

# Towards Viable Universal Healthcare

**Effective. Accessible. Affordable**

Representation to NITI

Aayog

17th January, 2022

## Objectives outlined by Niti Aayog

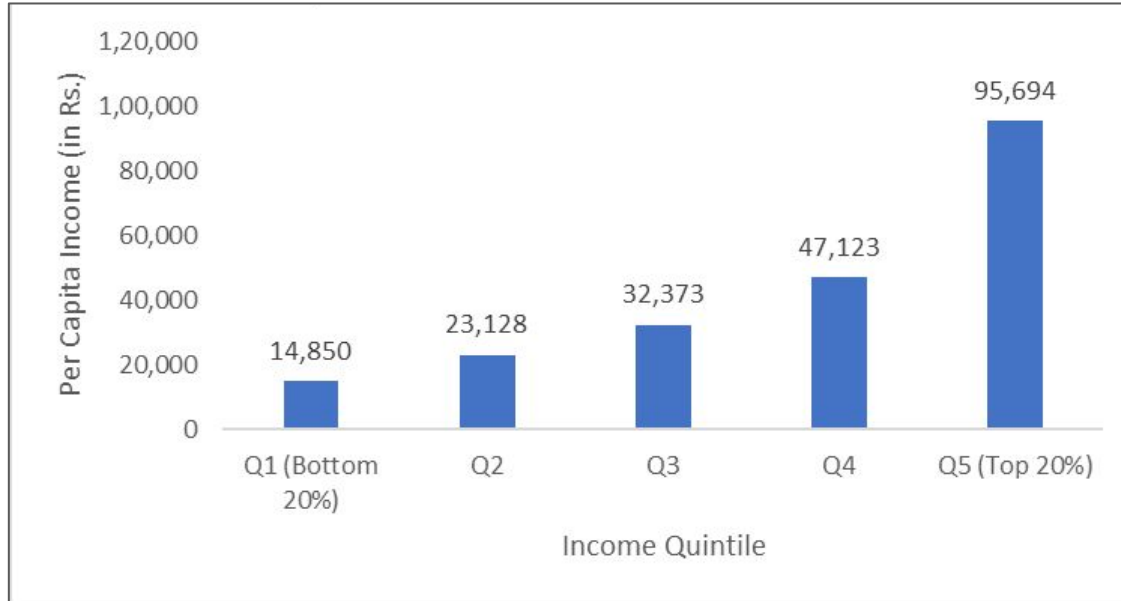
- Health For All - Universal healthcare that is effective, accessible, affordable
- Ensuring financial risk protection for healthcare expenditure for the people
- Promoting primary care as the mainstay of healthcare delivery
- Private sector participation

## Key Approaches

- Competition among providers
- Choice on the part of the consumer
- Cost-effectiveness
- High quality of services
- Optimal utilisation of resources
- Market-driven approach

## 1. Low per capita income across quintiles other than the top quintile

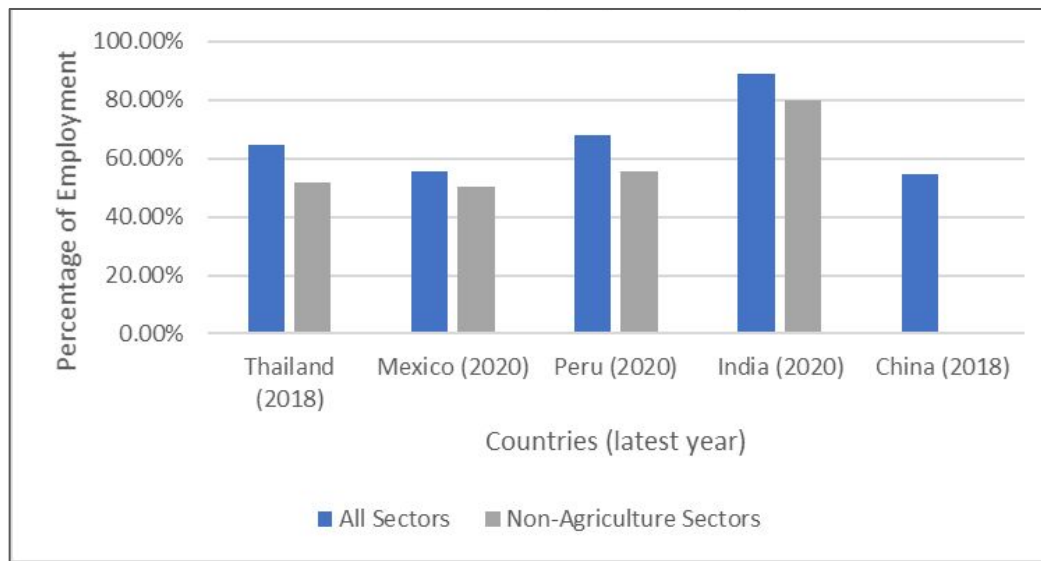
**Figure 1: Annual Per capita Income across Quintiles in India, 2016**



**Source:** ICE 360° Survey, 2016

## 2. Presence of large informal workforce, including in the non-agriculture sector

**Figure 2: Share of Informal Employment by Sector**



**Note:** Exact percentage of informal workforce in the non-agriculture sector in China couldn't be accessed; however, the World Employment and Social Outlook report (2018) reveals that such percentage is little more than 50.

**Source:** Thailand, Mexico, Peru, India - ILOSTAT Explorer; China - Institute of Chinese Studies. E

## 1. Aarogya Raksha (Andhra Pradesh)

- Introduced in 2017 with the objective of 'Health for all'
  - Targeting the 32 lakh APL Families not covered under any other state health insurance scheme. (BPL Families can also enroll).
- Premium for an individual / year - Rs. 1200.
- Provides financial support of Rs. 2 lakhs per annum for an individual to avail free of cost private medical services.
- The programme, however, has not been successful in operation –
  - Only 71, 582 families have enrolled since its inception (1,93,825 individuals)
  - Out of which, only 16,199 families renewed their coverage between 2018 and 2022
  - Total Premium Amount Collected: Rs 23.2 crores.
  - Total Payments Settled: Rs 36. 26 crores (for 17,706 claims).

## 2. Thailand's journey towards universal health coverage

- A publicly subsidised voluntary health insurance scheme was introduced in 1983 to extend coverage to the non-poor (middle layer).
- In the two decades of its operation, the scheme faced adverse selection and therefore, became financially unviable.<sup>1</sup>
- As of 2001, 30% of the country's population remained uninsured.<sup>1</sup>

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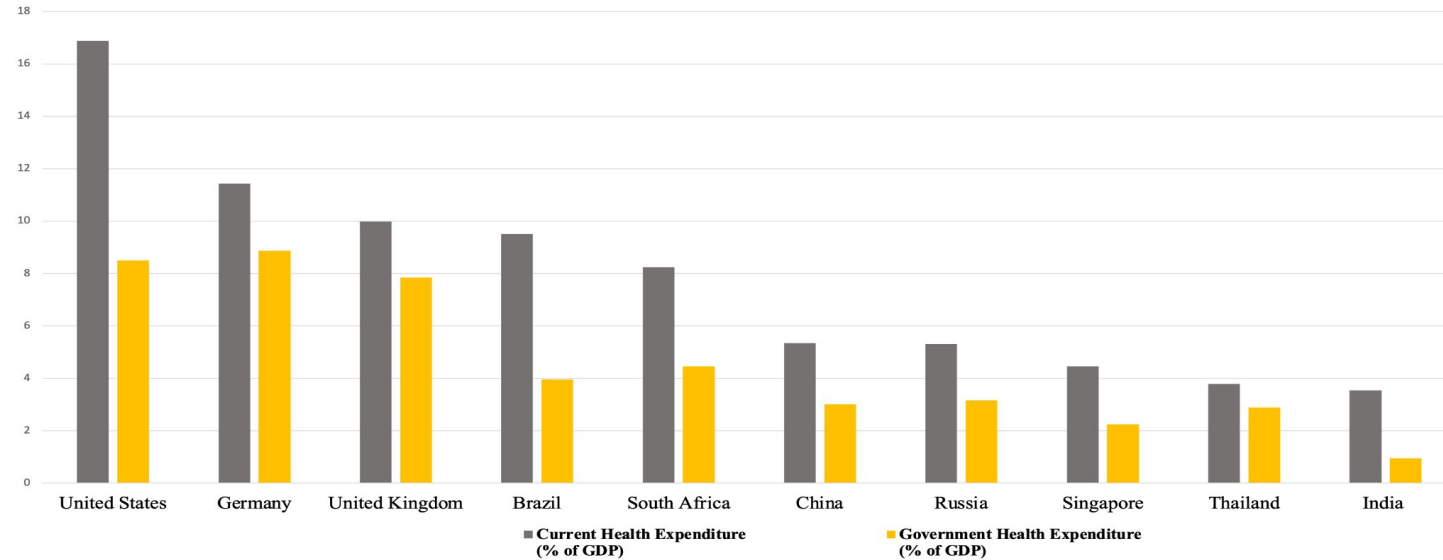
1. Tangcharoensathien *et al.*, *From Targeting to Universality: Lessons from the Health System in Thailand*, In 'Building Decent Societies: Rethinking the Role of Social Security in Development'. Edited by Townsend P. Hampshire: Palgrave Macmillan; 2009

- With 75% of the population in the informal sector, tax-financed Universal Coverage Scheme (UCS) was adopted in 2001.<sup>1</sup>
- Universal coverage was achieved an year later.<sup>1</sup>
- UCS resulted in improved financial risk protection – <sup>1</sup>
  - Incidence of catastrophic health expenditure in the poorest quintile dropped from 6.8% in 1996 to 2.9% in 2009
  - Impoverishment due to healthcare costs fell from 11.9% in 2000 to 4.7% in 2009

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1. Tangcharoensathien *et al.*, *Promoting Universal Financial Protection: How the Thai Universal Coverage Scheme was designed to ensure equity*, Health Research Policy and Systems, 2013.

**Figure 3: Government Health Expenditure against Current Health Expenditure (% GDP)**

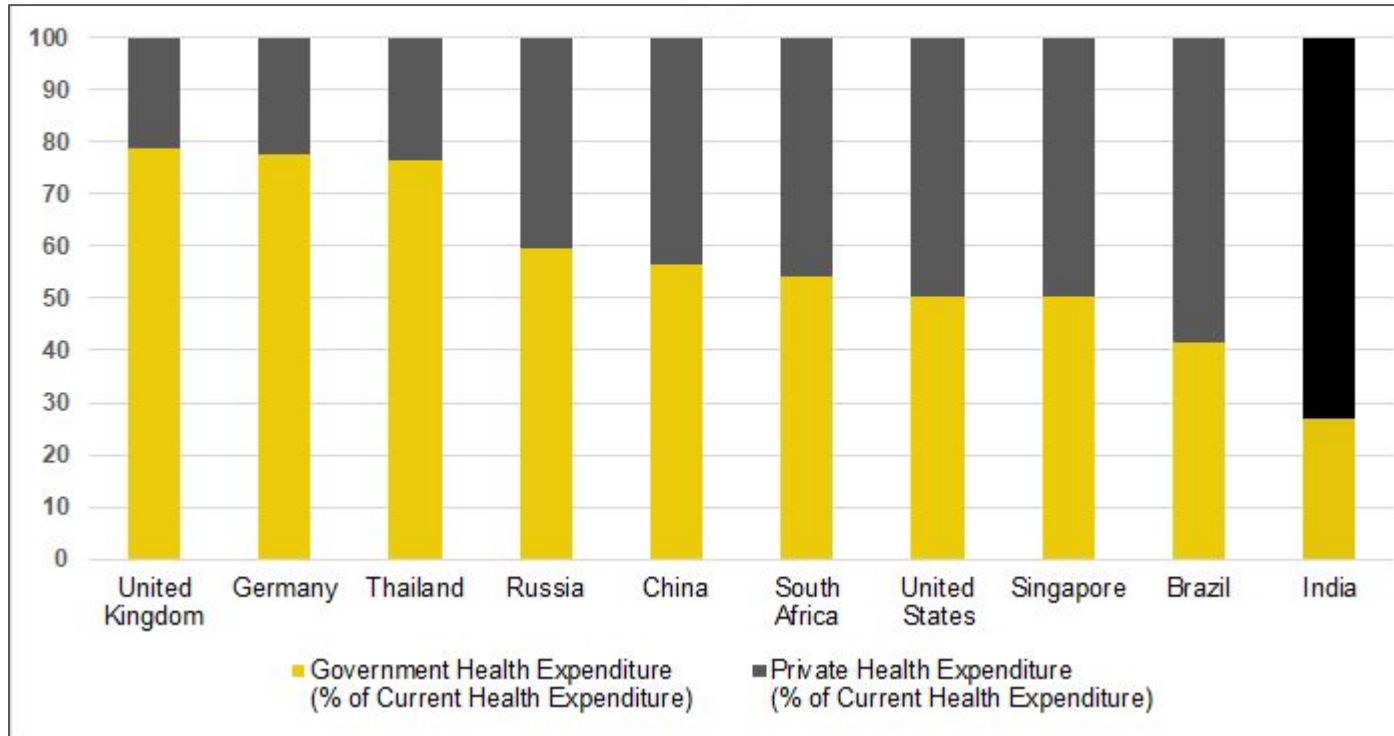


**Note:** For India, the World Bank reports the GHE as 0.95% of the GDP in 2018. The National Health Accounts estimate for 2016-17 is 1.2% and the National Health Policy 2017 estimates it to be 1.15%. RBI estimates the expenditure to be 1.1% for the year 2019-20. GHE estimate for the year 2020-21 has not been considered as the one-off expenditure on dealing with the COVID-19 pandemic and the contraction of the economy do not reflect the norm.

*Source: World Bank Open Data Portal*



**Figure 4: Healthcare Expenditure in Select Countries, 2018**



*Source: World Bank Open Data Portal*

**Table 1: Healthcare Expenditure across Select Low and Middle Income Countries, 2018**

Country	CHE (% of GDP)	GHE (% of GDP)	GHE (% of CHE)	PHE (% of CHE)	OOPE (% of CHE)
India	3.54	0.95	26.95	72.35	62.66
China	5.35	3.01	56.41	43.58	35.75
Thailand	3.79	2.89	76.27	23.39	11.01
Mexico	5.37	2.69	50.07	49.93	42.07
Peru	5.23	3.28	62.61	37.21	29.15

**CHE** : Current Health Expenditure; **GHE**: Government Health Expenditure; **PHE**: Private Health Expenditure; **OOPE**: Out-of-Pocket Expenditure

**Note:** For India, the World Bank reports the GHE as 0.95% of the GDP in 2018. The National Health Accounts estimate for 2016-17 is 1.2% and the National Health Policy 2017 estimates it to be 1.15%. RBI estimates the expenditure to be 1.1% for the year 2019-20. GHE estimate for the year 2020-21 has not been considered as the one-off expenditure on dealing with the COVID-19 pandemic and the contraction of the economy do not reflect the norm.

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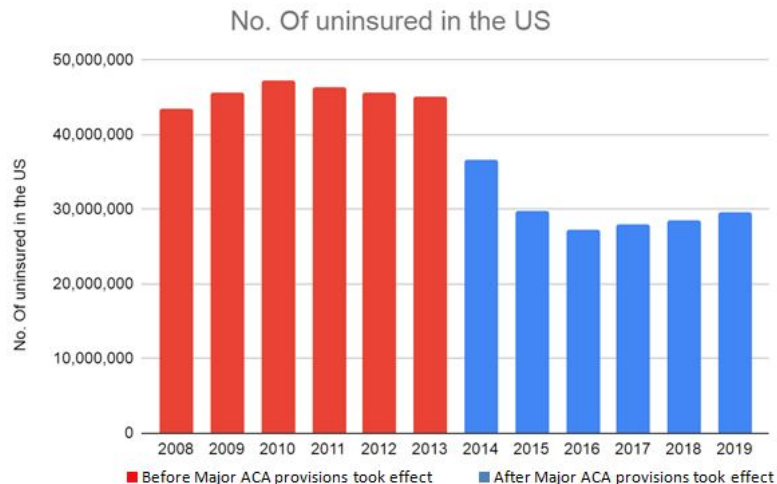
**Table 2: An Overview of Insurance Coverage in the United States (Year 2019)**

Health Plans	Figures (in million)
<b>US Population</b>	<b>323.12</b>
<b>Coverage under any health plan</b>	<b>293.48</b>
1. <i>Under Private Health Plan</i>	217.81
i. Employment-based	178.92
ii. Direct Purchase	43.30
iii. TRICARE	8.78
2. <i>Under Public Health Plan</i>	114.31
i. Medicare	64.08
ii. Medicaid	58.33
iii. Veterans Affairs	7.25
<b>Population uninsured</b>	<b>29.64</b>

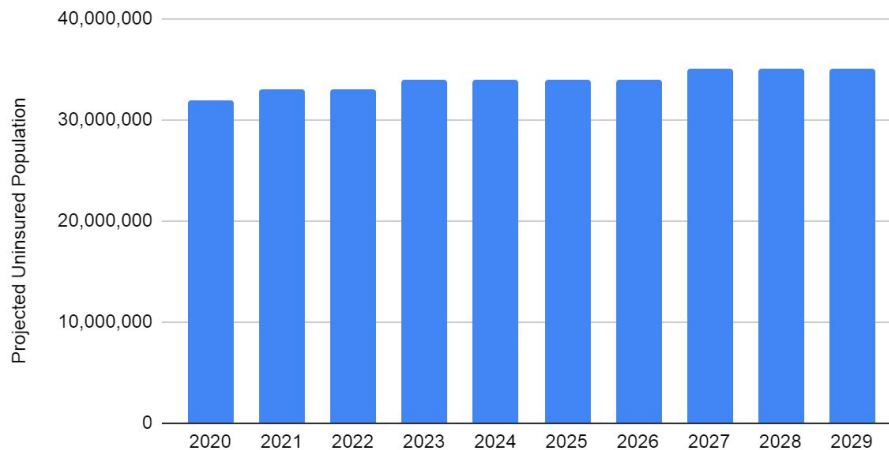
*Source: United States Census Bureau – Health Insurance Coverage Status and Type of Coverage by State*

- The United States spends over 18% of its GDP on healthcare. However, about 30 million people still remain uninsured in the country (2019). It is estimated that this number would rise to over 35 million by 2029.
- An estimated 16 million people are underinsured (2003) in the country

**Figure 5: Number of Uninsured in the US**



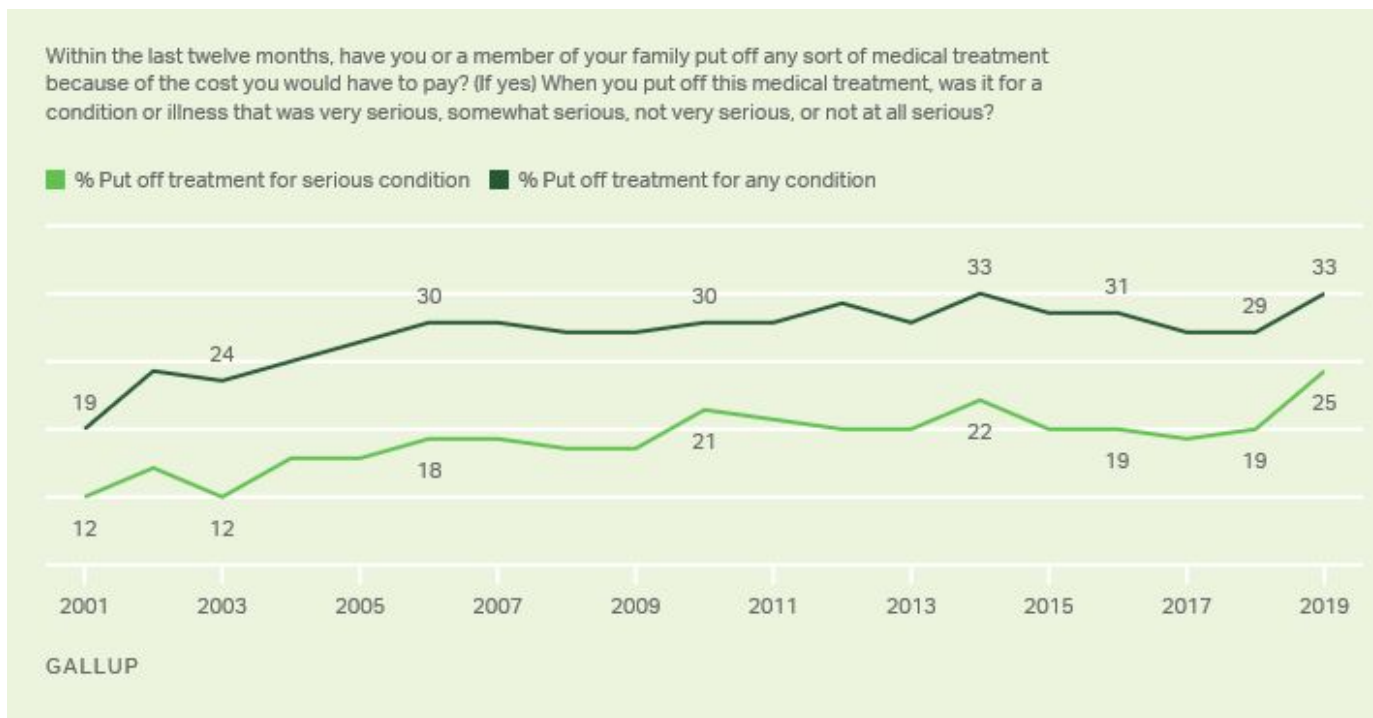
**Figure 6: Projected Uninsured Population (2020-2029)**



**Source:** Congressional Budget Office

**Note:** The uninsured population fell from 47.2 million in 2010 to 27.3 million in 2016 after the implementation of Affordable Care Act.

## Figure 7: Americans' Reports of Postponing Medical Care Due to Costs



Source: Gallup Poll Social Series: Health and Healthcare

For an effective healthcare program, the focus should be on an **integrated, government-led, single-buyer model**

- a. Poor should be treated free of cost
- b. The program could be partly subsidised for three classes of citizens – all income tax assesses, professionals, and organised sector workforce with annual income of more than Rs. 3 lakh
- c. Private Voluntary Health Insurance for those who can afford

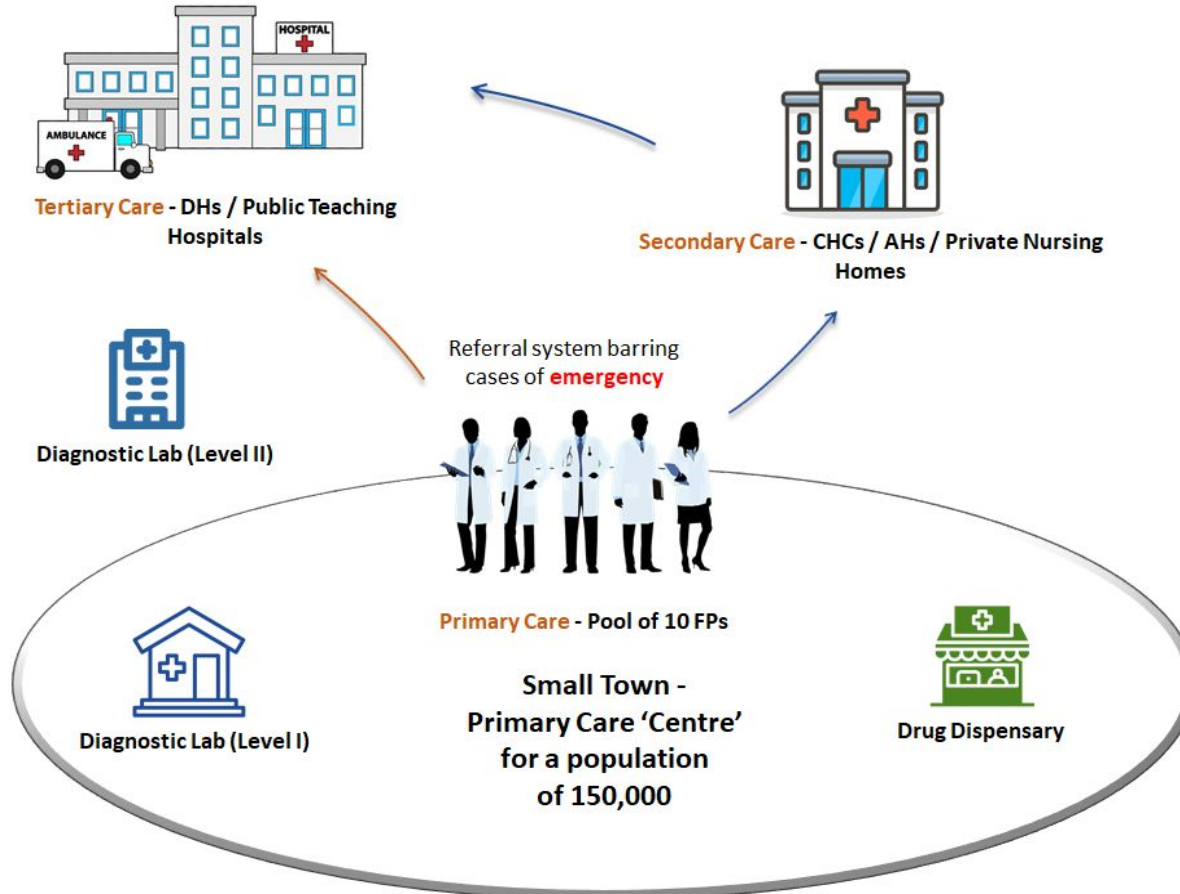
1. Low annual outpatient consultation rate in the public sector – **0.5 to 0.6 per capita**
2. Limitation of the current Primary Health Centres
  - a. Distant location and poor access for the majority
  - b. **Inadequacy** of healthcare workforce and physical infrastructure
  - c. Lack of **public trust**
3. Private Practitioners alone cannot be relied upon
  - a. Presence is highly skewed in favour of **urban areas**
  - b. Non availability of **Family Physicians**
  - c. **Low patient load** affects the viability of their operations
  - d. Cost of **diagnostics and drugs** is high in the private sector

1. A **private Family Practitioner (FP)** as the **first point of contact** for all primary care needs of an individual.
2. **Local availability** of services - A pool of **10 FPs for a unit population of 150,000** (small towns/'centres') within 5-10 kms radius
  - a. FPs are **paid fee-for-service by the government**
  - b. FPs to own and manage the clinics themselves.
3. **Competition** among different practitioners.
4. **Choice** of physician to the patient to ensure accountability and quality.
5. Hospital care (Elective) based on a **referral** from the FP.



7. Publicly funded **diagnostic facilities** by a private service provider
  - a. **Level I** – simple diagnostics; fee-per-test; one such laboratory per ‘centre’
  - b. **Level II** – more advanced diagnostics tests; fee-per-patient; number & location based on economies of scale.
8. Centralised procurement of drugs.
9. Drug supply – one publicly-funded private **dispensary per ‘centre’**.
10. **Health Record System** that facilitates coordination within the system.
11. Integration with other **public health measures** such as immunisation, nutrition and school health.
12. Universal, non-discriminatory model; co-payments for those who can afford.

# Comprehensive and Coordinated Healthcare Model



**Table 3a: Cost of FP Consultations**

A	Number of Potential Outpatient Consultations	150 crore
B	Fee per FP Consultation	Rs. 125
C	Total Amount incurred on FP Consultations = $A \times B$	Rs. 18,750 crore
D	Non-Indigent Patient Consultations = $90\% \times A$	135 crore
E	Co-Payment of Rs. 25 from 90% Outpatients = $25 \times D$	Rs. 3,375 crore
F	<b>Net Cost incurred by the Exchequer towards FP Consultations = <math>C - E</math></b>	<b>Rs. 15,375 crore</b>

**Table 3b: Cost of Drug Dispensation**

A	Per capita Cost of Drug Procurement (Adopting Tamil Nadu Cost)	Rs. 60
B	Total India Population	140 crore
C	<b>Total Amount incurred on Drug Dispensation = <math>A \times B</math></b>	<b>Rs. 8,400 crore</b>

**Table 3c: Cost of Diagnostics**

Level I Diagnostics		
A	Number of Potential Tests (25% of the Outpatients)	37.5 crore
B	Average Cost per Test	Rs. 50
C	Amount incurred on Level I Diagnostics = A x B	Rs. 1,875 crore
Level II Diagnostics		
D	Number of Potential Tests (10% of the Outpatients)	15 crore
E	Cost per Patient (Adopting Andhra Pradesh Cost)	Rs. 235
F	Amount incurred on Level II Diagnostics (D x E)	Rs. 3,525 crore
<b>G</b>	<b>Total Amount incurred on Diagnostics (C + F) excluding Co-payments from non-indigent patients</b>	<b>Rs. 5,400 crore</b>

**Table 3d: Total Cost of Primary Care**

A	Cost of FP Consultations	Rs. 15,375 crore
B	Cost of Drug Dispensation	Rs. 8,400 crore
C	Cost of Diagnostics	Rs. 5,400 crore
<b>D</b>	<b>Cost to the Exchequer</b>	<b>Rs. 29,175 crore</b>

## 1. Increased access and care

- a. Increased outpatient **consultations rate** from the existing 0.5 to **1.5 per capita per year** in the public sector
- b. Availability of a **Family Practitioner within a radius of 5-10 kms** for most people

## 2. Improved efficiency through PPPs

- a. **Competition** among providers
- b. **Choice** to the patient

## 3. Reduced catastrophic burden

- a. Easy and **timely** intervention
- b. Regular management and **monitoring**

## 4. Reduced Out-of-Pocket Expenditure

- a. Consultation, diagnostics and drugs to be **free** of charge
- b. **Co-payments** or annual per capita fee for those who can pay
  - i. Estimated per capita cost is Rs. 300 per year

## 5. Improved system of health records

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*Per capita cost of an integrated FP-led Primary Care System comes to around Rs. 300*

*Niti Aayog model estimates the cost of outpatient services to the order of Rs. 5000 for a family of 5, i.e. Rs. 1000 per capita*

1. Provide **universal coverage** under the **single-payer insurance-based** programmes such as PM-JAY and other state-run programs
  - a. The states such as Andhra Pradesh, Telangana, Tamil Nadu, Karnataka are successfully running single-payer insurance program at near saturation coverage

**Table 4: Population coverage under government led single-payer insurance program**

State	Program Name	Population Coverage
Andhra Pradesh and Telangana	Aarogyasri Program	85%
Tamil Nadu	Chief Minister Comprehensive Health Insurance Scheme	78%
Karnataka	Aarogya Karnataka	71%

- Note:**
1. Population coverage after integration of state insurance programs with PM-JAY.
  2. The population coverage for Karnataka mentioned in the table pertains to only the BPL households, whereas, the program covers the APL households too.

**Source:** Calculated based on data from respective Government Department Websites

2. Expand programme coverage to all secondary care services and **remove tertiary care** services from its scope
  - a. In Andhra Pradesh in 2020-21, **more than half of the expenditure**, about Rs. 700 crores, **was incurred on four tertiary care interventions** - cancer (Rs. 220 crore), polytrauma and orthopaedic (Rs. 200 crore), cardiac and heart (Rs. 200 crore) and renal failure and dialysis services (Rs. 85 crore)<sup>1</sup>.
3. Focus on **empanelling small private nursing homes** enabling choice and competition among CHCs and such nursing homes
  - b. Provide secondary care at affordable cost in small towns, thereby improving access to care.
  - c. Reduced OOPE on account of travel and lodge for all rural and small town population.
4. Collect premiums from those who can afford. Average cost per head is well below Rs. 200 per year

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1. Towards Viable Universal Healthcare, Foundation for Democratic Reforms, pg 110.



**Table 5: Secondary Care Cost Estimates**

**Andhra Pradesh Aarogyasri Program Expenditure**

A	Total Andhra Pradesh Population	5.4 crore
B	% of Andhra Pradesh Population Covered under Aarogyasri	85%
C	Highest Expenditure on Aarogyasri so far (2019-20)	Rs. 1305 crore
D	Cost of Tertiary Care Interventions (approx.)	Rs. 700 crore
E	Cost of Secondary Care for 85% of Population = C - D	Rs. 605 crore
F	Expenditure on Secondary Care per eligible person = E / (A x B)	Rs. 132
G	Cost for Total Andhra Pradesh Population = A x F	Rs. 713 crore
H	Estimated Total Expenditure on Secondary Care with 25% Additional Cost Allowance for more secondary care procedures = G + (25% x G)	Rs. 891 crore
I	Estimated Secondary Care cost per capita = H / A	Rs. 165

**Estimated Ayushman Bharat – PM-JAY Expenditure for India**

J	Total India Population	140 crore
K	Cost of Secondary Care for Total India Population = F x J	Rs. 18,480 crore
L	<b>Estimated Total Expenditure on Secondary Care with 25% Additional Cost Allowance = I x J</b>	<b>Rs. 23,100 crore</b>
M	<b>*Estimated Actual Expenditure = 80% x L</b>	<b>Rs. 18,480 crore</b>

- Government should be a **provider and not a purchaser** of tertiary care services
  - Tertiary care costs are **bound to increase** irrespective of the system
- **Private investment in healthcare in India** rose from USD 94 million in 2011 to **USD 1,275 million** in 2016 - jump of 13.5 times
  - Out of this, **Foreign Direct Investment (FDI)** accounted for **USD 647 million** in the year 2016, 1.6% of total FDI inflows.
- Large private sector investment in high-end tertiary care is indicative of –
  - **Ever-increasing cost** of private tertiary care
  - **Demand** for tertiary care due to inadequate public healthcare facilities

## Cost of treatment

- Costs of treatment are uniformly **higher in the private sector**
- The differences are large for **inpatient treatment for severe illnesses** - cancer (3.7x), cardio (6.8x), injuries (5.9x), gastro (6.2x), and respiratory (5.2x).
- The Survey notes that the **quality of treatment is not markedly better** in the private sector than the public sector

Figure 8: Variation in Costs for Outpatient Care

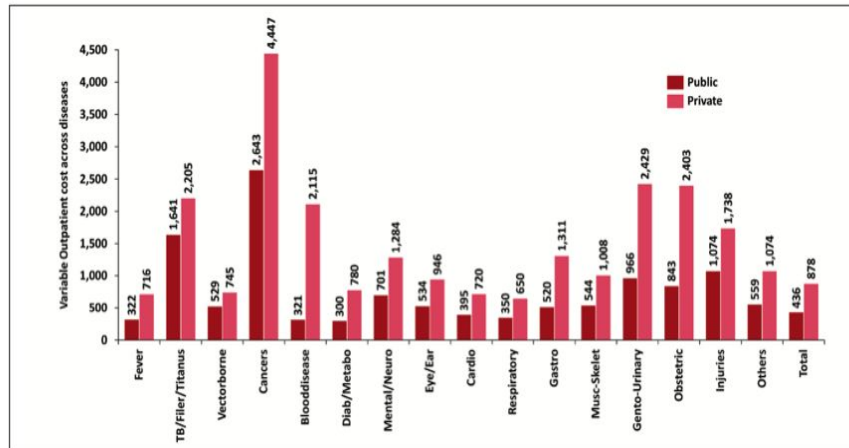
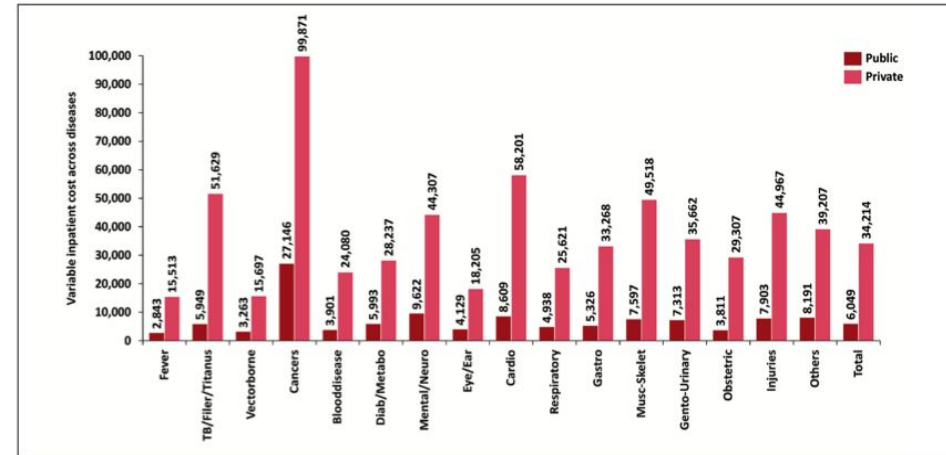


Figure 9: Variation in Costs for Inpatient Care



Source: The Economic Survey 2020-21

## Overall per-bed expenditure

- Studies by FDR reveal that annual expenditure per bed in a public teaching hospital is typically **Rs. 8-10 lakhs**
  - Per bed annual expenditure goes down to **Rs. 6-8 lakhs** if beds in excess of the official capacity are taken into account.
  - Includes **all the costs** of the hospital – wages, basic amenities, outpatient services, diagnostics, drugs, food, running of medical and nursing colleges.
- However, a **high-end private tertiary care hospital** can survive only with a annual billing of **Rs. 50 lakh to one crore per bed.**<sup>1</sup>
- FDR studies show that in government hospitals, **for every rupee spent, about four rupees worth services are delivered** (valuing services at the low end of prevailing private market prices).
- Therefore, relative to the private sector, the **public healthcare sector is far more efficient** in delivering tertiary care services at a much lower cost.

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1. Table 6.1, Towards Viable Universal Healthcare, Foundation for Democratic Reforms, pg 110.

1. 140 Public Teaching Hospitals (about 140,000 beds) to be upgraded as **Tier I hospitals** – all equipment, resources and skills for advanced tertiary care services.
  - By an **additional** annual expenditure of **Rs. 15 lakh per bed**
2. Remaining Public Teaching Hospitals and District Hospitals (about 147,000 beds) to be upgraded as **Tier II hospitals** for all other tertiary care services.
  - By an **additional** annual expenditure of **Rs. 10 lakh per bed**
3. Upon public facilities becoming established as quality institutions, –
  - **User fees** can be levied for the sections of the population that can afford to pay
  - Such institutions can **compete** to attract patients covered by private voluntary health insurance

**Table 6 : Tertiary Care Cost Estimates**

A	Number of beds in DHs & PTHs	2,87,025
B	Current total allocation per bed per annum	Rs. 10 lakh
C	Number of beds to be upgraded across Tier I Hospitals	1,40,000
D	Additional cost per bed	Rs. 15 lakh
E	Total additional cost = C x D	Rs 21,000 crore
F	Number of beds to be upgraded across Tier II Hospitals	1,47,000
G	Additional cost per bed	Rs. 10 lakh
H	Total additional cost = F x G	Rs. 14,700 crore
I	Total additional cost (Tier I + Tier II hospitals) = E + H	<b>Rs. 35,700 crore</b>
J	Phased over three years, incremental increase of allocation annually = I / 3	<b>Rs. 12,000 crore</b>

## I. Estimated Cost of Implementation

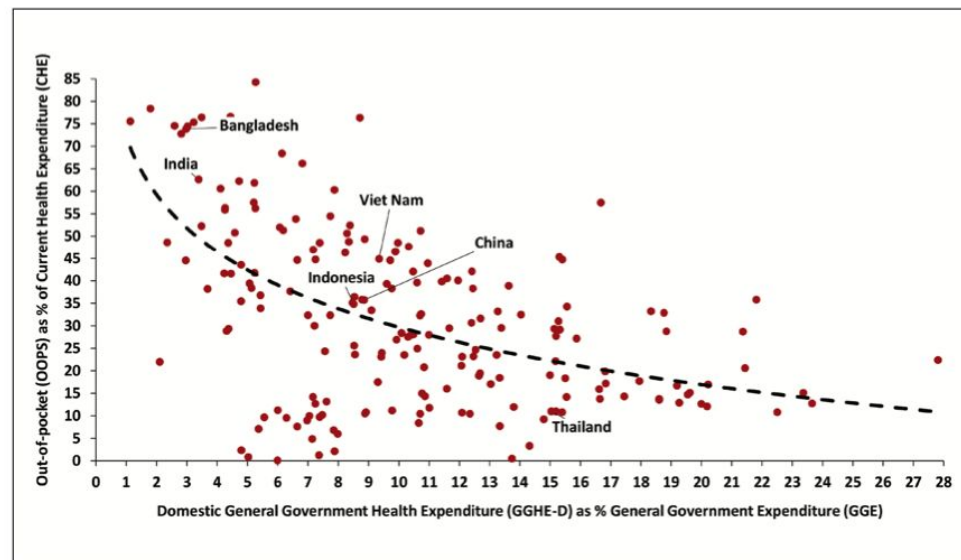
- The recommendations can be implemented in a **phased manner**, spread over 2-3 years.
- An **additional expenditure of Rs. 85,000** crore would be incurred by the exchequer at the end of phased implementation
  - Additional expenditure of only **0.5%-0.6% of the GDP**.
- Once operationalised, the total public expenditure on healthcare by both the union and states will be **well under 2% of GDP**, still lowest among all significant economies.

**Table 7: Total Cost of Proposed Recommendations across all levels of care**

Level of Care	Cost (in Rs. Crores)
Primary Care	Rs. 30,000
Secondary Care	Rs. 19,000
Tertiary Care	Rs. 36,000
<b>Total</b>	<b>Rs. 85,000</b>

- The Economic Survey 2020-21 notes that at low levels of public expenditure, a **small increase in public health expenditure can drastically reduce out-of-pocket expenditure (OOPE)** (Figure 10)
  - The Survey estimates that an increase in public health expenditure to **3% of the GDP** can reduce OOPE from the current **60% to 30%**.

**Figure 10: Government Health Expenditure as % of Government Expenditure and OOPE across Select Countries**



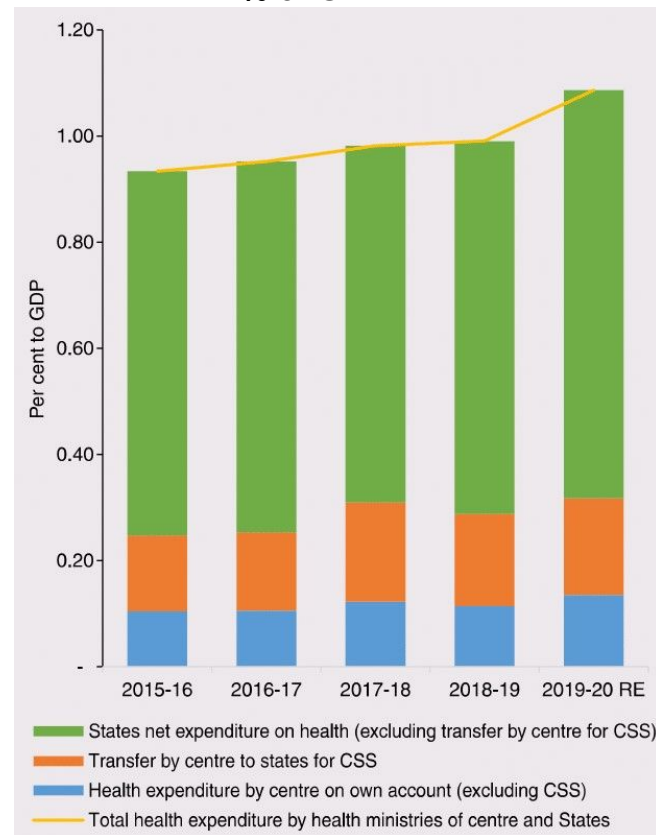
*Source: The Economic Survey, 2020-21*



## II. Mode of Financing

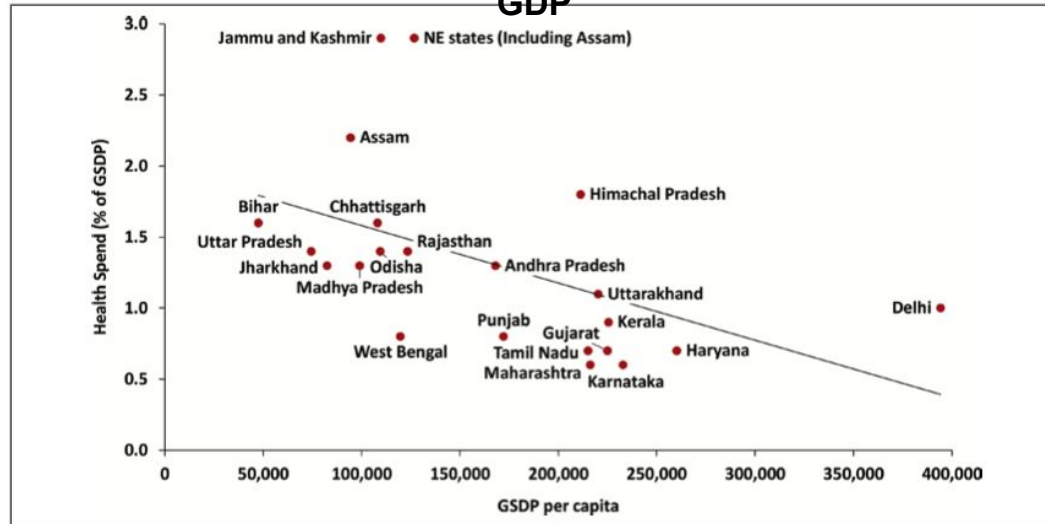
- **States** constitute the lion's share of all public healthcare expenditure in the country - about **70%**
- The **Union government** plays a vital role in providing the **broad healthcare system framework** and **motivating additional expenditure** by the states

**Figure 11: Components of Government Health Expenditure as % of GDP**



- However, healthcare expenditure is **highly variable across states**
  - Relatively poorer states end up with lesser per capita healthcare expenditure as compared to states with higher per capita income

**Figure 12: State Government Health Expenditure as % of GDP**



*Source: The Economic Survey, 2020-21*

- **Specific Purpose Transfers** from Union Government to the states to **equalize the levels of per capita healthcare spending across states** can be introduced.
  - Recommended by the High Level Expert Group on Universal Health Coverage in India instituted by the Planning Commission in 2011
- Categorization of States to determine cost-sharing arrangement between Union and the States:
  - **Category A States:** Union may meet 60% of the incremental expenditure required.
  - **Category B States (Empowered Action Group States):** Union shall meet 90% of the incremental expenditure required.
  - Empowered Action Group States are typically characterized by high fertility, high infant and child mortality, maternal deaths etc.