# Rejuvenation of Healthcare System

**Accessible. Affordable. Effective.**

# We made great strides, but…

**1.2 million** children under five died in 2015

**9.7 million** malaria infections per year

**2.5 million** new cases of Tuberculosis in 2015

OOP expenditure forces **63 million** below poverty line

**28%** of deaths due to preventable diseases

(communicable diseases and maternal, perinatal and nutritional)

**65%** of children between 1-2 years age are fully immunised

*Sources:*

1. *Estimates of National Vector Borne Disease Program, 2014*
2. *Balarajan, Y., Selvaraj, S. and Subramanian, S. (2011) healthcare and equity in India, The Lancet, 377, 505;*
3. *Global TB control, WHO 2015*
4. *World Bank Data, 2012*
5. *Unicef: Rapid Survey of children 2013-14*
6. *Draft National Health Policy, 2015*

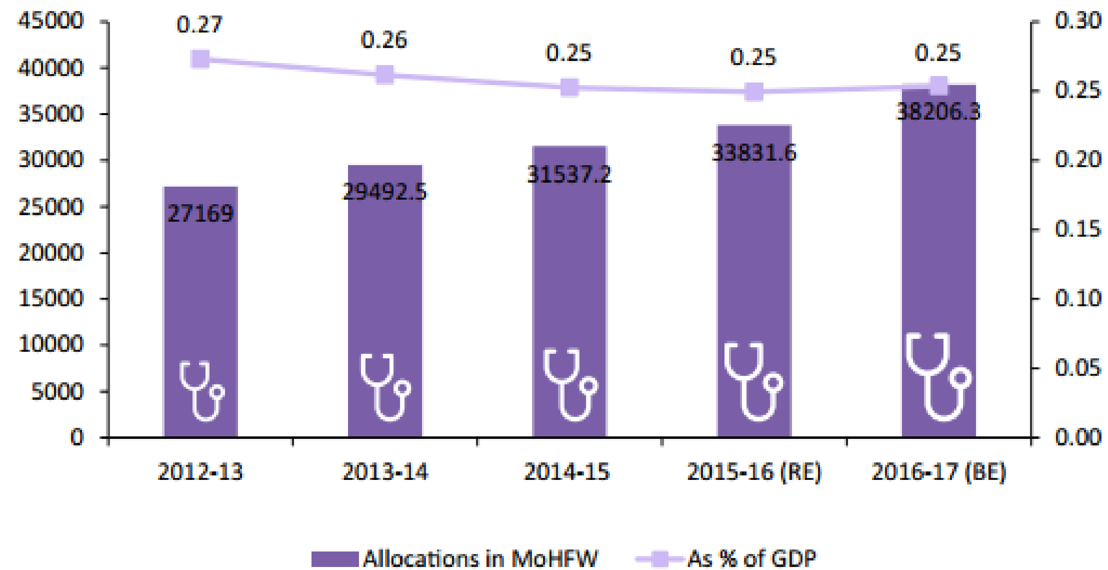
# Welcome new initiatives

- National Newborn Action Plan
- Mission Indradhanush (new vaccines)
- National Health Mission (Integrating NUHM)
- Swachh Bharat
- RSSY
- National eHealth Authority
- Draft National Health Policy, 2015

# Public Health Expenditure: Share of Union and States

Current Ratio of Union and States expenditures

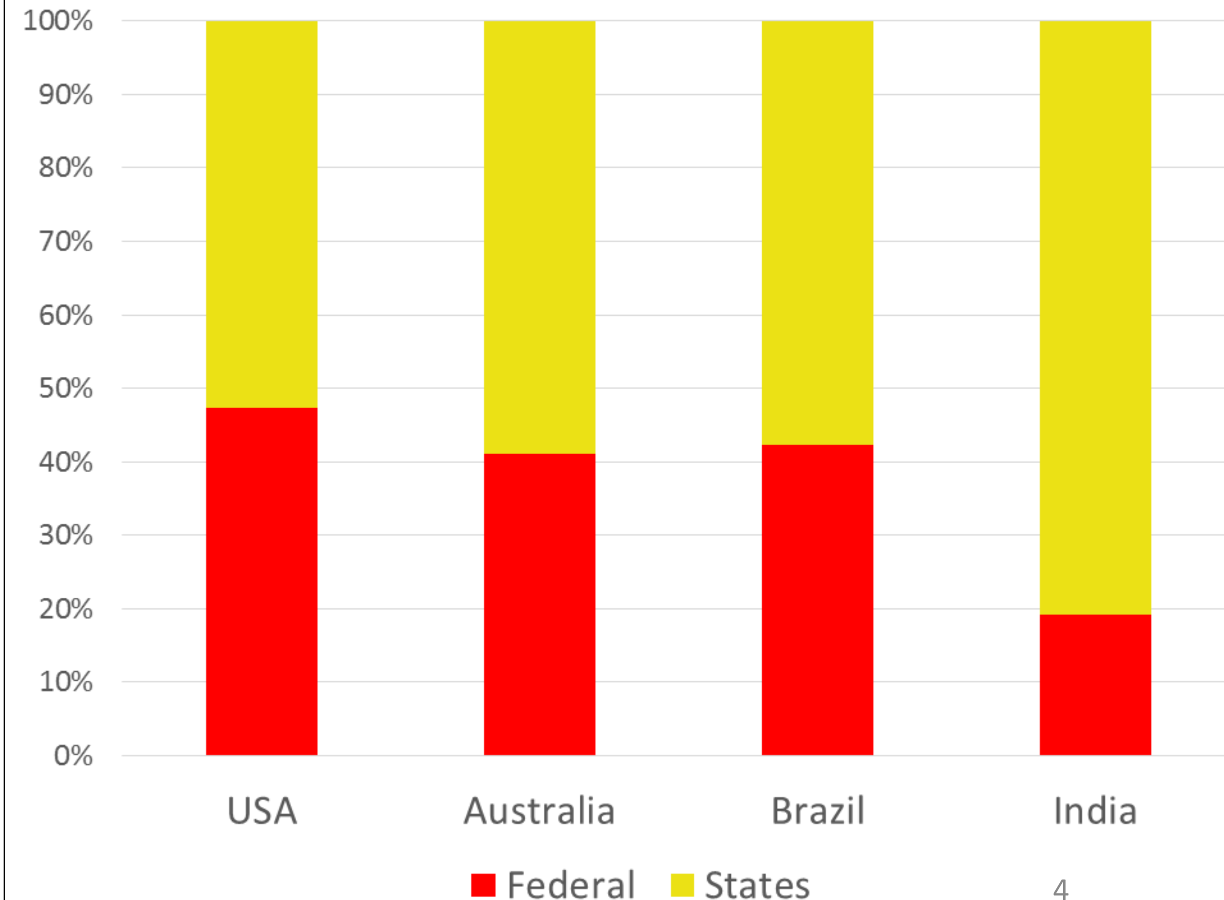
**1:4**.




Source: Connecting the Dots – An Analysis of the Union Budget 2016-17, Center for Budget and Governance Accountability(CBGA)

India's Union and State ratio should rise to

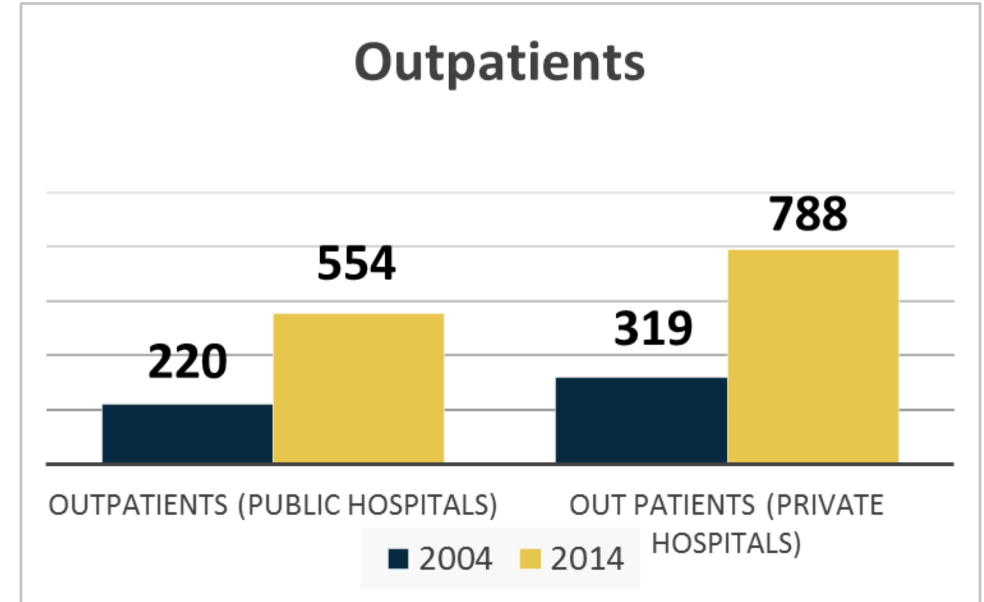
**1:1**

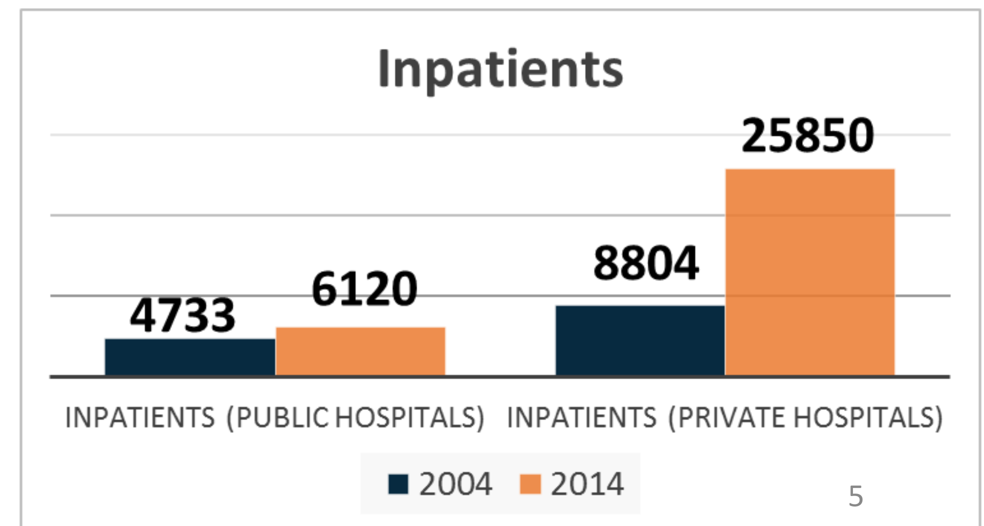


# The Case for Rejuvenation

- Hospitalisation (per 1000 population): **35** in rural, **44** in urban
- **70%** of OOP is from **savings** and the rest from borrowing
- Hospitalized spend **48%** of total annual income on healthcare
- **63 million** are forced into poverty every year due to health care costs alone
- Indians lost almost **37 million years** of healthy life in 2013

**OOP expenditure is rising fast!**

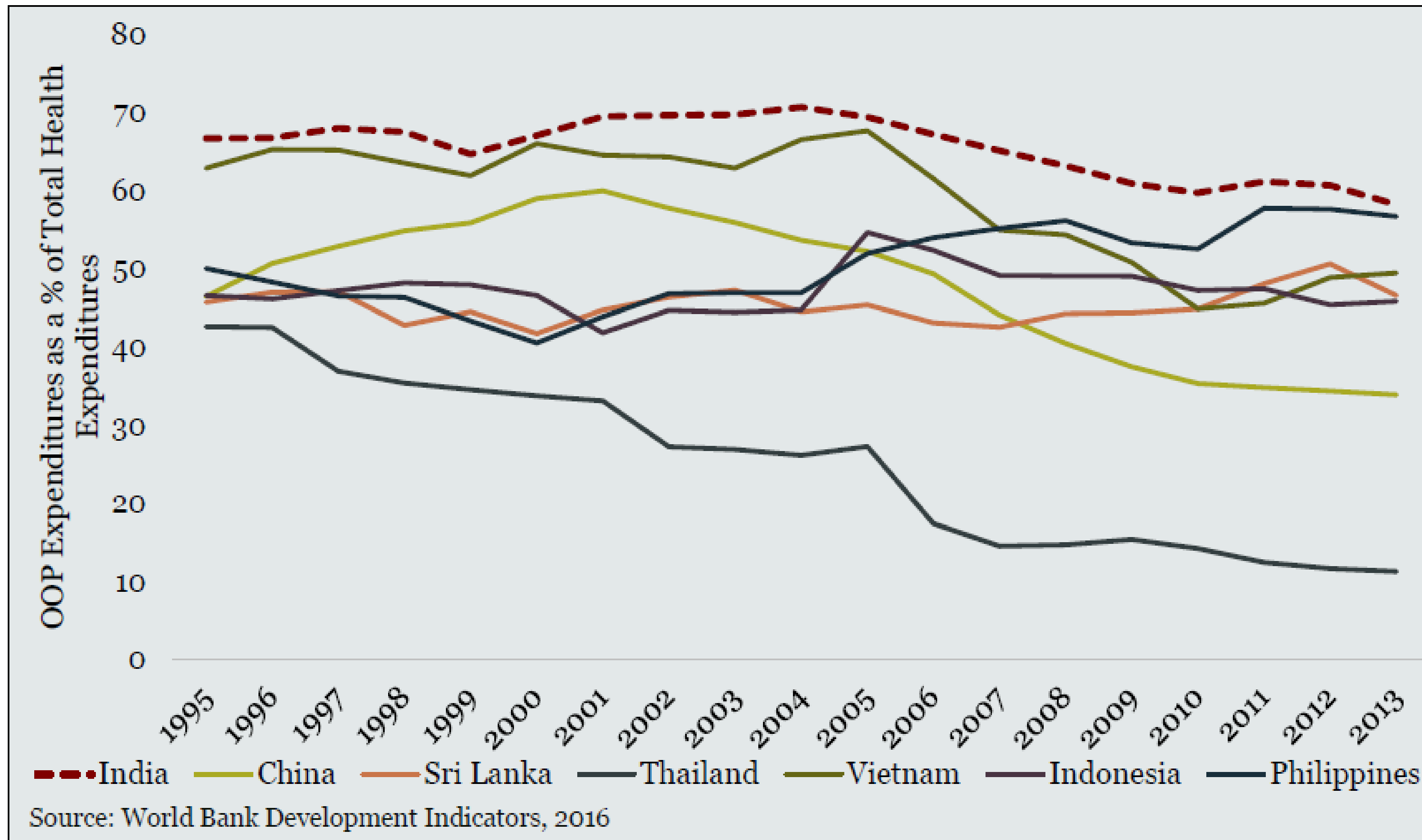



Health in India - NSS 71st round (Jan to June 2014)
NFHS-3
Health in India- NSSO 71st round
Draft National Health Policy, 2015
Assuring health coverage for all in India – Lancet , December 2015
Study on Global Burden of Disease (GBD), 2013

# The Case for Rejuvenation (contd.)

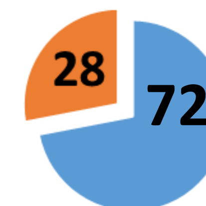
Financial Risk Protection: Out-out-pocket spending as a share of total health expenditure, India and regional comparator countries, 1995-2013



# Ensuring generic drugs’ distribution

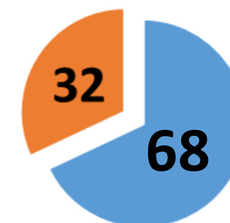
- Govt. spends a mere 0.1% of GDP on publicly funded drugs
- 70% of OOP outpatient expenditure was for purchasing drugs
- Generic drugs can reduce costs up to 75%

Share Of Non-hospitalized Expenditure On Medication
**Rural**




ON MEDICINES OTHERS

Share Of Non-hospitalized Expenditure On Medication
**Urban**




ON MEDICINES OTHERS

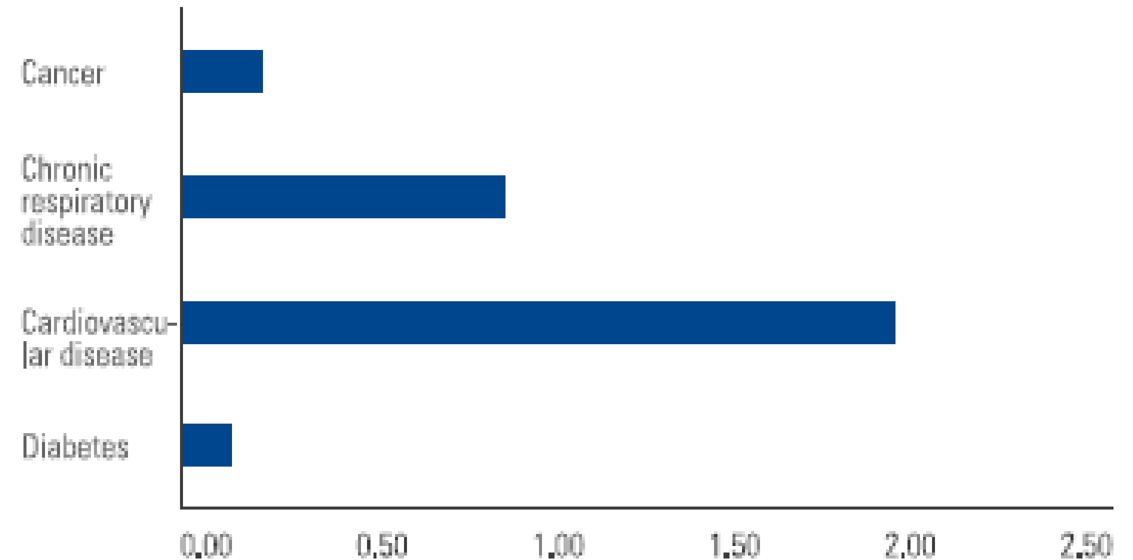
SOURCE:
*London School of Hygiene and Tropical Medicine; December 2015
** Health in India - NSS 71st round (Jan to June 2014)
***India Brand Equity Foundation (IBEF)

# Rising NCDs & economic burden

By 2030, NCDs will cause 67% of mortality

Total burden $ 3 trillion in 18 years

Robust Primary Care is the only solution




Healthcare: The neglected GDP driver by KPMG- September 2015, page- 17

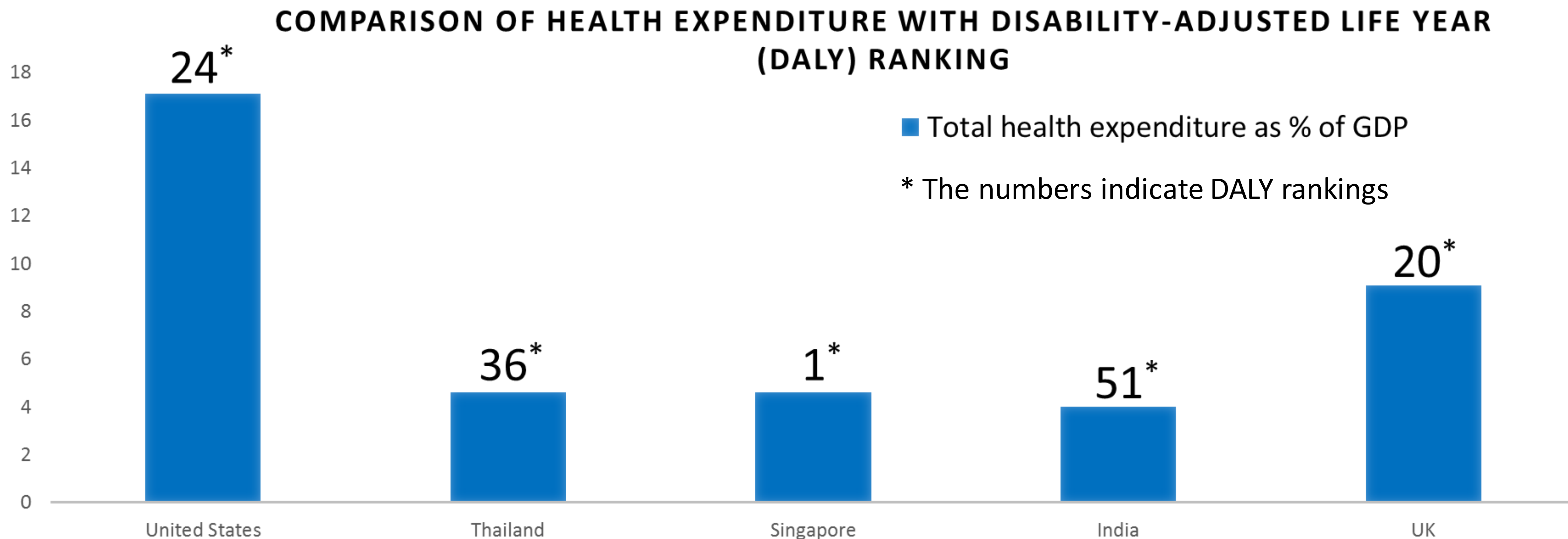
# Health sector can create jobs!

- India has a very low health workforce to population ratio
- Even a conservative number of 20 million shows a wide gap given the existing workforce of **3.6 millions**
- A robust healthcare system can generate **10 million** jobs over a decade.

| Country | Population (in millions) | Health Workforce (in millions) | % of Health Workforce in total population |
|---|---|---|---|
| USA | 318.9 | 12.2 | 3.8 |
| UK | 64.1 | 1.6 (NHS) | 2.4 |
| India | 1250 | 3.6 (2013)* | 0.28 |

*Human Resource and Skill Requirements in the Healthcare Sector - NSDC,KPMG, 2015
**Workforce demand projections of India across various roles in healthcare

# Lessons Learnt: Spending does not improve health automatically!




Out of the 54 countries with GDP greater than $ 300 bn, **Pakistan, South Africa and Nigeria** ranked below India



Source: World Bank; WHO

# Lessons Learnt: Cost-effectiveness in Healthcare

| Health Domains | Public Funded | Private Funded | Cost-effective option |
|---|---|---|---|
| Public and Preventive Health | Strong Positive Externalities | No Markets | Public |
| Primary Care | Positive Externalities<br>No choice - No Accountability | Disincentive for preventive part | Capitation Fee and Choice |
| Secondary Care | Inefficiency | Overtreatment | Choice and Competition |
| Tertiary Care | Centres of Excellence | Overtreatment | Public and NGOs |

# Lessons Learnt: Inclusion of the middle-class

- Since **over 70%** of the total healthcare expenditure is incurred in the private sector and that most rich and upper middle-class don't depend on public healthcare facilities:

The purpose will be served if the healthcare model reaches **the poor and lower middle-class** population.

Nevertheless, it is not wise to limit it to a certain section of population

.

The **voice and demand of middle class** ensures **accountability and quality** in healthcare services.

# Existing Primary Care System

**Strengths:**

- Physical infrastructure
- Immunization
- Cold chain
- Reproductive healthcare
- Experienced ANMs
- Emergencies

**Weaknesses:**

- Lack of public trust
- Beds are unutilized
- Absenteeism and shortage of personnel
- Minimal OP Services
- No proper drug supplies
- Lack of robust data collection mechanisms

**The Result:**

- Pushing patients towards quacks or expensive health facilities
- Overcrowding of tertiary hospitals

# Primary and Preventive Healthcare – Main Features

The Family Physician

A system of family physicians (FPs) – **first point of contact**

FP is contracted by a Regional Health Trust (RHT)

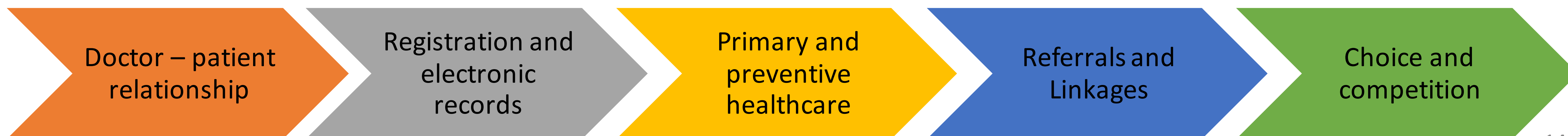
Qualified doctor certified in family healthcare (3-6 months certification course)

3 to 4 additional staff including nurse, assistant, data analyst, etc.

Basic diagnostic facilities such as blood and urine tests

Reside in the community/area of practice (5 to 10 km)

Every doctor would register about 5000 patients



# Primary and Preventive Healthcare – Main Features

Patients has the **choice** of FP – encourages **competition**

AADHAR based registration - electronic patient records – ongoing and onward care - biometric

Records linked to National eHealth Authority – National Health Register

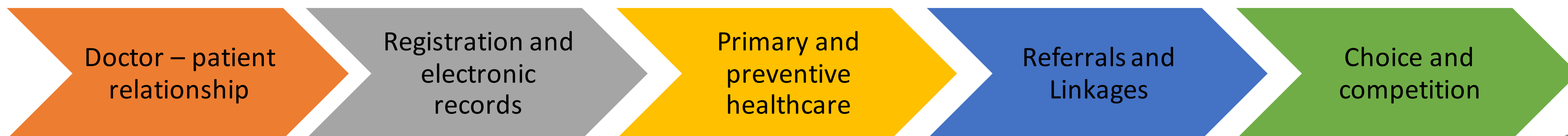
Cash transfers to be made to the FPs as per patients choice (Rs. 500-700 per head)

A system of mobile out-patient also can be introduced

Mandatory referral for secondary care

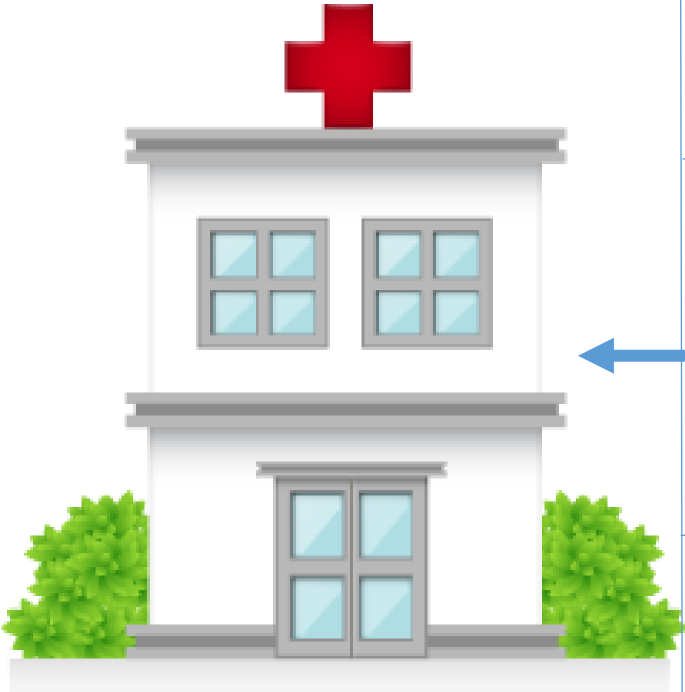
Supply of generic drugs

**The Family Physician**



# Primary and Preventive Health Care

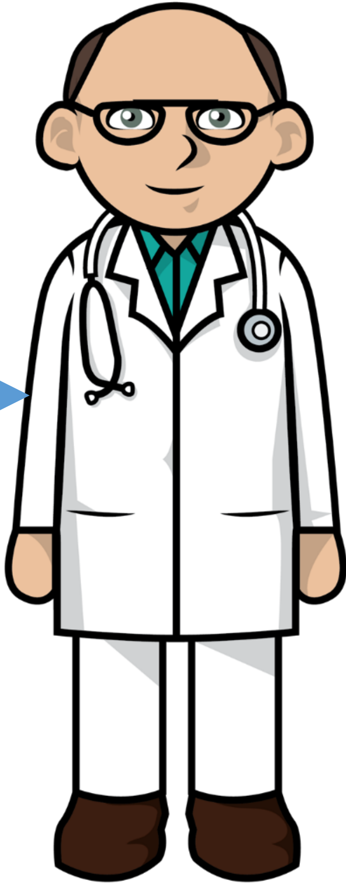
**Primary Health Center**



- Free generic drug supply
- Diagnostic Centre
- Field visits and surveys
- Nutrition and sanitation
- Disease control programmes

**Family Physician**

- Registration
- Electronic records
- Basic diagnostics
- Referrals
- Free generic drug supply



ANMs and SHGs work with an FP for public health services

# Primary and Preventive Healthcare expenditure estimates (by 2022)

| | |
|---|---|
| Per capita expenditure proposed | Rs. 500 to 700 |
| Population projected<br>Assuming coverage for 50% of population, eventually to 70% | 140 cr<br>70 to 100 cr |
| Cost of outpatient care, immunization, family planning, simple diagnostics, maternal and child care | Rs. 35,000 to Rs. 70,000 cr |
| Cost of maintaining existing infrastructure and PHCs<br>(auxiliary staff , administration, etc.) | Rs. 25,000 cr |
| Expected cost for outreach, cold chains, diagnostic centers, drug supply, electronic patient record, etc. | Rs. 25,000 cr |
| **Total projected public health expenditure on primary and preventive healthcare** | **Rs. 85,000 cr to 1,20,000 cr** |

# Existing Secondary Care – CHCs

**Strengths:**

- Physical Infrastructure
- Well spread out

**Weaknesses:**

- Lack of public trust
- Non-functional
- Absenteeism or shortage of personnel
- Minimal OP Services
- No proper drug supplies
- Lack of equipment

**The Result:**

- Non utilization
- Huge OOP burden
- Dependence on private provider
- Over-treatment

# Secondary Healthcare – Main Features

Integration and expansion of RSSY

Secondary care by CHC and select private small nursing homes in the area

Risk-pooling and case based payments (bundled)

Admission on referral except in emergency

Clinical lab, X-ray and operation theatre are mandatory in each facility

Pooled facilities - clinical lab (sophisticated), blood bank, CT scan and ultrasound

Pooled specialized services like trauma, ophthalmology, ENT, dental etc.

# Secondary Healthcare – Main Features

Complete patient **choice** of provider

Eventually, CHCs will also be paid through billing for services

District call centres for appointments and queuing

Tele-medicine

Polyclinics attended by specialists from tertiary centres – hub-and-spoke model

Cost of services and protocols - predefined

Generic drug supply

Healthy competition between Community Health Centers (CHCs) and private nursing homes

# Secondary Healthcare Expenditure Estimates (by 2022)

| | |
|---|---|
| Population projected | 1.4 billion* |
| Assuming number of beds<br>(public hospitals, accredited small nursing homes, etc.) | 5,00,000 |
| Assuming per bed cost per annum<br>(including interventions, diagnostics and drugs) | Rs. 8,00,000 |
| Total projected public health expenditure on secondary care | Rs. 8,00,000 * 5,00,000<br>= **Rs. 40,000 cr** |

* Provisional by 2022, World Population Prospects, The 2015 Revision by Department of Economic and Social Affairs, UN.

# Tertiary Care - District and Teaching Hospitals

**Strengths:**

- Functional
- Large OP services demand
- Large IP services demand
- Basic Infrastructure
- Personnel available
- Centres of Excellence in Independent model

**Weaknesses:**

- Under-funded
- Under-equipped
- Poor Maintenance
- Lack of Independence

**The Result:**

- Overcrowding
- Reliance on expensive private sector

# Tertiary Healthcare – Main Features

- Only on referral except emergency cases

- Privately Funded Initiatives- Build, equip, maintain and lease it to the government

- Increase infrastructure and equipment

- Education and Research

- Independent Consultants

- Private care blocks – Incentives to personnel

# Support Institutions

- Regional Health Trust (RHT) – CHC level
- District Health Board (DHB) – Monitoring District Hospitals
- State Health Board – Chaired by CM
- National Health Board – Chaired by PM
- Drug Supply Agency – pooled drug procurement and supply

Accountability and grievance redressal mechanisms

- National e-Health Authority
- District Ombudsman

# Tertiary Healthcare expenditure estimates (by 2022)

There are **550** district hospitals with about **300** beds each and **200** government teaching hospitals with a **1000** beds each.

| | |
|---|---|
| Total number of beds at the district hospitals | 550 * 300 = 1.65 lakhs |
| Expected cost per bed per year<br><br>Total Cost | Rs.20 lakhs<br><br>1.65 lakhs * 20 lakhs = Rs. 33,000 cr |
| Total number of beds at teaching hospitals<br><br>Total cost | 200 * 1000 = 2 lakh<br><br>2 lakh *30 lakhs =  Rs. 60000 cr |
| **Total Tertiary Care** | Rs. 60,000 + Rs. 33,000<br><br>**= Rs. 93,000 cr** |

# Total Healthcare Expenditure Estimates (by 2022)

| | |
|---|---|
| Primary and Preventive | Rs. 0.85 lakh cr to 1.20 lakh cr |
| Secondary | Rs. 0.40 lakh cr |
| Tertiary | Rs. 0.93 lakh cr |
| Total | **Rs. 2.18 to 2.53 lakh cr** |
| Assuming cost escalation of 50% by 2022 | **Rs. 3.27 to 3.80 lakh cr** |
| Projected nominal GDP of India by 2022 | Rs. 240 lakh cr |
| **Health Expenditure as % of GDP by 2022** | **1.6%** |

This is projected gross expenditure on all public healthcare – it includes all the current expenditure with an estimated cost escalation of 50%

# Merits of this approach

- Building on existing strengths
- Moderate cost – total healthcare cost **under 2% of GDP** (including current programmes)

Captures popular imagination :

- FP of choice
- Continuity of care
- Choice in Secondary care
- Quality care in tertiary facilities
- Competition

# Merits of this approach (Contd.)

- Eventually, cost recovery from those who can pay
- Accountability
- Flexibility to individual States
- Integrating all existing risk-pooling mechanisms (RSSY)
- No legislation required
- Real time health data
- Generating more skilled jobs using the existing skill development framework (PMKVY)
- Integration of existing schemes (Jan Aushadi Scheme, National Health Mission)
- Can be rolled out in a phased manner

***