costs place direct pressure on the RGoB's budgetary commitments.

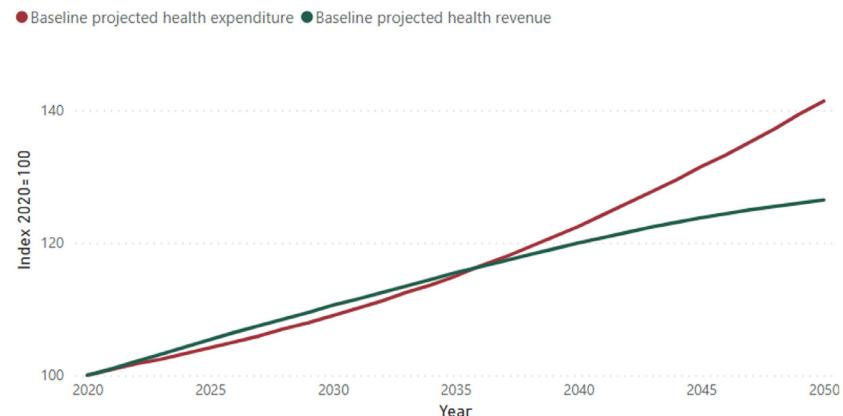
Conversely, policy leaders should realize that population ageing will have a negative impact on health sector revenues as well. Between 2020 and 2060, the share of Bhutan's population aged 65 and older is expected to quadruple: from 6% to 24% (Table 1). This ageing trend raises health financing sustainability concerns due to slower health sector revenue growth because of fewer working-age people.<sup>12</sup> Accordingly, health financing systems that rely on payroll contributions are most at risk from ageing. Although Bhutan does not utilize social contributions, its health revenues are still vulnerable to ageing because a decline in the working-age population share implies slowed growth in income tax revenues and potentially also lower productivity in the labor market.<sup>13</sup> In fact, with current ageing trends and without any changes in policy, the RGoB can expect a financing gap equivalent to US\$27 per person (or 0.3 percent of GDP) by 2060.<sup>14</sup>

<sup>6</sup> UNICEF, State of the World's Children, Childinfo, and Demographic and Health Surveys. <sup>7</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6746194/> and IHME GBD 2019. <sup>8</sup> [https://extranet.who.int/nutrition/gina/sites/default/filesstore/BTN%202015%20NCD%20Action%20Plan\\_1.pdf](https://extranet.who.int/nutrition/gina/sites/default/filesstore/BTN%202015%20NCD%20Action%20Plan_1.pdf) <sup>9</sup> WHO. September 2022. “Evolving a people-centered approach to noncommunicable disease (NCD) services in Bhutan.” <sup>10</sup> Bhutan Healthcare Costing Analysis (2023), pg 13. <sup>11</sup> Bhutan National Health Accounts Report 2021. <https://www.moh.gov.bt/wp-content/uploads/ict-files/2021/07/NHA-Report-2021.pdf>. <sup>12</sup> Normand, Williams & Cylus. 2022. The implications of population ageing for health financing in the Western Pacific Region. European Observatory on Health Systems and Policies, WHO Centre for Health Development (Kobe), WHO Western Pacific. <sup>13</sup> Normand, Williams & Cylus. 2022. <sup>14</sup> Population Ageing financial Sustainability gap for Health systems (PASH) Simulator Tool. 2022. Data sourced from OECD revenue statistics and WHO Global Health Expenditure database. <https://eurohealthobservatory.who.int/themes/observatory-programmes/health-and-economy/population-ageing-financial-sustainability-gap-for-health-systems-simulator>

Policy measures, including increasing the taxes levied on corporate profits and capital gains, as well as consumption taxes, can help minimize the expected financing gap from the revenue side.

**Table 1.**  
Ageing in Bhutan, 2020-2080

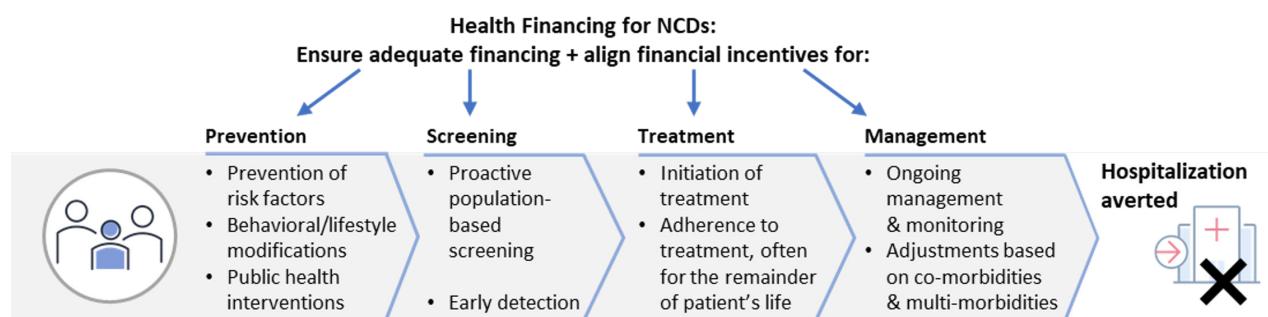
Year	Population Aged 65+
2020	6%
2040	10%
2060	24
2080	33%



As Figure 2<sup>15</sup> shows, an important health financing challenge as it relates to the NCD and ageing transition is managing anticipated healthcare cost inflation in line with anticipated revenue growth. It is crucial to ensure adequate funding for (1) preventative interventions and (2) comprehensive NCD care at the primary health care (PHC) level. This is because of the gradual, long-term, and fluctuating nature of NCDs: left unmanaged, NCDs generally exhibit slow onset, remain as chronic illness that impact health with fluctuating intensity, and may eventually lead to acute exacerbations that need costly and high-intensity levels of care. Furthermore, NCDs are also commonly comorbid—i.e., patients can suffer from multiple chronic conditions at once—thus necessitating simultaneous and complex treatment plans. In this way, NCDs are often differentiated from infectious and communicable diseases, which tend to be much more episodic, require time-limited medication regimens, and are fully curable.

The long-term nature of most NCDs means that health systems have an opportunity to significantly impact overall cost and health outcomes. This can be achieved through early detection and long-term care management such that costly hospitalizations are avoided where possible.

**Figure 3. Health Financing and the NCD Patient Trajectory**



Accordingly, there is a need to understand the current state of Bhutan's health financing for NCDs, and to assess whether the current arrangements are effectively incentivizing cost-effective NCD care management. Using both global experiences and local analysis, the remainder of this policy brief summarizes the current state of NCD financing in Bhutan and provides options to finance the ongoing disease burden transition sustainably and innovatively.

<sup>15</sup> Data for Table 1 and Figure 2 are sourced from: WHO Population Ageing financial Sustainability gap for Health systems (PASH) Simulator tool. Available online at: <https://emalurohealhobservatory.who.int/themes/observatory-programmes/health-and-economy/population-ageing-financial-sustainability-gap-for-health-systems-simulator>

## KEY INSIGHT 2

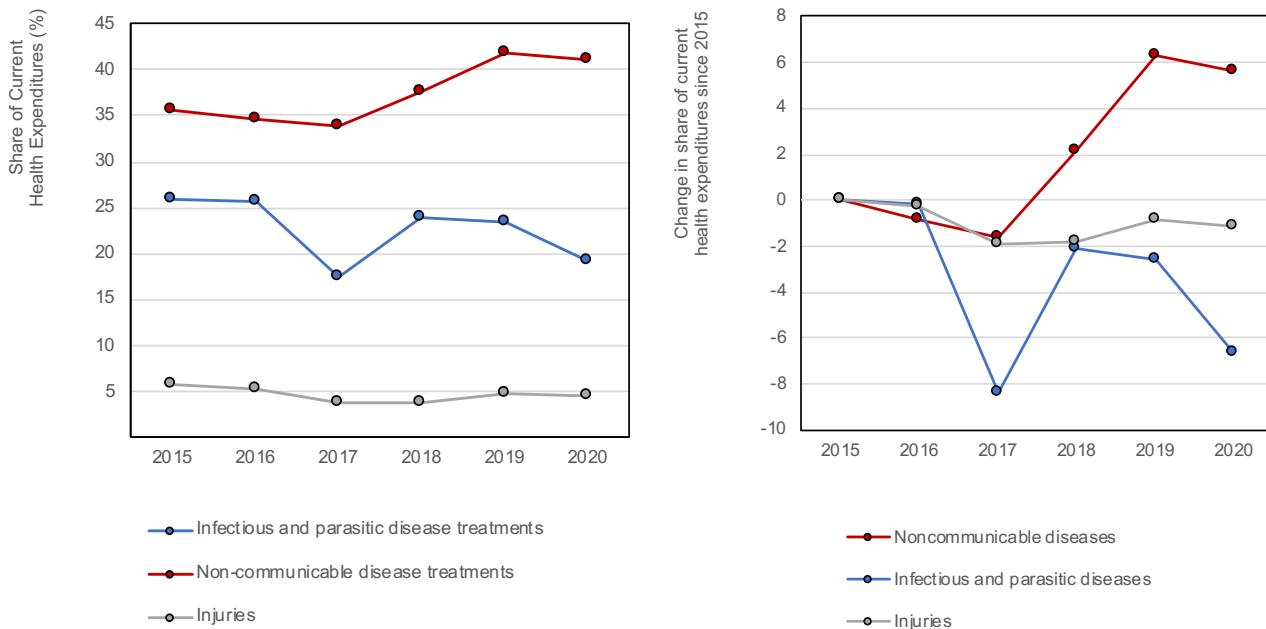
### BHUTAN WILL NEED TO INCREASE INVESTMENTS IN NCD PREVENTION AND CONTROL—BUT THESE INVESTMENTS CAN BE HIGHLY SPECIFIC AND YIELD OUTSIZED RETURNS.

At present, Bhutan spends less than 0.5% of its current health expenditures on NCD prevention and control.<sup>16</sup> The RGoB's Multisectoral National Action Plan for NCDs (2015), which outlines multiple programs for NCD control, notes that such programs are to be primarily financed through direct government budgetary transfers. Data from the most recent National Health Accounts show that budgetary line items for NCD prevention and control functions account for only 0.2% of total current health expenditures in FY2019/20—down from 0.5% in the 2018/19 fiscal year.<sup>17</sup> While the relative amounts invested in NCD prevention and control programs have declined, the direct NCD burden, understood both in terms of economic cost and health cost, has been increasing: 41% of all current health expenditures in FY2019/20 were linked to NCD-related diagnoses, the largest share among disease categories, and up from 38% in FY2018/19. The continuously rising share of NCDs in national health expenditures, and in the national disease burden, implies that the current levels of investment in NCD prevention and control are insufficient.

This raises an important question: how much ought to be spent on upstream NCD prevention? While comparative data on exactly what share of current health expenditures should be allocated for preventative and NCD control programs is sparse, a recent report published in *The Lancet* by the NCD Countdown 2030 collaborators group notes that most LMICs will need to spend “approximately 20% of government health expenditure” on high-priority interventions or a locally-prioritized NCD package in order to meet the target set under Sustainable Development Goal 3.4.<sup>18</sup> The gap between Bhutan’s less-than-1% on NCD prevention and control and The NCD Countdown 2030 collaborators group’s 20% benchmark is large and suggests that additional resources need to be mobilized. Despite suffering major health and economic shocks from the COVID-19 economic crisis, Bhutan’s medium-term growth outlook remains robust, especially considering revenues anticipated from two new major hydropower projects expected to come online in 2024/25.<sup>19</sup>

Global evidence suggests that NCD financing can be focused on a narrow set of high-priority PHC interventions and still yield extremely high economic and human capital returns. For instance, economic assessments of five basic NCD prevention and early management interventions therapies have estimated an average 9:1 return on investment for every dollar spent by the health system on NCD therapies, and their results were constant across high- and low/lower-middle income settings.<sup>21</sup> Separately, a recent

**Figure 4.** Bhutan’s Health Expenditures by Disease Type<sup>20</sup>



<sup>16</sup> Bhutan NHA FY2018/29 & FY2019/20. Pg15. <sup>17</sup> Bhutan NHA FY2018/29 & FY2019/20. Pg15. <sup>18</sup> NCD Countdown 2030. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02347-3/fulltext#%20](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02347-3/fulltext#%20). <sup>19</sup> Bhutan Systematic Country Diagnostic 2020. <sup>20</sup> WHO GHED 2022 Edition.

<sup>21</sup> R Nugent. 2015. NCDs after 2015, pg2. <http://dcp-3.org/sites/default/files/resources/R%20Nugent%20CC%20Perspective%20Paper.pdf>

assessment on the impact on NCD-related mortality for Malawi shows that scale up of just three priority NCD interventions—(i) “Aspirin for suspected ACS<sup>22</sup>”, (ii) “Early-stage cervical cancer screening/treatment”, (iii) and “Treatment of early-stage breast cancer”—would be enough to help the country meet its SDG 3.4 targets by 2030, and avert 3,000 deaths at a cost of US\$1,500 per life.<sup>23</sup> Accordingly, with local disease burden and cost effectiveness data, health sector policy leaders may be able to make robust arguments for incremental investments in NCD control.

### KEY INSIGHT 3

#### BHUTAN WILL NEED TO CONSIDER WHETHER THE CURRENT HEALTH FINANCING SYSTEM FOR NCDs IS INCENTIVIZING—OR DISINCENTIVIZING—COST EFFECTIVE CARE DELIVERY.

To incentivize cost effective NCD treatments, Bhutan will need to introduce health financing and strategic purchasing reforms. Utilization data from Bhutan’s highest level referral hospitals shows that nearly 6% of all inpatient department (IPD) admissions during the 2018/19 financial year could be attributed to the single NCD, hypertension. A further 3.2% of all admissions were attributed to diabetes. Together this means that nearly 10% of all admissions at referral hospitals—i.e., Bhutan’s most expensive care setting—are associated with NCDs that are commonly considered to be ambulatory care sensitive conditions (ACSC).<sup>24 25</sup> ACSCs, as defined by the WHO, are conditions for which “hospitalizations can be avoided by timely and effective care in ambulatory” or other primary care settings.

Results from the most recent Bhutan Healthcare Costing Analysis (2023) report show that the cost of incurring a single ACSC admission can be up to 50 times as high as a OPD visit. Disease specific IPD cost estimates show that an admission at the major referral hospitals can cost between Nu.45,079 and Nu.53,380 for diabetes, and between Nu. 24,615 and Nu.29,809 for hypertension. In comparison, the cost of a single outpatient visit at the same referrals hospitals costs an average of only Nu.1,011. The significant difference between the unit costs of IPD and OPD utilization make clear the high costs of untreated and unmanaged NCDs to Bhutan’s long term health financing sustainability. Equally, however, the low cost of OPD visits relative to potentially avoidable admission implies a significant opportunity to improve efficiency in NCD financing for Bhutan.

What health-financing levers are available to incentivize the management of high-prevalence NCDs, particularly ACSCs, in the community and outpatient settings? As Chukwuma, Lylozian and Gong (2021) note in a recent paper, to reduce the financial burden from NCDs on country health systems “there is a need to increase the access to primary health care” that includes “services for ambulatory care sensitive conditions such as for uncomplicated diabetes mellitus.”<sup>26</sup> In other words, to addresses ACSCs in Bhutan, primary healthcare facilities need to be equipped to provide the necessary NCD-screening, prevention and management services, and these primary care services need to be readily accessible to citizens. This in turn implies that primary care facilities need adequate financing and resource provisioning. Finally, while prevention of ACSC through increased access to PHC at community health centers and first-level hospitals is the first order policy objective, given the high price of admissions it is also important to address costs at the major referral center level as well. Accordingly, this policy brief concludes by providing examples to spur policy dialogue on future health financing and purchasing innovations in Bhutan.

### EXAMPLE 1

#### POPULATION-BASED OR “PER FAMILY” PRE-PAYMENTS FOR PRIMARY CARE:

In the Philippines, PhilHealth has been purchasing PHC services from the public sector not on a per-service reimbursement basis or via line-item budgets, but on a prospective per-family basis. This means that health facilities are assigned specific families based on a geographic catchment area, and then a set capitation payment is released to health facilities based on the sum of assigned families. This financing mechanism is being used to finance PHC services at rural health units and other public sector health centers. In 2019, the original primary care benefit (termed Primary Care Benefit 1) was updated into the Expanded Primary Care Benefit, with specific incentives introduced for the prevention and management of priority NCDs, including bonus payments for medication maintenance of diabetes and hypertension patients.<sup>27</sup> By the end of 2022, the PhilHealth had successfully attributed over 780,000 members to a preferred primary care provider where

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<sup>22</sup> ACS=Acute Coronary Syndrome. <sup>23</sup> NCD Countdown 2030. Pathway analysis findings for Malawi. <sup>24</sup> Bhutan Healthcare Costing Report. 2022; and World Bank staff analysis. <sup>25</sup> Joana Seringa et al. 2019. “The impact of diabetes on multiple avoidable admissions: a cross-sectional study.” BMC Health Services Research volume 19, Article number: 1002. <sup>26</sup> Chukwuma, Lylozian, & Gong. 2021. “Challenges and Opportunities for Purchasing High-Quality Health Care: Lessons from Armenia.” Health Systems & Reform Vol 7, Issue 1: <https://www.tandfonline.com/doi/full/10.1080/23288604.2021.1898186>. <sup>27</sup> Financing Primary Health care in the Philippines. <https://www.lshtm.ac.uk/media/59796>

members were incentivized to avail free preventative NCD screenings, consultations and assessments.<sup>28</sup> Furthermore, survey data suggests that when preventative PHC service coverage is expanded to beneficiaries, including the poor and marginalized members, utilization tends to be high: nearly 70% of surveyed poor PhilHealth members had availed at least one covered preventative PHC service in the last year.<sup>29</sup>

In Bhutan, transitioning away from input-based line-item budgets, and towards output- or population-based capitation payments can help financially integrate service delivery transformation efforts like the SCCI into the existing PHC system. Such per-family PHC capitation payments provide resources upfront to health facilities without the limitations of line-item budgets to allow facilities and providers to flexibly execute the new care tasks involved in proactive NCD management—including home-based screenings for NCDs. Unintended consequences, such as reductions in utilization that sometimes accompany capitation payment models, can be mitigated by using blended approaches that retain elements of fee-for-service payments to financially incentivize a minimum level of utilization or penalize under-delivery.<sup>30</sup>

## EXAMPLE 2

### NCD-SPECIFIC BUNDLED PAYMENTS FOR HOSPITAL PROVIDERS:

Options to manage costs at the highest tier of the care continuum—i.e., inpatient hospitals—include a special form of capitation that is limited to the single care episode. The Lancet Global Health Commission on Financing Primary Healthcare defines such bundled payments as “a single payment in the form of a lump sum” per episode or condition per patient and made to a “collective of providers”.<sup>31</sup> The Netherlands has introduced bundled payments primarily for NCDs like type 2 diabetes and cardiovascular disease.<sup>32</sup> In the United States, bundled payments have also been used to help manage costs from high volume procedures such as routine deliveries. In the hospital setting, the purpose of bundled payments is to incentivize better care coordination and resource management among healthcare providers involved in complicated patient care. In effect, hospitals are incentivized to participate in controlling their own cost growth as there is potential to retain the difference between actual delivery costs and the bundled payment value. The retained funds can then be re-invested in the hospital in service of quality and capital infrastructure improvements.

As countries move towards greater use of bundled payments—and value-based care purchasing mechanisms more generally—the evidence for the value of these policies is also becoming clearer. “Bundled-payment models have had predominantly positive impacts on both spending and quality of care, irrespective of country, medical procedure, or condition and applied research methodology.”<sup>33</sup> In Bhutan, where the average inflation-adjusted cost of an inpatient admission has increased by 33% at the referral hospitals and by 10% at the district hospitals between FY2009/10 and FY 2018/19, payment reforms that help to manage hospital expenditures are both necessary and will be complimentary to PHC-focused reforms. Both will contribute to sustainable health financing in the medium- and long-terms.

## CONCLUSION

Bhutan’s health system has historically been oriented towards communicable and basic maternal and child health conditions—with significant progress achieved over the last three decades. Although important last-mile access and equity issues remain on the communicable and RMNCH side, Bhutan is also concurrently experiencing rapid changes in its burden of disease: The NCD share of total disease burden has increased from 23% in 1990 to 62% in 2019. This means the NCD burden is rising faster in Bhutan than in other regional countries and faster than the lower middle-income country average. Bhutan’s population is also aging fast: the share of 65+ is likely to triple in the next three decades, from 6% to nearly 20% of the population.

**Changing disease and demographic mix have direct implications on health financing sustainability in Bhutan.** First, a rising NCD disease burden can push per capita current health expenditures upwards, even if overall disease burden is decreasing, because of the chronic nature of most NCDs—including cardiovascular, respiratory, cancer and kidney diseases, which have higher medical costs and require longer-term medication regimens relative to most communicable diseases. Evidence from Bhutan shows that aggregate health system expenditures as well as per unit healthcare costs are increasing—even after controlling for inflation. Second, ageing can negatively impact general government and public health sector revenues as the population

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<sup>28</sup> Philippine Information Agency. January 30, 2023. “PhilHealth urges members to avail Konsulta package.” <https://pia.gov.ph/news/2023/01/30/philhealth-urges-members-to-avail-konsulta-package> <sup>29</sup> A Barcena et al. 2018. “Factors Associated with Utilization of Primary Preventive Services of Tamang Serbisyo para sa Kalusugan ng Pamilya (TSekap) among PhilHealth Indigent Members in Manila.” ACTA MEDICA PHILIPPINA VOL. 52 NO. 3 2018 <sup>30</sup> Joint Learning Network for Universal Health Coverage. 2019. “Financing and Payment Models for Primary Health Care: Six Lessons from JLN Country Implementation Experience.” <sup>31</sup> Lancet Global Health commission on financing primary healthcare .2021. [https://www.thelancet.com/journals/langlo/article/P11S2214-109X\(22\)00005-5/fulltext](https://www.thelancet.com/journals/langlo/article/P11S2214-109X(22)00005-5/fulltext) <sup>32</sup> Lancet global Health Commission. 2021. <sup>33</sup> J N. Struijs et al. 2020. “Bundled-Payment Models Around the World: How They Work and What Their Impact Has Been.” Commonwealth Fund, Apr. 2020. <https://doi.org/10.26099/936s-0y65>

dependency ratio increases and the size of the working age population decreases in relative terms.

In response to changing disease and demographic patterns, Bhutan needs not just service delivery transformations, but also a transformation of its existing public health financing system. Data from Bhutan shows that public expenditures on NCD prevention and control programs is low (0.2% of total health expenditures in FY2019/20),<sup>34</sup> while the direct economic cost of NCD has high, 41% of current health expenditures in FY2019/20 were linked to NCD-related diagnoses. Furthermore, nearly 10% of all admissions at Bhutan's referral hospitals are associated with NCDs that could have been managed in an outpatient setting with regular care management (i.e., ACSCs). These data, along with global experiences, suggest that an emphasis on strengthening and prioritizing PHC, including efforts to improve fiscal autonomy and flexibility of community level PHC centers, will be key. A more comprehensive and systematic look at the prevalence of ACSCs in hospital admissions in Bhutan can help health sector policymakers focus their attention on specific areas in the PHC system that require strengthening. Targeted investments in PHC improvement would help mitigate and manage the growing NCD burden and help improve overall efficiency of Bhutan's health financing system.

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<sup>34</sup> Bhutan NHA FY2018/29 & FY2019/20. Pg15.