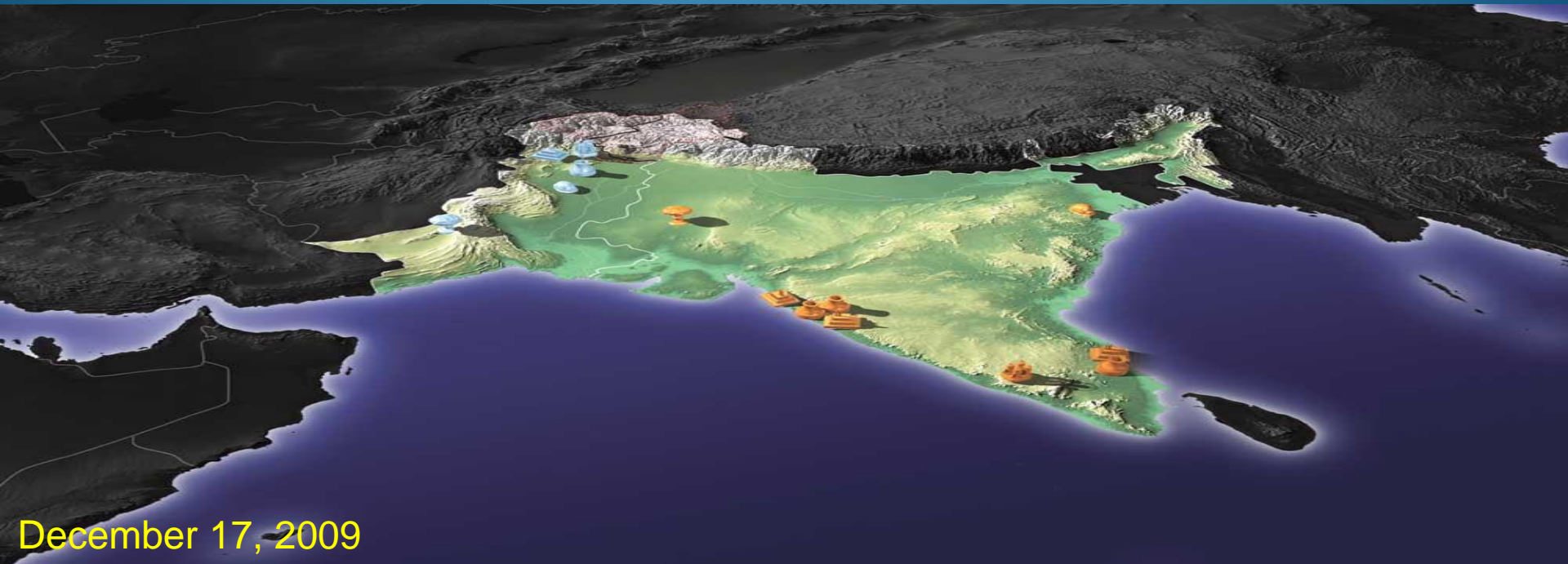


An Overview of Pharmaceutical Pricing Scenario in India

Tapan Ray

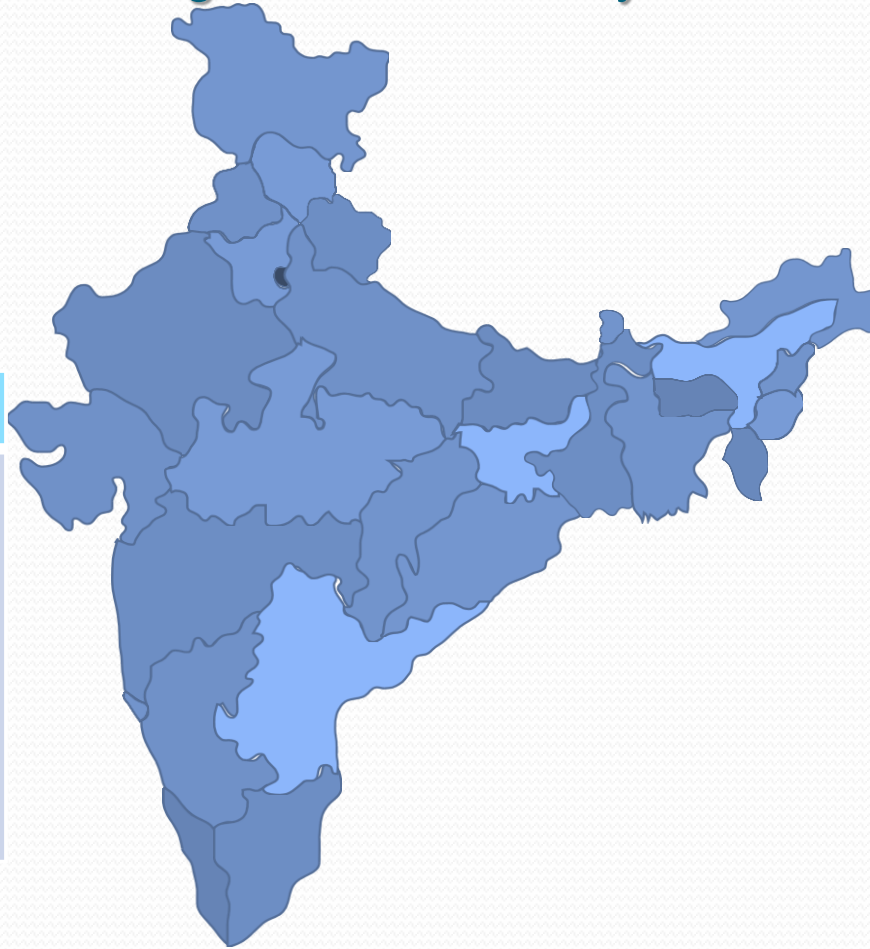


India is changing fast

setting the pace for growth and stability...

YESTERDAY

- Slow rate of growth
- Bureaucratic
- Protected
- Small markets
- Under-developed infrastructure
- No Product Patent



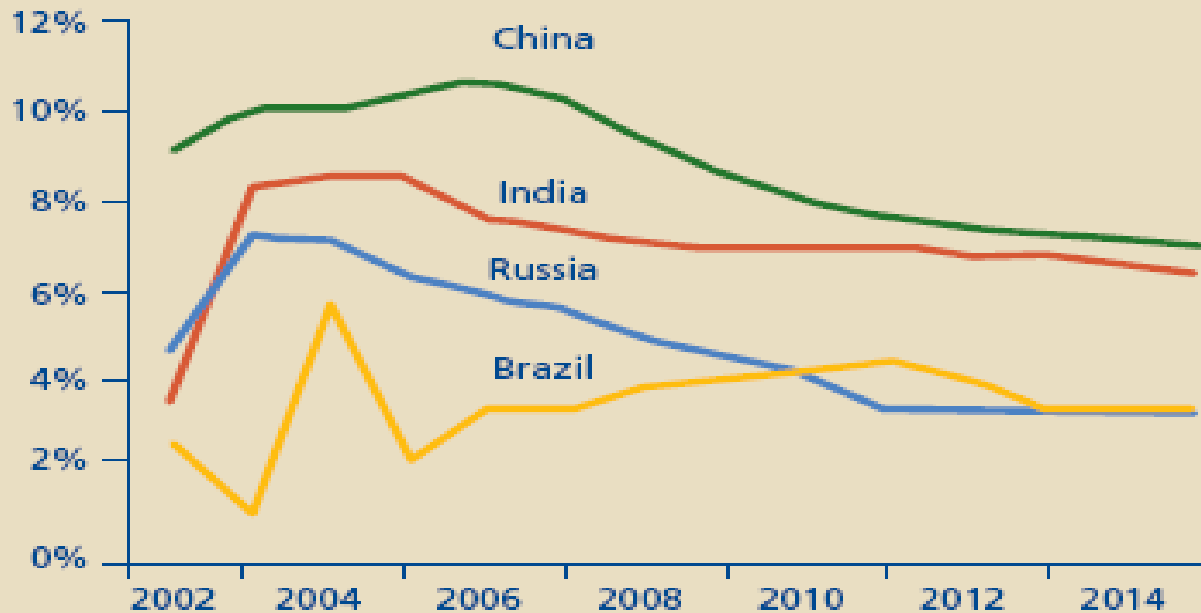
TODAY

- One of the fastest growing world economies
- Less impacted by financial meltdown
- Reasonably proactive
- Significant outsourcing opportunities
- Fast growing markets
- Significant investment in infrastructure creation for industry
- Product patent regime / R&D

India's GDP Growth

Figure 1. Emerging market GDP growth

Real GDP growth



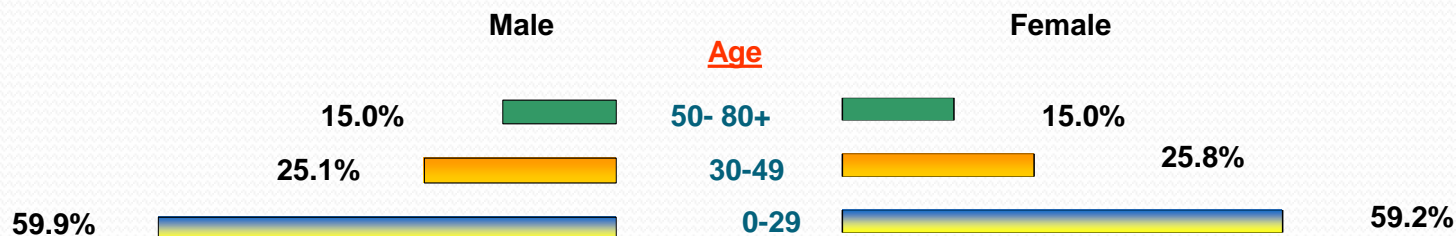
Source: EIU Reports and FAPRI data.

Deloitte : Pharmaceutical market entry in India

**India growing by 6% + despite the current global recession
Indian growth story is still intact**

Demographics & Health Indicators

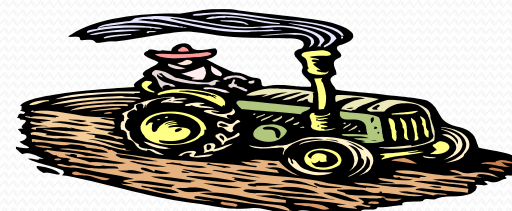
Population: 1.13 billion



👉 **Birth Rate : 22.22 / 1000**



29% : Urban



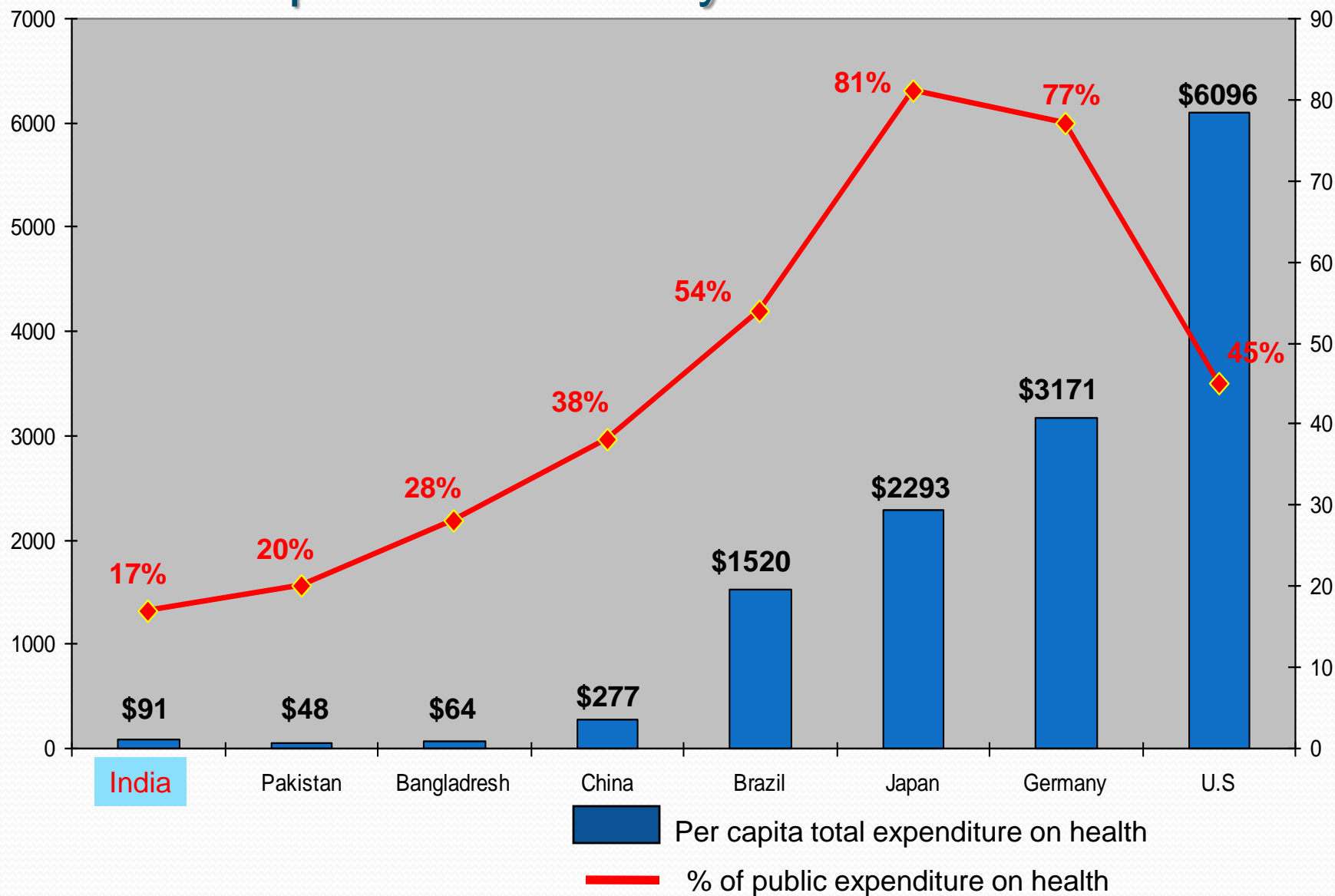
71% : Rural

Literacy rate: 59.5%

Business Language: English

**Yearly addition of 2.46M graduates from
253 universities & 13150 colleges**

India Spends Relatively little on Healthcare



Government Spend on Healthcare

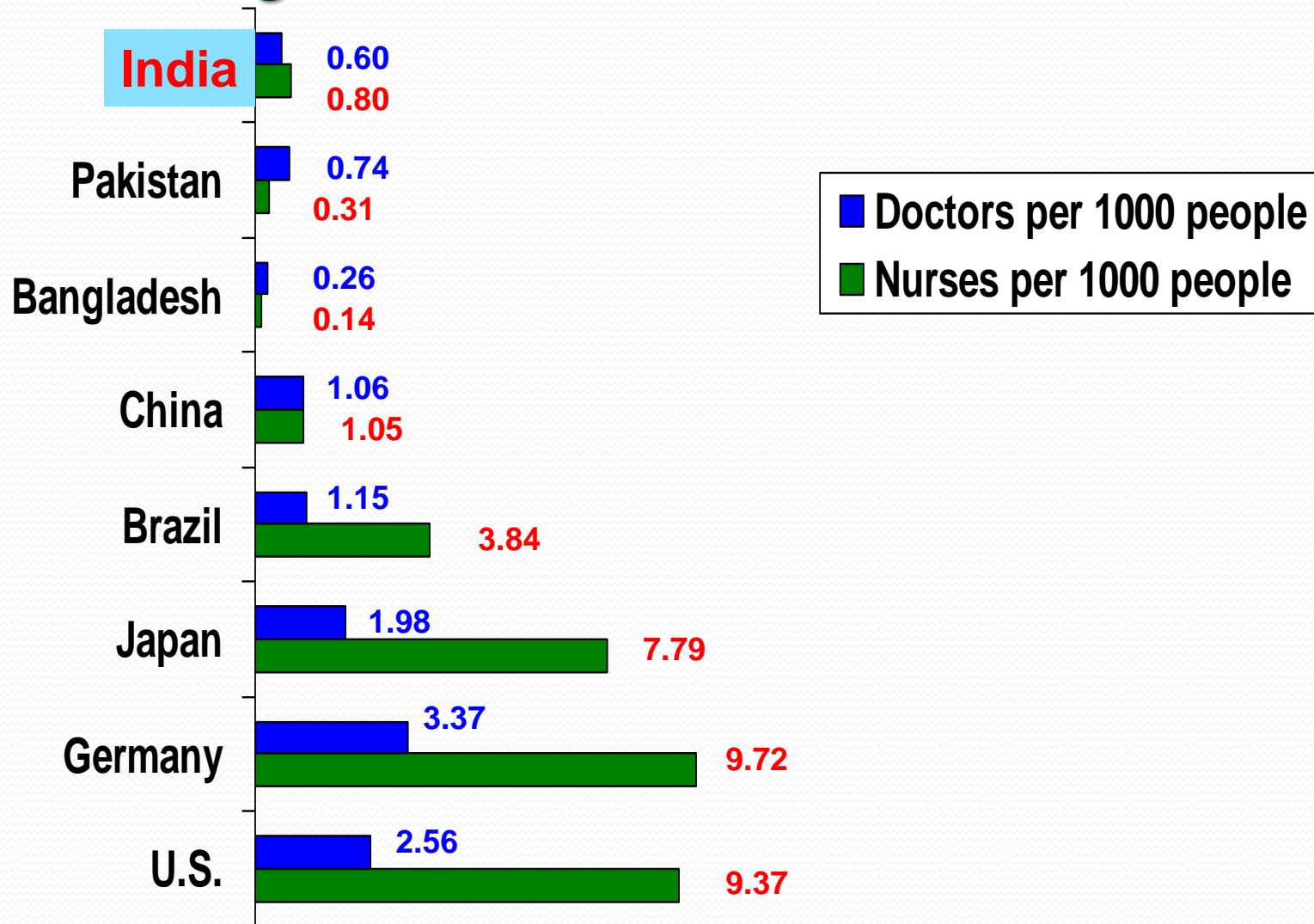
TOTAL EXPENDITURE ON HEALTH

AS A % OF GDP

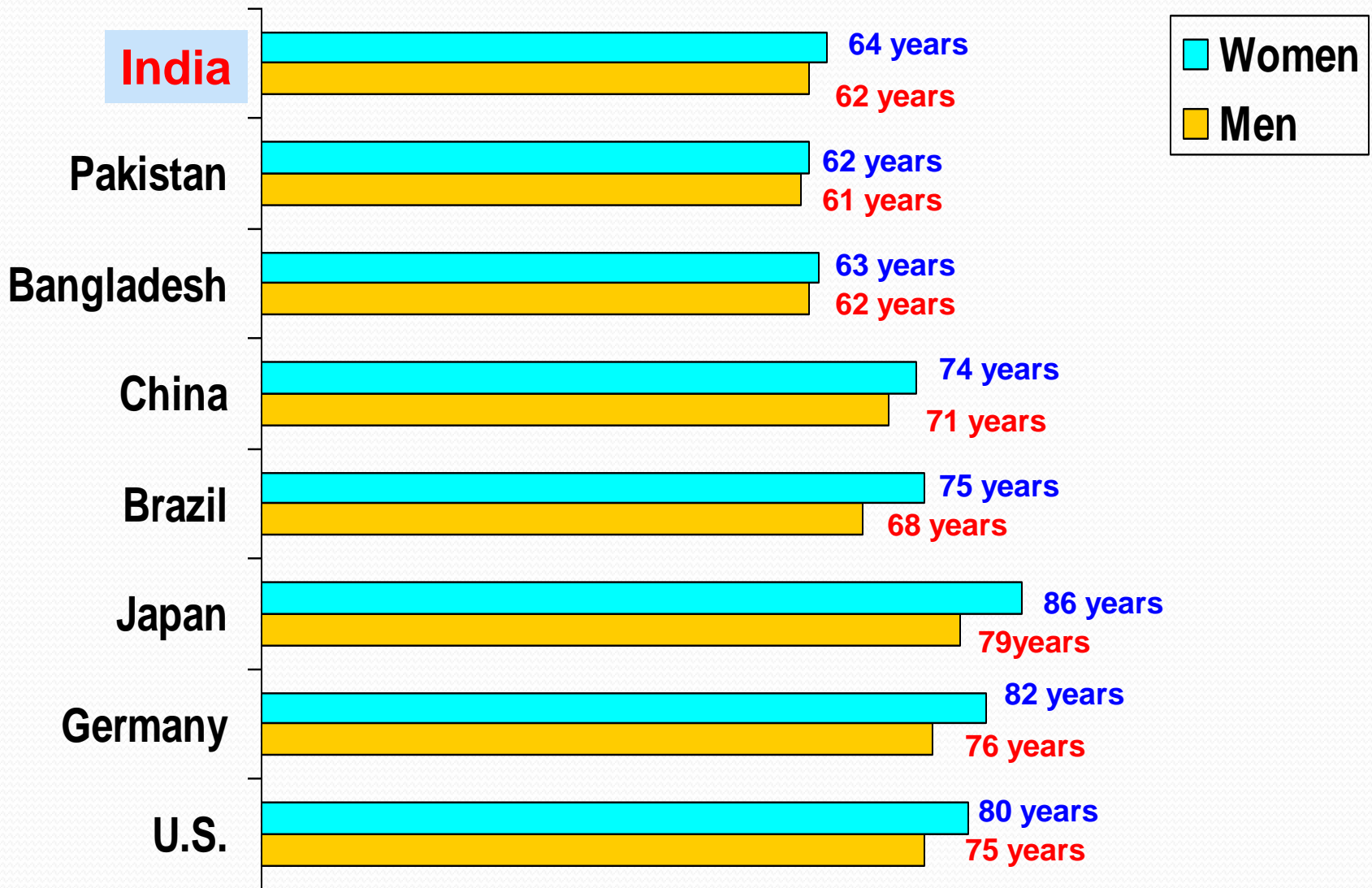
Country	Public Sector	Private Sector	Total	Population (nos in 000')	GDP \$ Bn
India	1.2	3.6	4.8	1103371	1100
Sri Lanka	1.6	1.9	3.5	20743	30
China	2.0	3.6	5.6	1323345	3200
Japan	6.4	1.5	7.9	128085	4300
Switzerland	6.7	4.8	11.5	7252	400
USA	6.8	8.4	15.2	298213	13800
UK	6.9	1.1	8.0	59668	2800
France	7.7	2.4	10.1	60496	2500

Source: World Health Report, 2006, WHO

Shortage of Doctors and Nurses in India



Life Expectancy in India



Source: World Health Organisation

How to Improve Access to Modern Medicines

- ❖ Robust Healthcare Infrastructure
- ❖ Improved Healthcare System and Delivery
- ❖ Introducing a sound Healthcare Financing Model for all

Healthcare Environment

Industry's Value Proposition Remains Strong

**Mortality
improvement**

- Saving lives

**Morbidity
reduction**

- Innovative treatments
- Shortened duration of disease

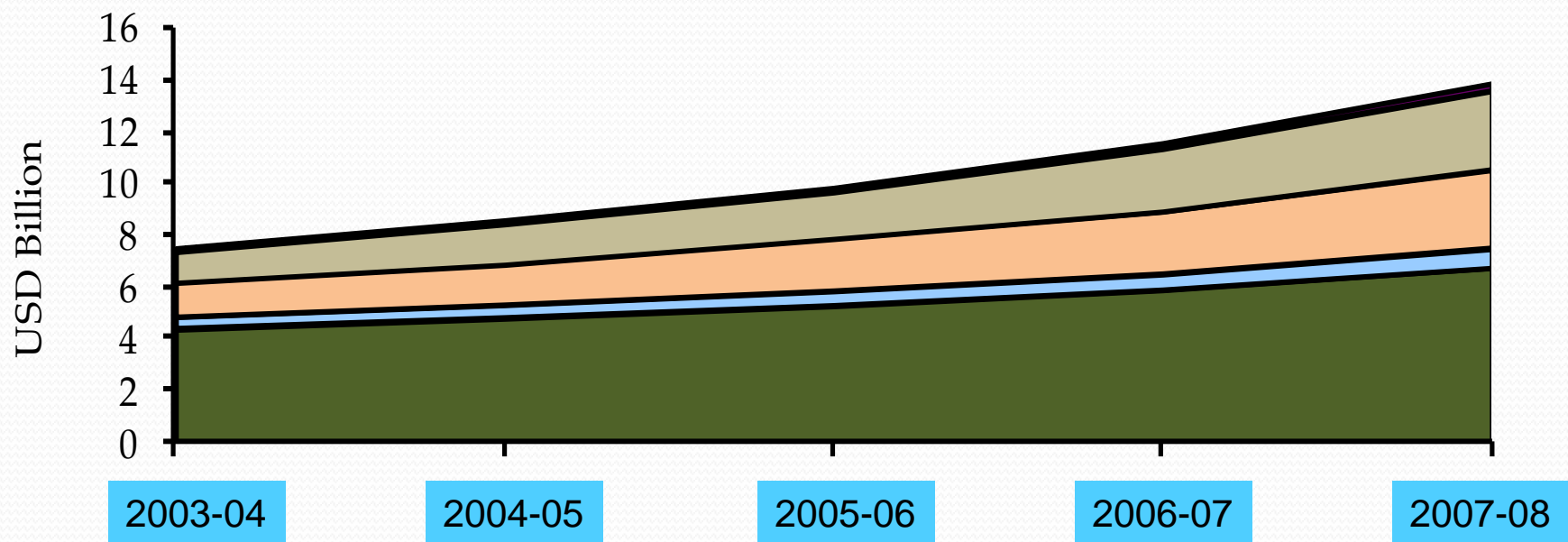
**Improved
quality of life**

- Decrease in chronic disability
- Improved efficacy / side effect profiles

**Positive
economic
impact**

- Reduction in overall healthcare costs
- Improvement in worker's productivity

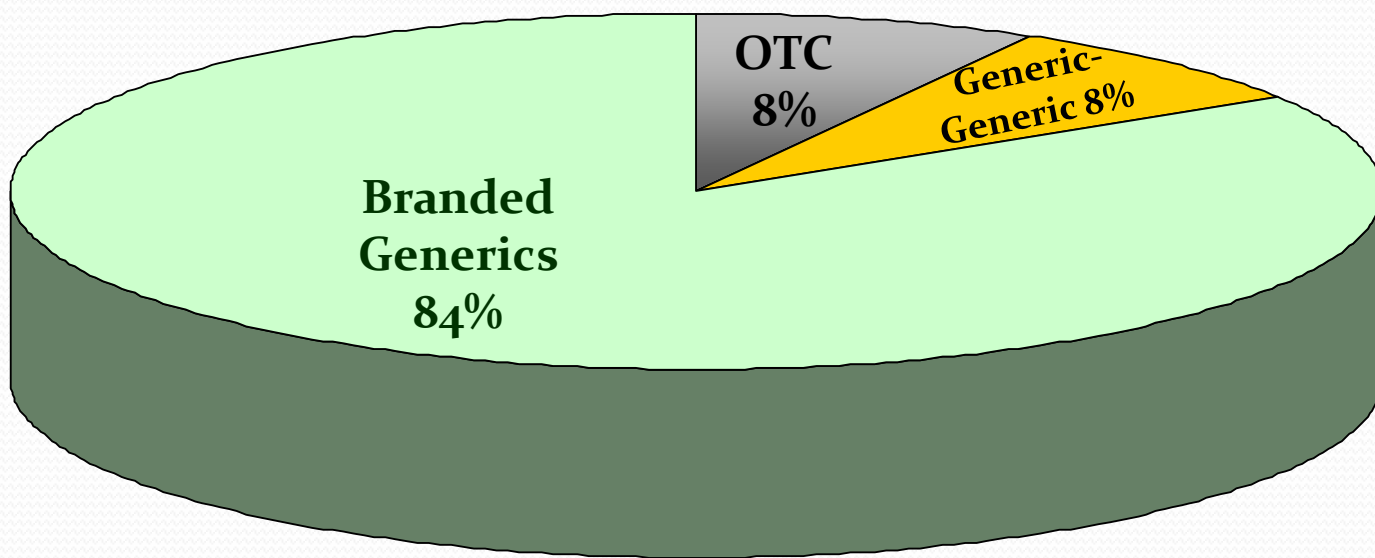
Indian Pharmaceutical Market 2003-2008



■ Contract Research ■ Bulk Drug Exports ■ Formulation Exports ■ Domestic API ■ Domestic Formulation

Key Market Types - 2008

Market Size US\$ 7.85 Billion



Source : ORG IMS

Indian Pharmaceutical Market

Characteristics

- 24112 Brands; 30,000 Companies
- Top 300 brands contributing to 32%
- Top 10 brands contributing to 3.6%
- 13 brands crossed Rs 100 Cr mark
- 70% contribution from the Products launched 1991 – 2006
- Top 25 Companies contribute to 65%



Highly
fragmented
industry

Indian Pharmaceutical Market

Top 10 Companies

Top 25 companies
contribute to
65%

Rank	Company	Sales (Rs. Cr.)	M.S. %	% Growth	No. of Products
	Market	37,716.37	100.0	11.9	
1	Cipla	2,028.80	5.38	13.4	911
2	Ranbaxy	1,855.14	4.92	7.8	565
3	GSK	1,639.40	4.35	9.3	174
4	Piramal Healthcare	1,550.65	4.11	22.2	745
5	Zydus Cadila	1,381.00	3.66	14.7	730
6	Sun Pharma	1,352.49	3.59	18.1	513
7	Alkem	1,197.30	3.17	14.4	633
8	Lupin Labs.	1,037.67	2.75	12.2	531
9	Mankind	1,004.29	2.66	22.7	415
10	Aristo	910.41	2.41	14.9	246

Indian Pharmaceutical Market

Top 10 Products

Top 300
brands = 32%,
Top 10 brands
= 3.5%

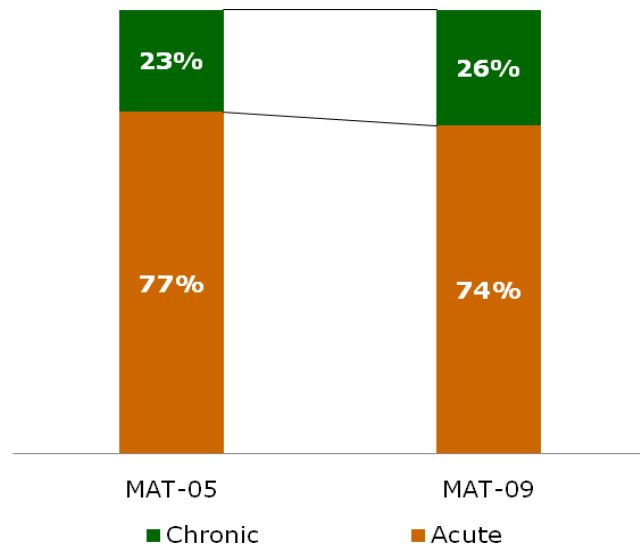
Rank	Products	TG	Company	Value (Rs. Cr.)	%GR
1	Corex	Cough Preparation	Pfizer	169.99	5.6
2	Voveran	NSAID	Novartis	156.02	8.1
3	Phensedyl	Cough Preparation	Piramal Healthcare	153.38	29.9
4	Human Mixtard 30/70	Insulin	Abbott	126.19	4.3
5	Augmentin	Amoxy+Clav	GSK	125.10	11.5
6	Taxim	Cephalosporin	Alkem	120.22	2.5
7	LIV 52	Ayurvedic	Himalaya	119.08	-1.8
8	Zifi	Cephalosporin	FDC	118.65	7.0
9	Dexorange	Haematinic	Franco Indian	117.71	12.5
10	Becosules	Vitamin	Pfizer	115.95	26

Changing Disease Patterns

Increase in life expectancy and rapid urbanization leading to epidemic in chronic diseases

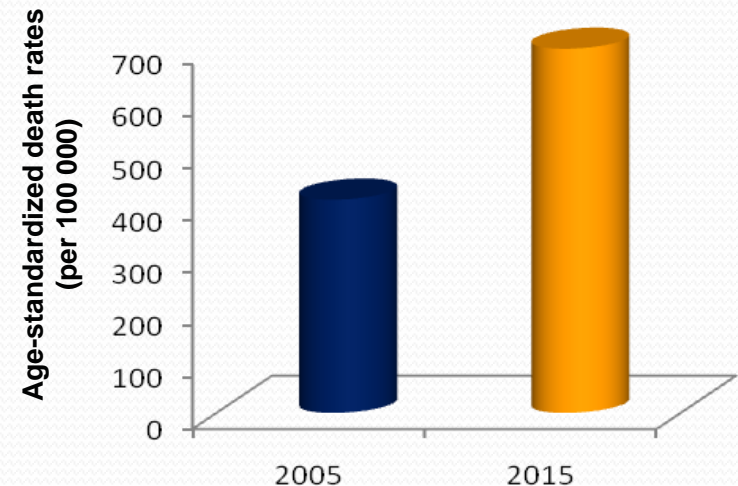
Therapy Transition in IPM

Acute to Chronic Therapy Ratio



WHO – Chronic Disease Projection⁻²

Death rates due to Cardiovascular Disease

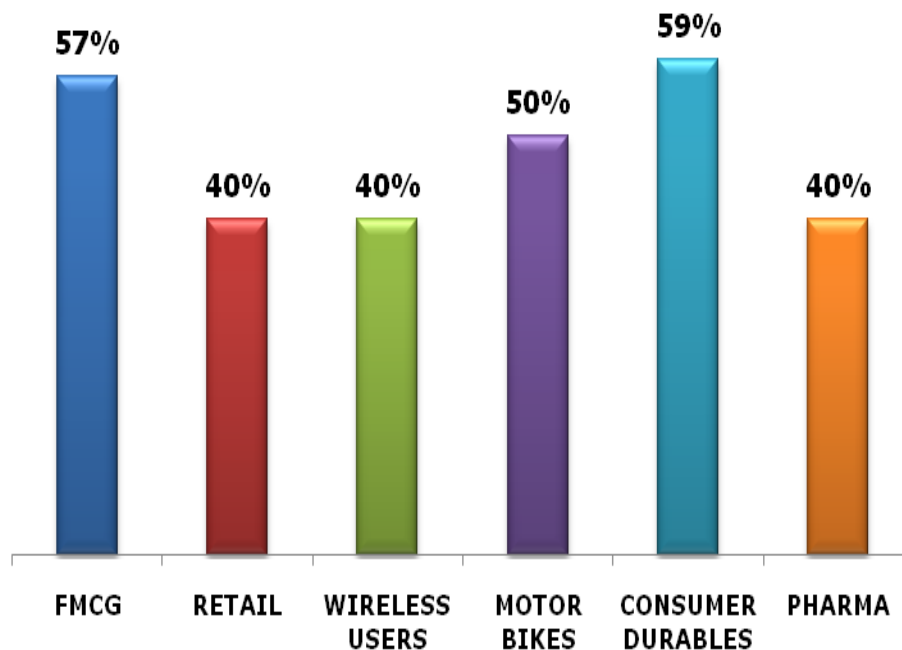


- Projected number of Deaths attributed to **Chronic disease 3.78 mn** (40.4% to all deaths) in Y-1999 to **7.63 mn** (66.7% of all deaths) in Y2020
- Diabetes number up from estimated 19.3 mn in Y 1995 to 57.2 mn in Y2025

Rural Economy – The Next Growth Wave

Rural and small town economy , which accounts for 60% of India's income has remained insulated from the economic slowdown

Rural Marketing Association of India



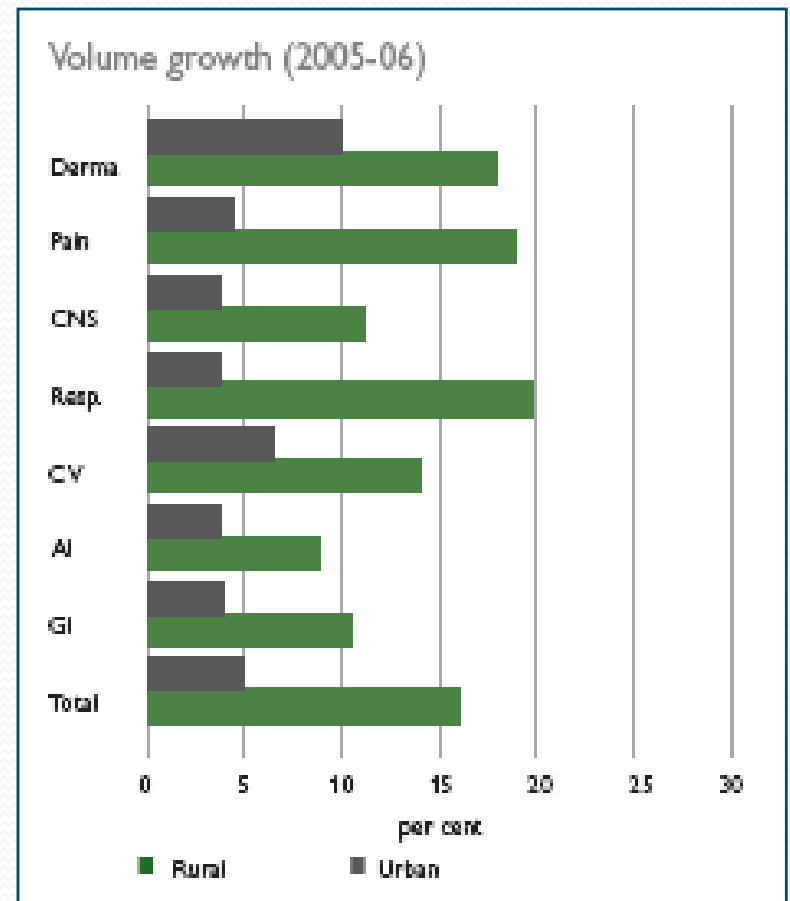
Market contribution from Extra urban market

Contribution from Extra urban market would take further leap as Government allocating US\$ 2.35 billion for the National Rural Health Mission (NRHM) in the interim budget 2009.

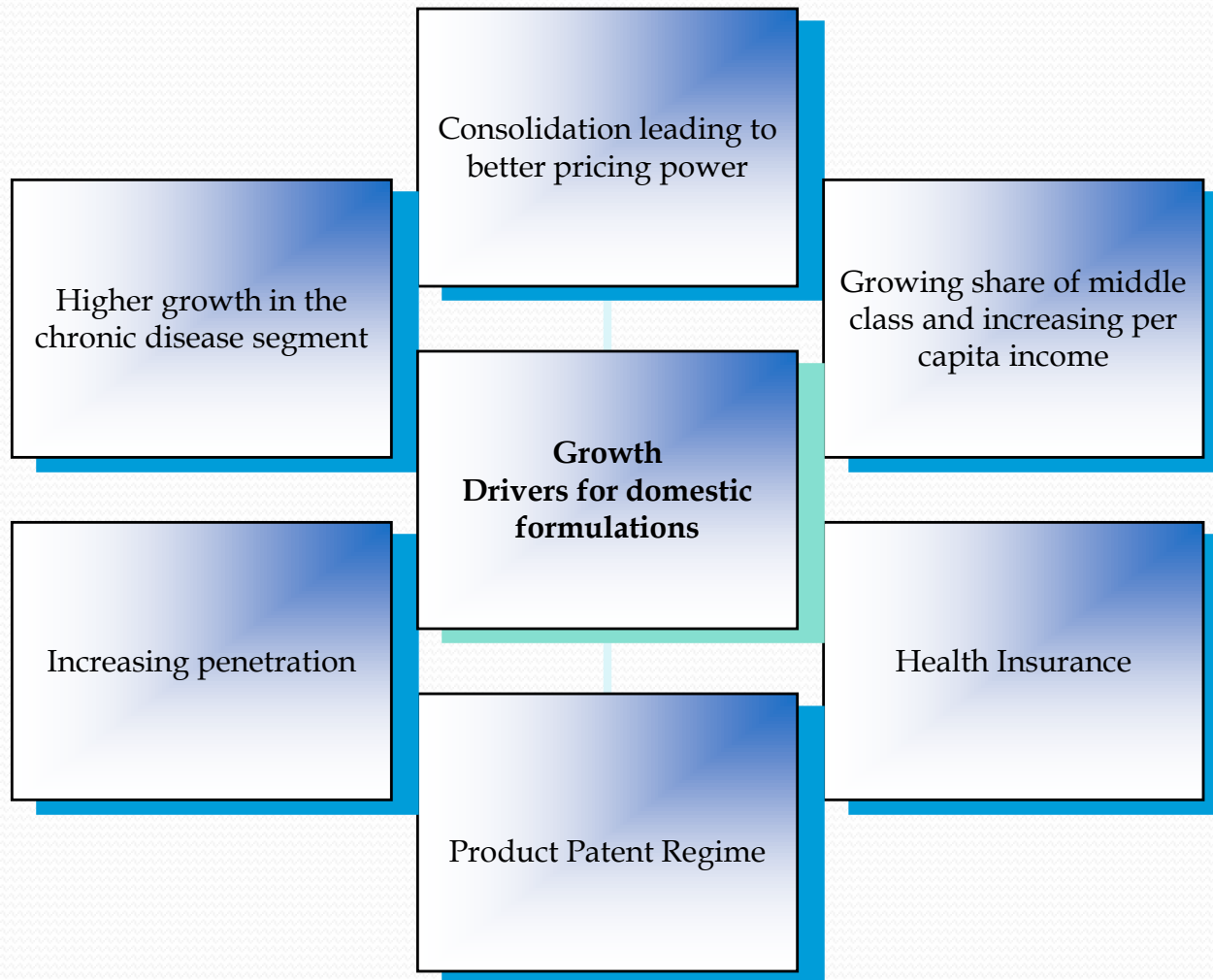
Rural Market – Opportunities at the Bottom of the Pyramid

- ❖ 65% of population in rural areas with limited or no access to healthcare facilities
- ❖ Growing significantly higher than urban markets
- ❖ GPs driven segments registered high growth compared to the specialist-driven segments
- ❖ Non-communicable diseases such as cancer, blindness, mental illness, hypertension, diabetes, HIV/AIDS, accidents and injuries are on rise

Source: Enam

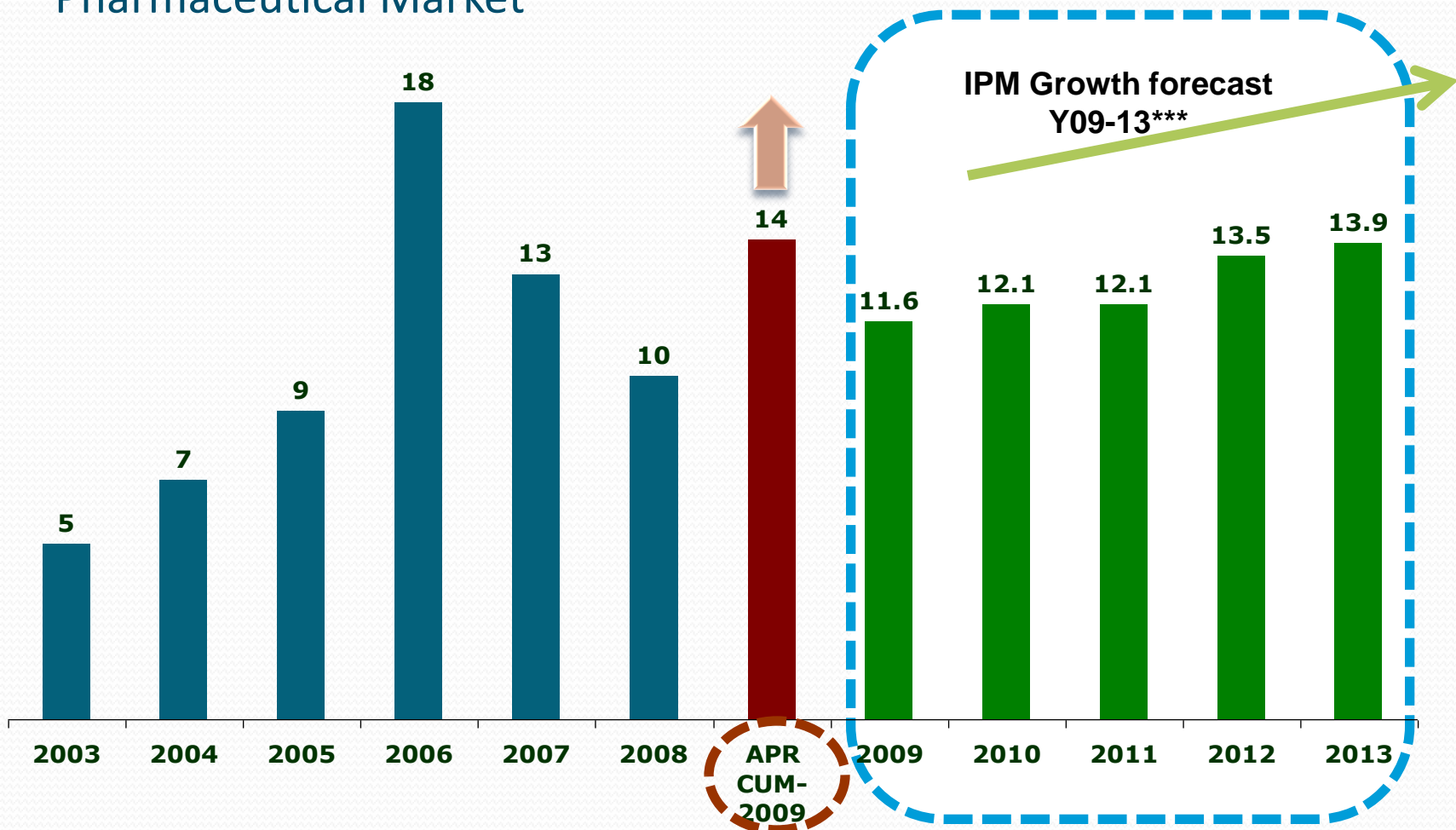


Key Growth Drivers



IPM Way Forward

Fundamental growth drivers continue to hold strong promise for Indian Pharmaceutical Market

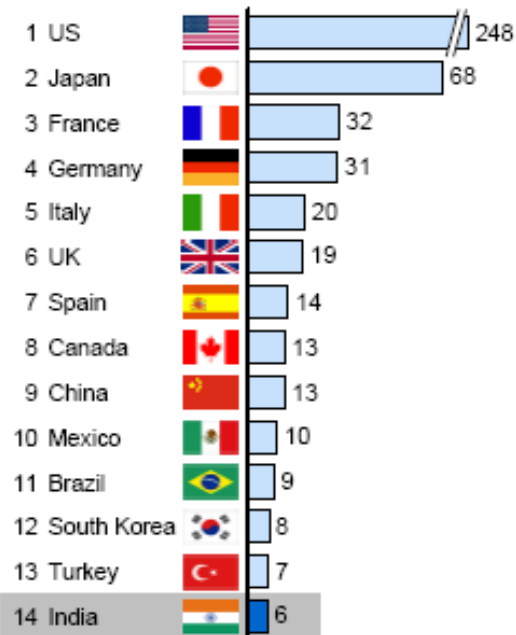


McKinsey Projections

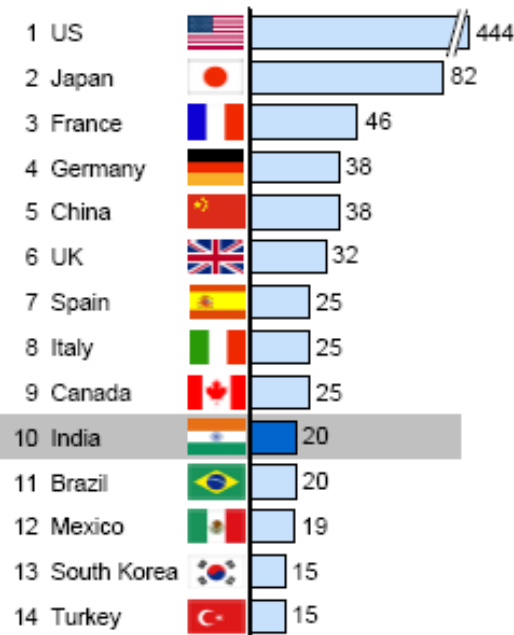
INDIA IS PROJECTED TO BE THE 10th LARGEST MARKET BY 2015

US\$ billion

Top 14 pharmaceuticals markets, 2005



Top 14 pharmaceuticals markets, 2015



Source: IMS World Review; analyst projections; McKinsey India Pharmaceutical Demand Model

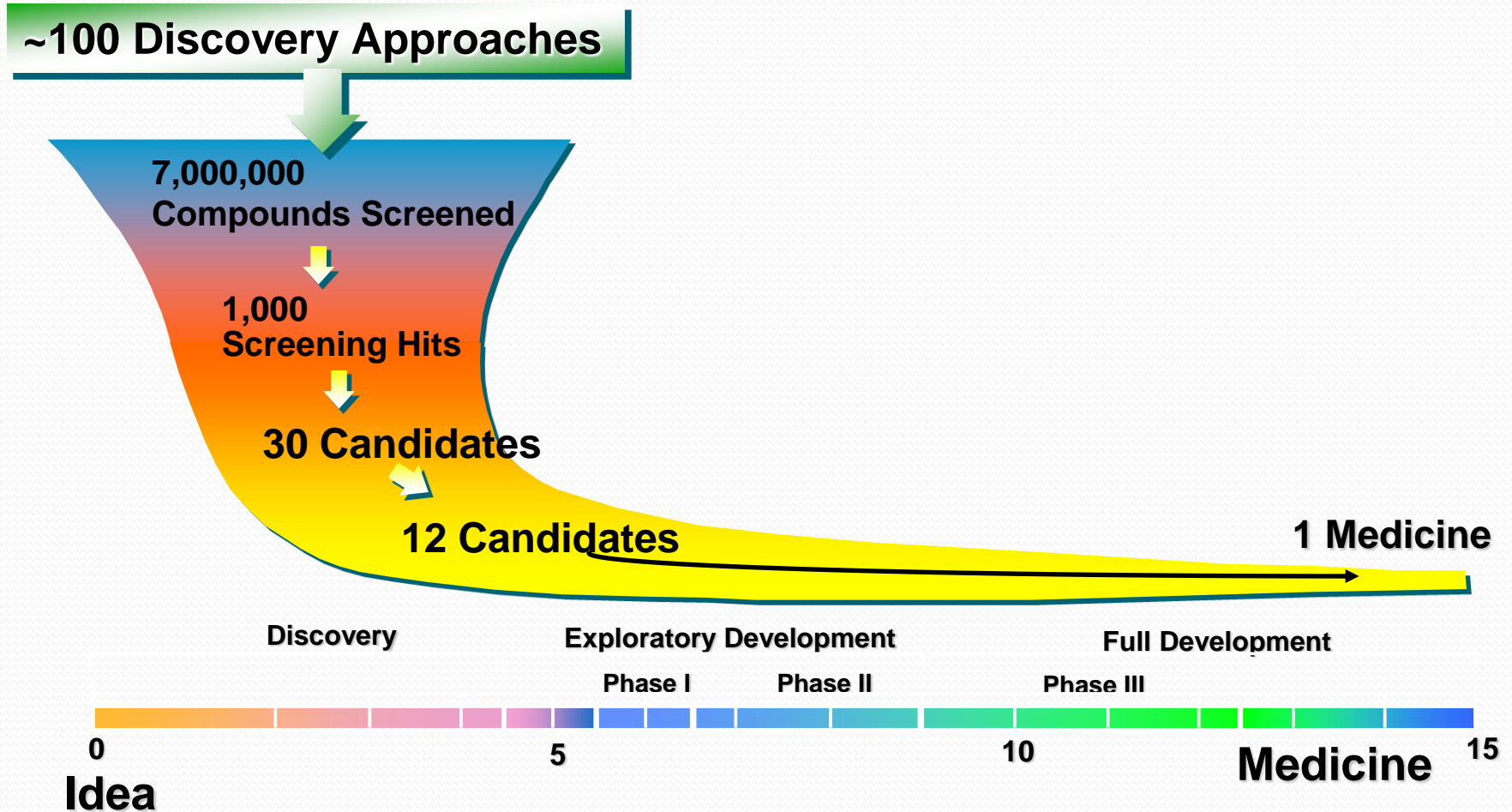
Key Assumptions:

1. GDP to grow by 7.3% CAGR till 2015
2. 2 Mn more hospital beds by 2015
3. 0.45 Mn more doctors by 2015
4. Health insurance coverage to double to 220 Mn persons

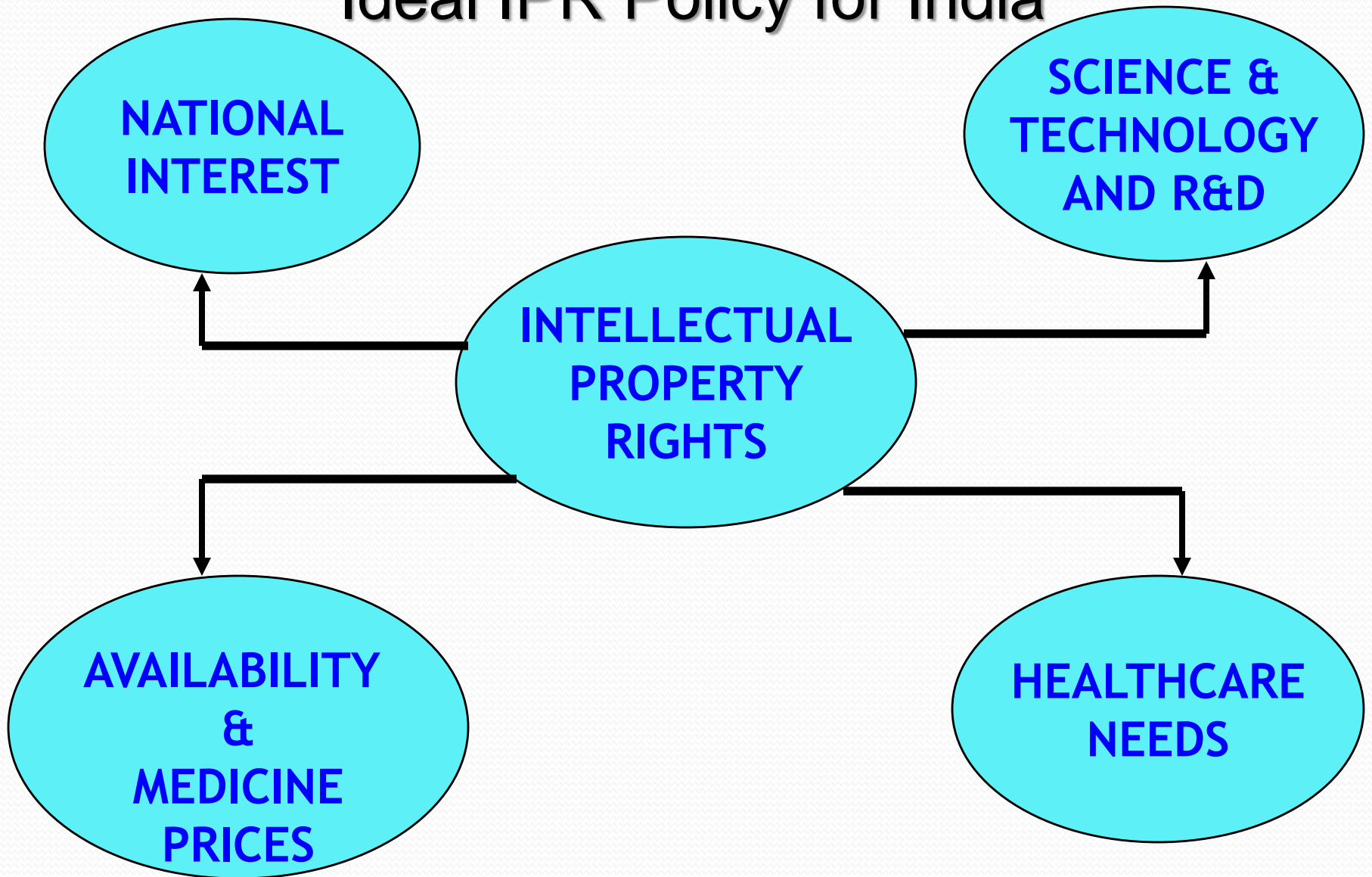
Innovation For Newer Therapies ...

- ❖ Unmet medical needs
- ❖ Reduced overall treatment costs
- ❖ Shortened or eliminate hospital stay
- ❖ Increased compliance
- ❖ Reduced side effects
- ❖ Increased productivity and less absenteeism

Attrition in the R&D Process



Ideal IPR Policy for India

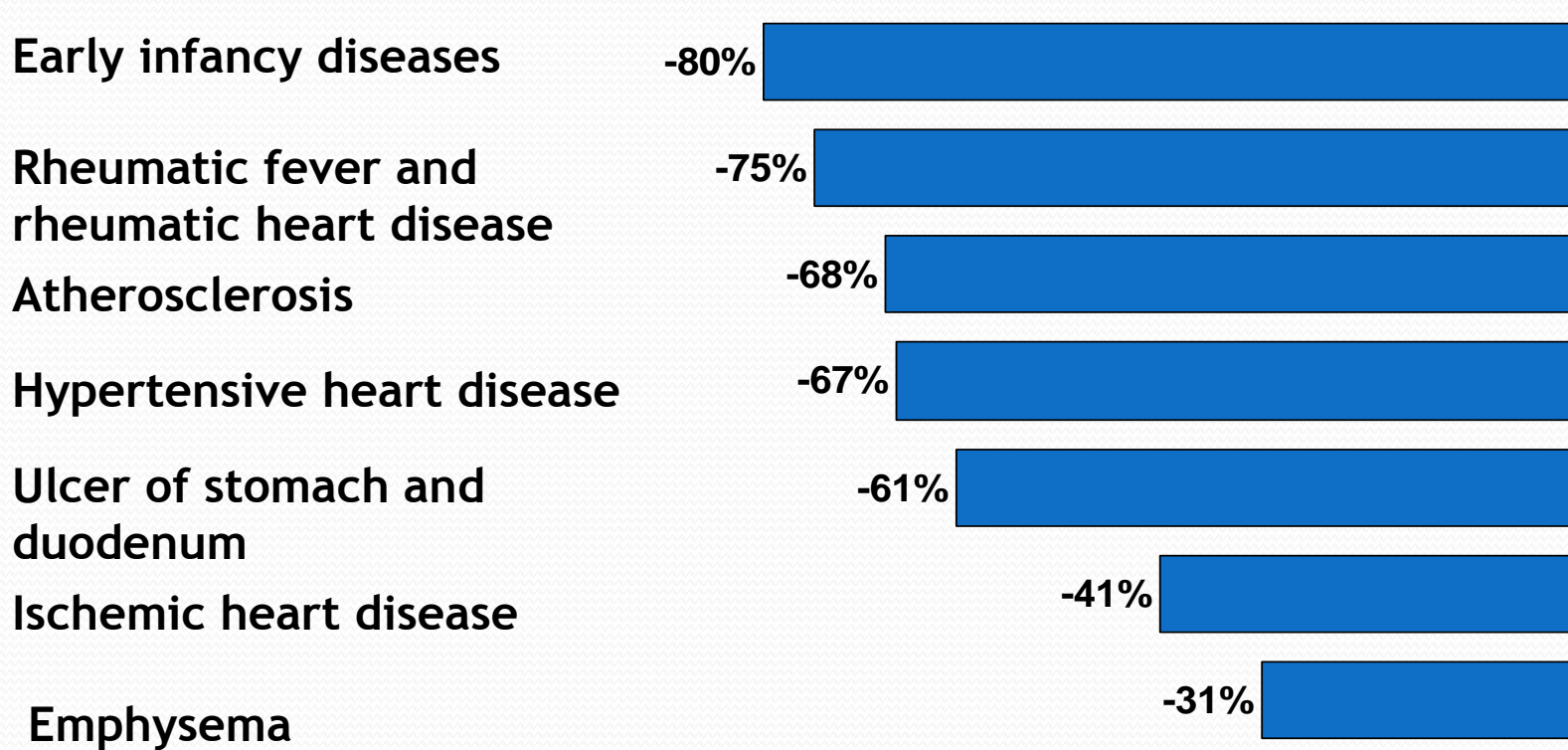


MNCs Focus On Developing Countries Diseases

Disease	Companies
TUBERCULOSIS	AstraZeneca, Bayer, GSK, Lupin, J&J, Novartis, Otsuka, Pfizer, Sanofi-Aventis, Crucell
MALARIA	BMS, GSK, Novartis, Pfizer, Ranbaxy, Sanofi-Aventis, Sigma Tau, Crucell
SLEEPING SICKNESS (African Trypanosomiasis)	Bayer, Sanofi Aventis
SHISTOSOMIASIS	Pfizer
KALA AZAR (Leishmaniasis)	Zentaris, GSK
DENGUE	Novartis, GSK, Sanofi Aventis
RIVER BLINDNESS (Onchocerciasis)	Pfizer

Major Achievements of Innovative Drug Therapy

Drop in death rate for diseases treated with pharmaceuticals 1965-1999



Indian Patent Law

Areas Of Concern

- ❖ Definition of Patentability
- ❖ Patent Linkage/Enforcement of Patent Act
- ❖ Data Protection

Medicines V/s. Commodity Prices

Per day treatment cost for common ailment	Rs.	Average cost of common goods & services of daily consumption (one time)	Rs.
Common headache	1.00	Cup of tea	5.00
Common allergy	0.75	Thali meal	30.00
Common cold	1.50	Milk (half litre)	12.00
Gas trouble (antacid)	3.00	Egg	2.50
Asthma	0.45	Banana	2.00
Diarrhoea	1.20	Suburban train ticket (return)	8.00
Amoebiasis	1.10	Bus fare (minimum)	3.00
Diabetes	0.70	Inland letter	2.50
Blood pressure	1.75	Newspaper	2.00
Angina (chest pain)	0.55	Public telephone call	1.00
Arthritis	1.50		

Indian Pharma Market is Extremely Competitive

Large number of Companies in the Industry...

- 10,000+ listed and unlisted companies in the market

40 or more brands in each Molecule

Molecule	Number of Brands
Ciprofloxacin	101
Gatifloxacin	67
Cetirizine	83
Diclofenac	67
Rabeprazole	49
Atenelol	49
Glimeperide	40

– Intense competition – ensures prices are low

Healthcare - Pricing

More affordable than in neighbouring countries

More affordable than nearby countries

	Drugs, Dosage form and Strength	Pack	Prices in India (INR)	Prices in Pakistan (INR)	Prices in Indonesia (INR)	Prices in USA (INR)	Prices in UK (INR)
I. ANTI-INFECTIVES							
1	Ciprofloxacin - HCL 500 mg tabs	10's	98.60	423.86	393.00	2352.35	1185.70
2	Norfloxacin 400 mg tabs	10's	48.49	168.71	130.63	1843.66	304.78
3	Ofloxacin 200 mg tabs	10's	87.50	249.30	204.34	1973.79	818.30
4	Cefpodoxime Proxetil 200 mg tabs	6's	188.57	357.32	264.00	1576.58	773.21

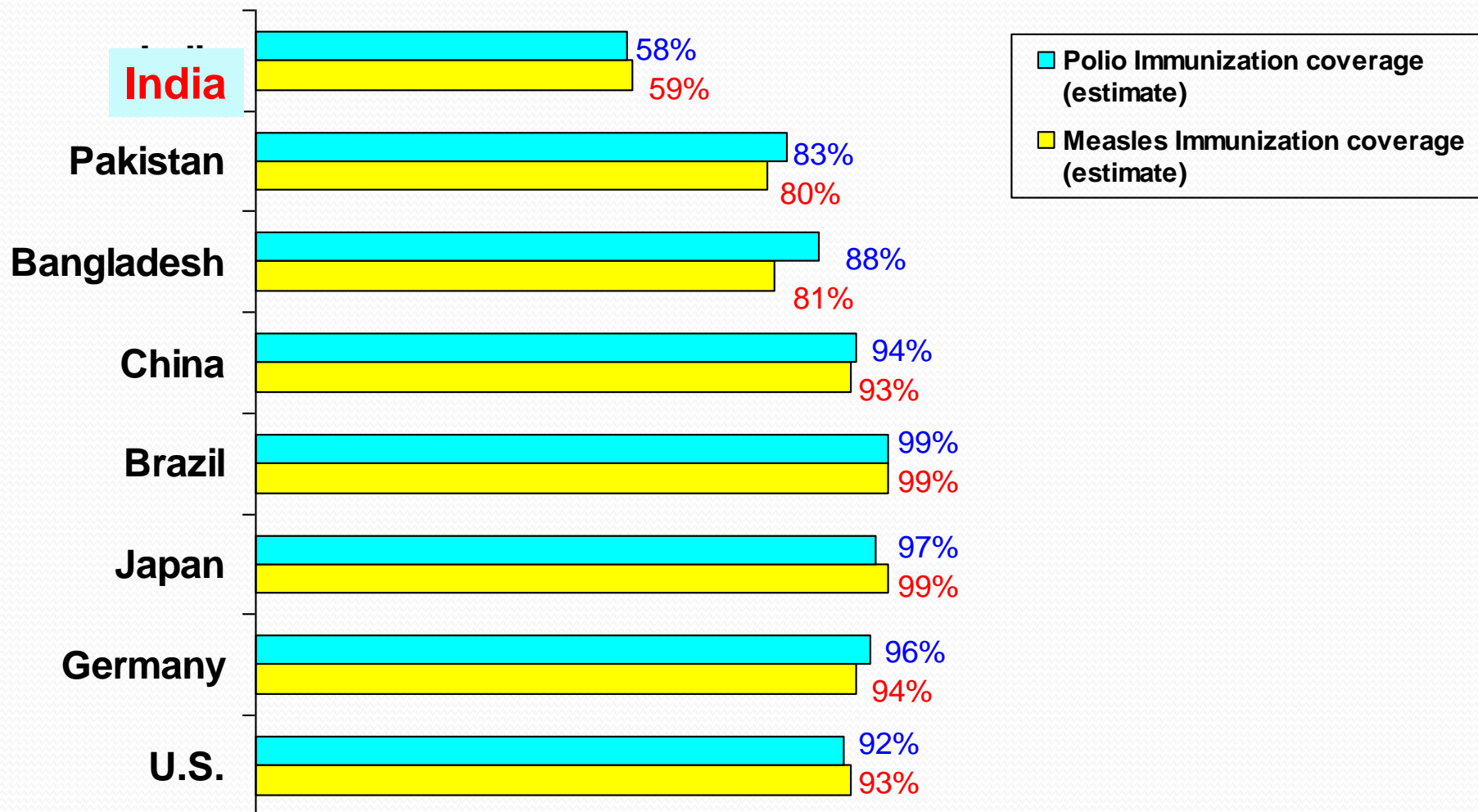
Healthcare - Pricing

contd...

More affordable than in neighbouring countries

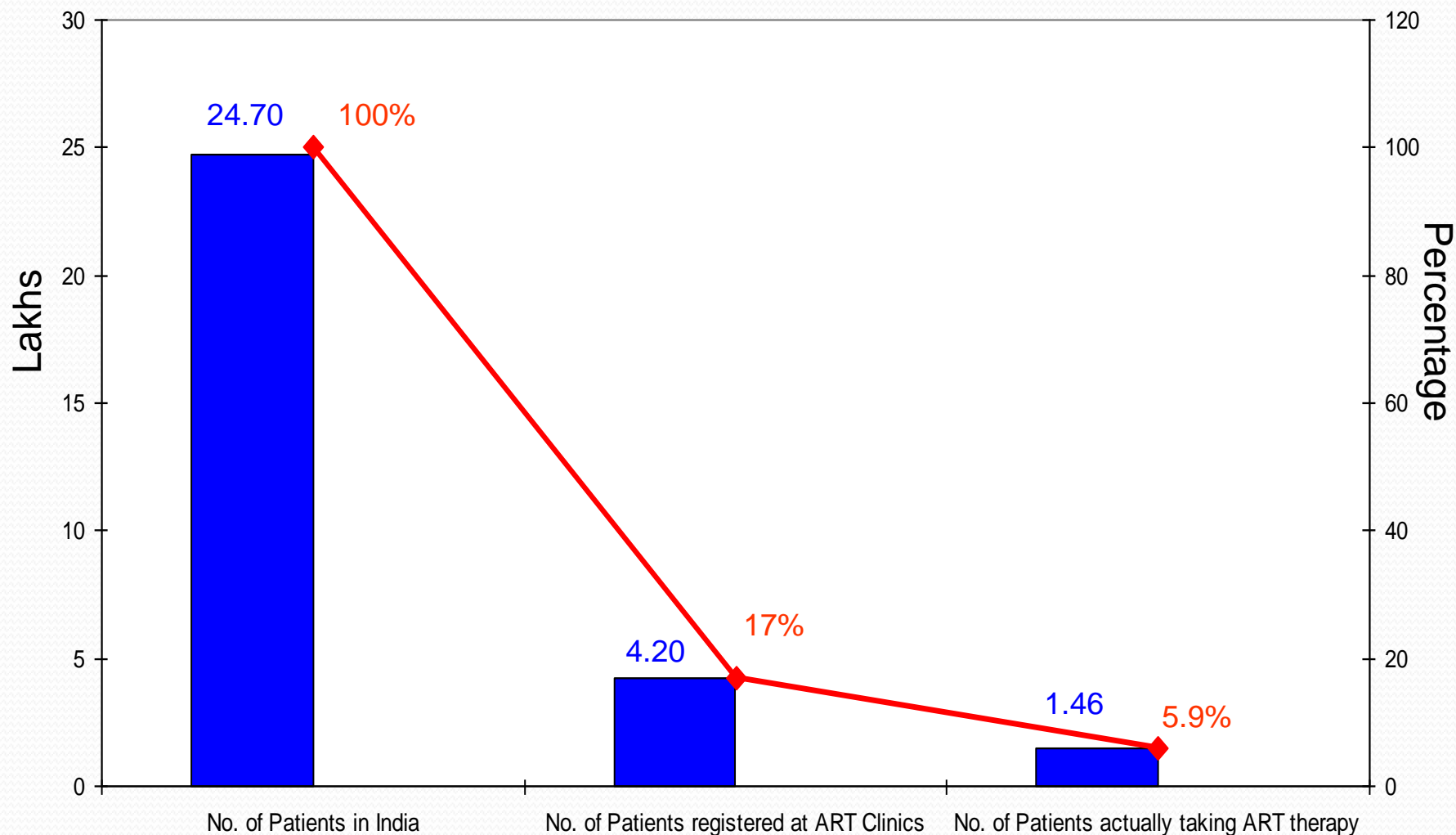
	Drugs, Dosage form and Strength	Pack	Prices in India (INR)	Prices in Pakistan (INR)	Prices in Indonesia (INR)	Prices in USA (INR)	Prices in UK (INR)
II. NSAIDS							
1	Diclofenac Sodium 50 mg tabs	10's	14.53	84.71	59.75	674.77	60.96
III. ANTI-ULCERANTS							
1	Ranitidine 150 mg tabs	10's	9.84	74.09	178.35	863.59	247.16
2	Omeprazole 30 mg Caps	10's	53.50	578.00	290.75	2047.50	870.91
3	Lansoprazole 30 mg Caps	10's	59.00	684.90	226.15	1909.64	708.08

Despite being free Many Children not getting Primary Vaccination



Source: World Health Organisation

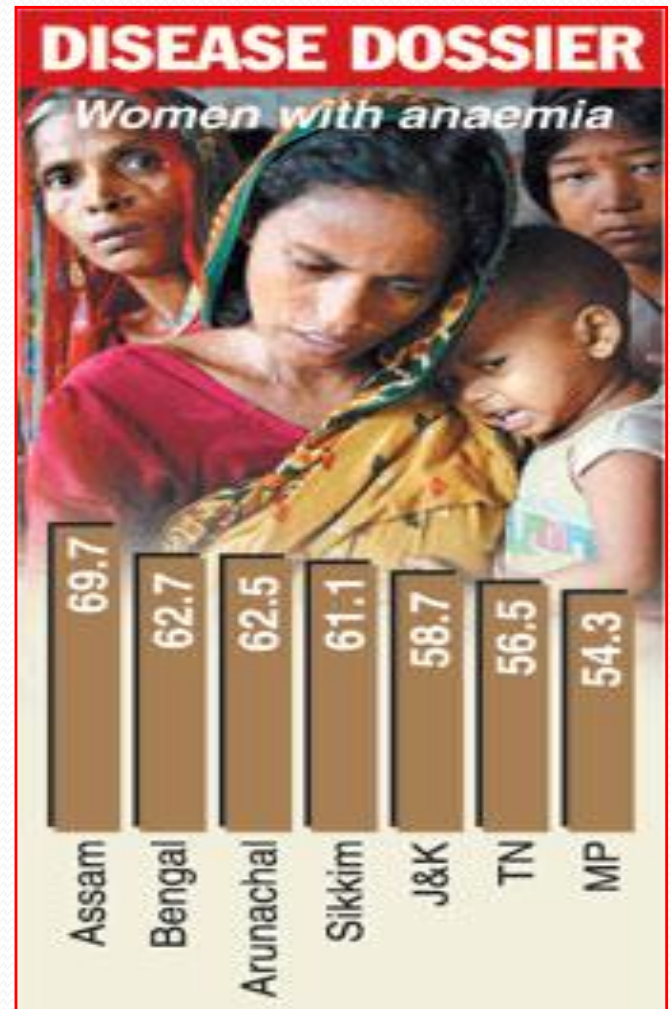
Despite being free to HIV Patients - Poor Access to ART



Source: NACO, INDIA

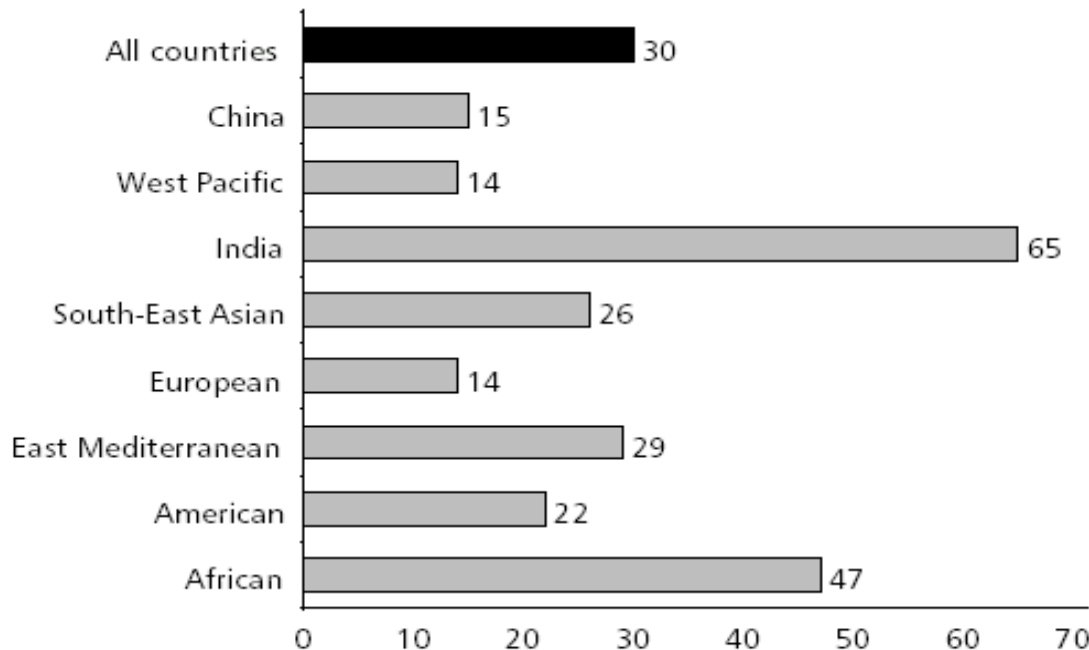
The Cost of Iron Supplements are Rupee One only

- ❖ Neglected anaemia problem lowers productivity of nations
- ❖ 200 million Indian women and more than 80% of children have iron deficiency anaemia.
- ❖ Lack of rural availability for delivery failure even though the costs are extremely low
- ❖ It is a shame that the situation has not improved since independence.



Access to Modern Medicine – A Challenge

Percentage of WHO regions lacking access to essential medicines



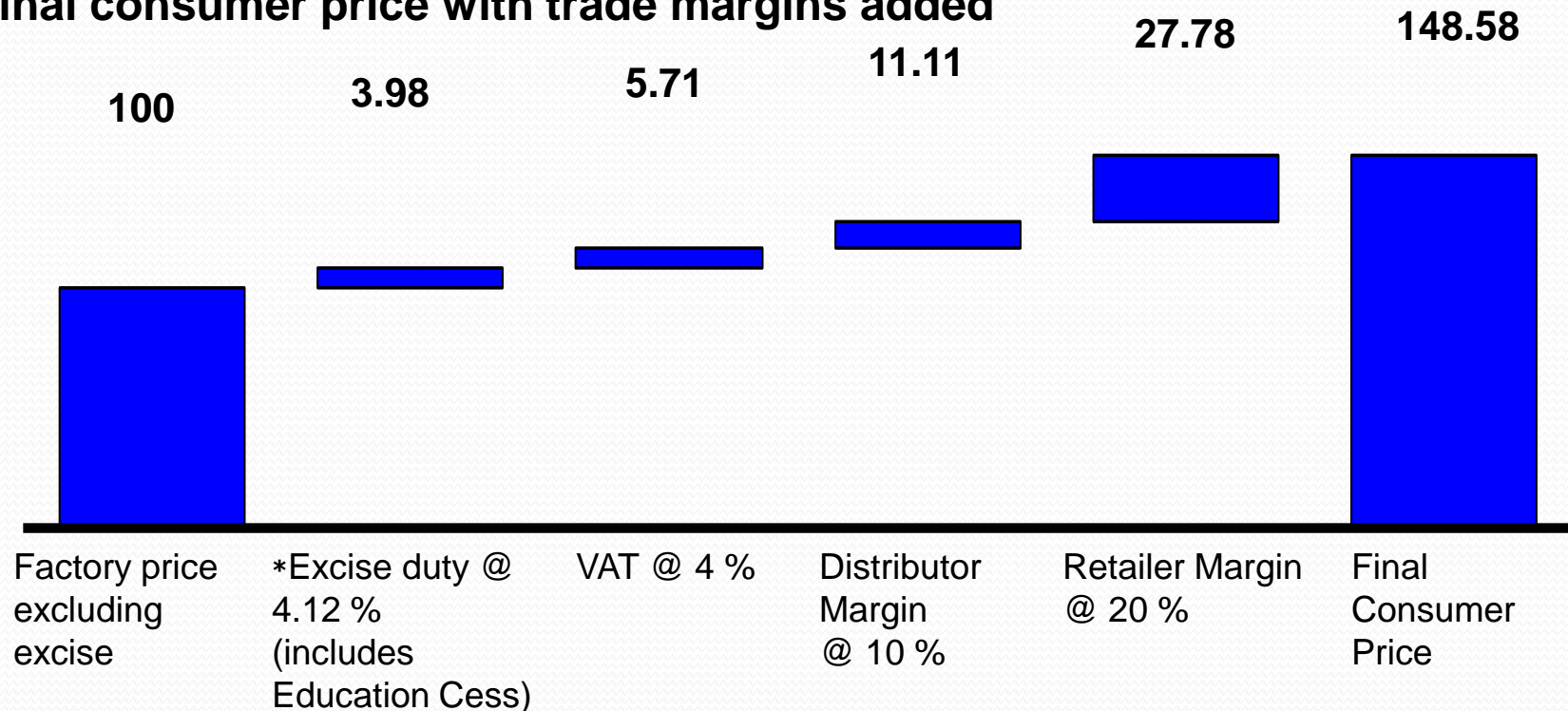
- This 350 mn. people are largely clustered around urban centres where health care facilities exist

Source: Network,
November 2004

High Transaction Costs Inflate the Final Price

Manufacturer gets only 2/3 rd of price paid by consumer.

Final consumer price with trade margins added



* Note: Abatement 35%

Customs duty borne by manufacturer is not reflected

Price Controls / Monitoring

- 100% of the industry currently under price control.
- 20% cost-based price control on Scheduled and 80% price monitoring on Non-Scheduled (para 10b).

Separate Pricing from Access

- Progressive Pricing Policy which is free from price control to enable investment in R&D
- Make medicines affordable to those who cannot afford
- If kerosene, fuel, electricity and agriculture can be subsidized for poor, **why** not medicines?
- Government and industry should work in PPP model



Thank You