

# ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

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and Mass Media**

# **Analysis of Sri Lanka's Policy on Healthcare Delivery for Universal Health Coverage**

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# Analysis of Sri Lanka's Policy on Healthcare Delivery for Universal Health Coverage

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# Table of Contents

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<b>List of Tables</b> .....	<b>v</b>
<b>List of Figures</b> .....	<b>vii</b>
<b>Acknowledgments</b> .....	<b>ix</b>
<b>Abbreviations</b> .....	<b>x</b>
<b>Executive Summary</b> .....	<b>xiii</b>
<b>1. Introduction</b> .....	<b>1</b>
<b>2. Background</b> .....	<b>2</b>
<b>3. Methodology</b> .....	<b>7</b>
<b>4. Findings of Desk Review (Indicator Analysis)</b> .....	<b>14</b>
<b>5. Findings of the Economic Analysis</b> .....	<b>67</b>
<b>6. Findings of Key Informant Interviews (Thematic Analysis)</b> .....	<b>81</b>
<b>7. Discussion</b> .....	<b>109</b>
<b>8. Recommendations</b> .....	<b>122</b>
<b>9. Conclusion</b> .....	<b>124</b>
<b>10. References</b> .....	<b>125</b>

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<b>Appendices .....</b>	<b>132</b>
Appendix 1: UHC Policy's priority areas and strategic directions (summary) .....	132
Appendix 2: UHC Policy's expected outcomes and implementation measures (summary) .....	133
Appendix 3: Explanation of the health workforce tracer indicator calculation methodology used by the UHC Policy Analysis Team .....	134
Appendix 4: KII suggestions in the effectiveness domain of interest .....	135
Appendix 5: Description of the consultative workshop conducted by the UHC Policy Analysis Team (Colombo, Oct. 28-30, 2024).....	144
Appendix 6: Root cause analyses of prioritized UHC SCI tracer indicators .....	148
Appendix 7: Main strategic interventions proposed for prioritized UHC SCI tracer indicators.....	153
Appendix 8: Possible UHC Policy research questions for collaborative analysis.....	154
Appendix 9: Specifications of the UHC service coverage tracer indicators .....	156

# List of Tables

<b>Table</b> .....	<b>Page</b>
Table 1: Description of SDG 3 targets and means of implementation .....	3
Table 2: UHC SCI Sub-Indices and Tracer Indicators (for SDG Indicator 3.8.1).....	4
Table 3: Domains of Interest (DOI) related to UHC .....	9
Table 4: List of National Policies relevant to the UHC policy .....	10
Table 5: Example sources of data for desk review and economic analysis.....	11
Table 6: List of stakeholder areas covered by KIIs .....	12
Table 7: UHC SCI FP Indicator Scores for WHO SEAR countries and additional comparators .....	19
Table 8: UHC SCI ANC Indicator Scores for WHO SEAR countries and additional comparators .....	23
Table 9: UHC SCI DTP3 Indicator Scores for WHO SEAR countries and additional comparators.....	24
Table 10: UHC SCI ARI Indicator Scores for WHO SEAR countries and additional comparators .....	26
Table 11: Yearly TB case estimates in Sri Lanka (2005-2022).....	29
Table 12: Comparison of TB-related data, 2023.....	31
Table 13: UHC SCI TB Indicator Scores for WHO SEAR countries and additional comparators .....	33
Table 14: UHC SCI ART Indicator Scores for WHO SEAR countries and additional comparators.....	36
Table 15: UHC SCI WASH Indicator Scores for WHO SEAR countries and additional comparators .....	38
Table 16: UHC SCI HP Indicator Scores for WHO SEAR countries and additional comparators.....	40
Table 17: Mean fasting blood glucose in 2015 and 2021, including for people currently on medication for raised blood glucose .....	42
Table 18: UHC SCI Diab Indicator Scores for WHO SEAR countries and additional comparators .....	43
Table 19: Age-standardized prevalence of current tobacco use among people aged 15 years and older (percent) in selected countries .....	45
Table 20: UHC SCI Tobacco Indicator Scores for WHO SEAR countries and additional comparators....	49
Table 21: Bed Density per 10,000 population.....	51
Table 22: UHC SCI Hospital Indicator Scores for WHO SEAR countries and additional comparators....	52
Table 23: Distribution by HWF category .....	53
Table 24: UHC cadre-specific (tracer) HWF indicator scores.....	55
Table 25: Factors influencing migration of health care workers from Sri Lanka.....	58
Table 26: UHC SCI HWF Indicator Scores for WHO SEAR countries and additional comparators.....	60
Table 27: International Health Regulations: requirements for countries.....	61
Table 28: 15 Core Capacities (State Parties Self-Assessment Annual Reporting) .....	62
Table 29: IHR performance in Sri Lanka, 2018-2023 .....	63
Table 30: Possible measures to improve Sri Lanka's IHR Core Capacity Index .....	65
Table 31: UHC SCI IHR Indicator Scores for WHO SEAR countries and additional comparators .....	66
Table 32: Proportion of households above catastrophic health expenditure thresholds in Sri Lanka....	73

**ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE**

Table 33: Catastrophic health expenditure (as proportion of population with household expenditure on health greater than the 10% and 25% thresholds) for countries in the WHO SEAR and additional comparators. . . . . 74

Table 34: Comparison between UHC SCI scores and current health expenditure per capita. . . . . 79

Table 35: Performance improvements needed to close gaps for priority tracer indicators. . . . . 120

# List of Figures

<b>Figure</b> .....	<b>Page</b>
Figure 1: UHC Cube .....	2
Figure 2: Trends in contraceptive use from DHS indicator data .....	15
Figure 3: Utilization of a modern method for family planning .....	15
Figure 4: Percentage of eligible couples whose family planning needs are unmet .....	16
Figure 5: Percentage of eligible families using any method of family planning .....	17
Figure 6: Percentage of eligible families using traditional methods of family planning .....	17
Figure 7: UHC SCI FP Indicator for Sri Lanka (2011-2023) .....	18
Figure 8: Distribution of ANC provision (by highest level of provider qualification) .....	20
Figure 9: Percentage of women aged 15-49 with a live birth with four or more antenatal clinic visits (government facilities only) .....	20
Figure 10: Percentage of pregnant mothers making at least one field clinic visit .....	21
Figure 11: Average number of clinic visits per pregnant woman .....	22
Figure 12: Changes in TB incidence and deaths (2015-2023) .....	30
Figure 13: Changes in TB treatment coverage .....	32
Figure 14: UHC SCI on HIV therapy in Sri Lanka (2016-2023) .....	34
Figure 15: UNAIDS 95-95-95 indicator data (2016-2023) in Sri Lanka .....	35
Figure 16: Population with access to at least basic sanitation (percent) (2000-2022) .....	37
Figure 17: Age-standardized prevalence of hypertension treatment in Sri Lanka (1990-2019) .....	39
Figure 18: Mean fasting glucose in Sri Lanka (1980-2014) .....	41
Figure 19: Age-standardized prevalence of current tobacco use among people aged 15 and up, (percent) in Sri Lanka .....	47
Figure 20: Sri Lanka's hospital bed density (2013-2022) .....	50
Figure 21: Distribution of medical professionals related to the HWF indicator, Sri Lanka .....	54
Figure 22: UHC cadre-specific (tracer) HWF indicator scores .....	56
Figure 23: Estimated UHC SCI HWF tracer indicator scores (2017-2022) .....	57
Figure 24: Comparison of OOPE on health per capita in WHO SEAR countries in 2022 .....	68
Figure 25: OOPE on health per capita in Sri Lanka in US\$ (with dotted trend line) .....	69
Figure 26: OOPE on health per capita in Sri Lanka in LKR (with dotted trend line) .....	69
Figure 27: Changes in household expenditure food ratios in Sri Lanka .....	70
Figure 28: Components of non-food health expenditure in Sri Lanka (percent) .....	71
Figure 29: Components of household health expenditure (percent) .....	72
Figure 30: Population with catastrophic health expenditure (>10% threshold) .....	75
Figure 31: Comparative current health expenditure, as a percentage of GDP, 2021 .....	76
Figure 32: Proportions of health expenditure in Sri Lanka, 2011-2021 .....	77

## ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

Figure 33: Projection of the UHC component of the WHO Triple Billion target for Sri Lanka .....	78
Figure 34: UHC SCI scores against current health expenditure per capita (US\$), 2021 .....	80
Figure 35: Sri Lanka's UHC SCI performance (2000-2021) against global, regional and economic comparators .....	109
Figure 36: Sri Lanka's UHC SCI performance (2000-2021) against SEAR comparators .....	110
Figure 37: Trends in UHC SCI subindices in Sri Lanka (2000-2021) .....	110
Figure 38: Distribution of UHC SCI tracer indicators, by category of performance, in Sri Lanka (2021) ..	111
Figure 39: Changes in Sri Lanka's economic growth rate (2013-2023) .....	117
Figure 40: Priority tracer indicator scores .....	119

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## Abbreviations

Abbreviation	Definition
<b>ADB</b>	Asian Development Bank
<b>AIDS</b>	Acquired Immunodeficiency Syndrome
<b>ANC</b>	Antenatal Care
<b>ARI</b>	Acute Respiratory Infection
<b>ART</b>	Antiretroviral Therapy
<b>COVID-19</b>	Coronavirus Disease 2019
<b>DHS</b>	Demographic and Health Survey
<b>Diab</b>	Diabetes
<b>DOI</b>	Domains of Interest
<b>DTP3</b>	Three doses of diphtheria-tetanus-pertussis
<b>EPI</b>	Expanded Programme on Immunization
<b>eRHMS</b>	Electronic Reproductive Health Management Information System
<b>FHB</b>	Family Health Bureau
<b>FP</b>	Family Planning
<b>FPG</b>	Fasting Plasma Glucose
<b>GoSL</b>	Government of Sri Lanka
<b>GDP</b>	Gross Domestic Product
<b>GHO</b>	Global Health Observatory
<b>GMR</b>	Global Monitoring Report
<b>HIES</b>	Health Income and Expenditure Survey
<b>HIV</b>	Human Immunodeficiency Virus
<b>HLC</b>	Healthy Lifestyle Center
<b>HP</b>	Hypertension
<b>HRH</b>	Human Resources for Health

<b>Abbreviation</b>	<b>Definition</b>
<b>HWF</b>	Health Workforce
<b>ID</b>	Infectious Diseases
<b>IHR</b>	International Health Regulations
<b>IT</b>	Information Technology
<b>ITN</b>	Insecticide Treated Net
<b>JEE</b>	Joint External Evaluation
<b>KII</b>	Key Informant Interviews
<b>LKR</b>	Sri Lanka Rupee
<b>LMIC</b>	Low- or Middle-Income Country
<b>NATA</b>	National Authority on Tobacco and Alcohol
<b>NCD</b>	Noncommunicable Disease
<b>NGO</b>	Nongovernmental Organization
<b>NSACP</b>	National STD/AIDS Control Programme
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OOPE</b>	Out-of-Pocket Expenditure
<b>OTC</b>	Over the Counter
<b>PLHIV</b>	People Living with Human Immunodeficiency Virus
<b>PMCU</b>	Primary Medical Care Unit
<b>PoE</b>	Point of Entry
<b>PSSP</b>	Primary Health System Strengthening Project
<b>RDHS</b>	Regional Directorates of Health Services
<b>RMNCH</b>	Reproductive, Maternal, Newborn and Child Health
<b>RHMIS</b>	Reproductive Health Management Information System
<b>RTIs</b>	Respiratory Tract Infections
<b>SCI</b>	Service Coverage Index

<b>Abbreviation</b>	<b>Definition</b>
<b>SEAR</b>	South-East Asian Region
<b>STEPS</b>	STEPwise Approach to NCD Risk Factor Surveillance
<b>SDG</b>	Sustainable Development Goals
<b>SPAR</b>	State Parties Self-Assessment Annual Reporting
<b>STD</b>	Sexually Transmitted Disease
<b>TB</b>	Tuberculosis
<b>UHC</b>	Universal Health Coverage
<b>UHC 2023 GMR</b>	Tracking Universal Health Coverage: 2023 Global Monitoring Report
<b>UN</b>	United Nations
<b>UNAIDS</b>	The Joint United Nations Programme on HIV/AIDS
<b>US\$</b>	United States Dollars
<b>WASH</b>	Water, Sanitation, and Hygiene
<b>WHO</b>	World Health Organization

# Executive Summary

## Overview

Sri Lanka has committed to the goal of providing Universal Health Coverage (UHC). This is reflected in its work towards achieving Sustainable Development Goal Target 3.8, which aims to ensure that all people have equitable access to quality healthcare with sufficient financial risk protection. In 2018, Sri Lanka reached a milestone in its efforts in adopting the Policy on Healthcare Delivery for Universal Health Coverage (UHC Policy). The UHC Policy focuses government action on: (a) effectively responding to evolving health needs in a manner that increases quality years of life, (b) reducing catastrophic spending on health and (c) improving the overall satisfaction of individuals and communities in terms of their experience of healthcare services in the country.

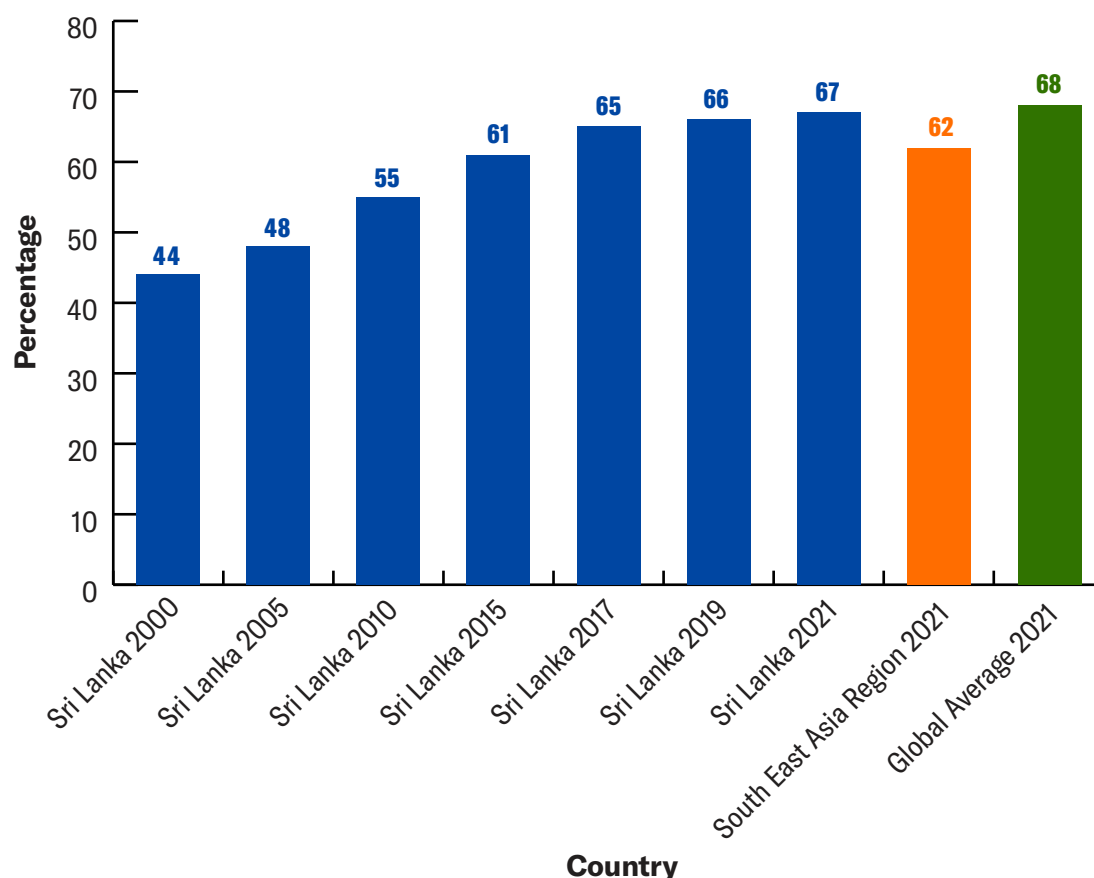
In order to assess UHC Policy delivery and provide insights for improvements in implementation, a comprehensive policy analysis was required. This task was undertaken by a UHC Policy Analysis Team appointed by the Director General of Health Services. The team assessed the UHC Policy through specific domains of interest (DOIs), namely: 1) the effectiveness of policy delivery—with special reference to tracer indicators of WHO's UHC Service Coverage Index (SCI), 2) the efficiency with which resources are being utilized for UHC delivery, 3) the relevance that the policy has to identified population health needs, 4) the coherence between the UHC Policy and other government policies and priorities, 5) the sustainability of the policy within the context of Sri Lanka's health system, 6) an ethical evaluation of the UHC Policy in terms of promotion of benefit and prevention of harm, and 7) an economic evaluation focused on considerations of health expenditure and financial risk protection.

The UHC Policy Analysis team employed a multipronged analysis approach that incorporated indicator, economic and thematic analyses. The indicator analysis involved a desk review of existing data, the economic analysis considered key data in relation to health economic trends and expenditures, and the thematic analysis produced and assessed primary data through key informant interviews (KIIs). The analysis was carried out with the data available until March 31st, 2025.

# Results

## Indicator Analysis

According to WHO's UHC 2023 Global Monitoring Report, Sri Lanka's performance in relation to the UHC SCI has improved. The country's UHC SCI score is currently higher than the average for the South-East Asian Region (SEAR) and only slightly less than the global average, as displayed in the figure below.



### Comparative UHC SCI Scores

Regarding UHC SCI sub-indices, Sri Lanka scored 76 for the reproductive, maternal, newborn and child health (RMNCH) subindex, 66 for both the service capacity (Capacity) and infectious diseases (ID) subindices, and 60 for the noncommunicable diseases (NCDs). While these subindex scores were, again, all above SEAR averages, there is some cause for concern. Certain UHC SCI tracer indicators remain in the medium- and low-score categories, as reflected in the table below.

**UHC SCI tracer indicators in Sri Lanka, by category of performance**

Very High	High	Medium	Low
<ul style="list-style-type: none"> <li>• Antenatal care<sup>1</sup></li> <li>• Child immunization<sup>1</sup></li> <li>• Basic sanitation</li> <li>• Diabetes prevalence<sup>3</sup></li> <li>• Hospital bed density<sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Family planning<sup>1</sup></li> <li>• HIV therapy<sup>2</sup></li> <li>• Tobacco non-use<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Care seeking for ARI<sup>1</sup></li> <li>• TB treatment<sup>2</sup></li> <li>• Health worker density<sup>4</sup></li> <li>• IHR core capacity index<sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Hypertension treatment<sup>3</sup></li> </ul>

Subindices:

1. RMNCH 2. ID 3. NCD 4. Capacity

Source: Tracking Universal Health Coverage: 2023 Global Monitoring Report. WHO.

A number of factors have contributed to these results. In terms of the Capacity subindex, important considerations are health system constraints—especially health workforce difficulties and health financing and infrastructure limitations. Challenges in relation to tuberculosis control are a key explanatory factor regarding the ID subindex score, while pressures resulting from the epidemiological shift from communicable to noncommunicable diseases (as well as changing demographic dynamics resulting in an increasing elderly population) may have contributed significantly to the lower NCD subindex performance.

### Economic Analysis

- According to WHO, Sri Lanka's per capita out-of-pocket expenditure (OOPE) on health was US\$59 in 2022 (only slightly above the regional average of US\$57). However, there has been an increase in catastrophic health expenditure as measured against out-of-pocket thresholds. Using the >25% threshold (that is, the percentage of households in Sri Lanka in which more than 25% of total household income or expenditure was used on health) there was an increase from 0.7% to 0.9% between 2009 and 2016. Similarly, there was an increase from 4.7% to 5.4% over the same period using the >10% threshold.
- In order to address this, further regulatory steps must be taken to mitigate the major drivers of household expenditure on health services, which include private medical practitioner fees, the price of medicines and the cost of using private laboratory services.
- There appeared to be relative efficiency in terms of health expenditure in relation to UHC performance. Nonetheless, greater public expenditure on health will be crucial for successful UHC Policy implementation. Specifically, an increase of government expenditure on health, from less than 2% of GDP to at least 3.5%, is needed.

### Thematic Analysis

- **Effectiveness:** The KIIls noted progress in specific areas related to UHC, including improved access to modern contraceptives, developments in HIV services, the introduction of presumptive TB patient algorithms, efforts in relation to NCD prevention and successes in terms of reducing tobacco use, and the support of public health services in terms of IHR implementation. However, urgent action is needed to enhance health education and promotion, support the health workforce (e.g., create appropriate incentives), improve health infrastructure and information technologies, and strengthen intrasectoral and intersectoral collaboration.
- **Efficiency:** Concerns among key informants included challenges in training health workers, supplying medicines, developing health technologies, addressing deficiencies in referral pathways, and underutilising primary care hospitals. Suggestions for improvement include shifting the training of health professionals from government to universities, having a more efficient and equitable distribution of institutions with advanced health technologies and services, improving diagnostic investigation and medicine prescription, building health information systems for better referral management, extending hours of health service provision, and undertaking a comprehensive health resource mapping exercise.
- **Relevance:** It was agreed that policy implementation has remained focused on the needs of the Sri Lankan population, with positive developments such as the introduction of minimum service packages. However, informants felt there was a need to prioritize better health service access for vulnerable communities (e.g., by increasing the reach of healthcare services in remote areas). It was also believed that self-care should be strongly promoted as a fundamental level of care. While NCD prevention remained an imperative, this should not result in a reduction of efforts in relation to infectious disease control.
- **Coherence:** Alignment with key health policies, such as the National NCD Policy, the National Elderly Care Policy and the National Policy on Maternal and Child Health, were noted. However, it was recognized that fiscal constraints had had a negative impact on the health budget (and, by extension, on health planning). Suggestions included taking steps to ensure that the planning of future health policies maintained coherence with the objectives of the UHC Policy as well as making certain that health initiatives returned good value for the money spent.
- **Sustainability:** The KIIls suggested improvements across health system building blocks in Sri Lanka. In terms of health service delivery, a gatekeeping mechanism is urgently needed as well as additional quality assurance processes. With regard to the health workforce, merit-based appointments of senior posts and long-term succession planning are imperatives. Furthermore, substantive improvements in health professional training are needed, as well as the undertaking of a national health workforce mapping exercise. Steps needed to address health information systems challenges included improving the information technology (IT) interoperability between healthcare institutions and recruiting more IT professionals to support the implementation of health programmes. Enhancing access to essential medicines entails revising the essential package of drugs available and completing a comprehensive assessment of supply chain processes to prevent stock-outs. Finally, suggestions were made relating to health systems financing as well as leadership and governance (including recruiting qualified financial professionals to support the Ministry of Health). Further steps include ensuring that provincial priorities are represented in the Finance Commission, and that support for more health research and innovations in Sri Lanka is provided.

- **Ethical Evaluation:** Key points related to the need to introduce a gatekeeping mechanism. While such a mechanism was important for optimizing service utilization, this needed to be balanced with ensuring that patients had some degree of service usage choice. Furthermore, it is important that service access barriers be overcome for vulnerable groups (e.g., the elderly population). Moreover, efforts to ensure an equitable distribution of health services need to be redoubled.
- **Economic Evaluation:** The KII's raised concerns about the high level of OOPe on health and the limited government expenditure on health. Suggestions include a greater regulation of fees for private consultations and a review of the prices of health commodities (such as medicines) and laboratory diagnostics. Additionally, increasing the availability of healthcare services, medicines and testing in the public sector could help reduce OOPe significantly. Current fiscal constraints notwithstanding, this would necessitate an increase in government expenditure on health.

### Challenges

- Major challenges to UHC Policy implementation in Sri Lanka include the COVID-19 pandemic, the national economic crisis and the emigration of health professionals.
- The COVID-19 pandemic has resulted in a range of health service impacts (including limitations of resource allocation) that has most likely delayed many aspects of the UHC Policy delivery. Although difficult to quantify, these are most likely substantive and underscore the need for urgent policy action to catch up in terms of UHC aspirations.
- The economic crisis in Sri Lanka has resulted in significant fiscal constraints affecting health allocation in general, and UHC policy delivery in particular. More broadly, the crisis has had an indirect, but important, effect on a range of issues related to population health, including food prices (with implications for nutrition) and transport/fuel costs (potentially limiting access to health services).
- The emigration of health professionals has been driven by a number of 'pull' factors (such as greater financial and career progression opportunities overseas) and push factors (including economic uncertainty and challenging working conditions). The detrimental impact on health service provision resulting from this brain drain requires urgent policy intervention, especially in relation to UHC policy delivery.

## Recommendations

### **Recommendation 1: Establish a Sri Lankan UHC observatory**

Establishing a Sri Lankan UHC observatory would be a crucial step in improving UHC Policy implementation. A UHC Data Hub could be developed as a transitional (and cost-effective) step. Ultimately, a fully established observatory could ensure real-time data to provide up-to-date monitoring and evaluation, allowing for robust UHC planning and optimizing policy implementation.

### **Recommendation 2: Develop strategic interventions on prioritized indicators**

Six priority tracer indicators that need urgent interventions have been identified. These indicators are: (1) Care seeking for acute respiratory tract infections, (2) tuberculosis treatment, (3) hypertension treatment, (4) diabetes prevalence, (5) tobacco nonuse and (6) health workforce density. Interventions targeting these indicators represent 'low-hanging fruit' that could result in a rapid improvement in UHC performance in the country.

### **Recommendation 3: Undertake a Comprehensive economic evaluation of UHC in Sri Lanka**

More extensive economic evaluations of the UHC Policy should be undertaken, including cost-benefit, cost-effective and budget impact analyses. Economic modelling studies would also better describe the positive impact of improved health outcomes on economic growth. The UHC economic evaluation could provide evidence for an increase in budgetary allocation and potentially increase local and foreign investment in Sri Lanka's health system.

### **Recommendation 4: Develop a UHC Policy research collaboration around the domains of Interest**

The thematic analysis provides for a policy research agenda that can substantially improve UHC implementation. This agenda would require collaboration between government and academic or research institutions, the outcomes of which could be translated into evidence-based policy action.

### **Recommendation 5: Establish a high-level UHC coordinating committee within the Ministry of Health (with representation from other stakeholders) for concerted planning, monitoring and evaluation of UHC Policy delivery**

The establishment of a UHC coordinating committee would be essential for planning, monitoring and evaluating matters related to the UHC Policy as well as all associated initiatives (such as oversight of the proposed UHC observatory). Key functions of the committee would include reporting on UHC indicator progress to key stakeholders. This would entail producing annual reports and monitoring UHC progress in relation to international donor funding. Additional functions of the committee would be to engage with different societal role-players, as well as communities across Sri Lanka, on pertinent issues related to UHC.

# 1. Introduction

The provision of universal health coverage (UHC) is a crucial policy objective at both national and global levels. This is underscored by Sustainable Development Goal (SDG) 3 and, in particular, SDG Target 3.8, which specifically aims to achieve UHC (accessible, quality health care that is affordable) (1).

In 2018, the Government of Sri Lanka (GoSL) introduced the Policy on Healthcare Delivery for Universal Health Coverage. Sri Lanka's UHC Policy set out important objectives in relation to improving the quality of life of the country's citizens, reducing the risk of catastrophic health expenditures and improving the experience of patients receiving care (2).

As a previous World Bank case study of Sri Lanka's health system has shown, the country's readiness for UHC implementation was bolstered by its pre-existing health performance. It had managed to achieve good health outcomes for its citizens whilst providing considerable financial risk protection and minimizing the cost of healthcare services, making it exemplary amongst other low- or middle- income countries (LMICs) (3).

Despite this, a number of factors have presented substantial challenges to the implementation of the UHC Policy in Sri Lanka. This includes the economic crisis that started in 2019, which has caused considerable financial disruptions (and fiscal constraints) in the country (4). The same year marked the onset of COVID-19, which was declared a pandemic in 2020, bringing with it major health and economic impacts. Finally, and more recently, there has been a significant loss of health professionals through emigration from Sri Lanka (5).

The above notwithstanding, progress has been made in delivering UHC in Sri Lanka. Current data from the World Health Organization (WHO), for example, report a UHC Service Coverage Index (SCI) score of 67 (out of 100) for Sri Lanka, which is notably higher than the average Southeast Asian regional UHC SCI score of 62 (6).

In order to assess Sri Lanka's efforts towards achieving UHC, a number of pertinent issues need to be considered. This includes determining which aspects of Sri Lanka's UHC policy formulation process were most successful in reaching coverage objectives, and which aspects created vulnerabilities, especially regarding adverse factors and stressors, both external (such as the economic crisis) and internal (such as fiscal constraints). It would also be important to assess current strengths and weaknesses in terms of specific areas of UHC implementation in the country. Examining these and other key issues would help identify possible policy gaps and enable strategic planning for an even more robust UHC rollout.

As the first formal analysis of Sri Lanka's UHC Policy, this report focuses on the key issues described above, as well as several other related aspects. Accordingly, a detailed description of Sri Lanka's health system performance in relation to the UHC SCI will be provided. Furthermore, a brief economic analysis relevant to the country's UHC aspirations will offer deeper insights. Finally, the UHC Policy will be analysed across the dimensions of *relevance, coherence, effectiveness, efficiency, sustainability, ethical evaluation and economic evaluation*.

This report will utilize a multi-method approach, combining secondary analyses on UHC indicators and economic data, and primary analysis based on key informant interviews (KIIs). The substance of the report's discussion and recommendations are geared towards providing evidence for effective data-to-policy translation, with the ultimate goal of supporting Sri Lanka's trajectory towards the full realisation of UHC.

## 2. Background

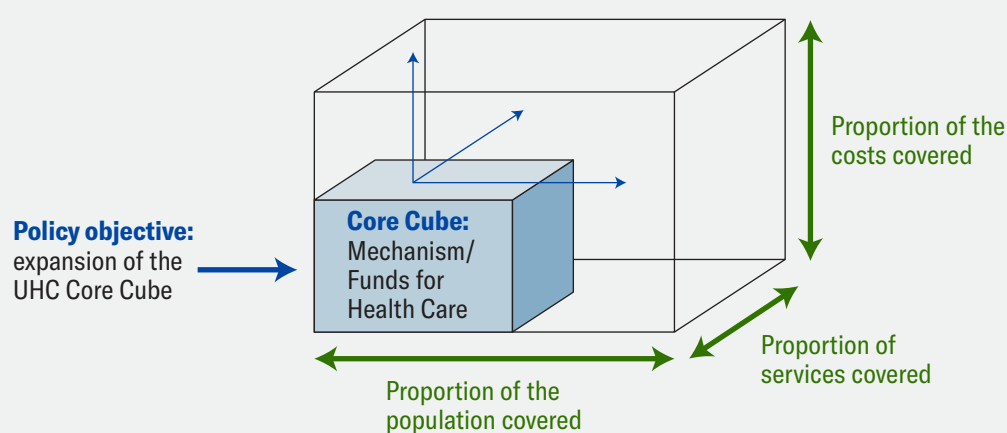
### 2.1. Defining Universal Health Coverage

Universal Health Coverage provides an overarching policy direction for the delivery of health services. WHO describes UHC as:

*“that all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship” (7)*

The concept of UHC is grounded in the constitution of WHO, which enshrines health as a fundamental right and emphasises the imperative of providing healthcare for all people (8).

The dimensions and dynamics of UHC can be conceptualized as a cube (9). An adapted diagrammatic representation, based on the literature, can be found in Figure 1. The horizontal/x-axis of the outer cube represents the proportion of the population covered, the vertical/y-axis represents the proportion of costs covered, and the diagonal/z-axis represents the proportion of health services covered. The inner cube denotes the percentage of people covered (x-axis), percentage of costs covered (y-axis) and percentage of services covered (z-axis) at present, while the volume between the two cubes denotes the amount required for improvement in each dimension. The policy objective would be to expand the core UHC cube (representing the mechanism or funds required for UHC) in all directions, filling as much of the outer cube as possible (10). Strategies available for expanding the cube include increasing the number of people covered (for the x-axis), covering the cost of healthcare (for the y-axis) and covering more services (for the z-axis) (11).



**Figure 1: UHC Cube**

Adapted from: Ochalek et al. (9), Nanji et al. (10) and Maeda et al. (11)

Efforts to achieve UHC have been galvanized by the Sustainable Development Goals (SDGs). The 17 SDGs were adopted by all UN Member States in 2015 in a concerted effort to address the myriad of challenges facing the global community – from poverty to climate change – with targets set for 2030 (12). SDG 3 aims to achieve “good health for all” through efforts that “ensure healthy lives and promote well-being for all at all ages (13).” Table 1 provides details of the SDG 3 targets and means of implementation.

**Table 1: Description of SDG 3 targets and means of implementation**

<b>SDG 3 Component</b>	<b>Description</b>
<b>Target 3.1</b>	‘Reduce maternal mortality’ to a ratio of under 70 deaths per 100,000 live births by 2023)
<b>Target 3.2</b>	‘End all preventable deaths under 5 years of age’ to reach at least 12 and 25 per 1,000 live births in terms of neonatal and under-5 mortality, respectively.
<b>Target 3.3</b>	‘Fight communicable diseases’, including (but not limited to) HIV/AIDS, TB and malaria.
<b>Target 3.4</b>	‘Reduce mortality from noncommunicable diseases (NCDs) and promote mental health”, reducing premature mortality from NCDs by one third.
<b>Target 3.5</b>	‘Prevent and treat substance abuse’, including tackling narcotic abuse and harmful alcohol use.
<b>Target 3.6</b>	‘Reduce road injuries and deaths’, halving the number of deaths and injuries due to road traffic accidents by 2020.
<b>Target 3.7</b>	‘Universal access to sexual and reproductive care, family planning and education’, ensuring that access to sexual and reproductive health services is universal by 2030.
<b>Target 3.8</b>	‘Achieve Universal Health Coverage’, with protection against health-related financial risk protection and the delivery of healthcare for all.
<b>Target 3.9</b>	‘Reduce illnesses and death from hazardous chemicals and pollution’, substantially reducing the associated deaths from such exposures by 2030.
<b>Means of implementation SDG 3 Targets</b>	3.a) ‘Tobacco Control’, 3.b) ‘Medicines and Vaccines’, 3.c) ‘Health financing and workforce’ and 3.d) ‘Emergency Preparedness’.

Source: Project Everyone (14) and World Health Organization (15)

Target 3.8 specifically addresses UHC and sets the objective to “achieve universal health coverage, including financial risk protection, access to quality essential healthcare services, and access to safe, effective, quality and affordable essential medicines and vaccines for all (16).”

## 2.2. Measuring Universal Health Coverage

The question of *how* UHC can be measured is relevant (and pertinent) to this analysis. Here, reference to the SDG framework can once again be made. In terms of monitoring and evaluating health system performance for UHC, two major indicators have been developed: SDG Indicator 3.8.1, which pertains to the coverage of essential healthcare services, and SDG Indicator 3.8.2, which focuses on catastrophic out-of-pocket health spending (17).

With respect to SDG 3.8.1, four sub-indices are included, namely: A) reproductive, maternal, newborn and child health (RMNCH); B) infectious diseases; C) NCDs, and D) service capacity and access. Collectively these constitute the UHC SCI (6). The UHC SCI sub-indices are further organized into 14 tracer indicators, the details of which are provided in Table 2 below.

**Table 2: UHC SCI Sub-Indices and Tracer Indicators (for SDG Indicator 3.8.1)**

Sub-Indices/ Components	Tracer Indicators	Formulae
<b>A. Reproductive, maternal newborn and child health (RMNCH)</b>	1. Family planning (FP) 2. Antenatal care, 4+ visits (ANC) 3. Child immunization (DTP3) 4. Care seeking for suspected ARI (ARI)	$RMNCH = (FP \times ANC \times DTP3 \times ARI)^{1/4}$
<b>B. Infectious diseases (ID)</b>	5. TB treatment (TB) 6. HIV therapy (ART) 7. Insecticide-treated nets (ITN) 8. Basic sanitation (WASH)	$ID = (TB \times ART \times ITN \times WASH)^{1/4}$ if there is a high malaria risk, or $ID = (TB \times ART \times WASH)^{1/3}$ if there is a low malaria risk
<b>C. Noncommunicable diseases (NCD)</b>	9. Hypertension treatment (HP) 10. Diabetes prevalence (Diab) 11. Tobacco non-use (Tobacco)	$NCD = (HP \times Diab \times Tobacco)^{1/3}$
<b>D. Service capacity and access (Capacity)</b>	12. Hospital bed density (Hospital) 13. Health worker density (HWF) 14. IHR core capacity index (IHR)	$Capacity = (Hospital \times HWF \times IHR)^{1/3}$
<b>TOTAL</b>	<b>UHC Service Coverage Index (SCI) – Score out of 100</b>	<b><math>UHC\ SCI = (RMNCH \times ID \times NCD \times Capacity)^{1/4}</math></b>

Source: UHC 2023 Global Monitoring Report (6) and World Health Organization (18)

The measurement for SDG Indicator 3.8.2 is based on the proportion of the population with out-of-pocket household expenditures on health above certain threshold levels, expressed as a percentage of total household income or expenditure (set at 10% and 25%) (19). A further threshold measure of health spending exceeding 40% on non-food consumption has also been used (20).

## 2.3. Sri Lanka's UHC Policy

Sri Lanka's health system has been characterised by a strong orientation towards preventative and primary health care. This has most likely contributed to its positive performance in terms of health service delivery, relative to countries of similar economic development (and despite many internal challenges that the country has faced) (21). This historical commitment to building an effective health system in service to its citizens provides a context for the GoSL's strong support of the objectives of SDG 3. This is perhaps most clearly demonstrated in the development of Sri Lanka's Policy on Healthcare Delivery for Universal Health Coverage (UHC Policy).

The UHC Policy was approved by Sri Lanka's Cabinet of Ministers on April 10, 2018. The goal of the policy is to ensure that UHC "is achieved for all citizens, relevant to the disease burden experienced in the country, through a well-integrated, comprehensive and efficient health service (2)."

### The objectives set out by the UHC Policy are to:

1. Respond to evolving health needs with quality years to life added, resulting in a reduction in elderly people living with disabilities.
2. Reduce catastrophic health spending in lower to middle income groups
3. Improve the overall satisfaction of people in terms of their experience of health care services.

The policy has identified several priority areas, strategic directions, expected outcomes and implementation measures (as described in Appendices 1 and 2).

The UHC Policy also introduced the concepts of a *shared care cluster* (a unit where a specialist care institute functions as the apex hospital providing care in general specialties together with its surrounding primary care curative institutions to form a cluster), a *family doctor for all*, and a *minimum level of specialty care* for each cluster to the Sri Lankan health system.

The main policy document does not specify a year to end the policy cycle. However, Annexure V of the policy (namely, the action framework for the implementation) has detailed the activities from 2018 to 2024. Therefore, it can be assumed that the policy cycle was initially intended to end in 2024. The policy also identifies a results framework for the implementation of shared care clusters in Sri Lanka.

Various projects and programmes funded by the GoSL and international partners, including the World Bank and Asian Development Bank (ADB), are being implemented to support elements of UHC delivery. Although many of the components of UHC have been addressed by these initiatives, additional elements — essential for the achievement of UHC — may also need to be considered.

The UHC Policy fits within a broader health policy framework. It, for example, aligns with the National Health Policy 2016-2025 and the Health Master Plan 2016-2025. It also relates to other pertinent policies, such as the National Policy and Strategic Framework for Prevention and Control of Chronic Noncommunicable Diseases in Sri Lanka and the National Elderly Health Policy of Sri Lanka.

## 2.4. Rationale for a UHC Policy Analysis

Despite the laudable goals of the UHC Policy, several factors have made its implementation challenging. These include, but are not limited to, the COVID-19 pandemic, the Sri Lankan economic crisis and the emigration of health professionals (viz. the health worker “brain drain”).

The myriad challenges faced by the Sri Lankan health system, including the examples described above, necessitate a need to reflect on the UHC Policy and consider what adjustments would be required to improve implementation. Despite this—as well as the fact that the policy was introduced more than five years ago—a full analysis of whether it covers all areas necessary to provide healthcare universally to the citizens of Sri Lanka has not yet been undertaken. Further, the question of whether the policy is effectively achieving its intended objectives through its proposed strategies needs to be considered. Addressing these gaps provides the fundamental rationale for undertaking this UHC policy analysis.

The determination of which dimensions of the UHC Policy need to be explored would be valuable as a point of departure. Indeed, identifying such dimensions of interest (DOIs) would be of benefit in terms of developing a framework for this policy analysis.

The first DOI to be considered is the *effectiveness* of the UHC Policy, which includes assessing Sri Lanka's performance in terms of the UHC SCI. Given the high level of relevance that this DOI has to the aims of SDG 3.8, as well as to the goals of the UHC Policy itself, this DOI should constitute a major focus of the analysis.

Complementary to effectiveness, a second DOI could assess policy *efficiency*. This would include tracing sources of funding and matching UHC Policy delivery objectives (and performance) to the planned and actual health expenditure.

A third dimension pertains to the *relevance* of the policy. That is, to what extent has the UHC Policy been relevant to the identified needs of the communities in Sri Lanka? In addition, the question of how relevant the UHC Policy is to the applicable international standards needs to be explored.

A fourth dimension could focus on policy *coherence*, specifically, how well the existing UHC policy is aligned with (parallel) public policies of Sri Lanka and other GoSL priorities. Coherence with agendas in the global health domain (such as germane international declarations) can also be assessed.

The *sustainability* of the policy would be an important fifth DOI. Gleaning insights of how UHC Policy implementation links to the WHO Health System Building Blocks (such as medical technology, services delivery and health leadership/governance (22)) would be essential to an examination of this dimension.

A crucial sixth dimension would be an *ethical evaluation* of the UHC Policy. Investigating matters related to the prevention of harm and the promotion of benefit for citizens (as well as issues such as patient autonomy and privacy under a UHC dispensation) would be pertinent.

Finally, determining the prerequisites for an *economic evaluation* of the UHC Policy could be a seventh DOI, especially with reference to the SDG 3.8.2 indicators. Given the complexity of such an evaluation, the goal would be to provide preliminary insights that could eventually contribute to future, robust cost-benefit and cost-effectiveness analyses.

Synthesising and analysing the UHC SCI data, relevant economic data and the DOIs described above will form a substantial part of the UHC Policy review process. Knowledge generated through such an exercise will provide essential information for improving Sri Lanka's future performance in terms of UHC delivery.

## 3. Methodology

### 3.1. Objectives

**To determine the effectiveness of the strategies of the UHC Policy to achieve UHC, with reference to the UHC SCI indicators.**

**To assess the efficiency of achieving UHC by implementing the strategies of the policy.**

**To determine the extent to which the UHC Policy is meeting the needs of Sri Lankans as well as aligning with international standards.**

**To determine the coherence of the policy with salient national policies and strategic plans.**

**To assess the sustainability of continuing the strategies of the policy to achieve and maintain UHC.**

**To assess the ethical considerations of the UHC Policy.**

**To consider relevant economic aspects of UHC policy implementation.**

**To make recommendations based on an integration of the analytical findings aimed at improving UHC delivery.**

## 3.2. Methodological Design

A multi-method approach was adopted to conduct the analysis. Multi-method study designs provide a means for overcoming the limitations of any single method by using different methodological approaches to address the same investigative questions (23).

The three methods used were: 1) an *indicator analysis*, a desk review by which the team conducted a secondary analysis of data pertaining to Sri Lanka's performance in relation to the UHC SCI indicators; 2) a limited *economic analysis*, and 3) KIIs that allow for primary data collection and *thematic analysis* in relation to the UHC Policy. The results of these different components were then synthesised to derive common conclusions.

An important element of the investigative approach was the organization of analytical questions under each DOI. These DOI were identified by the report team in an effort to ensure a breadth of coverage for the UHC analysis. The domains are displayed in Table 3 below (which also denotes the method used for each DOI and, when more than one method was used, which approach predominated). The DOI of effectiveness represented a major focus of the analysis given its importance in assessing UHC Policy performance as well as the fact that it could be measured against the objective criteria of the UHC SCI.

**Table 3: Dimensions of Interest (DOI) related to UHC**

<b>Dimensions</b>	<b>Objective of Inquiry</b>	<b>Methods</b>
<b>Effectiveness</b>	To determine the effectiveness of the strategies of the policy to achieve UHC (in terms of addressing specific public health challenges), especially with regard to <i>SDG Indicator 3.8.1</i> .	Desk review > KIIs
<b>Efficiency</b>	To assess the efficiency of achieving UHC by implementing the strategies of the policy (e.g., how has the policy reduced the risk of health resource wastage).	KIIs
<b>Relevance</b>	To determine the extent to which the UHC Policy is meeting the needs of Sri Lankans as well as aligning with international standards.	KIIs
<b>Coherence</b>	To determine the coherence of the policy with salient national priorities, policies and strategic plans.	KIIs
<b>Sustainability</b>	To assess the sustainability of continuing the strategies of the policy to achieve and maintain UHC (e.g., what steps need to be taken to address new and emergent health challenges).	KIIs
<b>Ethical Evaluation</b>	To assess the ethical considerations of the UHC Policy (e.g., what measures have been taken to preserve the autonomy of individuals in the UHC policy).	KIIs
<b>Economic Evaluation</b>	To undertake a relevant economic evaluation of the policy, especially in relation to <i>SDG Indicator 3.8.2</i> .	Desk review/ economic analysis > KIIs

### 3.3. Data collection

#### 3.3.1. Secondary data collection

A desk review using data from local and international sources was undertaken. Data were collected in line with each of the UHC SCI sub-indices and tracer indicators linked to *SDG Indicator 3.8.1*, as described in Table 2. International sources of data included WHO publications such as Tracking Universal Health Coverage: 2023 Global Monitoring Report (UHC 2023 GMR) as well as the Global Health Observatory (GHO) database. Other statistical sources included data from the Organisation for Economic Co-operation and Development (OECD). Local sources of data included Ministry of Health databases and publications.

An important aspect of the review process was remaining cognisant of how Sri Lanka's UHC policy related to other relevant policies of the GoSL, as listed in Table 4.

**Table 4: List of National Policies relevant to the UHC policy**

No.	Policy
1	Sri Lanka National Health Policy 2016--2025
2	National Policy and Strategic Framework for Prevention and Control of Chronic Noncommunicable Diseases 2023-2033
3	National Elderly Health Policy of Sri Lanka (no date)
4	National Policy on Healthcare Quality and Safety (2015)
5	Accident and Emergency Care Policy of Sri Lanka (2015)
6	National Policy on Health Information (2017)
7	National Mental Health Policy—2020 -2030

Secondary data related to SDG Indicator 3.8.2 (which included data related to health spending and financial protection) were also collected from relevant sources in order to carry out a limited economic analysis. International sources included World Bank databases, and local sources included survey data from the Department of Census and Statistics. Table 5 provides examples of sources accessed for the desk review process.

**Table 5: Example sources of data for desk review and economic analysis**

Source	Relevant UHC Indicators
Central Bank of Sri Lanka	SDG Indicator 3.8.2
Demographic and Health Survey*	Family Planning Antenatal Care
Department of Census and Statistics*	Family Planning Hospital Bed Density Health Workforce Density SDG Indicator 3.8.2
Electronic Reproductive Health Management Information System (under the Family Health Bureau)*	Family Planning Antenatal Care
Global Health Observatory (WHO)	Tuberculosis Basic Sanitation Hypertension Treatment Diabetes Prevalence Tobacco Hospital Bed Density SDG Indicator 3.8.2
Global Tuberculosis Programme (WHO Reports)	Tuberculosis
Medical Statistics Unit, Ministry of Health*	Hospital Bed Density Health Workforce Density
National STD/AIDS Control Programme*	HIV/AIDS
Tracking Universal Health Coverage: 2023 Global Monitoring Report (UHC 2023 GMR)	SDG Indicator 3.8.1 All UHC SCI Tracer Indicators
State Parties Self-Assessment Annual Reporting	International Health Regulations
Noncommunicable Diseases Risk Factor Survey (STEPS) Sri Lanka 2021*	Hypertension Treatment Diabetes Prevalence
World Bank	SDG Indicator 3.8.2

\*Government of Sri Lanka

### 3.3.2. Primary data collection

Primary data were collected by conducting KIIs. A semi-structured, open-ended interview guide was developed that included detailed questions related to the seven domains. The KII process was designed to obtain relevant insights from interviewees, such as the underlying reasons, perspectives and contexts influencing perceived UHC outcomes, which provided a more comprehensive view of the data.

Stakeholders were identified in terms of areas of expertise and roles within the health system. This included officials from the Ministry of Health (such as those responsible for different aspects of health service delivery as well as communicable and noncommunicable disease control) and academic institutions/universities. A list of areas relevant to UHC that are covered by stakeholders is provided in Table 6 below.

**Table 6: List of stakeholder areas covered by KIIs**

No.	Stakeholder Areas
1	Health Planning
2	Family Planning
3	National Programme for Tuberculosis Control and Chest Diseases (NPTCCD)
4	Education, Research and Training
5	Quarantine Unit, Ministry of Health
6	International Health Regulations
7	National STD/AIDS Control Programme
8	Primary Care Services
9	Family Medicine
10	Noncommunicable Diseases
11	National Authority on Tobacco and Alcohol (NATA)
12	Academics in the University System who are involved in the research and evaluation of UHC in Sri Lanka

The KIIs were conducted with prior appointments by the UHC Policy Analysis Team. They were conducted in person or via digital platforms (e.g., Zoom), depending on respective stakeholders' availability and preference.

## **3.4 Data analysis**

### **3.4.1. Secondary data analysis: desk review (indicator analysis)**

For the desk review, the team analysed relevant documents. This approach allowed them to use content and thematic analytical approaches (24), as appropriate to the specific document under review. Where quantitative data were obtained (e.g., in relation to incidence rates, workforce numbers or economic statistics), a descriptive analysis was undertaken. The team then compared Sri Lanka's UHC data with international data. This included data from Southeast Asian Region (SEAR) countries as well as additional countries selected for comparison purposes.

### **3.4.2. Secondary data analysis: economic analysis**

The team also conducted a limited economic analysis of UHC in Sri Lanka. The main points of consideration included overall health expenditure as a percentage of Gross Domestic Product (GDP), out-of-pocket expenditure (OOPE) on health, and financial risk protection (in terms of household health expenditure).

### **3.4.3. Primary data analysis: KII interviews (thematic analysis)**

All KIIs were transcribed to ensure accuracy. Then each digitised document was thematically analysed using the NVIVO 15.0.0 (12) software package. Codes were generated according to either UHC SCI indicator components or the UHC DOI. The codes were broadly grouped as they were in DOI themes. Based on the content of the themes, conclusions were generated for each theme (this will be described in detail in the Findings and Discussion sections).

### **3.4.4. Data synthesis**

Data from the desk review, economic analysis and KIIs was synthesized to give the team a robust understanding of UHC issues in the Sri Lankan context. This was in keeping with the multi-method design and informed a discussion based on the report's objectives. The team held a workshop to present the results of the desk review to groups of relevant experts, and together they identified the root causes for the poorly achieved UHC SCI tracer indicators. They then worked out and evaluated policy options to obtain actionable recommendations aimed at improving the UHC Policy rollout in Sri Lanka.

## **3.5. Ethical clearance**

While the desk review involved collecting secondary data, the primary data collection via KIIs necessitated ethics approval. To this end, an ethics application was successfully submitted to the Ethics Review Committee of the Sri Lanka Medical Association under the title Evaluating and Benchmarking Sri Lanka's Universal Health Coverage Index: A Comparative Study of Subcomponents and Policy Integration.

## **3.6. Administrative clearance**

Administrative clearance for the report was obtained from the Director General of Health Services. Data were collected only after the team had obtained administrative clearance.

## 4. Findings of Desk Review (Indicator Analysis)

### 4.1. Overview

Sri Lanka's progress on the UHC SCI tracer indicators, as assessed through the desk review, will be reported on in this section. The findings will be organized under the following subcomponents (which reflect the sub-indices formally defined in the UHC SCI (25)):

- Reproductive, maternal, newborn and child health
- Infectious diseases
- Noncommunicable diseases
- Service capacity and access

The following sections will provide greater detail on each of the UHC SCI sub-indices for Sri Lanka which, in turn, are composed of the tracer indicators. Please note that the tracer indicator for insecticide-treated nets (ITN) has not been included in this analysis due to the fact that malaria has been eliminated in Sri Lanka, with the country being certified as malaria-free from 2016 (26).

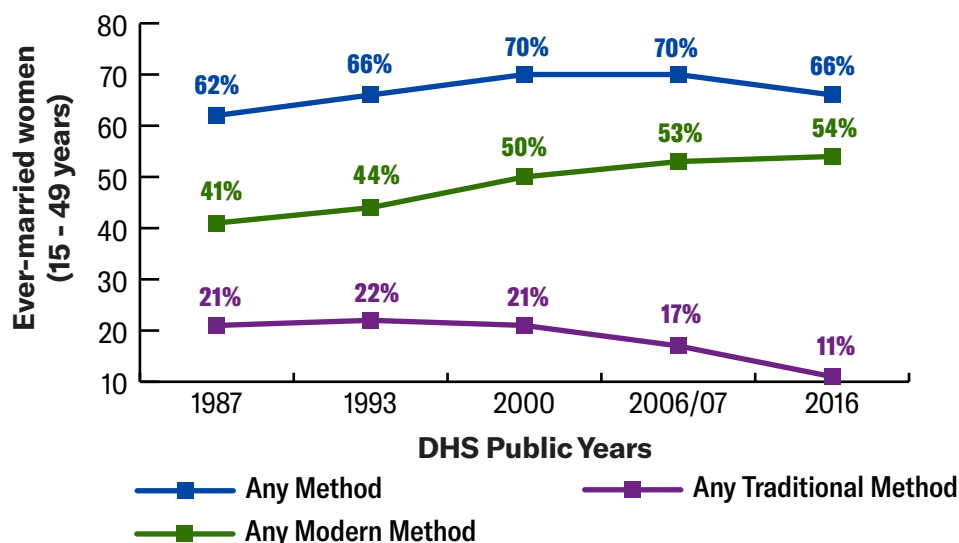
### 4.2. Reproductive, maternal, newborn and child health (RMNCH)

#### 4.2.1. Family Planning (FP)

##### 4.2.1.a. Analysis of the FP Indicator

Sri Lanka obtained a score of 74 for the service coverage indicator on Family Planning (FP) in the *UHC 2023 GMR*. The calculation is based on the proportion of women of reproductive age (15 to 49 years) who are married or in a union and have their need for family planning satisfied with modern methods (6).

The 2016 Demographic and Health Survey (DHS) of Sri Lanka, conducted by the GoSL's Department of Census and Statistics, reported that 53.6% of married women used modern family planning methods (27). Figure 2 below shows trends from DHS data in terms of types of contraceptive use amongst ever-married women ages 15-49.

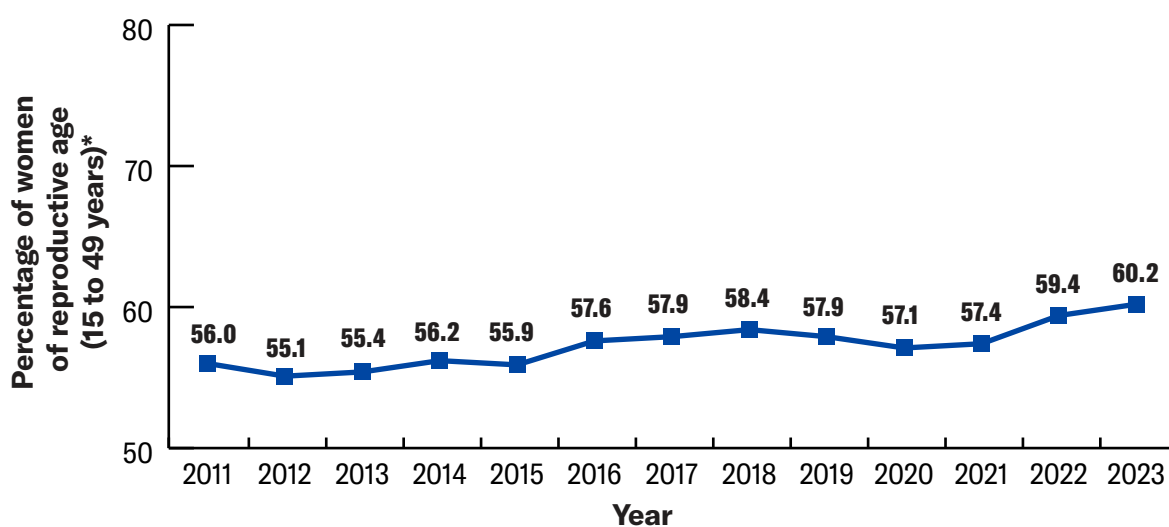


**Figure 2. Trends in contraceptive use from DHS indicator data**

Source: Demographic and Health Surveys of Sri Lanka (28)

The GoSL had initially intended for the Department of Census and Statistics to conduct DHS surveys every five years. However, for financial and logistics reasons, the cadence has varied from seven to nine years, with the next DHS of Sri Lanka planned for 2026. Because of this limitation, the UHC Policy Analysis Team used other data sources to chart progress on this indicator.

The Family Health Bureau (FHB) of the Ministry of Health collects data (from registered eligible couples) on the percentage of women of reproductive age (15-49 years) who are married, or in a union, and use a modern method for family planning. This is enabled by the FHB's Reproductive Health Management Information System (RHMIS). The data are reported by all the grassroots-level service providers (namely, public health midwives) and is available annually. The statistics are plotted for each year from 2011 to 2023, as displayed in Figure 3.



**Figure 3: Utilization of a modern method for family planning**

Sources: FHB statistics (29) and FHB Annual Reports (30)

As shown in Figure 3, the percentage of women of reproductive age who are married or in a union and use modern methods for family planning has gradually increased over the years. It is noteworthy that the percentage reported by the FHB in 2016 was 57.6%, whereas the corresponding figure reported by DHS in the same year was 53.6%. The data from FHB are based on the “Eligible Family Registers” maintained by public health midwives, whereas DHS collects data from a nationally representative sample. This can explain the discrepancy between the two datasets.

Several factors can affect the rates of use of modern family planning methods, including:

1. Unmet need for family planning
2. Use of any method of family planning
3. Use of traditional methods of family planning

The FHB provides data on these factors, as described in Figures 4 to 6. Figure 4 shows the percentage of eligible couples having unmet needs for family planning (a couple with an unmet need for family planning includes a fertile woman married or living in union, not using any contraception, not wanting any more children or wanting to postpone pregnancy for at least two years) (31).

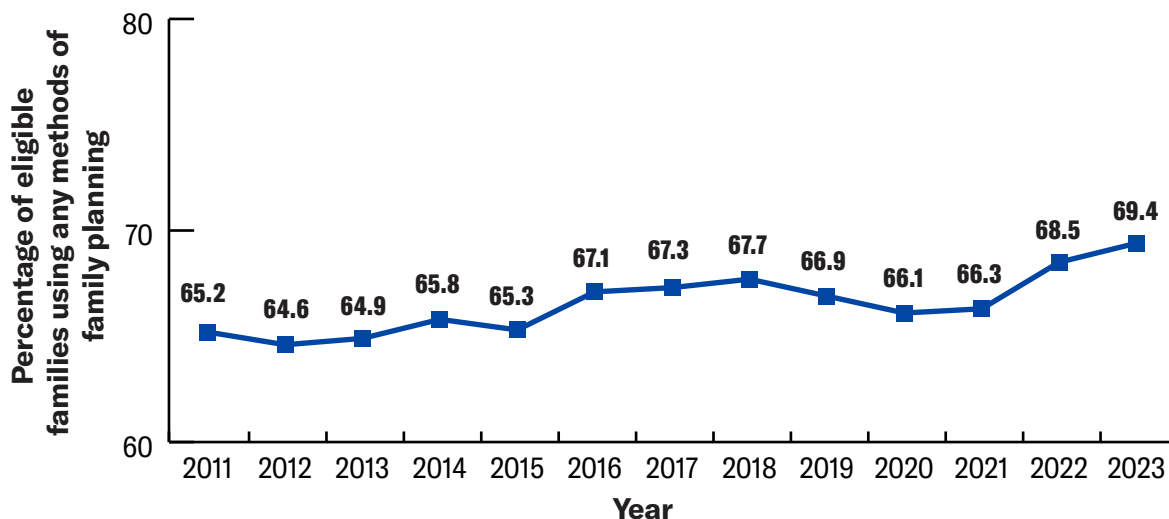
$$\text{Percentage of incidence of TB cases that are detected and treated in a given year} = \frac{\text{Number of new and relapse cases in the same given year}}{\text{Number of new and relapse cases detected and treated in a given year}}$$

**Figure 4: Percentage of eligible couples whose family planning needs are unmet**

Sources: FHB statistics (29) and FHB Annual Reports (30)

As shown in Figure 4, the percentage of people whose family planning needs are unmet has decreased over the years. That is, the percentage of couples who are in need of family planning is improving in terms of access to at least some methods of family planning (modern, natural or traditional).

Figure 5 shows the percentage of eligible families using any method of family planning, as reported by the FHB, between 2011 and 2023.

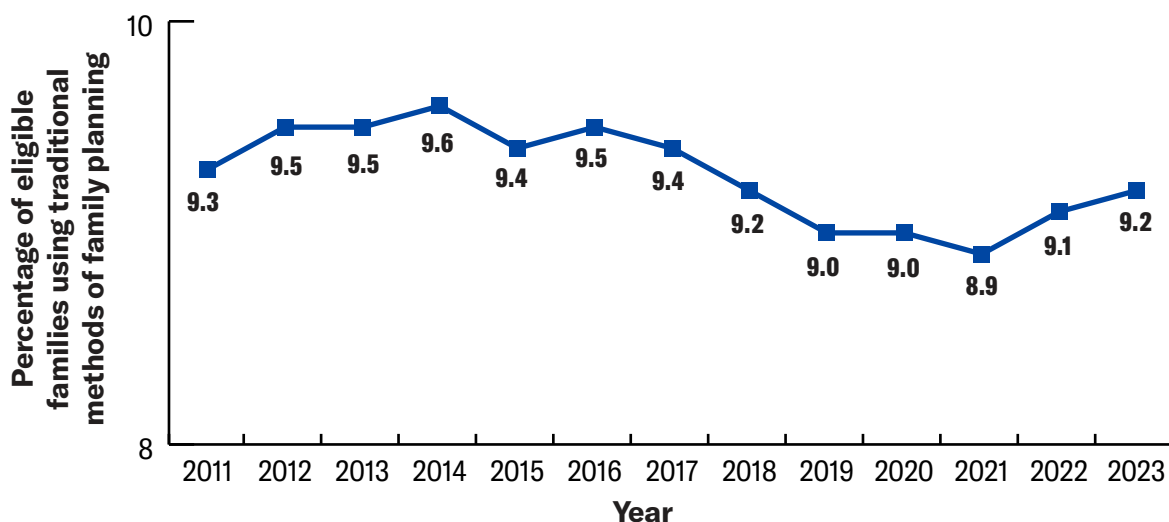


**Figure 5: Percentage of eligible families using any method of family planning**

Sources: FHB statistics (29) and FHB Annual Reports (30)

The percentage of eligible families using any method of family planning gradually increased from 2012 to 2018 (with a dip in 2015). The percentage decreased again in 2019 but rebounded again to 69.4% by 2023.

Figure 6 shows the percentage of eligible families using traditional methods of family planning, as reported by the FHB.

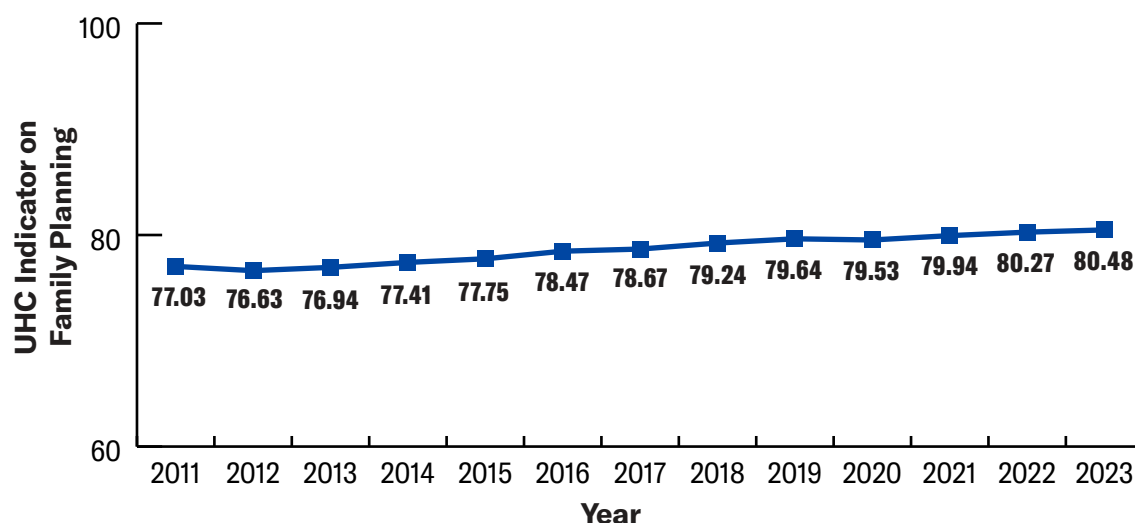


**Figure 6: Percentage of eligible families using traditional methods of family planning**

Sources: FHB statistics (29) and FHB Annual Reports (30)

As shown in Figure 6, the percentage of eligible families using traditional methods of family planning has fluctuated around the 9% mark over the past decade. It gradually declined to 8.9% by 2021 but then increased to 9.2% by 2023.

Based on the figures reported by the FHB, the UHC Policy Analysis Team calculated the UHC indicator for family planning for Sri Lanka from 2011 to 2023, as shown in Figure 7.



**Figure 7: UHC SCI FP Indicator for Sri Lanka (2011-2023)**

Calculated by the UHC Policy Analysis Team using FHB statistics (29) and FHB Annual Reports (30)

As shown in Figure 7—and based on the report team’s calculations using the data obtained from FHB that is reported by the respective public health midwives from the eligible couples registered with them—the UHC SCI indicator for family planning has gradually increased since 2012 and, using the modern family planning rate reported by FHB as the national figure, was estimated to reach  $\geq 80$  by 2023 (as discussed earlier in this section, the rate reported by DHS is lower than the figure reported by FHB for 2016).

The UHC Policy Analysis Team further explored the regional and provincial breakdown of modern family planning rates of Sri Lanka from the data obtained from the electronic Reproductive Health Management Information System (eRHMIS) of FHB. On the basis of this, the team proposed placing more focus on the use of modern family planning methods in all of the Regional Directorates of Health Services (RDHS) areas of Western Province, Ratnapura RDHS area of Sabaragamuwa province, Vavuniya and Mannar RDHS areas of Northern Province.

**4.2.1.b. Summary of FP Indicator Analysis**

Sri Lanka has made progress in relation to the UHC SCI FP indicator (on the utilization of modern family planning methods). The country has improved access to family planning over the years, reducing the number of families whose needs are unmet, and has seen a gradual increase in the number of people using any family planning method, especially modern methods, the most important category. This demonstrates that Sri Lanka is on track to achieve the service coverage in this crucial area of RMNCH. However, there are district disparities in terms of the FP indicator that service providers and policymakers should focus more on in the coming years.

**Table 7: UHC SCI FP Indicator Scores for WHO SEAR countries and additional comparators**

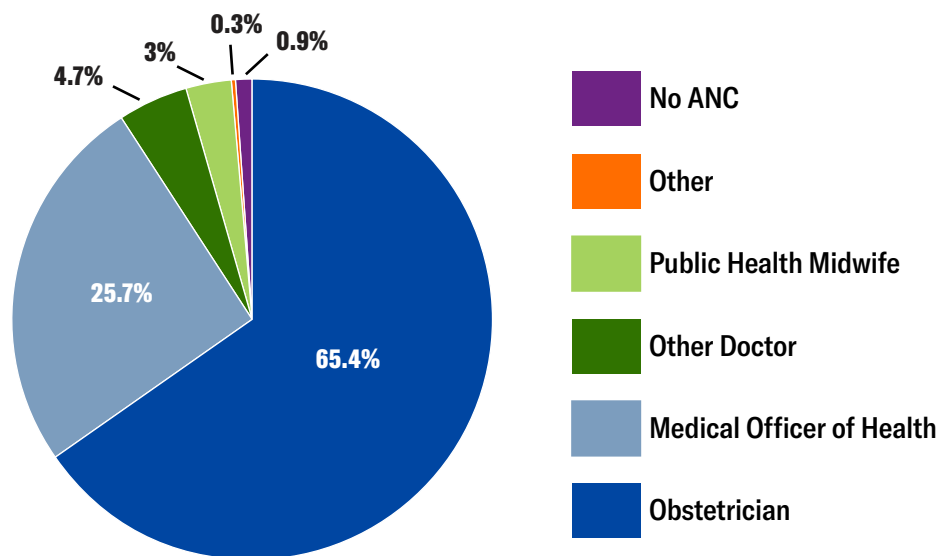
Country	UHC SCI FP Indicator Score	Coverage Level
Sri Lanka	74	High
Bangladesh	73	High
Bhutan	≥80	Very High
Democratic People's Republic of Korea	≥80	Very High
India	76	High
Indonesia	≥80	Very High
Maldives	33	Low
Myanmar	78	High
Nepal	62	High
Thailand	≥80	Very High
Timor-Leste	52	Medium
<b>Additional comparator countries</b>		
Malaysia	57	Medium
Pakistan	51	Medium
Singapore	77	High

Source: UHC 2023 Global Monitoring Report (6)

## 4.2.2. Antenatal care (ANC)

### 4.2.2.a. Analysis of the ANC Indicator

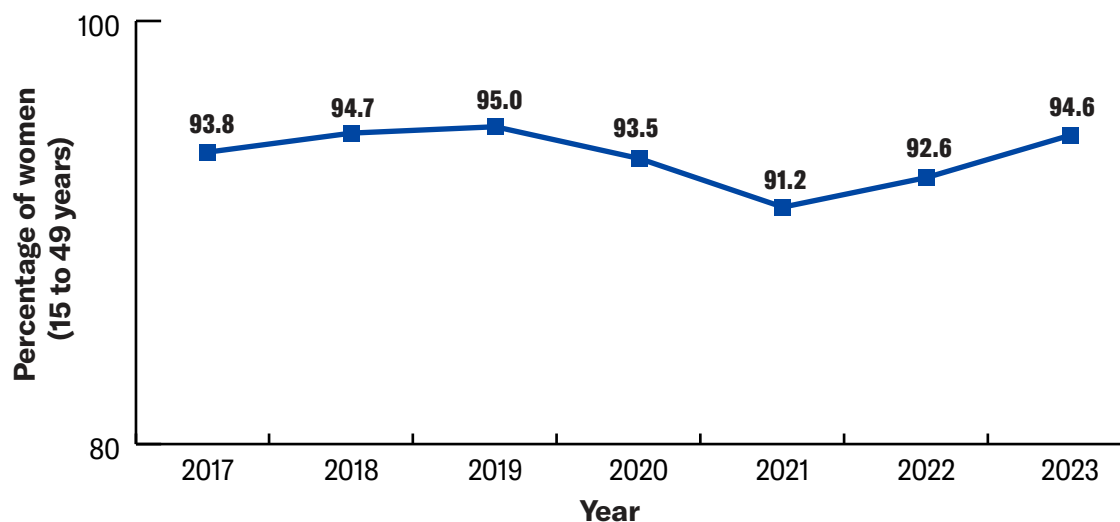
In the UHC 2023 GMR, Sri Lanka scored ≥80 for the UHC SCI indicator on antenatal care (ANC). This calculation is based on the percentage of women aged 15 to 49 with a live birth in a given time period who received antenatal care four or more times (6). The 2016 DHS revealed that 98.8% of women aged 15-49 who had a live birth in the five years prior to the survey had received ANC from a skilled provider during their pregnancy for the most recent birth (32). With reference to the DHS data, Figure 8 below shows the distribution of ANC provision in Sri Lanka. However, it is important to note that many pregnant women utilize multiple categories of providers; the DHS data only record the provider with the highest level of qualification.



**Figure 8: Distribution of ANC provision (by highest level of provider qualification)**

Source: Sri Lanka Demographic and Health Survey 2016 (33)

The eRHMS of the FHB also provided data on this indicator for the analysis of the UHC from 2017 onwards. However, the eRHMS captures the clinic visits of pregnant women who attended only government-owned health facilities; it is thus important to note that antenatal clinic visits by pregnant women in the private sector are not captured in these data. The data reported by the FHB from 2017 to 2023 are plotted in Figure 9.



**Figure 9: Percentage of women aged 15-49 with a live birth with four or more antenatal clinic visits (government facilities only)**

Source: Data provided directly to the UHC Report Team by the FHB from the eRHMS

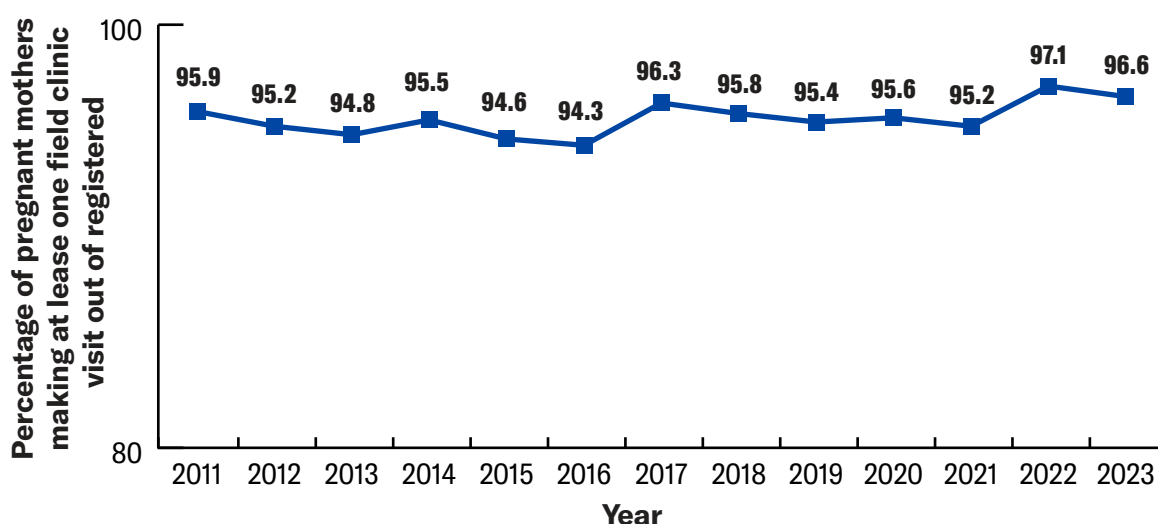
As shown in Figure 9, the percentage of pregnant women attending four or more government antenatal clinics gradually increased from 2017 to 2019. In 2020 and 2021, due to the COVID-19 outbreak, there were restrictions on conducting routine antenatal clinical visits. This contributed to the antenatal coverage drop to 91.2% in 2021. Services were restored in 2022, and by 2023 the indicator had increased to 94.6%.

As noted earlier, data from the FHB are obtained only for visits to government-operated clinics. In practice, there are women who use private-sector ANC services for the entirety of their pregnancies, while some women attend antenatal clinics both in the government and private sectors, and others only in the government sector. This is reflected in the DHS figure for 2016 (98.8%), which encompasses the ANC services obtained from both the public and private sectors. It is noteworthy that the eRHMS data received by the UHC Policy Analysis Team did not contain 2016 data for the analysis.

The FHB captures data for two other indicators related to antenatal service coverage:

1. Percentage of pregnant mothers making at least one field clinic visit out of registered
2. Average number of clinic visits per pregnant woman

Figure 10 shows the percentage of pregnant mothers registered for government field antenatal care services who visited a clinic at least once.

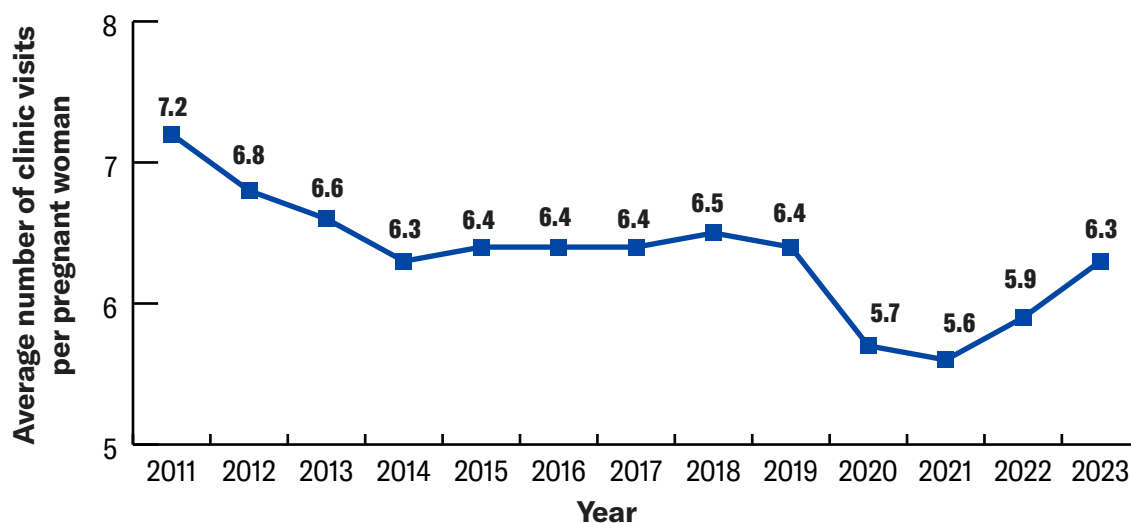


**Figure 10: Percentage of pregnant mothers making at least one field clinic visit**

Sources: FHB statistics (29) and FHB Annual Reports (30)

As shown in Figure 10, the percentage of pregnant mothers out of those registered making at least one field clinic visit has plateaued at around 95%.

Figure 11 shows the average number of clinic visits per pregnant woman, as reported by the FHB.



**Figure 11: Average number of clinic visits per pregnant woman**

Sources: FHB statistics (29) and FHB Annual Reports (30)

The average number of clinic visits (conducted at government-owned health facilities) attended by pregnant women in Sri Lanka was reported, by the FHB, to be approximately 6.4 in 2019. Most likely due to the COVID-19 pandemic, this number dropped in 2020 and 2021 (but regained its usual average by 2023).

**4.2.2.b. Summary of ANC Indicator Analysis**

Sri Lanka achieved a score of 98.8 for the indicator on ANC service coverage by 2016, according to DHS data. FHB data indicated that service utilization decreased during the years of the COVID-19 outbreak (in 2020 and 2021) but gradually improved in the subsequent years in comparison to pre-COVID era figures.

While Sri Lanka is generally doing well in relation to the UHC SCI antenatal indicator (the *UHC GMR 2023* recorded a figure of  $\geq 80$ ), it is important to maintain this achievement. Also, although it is not captured in the indicator directly, the quality of services provided at ANC clinics requires continuous improvement. Given its integral impact on both maternal and child health, there needs to be a concerted effort to sustain (and, where possible, increase) the high level of health system performance related to the ANC indicator.

**Table 8: UHC SCI ANC Indicator Scores for WHO SEAR countries and additional comparators.**

Country	UHCSCI ANC Indicator Score	Coverage Level
Sri Lanka	≥80	Very High
Bangladesh	37	Low
Bhutan	≥80	Very High
Democratic People's Republic of Korea	≥80	Very High
India	58	Medium
Indonesia	≥80	Very High
Maldives	≥80	Very High
Myanmar	59	Medium
Nepal	78	High
Thailand	≥80	Very High
Timor-Leste	77	High
<b>Additional comparator countries</b>		
Malaysia	≥80	Very High
Pakistan	52	Medium
Singapore	≥80	Very High

Source: UHC 2023 Global Monitoring Report (6)

### 4.2.3. Child immunization (DTP3)

#### 4.2.3.a. Analysis of the DTP3 Indicator

The percentage of infants receiving three doses of diphtheria-tetanus-pertussis (DTP3) vaccine is a key component of the UHC SCI and a crucial measure of a country's implementation of its expanded programme on immunization (EPI).

This indicator reflects the proportion of children who receive the full three doses of the DTP vaccine. It is an important proxy for access to essential health services, particularly immunization services. High DTP3 coverage typically indicates that a country's healthcare system is effectively reaching children with necessary vaccines, reducing the risk of preventable diseases. Low DTP3 coverage often reflects weaknesses in health infrastructure, political instability, or other barriers to healthcare access, leading to higher rates of vaccine-preventable diseases.

Sri Lanka has demonstrated a high level of performance in relation to this indicator. Indeed, from 2014 to 2023, Sri Lankan DTP3 coverage was 99% in all but three years (2020 at 96%, 2021 at 96% and 2022 at 98%) (34). This temporary drop in immunization coverage most likely reflects the impact of COVID-19.

#### 4.2.3.b. Summary of DTP3 Indicator Analysis

Sri Lanka's performance with regard to the DTP3 indicator has been consistently strong (albeit with slight decreases in coverage during the COVID-19 pandemic). This mirrors the general level of performance in relation to this indicator across SEAR, although there are a few notable exceptions. Efforts in this area should focus on maintaining this very high level of achievement, given the crucial role that DTP3 coverage plays in Sri Lanka's EPI.

**Table 9: UHC SCI DTP3 Indicator Scores for WHO SEAR countries and additional comparators**

Country	UHC SCI DTP3 Indicator Score	Coverage Level
Sri Lanka	≥80	Very High
Bangladesh	≥80	Very High
Bhutan	≥80	Very High
Democratic People's Republic of Korea	41	Medium
India	≥80	Very High
Indonesia	67	High
Maldives	≥80	Very High
Myanmar	37	Low
Nepal	≥80	Very High
Thailand	≥80	Very High
Timor-Leste	≥80	Very High
<b>Additional comparator countries</b>		
Malaysia	≥80	Very High
Pakistan	≥80	Very High
Singapore	≥80	Very High

Source: UHC 2023 Global Monitoring Report (6)

## 4.2.4. Care seeking for suspected acute respiratory infection (ARI)

### 4.2.4.a. Analysis of the ARI Indicator

Along with diarrhoeal diseases, acute respiratory infection (ARI) is the largest contributor to under-5 morbidity and mortality globally (35). Within the Sri Lankan context, preventing ARI—as well as initiating early treatment—is particularly important for the successful implementation of UHC. This is underscored by the substantial public health threat posed by ARI in the country. In 2018, for example, there was an outbreak of severe ARI in Sri Lanka's Southern Province, which had a disproportionate impact on the childhood (under-5) population (36).

Care seeking for suspected ARI in children under 5 years of age is an essential component of the Reproductive, Maternal, Newborn and Child Health (RMNCH) sub-index of the UHC SCI (6). The score is obtained from the percentage of children under 5 who are suspected to have pneumonia on the basis of cough difficulty breathing or rapid breathing due to a lower respiratory problem beyond simple nasal congestion (with symptoms occurring in the two weeks preceding the survey), and who are taken to a healthcare facility or provider by a parent or caregiver (37).

The 2016 DHS revealed care-seeking for childhood ARI (as described in the definition above) to be 52% in Sri Lanka. Furthermore, it was notable that in 32% of these cases (that is, in roughly a third of ARI cases) care had been sought either on the day that the illness occurred or the next day (32). It is also important to note the previous DHS in Sri Lanka (2006-2007) had a slightly higher care-seeking proportion of 58% (38). The difference in these figures may reflect a combination of an actual decrease in health service performance and other factors such as different data collection methods.

In addition to the above, it appears that the tracer indicator data for the *UHC 2023 GMR* was based on the value given by the 2016 DHS (and hence has not been updated recently). The method of data capture, to date, is thus still through the DHS survey in Sri Lanka. Alternatives would have to be explored if more current values for this indicator are to be obtained.

### 4.2.4.b. Summary of ARI Indicator Analysis

Care seeking for childhood ARI is an indicator that requires improvement in Sri Lanka, given the impact of this area on overall public health (as well as the relative performance of comparator countries). It is important to note, however, that the data for this indicator are likely to be very dated as they appear to be based on the 2016 DHS; efforts to gather more recent data on this tracer indicator need to be prioritised if a more accurate picture of Sri Lanka's ARI control is to be obtained.

**Table 10: UHC SCI ARI Indicator Scores for WHO SEAR countries and additional comparators**

<b>Country</b>	<b>UHC SCI ARI Indicator Score</b>	<b>Coverage Level</b>
<b>Sri Lanka</b>	52	<b>Medium</b>
<b>Bangladesh</b>	46	<b>Medium</b>
<b>Bhutan</b>	74	<b>High</b>
<b>Democratic People's Republic of Korea</b>	≥80	<b>Very High</b>
<b>India</b>	56	<b>Medium</b>
<b>Indonesia</b>	75	<b>High</b>
<b>Maldives</b>	74	<b>High</b>
<b>Myanmar</b>	59	<b>Medium</b>
<b>Nepal</b>	≥80	<b>Very High</b>
<b>Thailand</b>	80	<b>Very High</b>
<b>Timor-Leste</b>	70	<b>High</b>
<b>Additional comparator countries</b>		
<b>Malaysia</b>	≥80	<b>Very High</b>
<b>Pakistan</b>	71	<b>High</b>
<b>Singapore</b>	≥80	<b>Very High</b>

Source: UHC 2023 Global Monitoring Report (6)

## 4.3. Infectious diseases (ID)

### 4.3.1. Tuberculosis treatment (TB)

#### 4.3.1.a Analysis of the TB Indicator

Tuberculosis (TB) has plagued human health for millennia (39). Since the discovery of *Mycobacterium tuberculosis* in 1882, the understanding of TB has progressed rapidly. Nonetheless, it continues to be a global public health threat, having a particularly devastating impact on LMICs, where it remains a major cause of mortality (40).

Tuberculosis resulted in the deaths of approximately 1.3 million people worldwide in 2022, making it the second leading cause of mortality from infectious diseases for that year, led only by COVID-19. During the same year, around 10.6 million people (5.8 million men, 3.5 million women and 1.3 million children) were diagnosed with TB across the globe (41). Many initiatives, programmes and strategies are underway to prevent and control TB, and the target is to end the TB epidemic by 2030, as articulated by SDG 3 (15).

Although Sri Lanka is a low-prevalence country in terms of TB, a sizable population is affected; approximately 7,000 to 9,000 cases are reported in Sri Lanka yearly (42). The foundational step in TB control was taken in 1910 through the establishment of the Tuberculosis Commission in Sri Lanka. The first TB detection centre was established in Pettah, Colombo in 1916. Following this, inpatient treatment facilities began operating in 1917 at Ragama Hospital, followed by Kandana in 1919 and Kankasanthurai in 1930. The military hospital for infectious diseases established in Welisara for military personnel was converted into a TB hospital in 1946 and is now the National Hospital for Respiratory Diseases. An anti-TB campaign was launched in 1945, and pulmonary TB was named a notifiable disease in the country in 1948. The campaign was renamed the Respiratory Disease Control Programme in 1989, before being changed again to the National Program for Tuberculosis Control and Chest Diseases in 2001. A standard anti-TB drug regimen was developed in 2005, and following this, the medication was provided free of charge by the Global Centre for Drug Supply (43, 44).

Tuberculosis treatment is one of the UHC SCI tracer indicators, reflecting its critical role in measuring the effectiveness and comprehensiveness of health systems globally. The inclusion of TB in the UHC indicator underscores the importance of addressing infectious diseases together with NCDs in the achievement of comprehensive health coverage.

The indicator definition is provided below (expressed as the percentage of incidence of TB cases that are detected and treated in a given year) (45):

The main data sources for this indicator are:

- Facility information systems
- Disease surveillance systems
- Population-based health surveys (with TB diagnostic testing)
- TB registers and related quarterly reporting system
- Electronic TB registers

The method of measurement for this indicator requires two inputs:

1. The number of new *plus* relapse TB cases diagnosed and treated in national TB control programmes and reported to WHO in a (given) year
2. The number of incident TB cases for the same year (this is typically estimated by WHO)

In terms of method of estimation, TB incidence data are produced through a WHO-led consultative and analytical process; these data are then published annually (45). Incidence data estimates are informed by the following:

- Annual case notifications
- Assessments of (the quality and coverage) of TB notification data
- National surveys of the prevalence of TB
- Information from death (vital) registration systems

Country estimates of incidence are calculated using one or more of the following approaches (depending on which data are available):

- A. Incidence = case notifications/estimated proportion of cases detected
- B. Incidence = prevalence/duration of condition
- C. Incidence = deaths/proportion of incident cases that result in death

The estimates of TB incidence are combined with country-reported data on the number of cases detected and treated, and the percentage of cases successfully treated, as described above (best estimated with uncertainty bounds are provided) (46). Dynamic and statistical models were introduced to produce estimates for 2020 and 2021; these take into account the impact that the COVID-19 pandemic had on the provision of—and access to—TB diagnostic and treatment services.

Table 11 provides WHO annual estimates (with upper and lower limits) of TB cases in Sri Lanka from 2005-2022.

**Table 11: Yearly TB case estimates in Sri Lanka (2005-2022)**

Year	Total TB cases	Reported Rate			WHO Estimate		
		Average	Lower Limit	Upper Limit	Average	Lower Limit	Upper Limit
2022	8,121	58.0	45.1	82.0	14,000	9,900	18,000
2021	6,249	44.6	34.7	63.1	14,000	9,900	18,000
2020	6,686	47.8	37.1	66.9	14,000	10,000	18,000
2019	7,812	55.8	43.4	78.1	14,000	10,000	18,000
2018	8,258	59.0	45.9	82.6	14,000	10,000	18,000
2017	8,013	57.2	44.5	80.1	14,000	10,000	18,000
2016	8,332	59.5	46.3	83.3	14,000	10,000	18,000
2015	8,990	64.2	47.3	90.8	14,000	9,900	19,000
2014	8,692	62.1	48.3	87.8	14,000	9,900	18,000
2013	8,767	62.6	46.1	88.6	14,000	9,900	19,000
2012	8,507	60.8	44.8	87.7	14,000	9,700	19,000
2011	9,508	67.9	55.9	86.4	14,000	11,000	17,000
2010	9,328	66.6	51.8	93.3	14,000	10,000	18,000
2009	9,118	70.1	50.7	91.2	14,000	10,000	18,000
2008	8,996	69.2	50.0	91.8	13,000	9,800	18,000
2007	8,497	65.4	47.2	91.4	13,000	9,300	18,000
2006	8,283	63.7	46.0	91.0	13,000	9,100	18,000
2005	8,983	69.1	52.8	92.6	13,000	9,700	17,000

**Percentage of incidence of TB cases that are detected and treated in a given year**

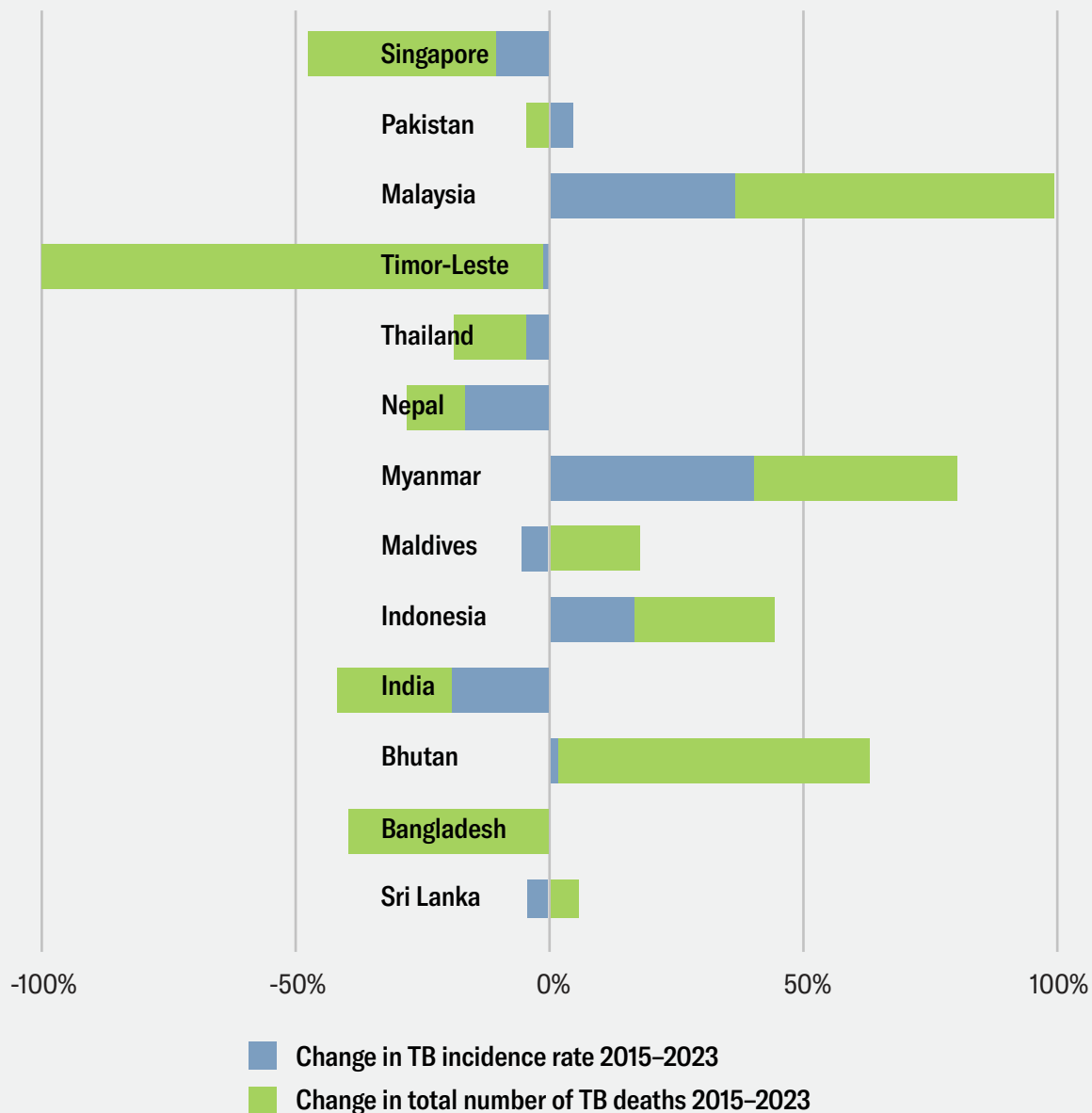
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**Number of new and relapse cases detected and treated in a given year**

**Number of new and relapse cases in the same given year**

Sources: Global Health Observatory and Global Programme on Tuberculosis & Lung Health (46, 47)

Figure 12 shows changes in TB incidence rates and total number of TB deaths between 2015 and 2023 in Sri Lanka, and selected comparator countries.



**Figure 12: Changes in TB incidence and deaths (2015-2023)**

Source: Global Programme on Tuberculosis & Lung Health (47)

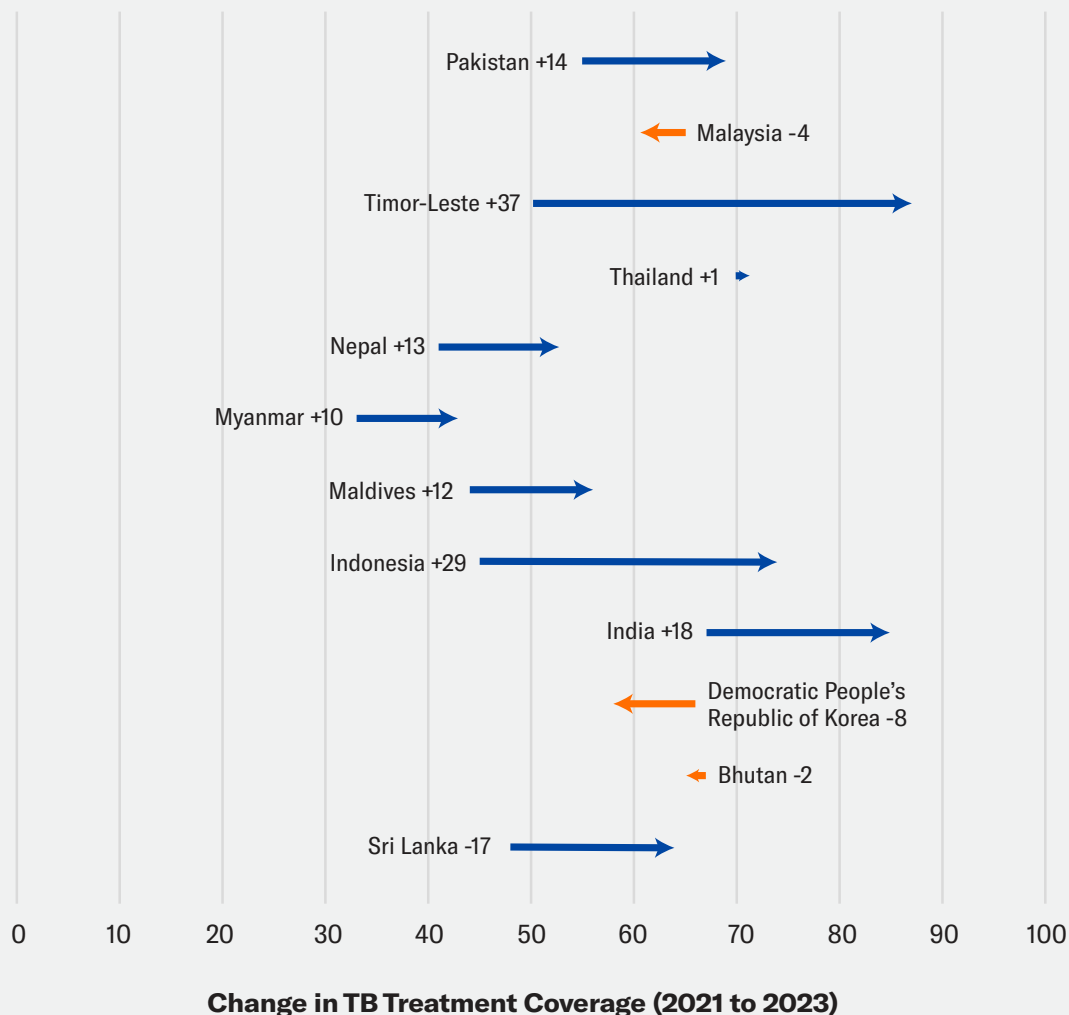
With regard to TB treatment coverage, Table 12 provides Sri Lanka’s performance (with relevant data) alongside other comparator countries.

**Table 12: Comparison of TB-related data, 2023**

Country	TB treatment coverage	New or relapsed cases of TB	Total cases notified	TB incidence (per 100,000 population)
<b>Sri Lanka</b>	65%	9,271	9,538	62 (45-82)
<b>Bangladesh</b>	80%	302,813	303,686	221 (161-291)
<b>Bhutan</b>	65%	840	864	164 (126-208)
<b>Democratic People's Republic of Korea</b>	58%	78,359	83,044	513 (441-590)
<b>India</b>	85%	2,382,714	2,517,810	195 (164-228)
<b>Indonesia</b>	74%	804,836	821,200	387 (354-432)
<b>Maldives</b>	56%	117	118	40 (31-50)
<b>Myanmar</b>	43%	129,122	130,842	558 (328-824)
<b>Nepal</b>	54%	36,881	37,447	229 (126-355)
<b>Thailand</b>	71%	80,209	81,825	157 (114-214)
<b>Timor-Leste</b>	87%	6,027	6,171	498 (322-711)
<b>Malaysia</b>	61%	26,149	26,781	122 (87-155)
<b>Pakistan</b>	69%	475,761	480,136	277 (188-368)
<b>Singapore</b>	87%	2,113	2,119	42 (36-49)

Source: Global Programme on Tuberculosis &amp; Lung Health (47)

Finally, Figure 13 shows changes in TB treatment coverage, from 2021 to 2023, in Sri Lanka and selected comparator countries.



**Figure 13: Changes in TB treatment coverage**

Arrows start at 2021 using UHC 2023 Global Monitoring Report data (6) and end at 2023 using Global Programme on Tuberculosis & Lung Health data (47).

**4.3.1.b. Summary of TB Indicator Analysis**

There has been a significant improvement in TB treatment coverage, in comparing the GMR data for 2021 (score: 48) to WHO data from 2022 (score: 60). This can be attributed to a number of factors, including the recovery of health service provision following the initial phases of the COVID-19 pandemic. Nonetheless, it is clear that improvement in TB treatment coverage is urgently needed. This could include increasing the number of TB facilities available (such as district chest clinics) and expanding their geographical footprint.

**Table 13: UHC SCI TB Indicator Scores for WHO SEAR countries and additional comparators**

<b>Country</b>	<b>UHC SCI TB Indicator Score</b>	<b>Coverage Level</b>
<b>Sri Lanka</b>	48	<b>Medium</b>
<b>Sri Lanka (2023)*</b>	60	<b>High</b>
<b>Bangladesh</b>	≥80	<b>Very High</b>
<b>Bhutan</b>	67	<b>High</b>
<b>Democratic People's Republic of Korea</b>	66	<b>High</b>
<b>India</b>	67	<b>High</b>
<b>Indonesia</b>	45	<b>Medium</b>
<b>Maldives</b>	44	<b>Medium</b>
<b>Myanmar</b>	33	<b>Low</b>
<b>Nepal</b>	41	<b>Medium</b>
<b>Thailand</b>	70	<b>High</b>
<b>Timor-Leste</b>	50	<b>Medium</b>
<b>Additional comparator countries</b>		
<b>Malaysia</b>	65	<b>High</b>
<b>Pakistan</b>	55	<b>Medium</b>
<b>Singapore</b>	≥80	<b>Very High</b>

\*Global Programme on Tuberculosis & Lung Health data

Sources: UHC 2023 Global Monitoring Report (6) and Global Programme on Tuberculosis & Lung Health (47)

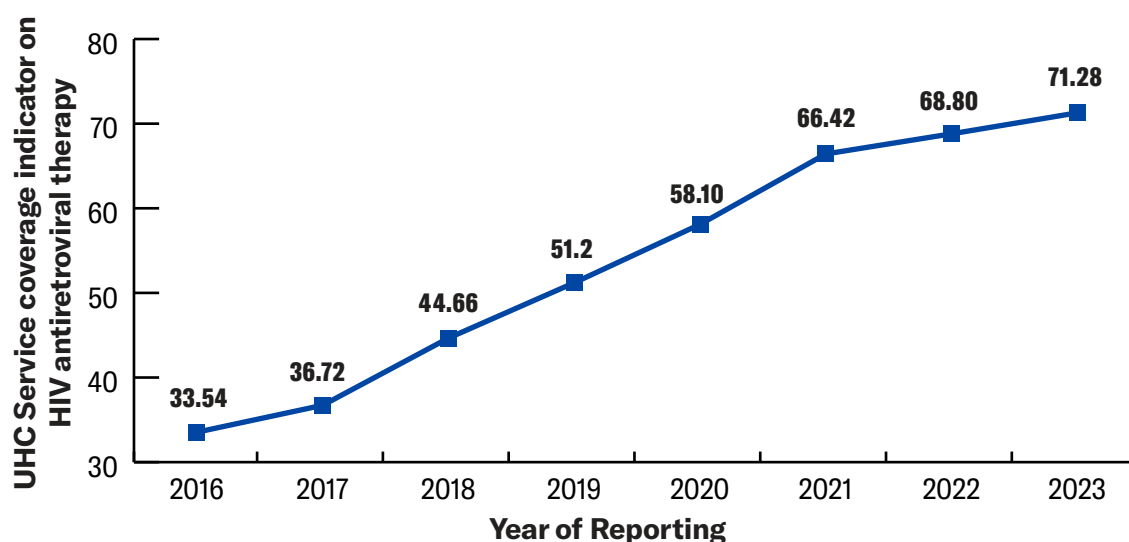
## 4.3.2. HIV therapy (ART)

### 4.3.2.a. Analysis of the ART Indicator

Sri Lanka has undertaken an effective public health approach to HIV. Mother-to-child transmission of HIV has essentially been eliminated in the country, and antiretroviral therapy (ART) is provided free of charge for all diagnosed patients. These efforts have borne encouraging outcomes in terms of addressing the burden of HIV. A 2020 technical report by the Sri Lanka College of Sexual Health and HIV Medicine, for example, estimated a national HIV incidence rate of 0.01 per 1,000 uninfected individuals and a total population prevalence rate of 0.03% in 2019 (with the prevalence rate projected to reach 0.02% by 2025) (48).

In the *UHC 2023 GMR*, Sri Lanka scored 66 for the UHC SCI indicator on HIV antiretroviral therapy. This was based on the percentage of people living with HIV who are currently receiving antiretroviral therapy as reported by the National STD/AIDS Control Programme (NSACP) in 2021, which was 66.42% (49).

The annual reports of the NSACP provide a closer look at this improvement. As shown in Figure 14, Sri Lanka is gradually progressing on the UHC SCI indicator for HIV therapy, reaching 71.28% in 2023 (50). (The estimated number of people living with HIV receiving antiretroviral therapy is used as a proxy).



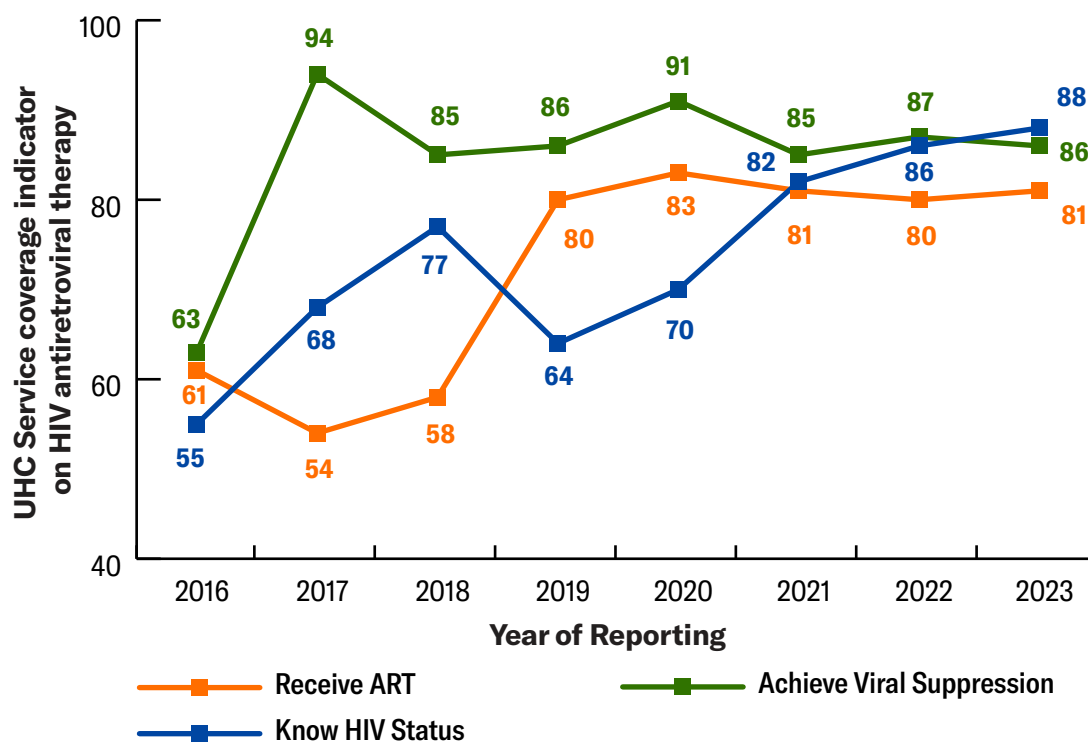
**Figure 14: UHC SCI on HIV therapy in Sri Lanka (2016-2023)**

Using percentage of estimated number of people living with HIV, receiving antiretroviral therapy as a proxy, from National STD/AIDS Control Programme data (51)

The GoSL has committed Sri Lanka to the goal of ending the AIDS epidemic by 2030. It also follows the 95-95-95 testing and treatment targets given by UNAIDS (52). The targets are:

1. 95% of all people living with HIV (PLHIV) know their HIV status.
2. 95% of all PLHIV who know their HIV status receive ART.
3. 95% of all people on ART achieve viral suppression.

Figure 15 shows the progress on the UNAIDS 95-95-95 indicators over eight years from 2016 to 2023, as reported by the NSACP in its annual reports.



**Figure 15: UNAIDS 95-95-95 indicator data (2016-2023) in Sri Lanka**

Source: National STD/AIDS Control Programme data (51)

As shown in Figure 15, the percentage of people living with HIV who know their HIV status has improved over the years; the latest figure (for 2023) was 88%. This indicator has a direct impact on the UHC indicator, as it is presumed that only people who know their status would proceed with ART.

The second indicator (namely, the percentage of people who know that they are HIV-positive should receive ART) has generally been in a plateau over the past four years. The reasons for this stagnancy in ART uptake should be further explored in order to improve the UHC SCI ART indicator score.

Finally, the third indicator (that is, the percentage of people who obtain ART treatment and are in viral suppression) indicates the *quality* of treatment received and *compliance* of the patients. (This can again be a proxy indicator of quality of health services received, including health education for the diagnosed patients in treatment.) This also has plateaued over the past three years and should likewise be addressed.

#### 4.3.2.b. Summary of ART Indicator Analysis

HIV prevalence in Sri Lanka is very low (<0.1%). Furthermore, the GoSL is providing ART free of charge to people living with HIV. Also, the NSACP is gradually targeting vulnerable populations and delivering appropriate HIV-related care. The combination of these factors is most likely a key driver for the gradual increase in ART coverage that has been observed in Sri Lanka over the years (in 2023 the coverage estimate was 71%, according to the NSACP). However, more work is needed to increase the UHC SCI ART score going forward, and this has implications for health service provision. Furthermore, efforts need to focus on the initiation of ART as well as on supporting patient compliance under treatment.

**Table 14: UHC SCI ART Indicator Scores for WHO SEAR countries and additional comparators**

Country	UHC SCI ART Indicator Score	Coverage Level
Sri Lanka	66	High
Sri Lanka (2023)*	71	High
Bangladesh	31	Low
Bhutan	42	Medium
Democratic People's Republic of Korea	18	Very Low
India	65	High
Indonesia	28	Low
Maldives	23	Low
Myanmar	70	High
Nepal	72	High
Thailand	≥80	Very High
Timor-Leste	55	Medium
<b>Additional comparator countries</b>		
Malaysia	55	Medium
Pakistan	14	Very Low
Singapore	80	Very High

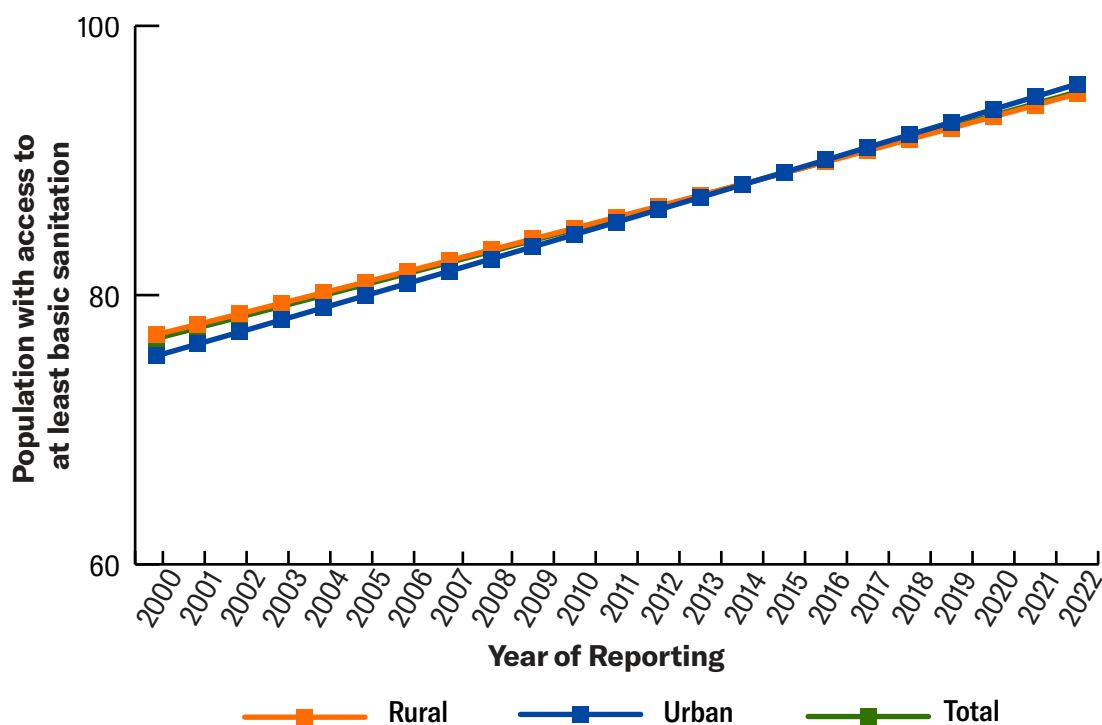
\*Using National STD/AIDS Control Programme data

Sources: UHC 2023 Global Monitoring Report (6) and National STD/AIDS Control Programme data (50)

### 4.3.3. Basic Sanitation (WASH)

#### 4.3.3.a. Analysis of the WASH Indicator

In the *UHC 2023 GMR*, Sri Lanka scored  $\geq 80$  for the indicator relating to the population with access to at least basic sanitation (6). Using data from the GHO, the population with access to at least basic sanitation from 2000 to 2022 are shown in Figure 16.



**Figure 16: Population with access to at least basic sanitation (percent) (2000–2022)**

Source: Global Health Observatory (53)

In 2000, the 77% of the population had access to at least basic sanitation, and by 2020 it had gradually risen to 95%. This improvement has been observed in both rural and urban areas.

Sri Lanka has, thus, made substantial progress regarding this indicator. However, it is vital that government efforts in relation to basic sanitation be sustained in order to maintain this achievement.

#### 4.3.3.b. Summary of WASH Indicator Analysis

Sri Lanka has achieved a very high coverage of access for basic sanitation facilities. This has gradually increased over the years, and in 2022 the coverage reached 95%. Efforts are needed to maintain this high level of accomplishment, especially as external factors (e.g., climate change, environmental tensions) may pose threats to water and sanitation services.

**Table 15: UHC SCI WASH Indicator Scores for WHO SEAR countries and additional comparators**

<b>Country</b>	<b>UHC SCI WASH Indicator Score</b>	<b>Coverage Level</b>
<b>Sri Lanka</b>	≥80	<b>Very High</b>
<b>Bangladesh</b>	59	<b>Medium</b>
<b>Bhutan</b>	78	<b>High</b>
<b>Democratic People's Republic of Korea</b>	≥80	<b>Very High</b>
<b>India</b>	74	<b>High</b>
<b>Indonesia</b>	≥80	<b>Very High</b>
<b>Maldives</b>	≥80	<b>Very High</b>
<b>Myanmar</b>	74	<b>High</b>
<b>Nepal</b>	≥80	<b>Very High</b>
<b>Thailand</b>	≥80	<b>Very High</b>
<b>Timor-Leste</b>	57	<b>Medium</b>
<b>Additional comparator countries</b>		
<b>Malaysia</b>	≥80	<b>Very High</b>
<b>Pakistan</b>	69	<b>High</b>
<b>Singapore</b>	≥80	<b>Very High</b>

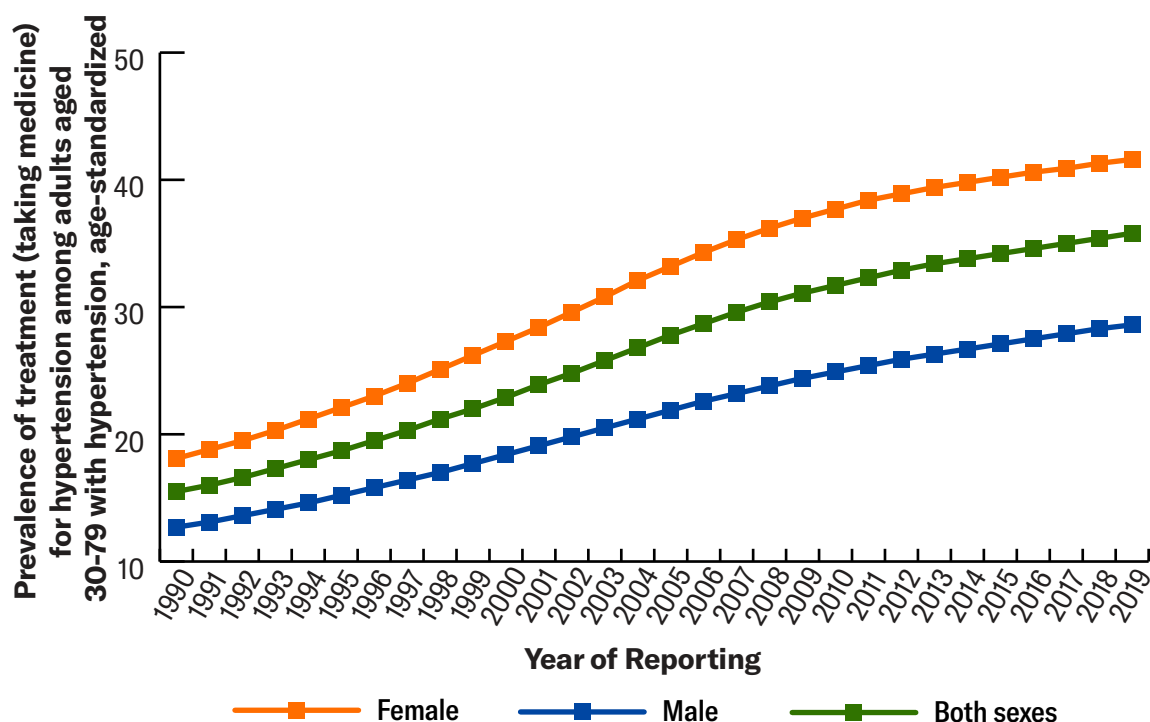
Source: UHC 2023 Global Monitoring Report (6)

## 4.4. Noncommunicable Diseases (NCDs)

### 4.4.1. Hypertension Treatment (HP)

#### 4.4.1.a. Analysis of the HP Indicator

The UHC indicator on the prevention of cardiovascular diseases is measured by the age-standardized prevalence of treatment for hypertension among adults aged 30 to 79 (6). Using data from the GHO, the age-standardized prevalence of treatment for hypertension in Sri Lanka is plotted against the respective years from 1990 to 2019 in Figure 17.



**Figure 17: Age-standardized prevalence of hypertension treatment in Sri Lanka (1990-2019)**

Source: Global Health Observatory (54)

The prevalence of treatment for hypertension among adult males, females and both sexes has improved somewhat over the years. However, by 2019 the prevalence of treatment for hypertension among both sexes was still only 35.8%. This closely approximates data from the *UHC 2023 GMR*, which reported an indicator score of 36 for Sri Lanka.

As part of the WHO *STEPwise approach to NCD risk factor surveillance*, the NCD Risk Factor Survey (STEPS) done in 2021 also measured the prevalence of treatment for hypertension among adults. The age of the participants in the STEPS survey was 18 to 69 years. The statistics for males, females and both sexes were 29%, 43% and 36%, respectively (55).

Though the service coverage for hypertension treatment has improved over the years, the achievement is far from the desirable level. It is also noteworthy that the hypertension treatment coverage of males is relatively low when compared to females (as observed in data from both the GHO and STEPS 2021 survey).

#### 4.4.1.b. Summary of HP Indicator Analysis

Although the UHC SCI HP indicator score is low, Sri Lanka is slowly improving on hypertension treatment coverage. The treatment coverage in females is higher than for males, showing a disparity of the available services between the genders. Urgent NCD prevention and control measures are needed to address this challenging area, as hypertension markedly increases cardiovascular-related morbidity and mortality at a population level.

**Table 16: UHC SCI HP Indicator Scores for WHO SEAR countries and additional comparators**

Country	UHC SCI HP Indicator Score	Coverage Level
Sri Lanka	36	Low
Bangladesh	38	Low
Bhutan	26	Low
Democratic People's Republic of Korea	43	Medium
India	30	Low
Indonesia	19	Very Low
Maldives	31	Low
Myanmar	34	Low
Nepal	19	Very Low
Thailand	44	Medium
Timor-Leste	24	Low
<b>Additional comparator countries</b>		
Malaysia	43	Medium
Pakistan	35	Low
Singapore	61	High

Source: UHC 2023 Global Monitoring Report (6)

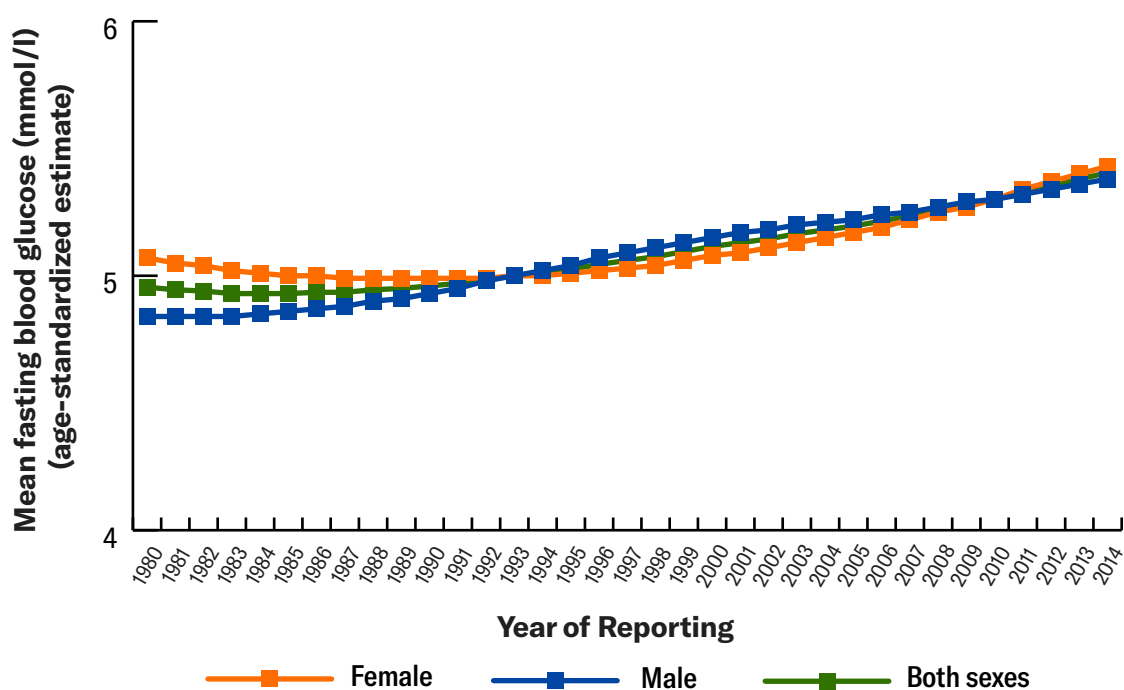
## 4.4.2. Diabetes Prevalence (Diab)

### 4.4.2.a. Analysis of the Diab Indicator

The UHC indicator on diabetes prevalence (Diab) is calculated by obtaining the mean fasting plasma glucose (which is a continuous measure in units of mmol/L). This is converted to a scale of 0 to 100 using the minimum theoretical biological risk (5.1 mmol/L) and observed maximum across countries (7.4 mmol/L). That is, the UHC indicator for diabetes prevalence is calculated using the following formula (6):

$$\text{Mean fasting plasma glucose: rescaled value} = \frac{(7.4 - \text{original value})}{(7.4 - 5.1) * 100}$$

According to GHO data, the age-standardized mean plasma glucose level in Sri Lanka was around 5.1 mmol/L between 1980 and 2000. From 2001 to 2014, however, this value increased gradually, as shown in Figure 18.



**Figure 18: Mean fasting glucose in Sri Lanka (1980-2014)**

Source: Global Health Observatory (56)

The 2015 and 2021 STEPS NCD Risk Factor Surveys for Sri Lanka also reported on the mean plasma glucose levels for males, females and both the sexes (aged 18 to 69), as shown in Table 17.

**Table 17: Mean fasting blood glucose in 2015 and 2021, including for people currently on medication for raised blood glucose**

Year	Mean plasma glucose level (mmol/L)*		
	Male	Female	Both sexes
2015	4.6	4.5	4.5
2021	5.7	5.8	5.8

\* mg/dL converted to mmol/L

Source: STEPS NCD Risk Factor Surveys (55, 57)

In the UHC 2023 GMR, Sri Lanka scored  $\geq 80$  for the Diab indicator (6). However, the mean fasting plasma glucose level for both sexes was reported to be 5.8 mmol/L in the 2021 NCD Risk Factor Survey (STEPS). Using the UHC SCI formula, this would equate to a score of around 70. Therefore, if the data from the 2021 STEPS Survey had been used, Sri Lanka would not have achieved  $\geq 80$  for the Diab indicator. The difference between this value and the UHC 2023 GMR score of  $\geq 80$  can be explained by the delay in publishing the STEPS 2021 report (and, as such, its omission from the UHC 2023 GMR calculation).

#### 4.4.2.b. Summary of Diab Indicator Analysis

As per the data reported by the GHO, Sri Lanka has—for several years—scored more than 80 for the indicator on service coverage for diabetes. However, the data show that the mean plasma glucose levels of Sri Lanka are gradually increasing, indicating poor performance regarding blood sugar control. The STEPS survey of Sri Lanka in 2021 revealed alarming results and suggested a score lower than 80 in recent years. Therefore, Sri Lanka needs to develop approaches for reversing the current upward trend (by, for example, focusing on diabetes control measures).

**Table 18: UHC SCI Diab Indicator Scores for WHO SEAR countries and additional comparators**

<b>Country</b>	<b>UHC SCI Diab Indicator Score</b>	<b>Coverage Level</b>
<b>Sri Lanka</b>	≥80	<b>Very High</b>
<b>Sri Lanka*</b>	70	<b>Good</b>
<b>Bangladesh</b>	69	<b>Good</b>
<b>Bhutan</b>	62	<b>Good</b>
<b>Democratic People's Republic of Korea</b>	≥80	<b>Very High</b>
<b>India</b>	≥80	<b>Very High</b>
<b>Indonesia</b>	≥80	<b>Very High</b>
<b>Maldives</b>	≥80	<b>Very High</b>
<b>Myanmar</b>	≥80	<b>Very High</b>
<b>Nepal</b>	≥80	<b>Very High</b>
<b>Thailand</b>	≥80	<b>Very High</b>
<b>Timor-Leste</b>	≥80	<b>Very High</b>
<b>Additional comparator countries</b>		
<b>Malaysia</b>	76	<b>High</b>
<b>Pakistan</b>	68	<b>High</b>
<b>Singapore</b>	≥80	<b>Very High</b>

\*Calculated for 2021 from the NCD Risk Factor Survey (STEPS) data—however, age standardization is needed for a more accurate figure

Sources: UHC 2023 Global Monitoring Report (6) and 2021 STEPS NCD Risk Factor Survey (55).

### 4.4.3. Tobacco control (Tobacco)

#### 4.4.3.a. Analysis of the Tobacco Indicator

Tobacco use is a health hazard that contributes to a range of adverse outcomes at individual and population levels. This not only includes a myriad of illnesses (such as cancers and chronic respiratory diseases) but also considerable socioeconomic and environmental consequences (58). In light of this, WHO and its member countries have implemented different strategies to reduce the tobacco consumption.

“Tobacco non-use” is an important component of the NCD subsection of the UHC SCI and contributes significantly to the total UHC SCI score (6). This component not only pertains to health impact but also relates to tobacco preventive strategies involving economic, social and cultural factors. The UHC SCI measures this component by obtaining data on the age-standardized prevalence of tobacco use (whether on a daily or non-daily basis) among persons 15 years and older; this includes the use of smoked or smokeless tobacco products (18). The prevalence of tobacco use is then converted into prevalence of tobacco non-use and rescaled, allowing for a value to be captured on a scale from 0 to 100 (6).

WHO estimates revised in 2021 were the main source of tobacco-related data in the *UHC 2021 GMR* (6). For the *UHC 2023 GMR*, data came from estimates supplied by the WHO Tobacco Free Initiative (TFI) (2023 revision), published by the GHO (59).

With regard to age-standardized prevalence of tobacco use, Table 19 below provides comparisons between Sri Lanka and a number of selected countries.

**Table 19. Age-standardized prevalence of current tobacco use among people aged 15 years and older (percent) in selected countries**

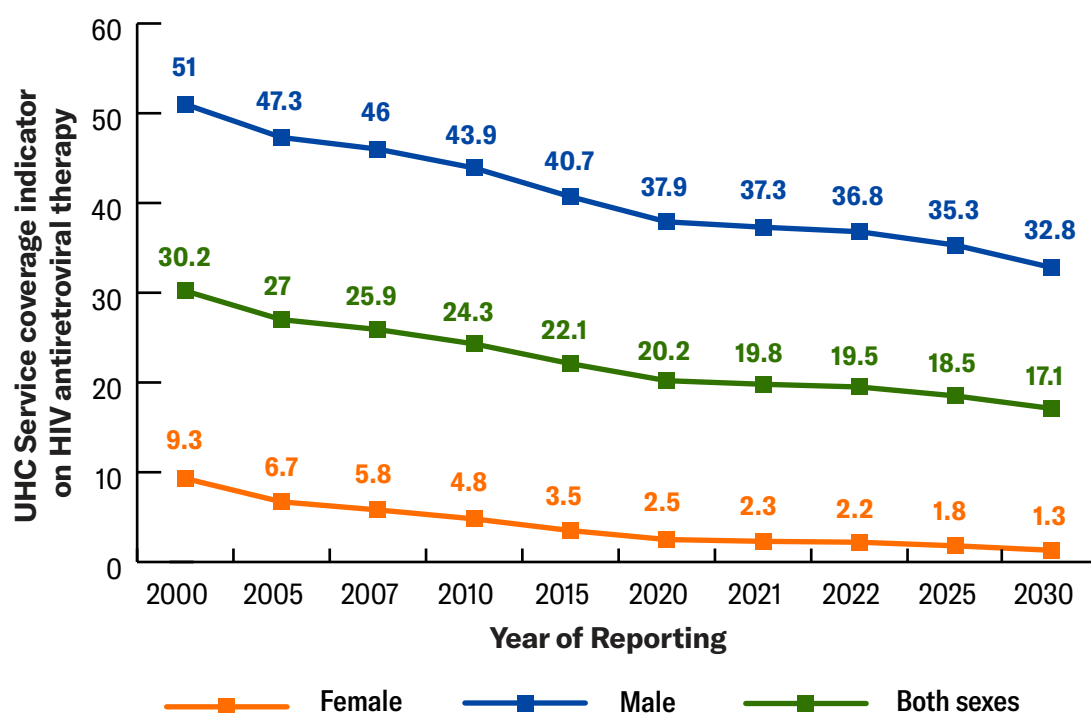
		2000	2010	2020	Comments
<b>India</b>	Male	70.8 [57.2-84.4]	53.9 [44.4-63.5]	40.0 [32.6-47.4]	
	Female	40.8 [32.3-49.4]	22.6 [18.5-26.7]	12.2 [9.9-14.5]	
	Both Sexes	55.8 [44.7-66.9]	38.3 [31.4-45.1]	26.1 [21.2-31.0]	
<b>Sri Lanka</b>	Male	51.0 [40.8-61.3]	43.9 [34.3-53.5]	37.9 [28.2-47.7]	The most recent survey was conducted in 2019-20.
	Female	9.3 [6.2-12.4]	4.8 [3.5-6.1]	2.5 [1.6-3.4]	
	Both Sexes	30.2 [23.5-36.9]	24.3 [18.9-29.8]	20.2 [14.9-25.5]	
<b>Pakistan</b>	Male	57.9 [44.1-71.8]	43.5 [35.2-51.8]	32.8 [25.1-40.5]	The most recent survey was conducted in 2017-18. This is a projection.
	Female	20.6 [14.1-27.1]	12.5 [9.2-15.8]	7.7 [5.5-9.9]	
	Both Sexes	39.3 [29.1-49.4]	28.0 [22.2-33.8]	20.2 [15.3-25.2]	
<b>Thailand</b>	Male	49.2 [39.9-58.6]	43.0 [36.4-49.6]	37.8 [30.7-44.8]	Tobacco use estimates are not available. Tobacco smoking estimates are substituted for missing tobacco use estimates.
	Female	3.2 [2.5-3.9]	2.2 [1.9-2.6]	1.6 [1.3-1.9]	
	Both Sexes	26.2 [21.2-31.2]	22.6 [19.1-26.1]	19.7 [16.0-23.3]	
<b>United States</b>	Male	37.8 [30.4-45.3]	33.8 [27.7-40.0]	30.6 [24.0-37.2]	
	Female	25.3 [21.1-29.4]	21.9 [18.0-25.9]	19.3 [15.2-23.3]	
	Both Sexes	31.5 [25.7-37.3]	27.9 [22.8-32.9]	24.9 [19.6-30.2]	

**ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE**

		2000	2010	2020	Comments
<b>Japan</b>	Male	52.4 [44.0-60.9]	39.8 [33.8-45.8]	30.3 [24.3-36.4]	Tobacco use estimates are not available. Tobacco smoking estimates are substituted for missing tobacco use estimates. The most recent survey was conducted in 2019.
	Female	14.7 [12.4-17.0]	12.0 [10.1-14.0]	10.0 [8.3-11.7]	
	Both Sexes	33.6 [28.2-38.9]	25.9 [21.9-29.9]	20.2 [16.3-24.1]	
<b>Malaysia</b>	Male	56.3 [42.9-69.7]	49.8 [40.8-58.8]	44.3 [34.2-54.3]	The most recent survey was conducted in 2019.
	Female	5.4 [3.6-7.1]	2.2 [1.6-2.7]	0.9 [0.6-1.2]	
	Both Sexes	30.8 [23.3-38.4]	26.0 [21.2-30.8]	22.6 [17.4-27.8]	
<b>Singapore</b>	Male	28.1 [22.6-33.6]	28.0 [22.5-33.5]	27.7 [19.6-35.9]	Tobacco use estimates are not available. Tobacco smoking estimates are substituted for missing tobacco use estimates. The most recent survey was conducted in 2019.
	Female	5.8 [4.5-7.0]	5.3 [4.2-6.4]	4.9 [3.3-6.6]	
	Both Sexes	16.9 [13.6-20.3]	16.6 [13.3-20.0]	16.3 [11.5-21.2]	
<b>Bangladesh</b>	Male	67.5 [54.5-80.6]	59.2 [50.0-68.3]	51.7 [41.7-61.7]	The most recent survey was conducted in 2018.
	Female	48.6 [38.8-58.4]	29.2 [23.6-34.8]	17.1 [12.7-21.4]	
	Both Sexes	58.1 [46.7-69.5]	44.2 [36.8-51.6]	34.4 [27.2-41.6]	
<b>Costa Rica</b>	Male	25.1 [18.4-31.9]	18.7 [15.0-22.4]	13.9 [10.4-17.5]	The most recent survey was conducted in 2015.
	Female	9.5 [6.9-12.1]	6.8 [5.4-8.1]	4.9 [3.4-6.3]	
	Both Sexes	17.3 [12.6-22.0]	12.7 [10.2-15.2]	9.4 [6.9-11.9]	

Source: Global Health Observatory (59)

Figure 19 details changes in the prevalence of tobacco use in Sri Lanka using retrospective data from 2000 to 2020, and then projections from 2020 to 2030. It is important to note that the most recent survey was conducted in 2019-20; other values are projections.



**Figure 19: Age-standardized prevalence of current tobacco use among people aged 15 and up, (percent) in Sri Lanka**

[Source: Global Health Observatory (59)]

As can be seen in Figure 19, Sri Lanka has a relatively low age-standardized prevalence of tobacco use (for age 15 and above) compared to other countries in the region, as well as to countries of similar socio-economic levels. An important factor related to this is the lower tobacco use prevalence among females. Furthermore, there was a downward trend from 2000 onwards which is projected to continue to 2030 for both sexes. It should be noted that there are limitations in terms of data quantity, due to the lack of frequent household surveys. Data quality may also be affected by possible poor response rates (for example, from females and teenagers) as a result of social stigma and other cultural factors.

Sri Lanka has implemented various tobacco control measures, including a strong policy framework, taxation related to tobacco products, health warnings on packaging, advertising bans and smoke-free public places.

Despite cultural and religious restrictions on tobacco, Sri Lanka had a relatively high tobacco use prevalence in 2000. Against that background, Sri Lanka ratified the WHO Framework Convention on Tobacco Control in 2003, becoming the first country in the South Asian region and the fourth country in the world to join the convention (60).

Since the WHO framework was introduced, new regulatory action has been undertaken to reduce the use of tobacco. The National Authority on Tobacco and Alcohol (NATA) Act of 2006 is the primary law governing tobacco control, and the establishment of NATA was one of the key initiatives developed to control tobacco use in Sri Lanka (61). Legal provisions have allowed for the introduction of smoke-free environments (this includes most public places, including healthcare facilities, educational institutions, and public transportation). Advertising and promotion restrictions are in place, such as a complete ban on tobacco advertising, promotion and sponsorship, and restrictions on point-of-sale display of tobacco products have been imposed. Furthermore, pictorial health warnings covering 80% of cigarette packs were introduced in Sri Lanka in 2015 (62).

Taxing tobacco products has been instrumental in controlling tobacco use. High tobacco taxes are used as a deterrent, and tax increases have been added periodically to reduce affordability. Furthermore, sale of tobacco products to minors under 21 is prohibited by law in Sri Lanka, and vending machine sales are banned. Additionally, government-sponsored smoking cessation programmes have been introduced in an effort to reduce tobacco use (63). The GoSL has also initiated programmes to support tobacco farmers and their families to transition to other crops and reduce the domestic production of tobacco (64).

Despite these government efforts, ever-evolving tobacco-product advertising has become a constant challenge to tobacco control measures. The fast-growing popularity of vaping, e-cigarettes and other nonconventional smoking and tobacco products have also impeded efforts to reduce tobacco use.

### **4.4.3.b. Summary of Tobacco Indicator Analysis**

Sri Lanka has made significant strides in relation to the UHC SCI Tobacco Indicator through concerted efforts, including joining the WHO Framework Convention on Tobacco Control and establishing NATA. However, further enhancement of the control of tobacco products will require more multisectoral collaboration involving a range of stakeholders (including representatives from education, the finance sector, media, sports and youth) as well as the involvement of religious and cultural role players. Indeed, the goal of further reducing the prevalence of tobacco use in Sri Lanka cannot rest on health authorities alone but will necessitate a “whole of society” approach.

**Table 20: UHC SCI Tobacco Indicator Scores for WHO SEAR countries and additional comparators**

<b>Country</b>	<b>UHC SCI Tobacco Indicator Score</b>	<b>Coverage Level</b>
Sri Lanka	69	High
Bangladesh	50	Medium
Bhutan	65	High
Democratic People's Republic of Korea	75	High
India	61	High
Indonesia	46	Medium
Maldives	64	High
Myanmar	37	Low
Nepal	57	Medium
Thailand	≥80	Very High
Timor-Leste	52	Medium
Additional comparator countries		
Malaysia	68	High
Pakistan	71	High
Singapore	76	High

Source: UHC 2023 Global Monitoring Report (6)

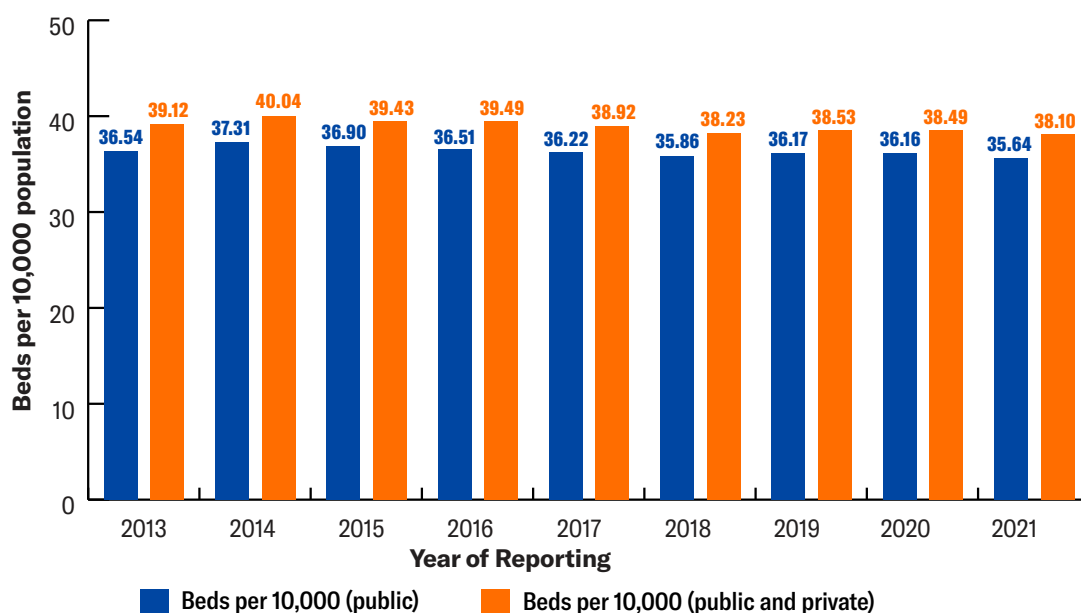
## 4.5. Service capacity and access (Capacity)

### 4.5.1. Hospital bed density (Hospital)

#### 4.5.1.a. Analysis of the Hospital Indicator

Hospital bed density is an important metric in assessing a country's healthcare infrastructure and capacity. Moreover, it serves as a proxy for service capacity and access, reflecting the availability of inpatient services. This UHC SCI tracer indicator is expressed as the number of beds per 10,000 population and is calculated against a threshold value of 18 beds per 10,000 population (45). The data for this indicator generally come from the facilities themselves.

Hospital bed density ratio can be calculated using hospital bed data from the Medical Statistics Unit of the Ministry of Health, plus midyear population data from the Department of Census and Statistics. Trends from 2013 to 2022 are shown in Figure 20. As can be seen from the data, Sri Lanka has far exceeded the threshold value of 18 per 10,000 population.



**Figure 20: Sri Lanka's hospital bed density (2013-2022)**

Calculated by the UHC Policy Analysis Team using data from the Medical Statistics Unit of the Ministry of Health and the Department of Census and Statistics

In terms of international comparisons, and for reference purposes, Table 21 measures Sri Lanka's performance in this indicator against a number of selected countries.

**Table 21: Bed Density per 10,000 population**

Country	2001	2010	2020-2021
<b>Bangladesh</b>	N/A	5.5	8.8 (2019)
<b>Costa Rica</b>	15.66	12.1	11.8 (2021)
<b>India</b>	20.9	18.2	16 (2021)
<b>Japan</b>	146.1	135.1	127.2 (2020)
<b>Malaysia</b>	20.13	19.1	20.1 (2021)
<b>Pakistan</b>	5.05	4.4	5.14 (2019)
<b>Singapore</b>	N/A	21.5	26.48 (2021)
<b>Sri Lanka</b>	31.32	35.1	40.2 (2020)
<b>Thailand</b>	21.63	19.6	23.4 (2021)
<b>United States</b>	34.59	30.3	27.4 (2020)

Source: Global Health Observatory (65)

Sri Lanka's hospital bed density is relatively high compared to many of its regional neighbours, and even to some developed countries. This reflects the country's long-standing efforts to make healthcare services accessible to its population.

This has a number of implications for UHC policy implementation. Firstly, the relatively high bed density suggests good physical access to inpatient care for the Sri Lankan population. Second, it implies that the country's healthcare infrastructure can handle significant patient loads. Finally, a higher bed density can be crucial during health crises (as seen, for example, during the COVID-19 pandemic) and thus reflects a relatively robust level of emergency preparedness.

The above notwithstanding, there are still some significant challenges and considerations related to this indicator, as discussed below.

- 1. Distribution:** While overall density is good, there may be disparities between urban and rural areas that are not reflected in the national average.
- 2. Quality of care:** Bed density alone doesn't indicate the quality of care provided. It is also important to consider factors like staffing levels, equipment availability and healthcare outcomes.
- 3. Efficiency:** High bed density could potentially lead to inefficiencies if occupancy rates are low. It is important to balance capacity with utilization.
- 4. Type of care:** The figures don't differentiate between acute care, long-term care, and specialized care beds. A more detailed breakdown would provide a clearer picture of the healthcare system's capacity.
- 5. Future needs:** As the population ages and the NCD burden increases, the types of beds needed may change, requiring adaptations in the healthcare system with greater emphasis on more day procedures, palliative care and rehabilitative care.

#### 4.5.1.b. Summary of Hospital Indicator Analysis

Sri Lanka's hospital bed density is high (substantially above the benchmark of 18 beds per 10,000 population). This reflects the GoSL's commitment to providing accessible healthcare services. However, challenges remain in terms of distribution, quality and efficiency. Further, more detail is needed in terms of monitoring distribution by hospital bed type. Finally, health service planning and preparation is required in relation to the high probability of increasing in-hospital needs for chronic disease care.

**Table 22: UHC SCI Hospital Indicator Scores for WHO SEAR countries and additional comparators**

Country	UHC SCI Hospital Indicator Score	Coverage Level
Sri Lanka	≥80	Very High
Bangladesh	49	Medium
Bhutan	≥80	Very High
Democratic People's Republic of Korea	≥80	Very High
India	≥80	Very High
Indonesia	75	High
Maldives	≥80	Very High
Myanmar	33	Low
Nepal	22	Low
Thailand	≥80	Very High
Timor-Leste	≥80	Very High
<b>Additional comparator countries</b>		
Malaysia	≥80	Very High
Pakistan	29	Low
Singapore	≥80	Very High

Source: UHC 2023 Global Monitoring Report (6)

## 4.5.2. Health Workforce (HWF)

### 4.5.2.a. Analysis of the HWF Indicator

A health workforce with an appropriate skill mix is key to achieving UHC. The health workforce of Sri Lanka is characterized by a blend of public and private sector professionals, with a strong emphasis on primary care.

The public health sector is predominantly managed by the GoSL, with the Ministry of Health overseeing its operation. Sri Lanka's health sector is predominantly female (64% versus 36% male), with most workers in the 25-34 year age group (66). The health workforce is categorized into various groups, reflecting the diverse roles and specialisations within the sector.

According to available data, 276 categories of health personnel exist in the public sector (67). These categories encompass a wide range of health professionals (including doctors, nurses, midwives, and various allied health workers), with each playing a critical role in the healthcare system. The distribution and categorization of these workers are essential for effective health planning and for addressing the workforce needs in Sri Lanka, particularly as the country faces evolving health challenges. In contrast to the public sector, the private sector health workforce mainly consists of medical officers who engage in dual practice, a limited number of full-time general practitioners, and a few retired medical officers, nurses and nurse assistants (66).

Only selected health workforce statistics have been considered in estimating the UHC SCI health workforce (HWF) indicator. More specifically, health workforce density is determined by using data on the numbers of *physicians, psychiatrists* and *surgeons*, according to the *UHC 2023 GMR* (6).

For this report, the cadre-specific indicator has been calculated according to a standard formula. In addition, as a final step, the geometric mean of each cadre-specific indicator value is computed to obtain the final indicator of the health workforce density using data from the Medical Statistics Unit of the Ministry of Health (the HWF indicator calculation methodology is provided in Appendix 3).

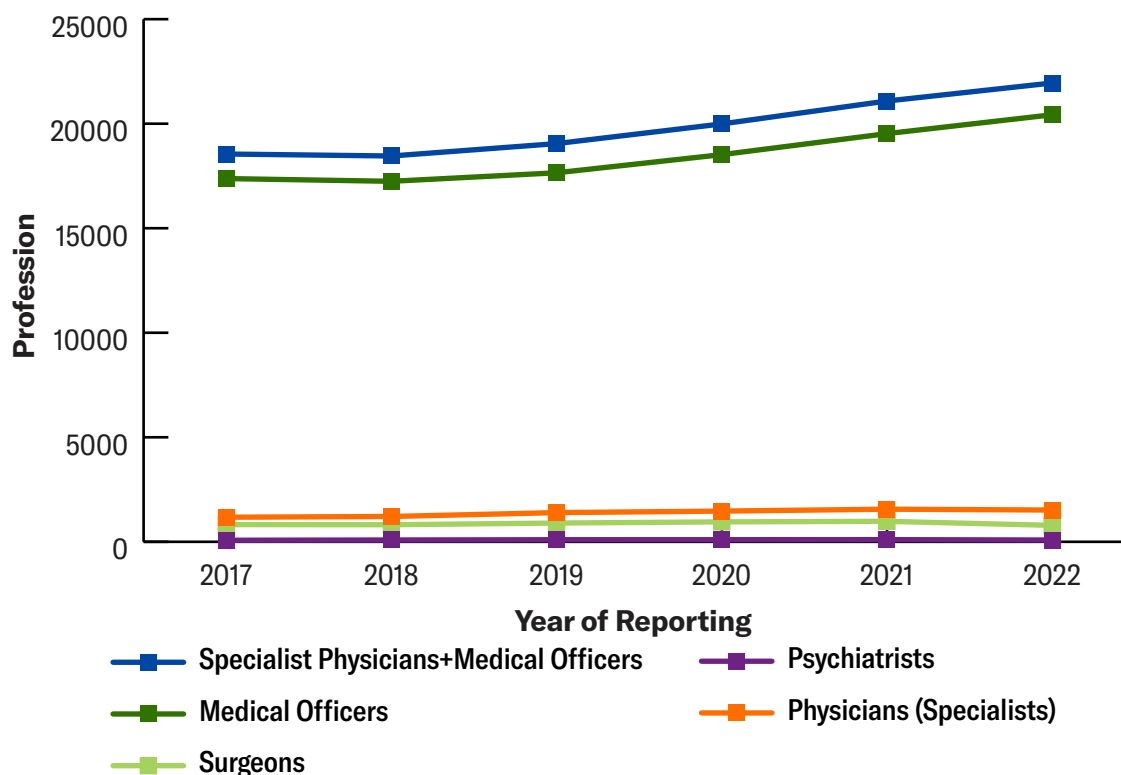
Table 23 shows the distribution of relevant medical professionals by category in Sri Lanka from 2017 to 2022, used to calculate the HWF indicator.

**Table 23. Distribution by HWF category**

Category/Year	2017	2018	2019	2020	2021	2022
<b>Physicians (specialists)</b>	1,175	1,211	1,396	1,469	1,560	1,520
<b>Psychiatrists</b>	75	87	100	101	104	86
<b>Surgeons</b>	822	816	896	954	980	786
<b>Medical Officers</b>	17,375	17,244	17,652	18,520	19,525	20,426
<b>Specialists Physicians + Medical Officers</b>	18,550	18,455	19,048	19,989	21,085	21,946

Source: Medical Statistics Unit of the Ministry of Health

As can be seen in Table 23, the vast majority of medical professionals can be found in the category of “medical officers.” This is graphically demonstrated again in Figure 21.



**Figure 21: Distribution of medical professionals related to the HWF indicator, Sri Lanka**

Source: Medical Statistics Unit of the Ministry of Health

For the calculation of the HWF indicator the following definitions were considered by the UHC Policy Analysis Team (the medical categories were defined in the local context by referring to the 2023 OECD health statistics) (68):

1. Physicians = Specialists in medical disciplines + all other medical officers
2. Psychiatrists = All specialist psychiatrists
3. Surgeons = All specialists in surgical disciplines

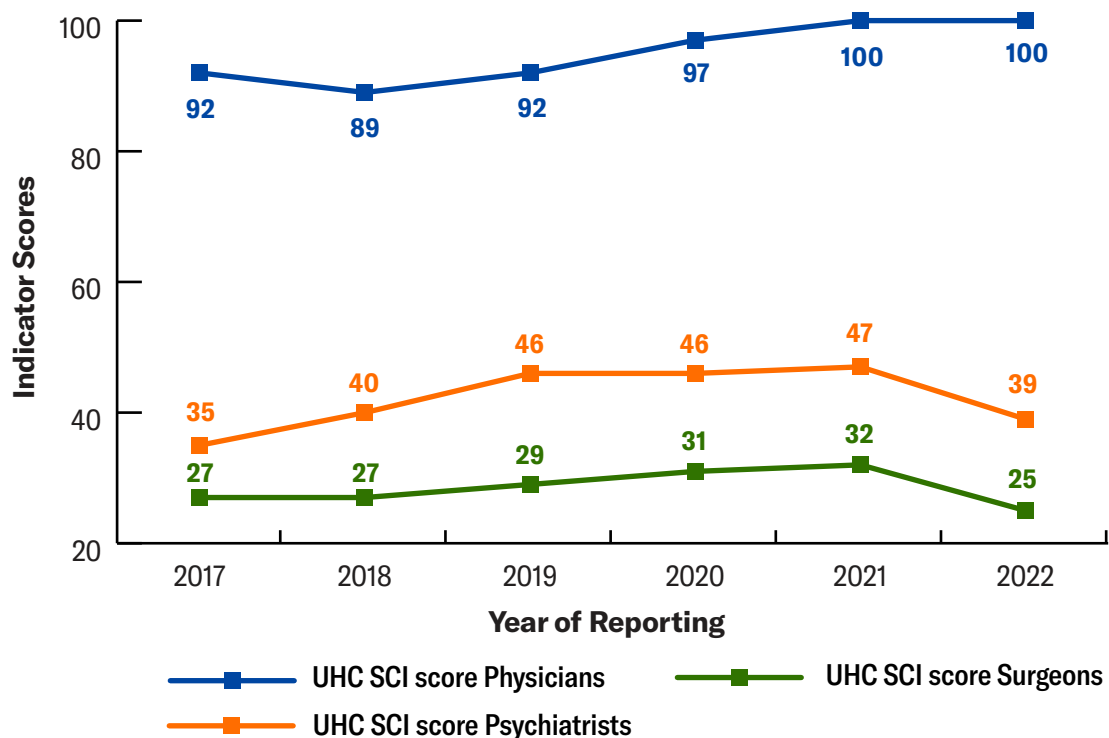
Full-time private medical practitioners were not included, and neither were administrative-grade medical officers. This was because there is no definite data on the numbers of full-time private practitioners, and the doctors in medical administrative roles are not involved in active clinical practice. Table 24 and Figure 22 show the distribution of the cadre-specific indicator data, using the categorisations described above and the data collected from the Medical Statistics Unit and the Census and Statistics Department of GoSL.

**Table 24. UHC cadre-specific (tracer) HWF indicator scores**

Per Capita Value	2017	2018	2019	2020	2021	2022
<b>Psychiatrists (per 100,000 population)</b>						
Psychiatry	0.35	0.40	0.46	0.46	0.47	0.39
UHC SCI score subcomponent	35	40	46	46	47	39
<b>Physicians (per 1,000 population)</b>						
Specialist Physicians	0.05	0.06	0.06	0.07	0.07	0.07
Medical Officers	0.78	0.75	0.76	0.80	0.83	0.87
Specialist Physicians + Medical Officers	0.83	0.80	0.83	0.87	0.90	0.94
UHC SCI score subcomponent	92	89	92	97	100	100
<b>Surgeons (per 100,000 population)</b>						
Consultant Surgeons	3.83	3.77	4.11	4.35	4.42	3.54
UHC SCI score subcomponent	27	27	29	31	32	25
<b>Overall Workforce Score</b>						
Annual HWF UHC SCI Score as calculated by the UHC Policy Analysis Team*	45	46	50	52	53	46

\*Please note that the differences between these values and the HWF indicator scores reflected in the Global Monitoring Reports is due to the input and methodology used by the UHC Policy Analysis Team, as described in Appendix 3.

Source: Compiled by the UHC Policy Analysis Team using data from the Medical Statistics Unit of the Ministry of Health and midyear population data from the Department of Census and Statistics

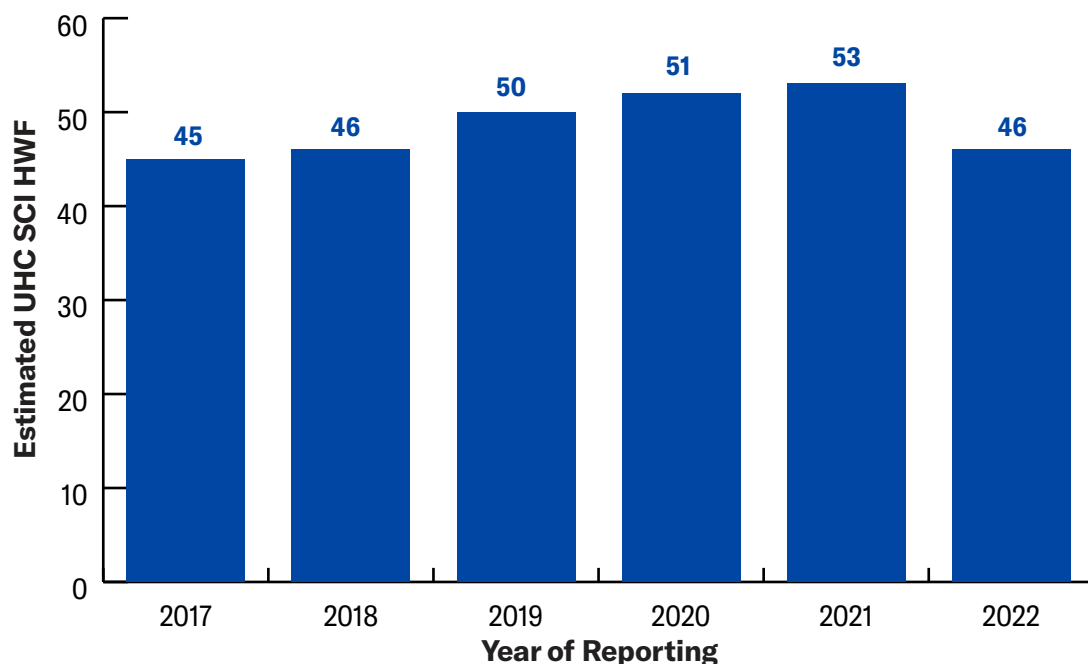


**Figure 22: UHC cadre-specific (tracer) HWF indicator scores**

Source: Compiled by the UHC Policy Analysis Team using data from the Medical Statistics Unit of the Ministry of Health

Sri Lanka produces a consistent number of medical officers through the state medical faculties and absorbs them into the public health sector annually. In addition to this, a considerable number of foreign medical graduates are also absorbed into the health system. Therefore, the number of medical officers in the “physicians” category shows a consistent increase, with the tracer indicator achieving 100 by 2021.

Figure 23 provides data on the UHC SCI HWF tracer indicator using data that the UHC Policy Analysis Team collected and analysed.



**Figure 23: Estimated UHC SCI HWF tracer indicator scores (2017-2022)**

Source: Compiled by the UHC Policy Analysis Team using data from the Medical Statistics Unit of the Ministry of Health

It has been observed that a certain percentage of specialist medical officers migrated out of Sri Lanka even during the pre-COVID-19 era (5, 69). However, after the COVID-19 period and with the economic downturn in the country, a significant number of doctors left the country, increasing the number of poorly staffed medical services, especially in rural areas (5, 70). There also appears to be a differential impact of diminishing medical personnel. As can be seen in Table 25, psychiatrists and surgeons are specialist categories with relatively low numbers (and therefore are in high demand). The numbers in both of these categories were slowly but steadily increasing until 2021 but then dropped precipitously in 2022.

The migration of health workers from Sri Lanka has been significantly influenced by a combination of economic, professional, personal and governmental factors; these are described in Table 25.

**Table 25: Factors influencing migration of health care workers from Sri Lanka**

<p><b>A. Economic Factors</b></p> <p><b>Economic instability:</b> The severe economic crisis in Sri Lanka has created a challenging environment for health workers, prompting many to seek better opportunities abroad. Reports indicate that more than 600 doctors left the country in 2022 alone, with many more seeking to migrate due to the lack of basic necessities like food, fuel, and medicine (70).</p> <p><b>Higher Wages Abroad:</b> One of the primary motivators for migration is the prospect of higher salaries. Health workers often find that even average wages in destination countries provide a better standard of living compared to what they can earn in Sri Lanka. This financial incentive is particularly compelling for those in the public health sector, where wages are often insufficient to meet living costs (66, 71).</p>	<p><b>B. Government Policies</b></p> <p><b>Extended foreign leave policies:</b> The GoSL has also influenced migration patterns through its policies. This includes the government's decision in 2021 to relax the foreign leave policy, encouraging skilled workers to replenish the foreign reserves by offering better pay in that sector (66). Initiatives that have allowed public sector doctors to take extended leaves for foreign employment, coupled with efforts to promote overseas job opportunities, have also aimed to alleviate the public sector wage burden while increasing remittances to the country. (However, this approach has most likely resulted in a shift towards even greater migration numbers) (70, 72).</p>
<p><b>C. Professional Factors</b></p> <p><b>Lack of decent work conditions:</b> Beyond financial reasons, many health workers cite poor working conditions as a significant factor influencing their decision to migrate. Issues such as staff shortages, long working hours, high volume of work and inadequate support systems contribute to a challenging work environment that drives health professionals to seek opportunities elsewhere (71).</p> <p><b>Career development opportunities:</b> Health workers are also motivated by the potential for professional growth and training opportunities available in other countries. Many specialists leave for postgraduate training abroad (which can enhance their skills and career prospects), further encouraging them to settle in those countries (73).</p>	<p><b>D. Personal Factors</b></p> <p><b>Family and cultural expectations:</b> Cultural factors play a role in migration decisions as well. Many health workers feel a responsibility to provide for their families, and the financial stability gained from working abroad allows them to support not just their immediate family but also extended relatives and communities back home (71).</p> <p><b>Quality of life:</b> The desire for a better quality of life is a recurring theme among migrants. Many health workers express dissatisfaction with the living conditions in Sri Lanka, including the pressures of working in rural areas without adequate resources (such as lack of decent quarters and lack of facilities for families like good schools for children), which can lead to burnout and a desire to relocate (66).</p>

Overall, the migration of health workers from Sri Lanka is driven by a complex interplay of economic, professional and personal factors, compounded by the current economic crisis. Addressing these issues is crucial for retaining skilled professionals and, ultimately, improving the overall capacity of the health sector. One of the further benefits of this would be an increase in Sri Lanka's UHC SCI HWF indicator score.

### **4.5.2.b. Summary of HWF Indicator Analysis**

Sri Lanka has made a significant attempt to expand its health workforce, with initiatives aimed at increasing the number of healthcare professionals and improving their distribution across urban and rural areas. Despite these efforts, challenges persist. There are ongoing issues related to workforce shortages, particularly in remote areas, and uneven distribution of healthcare professionals. A major contributor to these challenges has been the emigration of medical personnel, driven by a complex combination of factors (and exacerbated by the economic crisis). The health workforce thus is diminishing even as it faces pressure from a growing population and increasing demands for services and service quality.

To address these challenges, policymakers need to focus on enhancing training programs, improving working conditions and implementing policies to attract and retain healthcare workers. Strengthening the health workforce is crucial for maintaining and advancing the quality of healthcare services and achieving better health outcomes for the population.

**Table 26: UHC SCI HWF Indicator Scores for WHO SEAR countries and additional comparators**

<b>Country</b>	<b>UHC SCI HWF Indicator Score</b>	<b>Coverage Level</b>
<b>Sri Lanka</b>	44	<b>Medium</b>
<b>Sri Lanka (2022)*</b>	46	<b>Medium</b>
<b>Bangladesh</b>	26	<b>Low</b>
<b>Bhutan</b>	35	<b>Low</b>
<b>Democratic People's Republic of Korea</b>	≥80	<b>Very High</b>
<b>India</b>	35	<b>Low</b>
<b>Indonesia</b>	34	<b>Low</b>
<b>Maldives</b>	≥80	<b>Very High</b>
<b>Myanmar</b>	33	<b>Low</b>
<b>Nepal</b>	54	<b>Medium</b>
<b>Thailand</b>	≥80	<b>Very High</b>
<b>Timor-Leste</b>	54	<b>Medium</b>
<b>Additional comparator countries</b>		
<b>Malaysia</b>	≥80	<b>Very High</b>
<b>Pakistan</b>	22	<b>Low</b>
<b>Singapore</b>	≥80	<b>Very High</b>

*\*Data collected and analysed by the UHC Policy Analysis Team*

Sources: UHC 2023 Global Monitoring Report (6) with additional data obtained by the UHC Policy Analysis Team

### 4.5.3. International Health Regulations (IHR)

#### 4.5.3.a. Analysis of the IHR Indicator

The International Health Regulations (IHR), adopted by the World Health Assembly in 2005, represent a legally binding framework aimed at preventing and controlling the international spread of diseases. The regulations apply to all 196 countries, including 194 WHO member states (74). They emphasize the need for countries to enhance their capabilities to detect, assess, report and respond to public health emergencies of international concern (75).

The IHRs play a crucial role in global health security, particularly in the context of increased international travel and trade, which can potentially facilitate the rapid spread of infectious diseases. Recent communicable disease crises, such as the COVID-19 pandemic, have highlighted the necessity of a coordinated, international response to health threats, reinforcing the relevance of the IHR in today's interconnected world.

The IHRs are comprehensive, covering all health risks (not just specific diseases), and require countries to develop core capacities for surveillance and response at local, national and international levels. Under IHR, countries must fulfil the requirements listed in Table 27.

**Table 27: International Health Regulations: requirements for countries**

Requirement	Description
<b>Detect</b>	Establish robust surveillance systems to identify potential health threats.
<b>Assess</b>	Collaborate with other nations to evaluate public health emergencies.
<b>Report</b>	Notify WHO of specific diseases and any public health emergencies within set time frames.
<b>Respond</b>	Implement measures at points of entry (ports, airports and ground crossings) to manage health risks and prevent diseases from spreading.

Source: U.S. Centers for Disease Control and Prevention (76)

The IHRs serve as a vital instrument for international health collaboration, aiming to mitigate the global public health risk of the spread of diseases and balancing this with the facilitation of global trade and travel.

The IHR Core Capacity Index serves as the UHC SCI tracer indicator for health security. This index is calculated by taking the average percentage of attributes of all core capacities that have been attained at a specific point in time (77).

The IHR core capacities are those required to detect, assess, notify and report events (as described in Table 27), and respond to public health risks and emergencies of national and international concern, as stipulated in Articles 5 and 13, and in Annex 1, of the Regulations (78).

Countries use the State Parties Self-Assessment Annual Reporting (SPAR) tool to report the percentage scores of core capacities. In the first edition of the SPAR tool, there were 13 core capacities that expanded to 15 in the second edition (79-81), as listed in Table 28.

**Table 28: 15 Core Capacities (State Parties Self-Assessment Annual Reporting)**

- |  |  |
|--|--|
| <b>1.</b> Policy, legal and normative instruments to implement IHR | <b>8.</b> Health service provision                     |
| <b>2.</b> IHR coordination and national focal point functions      | <b>9.</b> Infection prevention and control             |
| <b>3.</b> Financing  | <b>10.</b> Risk communication and community engagement |
| <b>4.</b> Laboratory   | <b>11.</b> Points of entry and border health           |
| <b>5.</b> Surveillance   | <b>12.</b> Zoonotic diseases                           |
| <b>6.</b> Human resources  | <b>13.</b> Food safety                                 |
| <b>7.</b> Health emergency management                              | <b>14.</b> Chemical event                              |
|  | <b>15.</b> Radiation emergencies                       |

Source: State Party Self-Assessment Annual Reporting Tool of WHO (81)

Both SPAR questionnaires (first and second editions) use a five-level scoring system, with indicators based on five cumulative levels to measure the implementation status for each capacity. For each indicator, the reporting State Party is asked to select which of the five levels best describes its current status. To move to the next level, all capacities described in previous levels should be in place for each indicator (77).

From 2010 to 2017, WHO member states used the IHR monitoring questionnaire to report data. The questionnaire was divided into 13 sections—one for each of eight core capacities, a section on Point of Entry (PoE), and four sections relating to hazards (viz. zoonotic events, food safety, chemical events and radio nuclear emergencies) (79). This was replaced by the SPAR tool, the first edition of which was published in July 2018. The first edition was used from 2018 to 2020 to report data. The second edition of the SPAR questionnaire has been used from 2021 to date to report on IHR data. Therefore, there are three datasets based on the different tools to collect IHR data since 2010.

Sri Lanka's performance regarding IHR has been analysed through various evaluations and assessments (with the COVID-19 pandemic underscoring the importance of such analysis). The following table describes the performance of IHR implementation from 2018 to 2023 (based on SPAR data).

**Table 29: IHR performance in Sri Lanka, 2018-2023**

	2018	2019	2020	2021	2022	2023
<b>All capacities average</b>	<b>46</b>	<b>54</b>	<b>62</b>	<b>64</b>	<b>66</b>	<b>71</b>
<b>C1 Legislation and Financing (SPAR 1<sup>st</sup>) – 2018 to 2020 C1 Policy, legal and normative instruments to implement IHR (SPAR 2<sup>nd</sup>)</b>	60	67	73	40	40	40
<b>C2 IHR coordination, national IHR focal point functions and advocacy</b>	40	60	90	80	80	80
<b>C3 Financing</b>				50	50	50
<b>C4 Laboratory</b>	53	73	73	40	52	60
<b>C5 Surveillance</b>	70	80	80	100	100	100
<b>C6 Human resources</b>	60	60	60	90	80	90
<b>C7 Health emergency management</b>	33	33	53	80	87	87
<b>C8 Health Services provision</b>	47	67	73	80	80	80
<b>C9 Infection prevention and control (IPC)</b>				47	33	60
<b>C10 Risk communication and community engagement (RCCE)</b>	60	60	60	80	80	80
<b>C11 Points of entry (PoE) and border health</b>	50	60	80	73	73	73
<b>C12 Zoonotic diseases</b>	20	20	20	20	40	40
<b>C13 Food safety</b>	20	40	40	60	60	60
<b>C14 Chemical events</b>	40	40	40	40	60	80
<b>C15 Radiation emergencies</b>	40	40	60	80	80	80

Source: States Parties Self-Assessment Annual Reporting Tool of WHO (82)

Sri Lanka has made significant improvement in the overall IHR Core Capacity Index over the years. However, the scores of some of the core capacities have been stagnant, with low scores relating to C1 (policy, legal and normative instruments to implement IHR), C3 (financing), C12 (zoonotic diseases) and several other core capacities exhibiting slow progress, such as C4 (laboratory) and C9 (infection prevention and control). Furthermore, the C11 (points of entry) and C13 (food safety) scores have remained below 80.

Sri Lanka established an IHR Steering Committee in 2016 to enhance its preparedness for public health emergencies. The Ministry of Health, in collaboration with WHO, has been working to implement IHR protocols. Despite these efforts, the COVID-19 pandemic revealed significant weaknesses and highlighted areas needing improvement, including disaster management and public health response capabilities (83).

In September 2023, Sri Lanka completed a Joint External Evaluation (JEE) of its IHR core capacities. This evaluation assessed the country's ability to prevent, detect and respond to public health threats. The JEE process involved experts from various fields and resulted in the identification of strengths and weaknesses in Sri Lanka's public health system. Key recommendations included:

1. Strengthening legislative, financial, and human resource capacities.
2. Enhancing multisectoral collaboration across public health functions.
3. Addressing risks from antimicrobial resistance and zoonotic diseases.
4. Integrating digital technology and public-private partnerships into health security efforts (84, 85).

Following the JEE, Sri Lanka set out to develop a National Action Plan for Health Security for 2024-2028. This plan will incorporate findings from the JEE and other assessments, aiming to align national priorities with the necessary actions to bolster health security (84).

Table 30 describes some of the possible measures that Sri Lanka could take to improve its IHR Core Capacity Index. Taken together, these measures may enhance the country's ability to prevent, detect and respond to public health threats effectively.

**Table 30: Possible measures to improve Sri Lanka's IHR Core Capacity Index**

Measure	Description
<b>1. Strengthening Multisectoral Collaboration</b>	Enhancing coordination between the human and animal health sectors is crucial. The recent IHR-PVS National Bridging Workshop identified gaps in collaboration that need to be addressed. Establishing joint objectives and a roadmap for collaborative efforts can improve responses to zoonotic diseases and other health threats at the human-animal-environment interface (84, 85).
<b>2. Improving Surveillance and Laboratory Capacities</b>	Investing in surveillance systems and laboratory capabilities is essential for timely detection of health threats. This includes enhancing data collection methods, improving laboratory infrastructure and ensuring that laboratories are equipped with modern technology to conduct accurate testing and analysis (84, 85).
<b>3. Legislative and Policy Frameworks</b>	Strengthening legal frameworks related to public health is necessary to support IHR implementation. This involves reviewing existing laws, introducing new legislation where needed and ensuring that policies align with international health regulations (83, 84).
<b>4. Capacity Building for Human Resources</b>	Training healthcare personnel in disaster management, emergency response and public health protocols is vital. Continuous professional development programs should be established to enhance the skills of healthcare workers at all levels (82, 84).
<b>5. Utilizing Digital Technology</b>	Expanding the use of digital technology can facilitate better data management, enhance surveillance systems and improve communication during public health emergencies. Investments in technology should focus on developing local solutions that cater to Sri Lanka's specific needs (83, 84).
<b>6. Financial Investment in Health Security</b>	Allocating sufficient financial resources for health security initiatives is critical. This includes budgeting for emergency preparedness, infrastructure improvements and public health campaigns aimed at increasing awareness of health risks among the population (83, 84).
<b>7. Integrating Health Security into National Planning</b>	Health security should be integrated into broader national development plans to ensure a comprehensive approach to managing public health risks. This includes aligning IHR implementation with the SDGs and other national priorities (52, 86).

#### 4.5.3.b. Summary of IHR Indicator Analysis

Sri Lanka has achieved a medium score (54) for the IHR tracer indicator. The GoSL could take several steps to increase the IHR tracer indicator score, including: strengthening multisectoral collaboration, improving surveillance and laboratory capacities, using legislative and policy frameworks, building human resources capacity, utilizing digital technology, investing in in health security, and integrating health security into national planning.

**Table 31: UHC SCI IHR Indicator Scores for WHO SEAR countries and additional comparators**

<b>Country</b>	<b>UHC SCI IHR Indicator Score</b>	<b>Coverage Level</b>
<b>Sri Lanka</b>	54	<b>Medium</b>
<b>Bangladesh</b>	67	<b>High</b>
<b>Bhutan</b>	59	<b>Medium</b>
<b>Democratic People's Republic of Korea</b>	69	<b>High</b>
<b>India</b>	78	<b>High</b>
<b>Indonesia</b>	73	<b>High</b>
<b>Maldives</b>	51	<b>Medium</b>
<b>Myanmar</b>	64	<b>High</b>
<b>Nepal</b>	34	<b>Low</b>
<b>Thailand</b>	≥80	<b>Very High</b>
<b>Timor-Leste</b>	37	<b>Low</b>
<b>Additional comparator countries</b>		
<b>Malaysia</b>	≥80	<b>Very High</b>
<b>Pakistan</b>	52	<b>Medium</b>
<b>Singapore</b>	≥80	<b>Very High</b>

Source: UHC 2023 Global Monitoring Report (6)

## 5. Findings of The Economic Analysis

### 5.1. Defining out-of-pocket expenditure

As discussed in the background section of the report, SDG 3.8.2 sets the target for financial risk protection in terms of households experiencing OOPE at different thresholds.

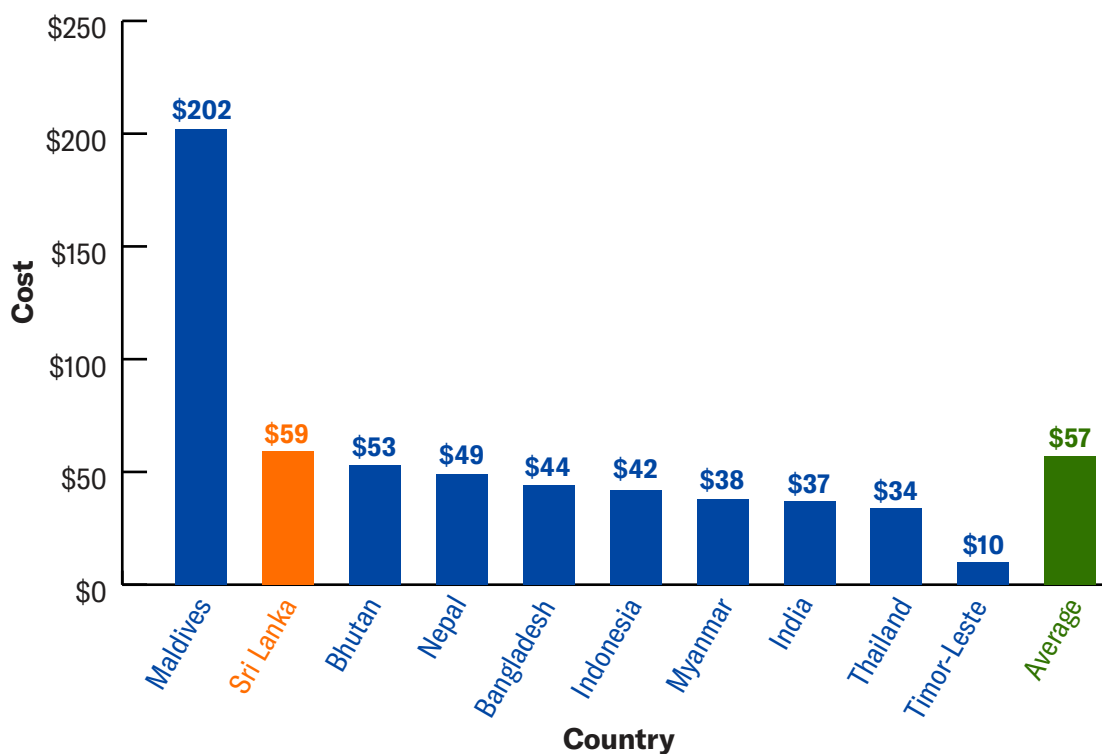
The World Bank defines OOPE as being:

*“...any direct outlay by households... to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups. It is a part of private health expenditure” (87).*

The above definition includes direct medical costs. Direct nonmedical costs (such as transport to health facilities, accommodation and meals) are not included in reporting, although they may be considered in research contexts (88, 89). There are also considerable indirect costs (e.g., loss of income due to work absenteeism) (90) and intangible costs (e.g., psychological stress associated with illness or injury) (91, 92) that are not typically included. Out-of-pocket health expenditure is generally considered to be involuntary and inefficient and can place substantial strain on households that have to redirect often limited funds in order to restore the health of their members, increasing the risk of adverse financial outcomes and even poverty for vulnerable households (93, 94).

## 5.2. Out-of-pocket expenditure on health in Sri Lanka

According to the WHO Global Health Expenditure Database, Sri Lanka’s OOPE per capita was US\$58.55 in 2022 (95). Figure 24 provides a comparison with other SEAR countries (with the exclusion of the Democratic People’s Republic of Korea, due to data unavailability) where it is shown that Sri Lanka’s OOPE per capita is only slightly higher than the average of US\$56.74.



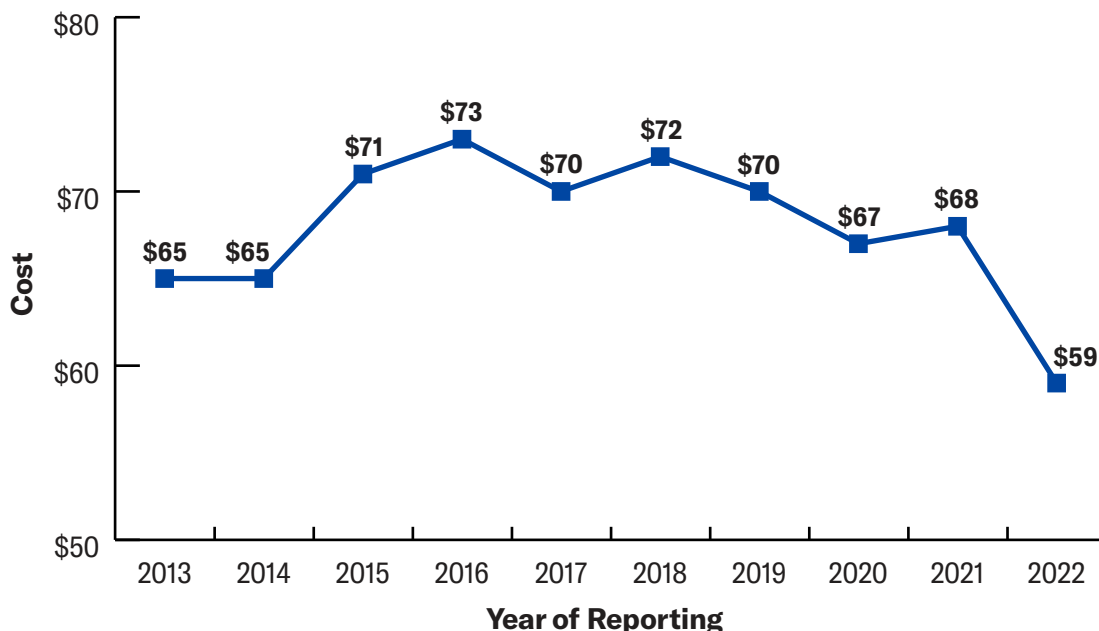
\*Data for the Democratic People’s Republic of Korea not available.

**Figure 24: Comparison of OOPE on health per capita in WHO SEAR countries in 2022**

Source: WHO Global Health Expenditure Database (95)

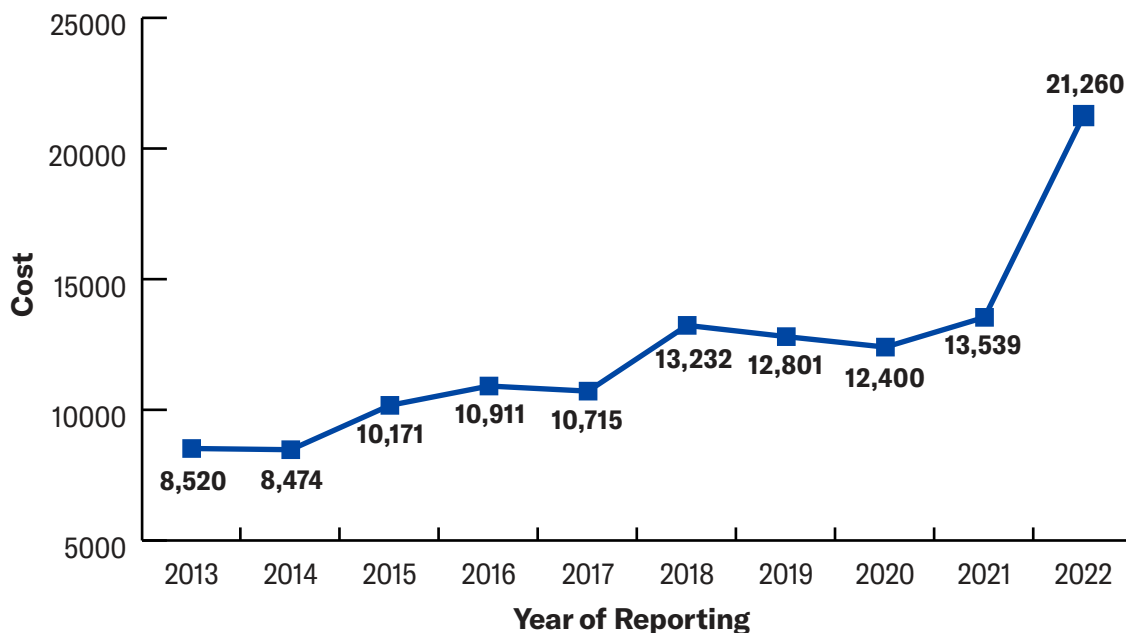
**ANALYSIS OF SRI LANKA’S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE**

Figure 25 shows changes in Sri Lanka’s OOPE per capita in US dollars from 2013 to 2022. As can be seen, the linear trend line is essentially plateaued (with only a slight increase over the period). However, when the same 10-year time frame is used to report OOPE per capita in Sri Lankan rupees, (LKR) there is a substantial increase, as can be seen in Figure 26. This reflects the economic crisis that has seen a sharp depreciation in the LKR (which in turn has had a major impact on the basket of services that households can afford).



**Figure 25: OOPE on health per capita in Sri Lanka in US\$ (with dotted trend line)**

Source: WHO Global Health Expenditure Database (95)



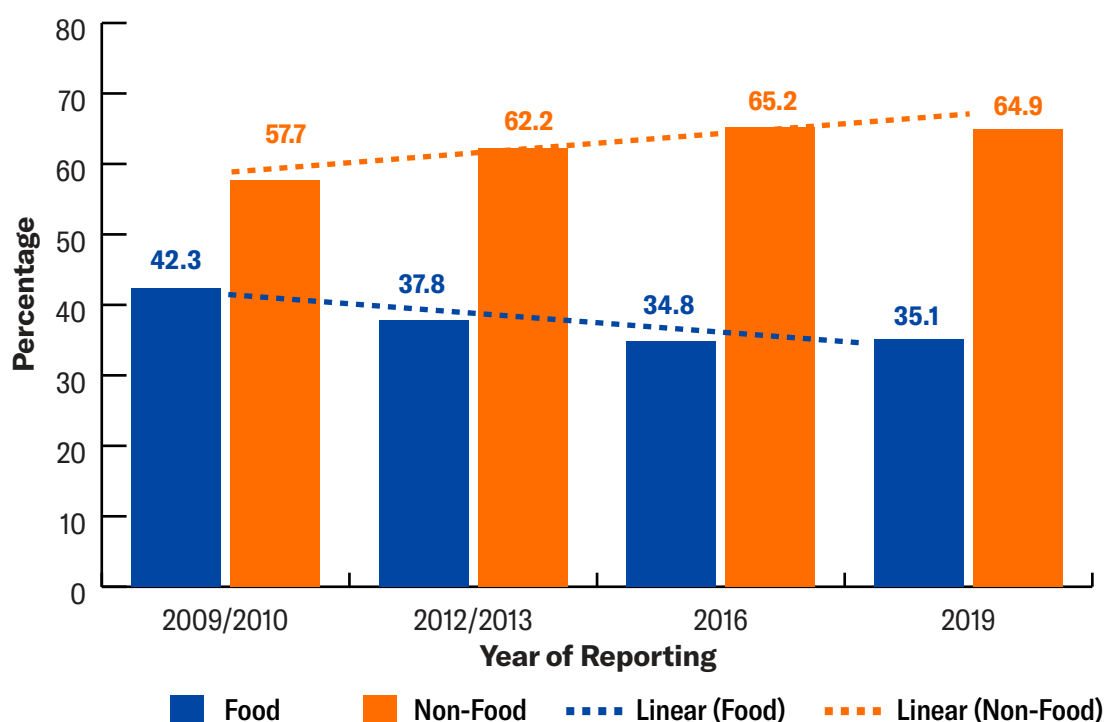
**Figure 26: OOPE on health per capita in Sri Lanka in LKR (with dotted trend line)**

Sources: WHO Global Health Expenditure Database (95) with the final available exchange rate data for each year from the Central Bank of Sri Lanka (96)

### 5.3. Components of OOPE in Sri Lanka

Details of household income and expenditure are provided by the Household Income and Expenditure Survey (HIES), which is conducted by the Department of Census and Statistics of the GoSL (97). Whilst these surveys were initially going to be held every three years, the most recent survey was done in 2019.

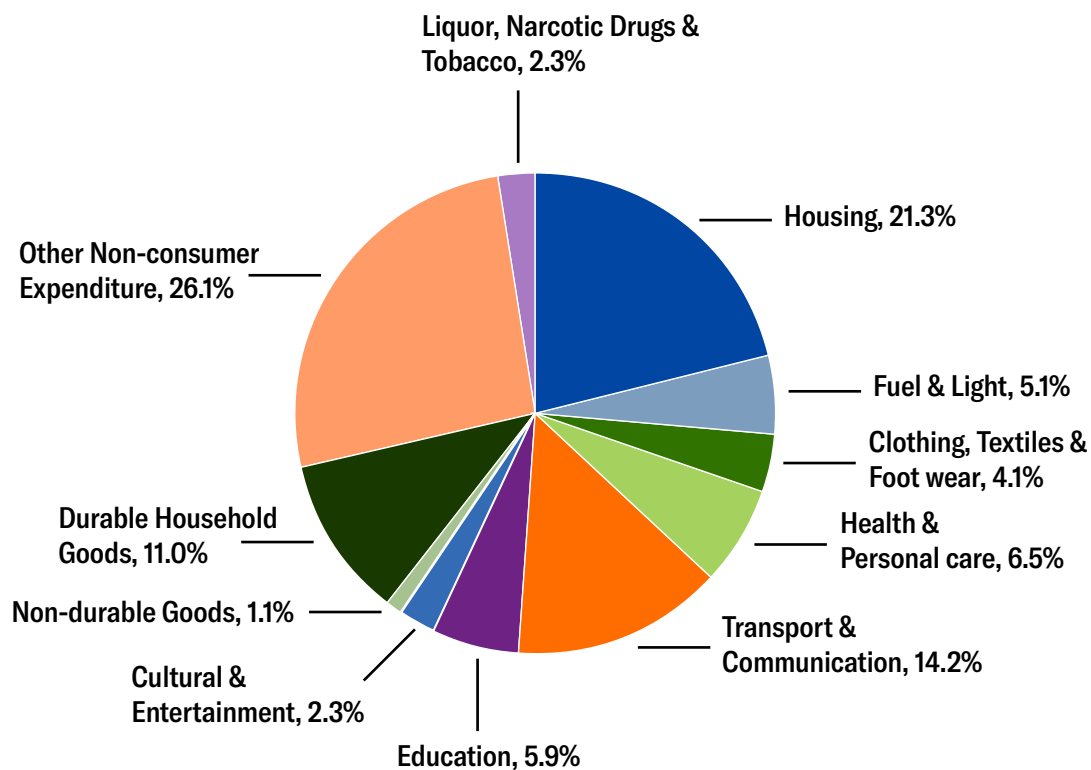
The 2019 HIES reports the mean household income per month in Sri Lanka as being LKR 76,414 and expenditure as LKR 63,130. The household expenditure per month can be further subdivided into food (LKR 22,130) and non-food (LKR 41,000) expenditure. Figure 27 shows changes in food and non-food household expenditure ratios, as reported in the HIES. As can be observed, there has been a gradual increase in non-food expenditure (which includes health expenditure).



**Figure 27: Changes in household expenditure food ratios in Sri Lanka**

Source: Household Income and Expenditure Survey, Sri Lanka 2019 (97)

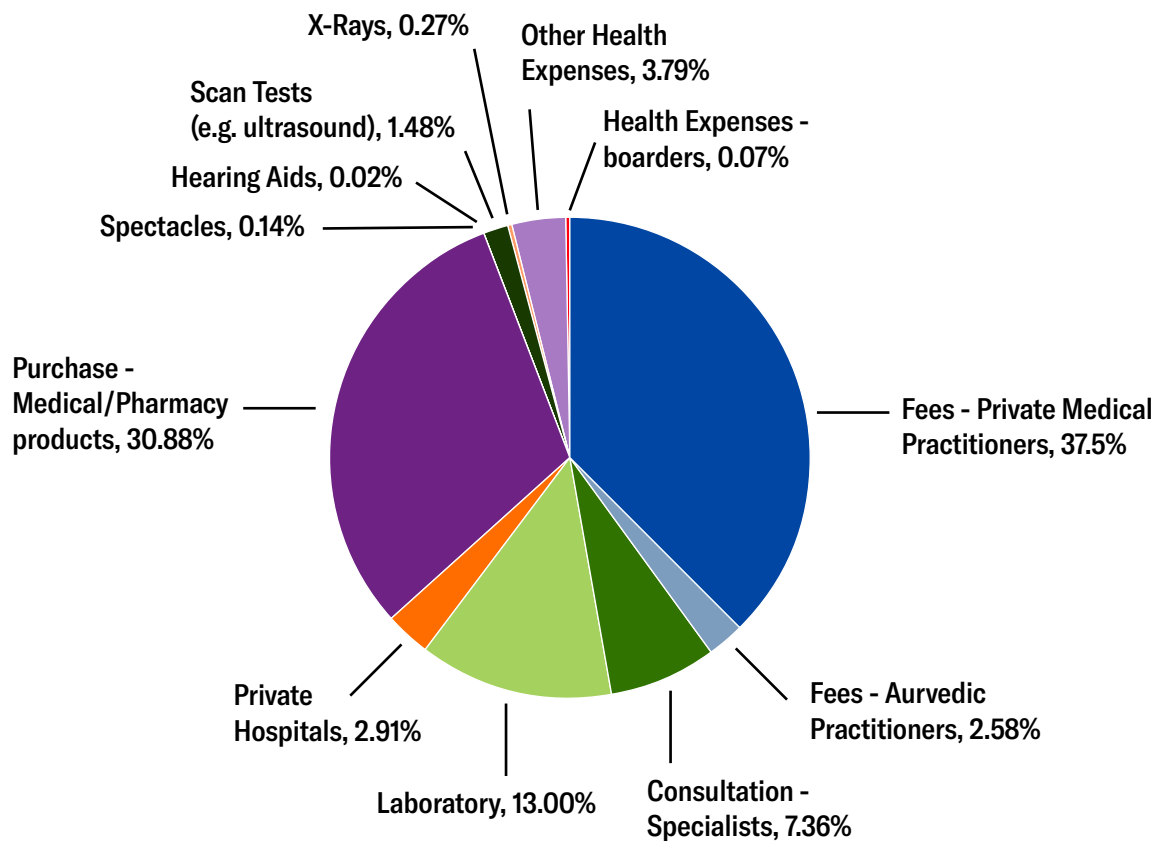
Figure 28 provides a breakdown of household non-food expenditure (in percentages). The “health and personal care expenditure” category is 6.5%, or LKR 2,663, with LKR 1,643 of that going toward health costs.



**Figure 28: Components of non-food health expenditure in Sri Lanka (percent)**

Source: Household Income and Expenditure Survey, Sri Lanka 2019 (97)

Figure 29 provides even more granular detail, displaying components of health expenditure per capita. The highest proportion (37%) was spent on seeking care from medical practitioners (commonly general practitioners of Western/allopathic medicine). This was followed by money spent on medicines and products at pharmacies, which constitutes just over 30% of the household health expenditure.



**Figure 29: Components of household health expenditure (percent)**

Source: Household Income and Expenditure Survey, Sri Lanka 2019 (97)

## 5.4. Catastrophic health expenditure

Measuring catastrophic expenditure on health involves quantifying OOPE against specific thresholds. With regard to this, either the 10% or 25% thresholds (viz. expenditure on health greater than 10% or 25% of total household expenditure or income) has been used to determine catastrophic health expenditure (45).

Table 32 displays the proportions of households with catastrophic health expenditure in Sri Lanka during select years between 2005 and 2016, and Table 33 juxtaposes Sri Lanka against specific SEAR countries as well as other comparator countries.

**Table 32: Proportion of households above catastrophic health expenditure thresholds in Sri Lanka**

Year	>10% threshold	>25% threshold
2005	6.28%	0.70%
2006	5.55%	0.72%
2009	4.69%	0.74%
2012	5.78%	1.01%
2016	5.44%	0.9%

Source: Global Health Observatory (98, 99)

**Table 33: Catastrophic health expenditure (as proportion of population with household expenditure on health greater than the 10% and 25% thresholds) for countries in the WHO SEAR\* and additional comparators**

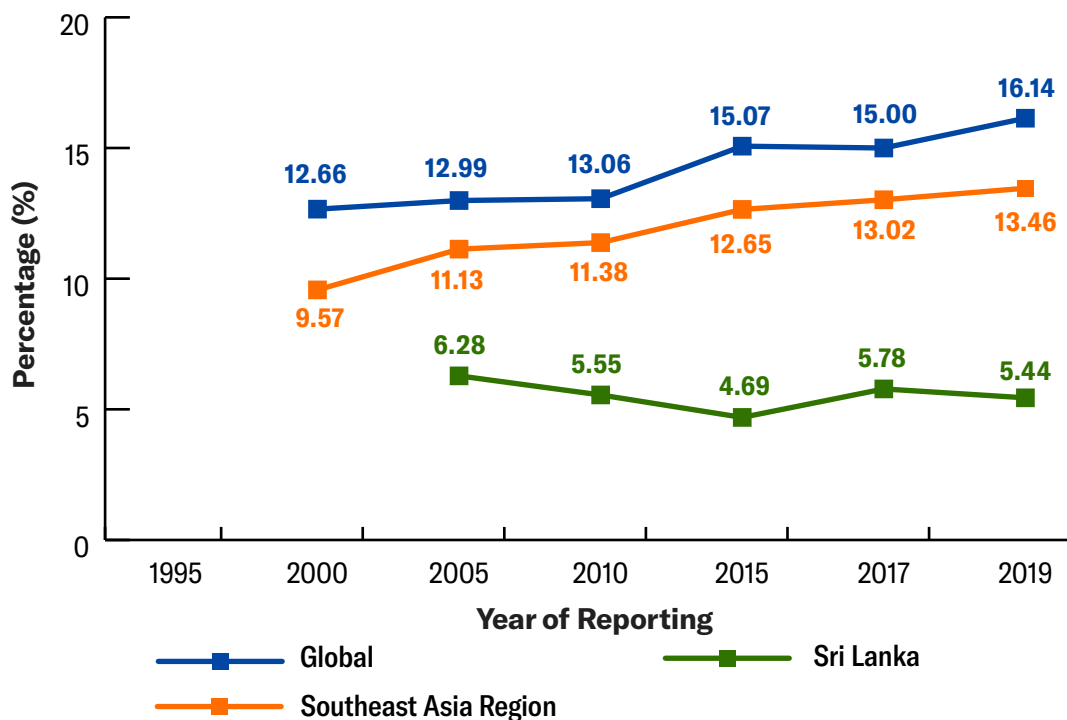
Country (with year of measure)**	>10% threshold	>25 % threshold
<b>Sri Lanka (2016)</b>	5.44%	0.9%
<b>Bangladesh (2016)</b>	24.42%	8.45%
<b>Bhutan (2017)</b>	3.98%	1.77%
<b>India (2017)</b>	17.46%	6.67%
<b>Indonesia (2017)</b>	4.52%	0.87%
<b>Maldives (2016)</b>	10.27%	4.07%
<b>Myanmar (2017)</b>	12.71%	3.47%
<b>Nepal (2016)</b>	10.66%	2.1%
<b>Thailand (2017)</b>	2.22%	0.41%
<b>Timor-Leste (2014)</b>	2.61%	0.55%
<b>Additional comparator countries</b>		
<b>Malaysia (2016)</b>	1.96%	0.19%
<b>Pakistan (2018)</b>	5.39%	1.02%
<b>Singapore (2013)</b>	9.01%	1.47%

\*Data for the Democratic People's Republic of Korea not available.

\*\*Years of measurement were kept as close as possible, for comparison purposes, using available data.

Source: Global Health Observatory (99, 100)

Figure 30 shows the percentage of households in Sri Lanka that have reached the 10% threshold, compared to global and regional averages. As evident, there has been a relatively lower level of catastrophic out-of-pocket expenditure in the country (at least up until 2016). This is perhaps a testament to Sri Lanka's long-standing commitment to PHC; including working towards equitable health access.



**Figure 30: Population with catastrophic health expenditure (>10% threshold)**

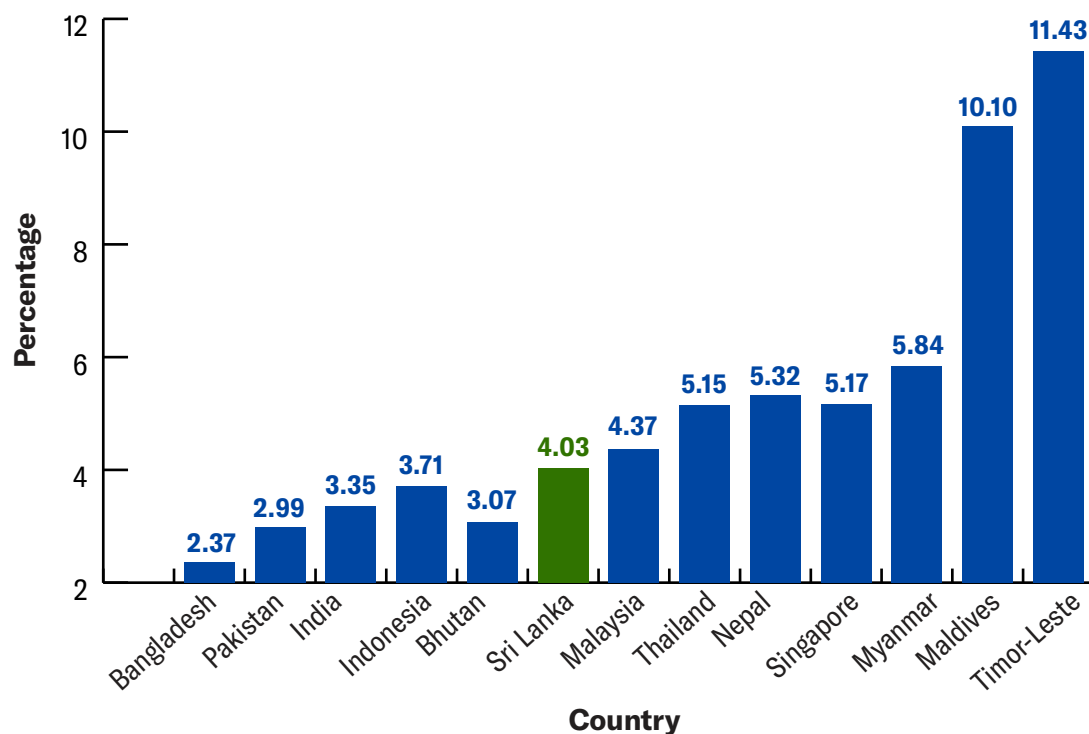
Source: Global Health Observatory (98, 101)

However, the epidemiological transition towards an increase in NCDs has had an adverse impact on household health expenditure. Indeed, a Sri Lankan-based study undertaken by Gamage et al. showed that a significantly higher proportion of patients with NCDs such as hypertension and diabetes faced catastrophic health expenditure (using a higher catastrophic health expenditure threshold of 40%) (102).

Furthermore, the GHO data for catastrophic health expenditure thresholds in Sri Lanka are at present only available through 2016. It is therefore difficult to assess the full impact of the subsequent economic crisis on these data.

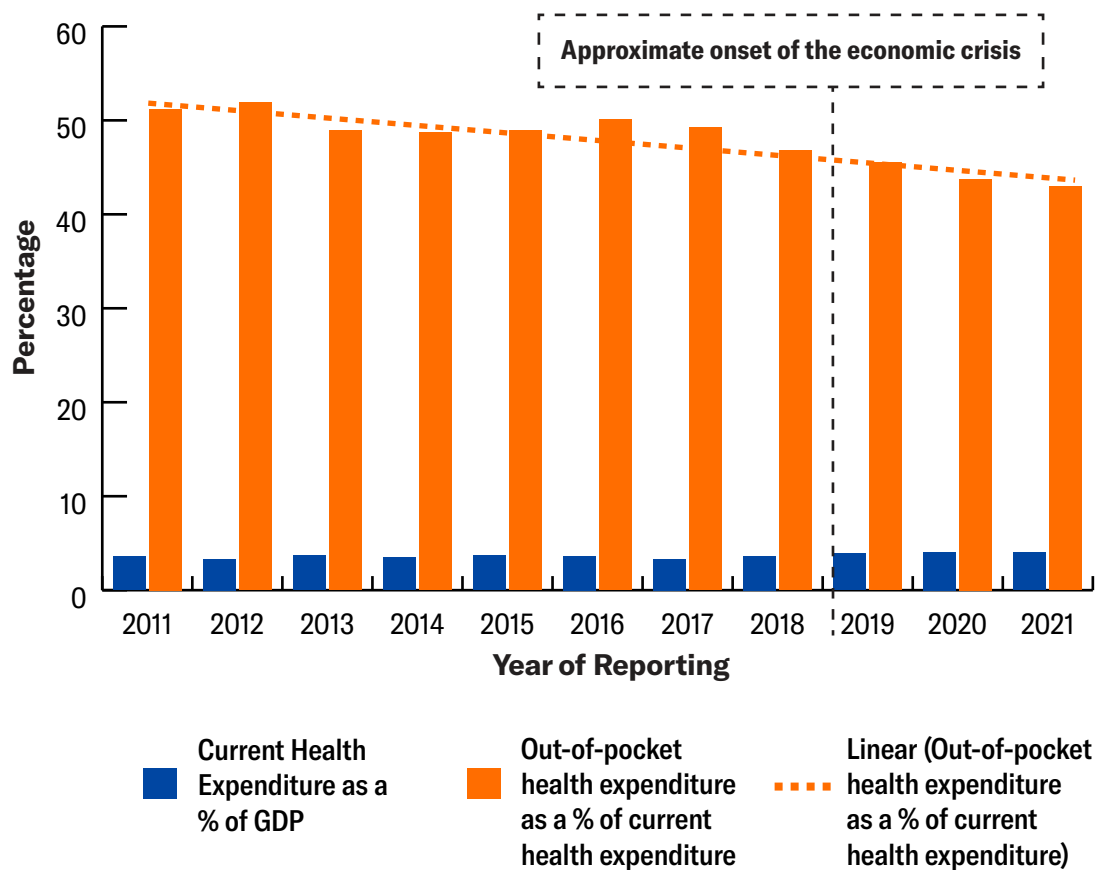
## 5.5. National health expenditure and OOPE

More current data are available regarding macro-level health care expenditure and OOPE. In relation to this, Figure 31 shows Sri Lanka's health care expenditure against those of comparator countries.



**Figure 31: Comparative current health expenditure, as a percentage of GDP, 2021 Source: Global Health Observatory (103)**

Focusing on the country's expenditure trends only, Figure 32 shows current health care expenditure as a percentage of GDP, as well as out-of-pocket expenditure as a percentage of health expenditure, in Sri Lanka over a 10-year period (from 2011 to 2021).



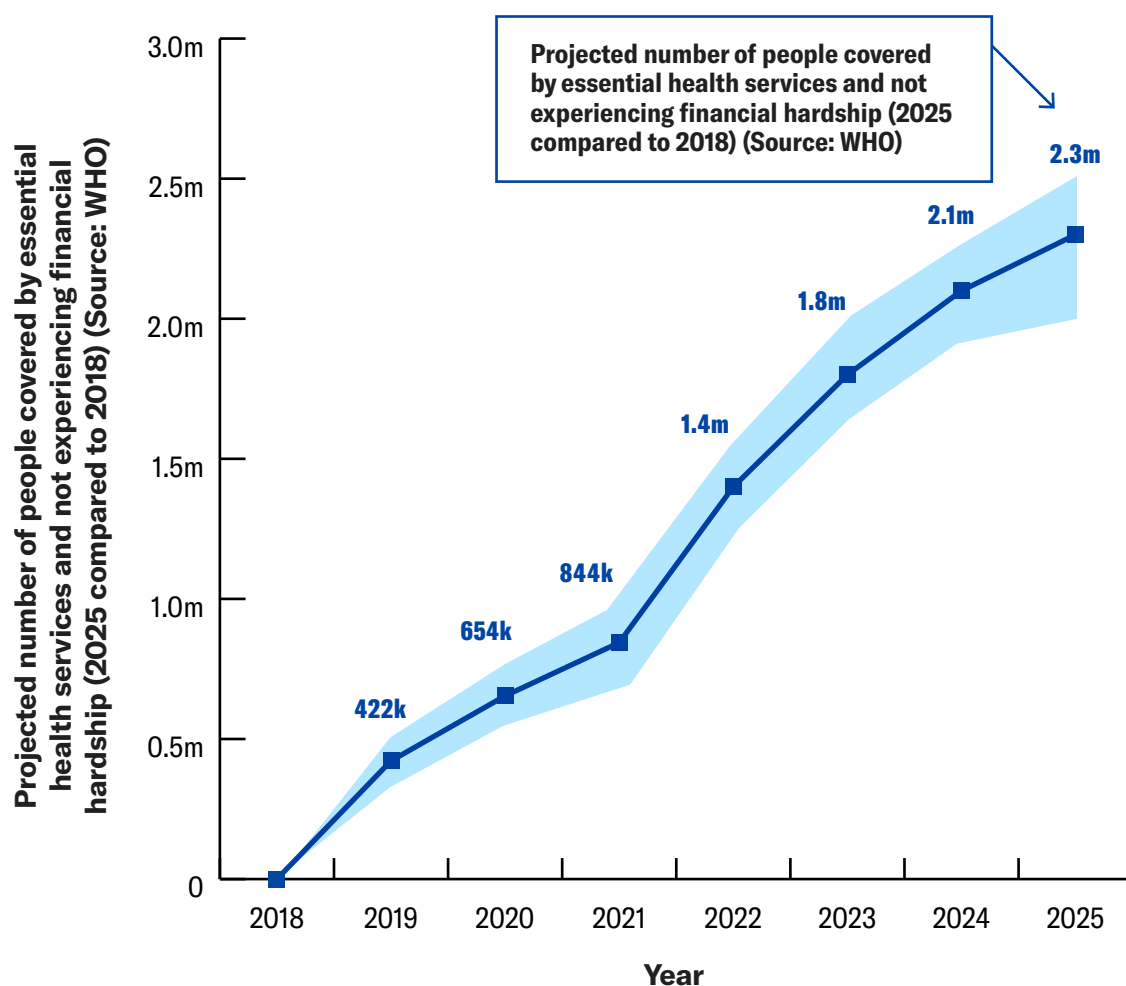
**Figure 32: Proportions of health expenditure in Sri Lanka, 2011-2021**

Source: Global Health Observatory (103, 104)

As can be seen, there weren't substantial changes in either sets of data over the first years of the economic crisis (2019-2021); in fact, there was a slight overall increase in health expenditure as a proportion of GDP (from 3.6% to 4.1%) and a decrease in the proportion of OOPE (from 51.2% to 43.7%) over the entire decade. Further analysis can only be undertaken once data for 2022 to 2024 are available.

## 5.6. Health expenditure and UHC

The above notwithstanding, the country is projected to increase its UHC coverage and concomitant financial risk protection. As part of its Triple Billion analysis, WHO estimates that approximately 2.3 million additional people (with a range of 1.3 million to 6 million) will be covered by essential health services and not experience financial hardship by 2025, as compared to a 2018 baseline. This is referenced in Figure 33 below.



**Figure 33: Projection of the UHC component of the WHO Triple Billion target for Sri Lanka**

Source: World Health Organization (105, 106)

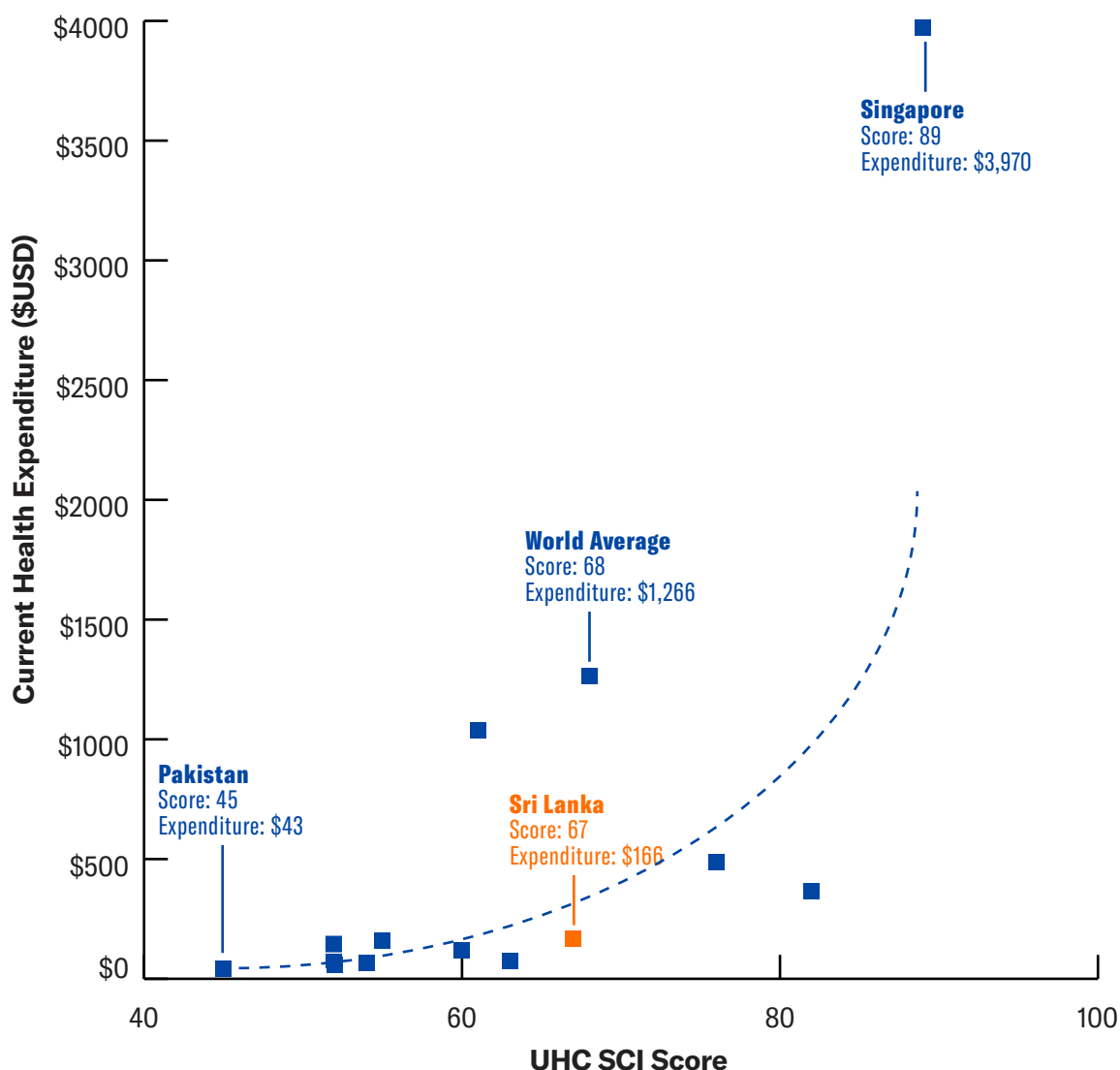
Finally, the possible relationship between health expenditure per capita and overall UHC SCI is worth considering. Table 34 provides the two datasets for Sri Lanka and a number of comparators.

**Table 34: Comparison between UHC SCI scores and current health expenditure per capita**

<b>Country</b>	<b>UHC SCI Score</b>	<b>Current Health Expenditure per capita (US\$)</b>
<b>Bangladesh</b>	52	\$58
<b>Bhutan</b>	60	\$120
<b>India</b>	63	\$74
<b>Indonesia</b>	55	\$161
<b>Malaysia</b>	76	\$487
<b>Maldives</b>	61	\$1,039
<b>Myanmar</b>	52	\$65
<b>Nepal</b>	54	\$65
<b>Pakistan</b>	45	\$43
<b>Sri Lanka</b>	67	\$166
<b>Thailand</b>	82	\$364
<b>Singapore</b>	89	\$3,970
<b>Timor-Leste</b>	52	\$135
<b>World Average</b>	68	\$1,266

Sources: World Health Organization (6) and World Bank (107)

These data are then displayed as a two-way scatter graph in Figure 34.



**Figure 34: UHC SCI scores against current health expenditure per capita (US\$), 2021**

Sources: World Health Organization (6) and World Bank (107)

Although more advanced analysis (with a larger dataset) is needed before any statistical inference can be made, there does appear to be a *relative efficiency* in the Sri Lankan context in terms of health expenditure and UHC SCI performance. Indeed, Sri Lanka has a per capita health expenditure of US\$166 and a UHC SCI score of 67 —compared to the global average per capita of US\$1,266 and a UHC SCI score of 68.

## 6. Findings of Key Informant Interviews (Thematic Analysis)

### 6.1. Overview

While the preceding section focused on a desk review of the relevant UHC SCI tracer indicators, this section will provide a qualitative analysis of the KIIs undertaken by the UHC Policy Analysis Team. Moreover, summaries of the KIIs will be arranged according to the identified UHC DOIs, as described in Table 3 and outlined below.

The DOI of effectiveness will explore the extent to which the policy is actually achieving the stated objective of delivering UHC in Sri Lanka, while efficiency will examine how well (limited) resources are being utilized and managed to achieve this policy objective. The domain of relevance will consider the degree to which the UHC Policy is perceived to align with the needs of Sri Lankans as well as the requirements of international standards, and coherence will concentrate on the nature of the relationship between the UHC Policy and other relevant national policies, strategic plans and priorities. Sustainability will reflect on what measures have been put into place to maintain the positive impact of the policy (including what has—or hasn't—been done to ensure resilience in the face of emergent implementation challenges). The ethical evaluation component will discuss perceived strengths and weaknesses of the UHC Policy in terms of key principles such as equity, autonomy and privacy. Finally, a summary of insights related to the economic evaluation of the policy will complement the economic analysis undertaken in Chapter 7.

*Please note that this component of the report is made up of summaries of the KII discussions that represent the informants' expert views and perspectives on the subject matter.*

### 6.2. Effectiveness

#### 6.2.1. Summary of KII insights into the effectiveness domain

Informants raised pertinent points on effectiveness relevant to specific UHC SCI indicators, including family planning, TB treatment, HIV ART, hypertension treatment, diabetes prevalence, tobacco nonuse, health worker density and IHR. Insights encompassed perceived limitations of the indicators as well as views related to current UHC achievements in Sri Lanka.

##### 6.2.1.a. Limitations of the indicators

###### Family Planning

The importance of the family planning indicator was underscored in the KIIs. Indeed, one of the informants made the following reflection:

*'If it is a single indicator that we need to choose, it should be the prevalence of modern contraceptive methods. It is a single indicator if we want to look at our performance.'* —Informant 03

Informants indicated that the calculation of the modern family planning indicator takes into account the unmet need for family planning. However, the unmet need for family planning is a subjective measurement and is almost certainly underreported.

Furthermore, it was argued that if the national contraceptive prevalence rate were to go up, there could be the risk of a reduced fertility rate and subsequent limitations in population size. Human capital is very important for developing countries such as Sri Lanka, and it was suggested that the ideal total fertility rate should be between 2.1 and 2.3 births per woman. In keeping with this, the challenge of subfertility in Sri Lanka was also raised as a concern.

### **Tuberculosis Treatment**

The informants highlighted the fact that this indicator used the percentage of incident tuberculosis cases that are detected and treated. However, Sri Lanka is using the estimated number of tuberculosis cases (as the denominator) provided by WHO, which is 14,000. Sri Lanka has not conducted a survey to check whether this figure is correct. Also, Sri Lanka has only the national estimate, with subnational estimates not being available. Positive developments were nonetheless noted in relation to this indicator, including the NPTCCD's plan to conduct an inventory survey as well as a proposed modelling exercise to arrive at accurate national and subnational estimates.

### **Diabetes Prevalence**

It was put forward that officials in the national programme were unclear about what source had been used for the WHO data repository on the mean fasting plasma glucose for Sri Lanka. However, it was recognized that the data reported by the STEPS survey 2021 was reliable as it had been conducted under the direct supervision of the Ministry of Health.

### **Health Workforce Density**

The informants emphasized that providing healthcare requires teamwork. The current indicator on HWF is based only on doctors, with crucial cadres such as nurses and midwives not being considered. It was remarked that there was another indicator related to human resources for health (HRH) used by WHO that actually included doctors, nurses and midwives. If that indicator was considered, Sri Lanka would achieve a higher value in terms of health workforce density.

Furthermore, it was argued that the doctor-to-population ratio is an outdated indicator to measure HRH. The economy of the country should, for example, also be considered when deciding on the number of doctors needed. Producing a higher number of doctors if the country's economy cannot support them could actually reduce the quality of medical education and healthcare.

At a more detailed level, it was observed that the current indicator on HRH focuses on physicians, surgeons and psychiatrists. In the Sri Lankan context, a surgeon or psychiatrist refers to a board-certified consultant. But in actual practice, senior house officers, registrars and senior registrars working in surgical or psychiatric units should also be taken into consideration when calculating this tracer indicator for UHC. Informants also contended that there was no reliable source of data to capture the number of doctors with their specialties in Sri Lanka, in either the public or private sectors.

### **6.2.1.b. Insights into current indicator achievements**

#### **Family Planning**

Informants observed that in areas where modern contraceptive rates are low, birth rates were generally not that high. The reasons suggested for this were that couples were either using these services from the private sector, or were using emergency contraceptive pills. Abortions were also mentioned as a contributing factor (although it was pointed out that medical and surgical abortions are illegal in Sri Lanka and that the rates of surgical abortions were also decreasing).

It was felt that logistics and distribution of modern contraceptives were well planned for current and future years, and that the finances provided to the programme were sufficient (even during the economic crisis). Informants believed that the programme had ensured the quality of products and procedures through prompt and proper procurement processes, continuous training of staff, and close monitoring and intervening in cases of contraceptive failure and adverse reactions. Contraceptive gap and discontinuation rates were also continuously monitored, and special inquiries were conducted when necessary. The programme did not limit the fertility choices of couples and encouraged them to complete their families during the fertile period, and then move on to long-term contraceptive methods. It was also indicated that the life cycle approach was used in selecting contraceptive methods.

#### **HIV Antiretroviral Therapy**

The informants were concerned that the diagnosis of HIV often occurred at a late stage, and that nearly one-fourth of HIV-positive patients are at an advanced state of disease by the time of diagnosis. It was pointed out that the mainstay of diagnoses of HIV patients was through STD clinic voluntary attendance. Other routes to testing (and diagnosis) were through blood donation services, antenatal screening programmes, medical checkups for obtaining visas to other countries, hospital-based testing, private hospitals and laboratories, and screening services for TB.

Screening of HIV was mostly done through rapid test kits, which had high sensitivity and specificity (with test results issued within 20 minutes and confirmation tests done the same day). Informants also agreed that support received for screening from NGOs was commendable. Some NGOs worked with key populations, either bringing members of these populations to health facilities for screening, or taking test kits into the community to conduct screening there.

Informants said the medicines currently used in ART had fewer side effects, and consequently, noncompliance due to medication intolerance was lower. It was also explained that after their diagnosis, patients are linked to the nearest STD clinic, and ART is started. It is presumed that the supply of ART is continuous, and therefore that patients with good compliance are given a three-to-six-month drug supply. However, in cases where ART medicines were hard to obtain, this duration had to be reduced to ensure that there were enough drugs available for all patients.

Informants also spoke about the challenges faced by specific groups in terms of accessing ART. It was noted that in Sri Lanka, HIV ART is only provided by government clinics; private clinics are not allowed to provide this therapy. This created a dilemma for a fraction of patients who were more affluent and did not attend government clinics. Informants suggested that they either obtained their medicines from the underground market, from other countries, or were not getting them at all. Another population that faced specific difficulties was young people. It was remarked that nearly 15% of diagnosed HIV patients were youth, and it was felt that it took some time for them to accept their diagnosis and to follow up with regard to treatment.

The above points highlight the difficulty of dealing with stigma. Informants felt that stigma towards HIV patients by healthcare staff had been reduced to a great extent due to continuous staff education programmes. Nonetheless, patients still faced stigma in communities, which became a barrier to them attending clinics and obtaining ART. Indeed, many patients bypassed district STD clinics, resulting in an increased patient load at the Colombo STD clinic.

In addition to stigma, patients also faced financial challenges in terms of accessing ART. Informants pointed out that attending STD clinics required patients to miss a day at work, which in some cases had a significant impact on their income.

Specific challenges regarding potential loss to treatment follow-up were also discussed. Patients were provided with continuing ART and were not removed from registers (allowing them to return, if they had previously skipped attendance, and recommence treatment). In relation to this, informants spoke about risks related to migration—if patients obtained long-term visas for travel abroad and did not return to Sri Lanka, their names still remained on the clinic registers. They would thus be considered as defaulters, affecting the achievement of the ART indicator. Another challenge pertained to HIV screening and ART services in prisons. While patients were provided with treatment in prison, it was sometimes difficult to trace them once after they left.

Informants also raised concerns with regard to laboratory infrastructure. While it was agreed that the laboratory of the STD clinic in Colombo offered sufficient testing, the same could not be said about some of the other laboratories across the country. Issues pertaining to maintenance of laboratory equipment (and the lack of equipment-related service agreements) were raised, as well as the fact that reagents sometimes ran out of stock. It was also felt that the number of medical laboratory technologists attached to STD clinics was insufficient to meet the demands for performing tests.

Informants also noted that the Global Fund to Fight AIDS, Tuberculosis and Malaria contributed substantially to the financing of the HIV programme in Sri Lanka. However, this funding would gradually be tapered off with a commensurate increase in the GoSL's share of the cost. If the HIV caseload were to go up, the GoSL would face difficulties in trying to sustain the HIV campaign by itself. Informants therefore insisted that a focus should remain on preventing HIV transmission.

### **Tuberculosis Treatment**

Informants felt that TB was a neglected disease in Sri Lanka. It was still considered a disease of poverty, and healthcare workers seemed less likely to refer patients for diagnostic testing. Furthermore, TB diagnoses rates were low at primary care institutions and outpatient departments. It was believed that most TB patients were identified only after being admitted to hospital. This delay in diagnosis was more likely to result in complicated cases even after TB treatment was completed (such as post-TB chronic lung disease).

It was, however, noted that an algorithm to diagnose a presumptive TB patient had been introduced to all healthcare centres, including outpatient departments and hospital wards. This included a sputum test, X-ray and molecular diagnosis. Doctors had to refer presumptive patients to public health laboratory technicians to conduct the sputum tests. There were, nonetheless, major challenges faced in the management of TB, as described by an informant:

*“When we visited the PMCU we thought that the PMCU [was] built only for... noncommunicable diseases. At least, there was no integration. They are doing some of the NCD work, they go to the field and [are] doing the screening. So at least if they can distribute a leaflet or awareness package to the community, on behalf of TB, which is included as a disease [in] the UHC. That even, we don't have... support from that end'.” – Informant 05*

Informants explained that active case finding for TB was conducted under the national programme. Targeted areas included prisons, drug rehabilitation centres and high-risk geographical areas such as the Colombo Municipality area. However, in analysing patient care pathways, it was also found that a considerable number of patients with TB symptoms had been seen at private sector facilities.

The above notwithstanding, contact screening was described as being low in Sri Lanka. Furthermore, many TB patients had other comorbidities (which participants felt were higher than WHO estimates). Noncommunicable diseases were viewed as an important risk factor for TB. It was postulated, for example, that out of the total number of TB patients in Sri Lanka, 20% to 25% had diabetes. Smoking and alcohol rates were also understood to be high amongst TB patients.

### **Diabetes Prevalence and Hypertension Treatment**

Poor dietary habits were cited as an important cause of increased blood glucose levels and high blood pressure. Informants reflected on the fact that culturally, Sri Lankans have a carbohydrate-rich diet. While communities perceive wheat flour as less healthy, the same did not apply to rice, which remained a main source of carbohydrate in diets. Furthermore, healthy food options were expensive, and a decrease in demand for these food items had limited supplies. Poor dietary habits were compounded by sedentary lifestyles, thereby increasing the (behavioural) risk of diabetes and hypertension.

Informants reflected on the fact that most NCDs were asymptomatic in their early stages, and that screening for these diseases was a considerable challenge. The importance of adequate health service provision in this area was also underscored. It was noted that the public health system provided free services and that patient management included providing diagnostic services and medication.

The medical clinic system was also well established in Sri Lankan government hospitals, and the acceptance of these services by the population was high. Private sector health facilities also provided screening and management services for diabetes and hypertension (accessed at a cost by those individuals who opted not to utilize government health services).

In addition to diagnosis and treatment, government services also focused on NCD prevention. This included providing infrastructure for lifestyle modification, such as jogging paths and public gymnasiums.

Informants described a 'cafeteria method' for chronic disease medicines in Sri Lanka—viz. health professionals had many drugs to choose from in their management of individual patients with diabetes and hypertension. Estimating medicine supplies were difficult when this method was used, and drugs were often out of stock. In an attempt to solve this problem, evidence-based protocols were piloted in Sri Lanka, beginning in the Kalutara district. A limited number of medicines were used according to the protocol, and measures were undertaken to ensure that these drugs were available. Informants felt that this approach had reduced the burden on supply chains.

In spite of these efforts, informants indicated that certain medicines used to control diabetes and hypertension were not available in primary care institutions. This affected the (optimum) management of patients. For example, patients from secondary and tertiary care hospitals were supposed to be referred back to primary care institutions for follow-up care. Nonavailability of necessary diabetic and hypertensive medication significantly impeded this process. In some instances, physicians wrote prescriptions for drugs that were not available from government health services. Patients would thus sometimes have to try obtaining medicines from private pharmacies, causing an increase in OOPE. Indeed, some patients were ultimately unable to obtain their medication from these pharmacies due to financial constraints.

Another concern raised by informants pertained to the quality of medication storage and dispensing. Informants indicated that medicines provided by most government healthcare institutions were not in blister packs, nor were they dispensed in sealed packs or containers. They were often wrapped in paper, affecting the quality and efficacy of the drugs.

### **Tobacco Nonuse**

Informants highlighted the fact that Sri Lanka had signed both the WHO Framework Convention on Tobacco Control and the Protocol to Eliminate Illicit Trade in Tobacco Products. It was pointed out that the legal authority to implement policies related to tobacco control, including taxation, resided with NATA. The authorized officers appointed to implement the relevant legislation at the field level included police officers, excise officers, food and drug inspectors, and public health inspectors. More recently, it had been suggested that medical officers of health should also be involved in tobacco control implementation in relation to the legislation, but this had not yet been gazetted.

It was pointed out that Sri Lanka had strong regulatory controls in terms of tobacco use. For example, smoking in closed public places was prohibited, as was selling cigarettes to persons under the age of 21 (although this was difficult to enforce practically, as identity cards were not typically checked at the point of sale). E-cigarettes and vaping devices had also been banned. However, there were risks in terms of illicit activity related to this. Vaping devices, for instance, were being smuggled into the country and then sold online.

Informants discussed the important impact that NATA has made in terms of working to reduce tobacco use in Sri Lanka. They reflected on the active board of NATA, which has representations from several related ministries and meets monthly. All decisions taken by NATA had to be approved by the board. As one informant stated:

*'Very few countries have organizations like NATA. In our country, we have a government agency that brings others together to fight this global industry. So, we are a model'.—Informant 09*

Even with resistance from the tobacco industry, NATA had been successful in increasing the taxation of cigarettes. It had established a 24/7 tobacco quitline telephone counselling service named '1948' with, on average, 200 calls being attended to daily. Informants also said that two apps had been developed by NATA, one for the public to lodge complaints and the second for use by authorized officers.

Challenges relating to the tobacco industry were also mentioned. Informants noted the different approaches that the industry had taken in terms of marketing various tobacco products, and said it had a particular drive to attract more young people. A concern was that the industry had vast financial resources and could hire highly trained and experienced lawyers. Although NATA obtained its legal services from the Attorney General's Department, which was very supportive, NATA had to ultimately pay for their services as it was an authority (even though it was also a government agency). Informants were also concerned about alleged attempts by members of the industry to threaten NATA staff and authorized personnel (such as public health inspectors).

Cultural issues related to tobacco use were also discussed. Informants explained that there were cultural biases against smoking among females. Also, chewing tobacco was integral to certain traditions, making its use difficult to reduce. To add to this, there were said to be many manufacturers of chewing tobacco, compared to smoking tobacco. These producers were often part of cottage industries, making law enforcement agencies reluctant to take legal actions against them.

Informants also reflected on agricultural aspects of tobacco production. Compared to other crops, tobacco cultivation was not seen as a major agricultural driver in Sri Lanka. Furthermore, although the government had initiated some projects to introduce agricultural alternatives to tobacco cultivation, some farmers were still trapped by the tobacco industry through loans and dependencies on supplies of fertilizers. Nonetheless, informants felt that many tobacco farmers were enthusiastic about the government's support of moving to alternative agricultural streams.

Health education relating to tobacco nonuse was mentioned. It was felt that social media campaigns on tobacco promotion were difficult to control (especially if they used materials that were developed outside of Sri Lanka). It was also emphasized that tobacco prevention programmes conducted in schools should be carefully planned, as it was felt that children may be at risk of finding out more details on tobacco use (through digital media such as the internet) and may then be more likely to try tobacco products.

### Health Workforce Density

Informants explained that over the last century, the health workforce had grown rapidly when compared to the overall population growth of the country. It was stated that the number of government healthcare facilities (excluding offices of Medical Officer of Health) had increased from 18 to 1,126 during this time. Currently, there was said to be one medically trained doctor within, on average, every 3 kilometers.

It was pointed out that the GoSL provided free medical education, and respondents felt that health professionals in the country were trained equally well (within the government system). The rural retention of healthcare workers, including medical doctors, was seen as being relatively satisfactory in Sri Lanka.

Although the number of medical specialists/consultants had increased, it was argued that they were maldistributed. In peripheral areas, consultants very often did not serve on all of the expected days, but instead adopted a Tuesday-to-Thursday approach (this is described in further detail in the *Sustainability* KII section). One of the stressors related to this was that facilities in workplaces were not adequate enough to be shared by two consultants. Furthermore, personal issues such as their families living elsewhere (due to not having appropriate accommodation in peripheral areas or concerns about the schooling available for their children) also placed strain on consultants working in these areas.

### International Health Regulations

It was observed that the implementation of IHR required many stakeholders, with the Ministry of Health being only one. This made performance in relation to the UHC SCI tracer indicator on IHR difficult, as it required collaboration between numerous role-players.

Certain areas pertaining to IHR, such as disease surveillance, immunization and points of entry, fell under the public health system. These areas were relatively well-managed, with funding provided either through the GoSL or donors. However, areas that were not under the public health system tended to perform poorly. For example, there is a significant difference between the laboratory capacity for human health and that for animal health. The Ministry of Health was limited in its ability to manage or influence these other governmental areas, and was not able to easily disburse much-needed funds to other ministries involved in IHR (even though the Ministry of Health itself was the focal point for IHR).

In terms of governance, an IHR National Steering Committee meeting was held yearly. Although the heads of institutions from nonhealth sectors were invited, they sometimes sent representatives who were not in a position to make decisions.

The informants reported that more recently, a comprehensive resource-mapping workshop was conducted regarding IHR. This included a range of participants (including stakeholders from financing agencies). A national action plan for health security was also being prepared, in collaboration with multiple role-players.

### 6.2.2. Suggestions for effectiveness improvements from the KII

The inputs made by informants that could link to possible UHC improvements in the *Effectiveness* DOI are myriad. These are detailed in Appendix 4 and summarized here.

- Specific KII suggestions on possible UHC effectiveness improvements can firstly be grouped into the category of health education and promotion. This includes designing age and culture appropriate sexual and reproductive health training programmes that cover the life course. Furthermore, there is a need for education and awareness programmes on HIV which could be conducted among key, vulnerable and general populations. The Ministry of Health should also disseminate information on sexual and reproductive health to the public using existing (and, if needed, new) social media channels.

Measures to reduce dietary risk factors linked to NCDs (such as expanding the Traffic Light colour coding system on food labelling and holding healthy food demonstration initiatives in public places) were also highlighted. Linked to this would be greater investments in awareness campaigns about dietary and lifestyle risk factor reduction, as well as social marketing efforts aimed at changing consumer preferences to healthier lifestyle choices. Finally, there was a focus on tobacco nonuse, including identifying and promoting alternative agricultural streams for tobacco farmers, designing culturally appropriate activities aimed at stopping smokeless tobacco use, and declaring tobacco-free zones with support from public health inspectors.

- A secondary category was price control and taxation related to health. Prices of healthy food options should be reduced, and the options widely advertised. Furthermore, a possible annual increase of taxes across the range of smoking tobacco could prove effective, as well as continuing advocacy efforts aimed at enhancing support from the Ministry of Finance in these endeavours (by, for example, highlighting the benefits of increased government revenue and decreased future health costs).
- Extensive inputs relating to improving the approach of service provision were also provided. With regard to family planning, for example, contraceptive methods should be made available with an awareness of the reproductive life cycle of clients, with proper education on contraceptive use. Documenting the use of contraceptives by mothers in child health development records would also be of value. More broadly, appointment and queue management systems could be implemented to reduce waiting time in clinics.

In terms of infectious diseases, screening services can also be offered to patients in hospital outpatient departments and wards who are at risk of contracting HIV, provided by health staff with specialized training and education. General practitioners should be made aware of referring presumptive TB patients for sputum microscopy, and special referral forms can be introduced to allow patients direct access to microscopy centres. TB and NCD programmes should also be integrated; screening for TB could, for example, be integrated with NCD screening at outreach clinics and Healthy Lifestyle Centres and could also be combined with smoking and alcohol cessation programmes. Greater cognizance of and consideration for vulnerable groups (such as the elderly) is needed in the design of TB screening programmes along with more work to strengthen contact screening of TB patients.

A considerable amount of focus was also placed on NCD control. It was suggested that population-wide screening for diabetes and hypertension be undertaken and visits to Healthy Lifestyle Centres be encouraged. The GoSL could also declare a special day for NCD screening, as well as undertake screening programmes on public holidays, with sufficient support. Opportunistic screening for NCDs should be encouraged at hospitals (both public and private), with screening for diabetes and hypertension being offered, for example, in outpatient departments and wards.

Related points were also made with regard to occupational health settings. This included encouraging workers to undergo screening for NCDs at their workplaces, possibly linking this to annual salary increments (as well as giving annual awards for those who use the screening services and participate in healthy practices).

It was advised that the protocol-based management for hypertension and diabetes which was successfully piloted in Kalutara district should be scaled up to the entire country. Furthermore, follow-up clinic attendance needed to be arranged for NCD patients, with well-managed and compliant patients being provided with medication for two to three months at a time (provided the drugs could be kept in proper conditions). Alternatively, an easy refill mechanism could be introduced to reduce waiting time.

It was emphasized that the quality of the medicines should be maintained. Blister packs should be introduced for NCD medication, with instructions on how to use the drugs displayed on packaging. Furthermore, providing combined pills for the management of hypertension could improve compliance (especially among elderly patients).

- The next set of insights on effectiveness discussed by informants can be grouped into the category of improved access to services. This included the provision of family planning services over weekends and during extended working hours, as well as at least six monthly visitations by public health midwives to all eligible households. Another area of suggested improvement was in service access related to HIV. Suggestions included extending the provision of HIV ART to the private sector and, more broadly, enhancing outreach screening programmes for HIV (especially for key populations).

Improving opportunistic screening by extending the scope of staff was also considered. Public health midwives could, for example, support organized and sustained NCD screening programmes (coupled with their home visits for maternal and child health) if they were provided them with the necessary equipment and resources for diabetes and hypertension screening. Tasks related to NCD prevention (such as referring all individuals above age 35 to healthy lifestyle centres) could be added to their duty list.

Continuing on the theme of NCDs, it was suggested that outreach clinics for diabetes and hypertension screening should be established not only in workplaces but also at community centres and public spaces to provide greater access for working adults. It was also argued that tobacco-quitting services should be increased and strengthened.

- Informants also had insights on UHC performance improvement that related to human resource management. An in-depth analysis of Sri Lanka's health workforce is needed, and could lay the foundation for a national HRH plan the implementation of which would require a strong monitoring and evaluation framework). It was also suggested that the filling of public health staffing gaps be prioritized.

More broadly, continuous in-service training of health professionals was advocated for, and informants insisted that comprehensive evaluations precede the opening of any new medical faculties in Sri Lanka. Furthermore, they contended that the district basis of selecting students for enrolment in government universities (specifically, medical faculties) should be stopped and an island-wide, merit-based system should instead be considered for university (medical faculty) entrance.

A compelling suggestion was for the establishment of an authority, composed of qualified staff, that could decide on the placement of consultants. This authority would need to complete appropriate assessments before deciding on such appointments and could develop effective processes to appoint consultants who had returned to the country after their foreign training. It was argued that the value of the bonds that medical doctors sign with the Ministry of Health before they leave for foreign training needed to be increased and that additional methods, such as bank guarantees, should be explored to reduce risk.

It was contended that the period of time for awarding board certification to returning Sri Lankan doctors after their foreign training should be increased from two weeks to at least six months. Furthermore, the number of trainees enrolled in postgraduate training programmes can be increased to match the level of emigration of these categories of staff. Possible bilateral agreements with developed countries that were attracting Sri Lankan medical doctors should be considered (with possible reimbursement of at least some of the money invested by Sri Lanka to train the doctors that then decided to permanently migrate).

- Linked to HRH, informants also reflected on issues relating to salaries and incentives for staff. Here, it was suggested that a roster system be introduced—with incentives—for healthcare professionals to work during extended hours. Field staff should be provided with transport support, with special consideration of terrain in their areas. Public health midwives should also be given an additional allowance (or extra duty payment) for NCD-related service provision. Furthermore, the salaries of NATA staff should be increased—in line with their level of qualification—in order to retain these skilled professionals.

While it was conceded that the dual practice of medical doctors could continue, it was believed that this should be well regulated and that private practices should be restricted to the same districts as the doctors' (public sector) workstations. The above notwithstanding, current salary structures for medical doctors (including consultants) should be revised and their remuneration package increased, in an effort to retain skilled medical professionals in the Sri Lankan public sector.

- Informants also spoke about the need to improve infrastructure. It was asserted that the quality of the services and the infrastructure of clinics needed to be improved and maintained through regular maintenance and repairs. Additionally (and pertaining to TB management) the utilization of portable X-ray machines for active case finding could be introduced to improve TB screening programmes.

- Possible legal reforms that could improve the UHC roll out were also mentioned. These ranged from reforms relevant to family planning (that would, for example, enable healthcare workers to improve teenagers' access to contraceptives, thereby protecting adolescent health) and tobacco nonuse (such as banning single-cigarette stick sales, introducing plain packaging for cigarettes, and prohibiting smoking in public places). More legislation also needs to be formulated in relation to international health security (e.g., in the area of nuclear energy control).
- Important suggestions were also made around intrasectoral collaboration. It was felt that medical administrators should be made more aware of the vital role that they could play in TB control. Regarding facilities, there needs to be a clear allocation of X-ray facilities from hospitals to support the TB programme, and resources of the National Hospital of Sri Lanka (particularly its laboratory services) should be shared with the Colombo STD clinic.

Possible improvements in intrasectoral collaboration that targeted NCDs were also discussed. The services of clinical nutrition physicians should be obtained to strengthen the management of dietary risk factors and garner the support of specific units of the Ministry of Health (including the Health Promotion Bureau and the Nutrition Division), which could significantly improve initiatives aimed at NCD risk factor reduction.

- In addition to intrasectoral collaboration, informants also spoke about needed improvements in inter-sectoral collaboration. It was suggested, for example, that the national TB programme could work with community-based NGOs to improve screening for individuals from marginalized populations.

Challenges around IHR were also discussed. This included improving engagements with non-health-sector agencies, as well as the Ministry of Finance, regarding the plan to implement IHR measures. Further to this, a mechanism could be established for the private sector to assist in financing activities related to IHR through corporate social responsibility initiatives. It was also advised that Sri Lanka's Steering Committee on IHR should implement a mechanism that would allow for efficient (and effective) monitoring and coordination of the activities of different stakeholders.

- Finally, informants shared thoughts on the improvement of health information systems. This included obtaining age-disaggregated data on the use of contraceptives for better service planning. Furthermore, comprehensive applications (apps) could be developed and introduced at clinics to support follow-up care. Demographic- and disease-specific data of patients, attendance at clinics, information on referrals, and data related to the management of patient conditions could all be recorded by these apps. The apps could also support sending out reminders to patients and monitoring the progress of their treatment outcomes.

A comprehensive system of obtaining reliable data on tobacco use should be developed, with a mechanism for sharing the data with relevant role-players. In relation to HRH, a national data repository that allows for the quantification of doctors in both the public and private sectors in Sri Lanka could be established (this data would be crucial for accurate UHC calculations in relation to the health workforce density tracer indicator).

## 6.3. Efficiency

### 6.3.1. Summary of KII insights into the efficiency domain

Responses from informants on efficiency related to a number of health systems areas, including the health workforce, medicines and health-related technologies, and service delivery.

Firstly, with regard to the health workforce, it was felt that the private health sector of Sri Lanka was dependent on the human resources (mainly the doctors) of the government health sector. Given that these health professionals typically attended to private-sector patients after hours, private sector facilities (such as operating theatres) were not well attended by medical professionals in the mornings and afternoons, while government facilities were under-supported in evenings when dual practicing professionals attended to their private care patients - exacerbating the challenge of long waiting lists for procedures and operations. As one informant observed:

*'If you consider the entire country's availability, we are not utilizing at one end'. —Informant 04*

There were also points made on a possible efficiency mismatch between the Ministry of Health and universities in terms of training health personnel. It was felt that, while the Ministry of Health's core mandate is service provision, it had been intricately involved in training the health workforce (which spanned approximately 23 categories of health professionals). While the capacity of the Ministry of Health to train this staff currently exceeds that of universities, it was believed that there should be a concerted effort to shift this function to universities whose mandate lie in training and education.

An argument posited in support of this was that not only was the training delivered by the government free of charge, but the Ministry also provided an allowance for the entire period of training (resulting in a total cost that informants estimated to be around LKR 6 billion per year). Shifting training to universities could thus yield considerable savings. These sentiments were reflected in the following comment by one of the informants (pertaining to nursing trainees):

*'All [this] training by the Ministry of Health is free of charge. Not only free of charge, they are paid a monthly allowance of 36,000 Sri Lankan rupees, which is a big amount'. —Informant 04*

Interestingly, observations were made on how the current training of health professionals did not necessarily equip or orientate them to make efficiency-driven decisions. This was not to negate the primacy of working towards positive health outcomes for patients; rather, it highlighted the need to sensitize health professionals to the fact that there were limited health resources which needed to be invested wisely. As stated by an informant:

*'We always want to save people's lives, but we don't think about the investments. We can save people's lives, but mean time [sic] we should think about the return [on] investment. When we allocate money, we do not think about the efficiency'.—Informant 10*

There was particular concern about training in public health. It was felt that in the past, given the relatively low number of professionals in this area of expertise, trainees were exposed to many domains of public health and became well-rounded professionals who could make decisions based on a holistic understanding. However, due to a narrowing of focus and specialisation, public health-trained doctors increasingly made decisions in silos, compounding the risk of wasted resources. A more collaborative and coordinated approach to public health decision making was thus needed.

Another point of reflection related to human resource needs when it came to managing financial resources. It was argued that the health budget of Sri Lanka was not necessarily prepared by people with formal fiscal management training. More often this task was undertaken by medical doctors whose curriculum did not include economics or health financing. Due to the predominant influence of doctors in decision-making, qualified finance professionals were hesitant to take jobs within the Ministry of Health. Solutions to this challenge could involve training doctors in economics, and educating medical graduates about the roles of other professionals in planning and financing healthcare.

There were also reflections related to health technologies and medicines. An example of inefficiency provided by informants was the underutilization of public health laboratory technicians, who are assigned to microscopy centres to test for tuberculosis. It appeared that these technicians only reviewed one or two slides per day in some facilities.

The need to ration resources related to medical technologies was also discussed. It was felt that the proliferation of institutions with sophisticated medical technologies and services across the country (many supporting subspecialty care) could lead to reduced efficiency. Efficiency could be improved if fewer institutions were developed, but with more opportunities provided for appropriately trained health professionals to deliver advanced care (e.g., perform operations) on a rotational basis. Given the risk of undue influence, it was suggested that an apolitical body should be tasked with deciding on the numbers and distribution of these highly specialised (and valuable) services.

Further concerns were raised in relation to the lack of standard protocols for ordering investigations and prescribing medicines to patients at all levels of care. It was believed that these protocols should be introduced to improve system efficiency. As was observed:

*'We understand that they prescribe medicine very haphazardly. They order investigations without any rational judgment. Therefore, there is a need to introduce [a] standard protocol-based system in our primary, secondary, tertiary care. Then only our physicians can adhere to the standard protocols where the medications and other interventions can be controlled'.—*  
*Informant 10*

Informants also suggested that health information systems should be developed to support evidence-based decisions in relation to healthcare. Furthermore, these information systems should be able to capture data on patients managed at each level of care, and support the proper implementation of referrals and back referrals.

Regarding the point on referral systems, it was posited that care pathways of patients are poorly defined in Sri Lanka. Systems that provided guidance on when to refer patients to higher or lower levels of care (or even to community care) were needed.

Informants also discussed issues relating directly to health service delivery. For example, they approximated that the bed utilization of primary care hospitals was around 20% to 30% (translating into considerable inefficiencies and waste as the government paid for utilities to maintain these institutions, as well as staff salaries). It was felt that, before constructing new facilities, the existing institutions should first be more optimally utilized by adding new services such as elder care, disability care, mental health care and palliative care. In addition, primary healthcare institutions should be operated for extended hours, with the services supported by medical and nursing staff.

Finally, it was pointed out that a comprehensive resource mapping of all healthcare institutions had not yet been conducted in Sri Lanka. It was important that such an exercise be carried out, as this could provide pertinent information on what services, equipment and human resources were available at which institutions. Such mapping should also be carried out according to the types (levels) of hospitals and could ultimately provide crucial data for more efficient planning.

### **6.3.2. Suggestions for efficiency improvements from the KIIIs**

- Informants suggested that training of the health workforce should be shifted from the Ministry of Health (which has a service mandate) to universities (with their training and education mandates). This would improve cost efficiency.
- Health economics and financing should be introduced into the curricula of health professional trainees (including medical students). There should also be greater appreciation of the role that other professions, including finance professionals, play in supporting health planning and budgeting processes.
- Training in public health should be broadened so as to prevent so-called silo thinking and improve collaboration for more holistic and integrated decision-making.
- The development of equitable and transparent planning processes for determining the number and distribution of institutions with advanced technologies and services is needed.

- Introducing standard protocols for ordering diagnostic investigations and prescribing medicines, to avoid wasting resources, is also crucial.
- Health information systems should be developed to capture data at all levels of care and to support the implementation of comprehensive referral systems.
- The utilisation of health facilities could be improved by expanding the range of services available and providing after-hours care.
- A comprehensive mapping exercise of resources available across the entire health system in Sri Lanka (including the specific services, equipment and human resources available in facilities at all levels of care) should also be undertaken with relative urgency.

## 6.4. Relevance

### 6.4.1. Summary of KII Insights into the relevance domain

Informants asserted that Sri Lanka has had a form of UHC (or at least a precursor to it) since the introduction of universal suffrage in 1931. This emerged from the imperative placed on politicians to develop the health infrastructure of their relevant geographical areas in order to obtain the votes of citizens during election cycles.

The substantial growth of the health workforce was also described by informants. In 1923, the number of health staff was only 1,500 but grew to 150,000 by 2023, with the number of government health centres expanding from 18 to 1,126. It was noted that there is currently access to a qualified medical doctor within, on average, 3.5 kilometers from any residence. The primary care health staff available for first-contact care was felt to be well distributed, as reflected in the comments below:

*'You have a well-distributed health manpower, at least at primary level, at the first contact point. And there are different categories of staff. And all have been trained free of charge by the government. We are one of the very few countries who have medical education totally free. So, we have covered the distribution of the universal coverage to access... health'.—Informant 04*

*'If there is a necessity for a CT, in my opinion, you can send the [patient] within five hours to the facility by roads'. —Informant 04*

Despite the formulation and implementation of the UHC policy, it was felt that there were still areas (especially remote areas and those with difficult terrain) where access needed to be improved further.

## ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

The OOPE on health was also seen as being high, and the main areas of this expenditure were understood to be for consultations with general practitioners, purchasing of medicines, and laboratory services. The bypassing of healthcare institutions by patients was also a major concern.

It was observed that Sri Lanka's population is ageing, with a rapidly growing elderly population. Therefore, the NCD burden is increasing, and with it the need for palliative care.

One of the preparatory initiatives that were discussed was the appointment, by the Ministry of Health, of a high-level committee before the preparation of the UHC policy, consisting of nearly 200 experts. They developed solutions to address the issues of the health system at that time, including:

1. Empanelment of the population.
2. Empanelment of health institutions where several primary care institutions were clustered around an apex secondary care health institution. Here, the resources and services were to be shared from the apex to the cluster hospitals.
3. Introduction of an essential package (of care) for primary care institutions.
4. Introduction of a network system to share resources such as laboratory services.

As observed by one informant:

*'We focus on introducing this cluster system, network empanelment and everything to provide, make essential medicines in primary care institutions, make available laboratory investigations there and empanel the population for the primary care institutions, appoint qualified doctors for the primary care institutions, and develop people's confidence to reach, I mean access, primary care before going to the secondary or tertiary care or, in other words, to prevent bypassing'.—Informant 10*

The informants pointed out that the Sri Lankan health system focuses on three tiers—primary, secondary and tertiary care. In developed countries there are four tiers, with self-care below the primary care level. If Sri Lanka could improve on the self-care dimension, the burden for primary care could be reduced. To add self-care to the Sri Lankan health system, the health literacy of the people must be prioritized. In line with this, one of the informants made the following comments:

*'If you analyse the outpatient visits in Sri Lanka, we believe that more than 50% of outpatient visits are unnecessary. Because of their poor health literacy, they visit the primary care settings. We provide some medicines which are not necessary. So, we can reduce by 50% [sic], if we improve the self-care of the people'.—  
Informant 10*

It was believed that the implementation of the UHC Policy had made some positive changes in access to healthcare. It had enhanced primary care institutions and introduced a minimum service package. The Primary Health System Strengthening Project (PSSP) (supported by the World Bank) and Health Systems Enhancement Project (supported by the ADB) were also seen as instrumental in improving primary care institutions. However, it was noted that the PSSP had thus far only financed about half (500) of the primary care institutions, while the rest are yet to be developed.

Additional positive aspects mentioned included the facts that healthcare providers in the Sri Lankan public sector had similar training for their respective categories, and that the drugs available to all the healthcare institutions in the country were of uniform quality due to a central procurement mechanism. However, the availability of the minimum service package in all primary healthcare institutions at all times had not yet been assured. Furthermore, although some initiatives have been undertaken to improve laboratory testing through the cluster system, this has not yet reached all primary care institutions.

It was acknowledged that the PSSP project had improved the infrastructure of selected primary care institutions. Nonetheless, healthcare institutions were believed to not all be held to the same standards, and laboratory facilities were not available in most of them. This was thought to be one of the significant contributing factors to the bypassing of services by patients.

It was noted that primary care institutions were only open for outpatient care from 8 a.m. to 4 p.m. Monday to Friday and 8.00 a.m. to 12.00 noon on Saturdays. Therefore, their accessibility—especially for the working population—was affected. This, along with the same reasons described above (e.g., quality of service infrastructure and availability of laboratory services), had caused individuals to obtain treatment from general practitioners in the evenings, increasing their OOPE.

The implementation of UHC was seen to be supportive of certain important areas of healthcare delivery, such as improving the infrastructure for diagnosing and treating TB. Indeed, the management of TB was included in the essential service package, and primary care institutions were able to diagnose TB through sputum collection. Related to this was the facilitation of contact screening and greater public awareness of the disease.

The above notwithstanding, it was believed that the UHC Policy placed greater emphasis on the detecting and treating NCDs, with communicable diseases (even TB) given less focus.

*'As per the essential package, sputum collection should be done at the PMCU. That is not happening. If a patient comes, a presumptive patient comes there, should be able to provide the care, and necessary support for that patient. When we visit the PMCU what we thought [was] that the PMCU was built only for noncommunicable diseases [sic]. At least, there was no integration'.—Informant 05*

## 6.4.2. Suggestions for relevance improvements from the KIIs

- Informants believed that improving access to services (e.g., better access in remote areas, extended hours of service) should be prioritized.
- There is a need to encourage self-care as a fundamental component of health service/promotion that is foundational to primary, secondary and tertiary care.
- While the increase in NCDs in Sri Lanka (due, for example, to an ageing population) justifies the emphasis placed by the UHC policy on these diseases, this should not be done in a manner that diminishes the control of communicable diseases (such as TB).

## 6.5. Coherence

### 6.5.1. Summary of KII insights into the coherence domain

Issues discussed in the previous (*Relevance*) section were also highlighted in this section, notably the UHC Policy's focus on NCDs and how this relates to other policies and priorities. In addition to a rising prevalence of NCDs, it was observed that the growing elderly population had led to increasing needs for geriatric care, cancer care and palliative care. These were understood to be government priorities.

The policies of the Ministry of Health, especially the National Elderly Care Policy, National NCD Policy, and National Policy on Maternal and Child Health, were believed to be aligned with the UHC policy. For example, the NCD policy supported the prevention, diagnosis and treatment of NCDs—directly contributing to UHC.

The coherence between the UHC Policy and other government priorities and policies was succinctly captured by the following point raised by an informant:

*'UHC talks about not only one disease, it is a holistic picture. All the (health) policies contributed here'. – Informant 01*

Certain policies and strategies implemented by different ministries were also seen to be aligned with the UHC Policy. Examples included the policies and plans of the Social Services Department on elder care and the work of the Presidential Secretariat on national nutrition.

The informants highlighted the priority that the GoSL has placed on financial protection of Sri Lankans in relation to healthcare provision. This necessitated a high degree of efficiency and effectiveness in terms of interventions and ensuring quality of care. Value for money was a focus (especially against the backdrop of the 2022 economic crisis).

Other initiatives that were highlighted by informants include the PSSP (which, again, was seen as a project that had made a vital contribution to primary healthcare system strengthening in Sri Lanka and one that ultimately helped to pave the pathway to UHC). It was also noted that Sri Lanka had received support from major international organisations, such as WHO and the World Bank (in terms of strengthening primary health care), and that this had been a boon to the country regarding its UHC goals.

The above notwithstanding, it was accepted that the GoSL had other crucial priorities as well, beyond health (national security being one such example). This was reflected in the government's allocation to health in the national budget. As one informant commented:

*‘When it comes to budget, we only get 3% of the total budget. But in the other countries for health, it is more. So, we should give more budget allocation to the health. So thereby we can increase a lot of services. For an example, defence is getting more allocations. When health is compared to other countries’ budgetary allocation, we are getting very less amount [sic]’.—Informant 01*

### 6.5.2. Suggestions for coherence improvements from the KII

- Ensure that future health policy development remains cognizant of principles of the UHC Policy so as to ensure a continuation of policy coherence.
- Concentrate on measures of efficiency, effectiveness and quality regarding health interventions to maximize value for money (especially against the background of the financial crisis).
- Coordinate engagements aimed at protecting and increasing government funding for healthcare (using data that shows value for money in terms of health investments).

## 6.6. Sustainability

### 6.6.1. Summary of KII insights into the sustainability domain

Informants affirmed that health is embedded into the cultural values of Sri Lankans, and argued that the higher literacy rates of Sri Lankans, along with key historical and societal developments such as universal franchise and women’s empowerment, favoured the provision of UHC in Sri Lanka. It was noted that there had been the development of a preventive healthcare system, with medical officers of health areas, as far back as 1926, and that this provided a strong backbone for UHC provision. In addition to these favourable local factors, the informants were also encouraged by the support given to UHC by various international agencies (who have helped provide funding for healthcare reforms in Sri Lanka).

Nonetheless, several challenges regarding the sustainability of the UHC Policy were noted by informants, including resource and fiscal constraints. The country’s income was poor, providing a context for the government’s allocation to health care representing only 1.9% of the GDP. Health expenditure was growing rapidly, and more money was needed for future innovations. However, due to fiscal limitations, it was felt that it would be difficult to make UHC sustainable in Sri Lanka.

Free healthcare at the point of delivery was financed by direct and indirect taxes. It was observed that in Sri Lanka, the informal sector represented 71% of the working population, making it difficult to bring a large portion of the population into a health insurance system. Efforts to transform the informal economy into a formal economy were going to take a long time. In addition to this, negative perceptions of the population towards the insurance industry limited the extent to which the financing of health could be shifted towards health insurance.

Another challenge to sustainability raised by informants was related to changing demographic dynamics. It was, again, noted that the population of Sri Lanka was rapidly ageing, increasing the dependency ratio. Ageing would increase health needs, whereas a limited proportion of the population could earn and pay taxes, making the financing for health much more challenging.

It was also observed that there was no user fee system in the government healthcare system (with the exception of a few paying wards in certain hospitals). If a user fee system was introduced for individuals who could afford it—who were in an economic position to bear the costs—this could strengthen the health system.

Another factor that was considered was the potential impact of the recovery and development of the economy on the mindset of the population. During an economic upswing, more households may place greater emphasis on the value of time (with a lower tolerance for long waiting times, for example). Furthermore, there may be greater dissatisfaction with the limitations in services available at government healthcare institutions. As a result, there could be a move away from government health systems utilisation towards private healthcare access, escalating OOPE.

Governance issues were also discussed in relation to the sustainability of UHC. It was highlighted that while the Ministry of Health had a financial accounting function, it did not have a system of cost management, constraining efforts to reduce wastage and improve allocative efficiency. To further improve capacity, the Ministry of Health should ideally have qualified professional, chartered accountants to assist in managing the health budget, with appropriate remuneration. Further to this, it was suggested that there should be an independent economic arm within the Ministry of Health which can allocate funds based on the value gained. The unit should also have qualified professionals for this purpose, selected on merit and independent from political influence.

Issues pertaining to provincial health governance were also raised. It was contended that the provincial health system duplicated work and affected the efficiency of the overall health system. This sphere of government reduced, for example, opportunities for strategic purchasing. It was also important to link performance to the financing of health care institutions. Furthermore, the majority of primary healthcare institutions at this level fell under the Provincial Councils, with the Finance Commission of Sri Lanka playing an instrumental role in allocating funds for Provincial Health Authorities. There was a need for advocacy within the Finance Commission for the allocation of necessary funds to provincial health structures—this could be fulfilled by including a Ministry of Health representative on the Finance Commission.

Informants discussed health systems opportunities and challenges in relation to the sustainability of UHC. It was observed that the Sri Lankan healthcare system lacked a gatekeeping mechanism. In this context, gatekeeping refers to implementing referral pathways to help ensure that patients access appropriate services (108, 109). Such a mechanism would reduce the bypassing of primary healthcare institutions and improve the system's efficiency. The private practice of the specialist medical officers could, however, disincentivise the development of a gatekeeping mechanism, since such a mechanism could prevent patients from directly approaching the specialists of their choice.

A shift towards health promotion and enhanced primary care delivery was also seen as positive factors in terms of UHC. It was noted that there were proposed plans to convert primary healthcare institutions into community centres. This would include an expansion of services (such as short- and long-stays for patients with mental illness). Additionally, there would be opportunities for health improvement through, for example, exercise areas with gyms. This could combine both health promotion and treatment services, attracting both healthy and ill individuals, and improving utilisation of the primary care institutions.

With regard to quality of care, it was contended that there should be a proper accreditation system for health institutions. Moreover, clinical auditing needed to be introduced to primary healthcare institutions. Furthermore, it was suggested that a mechanism be created to ensure that health staff were accountable for the resources they used.

The utilisation of medicines and technology (and the role that this played in UHC delivery) was an important health system building block discussed by informants. It was appreciated that the central procurement system had reduced the cost of drugs due to bulk purchasing. This also supported an equitable distribution of drugs throughout the country, aimed at ensuring that the same quality of drugs was available at all healthcare institutions. Nonetheless, it was necessary to revisit and upgrade the essential package of drugs to primary healthcare institutions. Informants also felt that further issues relating to the supply chain still needed to be addressed. Related to this was the maintenance of sufficient stock. It would be difficult to sustain the provision of UHC if this crucial area weren't well (and transparently) managed.

Several salient points were made in relation to health information systems (another health system building block). It was explained that hospital record systems were created for individual hospitals, but the information systems of different hospitals were not linked. Indeed, sometimes systems in different health institutions were not interoperable at all. Therefore, it became difficult to refer and follow up with patients in health facilities and (more broadly) to track data.

It was also noted that there was no regular, ongoing survey on available health resources, including the infrastructure necessary for Sri Lanka's healthcare provision. Furthermore, a large quantity of information on health was collected by different agencies, and there was no mechanism in the country to collectively analyse this data or forecast future health trends.

Key points were raised by informants on the health workforce, another health system building block crucial for the sustainability of UHC. It was, again, noted that in Sri Lanka health staff are trained free of charge (in terms of tuition). This was undertaken at the 12 state medical schools, which fall under the Ministry of Higher Education. Informants estimated that it costs the GoSL LKR 4.2 million to train each doctor. Producing a consultant cost the government another LKR 13 million. It was pointed out that, including the school education, it takes 25 years to train a consultant in Sri Lanka. The loss of each consultant thus exacts a significant cost, as described by one of the informants:

*'Due to some bad decision taken by the government to give leave, and also due to the economic condition in the Sri Lanka underwent bankrupt [sic] in 2021, 2022. So what we are losing more than we really suffered, perhaps more than 18 million rupees [lost], we spent for the school education, the medical education and the postgraduate education. And more than the 18 million and 25 years of training is lost. It takes another 25 years to produce another specialist when one person is taken out by a developed country. So that's the big issue we have'.—Informant 04*

Another important trend that was noted was the change in gender ratios in terms of medical students. Informants said that in the 1990s the male to female ratio of students in medical faculties was 65:35. However, by 2024, it had become 32:68. It has been projected that by 2030 the ratio would be 25:75. While it is crucial to ensure female representation in the health professions, it was argued that certain specialities that had a gender bias (such as orthopaedic surgery) could be affected by this trend.

An interesting argument was made by one informant, with respect to the need for a broader education for medical students:

*'The doctor should be taught somehow, something about the health economics, professional ethics, value of the other partners, if we can do that, I think most of the strikes will be, half of the strikes will be over'.—Informant 04*

It was observed that the Ministry of Health also trained 23 other categories of health staff, including nurses and midwives (again, tuition-free). The Ministry paid LKR 36,000 per month per trainee during their period of training, and it was believed that a consistency of quality in terms of training was prioritized across all categories.

A noteworthy point was made on training nurses vis-à-vis midwives. It was explained that the difference between the recruitment criteria for midwifery and nursing was the grade obtained for English in the Government Certificate of Education (Ordinary Levels) exam. Since nursing was more attractive than midwifery, there was less of an intake for midwifery. It was therefore suggested that the government should change the recruitment criteria for midwifery in order to obtain the needed number of trainees for this important category.

For UHC to be sustained, there would need to be an appropriate distribution of health professionals. Informants again stated that, on average, there was a qualified medical officer with 3 kilometers reach in Sri Lanka. However, in densely populated areas, it was thought to be less than that, whereas in areas with more difficult terrain (such as remote areas), informants estimated this number would be around 12 kilometers.

While it was appreciated that rural retention had significantly improved, it was felt that this had not yet been fully optimized. In certain rural areas—and as mentioned earlier in the *Effectiveness* KII section an informal practice known as ‘T to T’ which means ‘Tuesday to Thursday’ has developed, in which one consultant worked from Tuesday to Thursday and took leave on the other days, and the second consultant covered the work for the entire week. The consultants would then rotate shifts the next week. Though this may have had some impact on quality of care, the services generally ran smoothly, and this unwritten convention had helped retain rural consultants.

A marked concern was raised regarding annual transfers of health staff. This point was emphatically made by an informant as follows:

*‘There should be structural change of the office structure of the Ministry of Health and also... key positions should be given on merit. It is not, it cannot be on the transfer basis because it is not fair [for] both sides. I mean some people are very good at managing hospitals, but [that does] not mean [they] will become a good director at the ministry or DDG. —Informant 04*

Relevant to the previous points on health information systems, informants stated that there is no comprehensive human resource management database of the health staff in Sri Lanka. Also, Sri Lanka has never undertaken a mapping exercise in terms of HRH.

Linked to human resources, it was worrying to informants that the Ministry of Health did not have sufficient qualified IT professionals to support its work. They suggested that having a central agency of the government which could recruit IT professionals (at market-rate salaries) and deploy them to the Ministry of Health could be a solution for this.

Finally, concerns were raised in terms of the lack of support for innovation and research. It was argued that the current healthcare system did not provide sufficient motivation for innovations by healthcare staff (including research, creativity and analytical thinking). Also, there was not enough involvement of academia and professional colleges in terms of the advancement of health.

### **6.6.2. Suggestions for sustainability improvements from the KIIs**

Input from informants that related to improving the sustainability of UHC in Sri Lanka can be arranged according to the WHO Health System Building Blocks Framework (110), and are detailed below:

#### **6.6.2.a. Health service delivery**

- Develop a workable (and acceptable) gatekeeping mechanism to optimize healthcare service delivery.
- Introduce an accreditation system of healthcare institutions and undertake clinical auditing of primary healthcare facilities.

### 6.6.2.b. Health workforce

- Ensure senior posts of the Ministry of Health (including the Secretary, Director General of Health Services, and Deputy Directors General) are filled on a merit basis, from the persons within the health system. Political influence should be removed.
- Develop a long-term succession plan for highly technical posts within the Ministry of Health. The current annual transfer system of key technical experts also needs to be revisited.
- The training of health staff should be shifted to universities from the Ministry of Health (a carefully planned transition was needed with regard to this proposed change).
- Integrate a component on ethics and professionalism into the training curriculum for medical doctors (this includes deepening knowledge of the roles of other categories of staff in healthcare delivery, and valuing their service).
- Consider a cessation of payment for the health workers during their basic training. Instead, a loan scheme can be introduced for economically disadvantaged students.
- Adjust intakes of postgraduate healthcare training to match the losses resulting from the emigration of health professionals.
- Create systems for continued medical education of all health staff (including medical doctors).
- Develop a comprehensive electronic database of the entire health workforce across all categories, and maintain this database at the central level. Further, undertaking health staff mapping would also be essential.

### 6.6.2.c. Health information systems

- Develop comprehensive data systems that would allow for greater health information interoperability between healthcare institutions.
- Recruit more qualified IT professionals who could help the Ministry of Health improve data collection and analysis.

### 6.6.2.d. Access to essential medicines

- Revise the essential package of drugs available at primary healthcare institutions.
- Undertake an assessment of supply chain processes to identify challenges regarding stock levels.

### 6.6.2.e. Health systems financing, and leadership and governance

- Recruit qualified professionals who could help develop and maintain a cost-management system within the Ministry of Health.
- Ensure that provincial priorities are also represented, through the Ministry of Health, on the Finance Commission.
- Provide more support and resources for research and innovations in healthcare.

## 6.7. Ethical evaluation

### 6.7.1. Summary of KII insights into the ethical evaluation domain

The informant's reflections on ethical considerations relating to the UHC Policy centred on three aspects, namely a) access to services (specifically, the need for implementing gatekeeping), b) the impact of vulnerable communities, and c) the distribution of healthcare.

Firstly, in terms of access to services, the challenge of introducing a gatekeeping mechanism was again discussed by informants, but from an ethical perspective. For over a century, Sri Lankans have had the freedom to access healthcare services at any healthcare institution (from basic health facilities to health institutions with advanced services). In order to help ensure continuity of care, one objective of the UHC Policy is to implement referral pathways that would in effect create a gatekeeping system (2).

It was highlighted that Sri Lanka is a small country, and that an individual could travel to the three National Hospitals (in Colombo, Kandy and Galle, respectively) in a matter of a few hours from anywhere in the country. The relative proximity of services could make it practically difficult to implement a gatekeeping mechanism. Over and above this, it was argued that patients might resist the idea of gatekeeping, as it would limit them from selecting the healthcare provider they wished to obtain services from (this freedom having been the norm for a long time). Further concerns related to how gatekeeping would affect patient choice and whether it would prevent individuals from obtaining health services in a manner that was timely. The potential impact on equitable access was reflected on by an informant as follows:

*'Sri Lanka has a system where influence can do anything. Then [the] poorest of [the] poor will only be affected by the gatekeeping system. Not the people, those who can do something, they will always bypass'.—Informant 04*

Secondly, issues relating to vulnerable communities were raised. It was pointed out that the healthcare system of Sri Lanka still had gaps in providing necessary services to elderly people and estate populations and that the UHC policy had not fully addressed this. A cadre had been created to provide care for people who have difficulty in accessing health services due to their disabilities (namely, public health nursing officers). These health professionals were supposed to visit the households of vulnerable patients and provide services. However, certain limitations have made it difficult to ensure service availability from this group of health professionals throughout the country.

Thirdly, ethical concerns were raised pertaining to the distribution of services. Moreover, it was believed that the implementation of the UHC Policy had thus far still not achieved an equal distribution of services. The availability of pharmaceuticals and laboratory facilities was highlighted in relation to this. For proper management of a patient with diabetes, for example, it was argued that all the medicines needed to manage the patient should be available even at the primary healthcare institution level. Otherwise, the patient would either have to be referred to a higher level of care where the drugs were available, or the patient's quality of care would be negatively impacted. It was also suggested that improving the distribution of (and access to) laboratory investigations could be done through the cluster care model, with the apex hospital having the laboratory and the cluster hospitals transporting samples to the facility as needed.

## 6.7.2. Suggestions for ethical evaluation improvements from the KIIs

- Develop a gatekeeping system that balances the necessity of establishing an efficient referral system with the imperative of protecting patient choice.
- Ensure that vulnerable communities, such as the elderly and patients living with disabilities, are provided with the necessary health services (through, for example, making certain that there are a sufficient number of public health nursing officers trained to conduct home visits).
- Ensure that there is an equitable distribution of health services and facilities (such as laboratories) so that there can be fair health access across Sri Lanka.

## 6.8. Economic evaluation

### 6.8.1. Summary of KII insights on the economic evaluation domain

Informants reflected on the fact that the GoSL's health budget is around 1.9% of the country's GDP. While the budget increased eightfold during the past 25 years, from LKR 50 billion to LKR 408 billion, in absolute value healthcare has not exceeded 2% of GDP (which is a relatively low budget allocation, as compared to other countries). With the allocation of more funds, more services could be introduced to the Sri Lankan health system, as one informant stated:

*'With this GDP I don't think there would be any improvement in the future of UHC unless we increase the allocations proportionate to... inflation and other parameters... It is the general opinion of the WHO health finance experts that we should go up to at least 3% to 3.5% GDP from the government alone. Our health sector will not collapse, but the quality will deteriorate from the recipient end unless we increase the allocations or the money provided by the government for health in the total budget'.—Informant 04*

Informants also believed that more than 50% of spending on health in Sri Lanka was out of pocket. As discussed in the *Relevance* KII section, three major drivers of OOPE were identified, namely, 1) fees paid to doctors (either general practitioners or consultants), 2) the price of medicines and other commodities purchased from private pharmacies, and 3) the cost of lab work at private laboratories.

It was estimated that payment to medical practitioners accounted for nearly 30% of OOPE. Informants felt that one of the main reasons private practitioner services were so often sought out was that government health care institutions were only open for limited hours (again, as described in the *Relevance* KII section). Furthermore, in contrast to some public sector primary health care institutions, the private sector offered all-in-one services, providing medical consultations and necessary medicines, as well as laboratory investigations—all under one roof. Therefore, economically stable individuals and households often accessed these services because of their convenience. Having health insurance also increased the propensity of utilising private health care services. Conversely, those with lower levels of economic stability used government health facilities more often (as services offered there were free of charge at the point of service delivery).

*'There is research of mine, I studied about the utilization of HLC-NCD clinics by male government officers. In that, most of them have been screened. As far as I can remember it was around 80% and among them, only a small proportion got screened at the government sector. Most of them have gone to the private sector. The reason for that was convenience and insurance purposes'.  
—Informant 06*

It was also indicated that 33% of OOPE went to purchasing medicines and other health commodities. Patients obtaining treatment through private consultations had to purchase their own drugs from private pharmacies. Also, some patients needed medicines and other commodities that were not always available at government health care institutions, and therefore may also have had to purchase them from private pharmacies.

Finally, it was observed that 17% of OOPE goes towards laboratory investigations. Patients who obtained consultations from the private sector also had their lab work done at private laboratories. Most primary health care institutions did not have laboratories, and even when they were available, the range of tests provided was limited (necessitating, again, the use of private laboratories).

### **6.8.2. Suggestions for economic evaluation improvements from the KIIs**

Based on the KII analysis, the following steps could be undertaken to reduce OOPE on health:

- Increase budgetary allocation for the government's health sector so that it reaches 3 to 3.5% of GDP.
- Reduce/regulate the fees of the private consultations and services, as well as fees associated with medicines and other health commodities.
- Turn primary health care institutions into 24-hour services or, at least extend their hours of operation.
- Ensure that a package of essential drugs is available in government healthcare institutions (including all formulary drugs). Devices such as orthopaedic implants and cardiac stents could also be made readily available through appropriate supply chain processes.
- Develop a more comprehensive system of performing laboratory tests in government healthcare institutions (by establishing laboratories that can provide basic diagnostic testing on-site and/or through cluster laboratories, with effective and efficient specimen transport/transfer between institutions, and uniformly timeous reporting back on results).

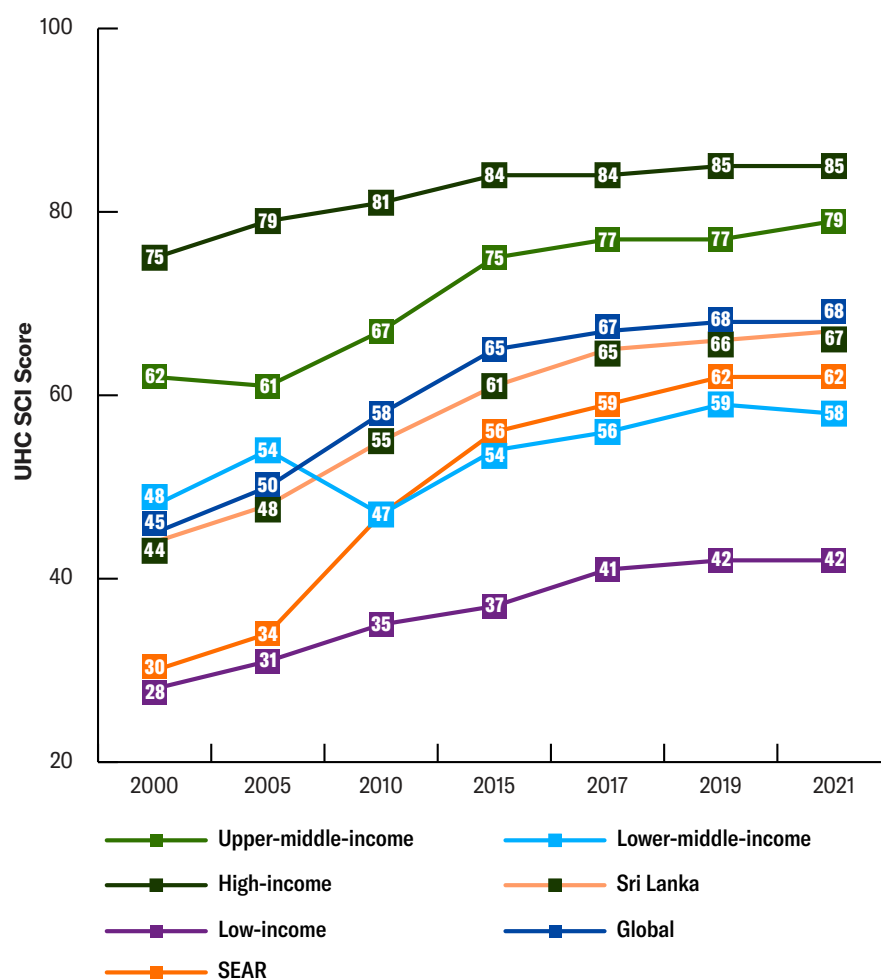
## 7. Discussion

The following discussion will consider the findings of each analytical component (viz. the indicator, economic and thematic analyses) and distil key reflections relating to the report objectives. It will also reflect on major challenges that have impeded the progress of UHC Policy implementation in Sri Lanka. Finally, it will focus on prioritized indicators that require more urgent policy action before concluding with a description of report limitations.

### 7.1. Summary of the main findings

#### 7.1.1. Summary of the indicator analysis

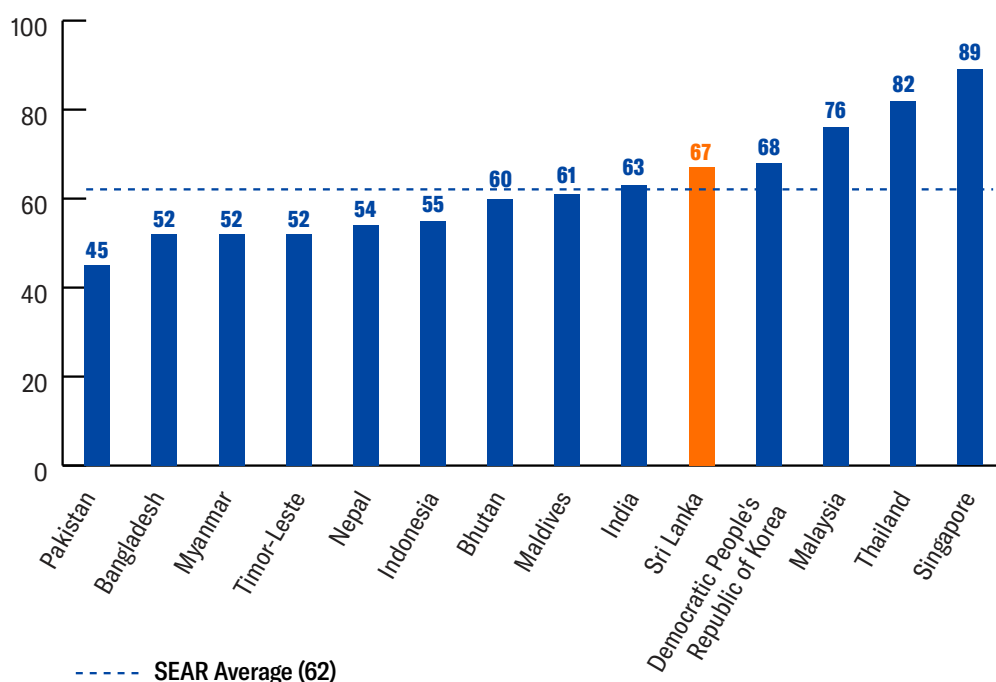
Globally, progress towards UHC has shown a degree of deceleration in recent years (111). Within this context, Sri Lanka's UHC performance has certainly been satisfactory. This is reflected in its UHC SCI score, which has increased from a baseline of 44 in 2000 to reach 67 in 2021 (6). This score is slightly below the global average (which was 68 in 2021) and is higher than the average score of SEAR countries (62) as well as that of low-income and lower-middle-income countries (which were 42 and 58, respectively). This is detailed in Figures 35 and 36 below, with the latter providing a zoomed-in view of the SEAR comparators.



**Figure 35: Sri Lanka's UHC SCI performance (2000-2021) against global, regional and economic comparators**

Source: Global Health Observatory (112)

## ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

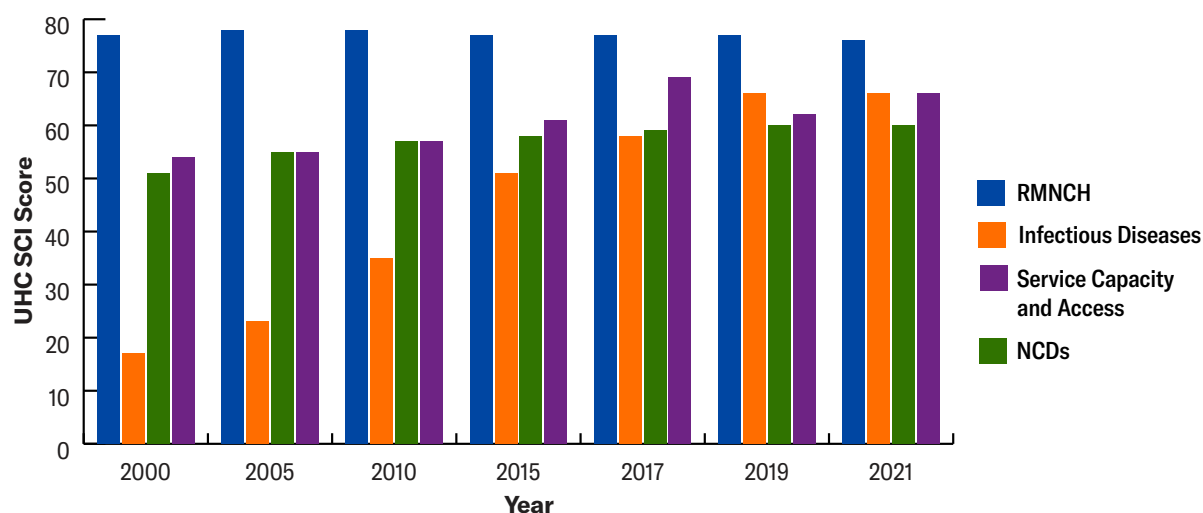


**Figure 36: Sri Lanka's UHC SCI performance (2000-2021) against SEAR comparators**

Source: Global Health Observatory (112)

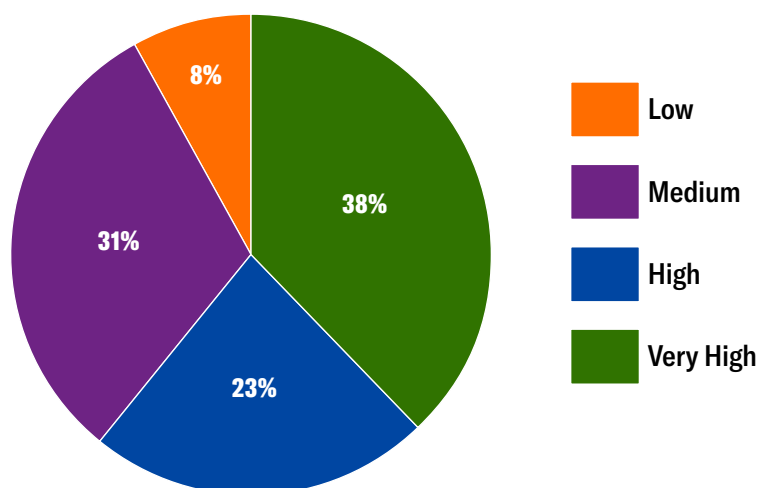
As can be seen in Figure 35, the trajectory of Sri Lanka's UHC SCI performance is similar to that of the global average score, showing a slowdown in progress between 2017 and 2021. A number of factors may have contributed to this, including the impact of the COVID-19 pandemic, the economic crisis and the brain drain of health professionals. These challenges will be discussed in more detail later in this chapter.

At a more granular level, Sri Lanka's performance within the UHC SCI subindices is provided in Figure 37. A concerning trend is seen in the stagnation of the NCD subindex, which has been primarily driven by the low score of the hypertension treatment tracer indicator (as shown in Figure 38).



**Figure 37: Trends in UHC SCI subindices in Sri Lanka (2000-2021)**

Source: Global Health Observatory (112)



**Figure 38: Distribution of UHC SCI tracer indicators, by category of performance, in Sri Lanka (2021)**

Source: UHC 2023 Global Monitoring Report (6)

With respect to Figure 38, there is a clear need to focus on the basket of indicators in the medium and low categories of performance (which, in part, provides a justification for the priority-setting exercise described later in this discussion).

### 7.1.2. Summary of the economic analysis

Financial risk protection remains a cornerstone of UHC. Based on available data (described in Chapter 7 of ‘Findings of the Economic Analysis’), Sri Lanka’s per capita OOPE on health was US\$59 in 2022 (95), with the main cost drivers of household expenditure on health being, in order, private medical practitioner fees, the cost of medicines, and fees for laboratory services (97). The country’s OOPE per capita is only slightly above the regional average of US\$57. However, while this measure has shown a small change in dollar terms, the rise in terms of LKR cost has been relatively sharp. Indeed, while the OOPE per capita in U.S. dollars *decreased* by 9.2% between 2013 and 2022 (from \$65 to \$59), there was a staggering 150% *increase* in OOPE per capita in LKR (from 8,520 to 21,260) over the same 10-year period (96). This escalation, indicative of the local currency’s depreciation, was driven by the economic crisis.

It is also of concern that catastrophic health expenditure rose from 0.7% to 0.9% between 2009 and 2016 using the >25% threshold, and from 4.7% to 5.4% using the more sensitive >10% threshold (99, 100). One of the contributing factors to this increase may be the epidemiological transition that has seen an increase in NCDs (necessitating more chronic disease control) (113). Indeed, the low score of the hypertension treatment tracer indicator is likely reflective of this point.

The above notwithstanding, there has been some progress towards achieving greater financial risk protection. WHO’s Triple Billion dashboard has, for example, projected that about 2.3 million additional people will be covered by essential health services and not experience financial hardship associated with health-care in Sri Lanka by 2025 (105). Furthermore, there appears to be a *relative efficiency* in respect to health expenditure and UHC SCI score, compared to regional and global data (as demonstrated in Figure 34—although further analysis is needed to confirm this).

In light of the above, steps towards accelerating progress on financial risk protection in Sri Lanka would involve increasing government expenditure on health as a percentage of GDP from approximately 1.89%

in 2021 to at least 3.5% (indeed, 5% has been suggested as the minimum public expenditure necessary to achieve UHC) (114, 115). Concomitant with this increase in expenditure, concerted efforts will be needed to ensure that UHC Policy is implemented across the country in an efficient and equitable manner.

### 7.1.3. Summary of the thematic analysis

#### 7.1.3.a. Key informant reflections on the effectiveness domain

Regarding the *effectiveness* DOI, informants shared pertinent perspectives on the limitations of certain indicators in the Sri Lankan context, particularly in relation to family planning, tuberculosis treatment, diabetes prevalence and health workforce density. They did, however, note local progress in important areas such as access to modern contraceptives, efforts made in terms of HIV services (including community-level collaborations between NGOs and the GoSL), the value of introducing presumptive TB patient algorithms, government efforts in relation to NCD prevention, the crucial work of NATA and other role-players in reducing tobacco use, the general availability of medical professionals, and the support of the public health system in terms of IHR implementation.

Informants made a wide range of suggestions for improving the *effectiveness* domain. These encompassed providing health education and promotion, controlling prices and taxes in relation to health, improving the approach of—and access to—health service provision, enhancing human resources in relation to health-care, increasing salaries and incentives for health professionals, improving health infrastructure, upgrading health information systems, introducing legal and legislative reforms relevant to UHC, and strengthening both intrasectoral and intersectoral collaboration.

#### 7.1.3.b. Key informant reflections on the efficiency domain

In terms of the *efficiency* domain, informants were concerned about challenges in the management and training of the health workforce, uneven medicine supplies, the need to develop health technologies and information systems, deficiencies in the development of referral pathways, the underutilization of primary care hospitals, and the lack of HRH mapping.

Suggestions for improvement in this domain included shifting the training of health professionals from the Ministry of Health to universities (and including health economics/financing as a crucial part of this training to improve resource management), broadening education in the area of public health, developing equitable and efficient processes for determining the number and distribution of institutions with advanced health technologies and services, introducing evidence-based protocols for diagnostic investigation and medicine prescription, building health information systems for better data and referral management, extending hours of health service provision, and undertaking a comprehensive health resource mapping exercise.

### 7.1.3.c. Key informant reflections on the relevance domain

The KIIs provide important insights regarding the UHC Policy and the *relevance* DOI. It was agreed that the policy had been developed (and was being implemented) bearing in mind the needs of the Sri Lankan population. Positive developments that were noted included the introduction of minimum service packages, as well as specific initiatives such as the PSSP and the Health Systems Enhancement Project.

However, areas of implementation difficulties were identified, such as the need to improve the reach of health services to vulnerable groups (including communities in remote areas, and elderly patients). Addressing the tendency to bypass levels of care in terms of services—by ensuring, for example, that patients were first appropriately seen at a primary care level before being referred to secondary or tertiary levels—was also discussed. Furthermore, informants described the importance of introducing self-care as a level foundational to all other levels of care (primary, secondary and tertiary). Self-care involves the ability of individuals, families, households and communities to promote health, prevent disease and manage illness and/or disability with or without the support of a healthcare provider; in the Sri Lankan context this relies heavily on intersectoral collaboration (116).

Regarding suggestions for improvements in the domain of *relevance*, informants felt there was a need to prioritize better health service access for communities across Sri Lanka (e.g., by increasing the reach of healthcare delivery in remote areas and extending hours of service). It was also believed that self-care, as mentioned above, should be strongly promoted. While it was agreed the NCDs should be focused on, informants argued that this shouldn't diminish efforts to control communicable disease.

### 7.1.3.d. Key informant reflections on the coherence domain

Key points on the *coherence* between the UHC Policy and other national policies, plans and priorities were described in the KIIs. Alignment with key health policies, such as the National NCD Policy, the National Elderly Care Policy and the National Policy on Maternal and Child Health were highlighted. Beyond the confines of health, resonance between the UHC Policy and the plans of the Social Services Department on elderly care, along with the activities of the Presidential Secretariat on nutrition, were also mentioned.

However, there was recognition of the fact that fiscal constraints had adversely affected the health budget. Ensuring that there was good value for money in terms of health investment was stressed. Furthermore, funding from international donors had significantly assisted with the country's UHC aspirations.

Suggestions included taking necessary steps to ensure that the planning and content of future health policies maintained coherence with the objectives of the UHC Policy. While budgetary limitations were understood, it was still contended that increases in health expenditure should be advocated for. Moreover, prudence in terms of existing health initiatives was necessary to ensure effectiveness, efficiency and—ultimately—good value for money.

### 7.1.3.e. Key informant reflections on the sustainability domain

Informants discussed conditions that were favourable to UHC implementation in the Sri Lankan context, including the country's historical commitment to preventative healthcare and the current support it was receiving from relevant international agencies. However, as with the *coherence* domain, informants felt that the limitation of available financial resources was a clear threat to the *sustainability* of the UHC rollout. The impact of changing demographic dynamics (that reflect an increasingly ageing population) was also mentioned as a challenge to UHC sustainability. Additional points were raised on possible impediments to sustained healthcare delivery arising from the complex relationship between national and provincial spheres of government.

Informants considered specific issues relating to service delivery and UHC in Sri Lanka. The lack of a gatekeeping mechanism, the need to further bolster health promotion and the necessity of introducing additional quality assurance measures (including an accreditation system and more clinical audits) were mentioned. Points raised on the health workforce included reforms in health education and training, the need to redouble efforts regarding the retention of health professionals in rural/remote areas, problems arising from healthcare worker maldistribution and transfers, and the lack of a comprehensive HRH database.

Issues pertaining to health information systems were also described in the KIIs. This included the lack of hospital record system interoperability, the lack of an overall health data management system that could allow for accurate forecasting, and the need for more IT professionals in the health domain. Problems relating to medical products and technology included the need to improve supply chain processes and upgrade the essential package of drugs at primary healthcare levels. In addition to specific health system building block challenges, informants also raised concerns about the lack of support in the areas of health research and innovation.

Suggestions for improvements that would enhance sustainability can be grouped according to the health system building blocks framework. Firstly, in terms of health service delivery, a gatekeeping mechanism is urgently needed for optimisation across the levels of care. Furthermore, additional quality assurance processes (including accreditation and auditing systems) should be explored.

With regards to the health workforce, senior posts of the Ministry of Health should be filled on a merit basis, and long-term succession planning for highly technical posts within the Ministry is needed. The current annual transfer system of key personnel should also be reviewed. Important suggestions related to shifting health professional training from the Ministry to universities, as well as replacing payment during basic training with a loan scheme. Introducing ethics and professionalism into medical training curricula, adjusting of postgraduate intake to meet human resource needs (e.g. filling in workforce gaps resulting from the emigration of health professionals), and ensuring adequate continued medical education opportunities were also mentioned. Finally, the need for HRH mapping and a health workforce database were emphasized.

Regarding health information systems, it was suggested that steps needed to be taken to improve information interoperability between healthcare institutions, and that more IT professionals should be recruited to support the Ministry of Health in important data functions. Improving access to essential medicines would entail revising the essential package of drugs available at the primary healthcare level. Undertaking an assessment of supply chain processes to prevent stock-outs would also be crucial.

Important suggestions relating to health systems financing and leadership and governance included recruiting qualified professionals to help develop a cost-management system within the Ministry of Health. Furthermore, it was important to ensure that provincial priorities were represented on the Finance Commission. Finally, there was a vital need to provide more support and resourcing for health research and innovations in Sri Lanka to advance the state of healthcare delivery.

### **7.1.3.f. Key informant reflections on the ethical evaluation domain**

Discussions on the ethical aspects of UHC included considerations of access to services. The gatekeeping mechanism was revisited from an ethical perspective. Informants raised concerns that communities in Sri Lanka were used to having the freedom to choose providers from different levels of care (although the inefficiencies that this created were recognized), and that limiting this choice could have an impact in terms of equitable access. The need to improve efforts in terms of reaching vulnerable groups (such as the elderly and patients with disabilities) was also highlighted, as was the need for a greater distribution of service to ensure a broader reach of UHC.

Suggestions made by informants in terms of addressing these challenges included developing a system of gatekeeping that balances the need for efficiency with the protection of patient choice. It was also important to prioritize the provision of health services to vulnerable groups (by, for example, providing a sufficient number of public health nursing officers for home visits in communities). Finally, a coordinated effort was required to ensure a more equitable distribution of health services and facilities across Sri Lanka.

### **7.1.3.g. Key informant reflections on the economic evaluation domain**

Concerns raised by informants again pertained to the relatively low budgetary allocation for healthcare in Sri Lanka and the impact this has had on UHC aspirations. Additionally, several factors were identified on the basis of their contribution to OOPE. These were the high level of out-of-pocket payments made to medical practitioners, the cost of purchasing medicines and health commodities in the private sector, and expenses related to testing at private laboratories.

Suggestions from KIIs for addressing these challenges included increasing the budgetary allocation to the health sector so to 3%-3.5% of GDP. Greater regulation of fees for private consultations and prices of health commodities, including medicines, was also posited. It was felt that OOPE could be reduced by improving access to government healthcare (for example, through expanding the hours of service provision) and increasing the provision of medicines, medical devices and laboratory diagnostics in the public health sector.

## **7.2. Challenges to UHC implementation**

The implementation of UHC in Sri Lanka has been impeded by a number of contextual factors. Important amongst them are: 1) the COVID-19 pandemic, 2) the economic crisis, and 3) the migration of health professionals. These challenges will now be explored in more detail.

### **7.2.1. The COVID-19 pandemic**

The first case of COVID-19 in Sri Lanka was confirmed on January 27, 2020. By March 31, 2020—almost three weeks after WHO declared that COVID-19 was a pandemic—there were a total of 122 cases in the country, with two deaths. That number escalated rapidly to reach 2,814 cases by the end of July 2020 (117, 118). Ultimately, there would be more than 670,000 cases of COVID-19 in Sri Lanka, with nearly 17,000 deaths before the end of the pandemic (119).

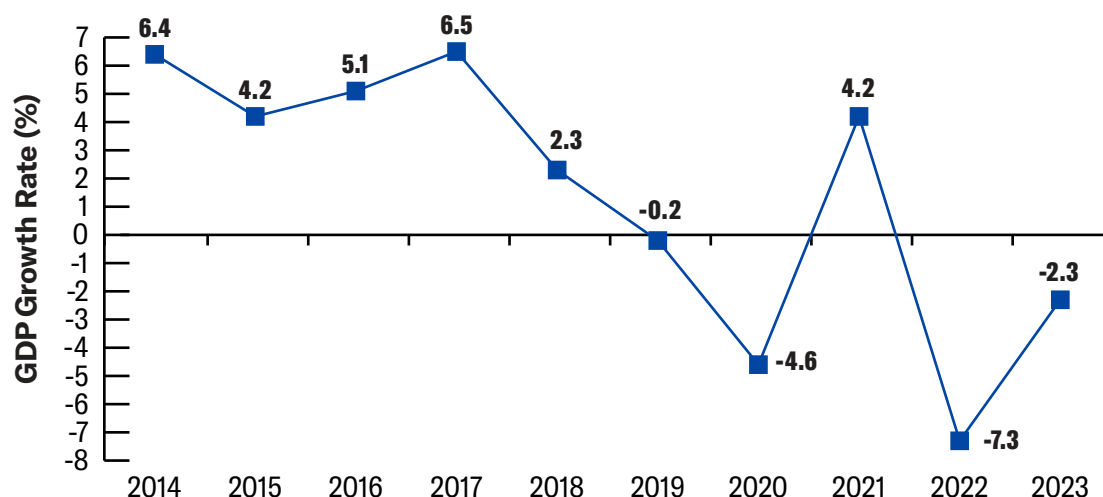
Sri Lanka's response to the pandemic was buoyed by its health system strength. Indeed, the initial response, which focused on stopping outbreaks, showed early effectiveness in COVID-19 control. However, as the pandemic progressed, transmission eventually became widespread. The response was further limited by a relatively diminished COVID-19 testing capacity (120). The above notwithstanding, the GoSL's vaccination efforts yielded considerable results. About 40 million doses of COVID-19 vaccine were delivered, with over 17 million people (80% of the population) receiving at least one dose (119).

The impact of COVID-19 on the UHC Policy implementation, though difficult to quantify, was substantive. This can be attributed to impediments to health service provision as many healthcare workers contracted the virus, reallocation of resources for routine health services to COVID-19 related services, and a decrease in service access (due, for example, to lockdowns) (120, 121). Further, the pandemic had an adverse impact on UHC aspirations across the WHO SEAR countries (122).

### **7.2.2. The economic crisis**

Sri Lanka's economic crisis is another factor that has impeded the delivery of UHC. Although there was a steady economic decline from as early as 2017, the economic crisis became acute in 2019, with the GDP growth rate declining to -4.6% in 2020. After an initial recovery to 4.2% in 2021, the growth rate dipped sharply again to -7.2% in 2022. Figure 39 shows the fluctuations in Sri Lanka's GDP growth rate from 2013 to 2023 (123).

There were several contributors to the economic crisis. These included a trade imbalance, tax reductions resulting in a decrease in government revenue, rising external debt, a diminishment of foreign exchange reserves, and a myriad of governance issues (124). The economic consequences of the COVID-19 pandemic, a downturn in the tourism industry, and an agricultural crisis (precipitated by government policy changes change) all compounded the crisis (125-127).



**Figure 39: Changes in Sri Lanka's economic growth rate (2013-2023)**

Source: World Bank data (123)

The impact of the economic crisis on health in Sri Lanka is difficult to overstate. The probability of increased malnutrition due to escalating food prices, high fuel costs that hinder the transport of both medical equipment and patients, and shortages of crucial medicines (due to procurement difficulties) are just some of the adverse outcomes of the crisis (128). The economic crisis has had a major effect on many aspects of healthcare financing in the country (129), constraining efforts to more fully achieve UHC.

### 7.2.3. The migration of health professionals

A further consequence of the economic crisis is that it has contributed to the emigration of healthcare workers (part of the brain drain). This is another important factor that has hindered UHC Policy implementation. While data on the exact number of health professionals who have emigrated is limited, the Government Medical Officers Association has reported that more than 600 doctors (including specialists) migrated from Sri Lanka in 2022 alone (5, 70). This represents an emigration rate that—if persistent—could have a major adverse impact on health service delivery.

Amongst the push factors cited for healthcare worker emigration are political and economic instability, relatively low salaries, and limited opportunities for career progression (130). Pull factors include further career development/education as well as employment opportunities outside the country (5). Although retention strategies (such as better educational and career opportunities for health professionals in Sri Lanka) have been proposed, the brain drain remains an alarmingly urgent issue (131). Indeed, the delivery of UHC, which is predicated on sufficient HRH, will be greatly hampered if this challenge is not effectively addressed.

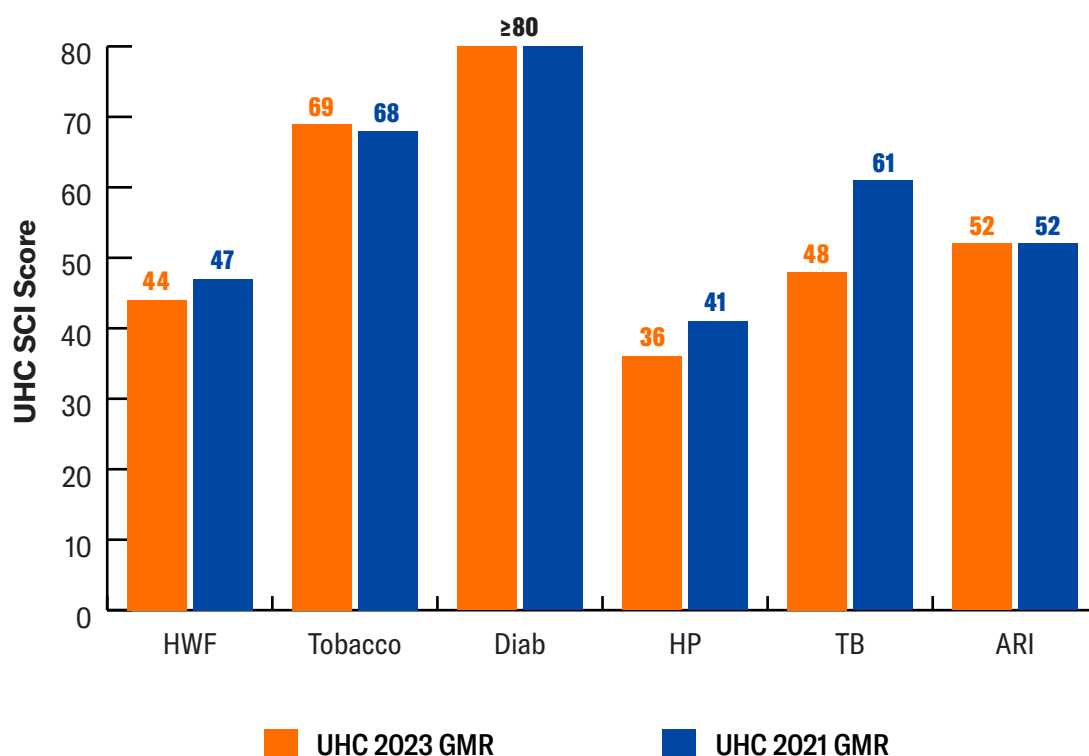
### 7.3. Priority Setting

Due to increasing population health needs, as well as the looming 2030 deadline for SDG 3.8 (which the country has committed to), accelerating the implementation of the UHC Policy in Sri Lanka is imperative. Furthermore, given the difficulties of the country's economic recovery efforts (132) and the competing needs for limited public funds, prioritising which areas of UHC delivery to focus on in order to achieve the most rapid policy gains is critical.

An approach to prioritisation would be to simply identify which UHC SCI tracer indicators had the lowest scores and then intensify policy implementation in relation to those indicators. With reference to Figure 38, the following tracer indicators fall within the medium scoring categories: care-seeking for suspected acute respiratory tract infection, TB treatment, IHR core capacity index and health worker density. Furthermore—and as an important contributor to the poorer NCD subindex performance—hypertension treatment is the single tracer indicator in the low-scoring range for Sri Lanka.

However, priority setting cannot be solely determined on the basis of UHC SCI scores. Other contextual factors, such as local burden of disease dynamics, health service readiness and broader health policy objectives, must be taken into account. In light of this, a consultative workshop was organized by the UHC Policy Analysis Team and held in Colombo from October 28-30, 2024. The workshop was attended by relevant health officials and experts in Sri Lanka. A description of the workshop is included in Appendix 5.

Equipped with an analysis of Sri Lanka's UHC SCI tracer indicator data, and with reference to their areas of expertise and experience in the country's health system, workshop participants identified the six tracer indicators for prioritisation. These included HP as well as three indicators in the medium category, namely: ARI, TB and HWF. Importantly, the participants selected diabetes prevalence and tobacco nonuse as the other indicators for prioritization. This was at least partly due to the importance placed on NCD control in Sri Lanka. Indeed, the UHC Policy document makes specific reference to NCDs in its description of the policy development process (2). Figure 40 below shows the *UHC 2021 GMR* and *UHC 2023 GMR* scores for each of the priority tracer indicators (please note that the Diab score is  $\geq 80$  in both reports).



**Figure 40: Priority tracer indicator scores**

Source: UHC Global Monitoring Reports 2021 and 2023 (6, 133)

### 7.3.1. Challenges related to priority tracer indicators

The consultative workshop participants identified possible root causes of problems related to each of the prioritized tracer indicators; this is described in Appendix 6. In addition to root causes for specific indicators, there were general challenges that had an impact on all of the indicators. An important example of this would be the need for greater digitalisation that could enable better monitoring of epidemiological data. Such data would be of particular relevance to the ID and NCD subindices (and would allow for the analysis of disease-specific prevalence, incidence and treatment trends).

### 7.3.2. Catch-up targets required for prioritized tracer indicators

Finally, Table 35 displays the target score for each indicator against the baseline data from the 2023 UHC GMR. It provides a crude calculation of the minimum average increase needed between 2025 and 2029 to shift each indicator to the high score ( $\geq 80$ ) category.

**Table 35: Performance improvements needed to close gaps for priority tracer indicators**

Priority tracer indicator	ARI	TB	HP	Diab	Tobacco	HWF
<b>Baseline score*</b>	52	48	36	80	69	44
<b>2030 target score</b>	80	80	80	80	80	80
<b>Score gap</b>	-28	-32	-44	0	-11	-36
<b>Average annual increase needed (2025-2029)</b>	+5.6	+ 6.4	+8.8	0**	+2.2	+7.2

\*Based on the UHC 2023 GMR (6)

\*\*Maintain Diab indicator score

## 7.4. Limitations

The UHC Policy Analysis Team encountered a number of limitations with regard to the report development process. These can be categorized into the three analytical components (viz. the indicator, economic and thematic analyses), along with general limitations, as described below.

### 7.4.1. Indicator analysis limitations

There was a significant limitation in the availability of local data for indicator analysis. For example, the cadence of the Sri Lankan DHS—which provides rich contextual data for analysis—has been reduced by logistical and resource constraints. Similarly, the most recent HIES is from 2019 (even though a repeat of the survey was planned for every three years). As a result, the team frequently relied on international sources of data, which posed additional challenges. The UHC 2023 GMR, which is frequently referenced in the report, utilises data from 2021. The team attempted to overcome this challenge by accessing more current data where possible, such as the HRH data obtained directly from the Medical Statistics Unit of the Ministry of Health, which contributed to the analysis of the HWF indicator.

There were also challenges regarding indicator calculations. For example, there is a substantial difference between the TB tracer indicator data in the UHC 2023 GMR compared to the WHO data for 2022 (this is reflected in the TB indicator analysis in section 6.3.1 of this report). Furthermore, the HWF calculation had limitations with regard to local definitions of medical categories, as implied in section 6.5.2. In this instance, the UHC Policy Analysis Team adapted the indicator calculation, described in Appendix 3.

### **7.4.2. Economic analysis limitations**

As with the UHC SCI indicator analysis, the economic analysis was also limited by a paucity of data. Further analysis on the possible relative efficiency regarding UHC performance and health expenditure (as described in Figure 34) would be important. This underscores the importance of conducting national surveys such as HEIS with regularity. Moreover, future economic analysis of UHC in Sri Lanka should use adequate data and applicable analytical approaches that allow for detailed cost-effective analysis as well as budget impact analysis (134). More novel approaches that provide, for example, insights in terms of political economy analysis should also be explored (135).

### **7.4.3. Key informant interview analysis limitations**

While the purposive sampling used for the KII data collection and analysis is appropriate for this type of qualitative approach, it did limit the generalizability of the findings (136). The team attempted to mitigate the risk of selection bias (137) by choosing informants based on their expertise and their roles within Sri Lanka's health system, as well as the relevance of their perspectives to the UHC indicators and DOIs (138).

Technical challenges also related to the use of software in the qualitative analytical process, which could have contributed to measurement bias (139). This risk was reduced by limiting the number of team members who undertook the qualitative analysis in each DOI and attempting to maintain a level of consistency in the KII summary analyses.

### **7.4.4. General limitations**

Given the relatively recent introduction of the UHC Policy in Sri Lanka, there is a dearth of research in this area. Consequently, the team had sparse studies to reference in its analysis. The prioritisation of future UHC research in Sri Lanka is thus crucial. This should include exploring different aspects of UHC policy implementation as well as impact measurement.

The difficulty of finding a consistent source of up-to-date, quality data related to each UHC SCI subindex/indicator and DOI was another general challenge in this analysis. The establishment of a data observatory for UHC monitoring in Sri Lanka (from national to local levels) would greatly reduce this limitation in future analysis.

Finally, the impact of the political cycle on the report writing process should be noted. Sri Lanka held a presidential election on Sept. 21, 2024, and a parliamentary election on Nov. 14, 2024. The pivotal nature of these election processes and their ramifications for crucial portfolios such as health influenced the report development timeline, resulting in some delays.

## 8. Recommendations

### Recommendation 1: Establish a Sri Lankan UHC observatory

In terms of comparing global efforts around UHC, establishing a Sri Lankan UHC observatory would be a pioneering policy initiative. As an initial step, a UHC data hub could be developed. Such a hub would have minimal cost implications as it could link into existing infrastructure while conducting a baseline data assessment. The hub could gradually build data flows (pulling from local and provincial government databases) relating to all UHC SCI tracer indicators as it evolved into a full national observatory. The observatory could showcase real-time data to provide up-to-date monitoring and evaluation, allowing for robust UHC planning and optimizing policy implementation. It is vital that the functions of the observatory be sustained by the Ministry of Health, with ongoing support from key internal stakeholders within the GoSL (e.g., the Department of Census and Statistics) and external stakeholders (e.g., academia and international donors).

### Recommendation 2: Develop strategic interventions on prioritized indicators

Strategic policy action on the six priority tracer indicators should be undertaken. Possible action points for each indicator (based on input from participants in the consultative workshop) are provided in Appendix 7. These actions represent proverbial low-hanging fruit that could result in a rapid improvement in UHC performance in Sri Lanka. However, these targets are by no means exhaustive; similar strategic interventions would be needed across all indicators, especially those that have scored in the low and medium range in terms of the UHC SCI. Furthermore, certain action steps would be cross-cutting, providing value for a range of tracer indicators. An important example of this would be to create a robust digital infrastructure for monitoring critical epidemiological data related to the ID and NCD subindices (including disease prevalence, incidence and treatment data).

### Recommendation 3: Undertake a comprehensive economic evaluation of UHC in Sri Lanka

An extensive economic evaluation of the UHC rollout should be undertaken, including cost-benefit, cost-effective, budget impact and, if possible, political economic analyses. Appropriate modelling studies would also quantify the positive impact of better health outcomes on economic growth. The UHC economic evaluation could provide evidence for an increase in budgetary allocation to (as well as private investment in) healthcare. It could also assist in efforts to improve direct foreign investment in Sri Lanka's health system. In addition to relevant GoSL entities and departments (e.g., Treasury and the Department of Census and Statistics), the involvement of institutions such as the Central Bank in addition to economic research organizations would be crucial to this exercise.

## **Recommendation 4: Develop a UHC policy research collaboration around the domains of interest**

The thematic analysis undertaken in this report has provided insights across the DOIs that could greatly improve UHC Policy delivery. However, it would be essential to first convert these findings into salient policy research questions. This would provide a rich opportunity for collaboration between government and academic research institutions, the outcomes of which could be translated into effective, evidence-based policy action. In line with this, and as a possible point of departure, potential research questions have been generated from the KIIs and provided in Appendix 8.

## **Recommendation 5: Establish a high-level UHC coordinating committee within the Ministry of Health (with representation from other portfolios) for concerted planning, monitoring and evaluation of UHC Policy delivery**

The governance of UHC delivery in Sri Lanka should be undertaken through an integrated approach that connects silos. The establishment of a UHC coordinating committee could give effect to this. While such a committee could be led by the Ministry of Health, it would include representatives from a range of GoSL portfolios (from education to finance). Participation could also be extended to stakeholders from the private sector, civil society and academia. The UHC committee would be responsible for planning, monitoring and evaluating policy implementation related to the UHC Policy as well as all associated initiatives (e.g., oversight of the proposed UHC observatory and UHC campaign activities).

Key functions of the committee would include reporting on UHC indicator progress to national and international stakeholders. This would include producing annual reports and monitoring UHC progress in relation to international loans and donor funding. Through its oversight of the national UHC observatory, the committee could also ensure that local UHC SCI tracer indicator data was provided timeously to UN bodies such as WHO (enabling, for example, improved accuracy of data reported for Sri Lanka in successive UHC GMRs). An additional function of the committee would be to engage with various societal stakeholders, as well as communities across Sri Lanka, on pertinent issues; this would include coordinating relevant UHC-related awareness campaigns with relevant role-players in media and civil society.

## 9. Conclusion

Achieving UHC in Sri Lanka remains a national priority. Accordingly, this report has aimed to provide information pertinent to successful implementation of the country's UHC Policy.

It has found that, while Sri Lanka has performed relatively well with respect to the UHC SCI tracer indicators, many challenges remain—particularly in the capacity, ID and NCD subindices. While the reasons for this may be complex (ranging from health systems constraints to persistent challenges in TB control to the epidemiological transition from infectious to chronic diseases), the implications are clear—urgent action is needed in order to ensure an effective and equitable UHC rollout.

The economic analysis revealed that the OOPE on health still has not been lowered to an optimal level, potentially impeding government financial protection efforts. Nonetheless, there appears to be a relative efficiency of health expenditure in relation to UHC performance (although further economic analysis is needed to confirm this).

The thematic analysis provided important insights regarding the DOIs. Information from the KIIs showed that a continued focus on health access and service improvement is crucial to sustain gains in terms of the *effectiveness* of UHC Policy implementation. *Efficiency* can be enhanced through the careful planning of health resource deployment (including the development and distribution of HRH). With regard to *relevance*, key steps involve increasing the reach of health services to address the spectrum of diseases across communities in Sri Lanka as well as strengthening care at all levels, building on a foundation of self-care.

Sustained efforts are needed to maintain the level of *coherence* between the UHC Policy and other national policies and priorities, as is ensuring sufficient value for money in terms of policy implementation. The *sustainability* of the UHC Policy can be secured through an array of possible improvements across health system building blocks. An *ethical evaluation* of the policy underscored the importance of enhancing service utilisation while preserving patient choice in terms of healthcare provision. Finally, KII inputs related to an *economic evaluation* highlighted the imperative of effectively reducing OOPE and increasing public expenditure on healthcare.

The report also recognized the adverse impact made on UHC policy delivery by the national financial crisis, the legacy of the COVID-19 pandemic, and the persistent brain drain of health professionals. Despite these challenges, it proposed key steps that could be taken to optimize policy implementation. These were: introducing a national UHC observatory; developing strategic interventions that focused on prioritized UHC SCI tracer indicators; undertaking a more exhaustive UHC economic analysis; developing a UHC Policy research agenda for Sri Lanka, and establishing a national UHC coordinating committee.

Sri Lanka's Policy on Healthcare Delivery for UHC sets an ambitious yet realizable goal of transforming the country's health system, potentially providing an example of successful policy implementation on the global stage. The content of this report is offered in the hope that it can advance the aspiration of effective, efficient and equitable healthcare for all.

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## ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

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## Appendix 1: UHC Policy's priority areas and strategic directions (summary)

UHC Policy area	Summary description
<b>Priority areas</b>	<p>Quality first-contact care through strengthened primary care and a family-centred approach</p> <p>Continuity of care through appropriate referrals</p> <p>Equitably distributed network of specialized care services to facilitate coordinated care</p> <p>Engagement with citizens and empowerment of communities to foster rational health-seeking behaviour</p> <p>Financial risk protection</p> <p>Disease surveillance, priority setting and innovation/learning allowing for monitoring and adapting</p>
<b>Strategic directions</b>	<p>Establishing an appropriate PHC model in Sri Lanka that reorganizes health care delivery</p> <p>Strengthening human resources at primary level curative institutions, including creating a fit-for-purpose health workforce that is accountable for health care delivery in defined areas</p> <p>Providing access to essential medicines and laboratory tests at the primary care level (as well as at other levels of care, where appropriate)</p> <p>Providing basic emergency services as part of primary care</p> <p>Creating environments within primary care health institutions that improve utilisation and retain healthcare personnel, particularly in rural areas</p> <p>Equitably distributing specialized care (in terms of both specialty and subspecialty services)</p> <p>Strengthening management to improve cluster performance</p> <p>Providing performance incentives that acknowledge cluster performance</p> <p>Recognising and regulating private providers (private general practitioners)</p> <p>Improving citizen engagement, health empowerment and health-seeking behaviours to change demand</p> <p>Improving human resources for health availability, skill mix and functional linkages with primary care hospitals</p> <p>Planning robust changes in health information systems that support implementation and improve patient care management</p> <p>Engaging with the private sector and involving private general practitioners in first-contact care (as well as exploring methods to reduce out-of-pocket payments)</p>
<p>Source: Ministry of Health Nutrition and Indigenous Medicine. Policy on Healthcare Delivery for Universal Health Coverage - 2018. Colombo: Ministry of Health, Nutrition and Indigenous Medicine; 2018.</p>	

**Appendix 2: UHC Policy's expected outcomes and implementation measures (summary)**

UHC Policy area	Summary description
<b>Expected outcomes</b>	<p>Expansion of essential health service coverage</p> <p>Equitable distribution of health facilities at all levels of care</p> <p>Availability of first-contact care family doctor for every 5,000 people</p> <p>Improvement of HRH personnel's skill mix to address health care requirements</p> <p>Expanded access to medicines and laboratory facilities</p> <p>Improved access to emergency care</p> <p>Increased efficiency in health service delivery</p> <p>Increased male participation in health screening programs</p> <p>Increase in overall health screening program participation</p> <p>Increased knowledge of health and health care among the population</p> <p>Improved staffing of community health services to support continuity of care</p> <p>Availability of personal health records and personal health identification number (PHN) for all adults, with a shared Electronic Health Records system in place</p>
<b>Implementation measures</b>	<p>UHC Policy to replace the policy on the recategorization of healthcare institutions create a delivery system that will support equitable health care (complemented by primary health care reform)</p> <p>UHC Policy to complement and build on gains achieved through existing community health services</p> <p>Essential package of services will define how curative and community health services will contribute to (preventive, promotive, curative, rehabilitative and palliative) services at all levels of care</p> <p>Geographical Information System technology to be used to map clusters</p> <p>Each cluster to be seen as a subdistrict unit of performance for curative care, with the strengthening of the administration system and the appointment of health administrators to improve cluster performance.</p> <p>All institutions to have operational guidelines for monitoring use and adherence.</p> <p>Reorientation of the health workforce will be required—this would necessitate reforms in basic undergraduate and other health training programs</p> <p>UHC policy will need to ensure that the reorganization of health services will include (and provide) access to all vulnerable communities</p> <p>Client and community centred focus to be ensured through the fostering of citizen engagement and community participation</p> <p>Creation of national health system's performance framework to monitor progress of UHC Policy implementation through identified indicators</p>
<p>Source: Ministry of Health Nutrition and Indigenous Medicine. Policy on Healthcare Delivery for Universal Health Coverage - 2018. Colombo: Ministry of Health, Nutrition and Indigenous Medicine; 2018.</p>	

### Appendix 3: Explanation of the health workforce tracer indicator calculation methodology used by the UHC Policy Analysis Team

Tracer area	Health workforce details
<b>Indicator definition</b>	Health professionals (physicians, psychiatrists and surgeons) per capita, relative to maximum thresholds for each cadre
<b>Numerator</b>	Number of physicians, psychiatrists and surgeons
<b>Denominator</b>	Total population (midyear)
<b>Main data sources</b>	National health workforce data from the Ministry of Health Statistics Unit and population data from the Department of Census and Statistics of Sri Lanka
<b>Method of estimation</b>	<p>Using available data, the indicator is computed by first rescaling, separately, health worker density ratios for each of the three cadres (physicians, psychiatrists and surgeons) relative to the minimum observed values across OECD countries since 2000 (OECD Health Statistics database, 2015 edition), which are as follows: physicians = 0.9 per 1,000, psychiatrists = 1 per 100,000, and surgeons = 14 per 100,000. This rescaling is done in the same way as that for the hospital bed density indicator described above, resulting in indicator values that range from zero to 100 for each of the three cadres. For example, using country data on physicians per 1,000 population (<math>x</math>), the cadre-specific indicator would be computed as:</p> <p>Country with <math>x &lt; 0.9</math> per 1,000 per year, the cadre-specific indicator = <math>x/0.9*100</math>  Country with <math>x \geq 0.9</math> per 1,000 per year, the cadre-specific indicator = 100</p> <p>As a final step, the <b>geometric mean</b> of the three cadre-specific indicator values is computed to obtain the final indicator of health workforce density.</p>
<b>UHC-related notes</b>	Due to major challenges measuring coverage in all health areas, which leaves major gaps for important areas such as routine medical exams, treatment for mental illnesses, emergency care and surgical procedure, proxies are used. Physician, psychiatrist and surgeon densities are used as proxies for the full coverage of outpatient care, mental health care and emergency/surgical care services, respectively. It should be noted that those measures are difficult to interpret because the optimal level for those indicators is unknown, and they do not relate to a specific need.
Adapted from: World Health Organization, The World Bank. Tracking Universal Health Coverage: 2023 Global Monitoring Report. Geneva: World Health Organization; 2023. 135 p.	

## Appendix 4: KII suggestions in the effectiveness domain of interest

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
<b>1. Health education and promotion</b>	A properly planned, age-appropriate, sexual and reproductive health training programme should be designed by experts. This should cover the life course (from childhood to adulthood) and include appropriate elements for learners in schools, university students, students in vocational training institutions, employees in workplaces and informal workers.	Family planning HIV antiretroviral therapy
	Education and awareness programmes on HIV need to be conducted among key, vulnerable and general populations. Since the Global Fund to Fight AIDS, Tuberculosis and Malaria supports awareness interventions for key and vulnerable populations, GoSL funds can be used in a complementary fashion to reach the general population.	HIV antiretroviral therapy
	The Ministry of Health should disseminate information on sexual and reproductive health to the public (for different age groups) through social media channels. This could be undertaken by either using existing platforms of the Health Promotion Bureau or creating new channels.	HIV antiretroviral therapy
	Evidence-based measures should be taken to reduce dietary risk factors linked to NCDs. The Traffic Light coding system initiated on food labelling for sugar, salt and fat should be continued and more food categories added.	Diabetes prevalence Hypertension treatment
	Healthy food demonstrations (e.g., preparation) in public places, including health settings, should be organized.	Diabetes prevalence Hypertension treatment
	Greater investments in awareness campaigns (e.g., through mass media and social media) on dietary and lifestyle risk factor reduction should be encouraged. Changing to a healthier lifestyle should be promoted as a consumer trend. The social marketing messages of these campaigns should be clear and easily understood by the public.	Diabetes prevalence Hypertension treatment Tobacco nonuse
	Alternative agricultural streams should be promoted for tobacco farmers, reducing or removing their dependence on cultivating tobacco.	Tobacco nonuse
	Culturally appropriate (and specific) health promotion activities should be carried out, aimed at reducing and preventing smokeless tobacco use.	Tobacco nonuse
	Tobacco-free zones should be declared and maintained with the support of public health inspectors.	Tobacco nonuse

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
<b>Price control and taxation</b>	Prices of healthy food options should be reduced. Furthermore, these options should be marketed in advertisements.	Diabetes prevalence Hypertension treatment
	The taxes on the entire range of smoking tobacco (including <i>bidi</i> ) should be increased annually to reduce the affordability of smoking. Continuous advocacy efforts to increase support from the Ministry of Finance should be carried out, with the aim of demonstrating the benefits of taxation (e.g., increased government revenue and decreased future health costs).	Tobacco nonuse
<b>Approach of service provision</b>	Contraceptive methods should be made available, and selected, with an awareness of the reproductive life cycle of clients. Education on the proper use of contraceptive methods should accompany their provision.	Family planning
	Documenting the use of contraceptives by mothers in Child Health Development Records should be encouraged.	Family planning
	Screening services should be offered to patients in hospital outpatient departments and wards who are at risk of contracting HIV. Health staff should be introduced to this approach early in their training (e.g., to medical officers during their internship), and efforts to develop appropriate educational materials (e.g., posters for health professionals on the approach to HIV screening for at-risk patients) should be continued.	HIV antiretroviral therapy
	Appointment and queue management systems should be implemented to reduce waiting time in clinics.	HIV antiretroviral therapy Diabetes prevalence Hypertension treatment
<b>Approach of service provision</b>	General practitioners should be made aware of (the importance and process of) referring presumptive TB patients for sputum microscopy. A special referral form can be introduced for general practitioners to allow presumptive patients to bypass outpatient departments and attend microscopy centres for testing.	Tuberculosis treatment
	The TB and NCD screening programmes should be integrated. Screening for TB could, for example, be coupled with NCD screening at outreach clinics and health lifestyle centres (which provide screening services) and can also be combined with smoking and alcohol cessation programmes as a package.	Tuberculosis treatment Tobacco nonuse

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
	Greater cognizance of vulnerable groups (such as the elderly and males) is needed in the design of TB screening programmes.	Tuberculosis treatment
	More attention should be given to strengthening contact screening of TB patients, with support of field health staff.	Tuberculosis treatment
	Population-wide screening for high blood sugar and blood pressure should be undertaken. The attendance of healthy lifestyle centres should also be promoted using different, effective strategies.	Diabetes prevalence Hypertension treatment
	Government can declare a special day for NCD screening. This, together with possible screening programmes run on public holidays, should be provided with support from an adequate number of healthcare workers and facilities.	Diabetes prevalence Hypertension treatment
<b>Approach of service provision</b>	Opportunistic screening for NCDs should be strengthened at hospitals (both public and private). Patients who attend outpatient departments or are admitted to wards for unrelated disease (as well as other members of the public present at healthcare facilities) could, for example, be offered screening for high blood sugar and blood pressure.	Diabetes prevalence Hypertension treatment
	Workers should be encouraged to undergo screening for NCDs through their workplaces in both the public and private sectors. Screening for NCDs could be coupled with annual salary increments, where appropriate. Furthermore, attendance of screening services and participation in healthy practices aimed at preventing NCDs could be used as criteria for annual workplace awards.	Diabetes prevalence Hypertension treatment
	The protocol-based management for hypertension and diabetes which was successfully piloted in Kalutara district should be scaled up to the entire country.	Diabetes prevalence Hypertension treatment
	Follow-up clinic attendance needs to be arranged for NCD patients, customized according to their level of management and compliance. Well-managed and compliant patients could be provided with medication for two to three months at time during a single visit (provided the drugs can be kept in proper conditions). Alternatively, an easy refill mechanism can be introduced to reduce waiting time.	Diabetes prevalence Hypertension treatment

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
<b>Approach of service provision</b>	The quality of the medicines should be maintained to ensure that the management/treatment of diseases remains effective. Blister packs should be introduced for NCD medication, and instructions on how to use the drugs—in local languages—should be displayed on packaging.	Diabetes prevalence Hypertension treatment
	Cost-effective combined pills for the management of hypertension should be introduced to improve compliance, especially amongst elderly patients.	Hypertension treatment
<b>Improved access to services</b>	Family planning services should be provided over weekends and during extended working hours.	Family planning
	Public health midwives should be encouraged to visit all eligible households at least once every six months.	Family planning
	A method should be established to provide therapy for HIV patients in the private sector. This can be done in partnership with a few identified institutions which agree to provide data to the national programme.	HIV antiretroviral therapy
	An effort should be made to improve outreach screening programmes for HIV, especially for key populations.	HIV antiretroviral therapy
	Public health midwives could be deployed to support organized and sustained NCD screening programmes (coupled with home visits for maternal and child health) by providing them with portable blood pressure machines, glucometers and glucose strips. Tasks on NCD prevention could be added to the duty list of public health midwives, and they would refer all people above age 35 to healthy living centres.	Diabetes prevalence Hypertension treatment
	Outreach clinics for diabetes and hypertension screening should be established not only in workplaces but also at community centres and other common public spaces, such as bus stands and railway stations, to provide greater access for the working population (including working males, which may be a hard-to-reach group).	Diabetes prevalence Hypertension treatment
Tobacco quitting services should be increased in number and strengthened.	Tobacco nonuse	

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
	A comprehensive analysis of Sri Lanka's health workforce should be carried out, and a National Human Resources for Health Plan should be developed with the assistance of qualified human resources professionals. This plan should be implemented with careful monitoring and evaluation.	Family planning HIV antiretroviral therapy Tuberculosis treatment Tobacco nonuse
	All gaps in public health staffing should be filled.	Family planning
	Continuous in-service training of health staff should be undertaken.	Family planning Diabetes prevalence Hypertension treatment
<b>Human resource management</b>	A competent authority, composed of adequately qualified staff, should be established to decide where to place the consultants. This authority should assess available facilities within the health sector before deciding on appointments so as to reduce human resource inefficiencies. Furthermore, the authority should develop an expeditious and transparent process to appoint consultants to healthcare institutions immediately after their foreign training.	Health workforce density
	Comprehensive assessments, including economic evaluations, should be done before opening new medical faculties in Sri Lanka.	Health workforce density
	The district basis of selecting students for enrolment to government universities (specifically, medical faculties) should be stopped and an island-wide, merit-based system should instead be considered for university (medical faculty) entrance.	Health workforce density
	The value of the bonds that medical doctors sign with the Ministry of Health (before they leave for their foreign training to gain postgraduate experience and/or qualifications) should be increased. Additional methods, such as the issuance of bank guarantees, should be considered to protect against the risk of breached bonds.	Health workforce density
	The current practice of awarding board certification to doctors after a mandatory two-week period of service in Sri Lanka after their foreign training should be revised and increased to at least six months.	Health workforce density

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
<b>Human resource management</b>	The possibility of entering into bilateral agreements with certain developed countries that attract Sri Lankan medical doctors should be explored. This would involve reimbursing at least a portion of the money invested by the GoSL to train the doctors in Sri Lanka who permanently migrate to these countries.	Health workforce density
	The number of trainees enrolled in postgraduate training programmes should be increased to match the level of emigration (in relation to specialties that are particularly affected by the loss of consultants).	Health workforce density
	A roster system needs to be introduced with incentives for healthcare professionals to work during extended hours (and for additional days).	Family planning
	Field staff should be provided with transport support, including fuel allowances, according to the types (and coverage) of terrain in their areas.	Family planning
<b>Salaries and incentives for staff</b>	Public health midwives should be provided with an additional allowance (or extra duty payment) for service provision related to NCDs.	Diabetes prevalence Hypertension treatment
	The salaries of NATA staff should be increased (commensurate with their qualification level) in order to retain skilled staff.	Tobacco non-use
	While the dual practice of medical doctors (including consultants) can continue, it should be well regulated. Moreover, engaging in private practice should be limited to the same district as the concerned doctor's public sector workstation.	Health workforce density
	The current salary structure for doctors and medical consultants must be revised, and their remuneration package increased. This would be undertaken in an effort to retain these medical professionals within the Sri Lankan government health system (and would require due consideration of the opportunities available to them in other countries).	Health workforce density

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
<b>Improvement of infrastructure</b>	Service quality as well as clinic infrastructure should be improved and maintained through regular maintenance, repairs and replacements.	Family planning Diabetes prevalence Hypertension treatment
	TB screening programme facilities should be equipped with portable X-ray machines to speed up diagnosis.	Tuberculosis treatment
<b>Legal reforms</b>	Necessary legal reforms should be undertaken that allow healthcare workers to improve contraceptive access among adolescents.	Family planning
	The sale of single cigarette sticks (which currently represents about 76% of total cigarette sales) should be banned.	Tobacco nonuse
	Plain cigarette packaging should be introduced in Sri Lanka.	Tobacco nonuse
	Smoking should be banned in open public places such as roads and beaches.	Tobacco nonuse
	Relevant legislation needs to be developed with respect to international health security (e.g., in the areas of atomic and nuclear power).	International health regulations

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
<b>Intrasectoral collaboration</b>	Medical administrators should be made more aware of the important role they can play in the control of TB.	Tuberculosis treatment
	There should be a definitive allocation of X-ray facilities from hospitals to support the TB programme.	Tuberculosis
	The resources of the National Hospital of Sri Lanka (especially its laboratory services) should be shared with the Colombo STD clinic.	HIV antiretroviral therapy
	The services of nutrition physicians should be obtained to boost the management of dietary risk factors. The support of other units of the Ministry of Health (such as the Family Health Bureau, the Health Promotion Bureau, the Estate and Urban Health Unit and the Nutrition Division) should also be obtained in order to enhance efforts to reduce NCD risk factors.	Diabetes prevalence Hypertension treatment
<b>Intersectoral collaboration</b>	The national TB programme should work with community-based organizations and NGOs to improve the screening of individuals from marginalized populations.	Tuberculosis
	Advocacy efforts and engagement activities need to be undertaken with non-health-sector agencies as well as the Ministry of Finance regarding the IHR implementation plan (this includes discussions around budgeting for the plan).	International health regulations
	A mechanism could be established for the private sector in Sri Lanka to assist in financing activities related to IHR through their corporate social responsibility projects (since the health security of the country has a direct impact on their performance as well).	International health regulations
	The steering committee on IHR should implement a mechanism for regular monitoring of the activities of different role-players. Actions of stakeholders should be coordinated by the steering committee to obtain the desired results efficiently.	International health regulations

Area of UHC improvement	Suggested improvements	Relevant tracer indicators
<b>Improvement of health information systems</b>	Age-disaggregated data on the usage of contraceptives should be obtained for better service planning.	Family planning
	Comprehensive applications (apps) could be developed and introduced at clinics to support follow-up care. These apps would need to capture the demographic and disease-specific data of patients, attendance at clinics, information on referrals, and data related to the management and control of clinical conditions. The apps should also support sending out reminders to patients and monitoring the progress of their treatment outcomes over time.	Diabetes prevalence Hypertension treatment
	A comprehensive system of obtaining reliable data on tobacco use (including tobacco sales) should be developed, with a mechanism for sharing these data with stakeholders.	Tobacco nonuse
	A national data repository that allows for the quantification of doctors (with their specialties) in both the public and private sectors in Sri Lanka needs to be established under a responsible authority. This data would be vital for accurate UHC indicator calculations in relation to health workforce density.	Health workforce density

**Appendix 5: Description of the consultative workshop conducted by the UHC Policy Analysis Team (Colombo, Oct. 28-30, 2024)**

As a part of the UHC Policy analysis, a consultative workshop was organized by the UHC Policy Analysis Team from Oct.28-30, 2024, with the participation of a wide range of stakeholders.

On the first day of the workshop, participants were introduced to its objectives. This was followed by a presentation of the findings of the desk review related to the UHC SCI indicator analysis, with emphasis on the tracer indicator performance of Sri Lanka in comparison to other countries. Participants reached consensus on the following UHC SCI six tracer indicators as priority areas for policy action.

- 1.** Care seeking for acute respiratory tract infection
- 2.** Tuberculosis treatment
- 3.** Hypertension treatment
- 4.** Diabetes prevalence
- 5.** Tobacco nonuse
- 6.** Health workforce density

The participants were grouped according to their specialty and interest in the six selected UHC SCI tracer indicators. Members of the policy analysis team briefly presented the components of a policy analysis, including problem identification and root cause analysis. The groups then engaged in brainstorming sessions on problems described in the desk review and identified possible root causes.

On the second day each group presented their findings of root cause analysis to the wider group, in relation to specific tracer indicators. After a brief session on identification of policy options, the groups engaged in further brainstorming sessions focused on identifying the policy options for the problems their groups were working on.

On the third day, two plenaries were conducted (on stakeholder analysis and making and writing recommendations). The groups then worked on stakeholder analysis for the policy options they had identified and drafted their recommendations on the problems they were working on. The findings of all the groups were presented to the Director General of Health Services at the conclusion of the workshop.

## ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

The agenda of the consultative workshop was as follows:

Topic	Activity
<b>DAY 01: Monday, Oct. 28, 2024</b>	
Introduction and objectives	Plenary
Ground rules	Plenary
Introduction of participants	
UHC indicators and comparison with other countries	Plenary (with virtual presentation)
Policy and policy briefs	Plenary
Deep dive into the problems identified at the desk review	Group work
Framing the problem	Plenary
Root cause analysis	Plenary
Identifying root causes for the problems identified –fishbone diagram	Group work
Wrap-up	Plenary
<b>DAY 02: Tuesday, Oct. 29, 2024</b>	
Welcome, review and announcements	Plenary
Identifying root causes for the problems identified—fishbone diagram	Group work
Presenting the root causes identified to the group	Group Presentations
Identifying policy options	Plenary
Identifying policy options for the problems identified	Group work
Wrap-up	Plenary
<b>DAY 03: Wednesday, Oct. 30, 2024</b>	
Welcome, review and announcements	Plenary
Stakeholder analysis	Plenary
Stakeholder analysis of the policy options identified	Group work
Making and writing recommendations	Plenary
Making and writing recommendations	Group work
Group presentations	Group presentations
Wrap-up	

## ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

Following is the list of participants in the consultative workshop.

Name	Designation
<b>Dr. Asela Gunawardena</b>	Director General of Health Services
<b>Dr. Alan Ludowyke</b>	Chairman, National Authority on Tobacco and Alcohol (NATA)
<b>Ms. Anusha Batawalagamage</b>	Consultant, Sri Lanka Institute of Development Administration
<b>Dr. Sumal Nandasena</b>	Deputy Provincial Director of Health Services (Western Province)
<b>Dr. Prabhath Werawatte</b>	Deputy Director, Teaching Hospital Colombo North, Ragama
<b>Dr. Prasad Jayasundara</b>	Deputy Director, Teaching Hospital, Anuradhapura
<b>Dr. Anushika Jayathilake</b>	Deputy Director, Teaching Hospital Batticaloa
<b>Dr. Harsha Sathischandra</b>	Consultant Physician, represented the College of Internal Medicine
<b>Dr. Shamitha Dassanayake</b>	Consultant Physician, represented the College of Internal Medicine
<b>Dr. Mizaya Cader</b>	Consultant Community Physician, National Programme on Tuberculosis Control and Chest Diseases
<b>Dr. Neranjan Dissanayake</b>	Consultant Pulmonologist and President, College of Pulmonologists
<b>Dr. Malkanthi Galhena</b>	Consultant Family Physician, Base Hospital Panadura
<b>Dr. Nimali Wellappuli</b>	Consultant in Community Dentistry, Family Health Bureau and President, College of Community Dentistry
<b>Dr. Danushi Weerabaddana</b>	Consultant in Community Dentistry, National Institute of Health Sciences
<b>Dr. Fazana Aththas</b>	Acting Consultant Family Physician
<b>Dr. Aravinda Wickramasinghe</b>	Associate Consultant Community Physician, Nutrition Division
<b>Dr. S.A.I.U. Jayawardena</b>	Senior Registrar in Endocrinology, National Hospital of Sri Lanka
<b>Dr. Disala Chandi Welgama</b>	Registrar in Community Medicine, Provincial Directorate of Health Services, Sabaragamuwa Province
<b>Dr. T.W.A.N. Thotagamuwa</b>	Registrar in Medical Administration
<b>Dr. T. Sasikumar</b>	Registrar in Medical Administration
<b>Dr. Kasun Rambukwella</b>	Registrar in Medical Administration, Provincial Directorate of Health Services, Western Province
<b>Dr. K.G.De S. Widyaratne</b>	Registrar in Community Dentistry

**ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE**

<b>Name</b>	<b>Designation</b>
<b>Dr. Erandi Kolonna</b>	District Tuberculosis Control Officer, Chest Clinic Kalutara
<b>Dr. H.K.M.S.N. Jaliya</b>	Medical Officer, represented the Government Medical Officers' Association
<b>Dr. Sajeewa Gamaethige</b>	Regional Dental Surgeon, Regional Directorate of Health Services, Colombo
<b>Dr. Marthani Balasubramaniam</b>	Medical Officer, Epidemiology Unit
<b>Dr. Shalini Rajapakse</b>	Medical Officer, Noncommunicable Diseases Unit
<b>Ms. Farnaz Malik</b>	Senior Technical Advisor, Vital Strategies
<b>Dr. Heinrich Cyril Volmink</b>	Public Health Medicine Specialist and Senior Lecturer Extraordinary, Stellenbosch University

**Appendix 6: Root cause analyses of prioritized UHC SCI tracer indicators**

(Based on input from consultative workshop participants)

**Table A: Root cause analysis related to the ARI indicator**

Categories	Specific problems
<b>Problems related to caregivers</b>	<ul style="list-style-type: none"> <li>Lack of knowledge (including knowledge on treatment)</li> <li>Not being empowered</li> <li>Obtaining over-the-counter (OTC) treatment</li> <li>Practicing home remedies</li> <li>Socioeconomic barriers</li> </ul>
<b>Problems related to the health system</b>	<ul style="list-style-type: none"> <li>Accessibility issues (including lack of easy access to non-OTC treatment)</li> <li>Lack of specialized care at nearby hospitals</li> <li>Issues related to field health services</li> <li>Increased waiting times in outpatient departments</li> </ul>
<b>Problems contributing to recurrent respiratory tract infections (RTIs) in children</b>	<ul style="list-style-type: none"> <li>Poor nutrition</li> <li>Poor immunization of children</li> <li>Elderly not covered with necessary vaccination (increasing the risk of transmission to children)</li> <li>Poor cough etiquette/nonpractice of precautions</li> <li>Air pollution (indoor and outdoor)</li> </ul>

**Table B: Root cause analysis related to the TB indicator**

Categories	Specific problems
<b>Problems related to patients</b>	<ul style="list-style-type: none"> <li>Stigma and discrimination</li> <li>Myths and misconceptions</li> <li>Lack of knowledge</li> <li>Hard to reach populations</li> <li>Lack of follow-up (in terms of investigation)</li> <li>Socioeconomic barriers</li> </ul>
<b>Problems related to service delivery</b>	<ul style="list-style-type: none"> <li>Challenges in ordering chest X-rays</li> <li>Nonimplementation of full TB diagnostic algorithm</li> <li>Poor referrals</li> <li>Low suspicion</li> <li>Lack of sputum transportation</li> <li>Lack of cough triage</li> <li>Suboptimal integrated screening</li> </ul>
<b>Problems related to resources</b>	<ul style="list-style-type: none"> <li>Lack of HRH (including dedicated medical officers)</li> <li>Lack of financial resources</li> <li>Shortage of X-ray machines</li> <li>Lack of laboratory diagnostics</li> <li>Nonadoption of innovative health technology</li> <li>Challenges related to task shifting</li> </ul>
<b>Problems related to surveillance and monitoring</b>	<ul style="list-style-type: none"> <li>No presumptive TB register</li> <li>Noninclusion of presumptive TB into HIMS</li> <li>Lack of surveillance in the private sector</li> <li>Lack of regional level monitoring</li> <li>Lack of institutional level monitoring</li> <li>Lack of prevalence and inventory studies</li> </ul>

**Table C: Root cause analysis related to the HP indicator**

<b>Categories</b>	<b>Specific problems</b>
<b>High rate of undiagnosed hypertension</b>	
<b>Problems related to patient factor</b>	<ul style="list-style-type: none"> <li>Unhealthy diet, lack of physical activity</li> <li>Lack of awareness of disease</li> <li>Myths and beliefs regarding hypertension (and its treatment)</li> <li>Lack of motivation</li> </ul>
<b>Problems related to disease factors</b>	<ul style="list-style-type: none"> <li>Lack of (early) symptoms</li> <li>Disease course of secondary hypertension</li> </ul>
<b>Healthcare system problems</b>	<ul style="list-style-type: none"> <li>Staff skills, attitude and practices that impede diagnosis</li> <li>Gap in target group screening</li> <li>Gaps in policy on screening (e.g., in terms of age and category)</li> <li>Better quality of detection methods needed (e.g., lack of repeat checking)</li> <li>Overcrowding in health care facilities and HRH deficiencies</li> </ul>
<b>Problems related to prevention (policies) and lifestyle modification</b>	<ul style="list-style-type: none"> <li>Greater promotion of physical activity required</li> <li>More policies in terms of food regulation needed</li> <li>More stress management interventions needed</li> <li>Better diet modification required</li> </ul>
<b>Diagnosed with hypertension but not in treatment</b>	
<b>Problems related to patient factors</b>	<ul style="list-style-type: none"> <li>Myths and beliefs</li> <li>Compliance challenges</li> <li>Awareness of disease course and its complications</li> <li>Costs (e.g., of accessing services)</li> <li>Polypharmacy</li> </ul>
<b>Healthcare delivery problems</b>	<ul style="list-style-type: none"> <li>Referral/back-referral factors</li> <li>Capacity—lack of HRH</li> <li>More clinical audits needed</li> <li>Lack of multidrug therapy (as well as of nutritional advice and an exercise prescription)</li> <li>Lack of a patient registry</li> </ul>
<b>Problems related to anti-hypertensive drugs</b>	<ul style="list-style-type: none"> <li>Cost</li> <li>Side-effects</li> <li>Unavailability</li> </ul>

**Table D: Root cause analysis related to the diabetes indicator**

<b>Categories</b>	<b>Specific problems</b>
<b>Undiagnosed diabetes</b>	
<b>Problems related to patient factors</b>	Lack of awareness Myths and beliefs related to diabetes Family and social commitments (that may affect ability to access detection services)
<b>Problems related to disease factors</b>	Lack of early diabetic symptoms
<b>Healthcare delivery problems</b>	Gaps in detection methods Gaps in screening services Primary care system factors/failures Referral/back referral factors Capacity (e.g., lack of HRH, lack of staff skills) Need for more clinical audits
<b>Diagnosed with diabetes but not controlled</b>	
<b>Problems related to patient factors</b>	Self-repeating prescriptions Sharing prescriptions Poor compliances (e.g., due to side-effects) Lack of awareness of impact of poor compliance
<b>Problems related to lifestyle factors</b>	Poor diet Physical inactivity High stress levels
<b>Healthcare delivery problems</b>	Gaps in reach of health promotion programmes Lack of adherence to protocols Inequity in diagnostic services Referrals/back-referral factors Healthcare capacity (e.g., overcrowding) Lack of multidrug therapy Broader gaps in primary healthcare system/delivery
<b>Problems related to antidiabetic drugs</b>	Cost Side-effects Unavailability

**Table E: Root cause analysis related to the tobacco indicator**

Categories	Specific problems
<b>Health system problems</b>	Counselling service gaps Prevention service gaps
<b>Problems related to social, environmental and cultural factors</b>	Acceptance of nonsmoking tobacco use (e.g., chewing tobacco) Family habits or social constructions
<b>Problems related to tobacco access and distribution networks</b>	Availability of tobacco products Affordability of tobacco products Direct and indirect marketing of tobacco products
<b>Legislative problems</b>	Gaps in legislation Implementation gaps
<b>Problems related to personal factors</b>	Lack of education (e.g., on the effects of tobacco use) Personality issues related to tobacco use

**Table F: Root cause analysis related to the HWF indicator**

Categories	Specific problems
<b>Problems related to government policy factors</b>	Uncertainty regarding retirement age Extended leave (e.g. five-year unpaid leave) High personal income tax rate
<b>Problems related to health workforce miscalculations</b>	Nonadherence to OECD classifications University staff excluded in terms of calculation Private sector excluded in terms of calculation Dual practice not considered
<b>Problems related to HRH migration</b>	Lack of intrinsic and extrinsic motivating factors Poor working conditions Uncertainty about the future High global demand and job opportunities Poor work-life balance
<b>Problems related to HRH production</b>	Long duration of training High cost/financial loss in relation to training Stringent examinations and limited opportunities for postgraduates Postgraduate related stress

**Appendix 7: Main strategic interventions proposed for prioritized UHC SCI tracer indicators**

(Based on input consultative workshop participants)

Indicator	Recommended action steps
<b>ARI</b>	<p>Educate and empower caregivers to seek care for paediatric RTIs</p> <p>Improve accessibility to paediatric care</p>
<b>TB</b>	<p>Implement cough triage and intensify TB diagnosis in hospitals</p> <p>Optimize diagnostic networks in priority districts (by, for example, expanding the number of diagnostic sites)</p> <p>Integrate TB high-risk screening into existing service delivery models</p> <p>Revisit TB patient estimates in Sri Lanka</p>
<b>HT and Diab</b>	<p>Introduce mandatory yearly screening for hypertension and diabetes in the formal sector</p> <p>Expand screening services to include younger age groups (that is, screen of individuals <math>\geq</math> 30 years old)</p> <p>Develop and strengthen clinic registry and return processes</p> <p>Track defaulters and increase retrieval through Public Health Nursing Officers</p> <p>Inculcate protocol-based management of hypertension and diabetes and provide supervision by physicians</p>
<b>Tobacco</b>	<p>Expand tobacco-use cessation support</p> <p>Boost public health education to raise awareness of the risks of tobacco use</p> <p>Strengthen cross-sector partnerships and engage communities to shift social norms around tobacco use</p> <p>Enforce and enhance present tobacco regulations</p>
<b>HWF</b>	<p>Strengthen the HR unit of the Ministry of Health</p> <p>Increase enrolment of postgraduate trainees (e.g., registrars)</p> <p>Explore the development of a competency-based intermediate cadre for specialist services</p> <p>Review and improve remuneration and fringe benefits for health professionals</p>

## Appendix 8: Possible UHC Policy research questions for collaborative analysis

Domain of interest	Possible policy research questions
<b>Effectiveness</b>	<p>What further legal reforms/legislative actions are needed to enhance UHC delivery?            What can be done to improve intrasectoral and intersectoral collaboration around UHC?            How can health promotion be bolstered in Sri Lanka (especially at the community level) to prevent poor health outcomes and enhance well-being?</p>
<b>Efficiency</b>	<p>Is it feasible (and practicable) to shift the training of health professionals from the Ministry of Health to universities?            What would be equitable and efficient processes for determining the number and distribution of institutions with advanced health technologies and services?            What evidence-based protocols can be introduced for diagnostic investigation and medicine prescription?</p>
<b>Relevance</b>	<p>Can health service access be improved (by, for example, increasing the reach of healthcare delivery in remote areas and extending hours of service) especially against international benchmarks?            How can self-care be promoted (as a level preceding primary, secondary and tertiary care), and are there international examples that can help with this?            Can the focus on NCDs in the UHC Policy be better balanced with efforts to control communicable diseases?</p>
<b>Coherence</b>	<p>What can be done to ensure that the planning and content of future health policies maintain coherence with the objectives of the UHC Policy?            Can the (public) value for money of existing health initiatives be measured—especially in relation to other, relevant national policies?</p>

Domain of interest	Possible policy research questions
<b>Sustainability</b>	<p>What is needed for the development of a gatekeeping mechanism that optimizes access to healthcare services in Sri Lanka?</p> <p>What health quality assurance processes need to be developed (including accreditation and auditing)?</p> <p>What are appropriate processes for filling technical posts and developing succession planning in the Ministry of Health?</p> <p>Should the annual transfer system of key healthcare personnel be reviewed?</p> <p>Can there be a shift of health professional training from the Ministry of Health to universities in Sri Lanka (and, if so, to what extent)?</p> <p>Can the payment during basic healthcare training be converted to a loan scheme (and if so, what are the financial implications)?</p> <p>What would be the components of a medical curriculum redesign that incorporated greater training in professionalism and ethics?</p> <p>How can postgraduate medical training better match human resource needs and ensure appropriate continued medical education?</p> <p>Can a health workforce database for Sri Lanka be built, accompanied by comprehensive HRH mapping?</p> <p>What are the technical requirements for greater information system interoperability between healthcare institutions?</p> <p>Can effective recruitment strategies be developed to increase the number of IT professionals available (who are able to provide greater support for the Ministry of Health)?</p> <p>How could the essential package of drugs available at the primary healthcare level be revised?</p> <p>Can a complete assessment of supply chain processes be undertaken in order to prevent stock-outs?</p> <p>Can effective strategies be developed to recruit qualified professionals who are able to support the full establishment of a cost-management system within the Ministry of Health?</p> <p>How can the representation of provincial priorities in the Finance Commission be improved?</p> <p>Can a health research and innovation agenda be developed in order to advance the state of healthcare delivery in Sri Lanka (and can this be accompanied by an adequate resource support plan)?</p>
<b>Ethical evaluation</b>	<p>How could a gatekeeping system balance the need for efficiency with the protection of patient choice and autonomy?</p> <p>What can be done to improve the provision of health services to vulnerable groups?</p> <p>How can more equitable distribution of health services and facilities across Sri Lanka be ensured?</p>
<b>Economic evaluation</b>	<p>What are effective advocacy strategies to improve the budgetary allocation?</p> <p>Can greater regulation of fees for private consultations and prices of health commodities, including medicines, be developed?</p> <p>What can be done to improve access to government healthcare and increase the provision of medicines, medical devices and laboratory diagnostics in the public health sector in order to reduce OOPe?</p>

## Appendix 9: Specifications of the UHC service coverage tracer indicators

UHC service coverage tracer indicator [Reference section of the report]	The indicator/s used to calculate the UHC service coverage tracer indicator	Numerator	Denominator	Conversion to the UHC service coverage tracer indicator
<b>Family planning methods are satisfied by modern methods [6.2.1]</b>	Percentage of women of reproductive age (15–49 years) who are married or in a union and have their need for family planning satisfied with modern methods	The number of women of reproductive age (15–49 years), married or in a union, who are currently using (or whose partner is using) at least one modern contraceptive method.	The total demand for family planning [which is the sum of women using any contraceptive method (modern or traditional) and women with an unmet need for family planning].	$(\text{Numerator} / \text{Denominator}) \times 100$ . <i>The resulting percentage is used directly as it is already on a 0–100 scale.</i>
<b>Antenatal care, 4+ visits [6.2.2]</b>	Percentage of women aged 15–49 with a live birth in a given time period that received antenatal care (ANC) four or more times.	The number of women aged 15–49 with a live birth in a given time period who received antenatal care four or more times from any provider (public or private).	The total number of women aged 15–49 with a live birth in the same period. (The number of live births serves as a proxy for the number of pregnant women).	$(\text{Numerator} / \text{Denominator}) \times 100$ . <i>The resulting percentage is used directly as it is already on a 0–100 scale.</i>
<b>Child immunization (DTP3) [6.2.3]</b>	Diphtheria-tetanus-pertussis (DTP3) immunisation coverage among 1-year-olds.	The number of children (typically in the 12–23 month cohort) who have received the full three doses of the DTP-containing vaccine.	The total number of surviving children in the target population for the same period.	$(\text{Numerator} / \text{Denominator}) \times 100$ . <i>The resulting percentage is used directly as it is already on a 0–100 scale.</i>

UHC service coverage tracer indicator [Reference section of the report]	The indicator/s used to calculate the UHC service coverage tracer indicator	Numerator	Denominator	Conversion to the UHC service coverage tracer indicator
<b>Care-seeking behaviour for ARI [6.2.4]</b>	Percentage of children under 5 years of age with symptoms of acute respiratory infection (ARI), or suspected pneumonia, for whom advice or treatment was sought from a health facility or provider.	The number of children under 5 years of age with suspected pneumonia (defined as cough and fast/difficult breathing due to a problem in the chest and not due to a blocked nose only) in the preceding two weeks for whom care was sought from an appropriate health provider.	The total number of children under 5 with suspected pneumonia in the preceding two weeks, as reported by their caregivers.	$(\text{Numerator} / \text{Denominator}) \times 100$ . <i>The resulting percentage is used directly as it is already on a 0-100 scale.</i>
<b>Tuberculosis treatment [6.3.1]</b>	Percentage of incidence of TB cases that are detected and treated in a given year	The number of new and relapse TB cases detected and notified in a given year that were successfully treated (cured plus treatment completed).	The estimated number of incident (new and relapse) TB cases in the same year. (This denominator is model-based as true incidence is difficult to measure directly).	$(\text{Numerator} / \text{Denominator}) \times 100$ . <i>The resulting percentage is used directly as it is already on a 0-100 scale.</i>
<b>HIV anti-retroviral therapy [6.3.2]</b>	Percentage of people living with HIV (adults and children) currently receiving antiretroviral therapy (ART).	The number of adults and children living with HIV who are currently receiving ART in accordance with national or WHO guidelines.	The estimated total number of adults and children living with HIV.	$(\text{Numerator} / \text{Denominator}) \times 100$ . <i>The resulting percentage is used directly as it is already on a 0-100 scale.</i>

ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

UHC service coverage tracer indicator [Reference section of the report]	The indicator/s used to calculate the UHC service coverage tracer indicator	Numerator	Denominator	Conversion to the UHC service coverage tracer indicator
<b>Insecticide treated nets use</b>	Percentage of the population in malaria-endemic areas who slept under an insecticide-treated net (ITN) the previous night. [This indicator is excluded for non-malaria endemic countries].	The number of people in malaria-endemic areas who slept under an ITN the previous night.	The total number of people living in malaria-endemic areas.	(Numerator / Denominator) x 100. <i>The resulting percentage is used directly as it is already on a 0-100 scale.</i>
<b>Access to at least basic sanitation [6.3.3]</b>	Percentage of the population using at least basic sanitation services.	The number of people using at least basic sanitation services (that is, improved sanitation facilities that are not shared with other households)	The total population of the community/country.	(Numerator / Denominator) x 100. <i>The resulting percentage is used directly as it is already on a 0-100 scale.</i>
<b>Hypertension treatment [6.4.1]</b>	Age standardized prevalence of treatment (taking medication) for hypertension among adults (aged 30-79) with hypertension (defined as having systolic blood pressure ≥140 mmHg, diastolic blood pressure ≥90 mmHg, or taking medication for hypertension).	The number of adults aged 30-79 years who are taking medication for hypertension.	The total number of adults aged 30-79 years with hypertension	(Numerator / Denominator) x 100. <i>The resulting percentage is used directly as it is already on a 0-100 scale.</i>

ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

UHC service coverage tracer indicator [Reference section of the report]	The indicator/s used to calculate the UHC service coverage tracer indicator	Numerator	Denominator	Conversion to the UHC service coverage tracer indicator
<b>Diabetes prevalence [6.4.2]</b>	Age standardized Mean Fasting Plasma Glucose (FPG) in mmol/L for adults aged 18 years and older	Not applicable (not a proportion).	Not applicable (not a proportion).	<p>The raw mean FPG value is converted to a 0–100 scale. This rescales the value based on a theoretical risk range. The formula is:  Rescaled value = (Observed maximum mean FPG across countries - Mean FPG value of the country) / (Observed maximum mean FPG across countries - Minimum FPG of theoretical biological risk) x 100.  Minimum FPG of theoretical biological risk is taken as 5.1 mmol/L</p>
<b>Tobacco nonuse [6.4.3]</b>	Age-standardised prevalence of tobacco use (smoked and/or smokeless) among persons over 15 years.	The number of individuals aged 15 and older who currently use any tobacco product (smoked or smokeless) on a daily or non-daily basis. Tobacco products exclude e-cigarettes (which do not contain tobacco)	The total number of people aged 15 years and older.	<p>The prevalence of tobacco use is converted into the prevalence of tobacco nonuse  The prevalence of tobacco nonuse is capped at a minimum threshold (taken as 30%), corresponding to the maximum observed across all member states.  Rescaled value = (prevalence of tobacco nonuse - 30) / (100 - 30) x 100.</p>

ANALYSIS OF SRI LANKA'S POLICY ON HEALTHCARE DELIVERY FOR UNIVERSAL HEALTH COVERAGE

UHC service coverage tracer indicator [Reference section of the report]	The indicator/s used to calculate the UHC service coverage tracer indicator	Numerator	Denominator	Conversion to the UHC service coverage tracer indicator
<b>Hospital beds density</b> [6.5.1]	Density of inpatient hospital beds per 10,000 population.	The total number of inpatient hospital beds in the country.	The total population of the country.	The bed density (per 10,000 population) is converted to a 0-100 scale using a maximum threshold of 18 beds per 10,000. Rescaled value = bed density per 10,000 population / 18 x 100). Values above 18 per 10,000 are capped at 100.
<b>Health workforce</b> [6.5.2] [Appendix 3]	Density of the physicians per 1,000 population Density of psychiatrists per 100,000 population Density of surgeons per 100,000 population.	The total number of physicians in the country The total psychiatrists in the country The total surgeons in the country	The total population of the country.	Each of the three cadre densities are independently rescaled to 0-100 using a specific maximum threshold (physicians 0.9 per 1,000; psychiatrists 1 per 100,000 and surgeons 14 per 100,000). Then the geometric mean of the three rescaled values is computed. (See Appendix 3 for more details)
<b>International Health Regulations core capacity index</b> [6.5.3]	International Health Regulations (IHR) core capacity index which is the average of scores across 15 core capacities (previously 13 core capacities) measured by the State Parties Self-Assessment Annual Reporting (SPAR) tool	Not applicable (not a proportion).	Not applicable (not a proportion).	Each of the 15 IHR core capacities are scored on a 5-level scale, which is converted to a percentage. Then the average of these 15 percentage scores is computed. <i>The resulting percentage is used directly as it is already on a 0-100 scale.</i>

