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PUBLIC
HEALTH
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A Formative Plan for Roll Out of Universal Health Coverage in Chhattisgarh

from
Idea to Action

SEPTEMBER 2021

Foreword

The COVID-19 pandemic has severely impacted the lives of millions of children, women and men across India. The spread of the pandemic has highlighted both the gaps in the delivery of healthcare in India as well as the urgent need to ensure health security for people across the country.

Against the backdrop of the COVID-19 pandemic, we welcome the lead taken by the Government of Chhattisgarh in rolling out an Action Plan for Universal Health Coverage (UHC) throughout the State. This reflects the State's recognition of the importance of health for promoting well-being which is in the spirit of the Sustainable Development Goals (SDGs).

Four features of this Report are important to note. One, it outlines practical steps that need to be taken for implementing UHC. With key elements being progressively rolled out after they are validated based on an assessment and preparatory phase, an implementation phase, and an evaluation phase to fine tune the plan. Two, it draws on inputs from a number of stakeholders including experts and health officials and particularly communities and non-governmental organisations that have been working in the area of health and development. Three, the Report clearly calls for an increase in public spending on health by the State Government as a necessary condition for reducing the private out-of-pocket expenditures on health and for ensuring successful rollout of UHC. It calls for prioritising community-based primary health systems and quality assurance at all levels of service delivery. Four, the Report underscores the need to increase public participation for making service delivery more appropriate to meeting the needs of people and for ensuring greater accountability.

Finally, we would like to thank Mr. T.S. Singh Deo, Honourable Minister of Health and Family Welfare, Medical Education, Panchayat and Rural Development, Government of Chhattisgarh for giving the United Nations an opportunity to collaborate with the State Government in developing the Action Plan. The Report marks another collaborative effort of the long association over many years between the United Nations and the Government of Chhattisgarh. We are confident of the successful roll-out of the Action Plan given the strong commitment of the State government o recognizing health as a human right.

We are confident that this Report will prove useful to other state governments as well as countries that are planning to roll out universal health coverage.

Dr. Yasmin Ali Haque   **Dr Roderico H. Ofrin**
UNICEF India Representative   WHO Representative to India

August 2021

About the Report

Universal Health Coverage (UHC) is a healthcare strategy to ensure comprehensive health care to all the citizens irrespective of their socioeconomic status without their incurring any economic hardship. UHC by 2030 has been ratified as a goal to be pursued by all nations and India is also a signatory to that commitment.

India undertook the exercise to develop a blueprint for implementing UHC in 2009-2012. A High-Level Expert Group (HLEG) on Universal Health Coverage suggested the nuts and bolts of such a national strategy in 2013. This proposed strategy did not get implemented nationally because the required financial resources were not allocated, and there was no appetite to make the proposed structural changes.

Chhattisgarh State, carved out of erstwhile Madhya Pradesh in 2000 is one of the lesser devtwloped states as far as healthcare infrastructure and systems are concerned. It was ranked in the bottom three states out of 29 states in India in terms of consumption expenditure in 2011-12. It is primarily an agrarian state, with 77% of its population living in rural areas. In addition, Scheduled Tribes make up 31% of Chhattisgarh's population—almost four times the national average of 8%. According to the Reserve Bank of India, 49.4% of Chhattisgarh's population was Below Poverty Line. In 2011, Chhattisgarh had a Human Development Index value of 0.537 (medium) and ranked23rd among Indian states. In NITI Aayog's report "Healthy States, Progressive India," Chhattisgarh has a Health Index of 52.02 out of 100.

Chhattisgarh has allocated 5.4% of its total expenditure on health, which is marginally higher than the average expenditure of 26 other states (5.2%), and Chhattisgarh has allocated 5.7% of its expenditure on rural development. This is lower than the average (6.1%) of the 26 other states. Out-of-pocket expenditure (OOPE) on health remains a critical issue in India and also in Chhattisgarh. OOPE data on health care in Chhattisgarh reveals that 39% of hospitalizations lead to catastrophic health expenditure at a 10% threshold of usual consumption expenditure (NSSO 71st round). Of the total OOPE, 80% is on account of the private sector providers and 20% on account of public sector providers.

In 2019, the State government declared its commitment to setting up UHC for its people. Efforts to put that in place were initiated since that time, but this remained low key. The COVID-19 pandemic hit Chhattisgarh in April 2020 and continues to rage with increased ferocity in 2021. As a result, attention has been has drawn away and resources diverted for handling it. The health system in Chhattisgarh worked unusually hard in 2020 to keep the deaths and disease burden to an acceptably low level along with mitigating economic hardship especially among returning migrants. Chhattisgarh has suffered far more in 2021 because of higher mortality among COVID-infected people.

Chhattisgarh's health leadership at the political and administrative level realized that the impact of the COVID-19 pandemic was larger because of systemic deficiencies in its health systems. . At the same time, the Government also saw the health crisis caused by the COVID-19 pandemic as an opportunity to get Universal Health Coverage for all the people. This would not only prevent recurrence of a similar situation in future, but it would also ensure proper care of illnesses.. This would help people in the medium and long term while also mitigating the problem. Moving towards UHC might also serve as a template for other states in India to consider.

Against this backdrop, the Minister of Health wrote to the UN Resident Coordinator in New Delhi seeking support to put together a plan and roadmap for getting UHC in Chhattisgarh.   The United Nations readily extended its support to the Government of Chhattisgarh.

Public Health Foundation of India was tasked to provide the technical leadership for drawing up a UHC plan for the State. Participating in the exercise were the offices of the UN, WHO and UNICEF, the Department of Health in the State and different institutions like the State Health Resource Centre (SHRC), AIIMS Raipur, and JN Medical College Raipur. Several technical experts and independent consultants also gave their suggestions. Extensive deliberations among diverse stakeholders provided inputs for putting together a formative plan with adequate details to move on the road to Universal Health Coverage in the State. Furthermore, the Report also suggests a detailed plan to pilot the UHC process in two districts of Durg and Surguja before scaling up implementation in the remaining 26 districts.

This Report has been a team effort of all many stakeholders including vulnerable communities. We would like to extend our continued support to the State Government for the implementation of suggested strategies and the operational plans.

Dr. Yogesh Jain
Member Secretary

Steering Committee for Developing an
Implementation Plan for UHC in Chhattisgarh

August 2021

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Saluting Chhattisgarh's Commitment to UHC

From a World Health Assembly Resolution of 2005 to the Sustainable Development Goals that were adopted at the United Nations in 2015, Universal Health Coverage (UHC) has evolved from an articulated aspiration to a committed target for all countries. India's National Health Policy of 2017 too clearly presents that vision. In a federal polity, it is essential that states take the practical steps to design and deliver the synergistic package of health services that efficiently and equitably deliver a wide array of health services which are easily accessible, appropriate, and affordable and quality assured.

The government of Chhattisgarh has voiced a strong commitment to advance UHC into a well-designed implementation pathway. The United Nations, through its agencies in India, has extended strong support to this initiative. This partnership brings the best of global knowledge and experience to inform and assist the Government of Chhattisgarh in developing a context relevant and resource optimising programme for successfully delivering UHC.

The Public Health Foundation of India (PHFI) has long supported India's journey to UHC through research, capacity development, health system support and advocacy. It functioned as the Technical Secretariat which assisted the High Level Expert Group on Universal Health Coverage for India, constituted by the Planning Commission, in developing a widely cited framework report in 2011. PHFI now deems it a privilege to assist the government and the people of Chhattisgarh in charting the path for achieving UHC in the State. On behalf of PHFI, I thank the Government of Chhattisgarh for according us the honour of assisting and express our gratitude to the United Nations for providing financial and intellectual support to the secretariat at PHFI. We are also beholden to the thought leaders and technical experts who guided the work as members of the Technical and Steering Committees.

Prof. K. Srinath Reddy
President
Public Health Foundation of India (PHFI)
August 2021

Acronyms

AMO	:	Assistant Medical Officer
ANM	:	Auxiliary Nurse Midwife
ARI	:	Acute Respiratory Infection
ASHA	:	Accredited Social Health Activist
AYUSH	:	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BCG	:	Bacillus Calmette – Guérin
BMT	:	Bachelor of Medical Technology
BRHC	:	Bachelor of Rural Health Care
CDR	:	Crude Death Rate
CHC	:	Community Health Centre
CHO	:	Community Health Officer
CHW	:	Community Health Worker
CMSC	:	Chhattisgarh Medical Services Corporation
DH	:	District Hospital
DHKI	:	District Health Knowledge Institutes
DKBSSY	:	Dr. Khoobchand Baghel Swasthya Yojana
DMT	:	Diploma Course for Medical Technicians
DPHN	:	District Public Health Nurses
DPT	:	Diphtheria, Pertussis, Tetanus
GHE	:	Government Health Expenditure
HBNBC	:	Home-Based New Born Care
HCW	:	Health Care Worker
HITAP	:	Health Technology Assessment Unit
HLMA	:	Health Labour Market Analysis
HRH	:	Human Resources for Health
HSEU	:	Health System Evaluation Unit
HSSU	:	Health System Support Unit
HTA	:	Health Technology Assessment
ICU	:	Intensive Care Unit
IDSP	:	Integrated Disease Surveillance Programme

IEC	:	Information Education Campaign
IVR	:	Interactive Voice Recording
JSSK	:	Janani Shishu Suraksha Karyakram
LHV	:	Lady Health Visitor
LLIN	:	Long-Lasting Insecticidal Net
MFAU	:	Medical Facilities Accreditation Unit
MLHW	:	Mid-Level Health Workers
MO	:	Medical Officer
NCD	:	Noncommunicable Diseases
NGO	:	Non-Governmental Organisation
NHFS	:	National Family Health Survey
NHM	:	National Health Mission
NHSO	:	National Health Security Office
NLEM	:	National List of Essential Medicines
NSSO	:	National Sample Survey Office
OBC	:	Other Backward Classes
OOPE	:	Out-of-Pocket Expenditure
PHC	:	Primary Health Centre
PHN	:	Public Health Nurses
PPP	:	Public Private Partnership
PRI	:	Panchayat Raj Institutions
RLTRI	:	Regional Leprosy Training and Research Institute
SC	:	Scheduled Caste
SCI	:	Service Coverage Index
SDG	:	Sustainable Development Goals
SHPPT	:	State Health Promotion and Protection Trust
SHRDA	:	State Health Regulatory and Development Authority
SRS	:	Sample Registration System
ST	:	Scheduled Tribe
TB	:	Tuberculosis
THE	:	Total Health Expenditure
UHC	:	Universal Health Coverage

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Executive Summary

In 2019, the State of Chhattisgarh declared its commitment to provide Universal Health Coverage (UHC) for its people and initiated efforts in this direction. The objective of UHC in Chhattisgarh is to provide equitable access to healthcare for all its residents, in order to ensure provision of affordable, accountable, appropriate quality health services. These will encompass promotive, preventive, diagnostic, curative, rehabilitative and palliative services and can be accessed without facing any financial hardships. The government also aims to address the wider determinants of health through pro-health policies in other sectors. UHC will be delivered through a public health sector led programme, with the government being the guarantor and enabler, although not necessarily the only provider, of health and related services.

The State faces several health and financial risk related challenges such as: ensuring comprehensive primary care (including maternal and child health services) to all; continuing challenge of infectious diseases; rising burden of chronic (non-communicable) diseases and disorders of mental health; rising demand for healthcare arising from increased health awareness and ageing; limited supply of trained health workers for delivering high quality services; need for regulation of rising private sector presence and participation in healthcare delivery and the need to expand the coverage of the state-run health insurance schemes.

While the Report proposes a path to operationalise UHC in the State, following the core principles of universality, equity, participation and delivery of quality healthcare, it proposes the following components of a prioritised action agenda:

- Create new posts of health workers at all levels to achieve WHO recommended health workforce density thresholds.
- Reduce existing vacancies of healthcare personnel by 80%.
- Improve the skill level of HRH by 50%.
- Make essential medicines and laboratory services available free of charge at all public health care facilities, while ensuring that there would be no stock out of medicines.
- Complete population-based screening of selected Noncommunicable diseases (NCDs) such as hypertension, diabetes, and cancers, in the entire State and make available the care of hypertension, diabetes, and preventive treatments of cardiovascular diseases free of charge at all healthcare facilities from the health and wellness centres (HWCs) to the district hospitals.

- Improve performance, monitoring and regulation of the State's health insurance scheme, so that patients really get cashless service. No patient enrolled in the scheme should be required to make any out-of-pocket payments.
- These objectives are to be achieved on a priority basis and are to be supported with a focus on seven key areas:
  - Provide adequate finances in the budget for implementing UHC, by increasing the health budget up to 8-10% of the total government budget from the current level of 5-6%.
  - Improve delivery of cashless health services under the State's health insurance scheme.
  - Improve availability and quality of the human resources for health (HRH) to achieve a high population to HRH ratio.
  - Ensure uninterrupted supply and efficient use of essential medicines at all public facilities. Strengthen supply-chain system for medicines and consumables.
  - Ensure availability of essential laboratory services.
  - Increase awareness among people about availability of services under UHC
  - Encourage people's participation in decision making at the level of primary care and invite community monitoring of health services at all levels.

The recommendations outlined in this Report encompass a health systems approach to expand the capabilities of the State to provide quality healthcare to its citizens. It recognises that the social, economic, environmental and commercial determinants of health too need to be addressed through a 'health in all policies' approach, in order to enhance health beyond healthcare.

Prior to implementing the recommendations across the entire State, the Report suggests that the State of Chhattisgarh undertake a pilot study in selected districts of Durg and Surguja. These two districts have been recommended for the pilot, based upon different health and infrastructure indicators. The Report suggests a phased implementation of UHC, to be achieved over a period of the next 3 years.

Chapter 1
Why Universal Health Coverage?

1.1 Global Consensus for UHC

The Declaration of Alma-Ata, in 1978, identified primary healthcare as the key to attainment of 'Health for All' by year 2000. However, much of the world lagged behind in the march towards this goal. WHO subsequently renewed its call for a primary healthcare with the launch of the 2008 World Health Report. In 2010, the World Health Report was titled 'Health Systems Financing: the Path to Universal Health Coverage (UHC)'. The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, positioned UHC as an important target by itself and a health system platform for attainment of other health targets. The Astana Declaration of 2018 called for Primary Health Care Led UHC. There is now a global consensus for strengthening health systems and implementing Universal Health Coverage.

HLEG Definition of UHC

"Ensuring equitable access for all Indian citizens resident in any part of the country, regardless of income level, social status, gender, caste or religion, to affordable, accountable and appropriate, assured quality health services (promotive, preventive, curative and rehabilitative) as well as public health services addressing wider determinants of health delivered to individuals and populations, with the government being the guarantor and enabler, although not necessarily the only provider, of health and related services."

High-Level Expert Group Report on Universal Health Coverage for India (2011)

"Universal health coverage is the single most powerful concept that public health has to offer"

Dr. Margaret Chan, As Director of World Health Organization (2012)

''WE must be the generation that delivers Universal Health Coverage"

Dr. Jim Yong Kim, As President of World Bank (2013)

"Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all"

SDG Target 3.8 (2015)

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The National Health Policy - 2017

- **Conveys strong political commitment**
- **Goal of the policy is well aligned to the SDG-3 agenda and UHC;**
  - *attainment of the highest possible level of health and wellbeing for all at all ages'....*
  - *........ 'universal access to good quality health care services without anyone having to face financial hardship as a consequence'*

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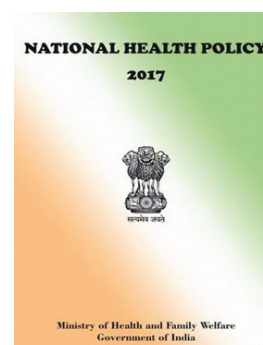
"Universal health coverage is ultimately a political choice. It is the responsibility of every country and national government to pursue it."

Dr. Tedros Adhanom Ghebreyesus, Director-General of World Health Organization (2018)

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1.2 COVID-19 strengthens the case for Universal Health Coverage [1]

Health systems and economies around the world have been challenged as never before by COVID-19. Even as countries wage battles to counter and curb this threat, there are concerns as to whether the pandemic will undermine or alter global commitment to the Sustainable Development Goals (SDGs) or delay the attainment of targets to far beyond 2030. Of particular concern is the vulnerability of target 3.8 on universal health coverage (UHC).

Concerns about the feasibility of vigorously pursuing the UHC agenda during the post-COVID recovery are misplaced. The pandemic underscores three clear messages on health systems. First, if a swift and strong response has to be mounted against a public health emergency, countries must have an efficient and equitable health system, well established and competently functioning in a steady state. Second, comprehensive primary care must form the foundation of such a health system. Third, if countries do not invest in a well-resourced health system focused on UHC, their economies will keep slipping on the banana skins of unanticipated or poorly handled public health emergencies. Indeed, the historical evidence of the last 75 years shows that those countries which did invest in health and ushered in plans for UHC during or immediately after a crisis reaped rich dividends in health gains and economic growth.

Wide-ranging gains

UHC is the hallmark of a society that invests in the health of its people not only because it makes sound economic sense but also because it recognizes health as a human right that must be respected and protected. Economic gains from investments in health are wide-ranging. They include the increased productivity of the population

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[1] *This chapter is based on the article written by Dr. K Srinath Reddy, President PHFI, for the UN Sustainable Development Solutions Network, it can be accessed at* https://sdg-action.org/covid-19-strengthens-the-case-for-universal-health-coverage/

and reduced healthcare costs for averted or abbreviated illness. Gains also arise from expanded employment opportunities in the health sector, and the social stability of a society that is not severely challenged by physical and mental health disorders. The right of an individual to lead a healthy life must not be undermined by failures of the health system to prevent, recognize, or effectively care for an illness. UHC is a solemn affirmation of social solidarity, which is the most ennobling attribute of an advancing civilization.

UHC requires that all essential health services be available to every person, based on need and with assured quality, without anyone suffering financial hardship. This means that UHC must greatly reduce the risks of high out-of-pocket expenditure (OOPE), catastrophic health expenditure caused by episodes of illness that are expensive to treat, and healthcare-related descent into poverty.

Since it is not possible for all countries to immediately meet all of these requirements, the World Health Organization recommends a path of progressive universalization, in the form of a cube with three dimensions:

1. population coverage
2. service coverage
3. cost coverage

At each stage of the evolution of UHC, based on the resources available, priorities set in each of these dimensions must be reconciled to meet the health needs of the population. An essential health package, delivered through periodically revised standard management guidelines, becomes the vehicle for delivering UHC.

Since financial resources are always finite, the choices of service package components must be guided by their cost-effectiveness (how much health is gained for the money spent) and extended cost-effectiveness (how much financial protection is also provided to people). Equity too must play a major role in balancing priorities. 'Horizontal equity' ensures that all people are entitled to a common package of services. 'Vertical equity' seeks to address the needs of vulnerable groups (such as children and disabled people) and bridge existing health equity gaps that have been created by income, gender, geographic, or social disadvantages. This is addressed through additional services or resources. While such targeting may be accommodated within UHC, the overall program must remain universal.

Primary healthcare should be the major delivery vehicle of UHC. It is truly universal in population coverage, as everyone needs primary care services sometime in their life, from childhood vaccination to therapeutic and rehabilitative services for the elderly. PHC provides the broadest package of services and is also the most cost-optimizing. Since outpatient health services over many years contribute to high OOPE, UHC packages which prioritize PHC will reduce poverty. Provision of essential medicines, free of cost, must be assured. PHC is not highly doctor-dependent, as community health workers and technology-enabled allied health professionals can provide many of the required services in rural and urban primary care. By engaging community participation, it democratizes the health system and makes it directly accountable to citizens.

Strengthening every component

Other components of the health system too need be strengthened, to provide advanced care when needed. Even as secondary and tertiary care facilities are strengthened, they must be bi-directionally connected to primary care, which must be the pivot that operates the health system. While governments must remain the guarantors of UHC, they need not be the sole providers. They may engage private and voluntary healthcare providers, as per need and opportunity, but must create the architecture and regulatory systems within which they operate as partners providing contracted UHC services with accountability. A strong public-sector healthcare delivery system will help to set cost and quality standards for UHC.

The quality of healthcare services too must be measured. Are they beneficial? Are they safe? Are they cost-optimizing? Do they provide satisfaction to recipients, their families, and providers? As a number of innovative health technologies offer themselves in a rush to impress, these questions must form part of their assessment, even as existing

health services are subjected to periodic technical, financial, and social audits.

Financing of UHC must be mainly through tax-based public financing. Contributory health insurance, through payroll deductions (labour taxes), are not a feasible option in low and middle-income countries with a high proportion of informal workers, and poor families with low incomes. Even if employer-provided insurance and private insurance are additional sources of financing, a single-payer system that channels all funds will create a large risk pool, provide the purchaser the power to negotiate cost and quality standards and enable an expanded service package. A capitation fee system is more efficient than a fee-for-service mode of purchase of services from care providers. Ultimately, UHC has to operate on the principle of cross-subsidy, where many healthy people subsidize the fewer sick people at any one time, and the rich subsidise the poor through a progressive tax system.

Apart from health financing, all other elements of the health system too must be assured. They include:

- adequate infrastructure at all levels of care
- a multi-layered, multi-skilled health workforce
- uninterrupted supply of essential drugs, vaccines, and technologies
- accurate and time-sensitive health information systems
- community engagement
- good governance and administrative efficiency

The social, environmental, and commercial determinants of health too must be addressed, both through coordinated planning at a policy level and convergent service delivery at the primary-care level.

As the post-pandemic period dawns, we must build forward broader, better, and fairer. PHC-led UHC lights up that path to our collective future.

# 1.3 What Does UHC Achieve? Thailand: A Case Study

Thailand is one of the few developing countries in the world which have successfully implemented Universal Health Coverage (UHC). Beginning three decades ago, Thailand's UHC first covered the poor, then the near-poor, the formal sector employees, and the children and the elderly, through various publicly funded and contributory schemes until it reached 71% of the entire population in 2000[2] (see Box 1).

Box 1: Thailand Success in UHC

- Near-Total Elimination of the Uninsured: The number of uninsured, as surveyed by the National Statistical Office, has dramatically decreased from 20% of the total population in 1998 to 0.1% in 2015.

- Significant Reduction in OOPE and impoverishment from Health spending: It has been reported that the scheme alleviated poverty for at least one million Thai citizens and protected a good number of households from health impoverishment.

- Strengthening the capacity for Knowledge Generation and Management: the International Health Policy Program (IHPP), a joint programme between the MOPH and the Health System Research Institute (HSRI), was established in 2001 and has since played a significant role in generating evidence to support policy decisions. To facilitate economic evaluation for the consideration of new high-cost care, a Health Technology Assessment Program (HITAP) was established in 2006.

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[2] Suriwan Thaiprayoon and Suwit Wibulpolprasert (2017), *Political and Policy Lessons from Thailand's UHC Experience,* ORF issue brief 174, access at https://www.orfonline.org/wp- content/ uploads/ 2017/ 04/ ORF_ IssueBrief_ 174_ ThailandUHC.pdf

Health Technology Assessment (HTA) is a multidisciplinary process to evaluate health technologies, for setting health priorities in Thailand[3]. This bridges gap between science and decision making in health. Major role of HTA in Thailand is to coordinate the three components shown in figure below.
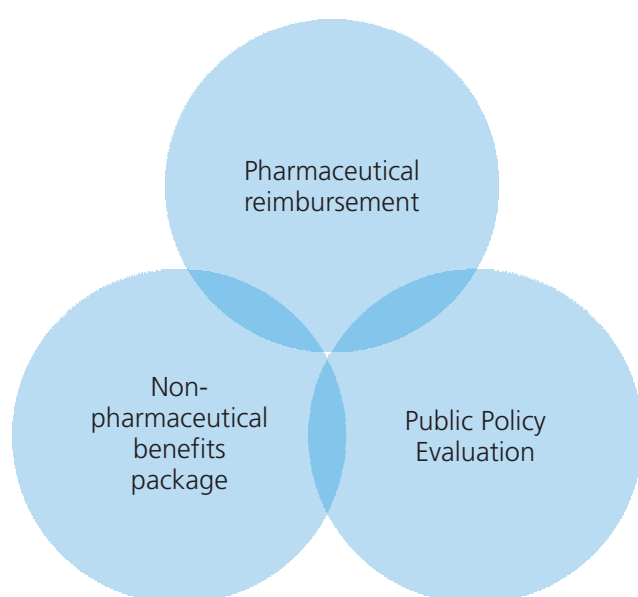
HTA-informed coverage decisions in Thailand

1. Under National List of Essential Medicines (NLEM)

• Pharmaceutical reimbursement list

• The Subcommittee for Development of the National List of Essential Medicines

• Pharmaco-economic data were introduced in the 2008 NLEM revision (high cost medicines)

• Health Technology Assessment Unit (HITAP) remains the secretariat of the Health Economic Working Group and the Working Group on Price Negotiation

2. Under benefit package development for Universal Coverage Scheme

• Non-pharmaceutical package

• Subcommittee for Development of the benefit Package and Service Delivery (SCBP)

• Engaging a broad range of stakeholders in the process of topic nomination and prioritization

• HTA was introduced in 2009 and HITAP played a key role in developing the mechanism during the first five years before returning the secretariat function to NHSO in 2014

3. Challenges observed in benefit package development

• High cost with resource constraints

• Lack of systematic process

• Pressure on the policy maker

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[3] For more information, refer to Annexure 1.

Chapter 2
Health in Chhattisgarh: A Situational Analysis

The current health profile status presented in this chapter highlights the limitations of the existing health system capacity of the state. It directs attention towards anticipated challenges in implementing UHC. However, it also offers opportunities which need focused attention and action to provide Universal Health Coverage for All.

2.1 Introduction

Chhattisgarh is relatively a new State in central India. It was created in the year 2000 after dividing the State of Madhya Pradesh. It is primarily an agrarian State and 77% of its population lives in rural areas. In addition, the scheduled Tribe population, a vulnerable group in India, makes up 31.8% of Chhattisgarh's population—almost four times higher than the national average of 8.6%. According to the World Bank, based on 2012 estimates, Chhattisgarh has the highest level of poverty in the country with 40% of the population below the poverty line, which is almost double the all India level[4]. It is one of the lesser developed states of India as far as healthcare infrastructure and systems are concerned. Despite these challenges, under the NITI Aayog released Health Index report titled, Healthy States, Progressive India, Chhattisgarh has an index of 53.36 out of 100, which is better than states such as Madhya Pradesh, Jharkhand, Uttarakhand, Rajasthan, Odisha, Bihar, Assam, and Uttar Pradesh[5].

In 2019, the State government declared that it was committed to setting up a programme of Universal Health Coverage (UHC) for its people and efforts in this direction were initiated. The COVID-19 pandemic brought a sense of urgency to the implementation of UHC. Through the proposed programme of UHC, Chhattisgarh aims to ensure equitable access for all its population, whether migrants or citizens, irrespective of income level, social status, gender, caste or religion, to affordable, accountable, appropriate health services of assured quality (promotive, preventive, diagnostic, curative, rehabilitative and palliative), while steering the alignment of policies and programmes in other sectors to align with public health objectives. Thereby, the wider determinants of health too would be addressed in conjunction with UHC. While strengthening the public sector health services to deliver the promise of UHC, the government would act as the guarantor and enabler, although not necessarily the only provider, of health and related services.

The health leadership of Chhattisgarh wrote to the United Nations (UN) Resident Commissioner (RC) in New Delhi seeking support for developing a roadmap for implementing UHC in Chhattisgarh. The UN RC has readily agreed to support this endeavour. The Minister for Health and Medical Education in Chhattisgarh then invited a group of administrative and technical experts to serve as senior resource persons to assist this process.

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[4] *Chhattisgarh Poverty, Growth & Inequality* by the World Bank Group (2016); Read more at https://documents1.worldbank.org/curated/en/166551468194958356/pdf/105848-BRI-P157572-PUBLIC-Chhattisgarh-Proverty.pdf

[5] *Healthy States Progressive India* by the NITI Aayog (2019); Read more at http://social.niti.gov.in/uploads/sample/health_index_report.pdf

This formative Report draws on previous efforts and recommendations by various technical experts on UHC, as well as deliberations conducted with stakeholders from diverse backgrounds, and suggests key steps that need to be taken towards implementation of UHC in Chhattisgarh.

## 2.2 Current Health Profile of Chhattisgarh

The data presented below offer a brief summary of the status of health outcomes, healthcare challenges, resources, and service delivery in the State. The information has been obtained from the National Family Health Survey (NFHS) 2015-16, Sample Registration System (SRS)[6] 2020, National Sample Survey Office (NSSO) 2017-18[7], State Data[8] and various reports of the World Health Organization (WHO).

2.2.1 Morbidity and Mortality profile

Morbidity: The data from the NFHS-4[9] showed that 2.2% children under-5 had symptoms of acute respiratory infection (ARI), 12.6% new-born children had low birth weight, 41.6% children aged 6-59 months had anaemia, 38% of children aged 0-59 months had stunting, 167 persons per 100,000 were suffering from tuberculosis, 10% women and 13.2% men had hypertension, 5.7% women and 9.7% men had elevated random blood glucose. The prevalence of malaria was 0.97% and of leprosy was 1.54%. In the 75th round of the NSSO survey (2017-18), 5.07% of the sampled population in Chhattisgarh has some form of ailments in the last 15 days. Of these, 3.5% had communicable diseases, 1.41% had noncommunicable diseases (NCD), 0.05% had Injuries, and 0.10% had other diseases. Although reporting of total ailment with a reference period of 15 days is lower in Chhattisgarh (49 per 1,000 persons) compared with the all India average (76 per

Figure 2.1: Percentage distribution of all reported ailments by communicable and noncommunicable conditions in Chhattisgarh and India

Chhattisgarh

73%

27%
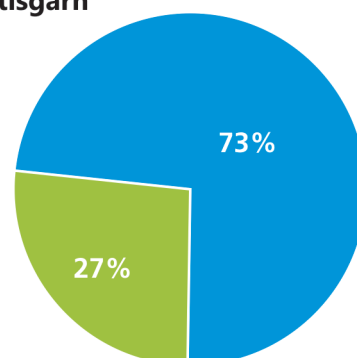
■ Noncommunicable diseases and injuries
■ Communicable disease

All India

48%   52%
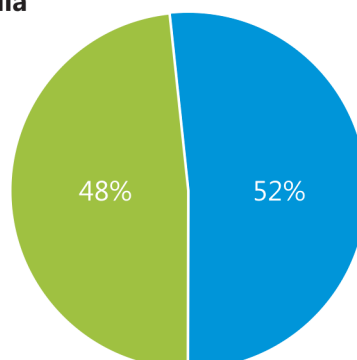
■ Noncommunicable diseases and injuries
■ Communicable disease

Source: NSSO 2017-18

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[6] *SRS Bulletin,* May 2020. https://censusindia.gov.in/vital_statistics/SRS_Bulletins/SRS%20Bulletin_2018.pdf

[7] NSSO 2017-18. Social Consumption: Health. National Sample Survey 2017-18, Ministry of Statistics and Programme Implementation, Government of India. New Delhi

[8] *Chhattisgarh: Disease Burden Profile,* 1990 to 2016. http://www.healthdata.org/sites/default/files/files/Chhattisgarh_-_Disease_Burden_Profile%5B1%5D.pdf

[9] *NFHS-4. State Fact Sheet. Chhattisgarh.* http://rchiips.org/nfhs/pdf/NFHS4/CT_FactSheet.pdf

1,000 persons), percentage of communicable health conditions in total reported ailment is significantly higher in Chhattisgarh (73%) as compared with the all India average (52%) (Figure 2.1).

Mortality: The Crude Deaths Rate (CDR) in the State in 2018 was 8 per 1,000 population (Rural: 8.6, Urban: 6.3) which is higher than the CDR for India (6.2; Rural: 6.7, Urban: 5.1). The infant mortality rate (IMR) in the State is 54, the neonatal mortality rate is 42.1 and the under-5 mortality rate is 64.3 per 1,000 live births. The leading causes of years of life lost due to death and disability in Chhattisgarh in 2016 were-ischemic heart disease (6.1%), diarrhoeal diseases (5.7%), stroke (5.5%), lower respiratory infections (5%), pre-term birth complications (4.2%) and Tuberculosis (3.5%).

2.2.2 Healthcare utilization level

NSSO 2017-18 data reflect that in the rural areas of the State, 48.3% ailments were treated in public hospitals, 48.3% were treated in private clinics/hospitals, 2.2% in NGO/charitable hospitals and 1.1% by informal health care providers. However, in the urban areas of the State, 24.8% ailments were treated in public hospitals, 68.7% in private clinics/hospitals, 0.4% in NGO/charitable hospitals and 6.1% by informal health care providers. The number of hospitalized cases per 1,000 people per year was 18 in rural and 28 in urban areas. In rural and urban areas, choice of treatment was allopathy in 95.2% and 97.9% respectively. Approximately 3.5% of the population used hospital services during 2017-18.

2.2.3 Human resources for health

a. Population human resource for health ratio: Number of doctors graduating in the State is 2.59/100,000 population per year, as against the national average of 5.19. There are 2.9 doctors per 10,000 population in the State, as against the national average of 7.58. There are 1.1 staff nurses per 10,000 population. Density (per lakh population) of HRH- 171 (doctors: 24; and nurses/midwives: 80).

Proportion of human resources for health (HRH) are doctor – 14%; nurses/midwives – 42%; Dentist – 6%; pharmacist – 28%; AYUSH – 9%.
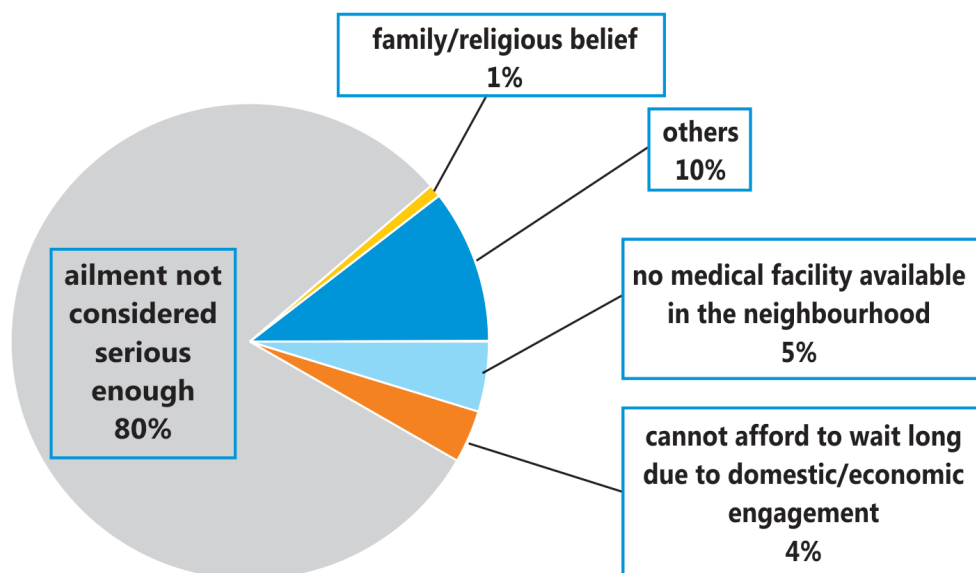
b. Quality dimension of HRH: In general, quantitative data on quality dimension of HRH are not available for the purpose of any detailed analysis. However, records from the government hospitals indicate a large proportion of absenteeism of doctors in public facilities leading to a poor delivery of healthcare services. Also, around 31.2% government facilities did not have enough resources to deliver specific services which resulted in poor quality of healthcare. According to the NSSO 75th Round (2017-18), approximately 16% of those working as doctors and 40% of those working as nurses/midwives did not possess adequate qualifications. Approximately 40% of the approved medical officer (MO) posts are vacant. Further, Health Labour Market Analysis (HLMA) 2019 for Chhattisgarh[10], 2019 has shown that there is shortage of specialists in the State. Also, lack of clarity in roles and responsibilities of Mid-Level Health Workers (MLHW) is affecting efficiency of Health & Wellness Centres (HWC). There are severe quality concerns about many nurses leading to surplus of nurses over the demand for the same (HLMA 2019). Further, only 76.4% of children are fully immunised. Around 84 lakhs per year notifications of tuberculosis and tuberculosis treatment success rate of 84% reflect on the suboptimal quality of primary healthcare in the State.

2.2.4 Private sector share in healthcare market

Among those who were hospitalized in rural areas. 59.6% were hospitalized in public hospitals, 36.1% in private hospitals and 4.3% NGO/charitable hospitals. In urban areas 37.6% were admitted in public hospitals, 60.9% in private hospitals and 1.6% NGO/charitable hospitals. A little over 50% of all doctors in the State are working in the private healthcare sector.

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[10] *Health Labour Market Analysis: Chhattisgarh* by WHO and SHSRC
https://www.who.int/docs/default-source/searo/india/publications/health-labour-market-analysis-9-july-2020.pdf?sfvrsn=52c4a4e4_2

Figure 2.2: Percentage distribution of persons reporting ailment but not seeking formal care (by reasons)

family/religious belief
1%

others
10%

ailment not
considered
serious
enough
80%

no medical facility available
in the neighbourhood
5%

cannot afford to wait long
due to domestic/economic
engagement
4%

Source: NSSO 2017-18

2.2.5 Untreated ailments and unmet demand

Among rural men 14 per 1000 ailments, and among women 1 spell of 1000, were not treated, while among urban men 52 and 1 in women were not treated. Share of formal treatment with medical advice was 83% in rural and 82% in urban areas (NSSO 2017-18). Most cited reason for not seeking formal healthcare, despite reporting ailment, was 'ailment was not considered serious enough' (80%) (Figure 2.2).

As far as the unmet need of healthcare is concerned, NFHS-4 data for Chhattisgarh reflected that 11% of currently married women have an unmet need for family planning. Percentage of unmet demand for family planning is almost similar across rural and urban areas and different social groups.

2.2.6 Level of government expenditure on health and OOPE burden

Total Health Expenditure (THE) per capita is Rs 3,375. This is lower than the national per capita THE by 18% (Rs 4,116)[11]. THE in Chhattisgarh is 3.5% of the Gross State Domestic Product (GSDP) as against 3.84% of Gross Domestic Product (GDP) for India. Per capita Government Health Expenditure (GHE) in the State is Rs 1,782 compared to Rs 1,419 for India in the year 2020-21. GHE constitutes 31.5% of THE in the State. This percentage is higher than that for India (30.6%). In Chhattisgarh, GHE constitutes 5.6% of the gross governmental expenditure which is 4.07% for India. Average Out-of-Pocket Expenditures (OOPE) per hospitalisation case (excluding childbirth), for treatment during stay at a hospital as inpatient, were as below:

- Rural areas: OOPE per case was Rs 62,560 at private hospitals, Rs 11,800 at NGO/charitable trusts, and Rs 2,856 at public hospitals, the average cost being Rs 24,765.

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[11] *National Health Accounts Estimates for India (2018);* Read more at https://main.mohfw.gov.in/sites/default/files/NHA_Estimates_ Report_2015-16_0.pdf

- Urban area: OOPE per case was Rs 25,239 at NGO/charitable trusts, Rs 55,478 at private hospitals, Rs 3,309 at public hospitals, the average cost being Rs 17,473.

Burden of out-of-pocket expenditure (OOPE) (excluding childbirth) on households:

- Rural: Average per person monthly OOPE is estimated to be Rs 79.
- Urban: Average per person monthly OOPE is estimated to be Rs 142.

Drugs accounted for approximately 42% of total OOPE (24% in inpatient care and 66% in outpatient care). OOPE constitutes up to 9% and 5% of a household's total consumption expenditure in rural and urban areas, respectively. More than 11% households spent over 10% of their household consumption expenditure on OOPE.

2.2.7 Availability of drugs at sub-centres, PHC, CHC, SDH, DH, Medical colleges

As per the State level records, in rural areas out of 650 HWC/SHCs, 648 had regular supply of the drugs for common ailments; and out of 170 CHCs, 162 had regular supply of the allopathic and AYUSH drugs for common illnesses. For the stock details of the Essential Drug List category, 42.36% of medicines were out of stock. Details of completely stocked-out drugs are as follows: 31.7% universal (U) category drugs, 49.38% primary (P) category drugs, 38.9% secondary (S) category drugs, 25% tertiary (T) category drugs. Hence, everyone accessing public facilities is not receiving free medicines. NSSO (2017-18) data reflect that approximately 53% of episodes treated in public facilities, as outpatient care, received free or partially free drugs. The proportion was higher in rural areas (59%) than in urban areas (49%) (Figure 2.3).

Figure 2.3: Percentage of ailing episodes treated in public facilities and receiving free medicines

Source: NSSO 2017-18

19
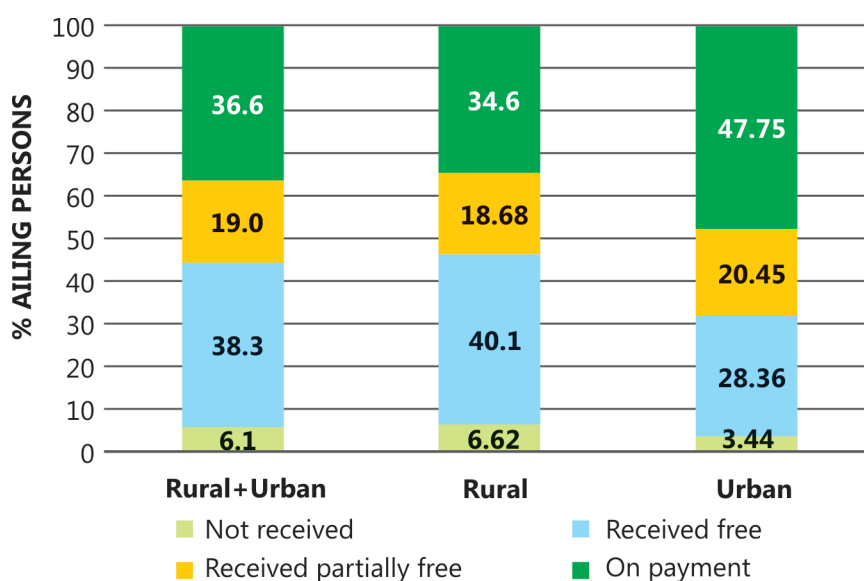
2.2.8 Status of functioning of financial risk protection schemes

Percentage of households with at least one member covered by a health scheme or health insurance was 68.5%. This is the second highest in India. Dr. Khoobchand Baghel Swasthya Yojana (DKBSSY) has benefitted 56 lakh families from January to December 2020. It has a coverage of Rs 5 lakh per family, with 1,211 empanelled hospitals (Private-376, Public-835). Total claims settled during this period were for Rs 431.47 crore.

2.3 Key Indicators

While all the components of health systems need to be strengthened to achieve UHC, WHO stresses on the following four key areas to be addressed on priority basis, to ensure equity of coverage. These areas are presented in Figure 2.4.
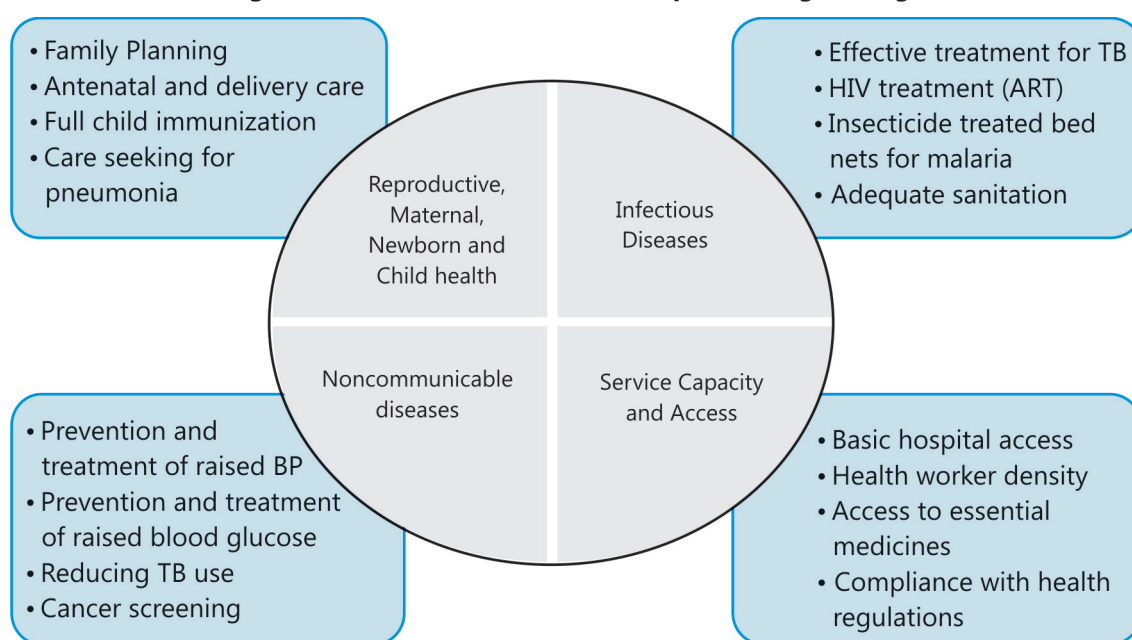
The Sustainable Development Goals (SDGs) 2030 emphasise that people should receive quality health services without financial hardship. In order to achieve UHC, it is critical to monitor progress using formal monitoring mechanisms. Two major components of UHC need to be tracked- service coverage (SDG indicator 3.8.1) and financial protection (SDG indicator 3.8.2).

The UHC Service Coverage Index (SCI) is the official indicator of SDG 3.8.1. The UHC SCI is the average coverage of tracer indicators in four essential health service areas as discussed above. The SCI levels are calculated for countries, with values close to 100 indicating excellent UHC coverage and values closer to zero indicating poor UHC coverage. In 2017 the SCI for India was 55. Most of the developed countries had SCI >85. Middle income countries such as Cuba (83) and Thailand (80) too had high SCI[12]. Cuba's health system is 100% public owned while Thailand achieved UHC by introducing tax-funded health insurance. This indicates that with appropriate health policies, UHC can be provided at high levels of service coverage.

While SCI is not separately calculated for the State of Chhattisgarh, information on some of the tracer indicators is available from national surveys and is presented in Table 2.1. Information on some other related indicators (*) is also presented in Table 2.1. These indicators will help to objectively identify key gaps in health services delivery in the State in order to achieve UHC.

Figure 2.4: Thematic areas which require strengthening

- Family Planning
- Antenatal and delivery care
- Full child immunization
- Care seeking for pneumonia

- Effective treatment for TB
- HIV treatment (ART)
- Insecticide treated bed nets for malaria
- Adequate sanitation

- Prevention and treatment of raised BP
- Prevention and treatment of raised blood glucose
- Reducing TB use
- Cancer screening

- Basic hospital access
- Health worker density
- Access to essential medicines
- Compliance with health regulations

Reproductive, Maternal, Newborn and Child health

Infectious Diseases

Noncommunicable diseases

Service Capacity and Access

[12] WHO 2019. *Primary Health Care on the Road to Universal Health Coverage 2019 Global Monitoring Report.* https://www.who.int/docs/default-source/documents/2019-uhc-report.pdf

Table 2.1: Indicators to objectively identify key gaps in health services delivery in the State

Category	Indicator	Data source (Assessment year)	Situation in Chhattisgarh
Family planning	Married women 15–49 years women who are using modern methods of contraception	NFHS-4 (2015-16)	Urban-57.3% Rural-53.6% Total-54.5%
Antenatal care coverage	At least 4 visits to any care provider during pregnancy	NFHS-4 (2015-16)	Urban-71.1% Rural-55.7% Total-59.1%
Skilled birth attendance	Births assisted by a doctor/nurse/LHV/ANM/other health personnel)	NFHS-4 (2015-16)	Urban-89.3% Rural-75.1% Total-78%
Immunization coverage (DPT)	12-23 months-old children who have received 3 doses of vaccine containing diphtheria, tetanus and pertussis (DPT)	NFHS-4 (2015-16)	Urban-93.2% Rural-91% Total-91.4%
Immunization coverage (fully immunized)	12-23 months-old children fully immunized (BCG, measles, and 3 doses each of polio and DPT)	NFHS-4 (2015-16)	Urban-84.8% Rural-74.3% Total-76.4%
Treatment of childhood diseases (pneumonia)	Children < 5 years with fever or symptoms of ARI in the last 2 weeks preceding the survey taken to a health facility	NFHS-4 (2015-16)	Urban-78.6% Rural-68.2% Total-70.1%
Percentage of population using improved sanitation facilities	Population living in a household with: flush or pour-flush to piped sewer system, septic tank or pit latrine; ventilated improved pit latrine; pit latrine with slab; or composting toilet	NFHS-4 (2015-16)	Urban-64.4% Rural-22.6% Total-32.7%
Tuberculosis treatment success rate	All the patients that were cured and those that completed treatment	India TB Report 2020, MoHFW (data for 2018)[13]	Success rate Males-83% Females-85%
Malaria LLIN usage	Number of people who slept under bed net	An assessment by Regional Office of Health and Family Welfare and RLTRI, Govt of India, MoHFW, Raipur, Chhattisgarh State (2012)[14] A research study in Keshkal sub-district (2015)[15]	Kondagaon: 35-45% Jagdalpur: 45-66% Kanker: 54-66% Keshkal- 59.4%
Hypertension	Normal blood pressure among adults ≥ 18 years	NA (NFHS only has data for 15-49 years old)	NA
Hypertension coverage*	Adults 30-69 years and currently taking antihypertensive medication	National NCD Survey (2017-18)[16]	On treatment for high blood pressure-13.2% (separate estimates for CG not available publicly. National rural data are used.)

[13] *India TB Report 2020.* https://tbcindia.gov.in/showfile.php?lid=3538

[14] Read more at http://rltrird.cg.gov.in/pdf/ROHFW/Field%20survey/Assessment%20of%20post%20distribution%20of%20LLIN%20 and%20Concurrent%20Supervision%20of%20IRS.pdf

[15] Raghavendra et al. *Monitoring of long-lasting insecticidal nets (LLINs) coverage versus utilization: a community-based survey in malaria endemic villages of Central India* https://malariajournal.biomedcentral.com/articles/10.1186/s12936-017-2117-0

[16] *National NCD monitoring survey.* https://www.ncdirindia.org/nnms/

Category	Indicator	Data source (Assessment year)	Situation in Chhattisgarh
Diabetes	Age standardized mean fasting plasma blood glucose (mmol/L) among adults ≥ 18 years	NA (NFHS only has data for 15-49 years old and with blood glucose cut offs)	NA
Diabetes coverage*	Adults 30-69 years and currently taking medication for diabetes (insulin or glycaemic control pills)	National NCD Survey (2017-18)	On treatment for high blood pressure-27.2% (separate estimates for CG not available. National rural data are used.)
Tobacco	Age standardized prevalence of adults ≥ 15 years not smoking tobacco	NA	NA
Prevalence of tobacco use*	Adults 15-49 years and older who have not smoked tobacco in the past 30 days	NFHS-4 (2015-16)	Women Urban-13.1% Rural-24.4% Total-21.6% Men Urban-52.2% Rural-56.2% Total-55.2%
Hospital beds per capita		Kapoor G et al.[17]	CG 5.6 beds/10,000 population India 13.7/10,000 population
Health workforce	Health professionals (physicians, psychiatrists, surgeons) per capita	Health Labour Market Analysis: Chhattisgarh by WHO and SHSRC[18]	CG 2.9/10,000 population India 7.6/10,000 population

Sources: NFHS-4 and State Health Reports

Not only are most of the SCIs in Chhattisgarh far lower compared to those in the countries close to achieving UHC, a number of these indicators in the State are lower than the all India average. For instance, basic healthcare services indicators such antenatal care, institutional delivery, immunization coverage etc. in the State are lower compared to the all India average. Further, there is significant variations in these indicators across different social groups of the population in the State. For instance, antenatal coverage among ST pregnant women was 51% as against 58% among SCs and 70% among others. Similarly, DPT and full immunisation rates among ST children are lower (DPT-89%; Full vaccination-70%) compared to other social groups (DPT among SCs-95% and full immunisation among SCs-79%; DTP among OBCs-93% and full immunisation among OBCs-80%).

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[17] *State-wise estimates of current hospital beds, intensive care unit (ICU) beds and ventilators in India: Are we prepared for a surge in COVID-19 hospitalizations?* https://www.medrxiv.org/content/10.1101/2020.06.16.20132787v1.full

[18] *Health Labour Market Analysis: Chhattisgarh* by WHO and SHSRC https://www.who.int/docs/default-source/searo/india/publications/health-labour-market-analysis-9-july-2020.pdf?sfvrsn=52c4a4e4_2

2.4 Key Challenges

The above described health profile, incorporating key indicators, highlights the following challenges faced by limited health systems capacity of the State. These are anticipated to pose challenges in implementing UHC. However, this situational analysis identifies areas which need focused attention, to equip the health system to provide healthcare to all.

The data relate to healthcare services for preventive and primary care.

In order to provide comprehensive healthcare services, all the 12 components of primary health care need to be strengthened in the State. These are discussed subsequently in the following chapters. In terms of health systems capacity, Chhattisgarh has less than half hospital beds and health workforce per unit population compared to the national average. This raises serious concerns over service delivery capacity of the State.

With socio-economic changes and ensuing demographic and epidemiological transitions, following challenges are anticipated: rising burden of chronic conditions and multiple co-morbidities; increasing demand for healthcare in general, owing to increased health awareness and population ageing; limited supply of trained health workers delivering high quality services; competitive sectoral demand for budget/funds; regulation of rising private sector market share and adverse selection and moral hazard with increasing insurance coverage.

Family Planning

Antenatal Care

Immunization of children (focus on STs)

Communicable Diseases

Sanitation (WASH)

Noncommunicable diseases
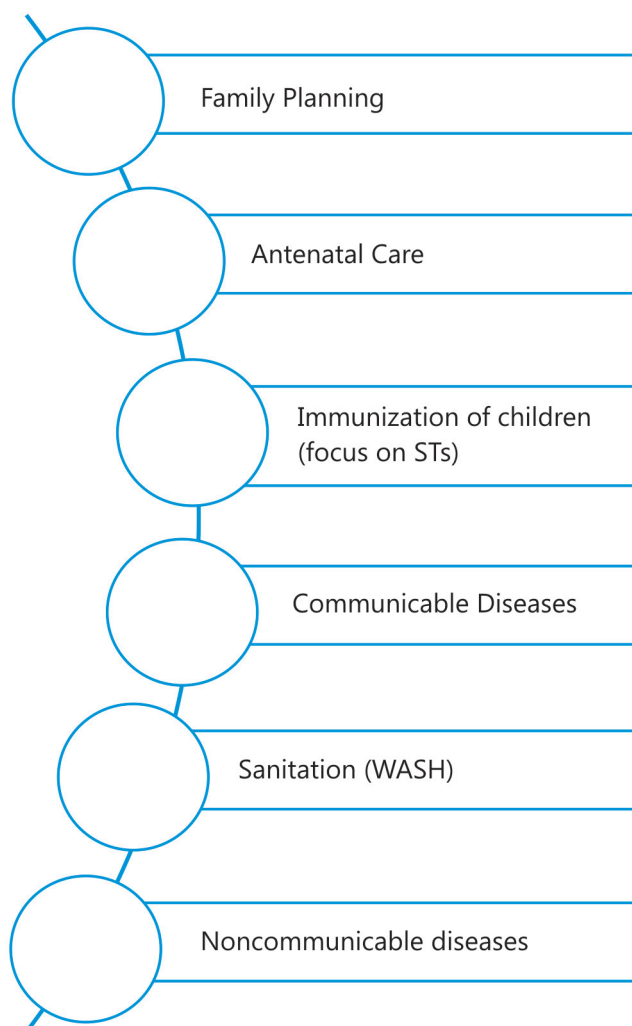
Chapter 3
Moving Forward - Path to UHC

Innovative and exhaustive proposed 'ten-point programme' aims to provide vision and objectives for the long-term measures to implement and strengthen UHC in Chhattisgarh.

3.1 Guiding Principles for UHC

Initiatives for strengthening of UHC in Chhattisgarh need to consider current and future challenges, so that resources are allocated in appropriate amounts and in needed areas.

Goals

"Improve UHC service coverage in the State and improve financial risk protection of people"

3.1.1 Key principles guiding the implementation of UHC

Keeping in view the goals of UHC, the areas for emphasis and the situational analyses as presented in the chapter 2, the following ten key principles need to be followed, as specified in the High-Level Expert Group (HLEG) Report[19] on UHC.

1. Universality
2. Equity
3. Empowerment
4. Non-discrimination
5. Comprehensive care
6. High quality
7. Financial risk protection
8. Protecting patients' rights and preferences
9. Community participation
10. Accountability and transparency

3.1.2 Approaches

Achieving UHC needs multiple approaches, but the following two approaches are critical.

- **Primary healthcare approach-** care can be accessed by people, based on their needs and preferences, at the earliest in their everyday environments. This requires significant strengthening of the primary healthcare system, enabling the population at large to access healthcare without facing any hardships.

- **Life course approach-** addressing healthcare needs of people across their lifetime implying significant focus and attention on current and emerging morbidity patterns and the related healthcare needs of the population.

3.2 Proposed Measures that Need to be Taken for UHC Roll-out

Roll-out of UHC and progress towards achieving UHC in Chhattisgarh need several steps including strengthening of various health institutions in the State. Following are 10-key measures that are needed to achieve the objectives of UHC in the State.

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[19] *High Level Expert Group Report on Universal Health Coverage for India.*
   https://niti.gov.in/planningcommission.gov.in/docs/reports/genrep/rep_uhc0812.pdf

1. Increase public expenditure on health and reduce out of pocket expenditure on health

Achieving increased coverage of quality healthcare for all without any financial hardship crucially depends on the levels of financing available for implementing UHC. Although global experience on mechanisms of such financing has been mixed so far, consensus generating evidence favours using the government's general revenue as the most effective mechanism of financing UHC, rather than any earmarked tax revenue and/or contributory mechanisms.[20] Evidence strongly suggests that financing of UHC by governments' general revenues provides financially sustainable, efficient, and equitable health systems. With this perspective, we recommend that the following strategies be considered by Chhattisgarh.

I. Increase budget for health from a current level of 5-6% to 8-10% of total government expenditure to implement UHC.
II. Remove all user fees in public healthcare facilities including registration charges.
III. Increase of coverage of government funded health insurance scheme/s beyond the poor.
IV. Design state funded schemes to finance tertiary level care for critical illness for all persons who need such care.
V. Improve mechanism to disburse funds to service providers expeditiously and in a transparent manner.
VI. Ensure that with services offered under the State's health insurance scheme, patients do not have to pay additional charges out-of-pocket.
VII. Integrate different financial protection mechanisms under one administrative institution (Trust-mode).
VIII. Increase funding levels for Health and Wellness Centres/Sub-Centres (HWC), Primary Health Centres (PHC) and Community Health Centres (CHC).

IX. Increase capacity to utilise funds at the primary care level – increase the number of sub-centres, PHCs and CHCs to achieve adequate population-health facility ratios.
X. Map out public health expenditure within the State at 'process' as well as 'utilisation' levels, to understand the levels of financing at different levels of care and identify scope for resource mobilisation.
XI. Analyse current flows and processes within its public financial management system, to determine where scope exists for efficiency gains along commonly identified problems.
XII. Enhance economic and allocative efficiency required to implement UHC.
XIII. Develop a plan for free treatment of pandemic illnesses.

2. Improve the situation of human resources for health (HRH)

Availability of adequate and quality HRH is crucial for achieving UHC. Situational analysis in the foregoing chapter indicated that Chhattisgarh is well below not only the WHO recommended threshold but also the national average of health worker to population ratio. The State has an advantage in terms of HRH employed by government and private sectors (approximately 50% each) as compared with an all India ratio of 30:70 in favour of the private sector[21]. However, situational analysis reflected that, apart from a high vacancy rate in the public facilities, there is significant scope to increase the number of sanctioned posts as well. Also, health service delivery personnel need regular training and orientation to implement UHC in the State. With this perspective, the following strategies need to be considered:

I. Increase overall availability of HRH (doctors and nurses/midwives) to achieve a HRH population

[20] Yazbeck AS, Savedoff WD, Hsiao WC, Kutzin J, Soucat A, Tandon A, Wagstaff A, Chi-Man Yip W. *The Case Against Labor-Tax-Financed Social Health Insurance For Low- And Low-Middle-Income Countries.* Health Aff (Millwood). 2020 May;39(5):892-897. doi: 10.1377/hlthaff.2019.00874. PMID: 32364862.

[21] Karan A, Negandhi H, Hussain S, Zapata T, Mairembam D, De Graeve H, Buchan J, Zodpey S. *Size, composition and distribution of health workforce in India: why, and where to invest?* Hum Resour Health. 2021 Mar 22;19(1):39. doi: 10.1186/s12960-021-00575-2. PMID: 33752675; PMCID: PMC7983088.

ratio of 22.8[22] health workforce per 10,000 persons in the short run and 44.5 [5] health workers in the medium to long run.

II. Fill-up existing vacancies at government facilities using fast-track, time bound procedures including annual recruitment drives with priority given to remote/tribal areas.

III. Design and implement additional compensation packages for doctors and other health workers in remote areas.

IV. Improve skill-mix of health workers. Ensure 1:3 doctor: nurse ratio at higher health workers density and work out norms for task shifting.

V. Ensure presence of health workers at Sub-Centre, Health and Wellness Centres, by reducing absenteeism using appropriate tracking mechanisms.

VI. Increase sanctioned posts at the government facilities over next 3 years, to have a doctor to population ratio of at least 6 doctors/10,000 population from the current ratio of 2.9 doctors/10,000 population. Over the subsequent three to five years, plan to have about 11 doctors/10,000 population to meet the WHO guidelines on human resources needed to achieve UHC and Sustainable development Goals (SDGs)[23]

VII. Increase the intake capacity of existing medical and nursing colleges to produce a larger number of doctors and nurses/midwives.

VIII. Offer scholarships for training doctors and nurses in other states until higher capacity to train doctors and nurses is built in the State.

IX. Improve and maintain competencies by introducing training modules, updated curricula, and continuous education of health workers.

X. Re-allocate existing specialists and technicians at hub-based high end diagnostic labs and implement training programmes for them.

XI. Engage well performing civil society organisations/NGOs, for public partnership, in preference to commercially guided Public Private Partnerships (PPP). The government should also provide Grant-in-Aid for encouraging good clinical practices.

XII. Set up knowledge cum training centres, designated as "District Health Knowledge Institutes" (DHKIs), in districts with a population of more than 500,000 to enhance the quality of health workers' by imparting continuous education and training (See Box 2).

3. Strengthen Service Delivery at Primary Care Level

Strengthening primary health care will be the crux of a successful implementation plan for UHC. This requires following strategies to be considered:

I. Develop essential primary care level health packages according to the level of the facility. These must include clinical services, essential medicines, and laboratory services- ensure uninterrupted availability of this package at each health facility.

II. Enable Health and Wellness Centres to constitute the key strategy to improve UHC in India. Operationalise sanctioned health and wellness centres and open new HWCs to achieve a HWC/population ratio of 1:5000.

III. Strengthen Health and Wellness Centres- Ensure adequate infrastructure, diagnostics and other supplies as per the recommendations[24]. All sub-centres to have a 4-person health team- one mid-level healthcare provider and three multi-purpose health workers. Prioritise local youth for such training and job opportunities. The training of Community Health Officers (CHOs), as well as mentoring of Assistant Medical officers (AMOs), CHOs and the sub-centre team is a much needed task that requires to be done over the next 1 year.

IV. Institute a 'Bachelor of Rural Health Care' (BRHC) course, with a 3-year curriculum (which this Committee endorses) that should have an intensive component covering primary and preventive health care. The BRHC course should be offered at District Health Knowledge Institutes with the BRHC degree linked to the State Health Sciences University (see Box 3).

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[22] *WHO recommendation for achieving 80% birth attended by trained health professionals.*
[23] *WHO recommendation for achieving 12 tracer health indicators for achieving UHC.*
[24] Operational Guidelines. Ayushman Bharat. *Comprehensive Primary Health Care Through Health and Wellness Centres.* https://ab-hwc.nhp.gov.in/download/document/45a4ab64b74ab124cfd853ec9a0127e4.pdf

Box 2: District Health Knowledge Institutes (DHKIs)
Establishing an education and training centre for HRH

These DHKIs will provide induction training, in-service training, continued medical education continued nursing education, and continued paramedical education programmes. The DKHIs can be authorised to issue course completion certificates to the CHWs on completion of all the mandated training modules. Develop onsite training linkages with DHKIs, hospitals and health centres in the district. DHKIs should serve as centres for skill up-gradation with capacity for offering: 1) a LHV training course for ANMs; 2) a health Assistant training course for male health workers; 3) a diploma course in Public Health Nursing; 4) a Diploma course for Medical Technicians (DMT); 5) Bridge courses for AYUSH doctors, Dentists, pharmacists, physiotherapists and nurses to function as rural health practitioners at SHCs; 6) a Bachelor of Rural health Care (BRHC) course; and 7) a Bachelor of medical Technology (BMT) course. Develop the DHKI as the nodal point for distance and e-learning and faculty sharing across the streams. DHKI would pave way for admission of local candidates and also uniformity in admission, curricula, and training. A regulatory body will keep track of progression through training, for various cadres.

We envisage that the DHKIs will address the severe shortage of educational infrastructure and provide the appropriate level of decentralisation of health care education. They will also ensure competency-based training to meet the health needs of local communities and provide much needed synergy between health and education sectors. Despite the NHM's efforts, training continues to be disorganised due to a lack of physical and academic infrastructure at the district level. The lack of training facilities has been a major concern across districts for skill development of HRH. Quality of education is of particular concern. The lack of competency-based training geared towards on the ground health needs is connected to the lack of educational infrastructure at the decentralised level. Its critical to scale up training capacities in terms of physical infrastructure and trainers, maximise the use of information technology and develop competency based assessments and certification processes to ensure optimal utilisation of HRH. The first step in this direction would be to establish DHKIs for induction and in-service training under various national health programmes. The supervision of the large ANM workforce needs to be strengthened.

Box 3: Design of BHRC Course

The BHRC course should focus on an essential skills package to ensure a high quality of competence in preventive, promotive and rehabilitative services required for rural populations with pedagogy focussed on primary health care. The course be taught in local settings where health workers live and work. The BRHC course should not be a mini-MBBS course, but rather become a unique training programme aimed at the basic health care needs of its target population.

BRHC faculty should be drawn both from existing teaching institutions and India's pool of retired teachers, also drawing non-physician specialists from the fields of public health and the social sciences.

The BRHC course should be a professional education programme and should be steered by national and state level Boards to ensure quality and effective implementation of the curriculum. It should be mandated through legislation that a graduate of the BRHC programme is licensed to serve only in specific notified areas in the government health system.

Service parameters and career pathways should be developed for BRHC graduates. The Government should take steps towards establishing suitable salary and service conditions for BRHC practitioners. The option for career progression to the public health service, after 10 years of service, may be offered.

V. Maintain the current number of community health workers (2 per 1000 population), given that rural/tribal areas have more dispersed nature of the population and NCDs are emerging as an important health priority in the State. The broad scope of the work for the existing Community Health Worker (CHWs)/ *mitanins* would include maternal and child health including the Home-Based New Born Care (HBNC), family planning, adolescent and reproductive health. The control of communicable and noncommunicable diseases may be assigned to the second *mitanin* with specific job responsibilities that include basic health promotion and prevention activities around the control of malaria, filaria, TB, HIV, leprosy and other infectious diseases, safe water and sanitation. The CHW will also be involved in health education for noncommunicable and chronic diseases such as hypertension, diabetes, heart diseases, strokes, cancers and mental health.

VI. Undertake universal screening for hypertension and diabetes and three common cancers- oral, breast and cervix- among those 30 years of age and above along with referral for treatment where needed. The data on screening should be a part of the family healthcare folder maintained in their HWC/sub-centre/PHC.

VII. Improve family planning and reproductive health services.

VIII. Improve maternity and child healthcare – expand coverage of ante- and post-natal services, nutritional support and vaccination coverage. Community health workers should follow up with beneficiaries to ensure the delivery of these services.

IX. Increase full vaccination coverage; focus on ST children (currently coverage among ST children is less than 70%).

X. Introduce Mobile Medical Units and outreach clinics for remote and inaccessible areas - Reach the unreached - similar to Haat-Bazaar scheme in the State.

XI. Build capacity for epidemic and pandemic response.

XII. Conduct periodic external evaluation of activities at primary care levels.

4. Strengthen secondary and tertiary-level healthcare services

I. Ensure availability of required human resources

II. Increase number of inpatient hospital beds to 2 functional beds per 1000 population;

III. Ensure availability of medicines, diagnostic services, and equipment.

IV. Ensure that at least 10 beds will be intensive Care Unit (ICU) beds, with minimum 5 ventilator beds, in the District Hospitals as per population of the district.

V. Ensure availability of liquid medical oxygen generation plants of 150 tonnes production capacity in every district hospital, along with transportation facilities for cryogenic liquid oxygen.

VI. Build capacity for epidemic and pandemic response at the CHCs and district hospitals.

VII. Announce autonomy for tertiary care hospital and district hospital and full delegation to financial powers to the superintendent of the hospital for all technical requirements, as it will help to reduce wait time and missed opportunities.

VIII. Place specialist doctors at right place and re-allocate existing resources.

IX. Use telemedicine to increase the outreach of specialty services to peripheral health centres. Spoke and hub type of network should be developed in each district hospital.

X. Ensure facilities for cashless medical care at these facilities.

XI. Link each medical college to up to 3 district hospitals for support and mentoring.

XII. Maintain competency of personnel through continuous training and evaluation.

XIII. Train and utilize Allied Health Professionals to achieve the goals of UHC. The existing Allied Health workforce (pharmacists, technicians,

radiographers, etc.) is both inadequately trained and unevenly distributed. The creation of relevant posts is, therefore, a key step in ensuring their integration within the health system. For these cadres to serve the larger goals of UHC, it is recommended that posts be created and filled at appropriate levels as per norms, with close attention to distributional equity as assessed routinely through a Human Resources Management Information Systems (see Box 4).

XIV. Conduct periodic external evaluation of activities.

5. Develop an efficient procurement and disbursal mechanism for drugs

I. Strengthen CGMSC administrative capability and leadership in procurement and disbursement of drugs.

II. Undertake Online monitoring of essential drugs using a dashboard which is updated daily at health centres at each level. This should be done at State as well as district levels. Day- wise drugs utilization and stock balance in hospitals should be reported online.

III. Establish Drug and Therapeutics committees in each district and at the State level. This committee shall review the annual district indent and demand.

IV. Base indenting on a systematic consumption plan from HWC/PHC level onwards.

V. Ensure that CGMSC purchases the drugs based on actual usage and distribute drugs to districts and blocks as per their actual demand.

VI. Prevent over stocking, minimize wastage due to expiry, using IT systems.

VII. Keep Jan Aushadhi stores out of hospital premises and ensure that they remain open at more public places.

VIII. Create public awareness about generic drugs and address concerns related to the quality of these drugs

IX. Make availability of drugs an agenda item in each review meeting at block, district, division and State levels.

X. Select a drug supplier who is/has
   a. no loan license
   b. manufacturer or importer
   c. annual turnover of 20 crore or more
   d. GMP certificate
   e. using a bidding mechanism

XI. Institute an effective Distribution Mechanism
   a. There should be one warehouse at every district with one warehouse manager who has extensive experience on the geography and disease dynamics of that particular district. (S)he also looks after supply chain and management of drugs, equipment, consumables.
   b. CGMSC must ensure timely transportation of drugs to the health facility.
   c. A drug controller should be appointed at State level to monitor quality of drugs

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Box 4:

Required education and training for allied health workforce

The educational infrastructure for many cadres of allied health professionals is notably weak in India. The type of courses, nomenclature, training patterns, entry of candidates, course curriculum, assessment of candidates affiliating bodies, nature of awarding institution / university are widely variable. Only a few training institutes in the public or private sector deliver high quality education. Moreover, pre-service education/training still lacks rationalization and standardization. Training opportunities be ensured for these cadres, career progression can be ensured at the district level (e.g. medical technician courses at the DHKIs).

d. Laboratory reports for oral drugs should reach the CGMSC within 15 days and for injectable within 30 days.

e. CGMSC should keep buffer stocks for 3 months and health centres should do it for a minimum 1 month. Automated calculated indent of 'stock out' drugs must be sent to the CGMSC and nearest warehouse.

XII. Rationalize and streamline drug prescription

a. Clinicians must be oriented to consult EML and formularies.

b. Clinicians must prescribe medicines as per the EML of the State at each level of healthcare facility.

c. Clinicians should write prescriptions on double prescription slips. Copy of the prescription should be collected and stored at each hospital as a patient record. A prescription audit should be conducted at each public health facility to evaluate rational prescribing by clinicians.

6. Ensure quality at every level of service delivery

i.   All public hospitals and healthcare facilities shall be quality accredited under the National Quality Assurance Standards in three years.

ii. Foster a culture of quality and safety by actively encouraging reporting of near miss events in hospitals.

iii. Invest in patient safety research with focus on translating research into policy.

iv. Build capacities of health professionals in safety and quality of care.

7. Increase public participation and feedback

i.   Promote participation of local people and leaders in preventive activities through Panchayat Raj Institutions.

ii   Introduce a systematic and responsive grievance redressal and information mechanism for citizens to access knowledge of, and lay claim to, their health entitlements. Such a mechanism is urgently required at the block headquarters to deal with confidential complaints and grievances about public and private health services in a particular block. Procedures for corrective measures should be clearly enunciated at each level, with defined parameters for grievance investigation, feedback loop, corrective process, no-fault compensation and grievance escalation, directives and guidelines or orders, as applicable.

8. Communicate benefits available under UHC to people

Launch effective information and education campaigns to increase awareness among people about the availability of:

a. free primary health care services in public sector

b. awareness about generic drugs and free essential drugs

c. free primary level diagnostics

d. services available under the cashless insurance scheme/s

9. Engage and regulate private health care sector

In the current healthcare landscape, engaging the private healthcare sector has become important for scaling up services to provide UHC[25]. At the same time regulation of the private health care sector is needed to ensure accountability and prevent exploitation of patients. Following actions are recommended for the State of Chhattisgarh:

i.   In-source the services of accredited private health care providers and selected non-governmental organizations (NGOs) for diagnosis and treatment of tuberculosis under the National Tuberculosis Elimination Programme, or to provide higher level obstetric care for high risk pregnancies.

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[25] *Engaging the private health service delivery sector through governance in mixed health systems: strategy report of the WHO Advisory Group on the Governance of the Private Sector for Universal Health Coverage.* https://www.who.int/publications/i/item/strategy-report-engaging-the-private-health-service-delivery-sector-through-governance-in-mixed-health-systems

ii. Ensure smooth inpatient admission for poor people, for secondary and tertiary care, under the State's health insurance (DKBSSY) scheme and in private health care facilities.

iii. Ensure instant registration of unregistered patients under DKBSSY at the time of hospital admission.

iv. Encourage the use of standard treatment workflows for care provided under the government insurance schemes.

v. Reduce unnecessary and unethical care e.g. unnecessary surgeries through external audits and imposing heavy penalties for such practices.

vi. Develop a score-based hospital grading system based on fair practices by private hospitals and encourage private hospitals to achieve higher grades.

vii. Develop the capacity of regulatory bodies to strengthen information collection, oversight and regulation mechanisms to deliver health care services in both the public and private sectors.

10. Strengthen overall healthcare governance and management

Effective management systems are crucial to the successful coordination of multiple resources, diverse communities, and complex processes. Over the long term, we recommend the following set of over-arching institutional and managerial reforms.

10.1 Institutional reforms

Regulation of the public and the private sectors, to ensure provision of assured quality and rational pricing of health care services, is essential for the implementation of the UHC system. A structured regulatory framework is needed to monitor and enforce essential health care regulations to control entry, quality, quantity, and price. We recommend establishment of a new institution called "State Health Regulatory and Development Authority" (SHRDA) for this purpose.

State Health Regulatory and Development Authority (SHRDA)

The main functions of the SHRDA will be to regulate and monitor public and private health care providers, with powers of enforcement and redressal.

This regulator will oversee:
- Contracts
- Accredit health care providers and facilities
- Develop ethical standards for care delivery
- Develop standard treatment guidelines and management protocols
- Enforce patient's charter of rights
- Monitor progress
- Formulation of legal and regulatory norms and for the State health package
- The State authority will be linked to the Ombudsperson at the district level specially to handle grievance redressal

SHRDA should be composed of different units focussed on specific areas of regulation, monitoring and evaluation. We recommend following Units under the SHRDA:

a. The Health System Support Unit (HSSU)

HSSU should be made responsible for developing:
- standard treatment guidelines
- management protocols
- quality assurance methods
- legal, financial, and regulatory norms
- Management Information System (MIS)
- Health Technology Assessment (HTA)

b. The Medical Facilities Accreditation Unit (MFAU)

This MFAU should be responsible for:

i. The mandatory accreditation of all allopathic and AYUSH health care providers in both public and private sectors.

ii. The mandatory accreditation of all health and medical facilities based on the operations and administrative protocols of health care facilities.

Box 5: The proposed organogram of the State Health Regulatory and Development Authority

```
                    State Health Regulatory and
                     Development Authority
                              |
        ┌─────────────────────┼─────────────────────┐
        │                     │                     │
  UHC System Support    Accreditation norms    Monitoring
                        and state registry     and evaluation
        │
   ┌────┼──────────────────────┐
   │    │                      │
Standard treatment      Legal, financial      Management
guidelines,             and                   information
Management protocols,   regulatory norms      system for UHC
quality assurance
assessment
methods for SHP
```
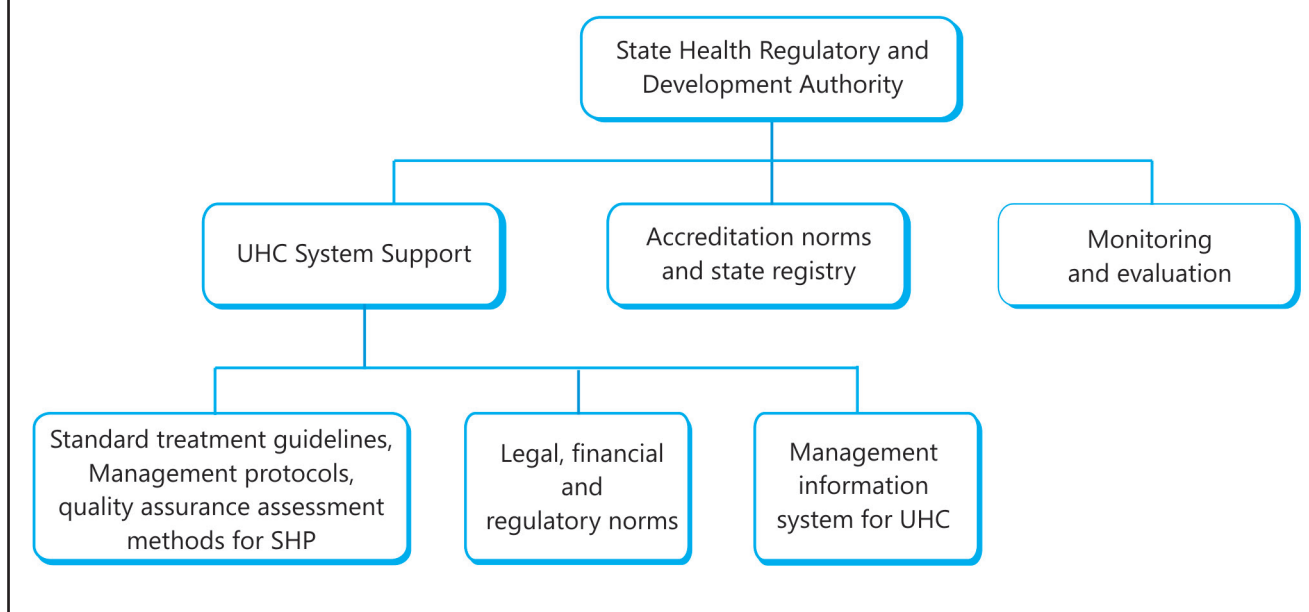
c. The Health System Evaluation Unit (HSEU)

This HSEU should be responsible for:

i. Establishing systems to get real time data for performance monitoring of inputs, outputs, and outcomes.

ii. Independently evaluating the performance of both public and private health services at all levels.

d. State Health Promotion and Protection Trust (SHPPT)

The SHPPT shall play a catalytic role in facilitating the promotion of better health culture amongst people, health providers and policymakers. The Trust should be an autonomous entity with chapters in the districts. It should promote public awareness about key health issues and provide technical expert advice to the Ministry of Health. The Trust should also conduct key assessments and disseminate knowledge about the impacts of non-health sectors and policies on the health of people, through linkages with the SHRDA and Health Assemblies.

Also, in order to support implementation of Universal Health Coverage in Chhattisgarh, a Health Technology Assessment (HTA) Unit has to be established in the State, located at Raipur. This HTA unit would aid in generating evidence to support technical decisions on drugs, diagnostics, community engagement, strategic purchasing of services to be done and health care operations. The best model for HTA unit for Chhattisgarh or India as a whole would be the HITAP of Thailand, located within the National Health Security Office (NHSO). The Thailand Health Security office has offered all needed technical support to help in operationalising UHC in Chhattisgarh (see Annexure 1). As one of the early steps, the State government should set up this HTA unit in Chhattisgarh.

A proposed organogram of State Health Regulatory and Development Authority along with its constituent units and broad framework of functions is presented in Box 5.

Figure 3.1: Proposed organisation structure of SHRDA and the constituent units
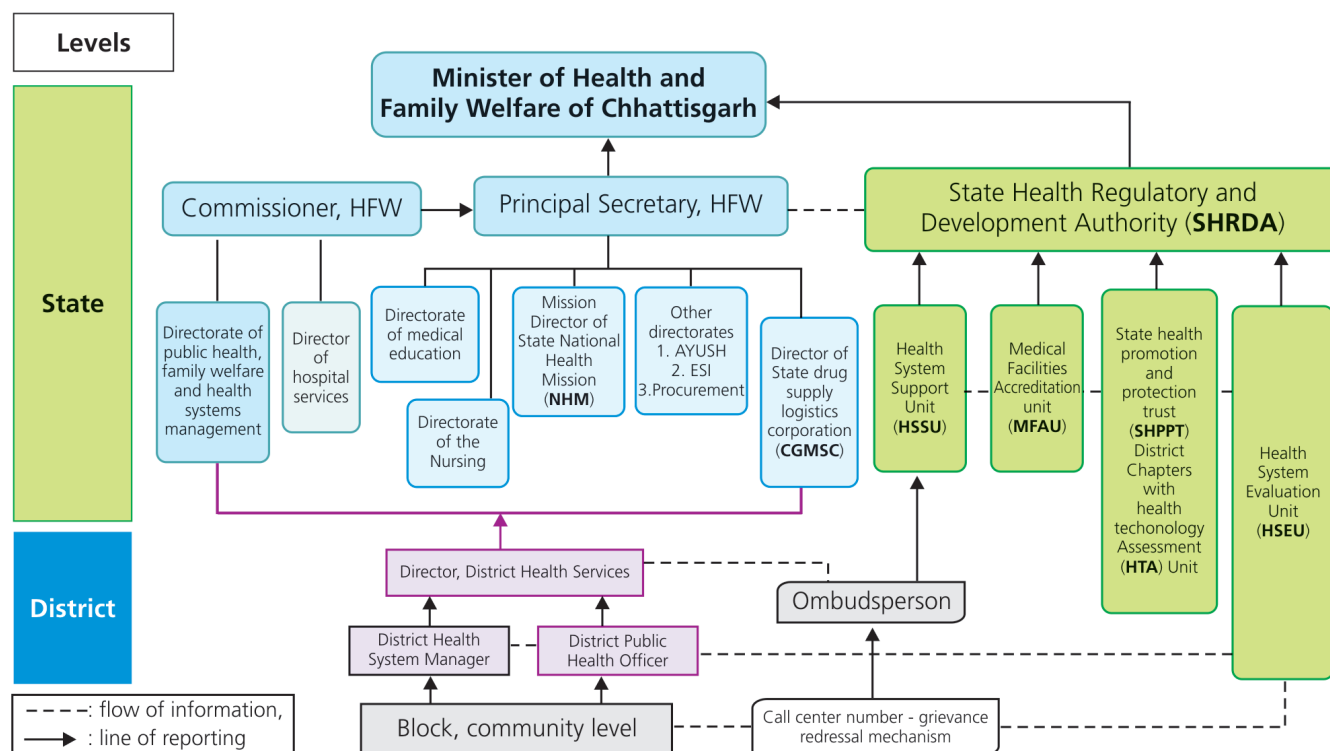
In addition, we also propose an organization framework of SHRDA to be placed under the State Ministry of Health and Family Welfare (MHFW). SHRDA will be part of the MHFW and will function in consultation with the Commissioner and Principal Secretary, MHFW. SHRDA would, however, work independent of mainstream administration in the areas of research and development, development of regulations, monitoring and evaluation protocols, and in monitoring of the overall implementation of UHC in the State (Figure 3.1).

10.2 Managerial reforms

The proposed managerial reforms, as a part of the overall institutional reforms, include measures like augmenting and strengthening the management functions of the health care delivery system to facilitate progress towards UHC. Main features of the proposed managerial reforms are as follows:

a. Creating a Public Health Service Cadre

A new cadre of public health professionals, with multidisciplinary education, needs to be crated. This cadre will be responsible for all public health functions, with an aim to improve the functioning of the he health system by enhancing the efficacy, efficiency, and effectiveness of health care delivery. This cadre should be positioned at different levels of the health services, starting at the block level and going up to the state level. This would be akin to the civil services and will provide the operational framework of public health services.

b. Creating a new Health Systems Management Cadre

This cadre should be made responsible for managing public sector service provisions as well as the contracted-in private sector. Quality assessment and quality assurance for health facilities will be a major function for this cadre. These Health System Managers should take up many of the administrative responsibilities in areas such as IT, finance, human

resources, planning and communication that are currently performed by medical personnel.

We further recommend the appointment of appropriately trained hospital managers at sub-district, district, and medical college hospitals to improve managerial efficiency and enable medical officers and specialists to concentrate on clinical activities.

c. Ensuring transparency in recruitment and transfers

We recommend:

i. Creation of requisite posts and filling up of all vacant posts regularly in a time bound manner.

ii. Implementation of transparent transfer policies: all vacant posts should be put up on web-portal and so should the seniority list. Then on a given day each year, through counselling sessions, the transfers can be decided on and completed. Around 5% can be allowed for discretion of the government. Periodic transfers will not be mandatory, but those wanting a transfer and working in remote areas should be allowed to move after three to five years.

d. Introducing Better human resource practices

To improve recruitment, retention, motivation and good performance-

a. Rationalize pay and incentives.

b. Assure career progression for doctors through reservation of post-graduate seats in medical colleges

c. Provide bridge courses and study leave, time bound promotions based on performance, contractual appointments based on equal pay which are regularized on satisfactory completion of two or three years of service.

d. Enhance monetary compensation and provide incentives such as rural area allowance, additional hardship area allowance, child education allowance and transport allowance.

e. Appoint doctors and nurses as full-time staff in the public sector, duly compensated and on parity with their colleagues in other sectors.

f. Ban private practice by doctors in the public health system- sanction Non- Practicing Allowance (NPA) at 20% of pay. Also, any private hospital that employs government doctors should be dis-empanelled from the State's insurance scheme. All physicians have to be at their work place between 9 am and 4 pm on each working day.

g. Professional human resource agencies can be engaged to find the required doctors, especially for medical colleges located in areas where finding doctors would be most challenging.

h. ANMs, after promotion as LHVs, should be considered for the posts of Public Health Nurses (PHNs), advancing further to District Public Health Nurses (DPHNs), subject to their completion of a year- long DPHN course. The present lateral entry of clinical nurses to the posts of PHN could be retained, subject to their completion of a PHN course and a minimum of 5 years working experience in PHCs. The ANM cadre should be provided with year-long courses in education (diploma in nursing education) so that they can pursue academic careers at ANM schools and LHV training schools. ANMs should be provided opportunities to become staff nurses facilitated through the reservation of seats in nursing schools. Similarly, *mitanins* who are outstanding performers should be provided with opportunities to advance their careers by reservation of seats in ANM and nursing schools.

i. Similarly, nurses should also have opportunities in the teaching cadre to become a tutor, lecturer, associate professor and professor. We recommend that bridge courses be provided for clinical areas such as operation theatres, ICUs as well as clinical super specialty areas of cardiology, neurology and psychiatry for their professional development as nurse practitioners. The nursing cadres should also be provided bridge courses in nursing education, nursing administration, hospital management and health management to enable them to take up administrative posts at facility, block, district, and state levels. Such career progression paths are also recommended for male health workers, laboratory assistants,

technicians, and other categories of allied health workers.

j. Effective systems of performance assessment should be developed and regularly used.

e. **Establishing a credible healthcare information technology (IT) system**

This is extremely important for ensuring effective implementation of the UHC system. A robust health IT network will help cater to the current and growing needs of over thirty million people and navigate the complexities of governance structures, multiple health systems and a combination of public and private providers.

1. A State health IT network should help to build:

-   An epidemiological database to determine district-wise disease burden.

-   Monitor key indicators including mortality rates, hospital admission rates and disease profiles at PHCs and hospital bed occupancy ratios. The network should connect all public and private health care facilities and governing departments through information exchanges. Common national regulations should govern the IT system.

2. IDSP should be upgraded for the Data Analysis Centre and yearly/ half yearly publications should be provided by them.

3. Development of management software and specific dashboards for bed control in monitoring should be enabled by the IT system.

We recommend the establishment of a health system portal that uses information technology to track services and finances. This portal should track patients and ensure the portability of medical histories while ensuring full confidentiality of data and preventing misuse and abuse of data for profit-

making purposes. Medical and health service usage should be tracked to create a central database that provides the necessary information to manage the system effectively. The larger IT system should include portals for patients that assist in scheduling visits, sharing of test results, delivering personalized health promotion and communication and interaction with communities, support networks, and health care providers.

We also recommend the establishment of a transparent, performance-based system of budgeting and financial management, with accountability structures backed by appropriate information technology and qualified financial professionals. This system will ensure smooth and transparent functioning of the administrative workflow at low costs and allow for more resources for clinical care and enhanced citizen satisfaction.

The transformation of Chhattisgarh's health system to become an effective platform for UHC is an evolutionary process that will span several years. The architecture of the existing health system must be accommodated in some parts and altered in others, as we advance UHC from an aspirational goal to an operational reality. The design and delivery of the UHC system requires the active engagement of multiple stakeholders and calls for constructive contributions from diverse sectors. Central and State governments, civil society, private sector, and health professional associations have to deliberate on the blueprint of the UHC system, debate on choices between different models, move from convergence to consensus and collectively commit to the effective implementation of the agreed action plan.

All the required strategies for implementing UHC in the State is also presented in logical framework (Box 6)

Box 6: The logical framework for the process of implementing UHC

Inputs
- Financial
- Improving human resources deployment and quality
- Essential medicines
- Essential laboratory services

Activities
- Free outpatient and inpatient care
- Free essential medicine supplies
- Free essential laboratory services
- Increase the number of healthcare beneficiaries
- Improve quality of healthcare services provided
- Increase awareness about various services available under UHC

Outputs
- Outpatient consultations
- Inpatient admissions
- Essential medications provided
- Laboratory tests performed
- Insurance claims processed

Outcomes
- Increased service accessibility and coverage
- Reduced out of pocket expenditure

Impact
- Reduced mortality
- Reduced morbidity
- Improved health

Chapter 4
Interim Objectives and Measures Required

While full roll-out of UHC may be implemented in medium to long run this chapter aims to provide strategic action plan to achieve interim objectives on immediate priority basis.

4.1 Interim Objectives and the Required Measures to Achieve Interim Objectives

While the implementation of all the strategies as presented in the foregoing chapter and the full implementation of UHC in the State, may require a time period of 3 to 5 years, we also present a few interim objectives to be achieved in the first year of the implementation of UHC.

4.1.1 Interim objectives

To increase accessibility and coverage of healthcare services during, following are the interim objectives to be achieved:

1. Increase budgetary allocation to meet the needs of UHC to 8% from the current level of 5.2% of total government expenditure.

2. Improve performance, monitoring and regulation of the State's health insurance schemes so that patients really get cashless service. The number of patients who have to pay additional cash for healthcare services even after using a smart card should go down by 50%.

3. Create new posts of health workers at all levels to achieve the lowest WHO recommended health workforce density thresholds of 22.8 health workforce per 10,000 persons.

4. Reduce existing vacancies of healthcare personnel by 80%.

5. Improve the skill level of HRH by 50%.

6. Make essential medicines and laboratory services[26] available for free at all public health care facilities, while ensuring that there should be no stock out of medicines at any public health facility.

7. Ensure community participation at the primary level of service delivery and shared decision making at the community level.

8. Complete population-based screening of selected NCDs (hypertension, diabetes, and cancers) in the entire State and make the care of hypertension, diabetes, and preventive treatments of cardiovascular diseases free at all health facilities, from the health and wellness centres to the district hospitals.

4.1.2 Achieving interim objectives

1. Provide adequate finances in the budget for implementing UHC

The cost of implementing UHC depends on the required number of human resources for health, training and skill development requirements of the health workforce, quantum of medicines, consumables and other supplies, cost of new

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[26] *Free Diagnostics Service Initiative,* National Health Mission https://nhm.gov.in/New_Updates_2018/NHM_Components/Health_System_Stregthening/Comprehensive_primary_health_care/letter/Guidance_document_for_Free_Laboratory_Services.pdf

infrastructure for health facilities to be created, capital cost on medical equipment etc. Currently, the density of trained health workforce (doctors and nurses/midwives) per 10,000 persons in the State is approximately 10 (2.9 doctors and 7.1 nurses/midwives). This is far lower than the national average of 15-16 health workers per 10,000 population. The implementation of UHC in the State would need a health worker density of at least 23 per 10,000 population in the short run with an aim to achieve 44.5 per 10,000 population in the medium term. As an interim objective, the State must aim to achieve the threshold of 23 health workers per 10,000 population. Also, there is a need for additional allied health workers and other support staff.

The cost of Implementation of UHC also includes the required increase in the number of health facilities (HWCs, PHCs and CHCs) in the State. Currently, the number of health facilities in the State is far lower, when compared with the norm of 1 sub-centre per 3000-5000 population, 1 PHC per 30,000 population and 1 CHC per 100,000 population. Given the emphasis on primary health care for implementing UHC, there is a need to open a new 700 HWCs, 190 PHCs and 125 CHCs to achieve the adequate population: facility ratio in Chhattisgarh. Establishing these new facilities can be achieved during the next three years.

The estimated cost for UHC in the State considered the investments needed for reaching to the norm of HRH and health facility density as presented in the previous paragraphs. Considering approximately 30% of health workers would be available in the private sector in the State, the cost of HRH has been estimated for approximately 13,000 doctors, 25,000 nurses, 15,000 ANMs and approximately 45,000 allied health workers and support staff. The State has already recruited approximately 69,000 *mitanins* and remuneration for them are included in the total estimated cost. Estimation of cost also includes training and capacity building of health workers on an annual basis. Capital costs include establishment of HWC, PHC, CHC and one state level Health Development and Regulatory Authority (see Annexure 2). Total cost for implementing UHC in the State is estimated to be Rs. 9,103 crores (Rs. 3,085 per capita) which is approximately 9.4% of the total State budget (Rs. 97,106 crores) in the year 2021-22. The budgetary allocation for health in the year 2021-22 was Rs. 5,256 crores. In per capita terms this translates to Rs, 1,782 which is higher than the all India average of Rs. 1,419 per capita for the financial year 2021-22. However, there is a need to further increase the budgetary allocation on health by approximately 3.5 to 4% of the total State budget to implement UHC. This increase in the health budget can be realised in a phased manner over the next three years as presented in the Table 4.1.

The appointment of required health workers can be planned to be spread over the years, in the proportion of 75% in the first year and 12.5% each in the second and third year. Similarly, a major proportion of the capital cost required for establishing new health facilities and purchase of equipment can be done in the second and

Table 4.1: Budget Required to Implement UHC in State (Rs. in Crore)

Financial year	2021-22	2022-23	2023-24
Total healthcare budget required to implement UHC in a phased manner (Rs. in crores)	7,863	9,157	10,208

(Note: For subsequent years include 10% inflation)

third years. However, free medicines and other consumables/supplies should be ensured right in the first year of 2021-22 as one of the main interim objectives to be achieved. A detailed structure of cost, over the years, is presented in Annexure 2.

Resource mobilisation plan for UHC

The budget requirements for implementation of UHC can be mobilised using parallel strategies of increased budget and enhanced productivity or efficiency gains in the health sector. Although various methods are proposed to finance UHC, general tax revenues based finance, as opposed to targeted tax-funded or contributory, is usually believed to be most suitable for low-income economies for ensuring equity and efficiency in healthcare financing[27].

There are several possible sources to finance the increase in budgetary allocations on health by approximately Rs 2,607 crores in the years 2021-22. First, by increasing the health budget by 8.5% of the total State budget from the existing 5.5%. Second, Districts should prepare a higher budget under the 'RCH flexipool' and 'NHM flexipool'. Currently the total State budget is Rs. 5,256 crores (2021-22 BE) which includes Rs. 1,200 crores for NHM. The NHM budget should be raised to Rs. 2,000-2,500 crores as districts can budget for additional requirements of medicines, diagnostics, and consumables. Third, 60% of the District Mineral Fund can be mobilised on health and, as a special case for UHC, the cap of 25% can be increased. Fourth, the State can explore additional taxation policies on products like tobacco and alcohol. Other options could be central funds.

Additional funds for UHC can also be mobilised by understanding in detail the scope of efficiency gains. For this, a detailed mapping exercise of public health expenditure within the State, at process as well as utilization levels, should be undertaken. Such efficiency gains can be achieved through strong budget formulation at the districts and State levels, higher utilisation rates of allocated budget for a financial year, and reducing administrative delays

to fund disbursement. A facility-based performance indicator should be developed, to collated at the district and State levels, to monitor such efficiency gains. Adequate planning is also required to reduce wastage, enhance efficient use of the health workforce, strengthening the supply-chain system of medicines and consumables etc. Under the DKBSSY scheme, strategic purchasing of healthcare services should be promoted and funding to private providers should be linked with output and outcome indicators. An example of such a system is the Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS) in Tamil Nadu, where private hospitals are graded on the basis performance indicators, and rates of financing are determined accordingly. The proposed digital monitoring and evaluation units at the district and state levels will help analyse such data and gain efficiency with the health sector.

2. Improve delivery of cashless health services under the State's health insurance scheme

Ensure that reimbursement for various medical services is appropriate and is benchmarked against existing norms. Ensure strategic purchasing of health services from contracted-in private providers under the DKBSSY, wherein payment rates are tied to cost of provision and key outcome indicators.

Besides these services, a grievance redressal system should be incorporated where patients can report if they are made to pay additional charges. A redressal system needs to investigate such complaints and take stringent measures. An independent evaluation system should document and track such events to ensure that deviant practices are going down.

3. Improve availability and quality of the HRH

As an interim objective, the State must aim to achieve a HRH: population ratio of 23 health workforce per 10,000 population. To achieve this, at least 80% of the posts in government facilities must be filled up with an immediate effect. Also, attempts should be made to increase the intake capacity of the existing medical colleges and nursing institutes. Opening of

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[27] Yazbeck et al. 2020, *Ibid*

new institutions like DHKI and new training courses for CHWs should be prioritise in the first year of the implementation of UHC, for improving the quality dimension of HRH in the State.

4. Ensure uninterrupted supply and efficient use of essential medicines

Expenditure on medicines comprises 60-70% of the total expenditure on healthcare. Therefore, by providing free generic medicines, a significant portion of expenditure on healthcare can be reduced. To achieve this, the following measures will be needed:

- Estimation of the current and future need for medicines for the next 3 years.
- Procurement at mass level to reduce costs.
- Effective inventory management.
- Effective distribution.
- Ensuring quality of medicines that are procured.

This should be done to ensure that there are **no stock outs of the essential medicines** in any of the facilities including that with the *mitanins*.

5. Ensure availability of essential laboratory services

Non-availability of laboratory services often results in delay in proper diagnosis and appropriate monitoring of patients. The following measures will need to be taken:

- Estimate the current and future need for laboratory tests needed over the next 3 years.
- Procurement of supplies at mass level to reduce costs.
- Effective inventory management.
- Emphasis on procuring high quality point of care tests to be used at the health and wellness centre and primary health centre levels.
- Developing a hub and spoke model13 whereby samples for selected laboratory tests are transported to a mother lab at the district hospital.
- Ensuring quality control.

6. Ensure Community participation in service delivery and decision making at the community level

- We propose that community participation at all levels should be included as one of the interim objectives. Several of such initiatives were also suggested in the HLEG Report. Level of community participation may take following forms:

- **Community health worker/volunteer**: Accredited social Health Activist (ASHA)/*Mitanin* as well as ANMs and CHO would set up and later facilitate 'Peer Support Groups' for care of chronic illness. These would be for a minimum of 6 patients and a maximum of 25. Federations of peer support groups at block, district and state levels would be the appropriate advocacy forums for demanding their health rights.

- **Health planning at community level** may be ensured through making panchayat, block, and district level health plans annually. UHC should be brought into the agenda of the *Gram Sabha, Janpad* meetings and other assemblies locally.

- **Community based monitoring**, through chosen Civil Society Organizations/Non-Government Organisations, would need to be done to ensure optimal availability of diagnostics, drugs and supplies and attendance of HRH in their designated health facilities. This should be performed on a biannual basis (See Box 7 for a case study).

- **The Panchayat Raj Institutions** (PRIs) should determine a "Citizen Charter" which should be displayed at each health facility.

- **An Interactive voice recording** (IVR) based call centre service to report denial of care or lack of availability of diagnostics and drugs should be

Box 7:

Case Study: Janta ka Faisla

A '**Janta ka Faisla**' programme was organized by a collective of civil society partners in July 2021 to investigate the state's response to the return of the out-migrants from Chhattisgarh when they returned tin the national lockdown in April 2020, and were forced to stay back and seek work, food , and healthcare. A jury of 15 returning migrants listened to the stories of people, and reports by try the state government functionaries and then produced a judgement and specific suggestions for the state to implement so that life and social support for the migrants from Chhattisgarh.

The specific suggestions for improving health care included: a) training one travelling migrant at least one out of every ten in basic health concepts and in managing common emergencies in healthcare, and providing a drug and dressing kit for the migrant groups when they migrate out, b) ensuring universal health coverage through public health systems which is comprehensive vertically and horizontally and is cashless, and also portable across states of the country. This type of community voices creation should continue where people's tribunal should evaluate the performance of the health department I providing UHC at least annually. And this could should be commissioned by the state and conducted by an independently set up civil society formation, annually at least.

set up at the district level and at the state level, whose compliance would be the responsibility of the Chief Medical and Health officer of the district. The district and state authority will be linked to the Ombudsperson at the district level, specially to handle grievance redressal.

- **Jan Sunvai-Public hearings** provide a platform for individuals to express themselves. This is a powerful tool for health care monitoring, advocating for health rights and making bilateral accountability for ensuring health care in the community. The State authorities must ensure at least annual hearings will be held, to be coordinated at a district level by a chosen civil society partner.
- **Citizen engagement to regulate the private sector –** proper platforms should be evolved to

regulate private doctors, clinics, and hospitals through patients' groups/organizations.

7. Increase awareness among people about availability of services to improve UHC. This needs to be done using awareness generation through:

- News media
- Information and Education Campaign (IEC) materials disseminated at the facility level

8. Finally, as an interim strategy, the activities needed to strengthen the implementation of UHC should be piloted and fine-tuned in two selected districts of the State. A detailed action plan should be prepared for the district on the basis of the steps indicated.

Chapter 5
Operationalising UHC in Districts

This chapter presents the plan for operationalising UHC in two districts of the state. This chapter provides the rationale for selecting the two districts, required preparation and identifies resources for implementing UHC at the district level. The main reason for preparing an implementation plan for the two districts is to understand the levels of preparation and amount of resources required to implement UHC across all districts of the state.

5.1 Selection of Districts

For rolling out of UHC, two districts were selected to identify the required levels of preparedness, strategies and resources. The main rationale behind selecting the two districts were the relatively better health infrastructure and health outcomes, as compared to the rest of the districts.

All the 27 districts in Chhattisgarh were classified using a composite index of health development indicators. Six different demographic and health indicators were used: i) % urbanisation, ii) female literacy, iii) health facilities per 100,000 population, iv) Prenatal coverage, v) % institutional delivery, vi)

% children fully immunised. A composite index was generated using variance method[28]. Districts were classified into four categories with index below 40 as the lowest, 40 to 50 as the second lowest, 50 to 60 as the second best and above 60 as the best performing districts (Table 5.1).

After consultation with the State government other stakeholders, it is proposed to select Durg district from the first category and Surguja district from the second category for piloting the implementation of UHC. Some of the sociodemographic and health indicators of these two districts, along with the state averages for them, are given in Table 5.2.

Table 5.1: Classification of districts based on health development indicators

Best	2nd Best	2nd Lowest	Lowest
Kawardha, Durg, Raipur, Balod	Bastar, Surguja, Narayanpur, Koriya, Bilaspur, Bemetra, Dhamtari, Bijapur, Raigarh	Kanker, Jashpur, Janjgir Champa, Kondagaon, Mahasamund, Surajpur, Mungeli, Sukma, Korba, Dantewada	Gariyaband, Rajnandgaon, Balrampur, Baloda Bazar

[28] The values of indicators across districts were standarised using a variance method: $\frac{(X_i - M_N)*100}{(M_x - M_N)}$; and a Composite Index was estimated using a formulae: $\frac{\Sigma S_i}{n}$; where 'Xi' is value of any indicator for any district, 'Mn' is minimum value of any particular indicator across districts and 'Mx' is maximum value of the particular indicator across districts, S is sum of scores across indicators for each district and 'n' is number of indicators.

Table 5.2: Select Demographic and Health Outcome Indicators for Durg, Surguja and Chhattisgarh

Indicators						
Districts	% of urban population	Number of facilities per lakh persons	Female literacy (%)	Antenatal check-up (%)	Institutional deliveries (%)	Immunization (%)
Durg	64.15	25	48.71	60.50	66	80
Surguja	16.27	31	51.97	76.30	65	66
Chhattisgarh	23.24	23	60.24	59.10	70	76

Source: NFHS 4 and State NHM

5.2 Strategic Approach to Implement UHC in the Two Districts

5.2.1 Constituting Implementation and Evaluation Teams in the Districts

For launching the roll-out of UHC in the two districts, it is proposed to constitute two different teams which will keep track of progress, through monitoring and evaluation at the local levels on a periodic basis. These two teams will report the progress of roll-out to the State level UHC technical committee and the steering committee on a quarterly basis. The composition of the two teams is as follows:

- A District UHC Implementation Team comprising:
  - The Mission Director, NHM
  - The District Collector
  - The Chief Executive Officer, Zila Parishad
  - The District Health Officer
  - The Civil Surgeon
- An independent District UHC Evaluation Team comprising:
  - Epidemiologist
  - Public health researcher
  - Field supervisors
  - Field surveyors

If needed, the evaluation team can also hire and take help from professional evaluation agencies such as IIPS, Mumbai. Involvement of such independent agencies should be approved by the District UHC Implementation Team and State Monitoring and Evaluation Team located at the SHRDA[29].

A budget should be allocated by the State government, to implement interventions for UHC on a pilot basis in these two districts. The estimated budget is provided in the next section.

5.3 Specific Actions Required at the District Level

Several actions are required to roll-out UHC at the district level. The required strategies span across the preparatory phase before launch of the roll-out to the evaluation phase of different outcomes and processes. Three phases of implementation may be considered, as described in the following sections:

5.3.1 Phase I: Assessment and preparatory phase

- Evaluate current UHC indicators for the two districts, based on the most recent data available from the national surveys and other sources; define the essential and desirable list of services at each level of care, starting from *mitanin* to the medical college hospital (if there is one in the district);
- As strengthening primary healthcare is a key part of UHC, provision of basic services (See Box 8 for a list of basic services) needs to be ensured at the level of HWCs and higher levels of primary care;

[29] For more information on SHRDA refer to Chapter 3

- Performance of the healthcare facilities, from HWCs to DHs, should be evaluated on the basis of their performance in each of the 12 domains listed in Box 8.

Evaluate current outputs of existing workforce at healthcare facilities.

- Define expected output for each facility level e.g. HWCs/SCs, PHCs, CHCs, DH and for each functionary, for various activities pertinent to that facility, such as field visits, outpatient consultations, inpatient admissions, surgical procedures to serve as the benchmark.

- Identify gaps in HRH, infrastructure, and facility management

- Set goals:
  - To achieve health workforce to population ratio of at least 23 per 10,000 population;
  - To reduce vacancies by 80%
  - To make essential drugs free at all public healthcare facilities in the district
  - To ensure no stock-out of any essential medicine at any facility
  - To start extensive awareness campaign about UHC

- To increase patient footfall by 50%
- To complete population-based screening of hypertension, diabetes and cancers and starting patients on appropriate medicines from nearest government healthcare facility
- To increase identification of TB cases by at least 20% over 1 year
- To create a sickle cell disease registry for these two districts and ensure that >90% patients with SS pattern are receiving regular hydroxyurea.

- Establish a Drug and Therapeutics Committee in each of the two districts to review the annual district indent and demand.

- As transportation of essential medicines to PHCs and HWCs/SCs is a challenge, develop a mechanism for transporting these medicines to these facilities.

- Develop a mechanism to have buffer stocks at HWCs/SCs and PHCs.

- Set up a dashboard at the district level to monitor availability and use of essential medicines at HWCs, SCs and PHCs.

- Sensitize clinicians to use drugs from EML.

Box 8: List of basic services to ensure strengthening of primary level care

1. Care in pregnancy and child birth

2. Neonatal and infant health care services

3. Childhood and adolescent health care services

4. Family planning, contraceptive services, and other reproductive health care services

5. Management of common communicable and outpatient care for acute simple illnesses and minor ailments

7. Screening, prevention, control and management of noncommunicable diseases

8. Care for common ophthalmic and ENT problems

9. Basic oral health care

10. Elderly and Palliative health care services

11. Emergency Medical Services

12. Screening and basic management of mental health ailments.

- Estimate the need for providing essential laboratory services at each facility level, and make all essential investigations available at public facilities and, where needed, sourced in from accredited private laboratories.

- Set up a dashboard to monitor daily laboratory tests conducted at public health care facilities.

- Assess competencies of HRH at baseline, using standardized evaluations, and then at periodic intervals to assess progress.

- Prepare a plan to plug these gaps in a time bound manner.

- Develop SOPs for common clinical care services offered at each facility.

- If the district is malaria endemic, then assessment of long-lasting insecticidal nets (LLIN) usage.

- Develop a grievance redressal mechanism with a call centre number at the district level and display this number prominently at each public healthcare facility.

- Develop output measures and process indicators for service delivery

- Ensure sputum testing facilities at all PHCs and develop cartridge-based nucleic acid amplification testing using portable devices at CHCs and DHs. Develop mechanisms to transport sputum for microscopy and cartridge-based nucleic acid amplification test (CBNAAT).

- Ensure facilities for haemoglobin electrophoresis at the medical colleges at Raipur and Ambikapur for confirmation of sickle cell disease and establish systems for efficient transportation of blood samples to medical colleges from PHCs, CHCs and DHs.

- Link the Government Medical College, Ambikapur to Surguja district hospital and Government Medical College, Raipur to Durg district hospital for support and mentoring. A team of faculty members from the medical college should visit district hospitals to identify areas needing improvement and develop a training plan.

- Set up an external monitoring and evaluation team, with a team of supervisors who will visit health facilities on a quarterly basis to independently evaluate implementation and progress and also obtain community feedback.

- Conduct sample surveys at baseline and then at periodic intervals, to assess the progress of the project.

- Funds to support these activities to be budgeted in the district health action plan or to be mobilized from other sources as determined by the district administration.

- Assess funds requirement under the 'NHM flexipool' and the 'RCH flexipool', with enhanced targets to be achieved in a financial year.

5.3.2 Phase II (0-9 months) implementation phase

- Rationalize HRH, infrastructure based on current local demand. All sub-centers in both districts should have a 4-person health team, comprising one mid-level healthcare provider and three multi-purpose health workers.

- Training of CHOs, AMO and the entire PHC team is a much-needed task that needs to be undertaken over the next 1 year in both districts. Training of personnel must be initiated to increase competency in delivery of the 12 primary health care services. An appropriate training agency must be identified and engaged to conduct the training.

- Recruit or transfer personnel where needed, to suit local needs. This should be done through transparent processes. All vacant posts and seniority lists should be put up on web-portal. Periodic transfers will not be mandatory, but those wanting a transfer and working in remote areas should be allowed to move after three to five years.

- As per State mandate related to private practice by government doctors, in the first phase, such practice by public physicians will be regulated in the Durg district.

- Expected outputs at each facility should be conveyed to the staff at that facility e.g. number of people above the age of 30 to be screened for NCDs, percentage of patients having adequate blood pressure control, number of new TB cases to be detected.

- Procurement and delivery of essential medicines to periphery must ensure that there are no stock outs.
- Prescriptions of clinicians must be monitored by collecting carbon copies of prescriptions for conducting periodic prescription audits.
- Usage of essential medicines must be monitored at each public health facility in the district.
- Awareness must be increased, about the services available at public healthcare facilities. This should be achieved through appropriate IEC/BCC materials and activities.
- Universal screening must be undertaken, of persons above 30 years, with referral and treatment of NCDs (hypertension, diabetes, and common cancers) at facilities starting from HWCs to DHs.
- Conduct population-based screening of suspected TB patients using a survey instrument of symptoms.
- Faculty members from the medical college must be directed to train district hospital and CHC staff, to build their clinical, surgical and nursing skills and assess their competencies before and after the training.
- Prominent display, of services available at each healthcare centre, must be undertaken, for patients to see. These must be in the local language at SCs, PHCs, CHCs and DHs.
- Timing of clinics of SCs, PHCs and CHCs must be changed to suit the convenience of the local population, to increase healthcare seeking.
- A separate unit for medico-legal cases must be established and post-mortem examinations must be conducted at the district hospital/ CHC.
- Outputs related to patient care must be tracked on a monthly basis.
- Feedback must be provided to healthcare personnel, regarding expected performance and existing gaps.
- In both districts, a District Health Knowledge Institute (DHKI) must be established to enhance the quality of health workers' education and training.

5.3.3 Phase III (9 months-1 year) evaluation phase

During this period, the district pilot programme should:
- Continue activities listed under phase II
- Conduct sample surveys to assess outcomes
- Identify barriers and facilitators for implementing UHC
- Recalibrate strategies and budget based on the experience
- Prepare an implementation plan

5.4 Estimated Cost for UHC in Two Districts

Although the estimated costs for the two district pilots (in the two selected districts) are already included in the overall State budget requirements, district level estimation of costs will help in developing a district plan for the required new health facilities, strengthening of existing facilities, scaling up HRH and their training, provision of medicines and supplies and other related costs at the district level. Such costs will vary across different districts depending on the size of population, availability of health infrastructure and requirement of medicines and supplies in districts.

The estimated budget for implementing UHC in the two selected districts, Durg and Surguja, is based on a normative requirement of health facilities at the population level. Considering, 1 *mitanin* for 500 population, 1 SHC for 3000 to 5000 population, 1 PHC for 30,000 population and 1 CHC for 100,000 population, the number of required SHCs, PHCs and CHCs were estimated for the two districts. Accordingly, the required number of health workers were estimated in the two districts. Following the framework as outlined in the required health budget for the State as a whole, the cost of health workforce requirements, opening of new facilities and medicines and supplies were estimated. The estimated cost for the districts did not include capital costs required at the State level for establishing

SHRDA and State level monitoring. The estimated required budgets for the two districts are as follows:

A. Durg district- Rs. 816 cores/year

B. Surguja district- Rs. 631 cores/year

The estimated required budgets for the two districts are approximately 9% (Durg) and 7% (Surguja) of the required health budget of the State.

In these two districts the existing number of facilities is far shorter than the population based normative requirements. The estimated budget includes opening of new facilities in these two districts. Also, in addition to filling up the existing vacancies, new posts need to be created in each facility. The estimated budget includes all such required costs to implement the UHC in the districts.

As in case of the entire State, the district budget can also be spread over the next three years. An indicative budget is presented in Table 5.3.

Table 5.3: Budget required to implement UHC in Durg and Surguja districts

Financial year	2021-22	2022-23	2023-24
Total healthcare budget required to implement UHC in a phased manner (Rs. Crore)			
Durg	717	807	905
Surguja	535	609	690

Note: Subsequent years include adjustment for 10% inflation

Chapter 6
Way Forward

Achieving increased coverage of quality healthcare for all, without any financial hardship, requires a number of measures including political and financial commitments. For the State of Chhattisgarh, increasing government's health expenditure from a current level of 5-6% to 8-10% would be one of the pivotal strategies. The State should consider removing all user fees, including registration charges, in public healthcare facilities and ensure that the patients do not pay additional charges under the health insurance scheme. In due course, the aim should be to extend the coverage of government funded health insurance scheme/s to additionally cover sections beyond the poor and design state funded schemes to finance tertiary level care of critical illness for all persons who need such care.

Availability of numerically adequate and skilled HRH, of high quality and commitment, is crucial for achieving UHC. The government should focus on increasing the overall availability of HRH to reach a ratio of 22.8 health workforce per 10,000 persons in the population, in the short run, and 44.5 health workforce per 10,000 persons in medium term. Regular training and skilling of health workforce will increase the quality of healthcare services in the State.

There is a need to strengthen primary health care as it is the cornerstone of health system efforts for implementing and achieving UHC. Strengthening HWCs is the key to strengthen primary healthcare and the State must ensure adequate infrastructure, free medicines and diagnostics and uninterrupted availability of other supplies.

Engaging the private sector in healthcare is required to increase coverage for implementing UHC. This must be done in a well-designed regulatory framework, Similarly, engaging non-governmental organizations (NGOs) in primary level service delivery and ensuring community participation in decision making are crucial for productive community engagement and ownership of UHC.

The main recommendations emerging from the analyses presented in the forgoing chapters are summarised in Box 9.

Box 9: Ten-point recommendations

1. Increase public expenditure on health from current 5-6% to 8-10% and reduce out of pocket expenditure on health to the minimum;
2. Improve the situation of human resources for health. Target for 22.8 and 44.5 health workforce (HRH) per 10,000 population in the short-term and medium-term respectively;
3. Strengthen service delivery at primary care levels. Maintain recommended level of population – health facilities ratio at all levels;
4. Strengthen secondary and tertiary level healthcare services by expanding insurance coverage and designing state-supported other financial support systems;
5. Develop an efficient procurement and disbursal mechanism for drugs. Free drug supply at all public facilities;
6. Ensure quality at every level of service delivery. Develop performance indicator at facility levels;
7. Increase community participation and develop feedback system;
8. Engage and regulate private health care sector;
9. Strengthen overall healthcare governance and management by establishing State Health Regulatory and Development Authority;
10. Establish a credible healthcare information technology (IT) system.

Annexures

Annexure 1: UHC experience from Thailand

Experience 1. Role of Health Technology Assessment (HTA) in setting priorities in Thailand (Health Intervention and Technology Assessment Program (HITAP), Ministry of Public Health, Thailand)

The Challenges observed in benefit package development-

- High cost with resource constraints,
- Lack of systematic process,
- Pressure on the policy maker

The concerns over use of technology –

- Safety
- Efficacy/Effectiveness (benefits)
- Value for money (cost-effectiveness)
- Social
- Ethical
- Institutional

Health Technology Assessment (HTA) is a multidisciplinary process to evaluate health technologies. This bridge gap between science and decision making in health.

Major role of HTA in Thailand is to coordinate three components shown in figure below-

Pharmaceutical reimbursement

Non-pharmaceutical benefits package

Public Policy Evaluation
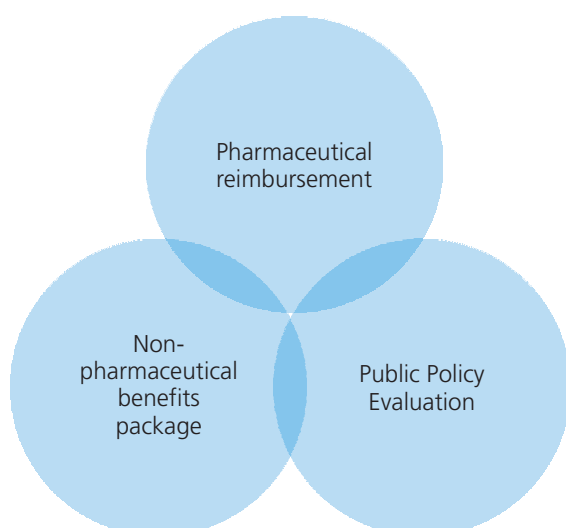
HTA-informed coverage decisions in Thailand-

A) Under National List of Essential Medicines (NLEM)-

- Pharmaceutical reimbursement list
- The Subcommittee for Development of the National List of Essential Medicines
- Pharmacoeconomic data was introduced in the 2008 NLEM revision (high cost medicines)
- HITAP remains the secretariat of the Health Economic Working Group and the Working Group on Price Negotiation

B) Under benefit package development for Universal Coverage Scheme-

- Non-pharmaceutical package
- Subcommittee for Development of the
- Benefit Package and Service Delivery (SCBP)
- Engaging a broad range of stakeholders in the process of topic nomination and prioritization
- HTA was introduced in 2009 and HITAP plays a key role in developing the mechanism during the first five years before returning the secretariat function to NHSO in 2014

Current governance structures supporting the use of HTA to inform health benefit package in Thailand as of 2018

Thailand HTA process guidelines-

It has **seven steps** methodological and process guidelines as follows:

1. All stakeholders meeting on scope of the study,
2. The researchers present proposal to health economic working group,
3. Researchers conduct studies,
4. Stakeholders meeting on the preliminary results of the study,
5. Research quality inspection- internal and external,
6. The researchers present results of the study to health economic working group,
7. Writing up the study report that include executive summary and recommendations.

UHC benefit package process

Topics nominated annually by 7 stakeholder and other

↓

Present list of topics to SCBP

↓ *Eligibility criteria

Review evidence according to six criteria

↓

Select topic for assessment by the 4 groups

↓

Present list of the topics to economic working group

↓

Develop assessment and proposal-
• Economic evaluation,
• Budget impact,
• Feasibility

→ Present result to economic working group

↓

Present to SCBP

7 stakeholder working groups and other-
- Health professionals,
- Academics,
- Patients,
- Civil society,
- Policy maker,
- Healthcare industry
- Lay citizens
- Public hearings,
- HES, SES, BOD

* Eligibility criteria
- Not medicine and vaccine topics
- Show evidence on efficacy

Six criteria -
- Size of population affected by disease,
- Severity of the disease,
- Effectiveness of the intervention,
- Variation in practice,
- Economic impact on household expenditure,

NHSO Board chaired by Health Minister	National Drug Committee chaired by Prime Minister
↑	↑
Health Benefit Package subcom	NLEM subcom
↑	↑
Health Economic Working Group (NHSO staff = secretariat)	Health Economic Working Group (HITAP = secretariat)

Several groups of stakeholders ⟷ HTA agencies ⟷ Health Professionals

Guidance for Decision Making for Including New Medicines into NLEM

National experts' working group on NLEM selection (conventional, herbal)

Identify and propose choice of medicines to be included in NLEM based on the evidence

Working Group for the Coordination and Consolidation of NLEM

Health Economics Working Group

Price Negotiation for NLEM Selection Working Group

The Subcommittee for Development of the NLEM

The working group for the monitoring on E2 category

Submit for consideration

Budget impact and affordability consideration followed by the suggestion of three public insurance schemes

Secretariat of Thai FDA

Prime Minister

Announce in Royal Thai Government Gazette

Steps of the HTA research process and timeline of HEWG

The working group for the Coordination & Consolidation of NLEM gathered information and making recommendations to the Health Economics Working Group (HEWG) regarding the list for conducting economic evaluation (EE) studies

8 weeks

The Health Economics working Group (HEWG) Announcing Non-profit organization for submitting an application to conduct EE studies. Assigns Non-profit organization to conduct EE studies.

Public and non-profit institutes Perform the EE studies by complying with the national HTA guidelines

8 weeks Feedback to researchers

Criteria for decision making

Cost-effectiveness

Budget impact

32 weeks

The Health Economics working Group (HEWG) Examines the quality of HTA studies by working group itself and external reviewers according to the national HTA guidelines

The Health Economic working Group (HEWG) Considering those EE studies and developing policy recommendation

Price Negotiation for NLEM Selection Working Group

The working group for the Coordination & Consolidation of NLEM Selects medicines into the formulary and considers the need of price negotiation of medicines

System capacity

Urgent health policy

Alternative treatment

Ethical issue

Political issue

ETC.

Price interventions

Manufacturers are allowed to submit price quotations that reflect the economies of scale that may follow if the medicines are included for reimbursement (10-30% off from existing price), if the HTA shows that ICER > US$ 5,000 or 160,000 Baht/QALY– then a process of price negotiation ensues to reach a price that is acceptable. Although an HTA for Gaucher's type 1 showed Imiglucerase not to be cost-effective, a cost-sharing model was negotiated which allowed the enzyme to be included on the NLEM: for the first 5 patients, costs were to be shared equally by the manufacturer and government, and for subsequent patients identified the manufacturer would cover the entire treatment costs.

Threshold analysis for price of oxaliplatin

Threshold price that makes oxaliplatin cost-effective
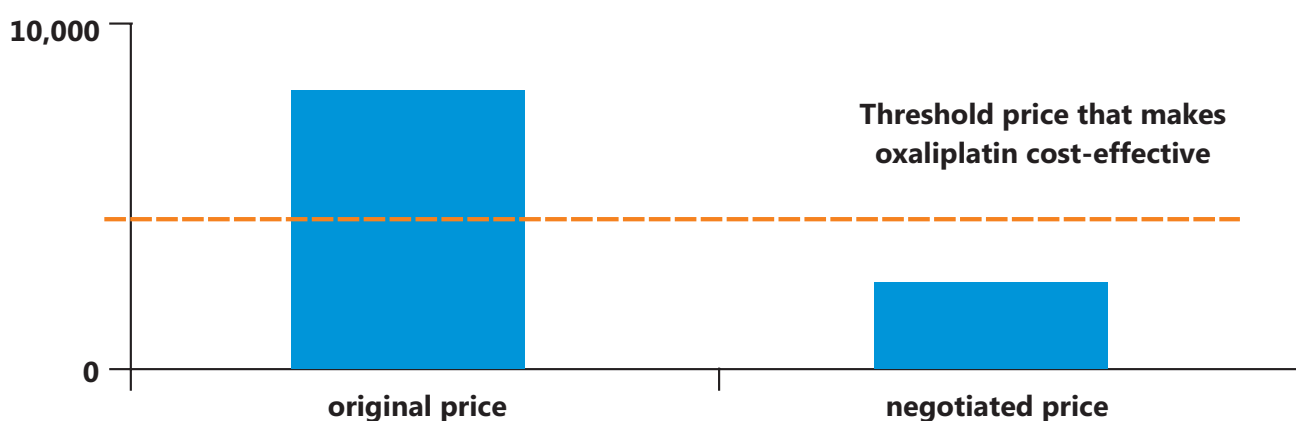
Budget saving from HTA-informed policy decisions in Thailand

Medicine	Indications	Original Price (Baht)	Reduced price (Baht)	Potential saving (Baht per year)
Tenofovir	HIV	43	12	375 million
Pegylate interferon alpha-2a (180 mcg)	Hepatitis C	9,241	3,150	600 million
Oxaliplation (injection 50 mg / 25ml)	Colon cancer	8,000	2,500	152 million
Angiogenesis inhibitor	Macular disease	40,000 (Ranibizumab)	1,000 (Bevacizumab)	1,200 million
Sofosbuvir	Hepatitis C	1,500	130	400 million

Experience 2. Thailand Universal Health Coverage & Universal Coverage Scheme for informal sector-

Three dimensions of UHC
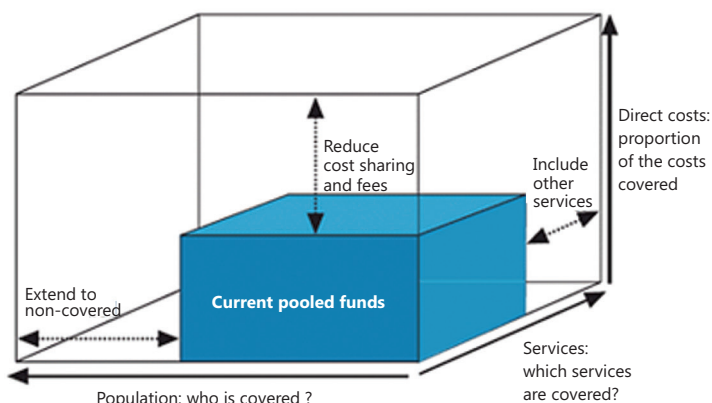
Three dimensions to consider when moving towards universal coverage

- X axis: population coverage
- Start from the poor, formal sector employees and informal sector employees
- Y axis: financial protection
- Free at the point of service, minimum OOPE ⟶ Reduce catastrophic illness
- Z axis: service coverage Comprehensive benefit package with very small exclusion list Basic: Out Patient
  Health Promotion and Disease Prevention In Patient
- Vertical programs

Widen to Social Protection & Social Determinants of the Health base on ⟶ political will[30]
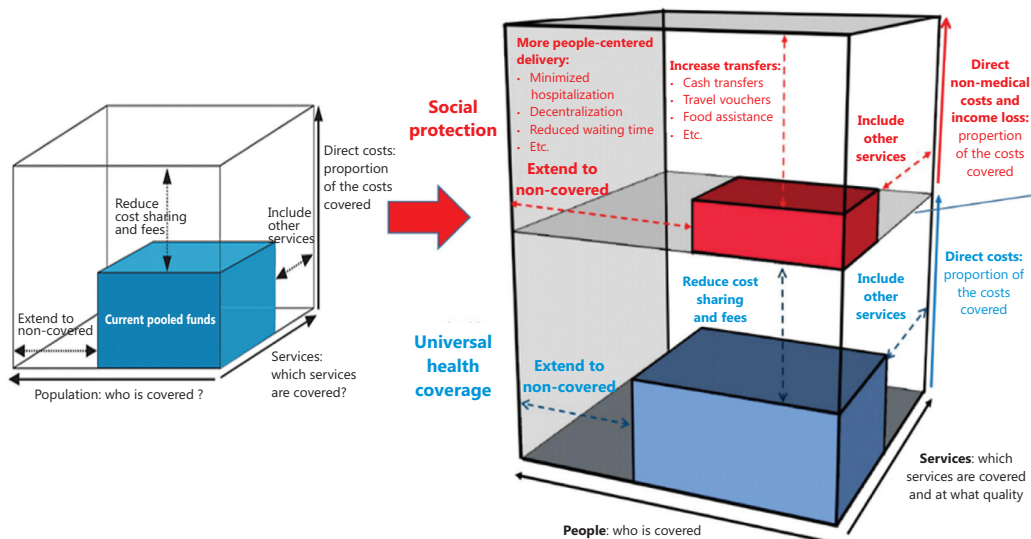
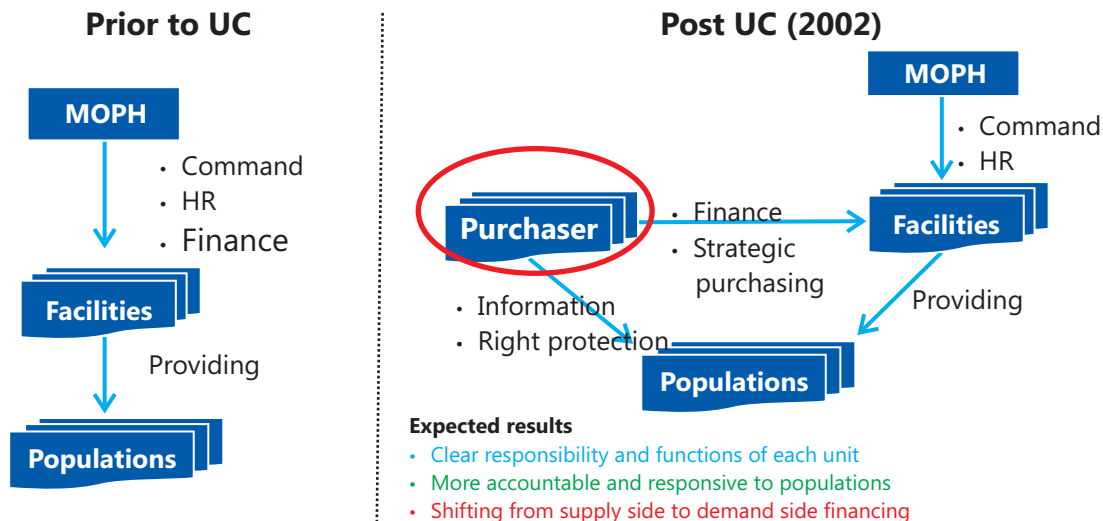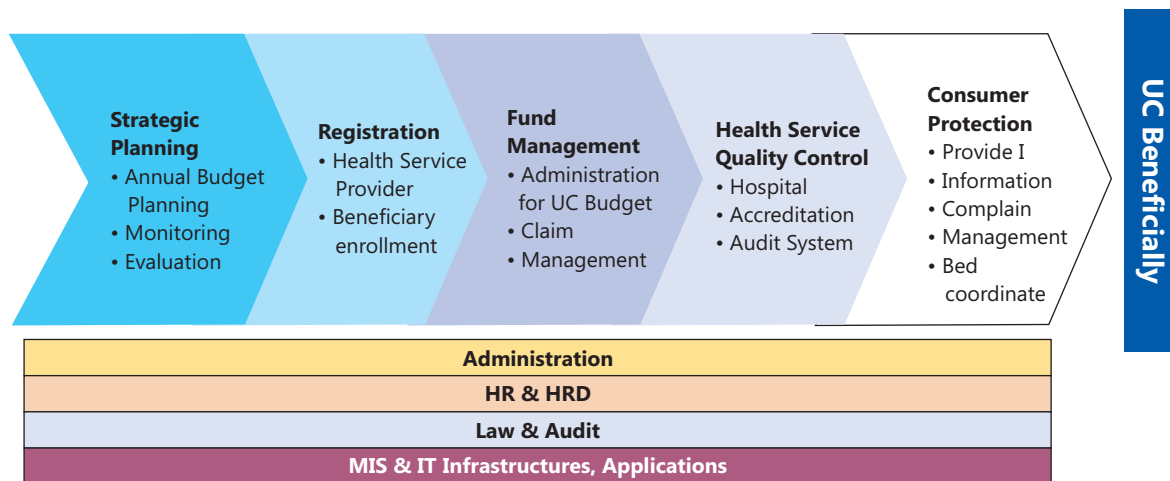## Goal and objectives of UHC: Health financing system
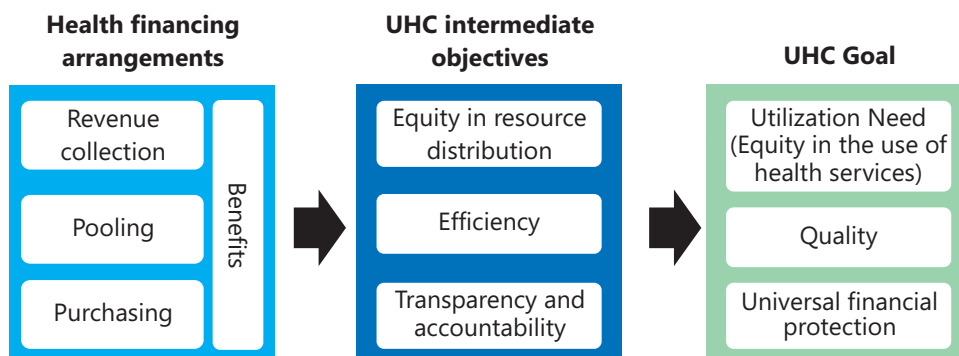
Applied from: Diane McIntyre and Joseph Kutzin. Health financing country diagnostics:
a foundation for national strategy development, WHO, 2006.

[30] Beyond UHC: Monitoring Health and Social Protection Coverage in the Context of Tuberculosis Care and Prevention (plos.org)
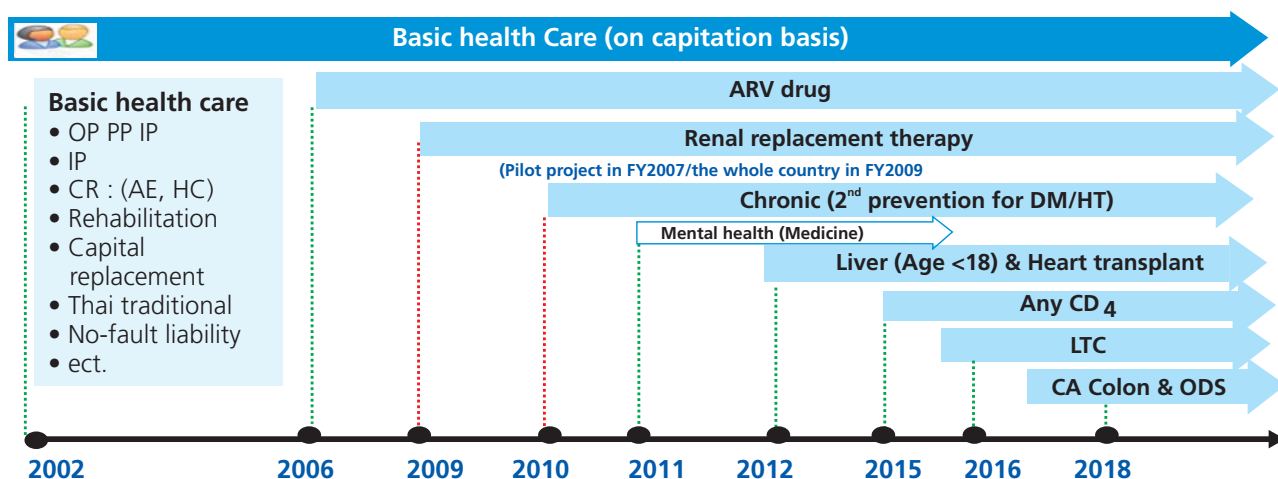https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001693

Purchaser-Provider Split (informal sector)

Prior to UC

MOPH

- Command
- HR
- Finance

Facilities

Providing

Populations

Post UC (2002)

MOPH

- Command
- HR

Purchaser

- Finance
- Strategic purchasing

- Information
- Right protection

Facilities

Providing

Populations

Expected results
- Clear responsibility and functions of each unit
- More accountable and responsive to populations
- Shifting from supply side to demand side financing

NHSO functions in UCS

Strategic Planning
- Annual Budget Planning
- Monitoring
- Evaluation

Registration
- Health Service Provider
- Beneficiary enrollment

Fund Management
- Administration for UC Budget
- Claim
- Management

Health Service Quality Control
- Hospital
- Accreditation
- Audit System

Consumer Protection
- Provide I
- Information
- Complain
- Management
- Bed coordinate

UC Beneficially

| Administration |
| MIS & IT Infrastructures, Applications |

Administration

HR & HRD

Law & Audit

MIS & IT Infrastructures, Applications

National Health Security Fund: categories

Basic health Care (on capitation basis)

Basic health care
- OP PP IP
- IP
- CR : (AE, HC)
- Rehabilitation
- Capital replacement
- Thai traditional
- No-fault liability
- ect.

ARV drug

Renal replacement therapy
(Pilot project in FY2007/the whole country in FY2009)

Chronic (2nd prevention for DM/HT)

Mental health (Medicine)

Liver (Age <18) & Heart transplant

Any CD4

LTC

CA Colon & ODS

2002   2006   2009   2010   2011   2012   2015   2016   2018

Budget Calculation method

List	Method	Calculation
1. Capitation		
1.1 OP service	Price & Quality approach	OP Utilization rate* POP * Unit cost per visit
1.2 IP service		IP Utilization rate* POP * adj.CMI * Unit cost per adj.RW
1.3 Central Reimbursement		Target volume * Unit cost per protocol
1.4 PP service	Activity Base Costing	Standard activity * Standard Unit cost
1.5 Rehabilitation service	Price & Quality approach	Target volume * Unit cost per service type
1.6 TTM service		
1.7 No fault liability for pt. health personal		Target volume * Unit cost per type
2. HIV&AIDs	Price & Quality approach	Target volume * Unit cost per service type
3. Chronic renal failure		
4. Control chronic disease eg. DM HT, Chronic psychiatric		
5. Long term care service		
6. Primary care cluster (FCT)		Standard activity * Standard Unit cost

Financial management: Proposal or Upstream

Financial management: Proposal or Upstream
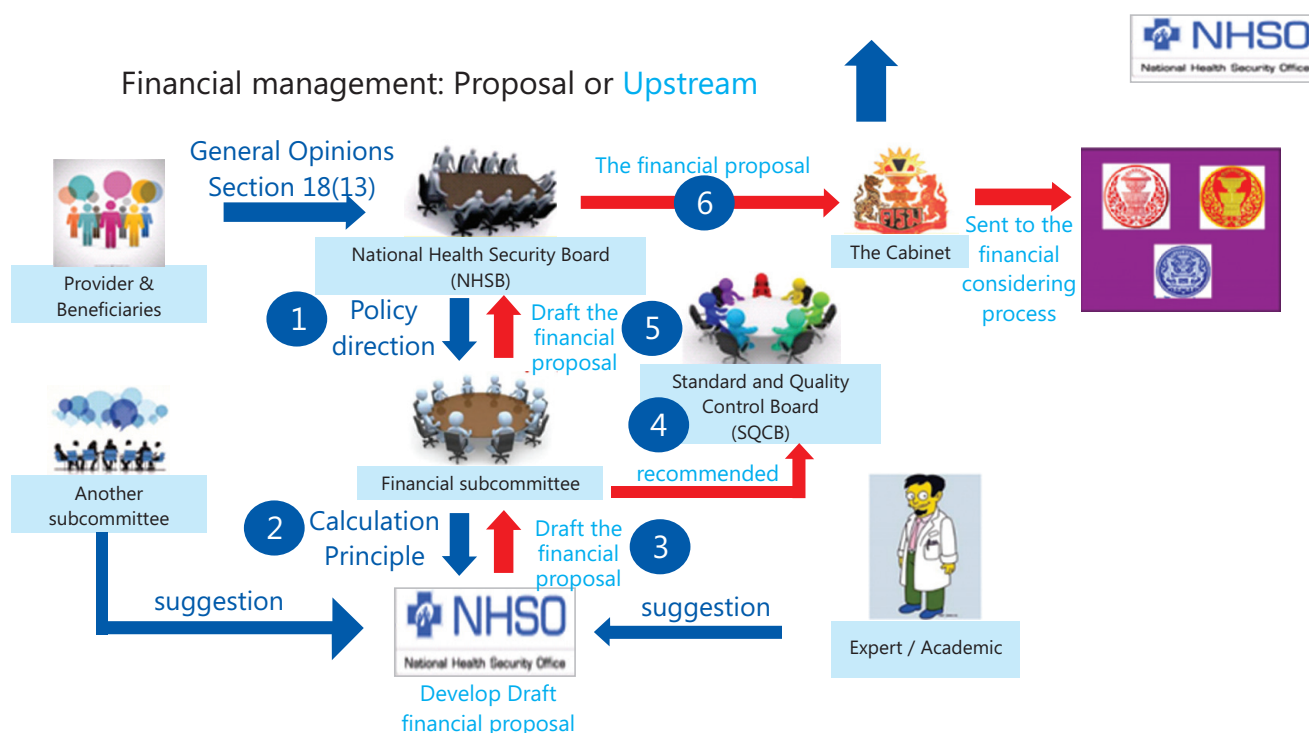
Financial management: Approve or downstream

Strategic purchasing in Thai UHC

What to buy

- Inclusive healthcare benefits,
- Health need based, eg- burden disease,
- Healthcare costing and cost effectiveness considerations-
  - Emphasis on primary care and referral systems,
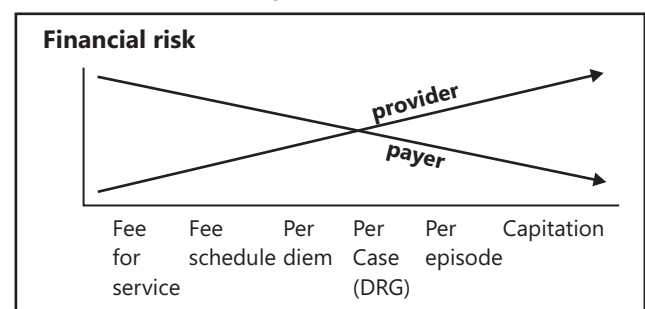 - Health technology assessment (HTA) for high-cost care

How to buy

- General vs selective contracting

How to pay

- Closed ended payment approaches,
- Central purchasing for some high-cost drugs and supplies,
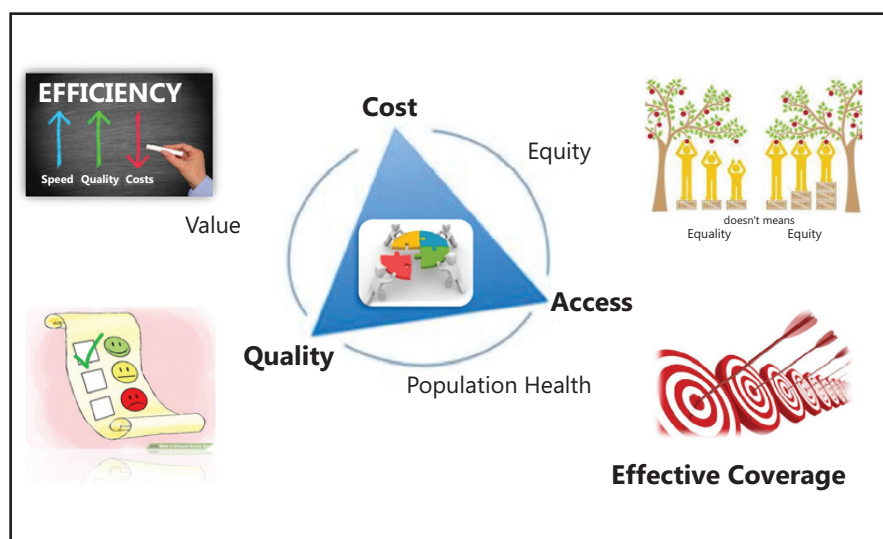- Selective incentives to promote access and quality

Financial risk of payment

Payment method to service & cost

Payment Machanism	Quality of Services	Unit Cost	Negative effects
1. Free of service	↑	↑	Over service, high cost
2. Free schedule	↑	↓	Frequency service
3. Per visit, per diem	↑	↓	Frequency service, prolong stay
4. Per case (DRGs)	↑	↓	Over admission, Admin. cost
5. Capitation, Need based	↓	↓	Under service, delay admit
6. Global budget	↓	↓	Under service, delay admit
7. Salary	↓	-	Under service
8. Performance based	-	↓	Administrative cost

Provider Payment methods in UCS

	Payment method					
	Differential capitation	DRG with global budget	Free schedule	Performance	Matching funds from local govt	Project
1. Capitation						
1.1 OP service	■			■		
1.2 IP service		■		■		
1.3 Central Reimbursement			■			
1.4 Health promotion & disease prevention service	■			■	■	■
1.5 Rehabilitation service			■		■	
1.6 TTM service			■	■		
1.7 No fault liability for pt. health personal			■			
2. HIV&AIDs			■			
3. Chronic renal failure			■	■		
4. Control chronic disease eg. DM HT, Chronic psychiatric				■		
5. Long term care service				■		
6. Primary care cluster (FCT)				■		

The iron triangle of health care to balance

EFFICIENCY

Speed Quality Costs

Value

Quality

Cost

Equity

Access

Population Health

doesn't means
Equality   Equity

Effective Coverage

Succession of the Thai model

- Coverage near 100% & More utilization
- More Benefit Package
- More Equity ⟶ Quintile 1 access more
- Decrease medical impoverishment
- Perception UHC is human right & welfare (survey)

Annexure 2: Cost Estimates of UHC in Chhattisgarh

Level of care	Unit	Heads of expenditure	Total number needed	Rate per month	Total expenditure (Rs. Crore)
Population based	per 500	*Mitanins*	70,000	7,500	630
SHC	6000	ANM *2 per SHC	12,000	17,000	245
		1 male worker per SHC	6,000	15,000	108
		1 MLHP per SHC	6,000	15,000	108
	Medicine	NSSO 75th round for rural areas for outpatient*			770
		Other supplies & consumables**			350
	Administrative cost	10%			151
Sub-total SHC					1,732
PHC	1000	MO (2)	2,000	75,000	180
		SN (3)	3,000	30,000	108
		ANM (3)	3,000	17,000	61
		attendants/support/clerk (15)	15,000	15,000	270
	Medicine	NSSO 75th round for rural areas for outpatient*			1,020
		Other supplies & consumables**			400
	Administrative cost	10%			167
Sub-total PHC					2,206
CHC	300	@ Rs. 375 lakhs/year			1,125
27 District hospitals with 250 beds each		@Rs 10 lakhs per bed annually			675
10 Medical colleges with 500 beds		@ Rs, 15 lakhs per bed			750
Annual budget of State Health Regulatory and Development Authority (SHRDA)					10
Annual expenditure on Healthcare information technology (IT) system					5
Total annual recurring budget					7,133
Annual portion of total capital cost (approx. 15% of annual budget) to be spread over 3 years***					350
Average annual discount rate of capital @ 10% #					75
				Grand Total	**7,558**
			Total health ministry budget (2020-21 RE) $		5,712
			Additional budget required		1,846

Notes: *estimated numbers for outpatient in rural areas is equally divided over SHC and PHC; ** approximately 30% of medicine costs; *** includes capital expenditure on building institutions SHRDA, IT, seat expansion in medical colleges and nursing institutions; purchase of medical equipment etc.; # estimated as average for 5 years at a cumulative rate of 10% per annum; $ Revised Estimates.

International Universal Health Coverage Day

12.12.21

**Leave No One's Health Behind:
Invert in Health Systems For All.**

Many Benefits of UHC

- Greater equity
- Improved health outcomes
- Efficient, accountable & transparent health system
- Reduced poverty
- Greater productivity
- Increased jobs
- Financial Protection
- Universal Heath Coverage

Team

Steering Committee

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Dr. Yasmin Ali Haque, Representative, UNICEF India

Dr. A. K Shiva Kumar, Visiting Faculty, Ashoka University and Harvard Kennedy School

Mr. Sunil Kumar, Ex Chief Secretary, Government of Chhattisgarh

Prof. Nitin Nagarkar, Director, AIIMS Raipur, Chhattisgarh

Ms. Shahla Nigar, Secretary, H&FW, Medical Education, Chhattisgarh

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