Health Economics Financing &Expenditure : India

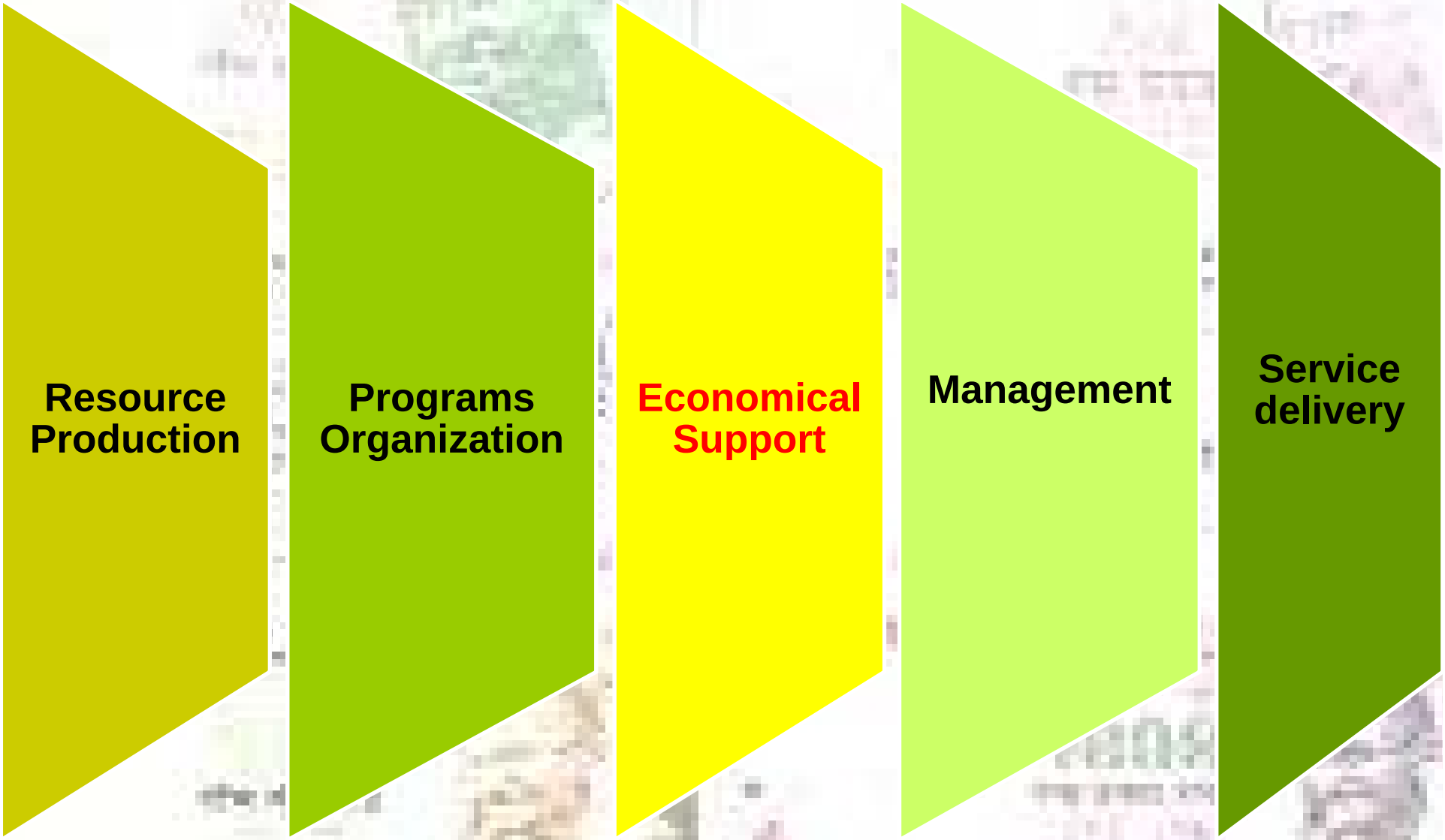
State Institute of Health and Family Welfare, Jaipur

“Health”

Is a “product” of

“Health care”

Health System Components



Challenges

- Manpower- Number & Norms
- Rural / Urban differential
- Geographical divide across States
- S-E groups –accessibility/ reach
- Gaps between Policy & Action
- **Health sector expenditure**
- Newer Infections

Why Bring Economics to Health

- New emerging diseases,
- Changing disease profile,
- Technical and diagnostic advances,
- Longevity of life,
- Expectations of people,
- Subsidies and cross-subsidies
- Increasing non-plan expenditure,
- Competing priorities and
- Improving awareness among people;

Economics

Economics is the Science which studies human behavior as a relationship between *ENDS* and scarce *MEANS* which have alternative uses– Prof. Lionel Robbins–1932.

Study how man and society end up choosing to employ the scarce resources that could have alternative use

Choice-Decision making

Scarce resources

Alternative use

Health Economics

- Health economics is the application of the theories, concepts and techniques of economics to the health sector.
- Study of-How resources are allocated to and within Health sector
    - **Allocation**
    - **Quantity**
    - **Efficiency**
- Production of Health care and its distribution across pop.

Why Health Economics

- NO health care system has achieved level of spending sufficient to meet all its client need for Health care.
- Resources are scarce
- What we “want” is unlimited
- Therefore involves “choice”
- Max. benefits/Min. resources = Efficiency

- Developed countries

  Higher investment in health ⟷ High Life expectancy

  ↕

  Increased Purchasing power parity

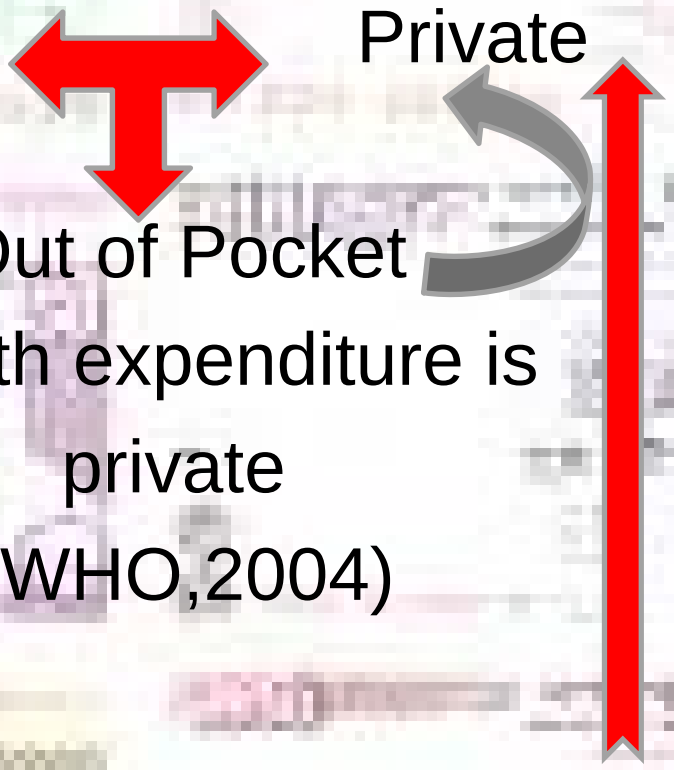
- Developing countries

  Poor investment in health ⟷ low Life expectancy

  ↕

  Low Purchasing power parity

Health Expenditure



80% of Health expenditure is private

(WHO,2004)

Profit Maximization

Concept Of Health Economics

Health concept

1. Health Services
   (a) Medical Care –
   (b) Public Health Services
   (c) Environmental
2. Medical Education, Training and Research– The cost analysis of institutions involved in these activities will add up to the cost of health.

Economic concept

- Cost
- Capital and Recurring Expenditure
- Depreciation
- Health is an investment and not an expenditure.

Demand v/s Supply

Demand for health care – influenced by

- Medical care
- Occupation
- Consumption pattern
- Education
- Income
- Costs
- Sex, marital status
- Culture etc

Monetary V/s Non-monitory costs

Supply of Health Care – Influencers

- Cost of delivery
- Possibility of substitution ….
- Market for inputs (doctors, nurses, drugs, equipment etc.)
- Remuneration

- How different remunerations affect behavior of suppliers of health care

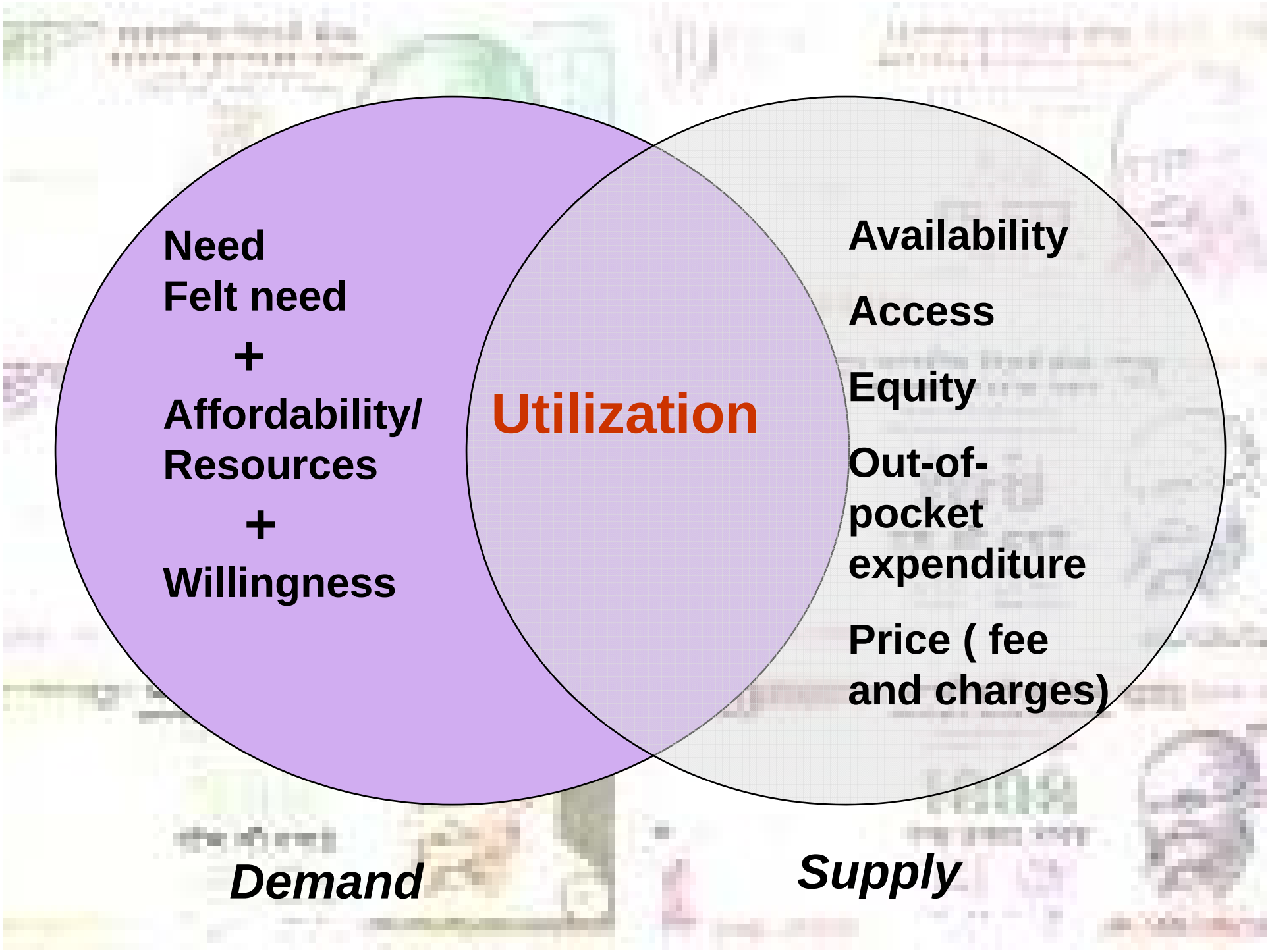
Drivers of Health Cost

- Human Resource
- Technology
- Drugs

Health Care Markets

- Externalities – communicable diseases
- Asymmetric Information
- Uncertainty of Demand
- Risk of death / impairment of full functioning
- Product uncertainty –Quality?
- Unique supply position –licensing, highly subsidized medical education, social concern etc.
- Monopoly – to some extent
- Need Govt. intervention –efficiency vs.equity

Regulation, direct provision, Taxes/subsidies


Need
Felt need
+
Affordability/
Resources
+
Willingness
Utilization
Availability
Access
Equity
Out-of-pocket expenditure
Price (fee and charges)
Demand
Supply

Types of Health Expenditure:

- **Public goods-**
  - Cannot be acquired by individuals (e.g. Water and Sanitation program)
  - Are used by community
- **Externality goods**
  - Individuals can acquire (e.g. Immunization)
  - Individual use can benefit community
- **Private goods**
  - Acquired by individuals (e.g. Private Hospitals)
  - Used by individuals

Some facts

- 1,392,954 Practitioners, 125000 in Govt., 59% in cities
- 49% of beds, 42% of occupancy (private sector)
- 40 Doctor/100000, 32 Nurses/ 100000 pop.
    - (National average-59/ 100000, 79/100000)
    - Developed country average: 200/ 100000
- 76 drugs (25% of essential) under price control
- 50% of spending in health is on drugs

Source: CBHI-10 & MCI

- Health expenditure is 4.2, total (% of GDP)
- Proportion of Total Health Exp.: Govt-20%
- Private health exp.:
  - 80% of total health cost
  - 97% : OOP
- One hospitalization: 60% of annual income
- Outpatient care accounts for 61 per cent of private healthcare spending

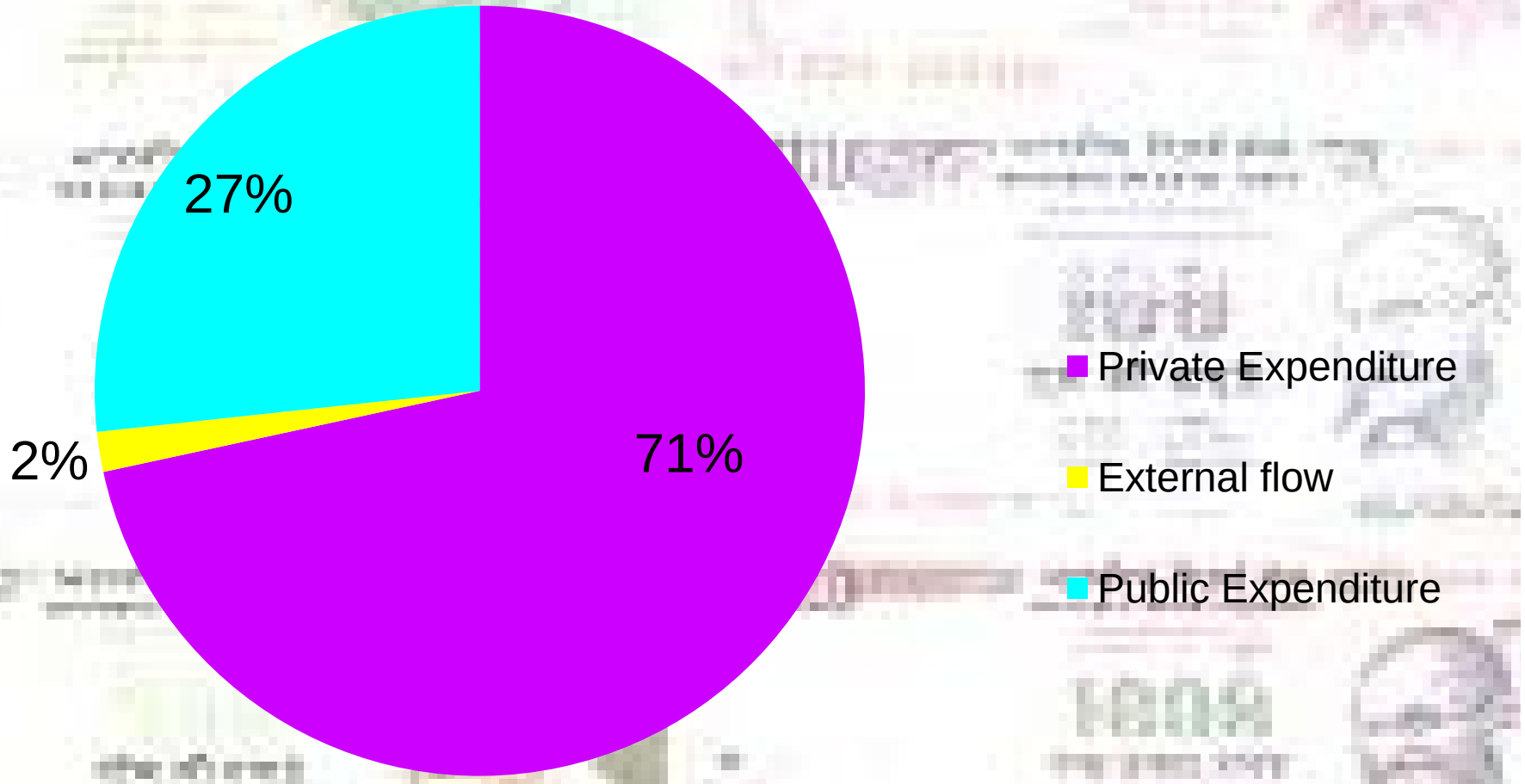
Source: CBHI & World Bank

Who pays?

- Health Authority?
- Government?
- Taxpayer?

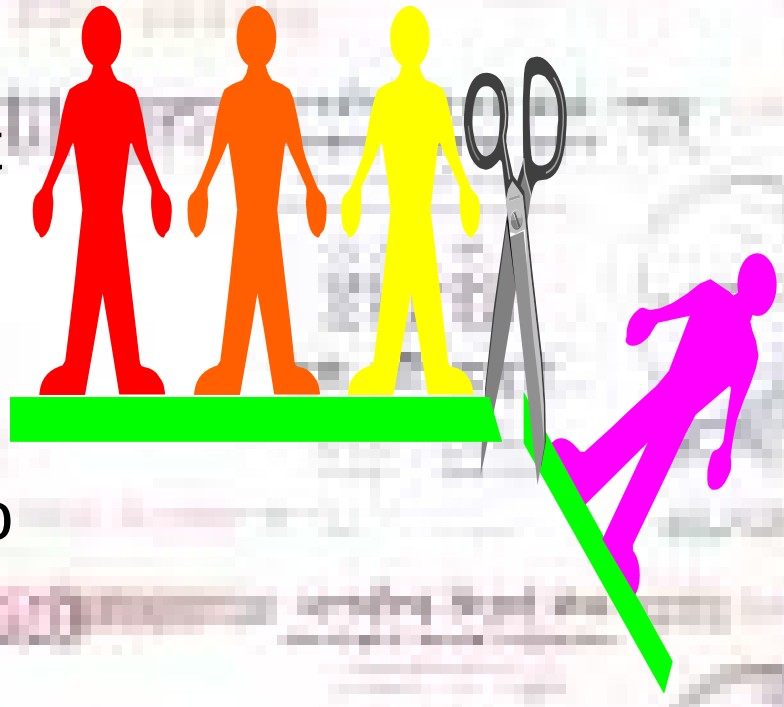
Share in Health Care Spending

source:CBHI,NHP-2010



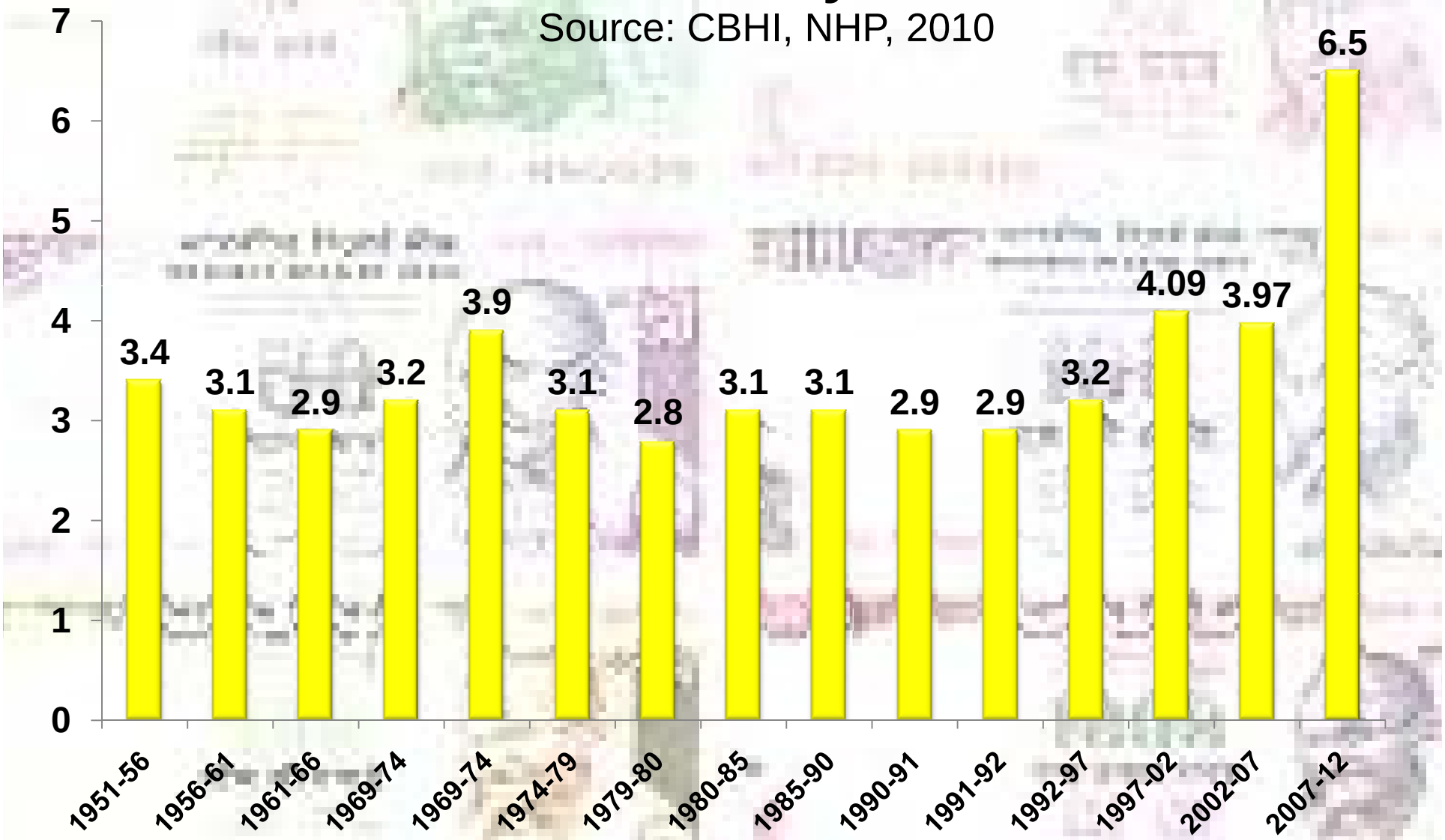
Who *really* Pays?

- Opportunity cost - if we choose to do one thing, the cost of doing that is the value which would have been obtained from the best alternative choice
- Who pays - the person who does not receive treatment



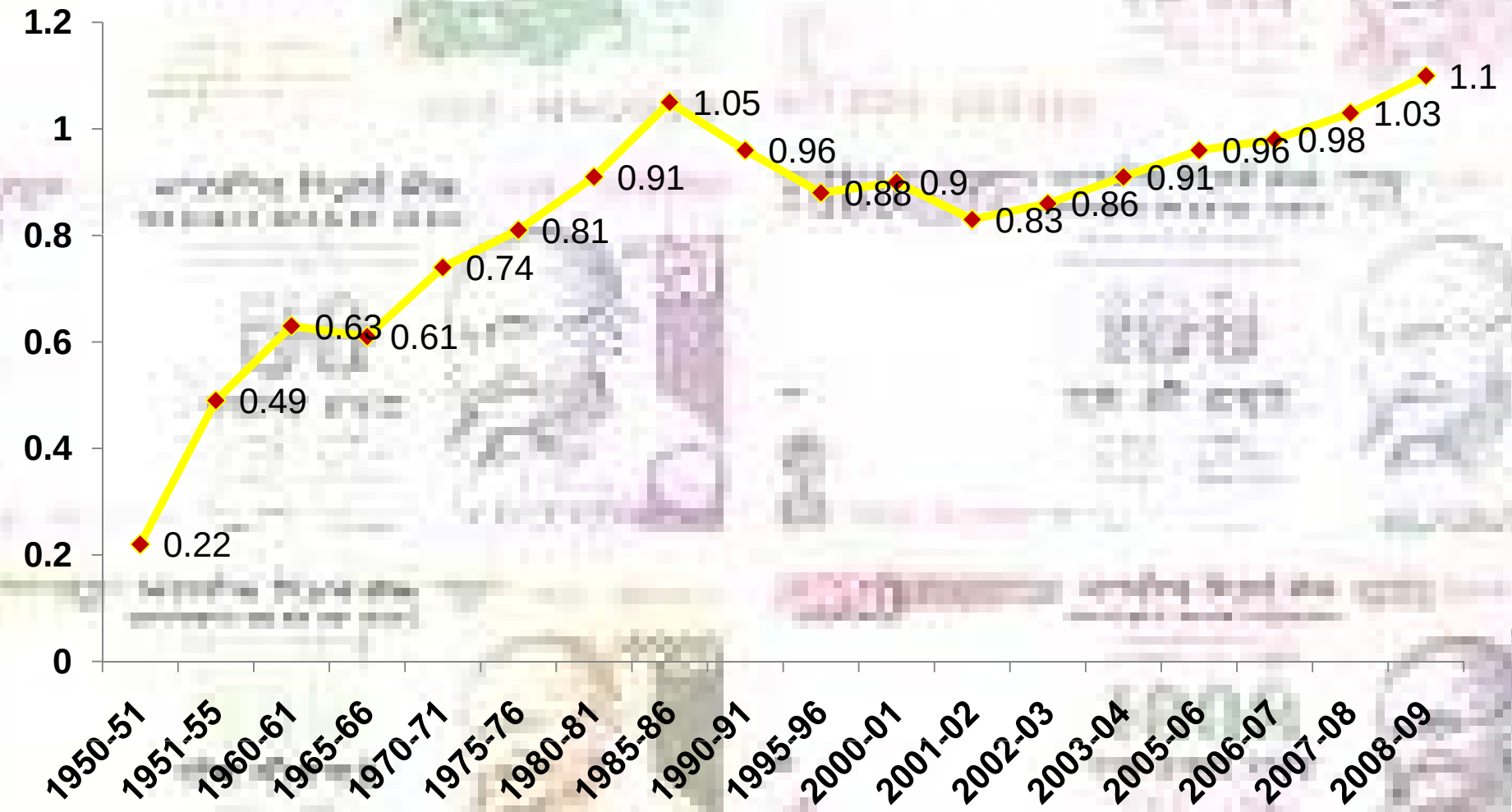
Health Expenditure as % of total Plan Outlay

Source: CBHI, NHP, 2010



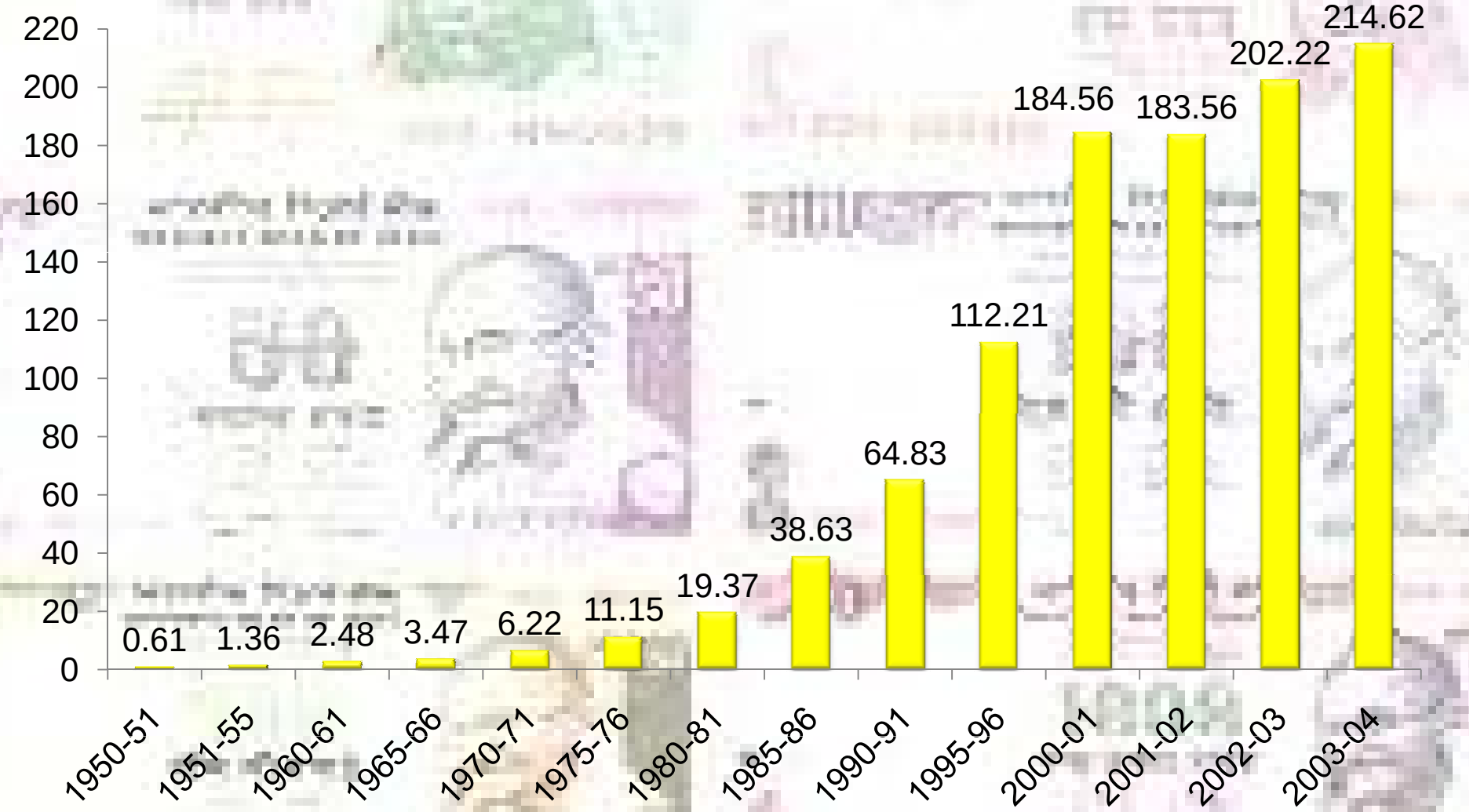
Total Govt. Expenditure on Health as % of GDP

Source: CBHI, NHP, 2010



Per Capita Public Exp. on Health

Source: CBHI, NHP, 2010



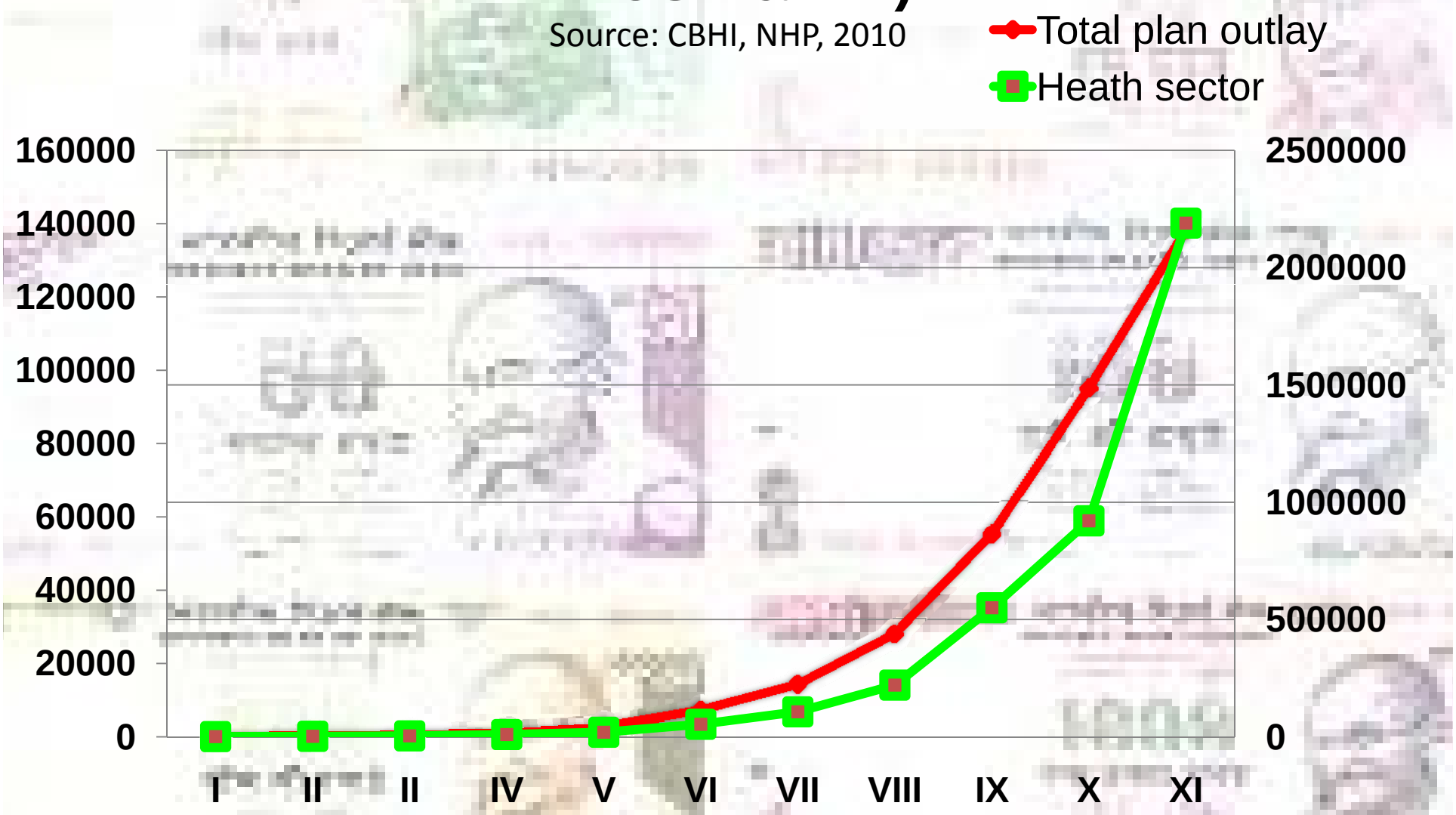
Status of Expenditure in FYPs

Source: CBHI, NHP, 2010

FYPs	Total Plan Investment	Health	Family Welfare
I	1960	65.2	0.1
II	4672	140.8	2.2
III	8576	225	24.9
IV	15778.8	335.5	284.4
V	39322	682	497.4
VI	97500	1821	1010
VII	180000	3392	3256.2
VIII	798000	7575.9	6500
IX	859200	10818	15120.2
X	1484131.3	31020.3	27125
XI	2156571	136147.0	

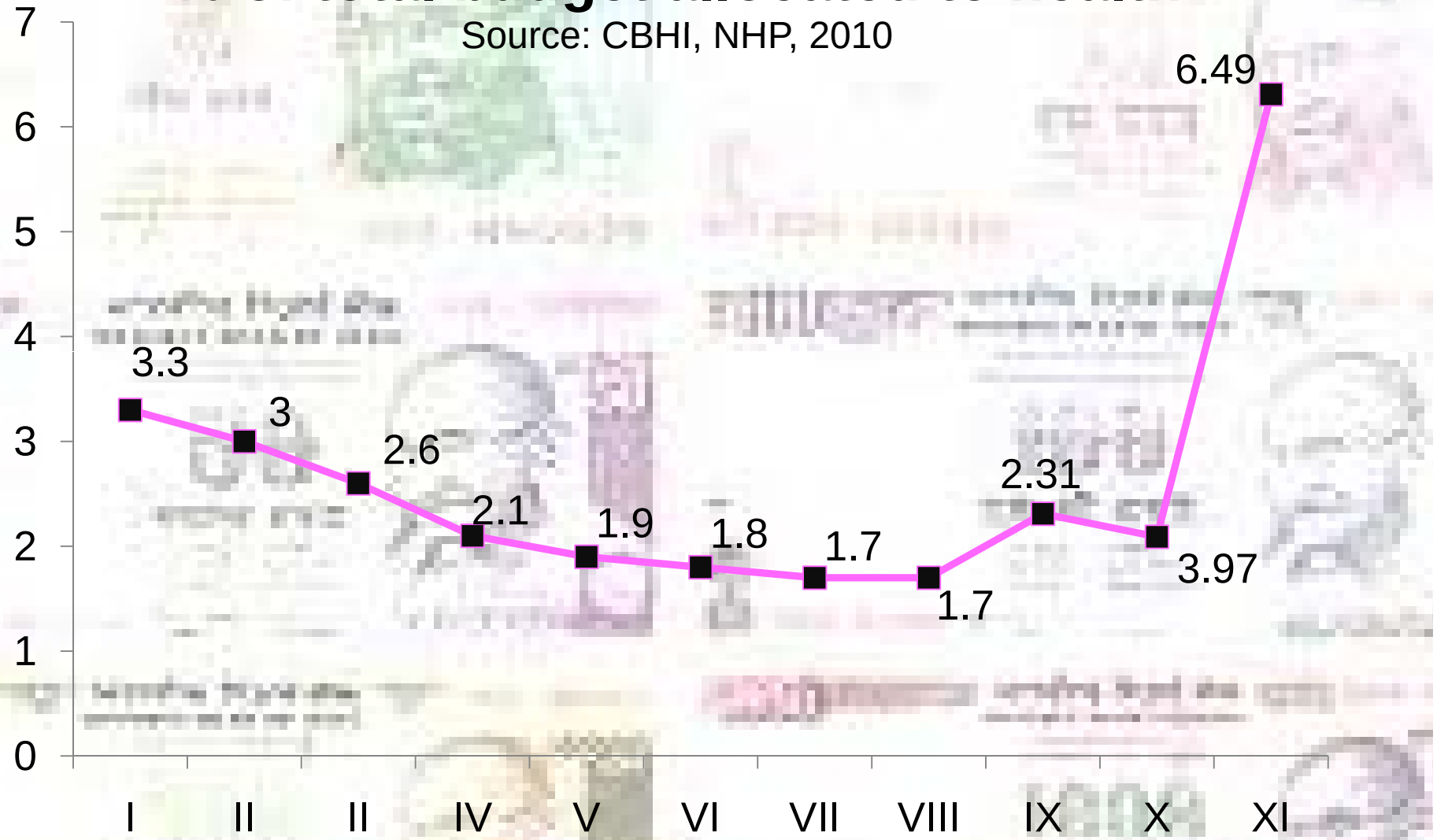
Total Outlay – Plan and Health (including AYUSH & FW)

Source: CBHI, NHP, 2010



% of total budget allocated to health

Source: CBHI, NHP, 2010



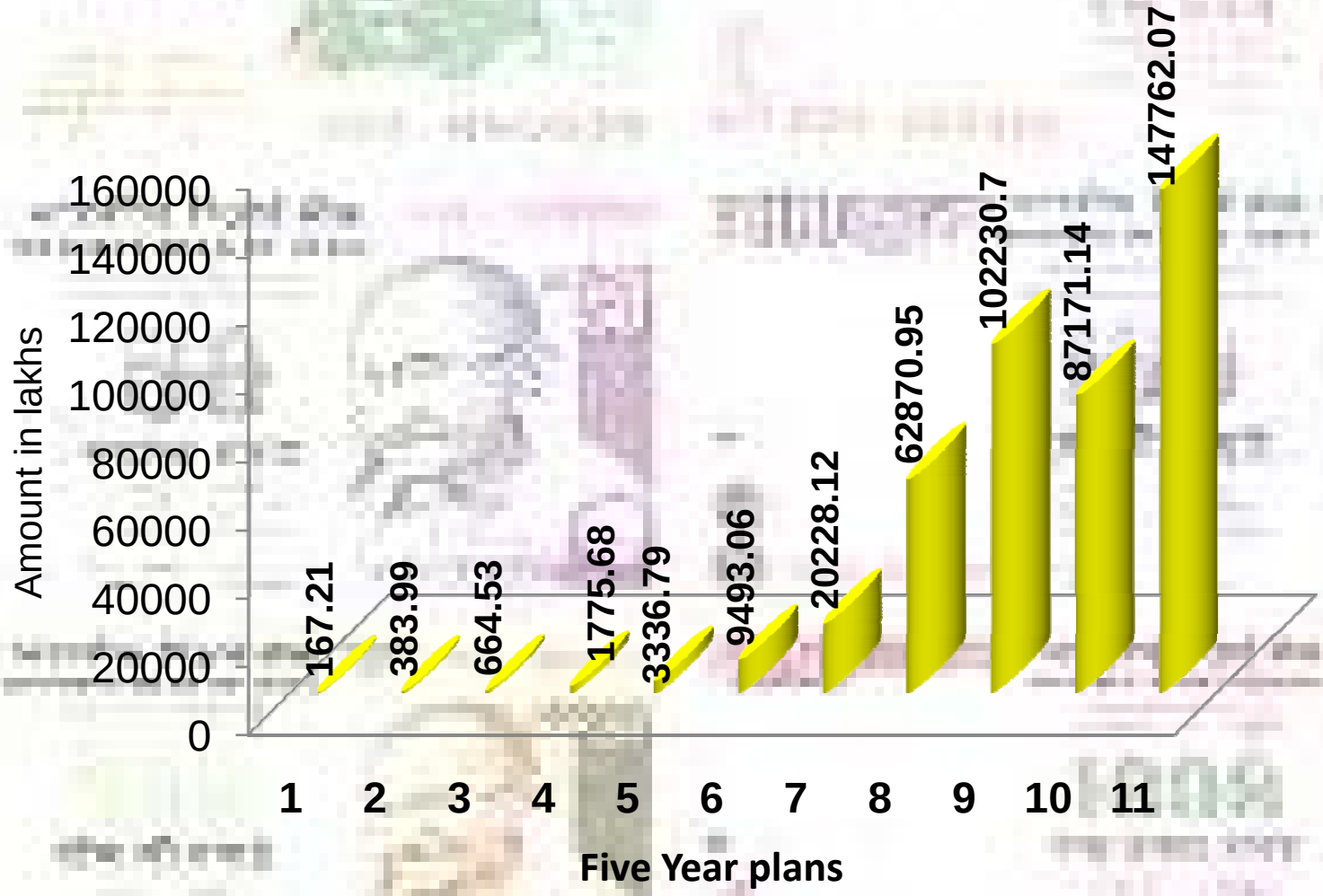
Expenditure Patterns

- Public expenditures –declining trends
- Out of pocket – increasing burden, especially the poor and in rural areas

Health Spending: Facts

- **Public Domain**
  - Center: Rs.35 bi (0.13% GDP)
  - State: Rs.186 bi (0.72% GDP)
  - Local: Rs.25 bi estimated (0.10% GDP)
  - Social Insurance: Rs. 12 bi (0.05% GDP)
- **Private Domain**
  - Out-of-pocket: Rs.1200 bi (4.62% GDP)
  - Insurance (public sector) Rs.8 bi (0.03% GDP)
  - Pharma Industry Rs. 250 bi (0.96% GDP)

Budget Rajasthan



Health Financing

Issues in Health Financing:

- Reduce out-of-pocket payments
- Increase the accountability towards health care provision
- Risk pooling & Risk sharing.

Key Issues in Health Financing

- What is total spending on health
- Who is spending it
- What it is being spent on
- What are the sources of this exp.
- What are the main trends
- How efficiently funds are allocated and spent
- What can be done to improve Health financing
    - Increase kitty
        - Increase allocative efficiency

National Health Spending

Uses	Central Govt.	State & Local Govt.	Corporate/ 3rd Party	Households	Total
Primary Care	4.3	5.6	0.8	48.0	58.7
•Curative					
•Preventive	0.4	3.0	0.8	45.6	49.7
• Promotive Care	4.0	2.7	0.0	2.4	9.0
Secondary/ Tertiary in Patient Care	0.9	8.4	2.5	27.0	38.8
Non Service Provision	0.9	1.6	NA	NA	2.5
Total	6.1	15.6	3.3	75.0	100.0

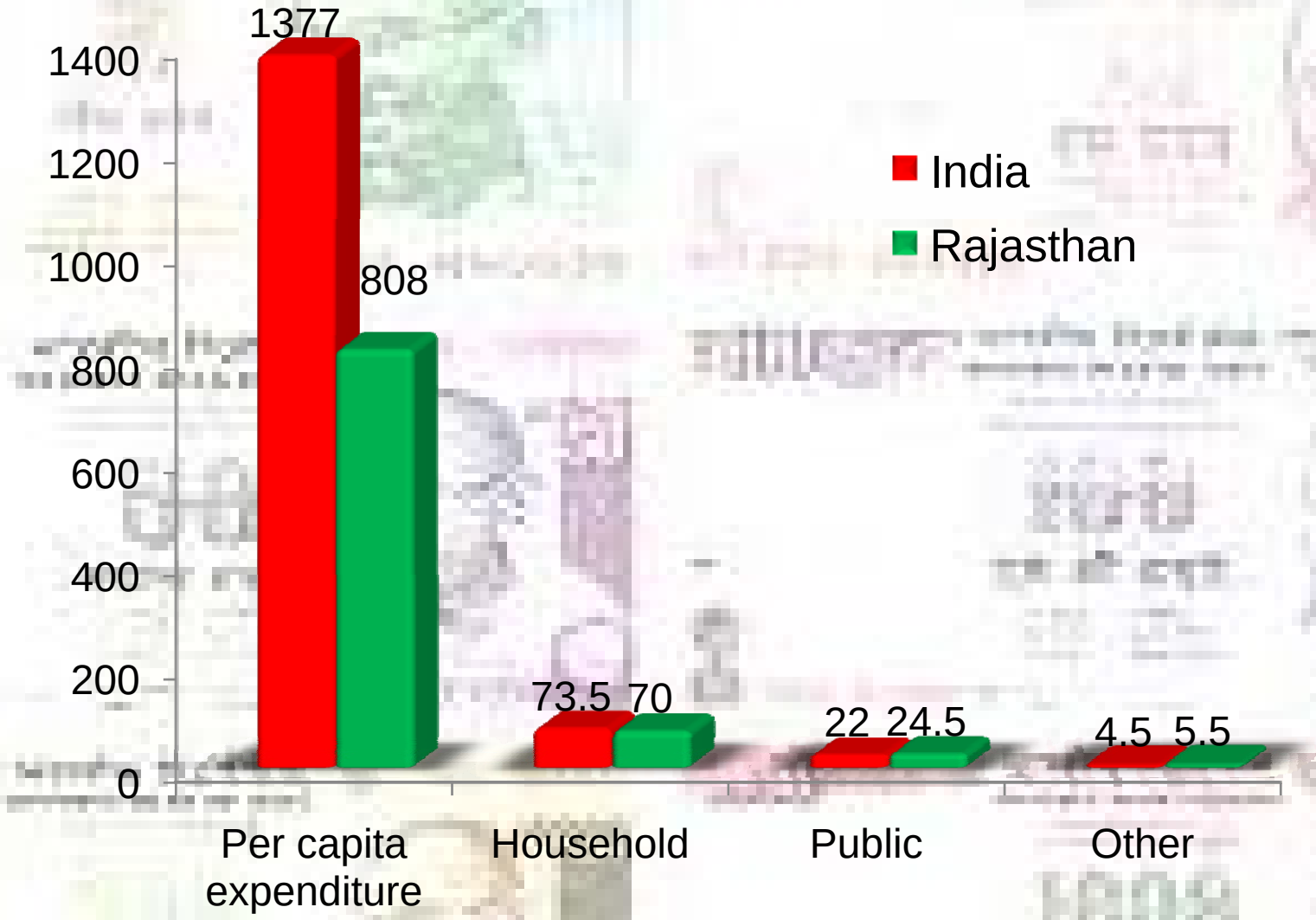
Source: World Bank, 1995.

Recommendations

Plan allocations & % of GDP

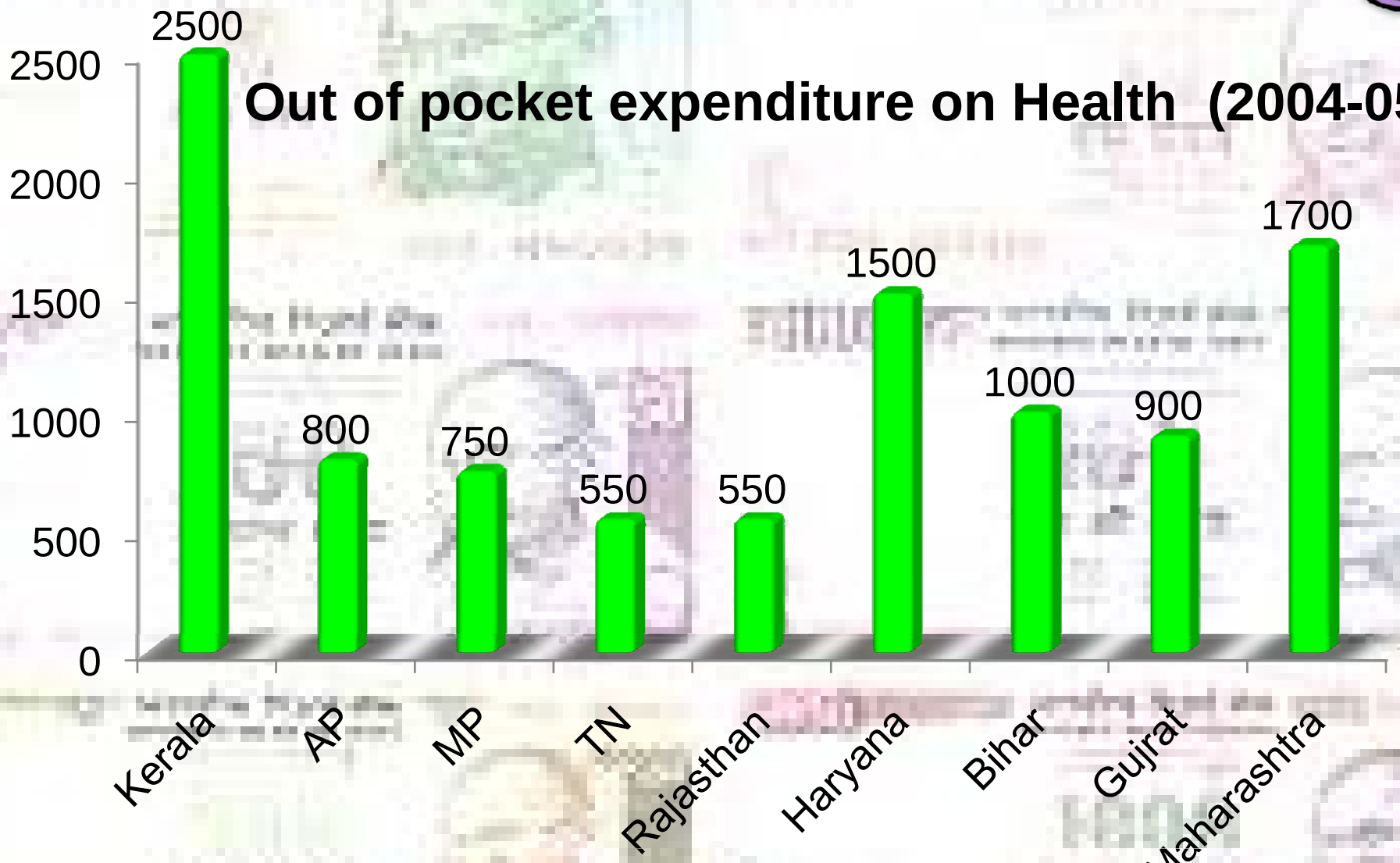
- Alma-Ata-5%
- CSSR-ICMR-6% (1982)
- CCHFW (1989)-7% of Plan; actual for 1990 was only 1.3% of GDP
- CCHFW (2001) suggested 2% of GDP from the then current level of 0.9%

Health Care Spending (2004-05)



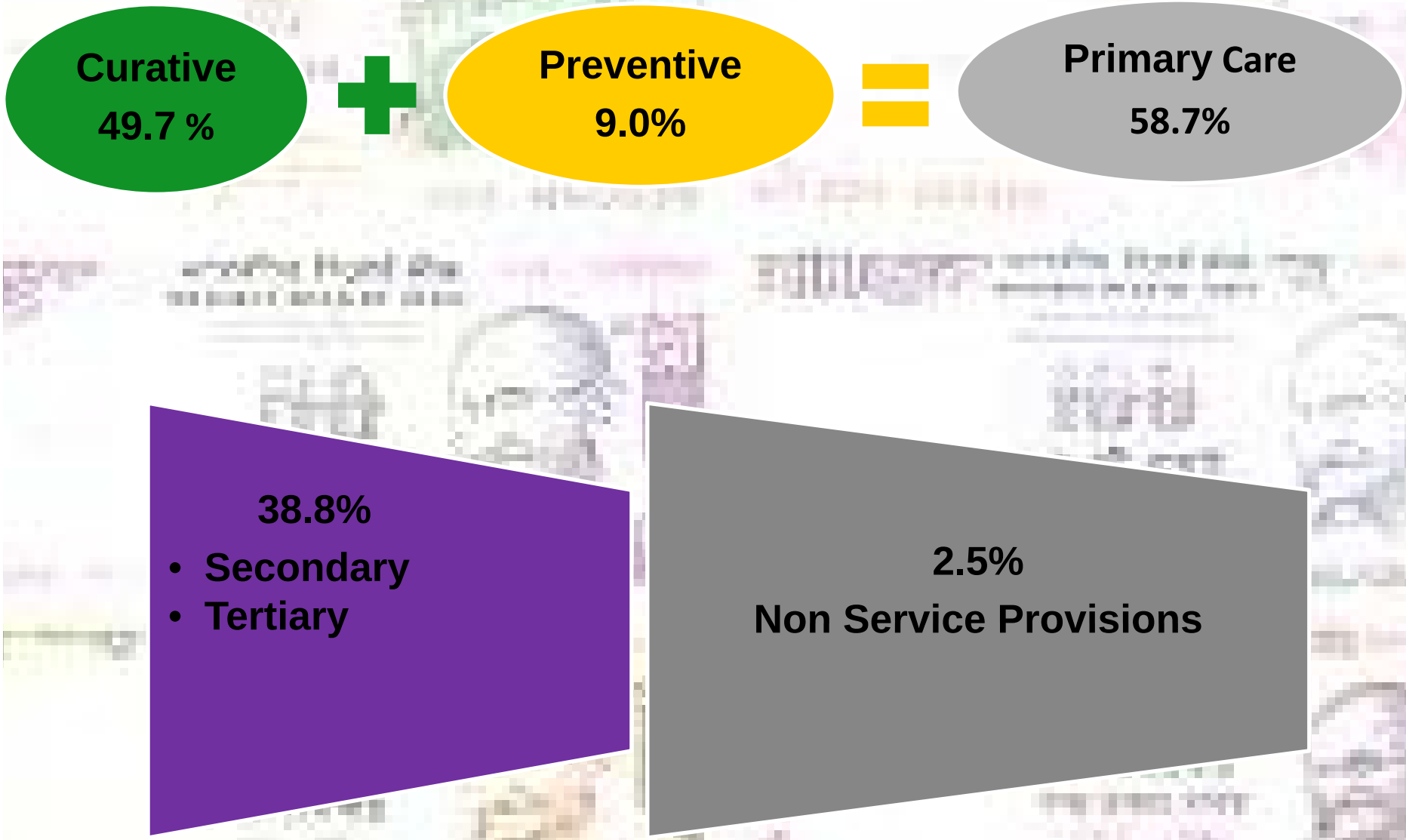
Source: NCMH, 2005

Out of pocket expenditure on Health (2004-05)



Based on NHA-2000-01, extrapolated for 2004-05

What it is being spent on



Role of Health Economics

- Choice-Decision making
- Scarce resources
- Alternative use

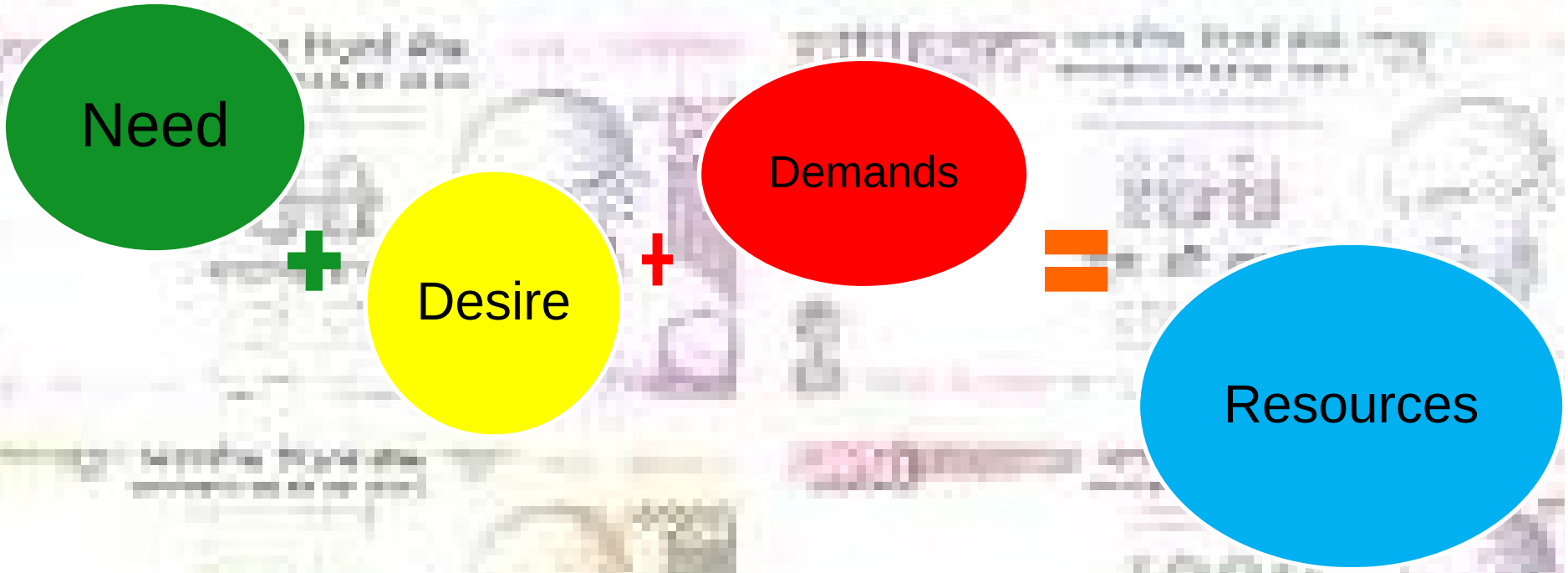
Choosing-Decision making

- Allocative efficiency
  - Where to park the resources
- What discipline to develop (Priority)
  - Market research
  - Investment cost
    - » Human resource availability
    - » Technology & outrage
  - Expected Return
    - » Purchasing power
    - » Service utilization
    - » Marketability
    - » Competition

Rationing of Health Care

- Economics concerned with *choice* between competing alternatives
- Based on axiom of *scarcity* - resources limited relative to wants
- Fundamental 'economic problem' is therefore allocation of these scarce resources
- 'Rationing' (priority-setting) just another term for *resource allocation*

Scarcity



Basis of Rationing

Price system - objective = efficiency
consumer sovereignty

Non-price - objective efficiency or equity'?
who decides on allocation?
allocation by what criteria?

Alternative Use

Opportunity cost:

possibility of alternative use of money

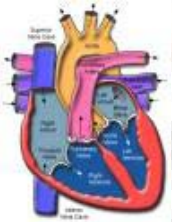
Are the benefits from “chosen” greater than those “forgone”

- Burden of disease
- Prevalence
- Visible impact
- Cost- benefit

One IVF course = INR 85000
What is the opportunity cost?

One-third of a cochlear implant

1 heart bypass operation



11 cataract removals

150 vaccinations for Measles, Mumps and Rubella

Medical Care and Utility

- Medical care is an input in producing health
  - Subject to law of diminishing marginal productivity

- Health yields utility to the consumer
  - Subject to law of diminishing marginal utility

Economics Seek an Answer

- What influences health? (other than health care)
- What is health and what is its value
- The **demand** for health care
- The **supply** of health care
- ***Micro-economic*** evaluation at ***treatment*** level
- Market ***equilibrium***
- Evaluation at whole system level; and,
- Planning, **Budgeting** and monitoring mechanisms.

Cost of Care: Private v/s Public

- Direct-
  - Medicine,
  - consumables
- Intangible-
  - pain,
  - neglect,
- Indirect-
  - commuting,
  - wage loss,
  - social cost,
  - Fee for facilitation
  - Lodging & Boarding
  - subsidy

Estimating Demand for Medical Care

- Quantity demanded
  - Out-of-pocket price
  - Real income
  - Time costs
  - Prices of substitutes and complements
  - Tastes and preferences
  - Profile
  - State of health
  - Quality of care

What Dictates Private Sector

- Capital & recurring cost
- Payment schemes
- Technology
- Cost of Training
- Public expectations
- Regulatory mechanism
    - Taxes
    - Regulations

What Health Economics Should Mean to Profession

- Matching inputs to outputs and outcomes
- Increasing Efficiency
    - Technical (output with minimum resources)
    - Allocative (produce output which people value most
    - Cost effectiveness(output at least cost)

Taking Care of Cost: What To Do

- Ensure stable financing mechanism
- Enhance financial protection and social safety nets.
- Achieve more resource allocation and government spending on cost effective health interventions
- Improve institutional capacity and capability in budgeting, pricing, financial planning and management

Sources of Financing

- Taxation,
- Health insurance,
- Private payments –Out of Pocket expenditure (OoPE)
- And external support(Donor agencies-Grants/ Loans)

Which Source

- People's capacity to pay,
- Administrative capacities to collect,
- The Nature and quality of services , and

- **Need for User charges-**
    1. Too many to use the public services
    2. Limited resources
    3. Increasing demand
    4. High recurring cost

Why User Charges?

- People misuse just because it is “Free”
- Revenue generated can improve quality
- Marginal sections can be better looked after (Cross subsidy)
- System can be made self sustainable to a large extent
- Payment increase sense of ownership & Participation

- **Mechanism** for introducing User charges-
  - Dual pricing
  - Graded charges
  - Exemption criteria
- **What determines User Charges?**
  - Cost of care
  - Cross subsidy costs
  - Replacement cost including inflation and rupee devaluation

- Some more approaches for Financing Health care are-
  - »Introduction of **User fee** with cross subsidy
  - »**Public Private Mix** using spare capacity
  - »Introducing **Sub-contracting & leasing**
  - »**Build, Opertate,Transfer**/ Own
  - »**Expanding revenue base** (more services brought under fee)

Tools for Health Care Financing

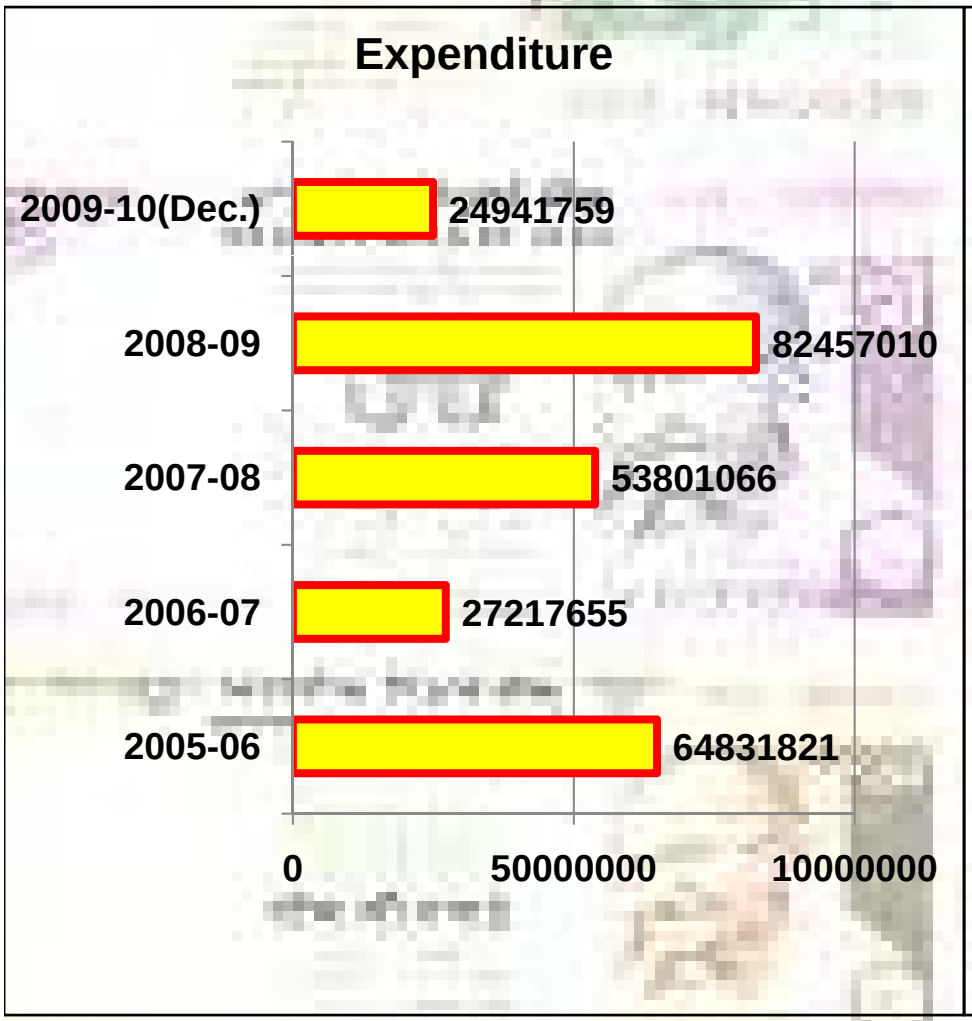
- Health Insurance
- Regulation and Legislation
- National Health Accounts
- Resource allocation (Allocative efficiency)
- Cost benefit and cost effectiveness analysis
- PPP
- RMRS

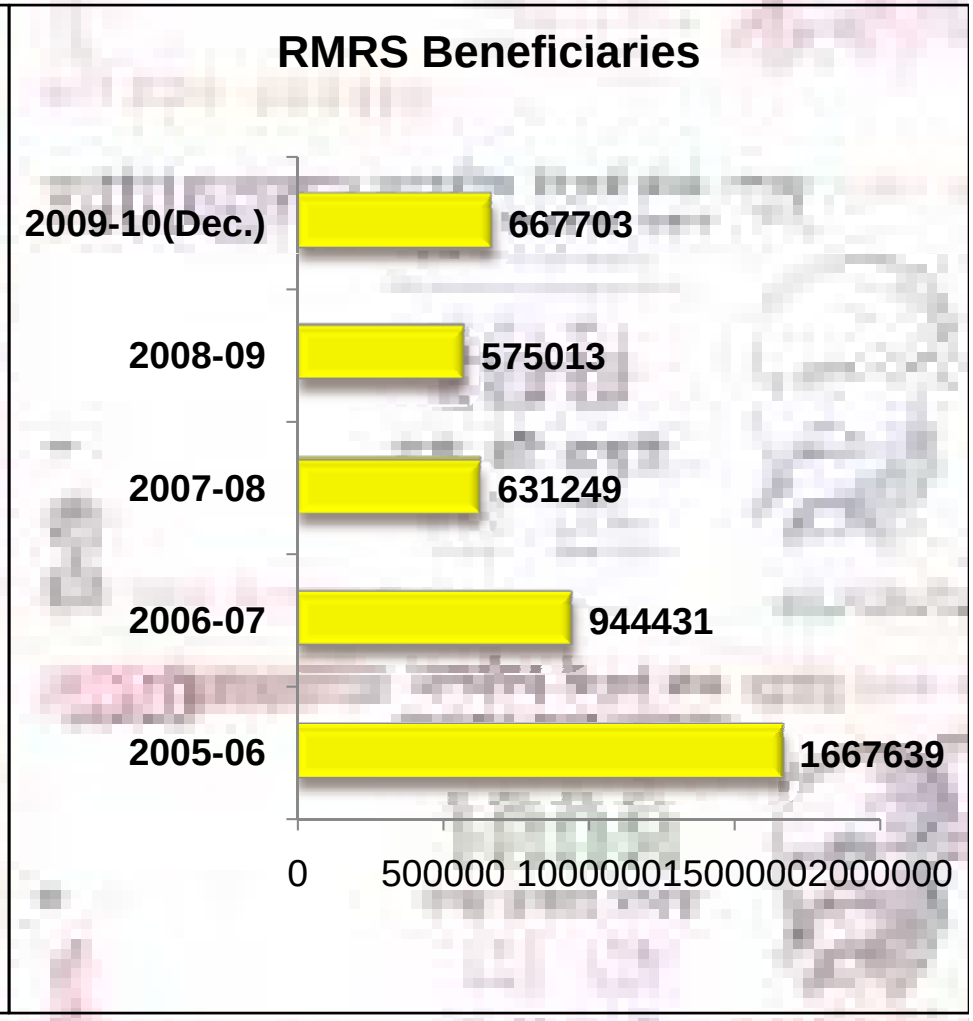
Rajasthan Medical Relief Society

- NGO-Registered society-**Autonomy**
- Self-sustainable
- Reducing cost of care –No middle man
- Instrument for **cost recovery** (user fee)
- **Cross subsidy** to marginalized
- Promote PPP for capital intensive facilities in Health care
- Structure**(9-11 members)**
  - PHS/Commissioner/Collector, Supdt./PMO/CMHO/BCMO, Doctors (2-3), PRI(2), Citizens(3), NGO, Associate / Institutional member

RMRS: Progress

RMRS: 53 Hospitals, 368 CHCs & 1504 PHCs





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