Public Health Care in India

State Institute of Health and Family Welfare, Jaipur

Infrastructure H R & Performance Issues


CANADA
UNITED STATES
RUSSIA
CHINA
INDIA
BRAZIL
AUSTRALIA
NORTH ATLANTIC OCEAN
SOUTH ATLANTIC OCEAN
INDIAN OCEAN


Indian States
Jammu & Kashmir
Himachal Pradesh
Punjab
Haryana
New Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Meghalaya
Arunachal Pradesh
Assar
Nagaland
Manipur
Mizoram
Tripura
Gujarat
Madhya Pradesh
Bengal
Orissa
Maharashtra
Andhra Pradesh
Goa
Karnataka
Kerala
Tamil Nadu

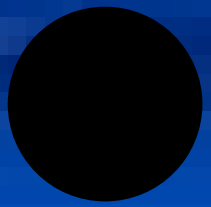
Health & Disease

Disease

Health

Doctors, Drugs, Diagnostics

Death



Disability

Health ?

State of complete physical mental and social and spiritual well-being and not merely the absence of disease or infirmity.

System ?

A set of interrelated and independent parts designed to achieve a set goals.

Health System ?

- Traditionally- based on capacity indicators & activities. (e.g. Programs, hospital beds, Physicians & Nurses)

Health System ?

Structure & functions of a Country's MoH having

- ✓Resources,
- ✓Management
- ✓Organization
- ✓Economic support and
- ✓Service delivery as it's main component

Public Health

- What is public health?
- Why does it matter?
- How is the public health system structured?
- What does the public health system do for people?
- How is it done?

Core functions of Public Health

- Monitoring health situation
- Disease surveillance
- Health promotion
- Regulations
- Partnerships
- Planning & Policies
- HRD
- Reducing impact of emergencies on health

Why study Health Systems

- ✓ Provides perspective to understand self
- ✓ Prompts and tutors
- ✓ Observe & examine strategies for achieving equity under different situations
- ✓ Draw generalizations
- ✓ System's influence on health status

Determinants of Health System

- **Economic-**
  - Affordability?
  - Availability?
- **Political**
  - Priorities
  - Appropriateness?
  - Accessibility
  - Equity
- **Cultural**
  - Acceptability
  - Utilization
  - Participation

National Health Systems

Issues :

- Generalizations of performance & trend
- Political dimensions-Dynamism
- Forces deciding character
- Impact on Health
- Relevance to human rights

Forces asking for a change in System

a. New emerging diseases,
b. Changing disease profile,
c. Technical and diagnostic advances,
d. Longevity of life,
e. Expectations of people,
f. Subsidies and cross-subsidies
g. Increasing non-plan expenditure,
h. Competing priorities and
i. Improving awareness among people, and
J. Rising Cost of health care delivery

Problems:

- Indirectly related to health
  - Environment
  - Education
  - Empowerment

- Directly affecting Health
  - Diseases
    - Communicable
    - Non Communicable
    - New emerging
  - Fertility
    - Population
    - Growth rate
    - Total Fertility
  - Nutrition
    - MaInutrition
    - Obesity

Problems–Why

- Access
- Availability
- Utilization

Policies:

- NHP-1983…….NHP-2002
- NPP-2000

NHP-1983

- Re-orientation of Medical education
- Re-structuring and Re-organizing the then existing health care services
- Population stabilization
- Re-orientation of existing health personnel
- Role of practitioners of ISM in Health care delivery
- Goals -
  - Achievement?
  - CDR & Life expectancy

NHP–2002

- Averages of health indices hide disparities
- large gap in facilities still persists
- shortfall in the number of SCs/PHCs/CHCs is of the order of 16 percent. (CHC-58%)
- 'Vertical' implementation structure -extremely expensive
- the rural health staff has become a vertical structure exclusively for the implementation of family welfare activities
- Low utilization- 20 % seeking OPD services, <45 percent seeking indoor treatment, go to public hospitals.

- Integrated disease control network
- Increase in postgraduate seats in Public Health & Family Medicine
- Decentralization-Role of LSG/ NGO
- Medical Grants commission
- legislation for regulating clinical establishments/medical institutions by 2003

Goals to be achieved by 2000-2015

Eradicate Polio and Yaws	2005
Eliminate Leprosy	2005
Eliminate Kalazar	2010
Eliminate Lymphatic Filariasis	2015
Achieve Zero level growth of HIV/AIDS	2007
Reduce Mortality by 50% on account of TB, Malaria and Other Vector and Water Borne diseases	2010
Reduce Prevalence of Blindness to 0.5%	2010
Reduce IMR to 30/1000 And MMR to 100/Lakh	2010
Increase utilization of public health facilities from current Level of <20 to >75%	2010
Establish an integrated system of surveillance, National Health	2005

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

Five year Plan	Period	Major areas addressed
I	1951-55	Infrastructure
II	1956-61	Industry
III	1961-66	Panchayat & Green Revolution
IV	1969-74	Expenditure , Agriculture
V	1974-79	Agriculture
VI	1980-85	Health , Technology
VII	1985-89	Poverty, Agriculture & Justice
VIII	1992-97	Pop., Agriculture , Poverty
IX	1997-02	Employment, Basic facilities
X	2002-07	HRD, Industry, Technology
XI	2007-12	Education, Health, Empowerment

Bhore Committee, 1946

PHCS : nodal points for Health care

Phased expansion

Prevention stressed

Population based

Constitutional commitment: Health: State subject

- Central List
  - International Health, Port Health
  - Research
  - Technical & Scientific Education
- State List
  - All other Health issues
- Concurrent list
  - Epidemics

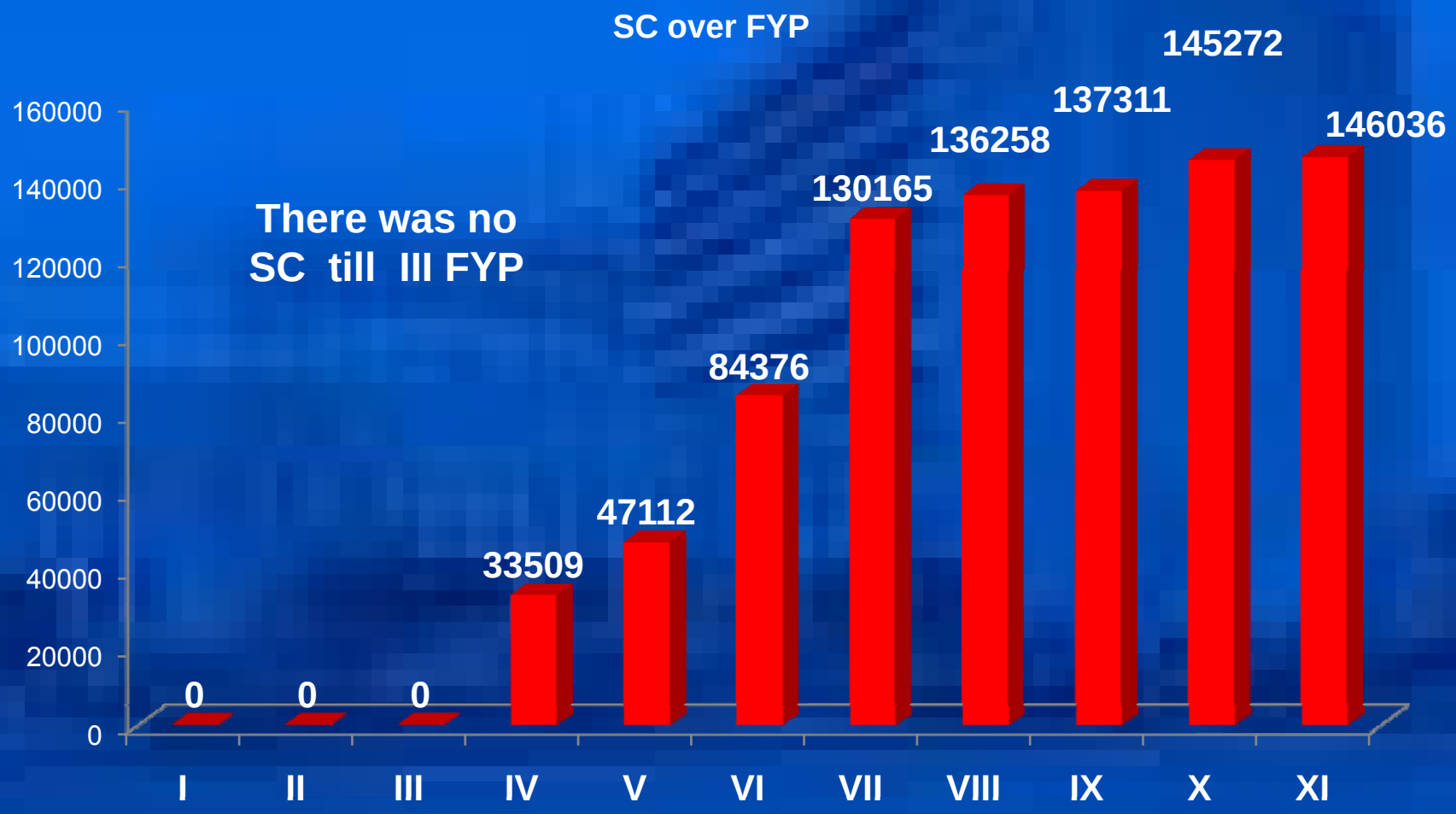
- Centralized planning ,Decentralized implementation
- Fiscal control of central Govt.
- Dictates States for Objectives & Priorities

Health –State subject ?

- NO Health Policy for 36 years
- Health left to Committees and Commissions
- Each Committee addressed to a single specific issue.
- Comprehension was missing
- Majority of recommendations of every committee were reiterations of Bhore Committee.
- Individual “Health” Programs developed in isolation based on situational exigency.
- Uni-purpose workers later baptized as Multi-purpose.
- Some Programs worked in complete isolation till 1980 (e.g. NTCP).
- Fragmented approach to Health

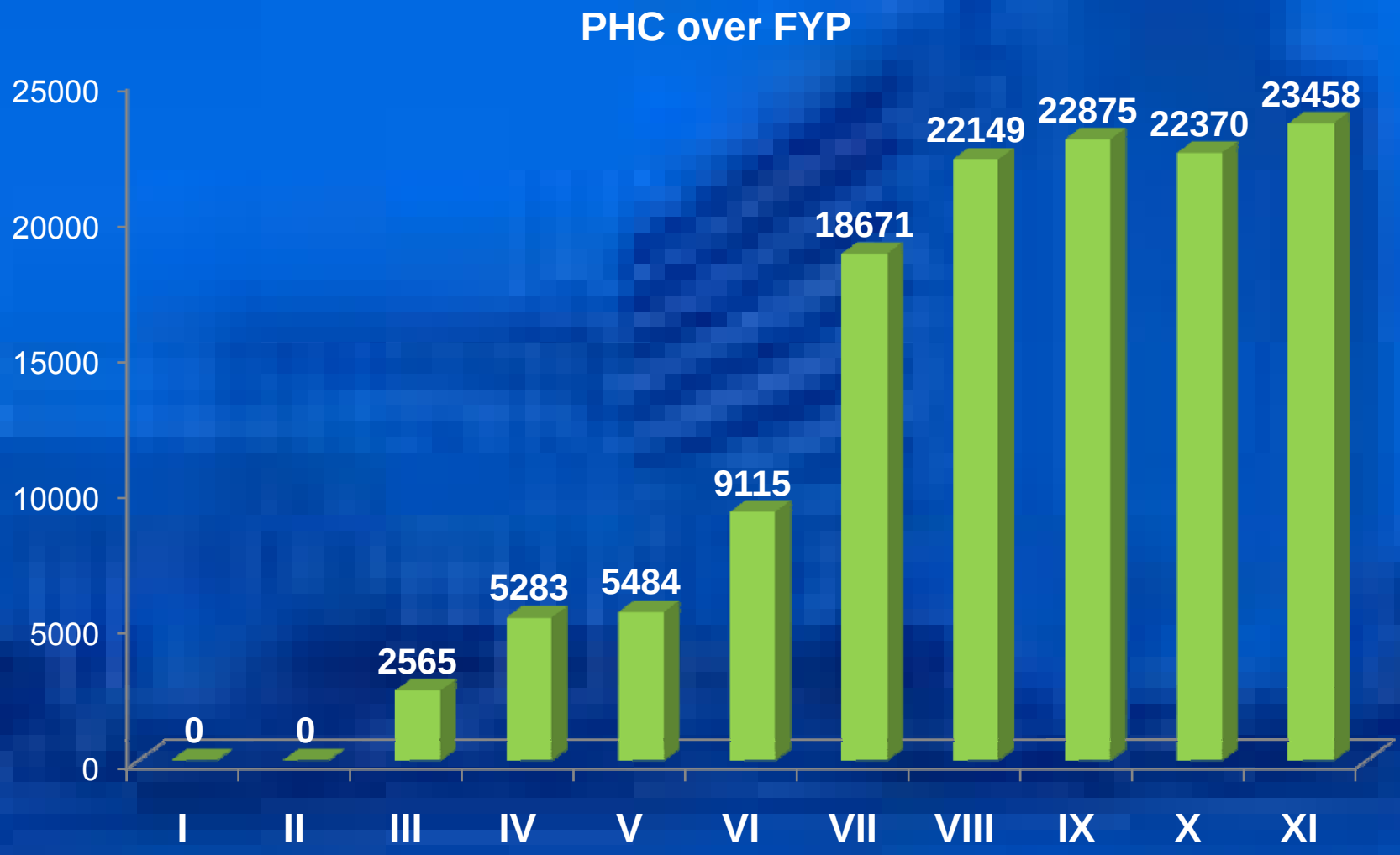
Health Care Infrastructure

Sub Center over FYP



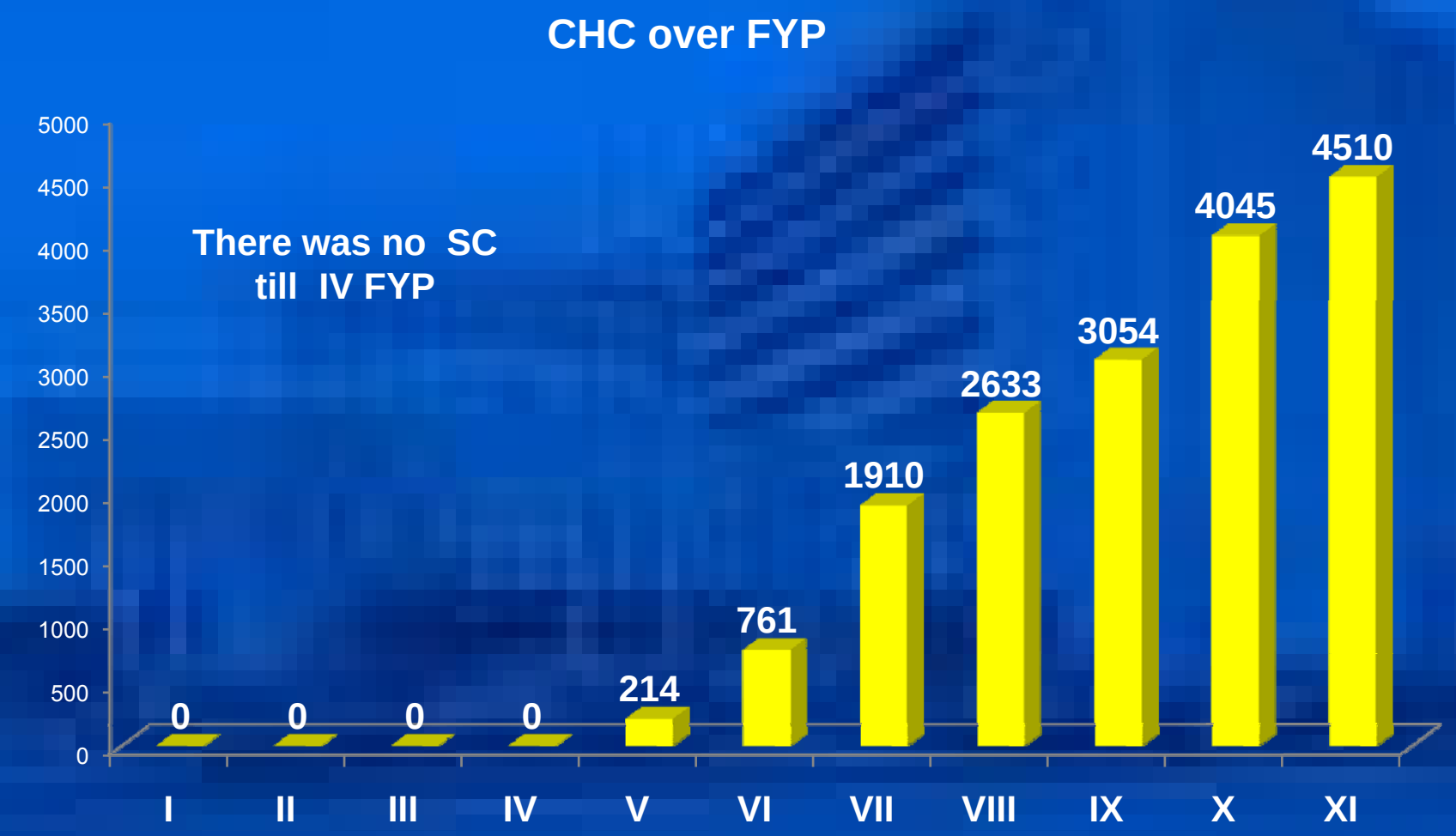
Source: CBHI NHP-2010

PHC over FYP



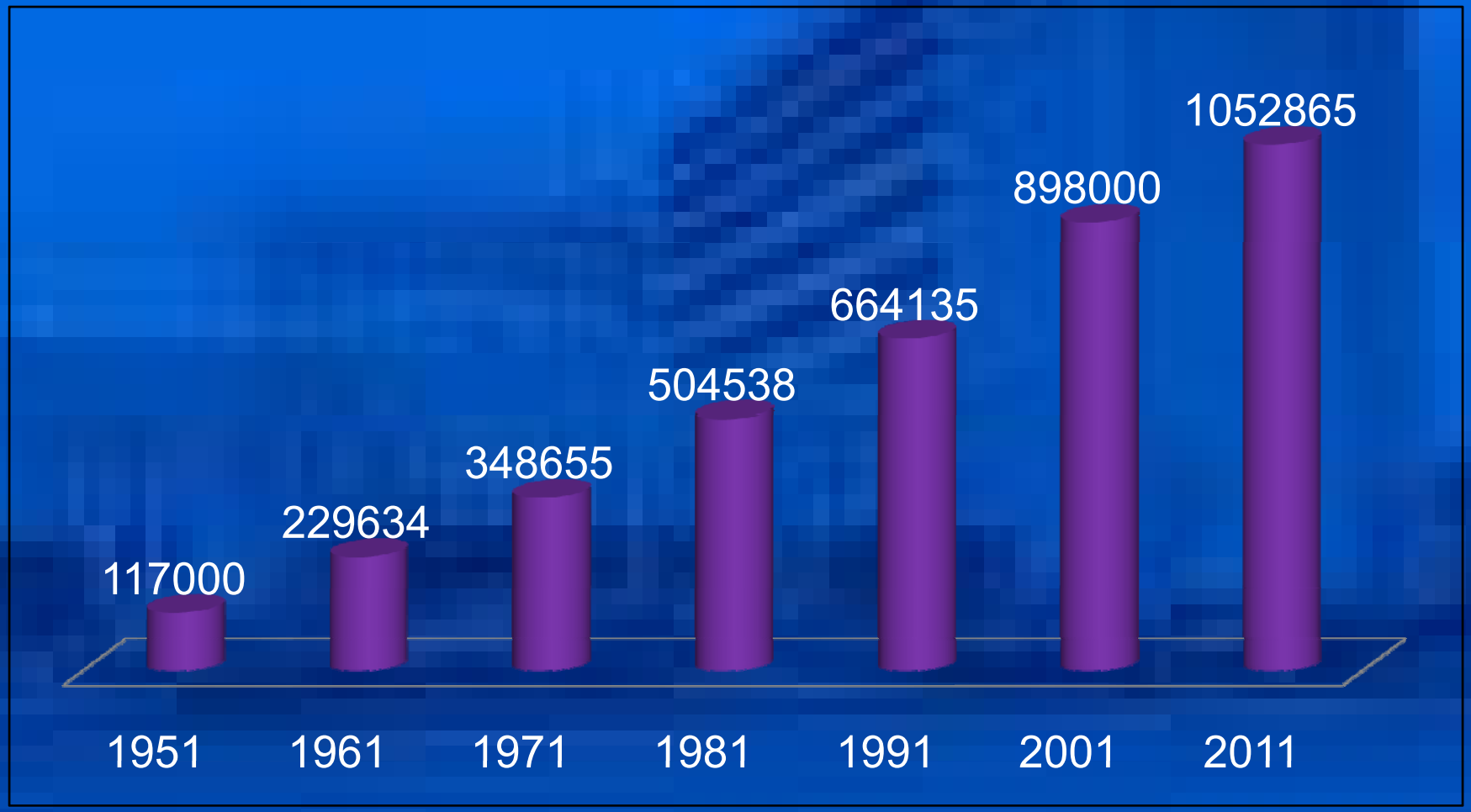
Source: CBHI,NHP-2010

CHC over FYP



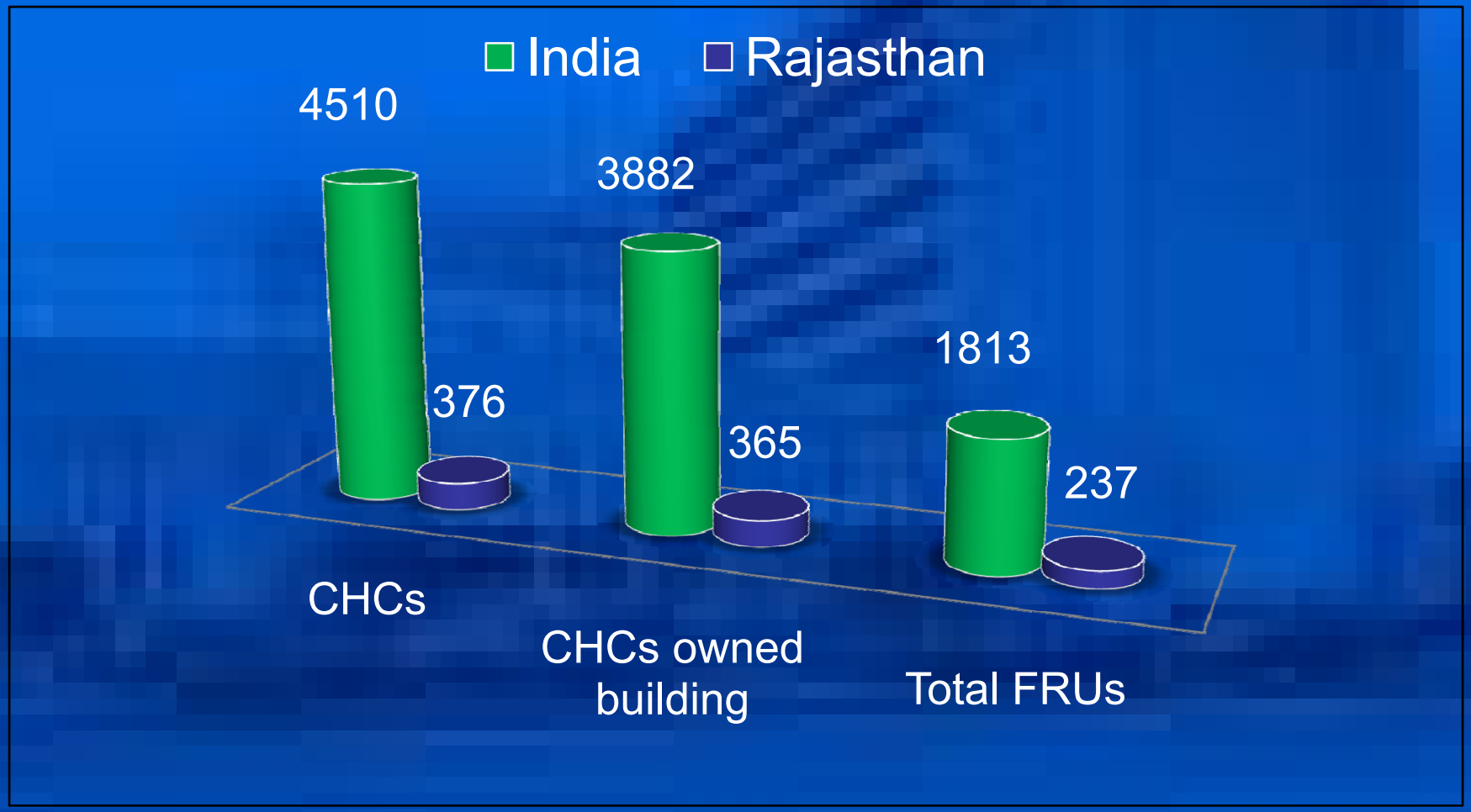
Source: CBHI,NHP-2010

Total Beds (India)



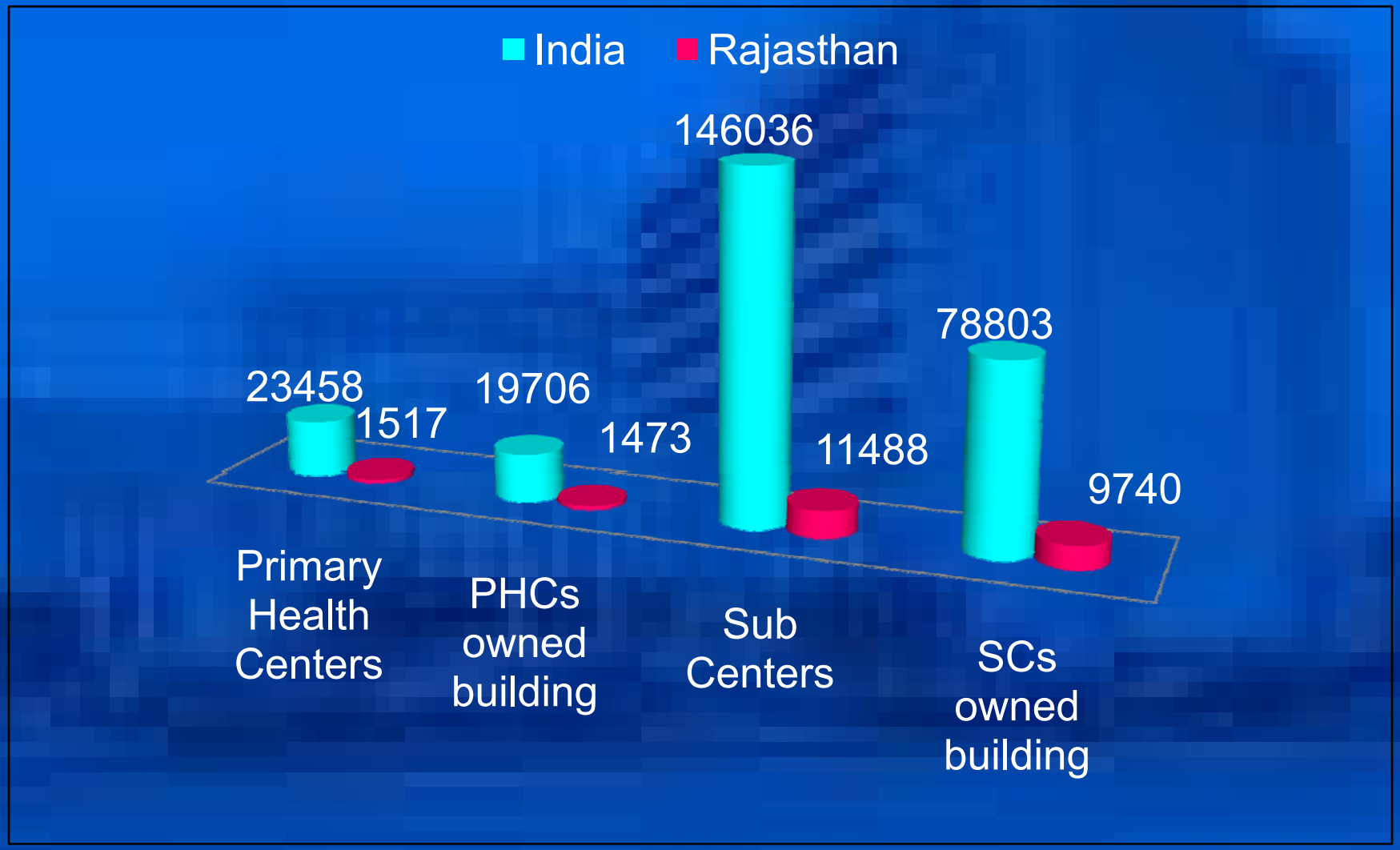
Source: CBHI,NHP-2010

Health Facilities 2011



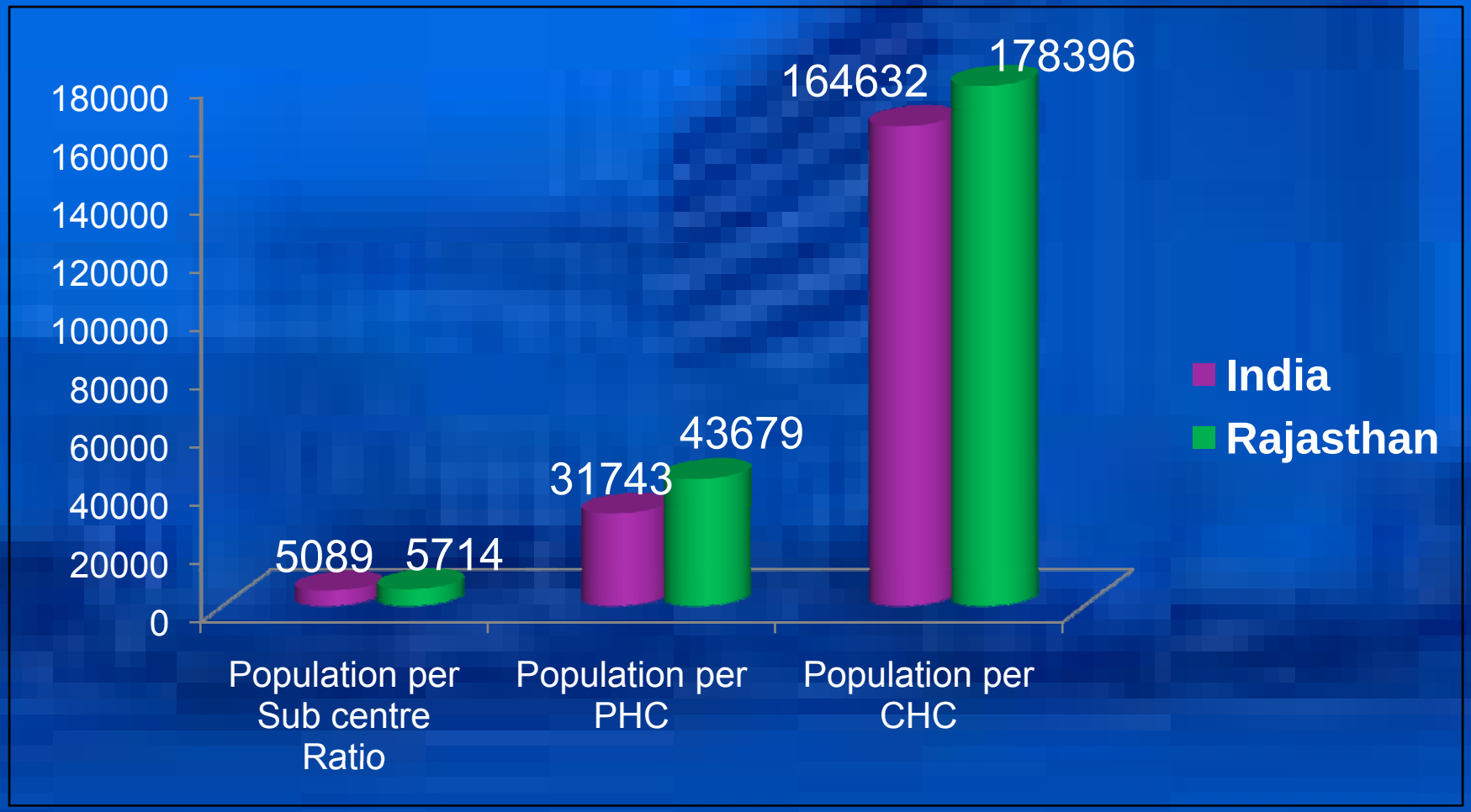
Source: CBHI,NHP-2010

Health Facilities 2011



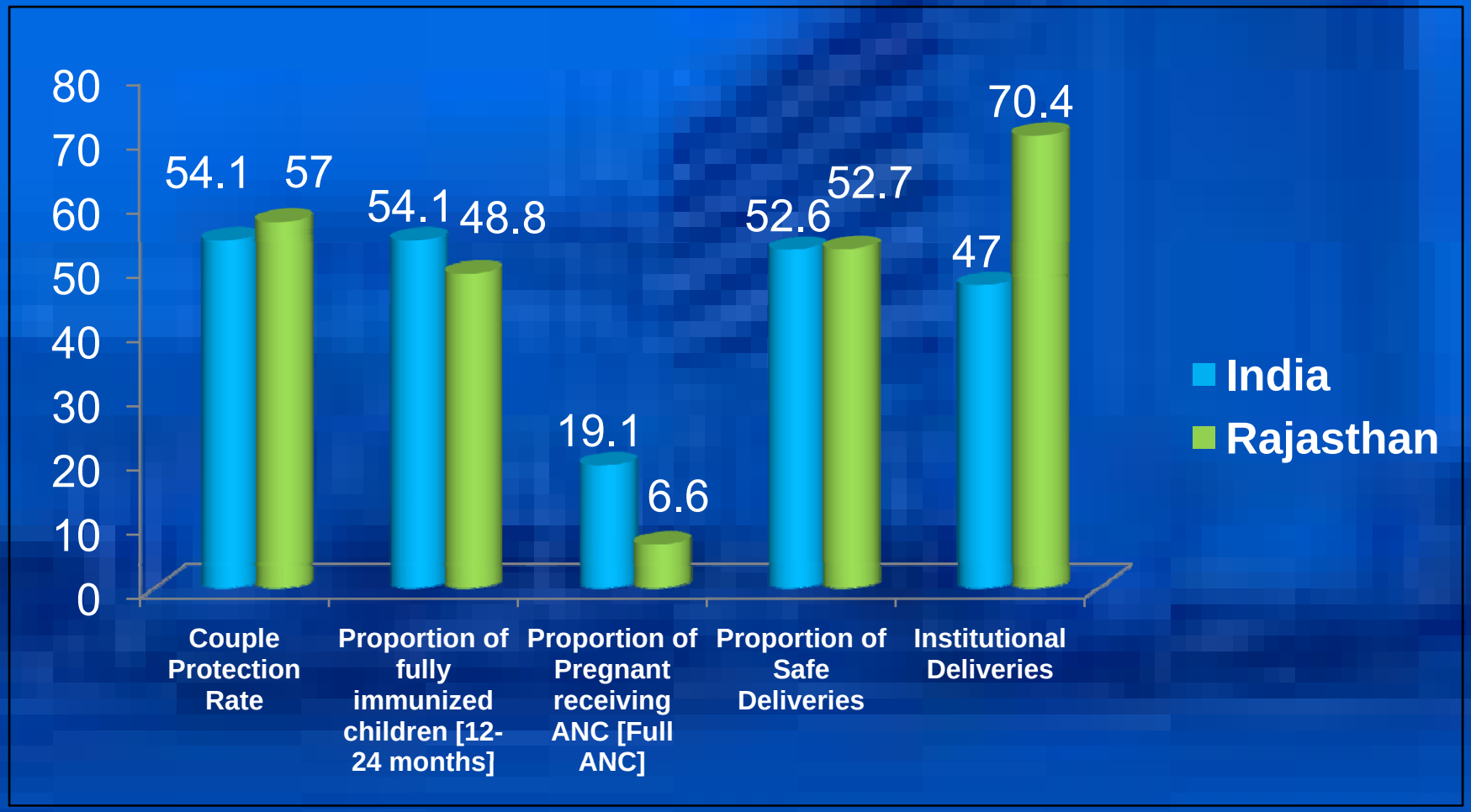
Source: CBHI,NHP-2010

Infrastructure Status



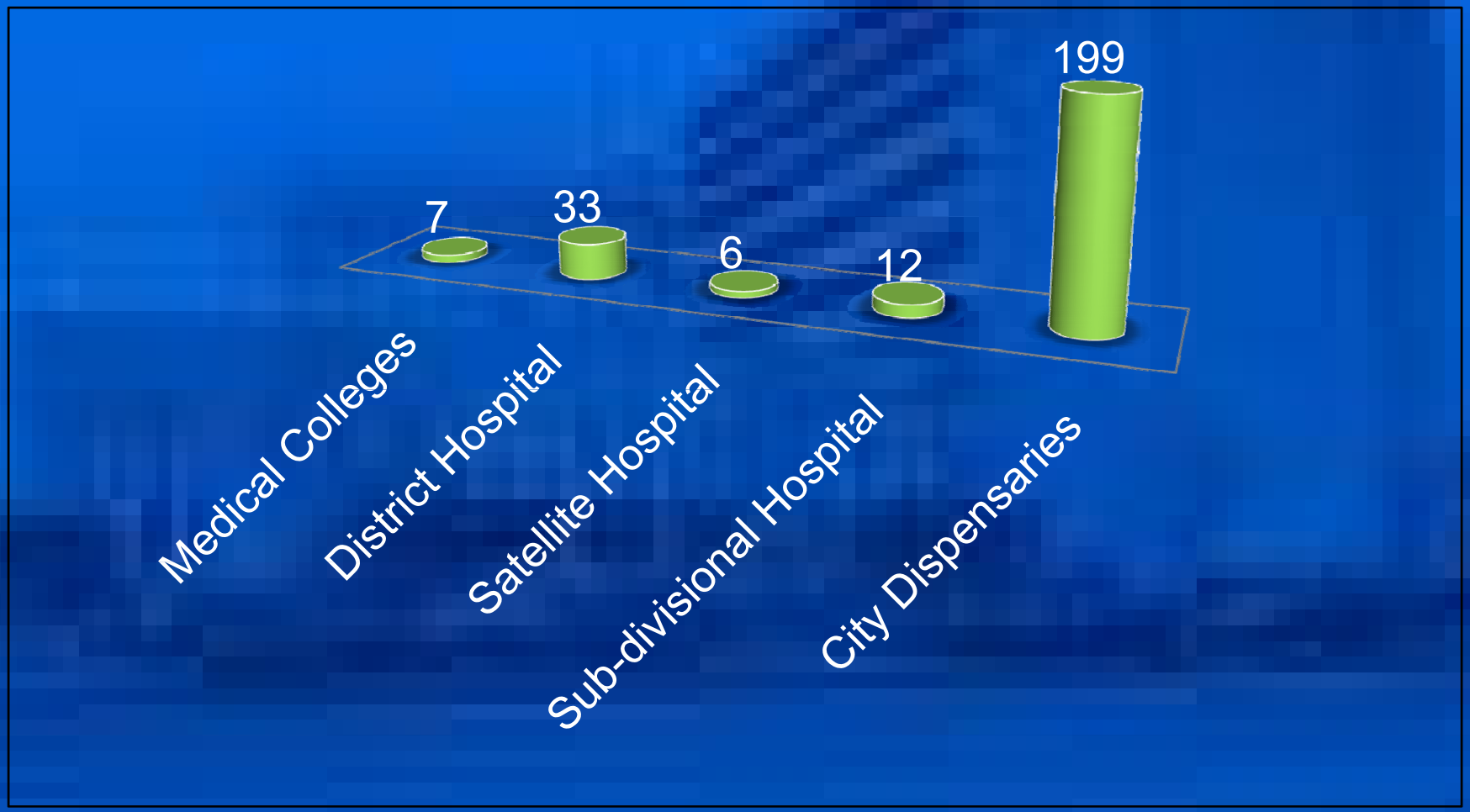
Source: DLHS-3

Healthcare Delivery Status



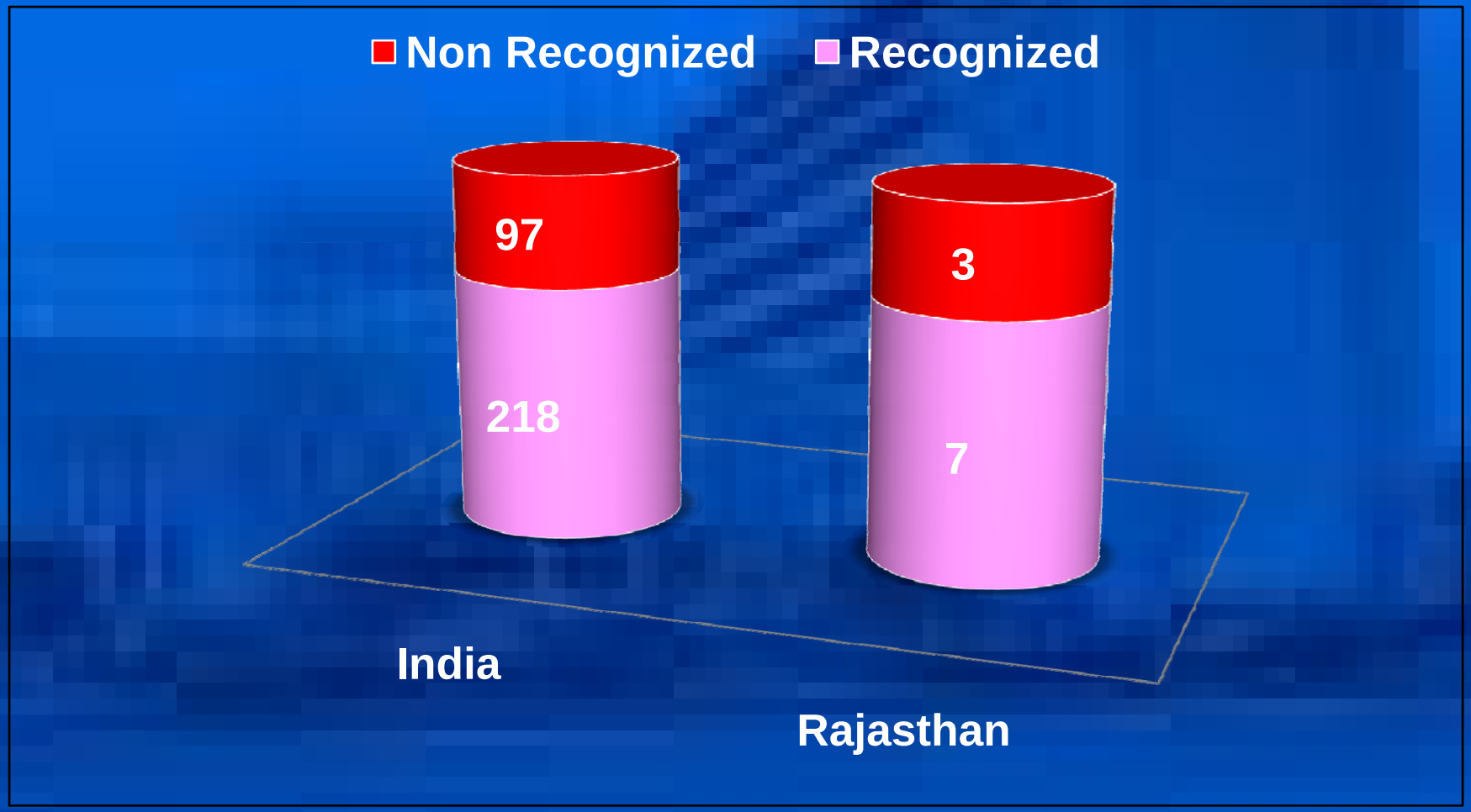
Source: DLHS-3

Health Care Infrastructure: Rajasthan (March, 2011)



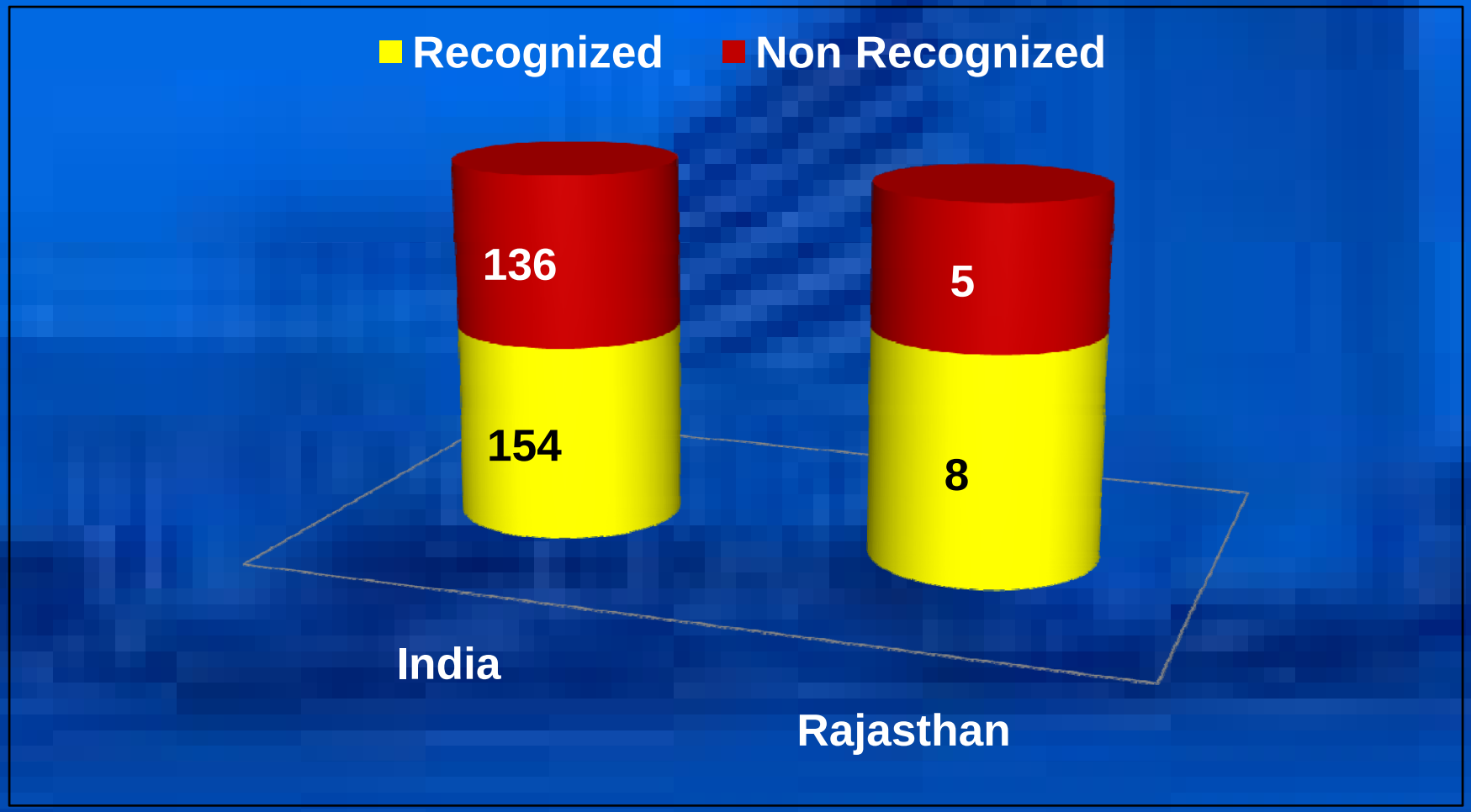
Source: CBHI,NHP-2010

Medical Colleges, 2011



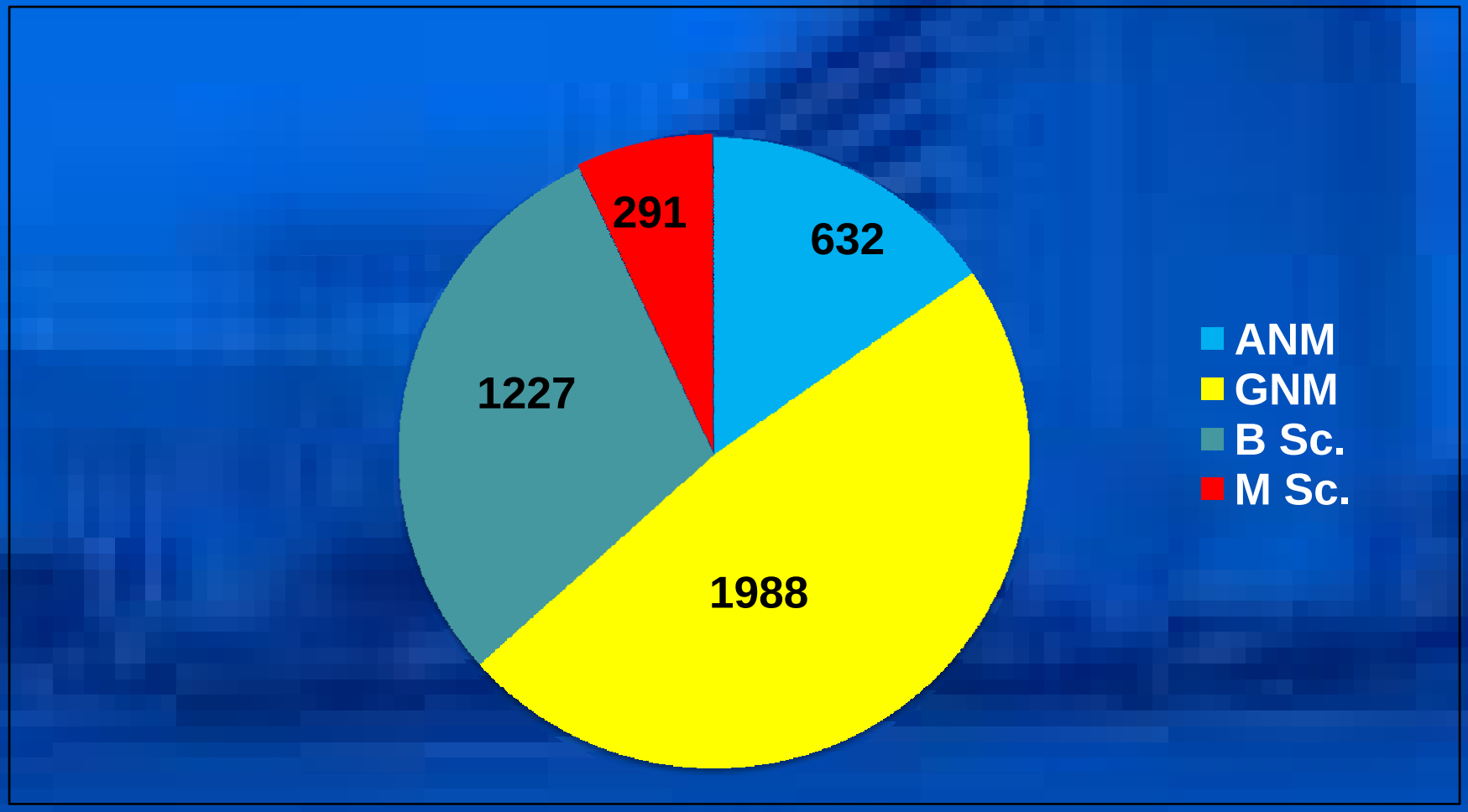
Source: CBHI,NHP-2010

Dental Colleges, 2011



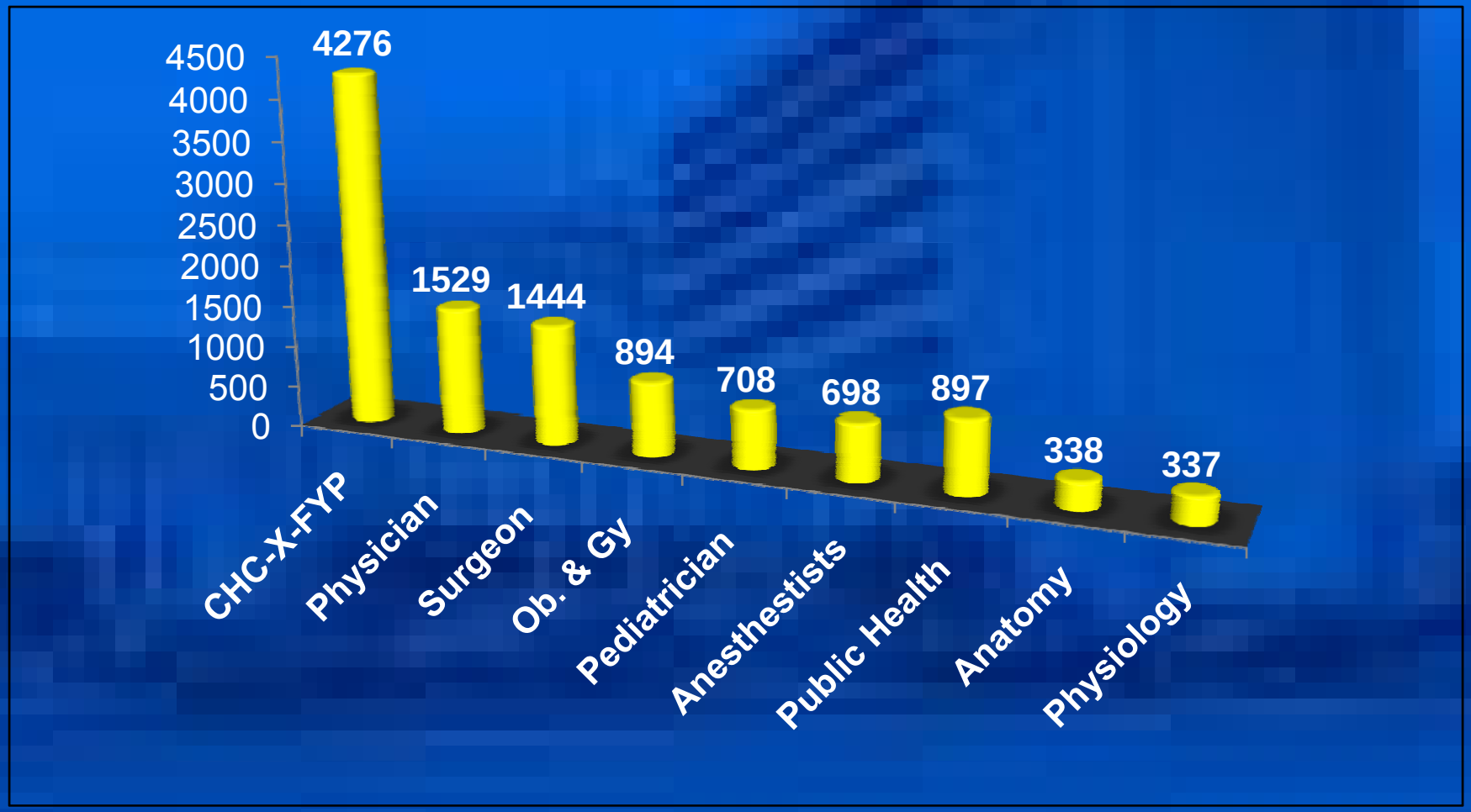
Source: CBHI,NHP-2010

Nursing Schools (India)



Source: Indian Nursing Council

CHCs : IPHS Vs PG seats March 2008



Source: CBHI

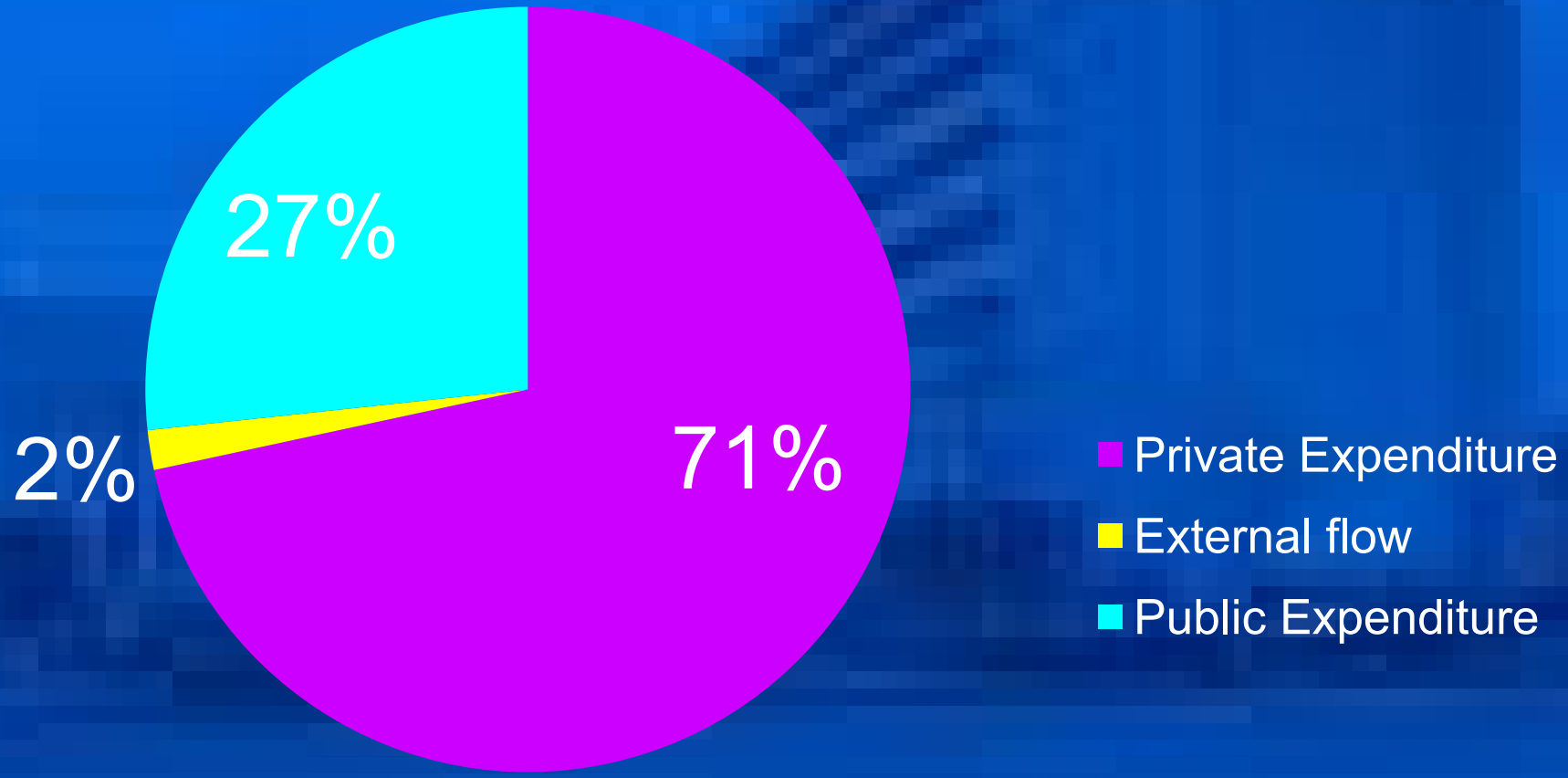
Some Medical Statistics: Rajasthan

Population : Medical College	6675000
Undergraduate Intake	1150
Post Graduate seats	739
UG:PG Seats	1.56
No. of Specialties	35

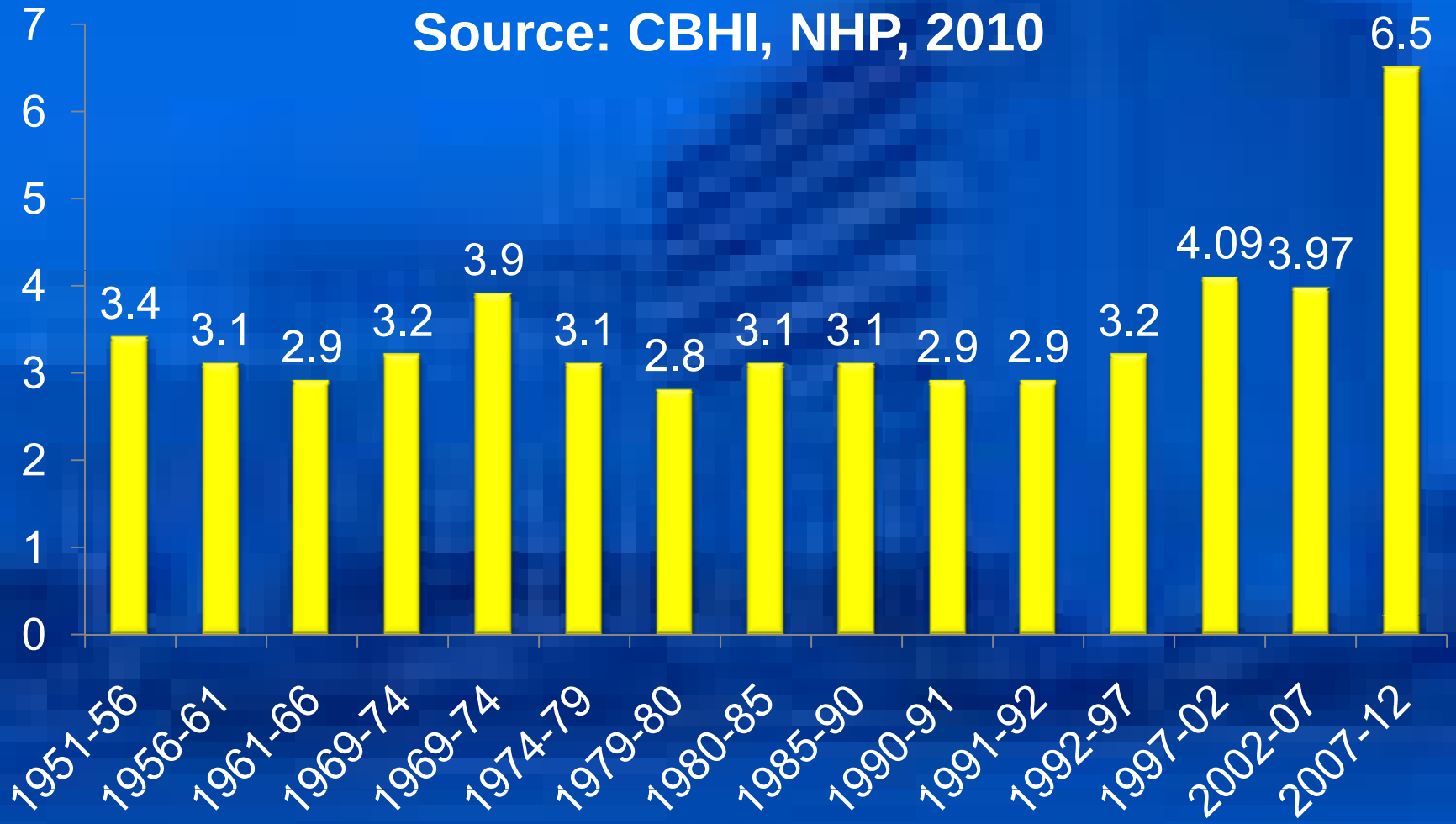
Source: CBHI

Health Expenditure

Share in health care spending source:CBHI,NHP-2010

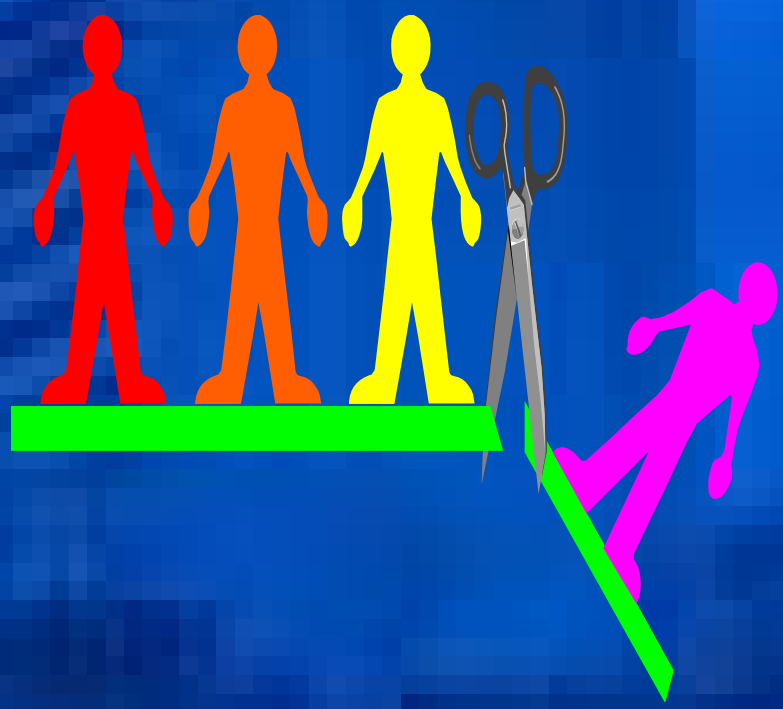


Health Expenditure as % of total Plan Outlay
Source: CBHI, NHP, 2010



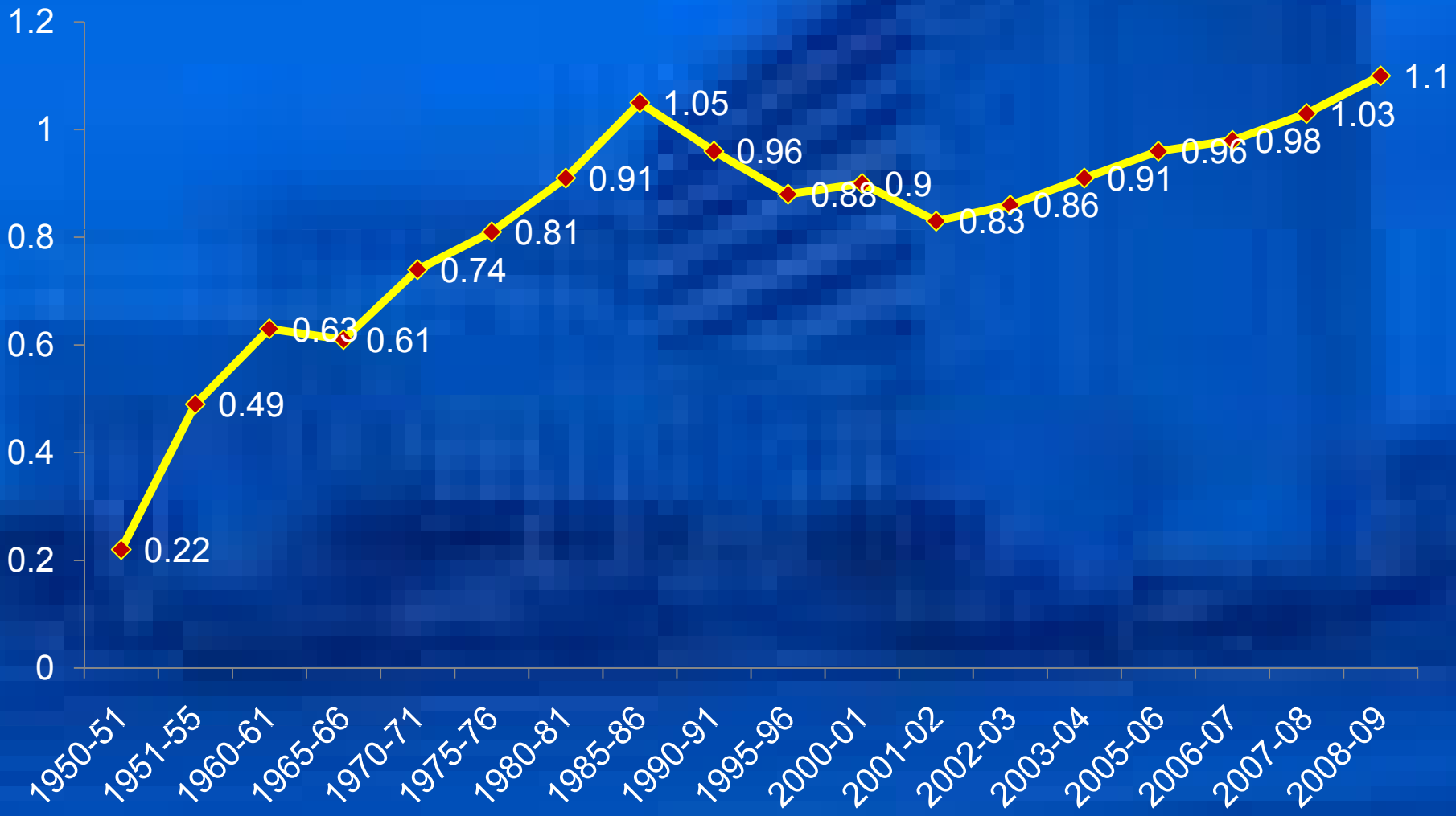
Who *really* pays?

- 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

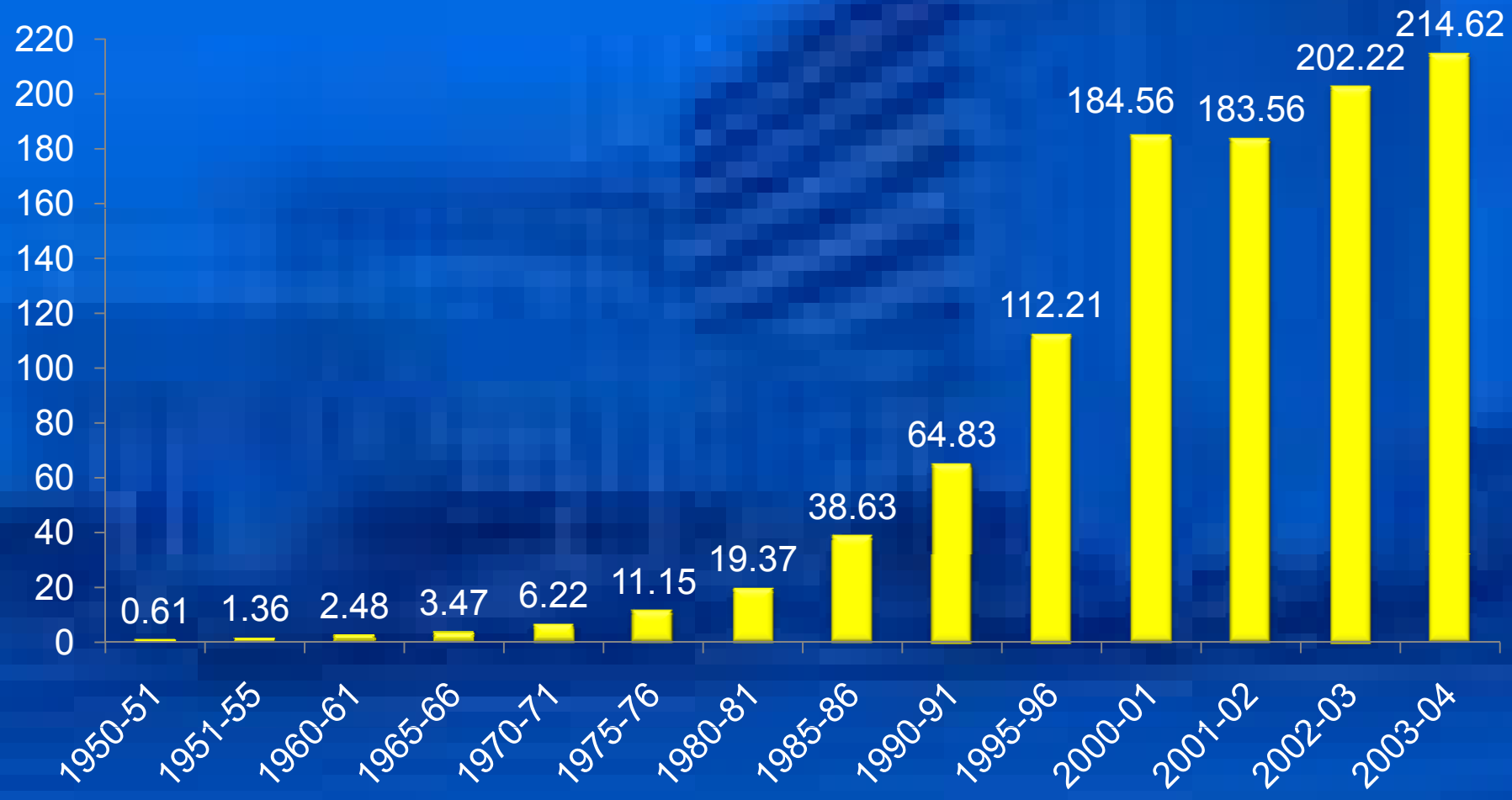


Total Govt. Expenditure on Health as % of GDP

Source: CBHI, NHP, 2010



Per Capita Public Exp. on Health
Source: CBHI, NHP, 2010



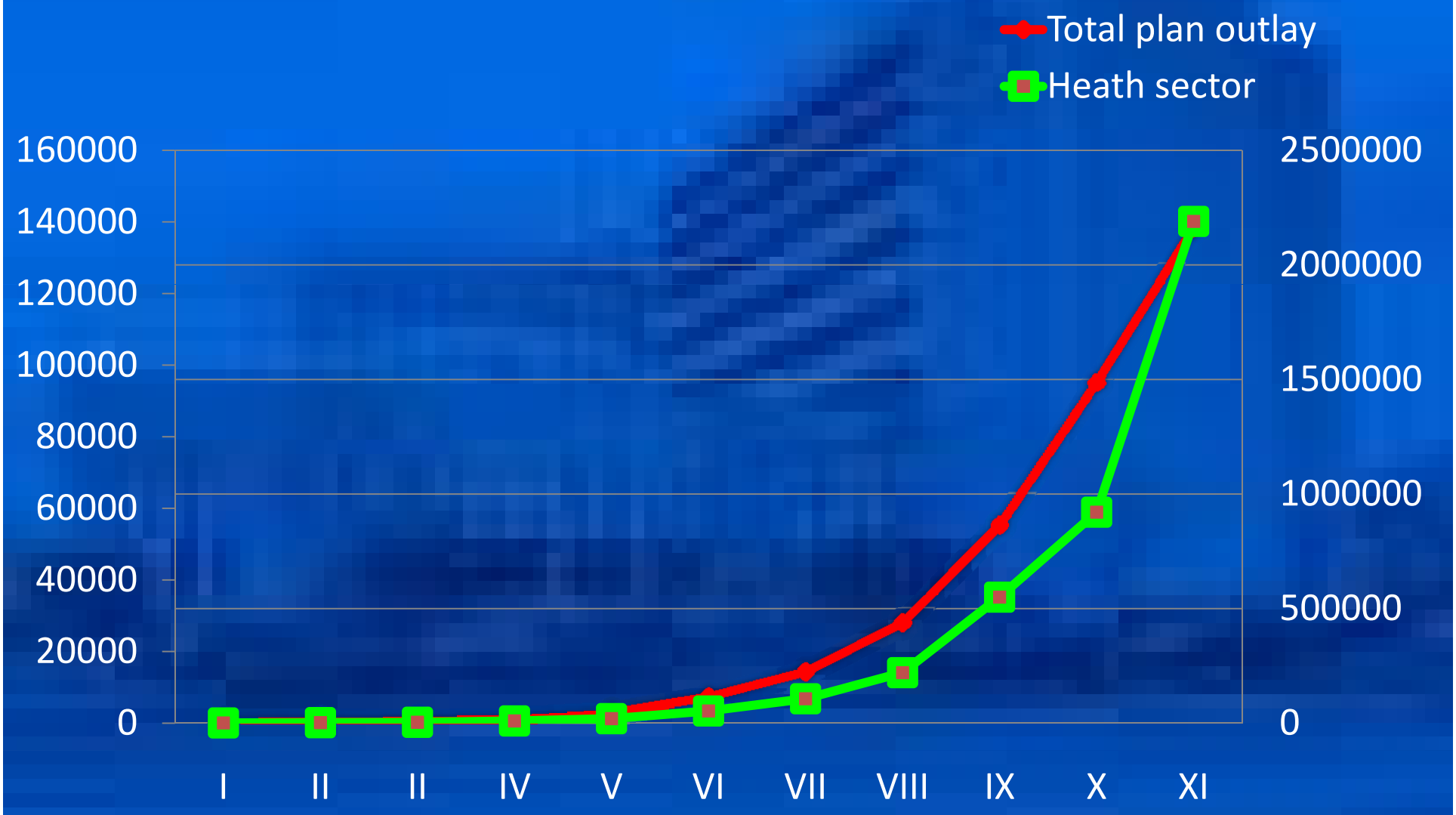
Status of Expenditure in FYPs

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	

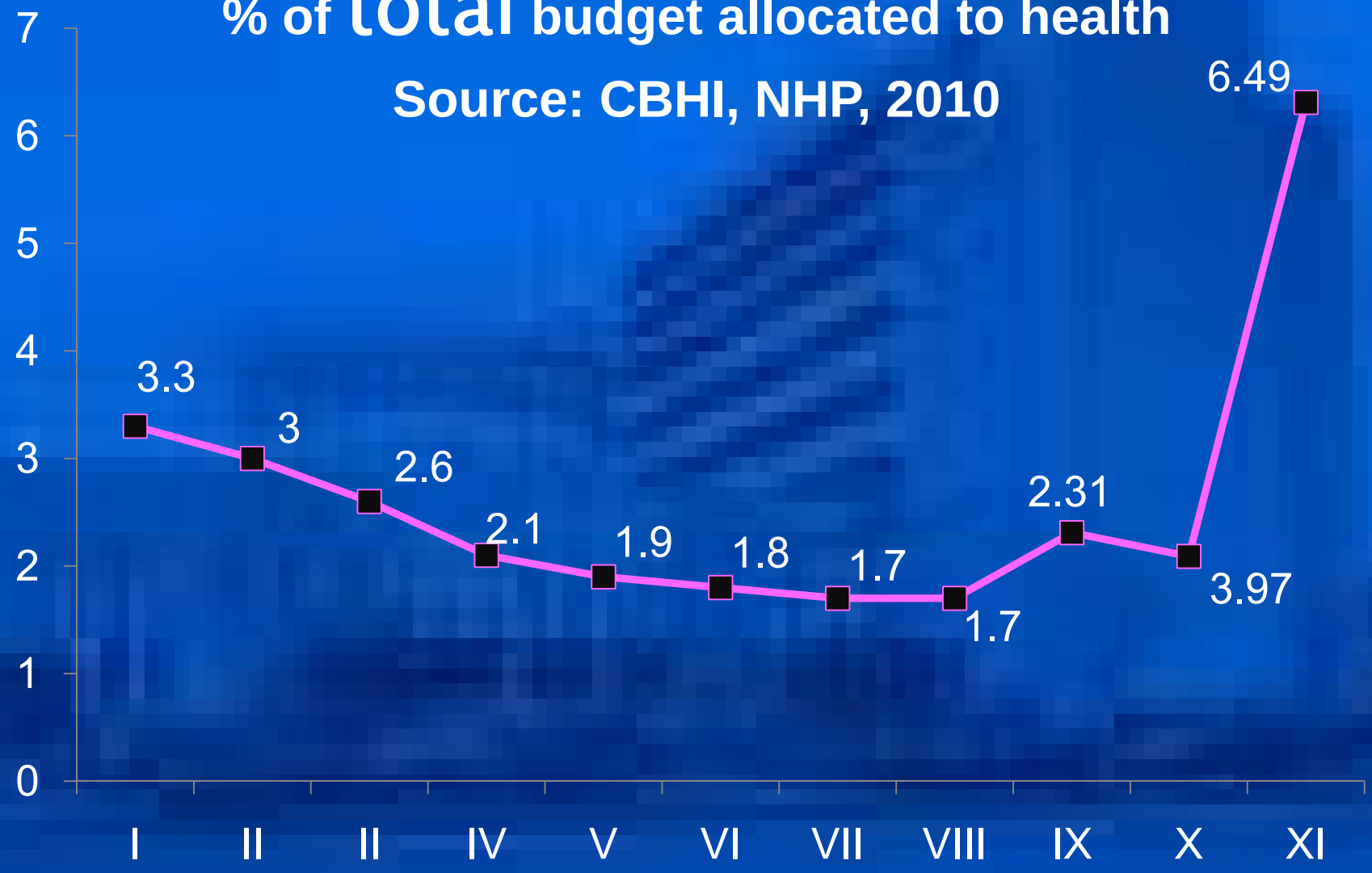
Total Outlay – Plan and Health (including AYUSH & FW)

Source: CBHI, NHP, 2010

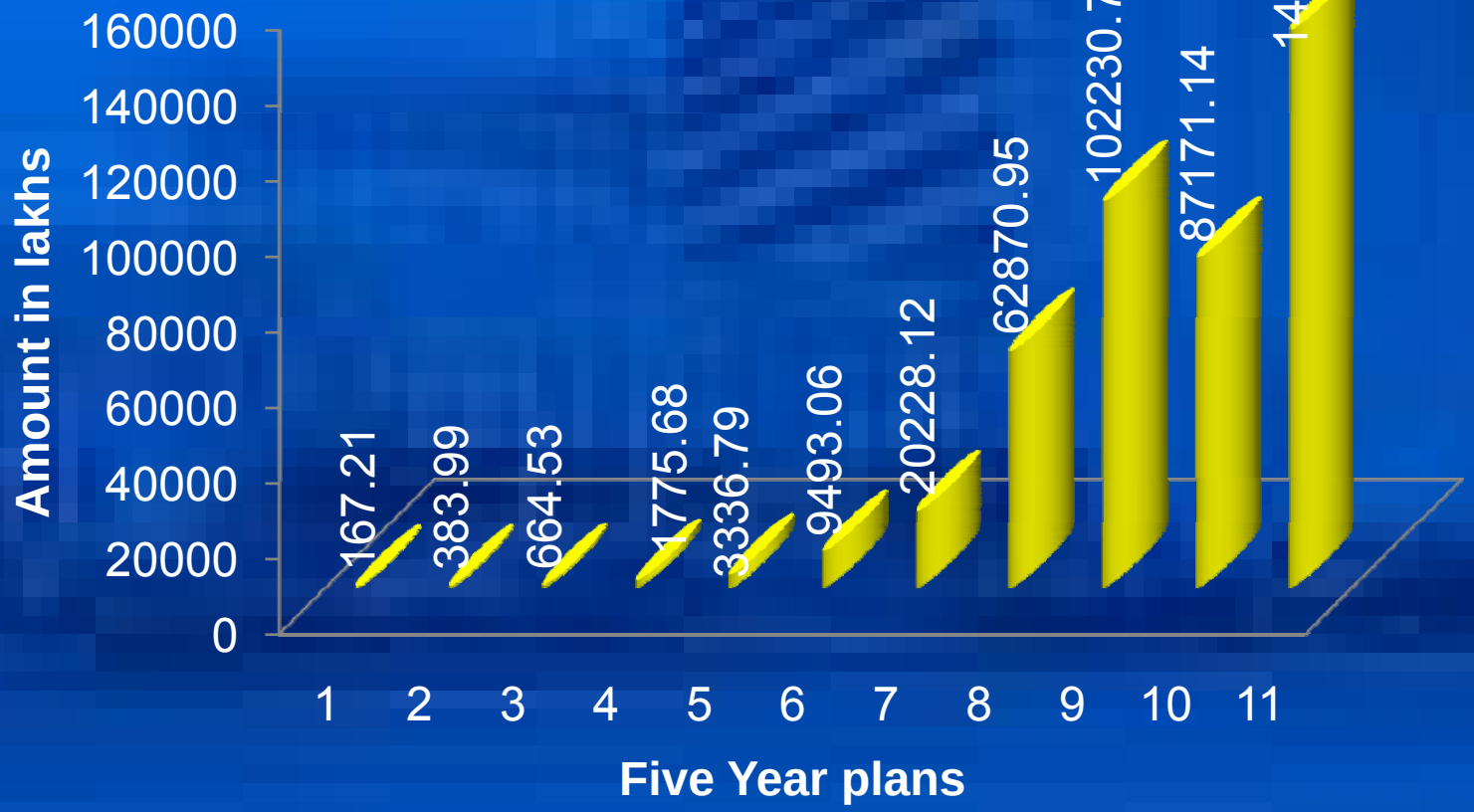


% of total budget allocated to health

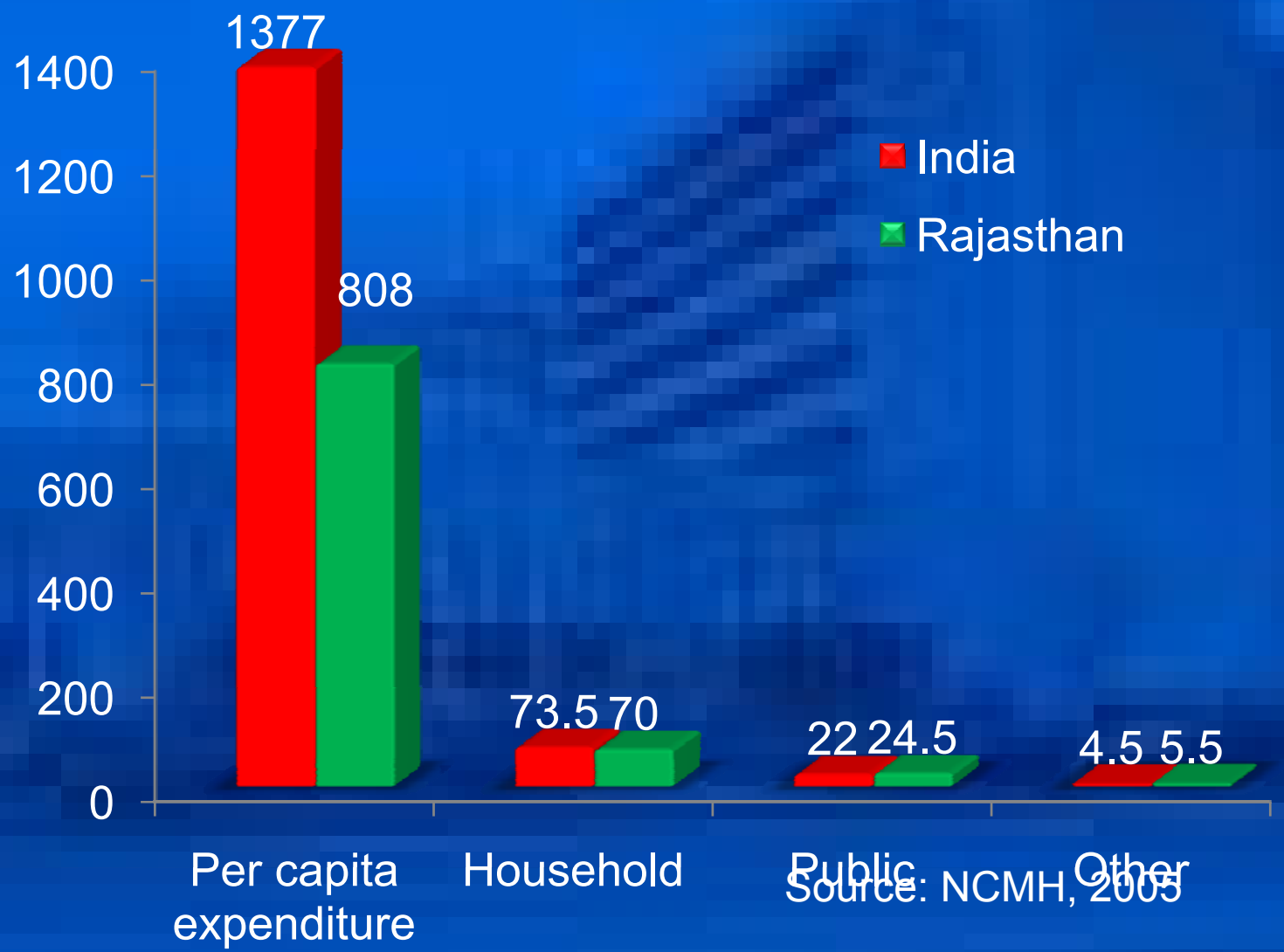
Source: CBHI, NHP, 2010



Budget Rajasthan



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

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)

Human Resource in Health

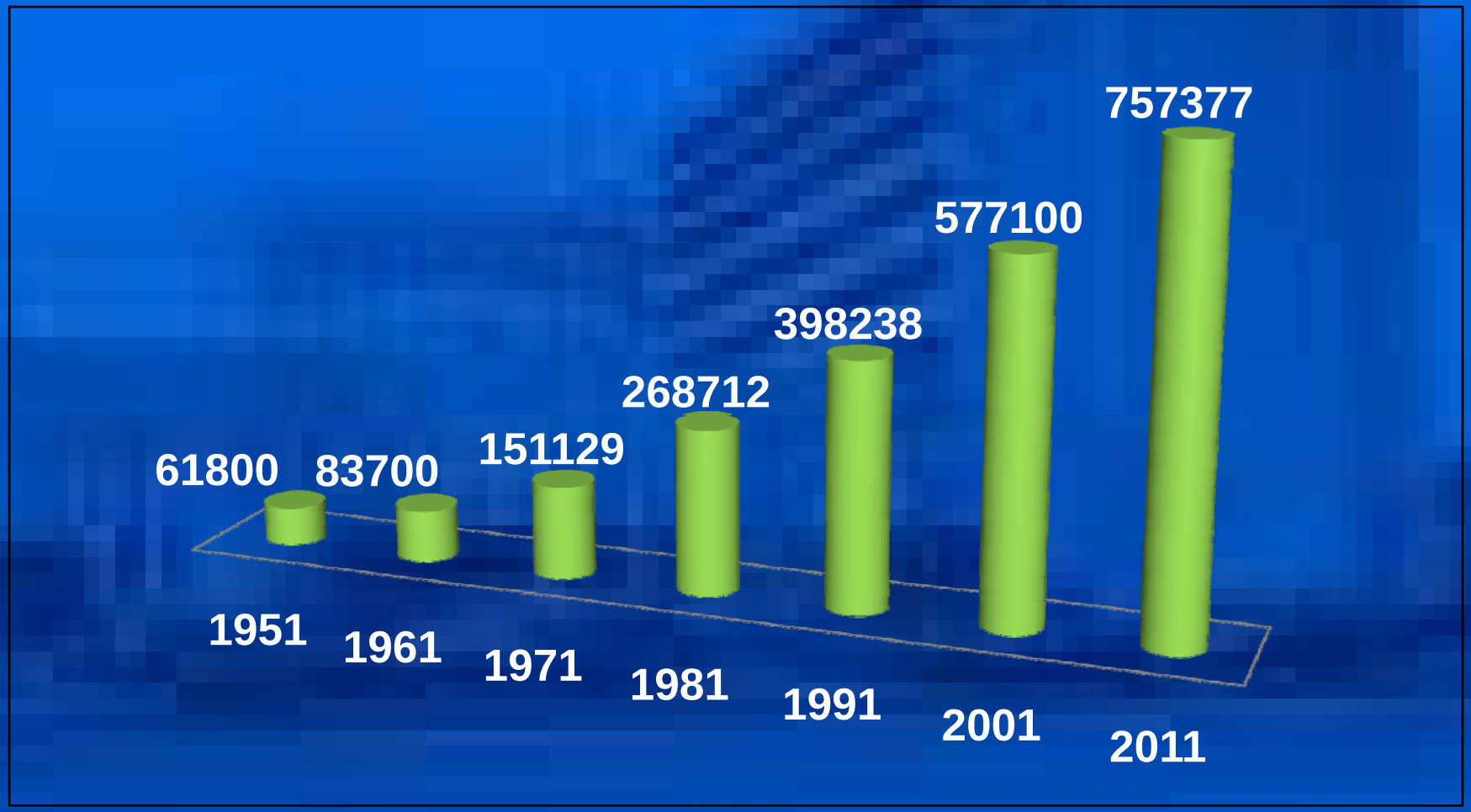
People are resource

But

To maintain this resource

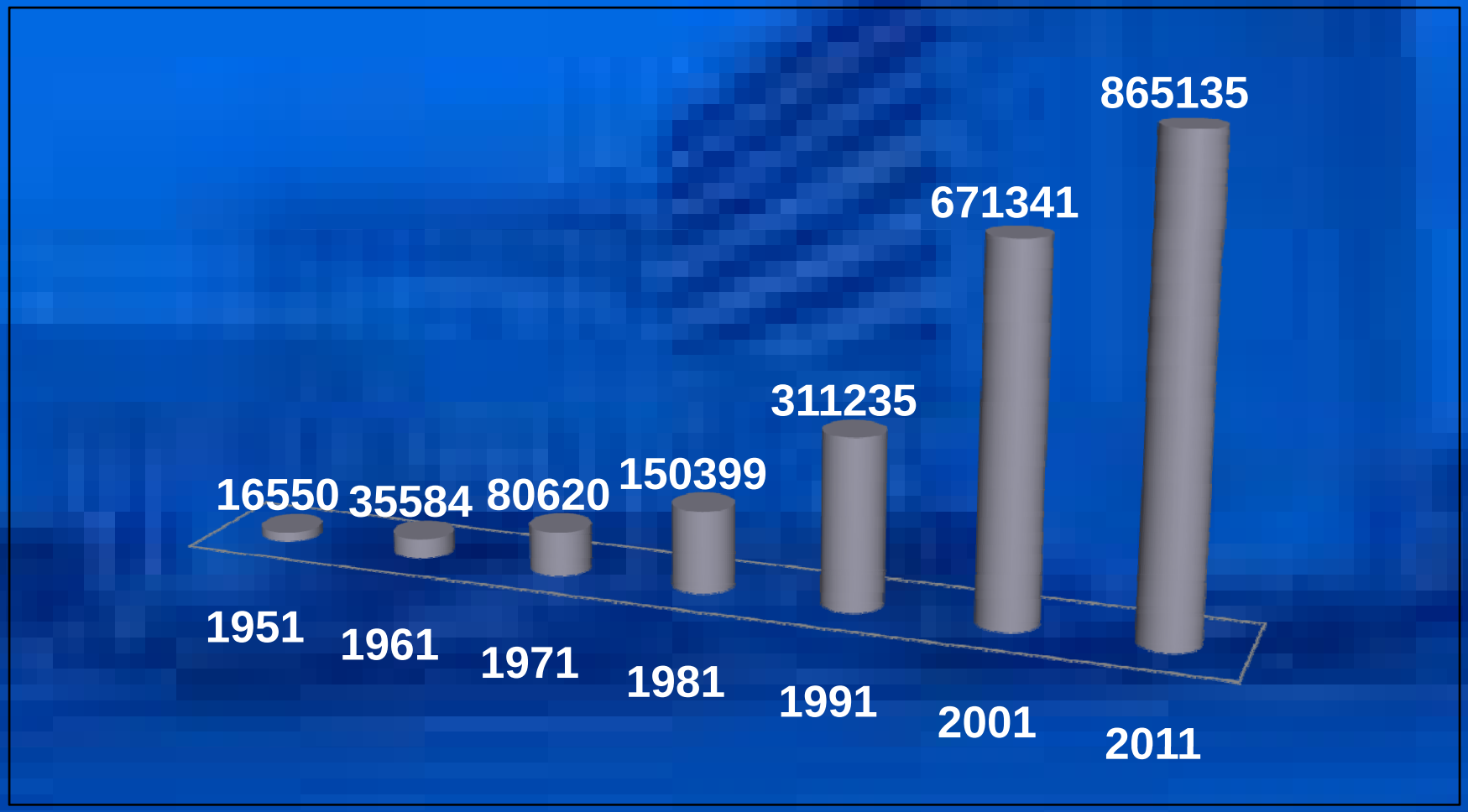
We need Resources

Doctors (Allopathic in India)



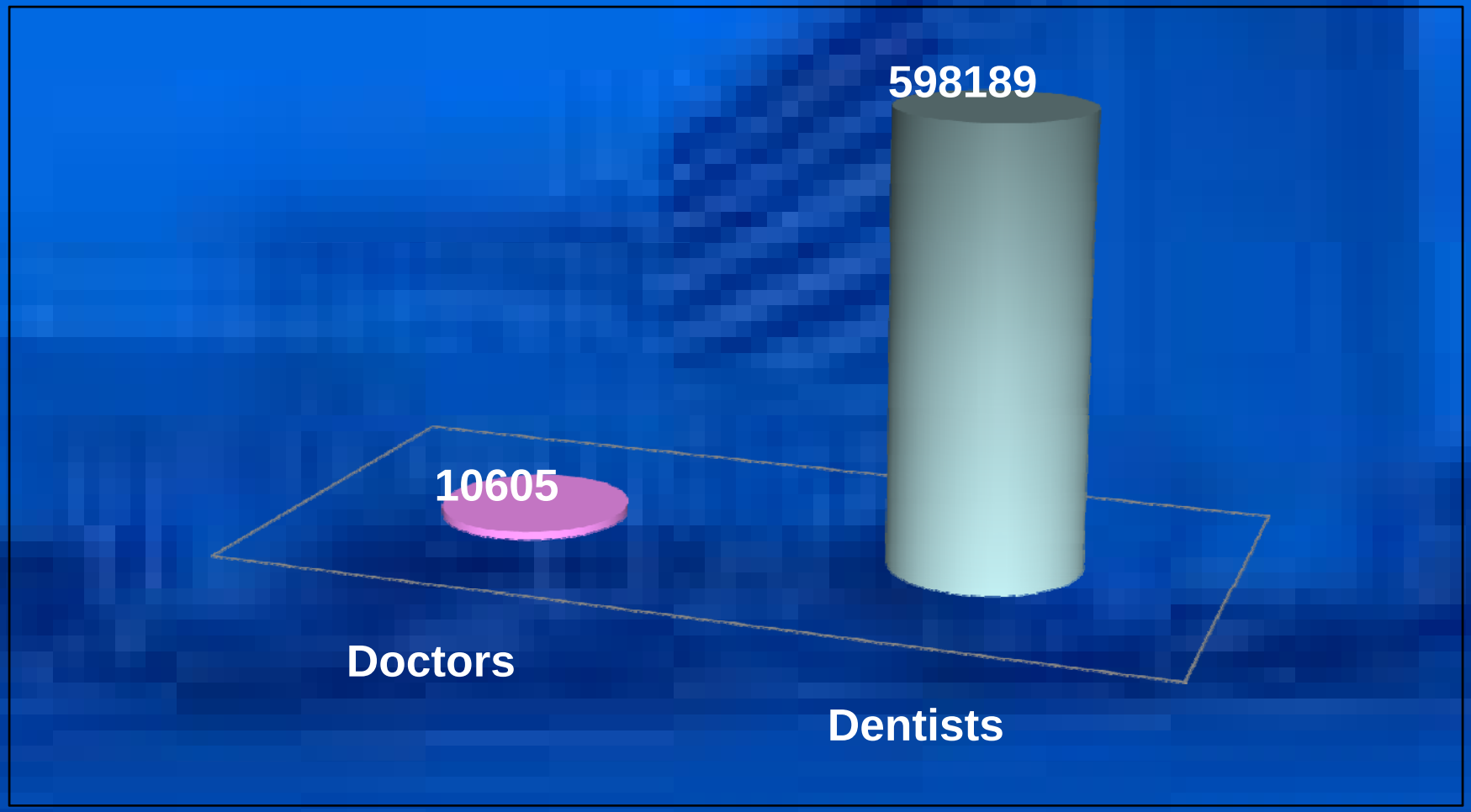
Source: CBHI,NHP-2010

Nurses (India)



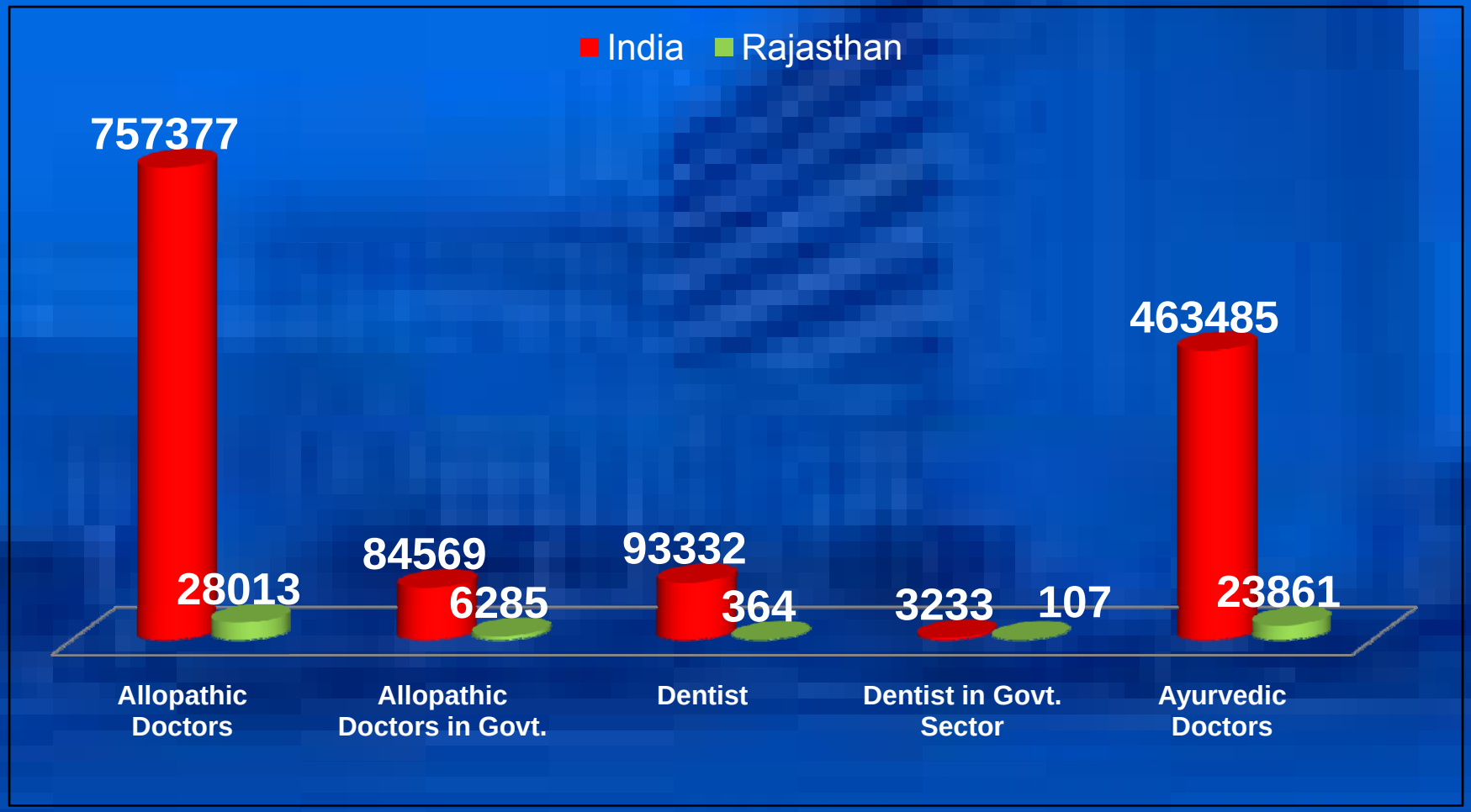
Source: CBHI,NHP-2010

Average Population Served in Rajasthan;2010



Source: CBHI,NHP-2010

Manpower Status 2010



Source: CBHI,NHP-2010

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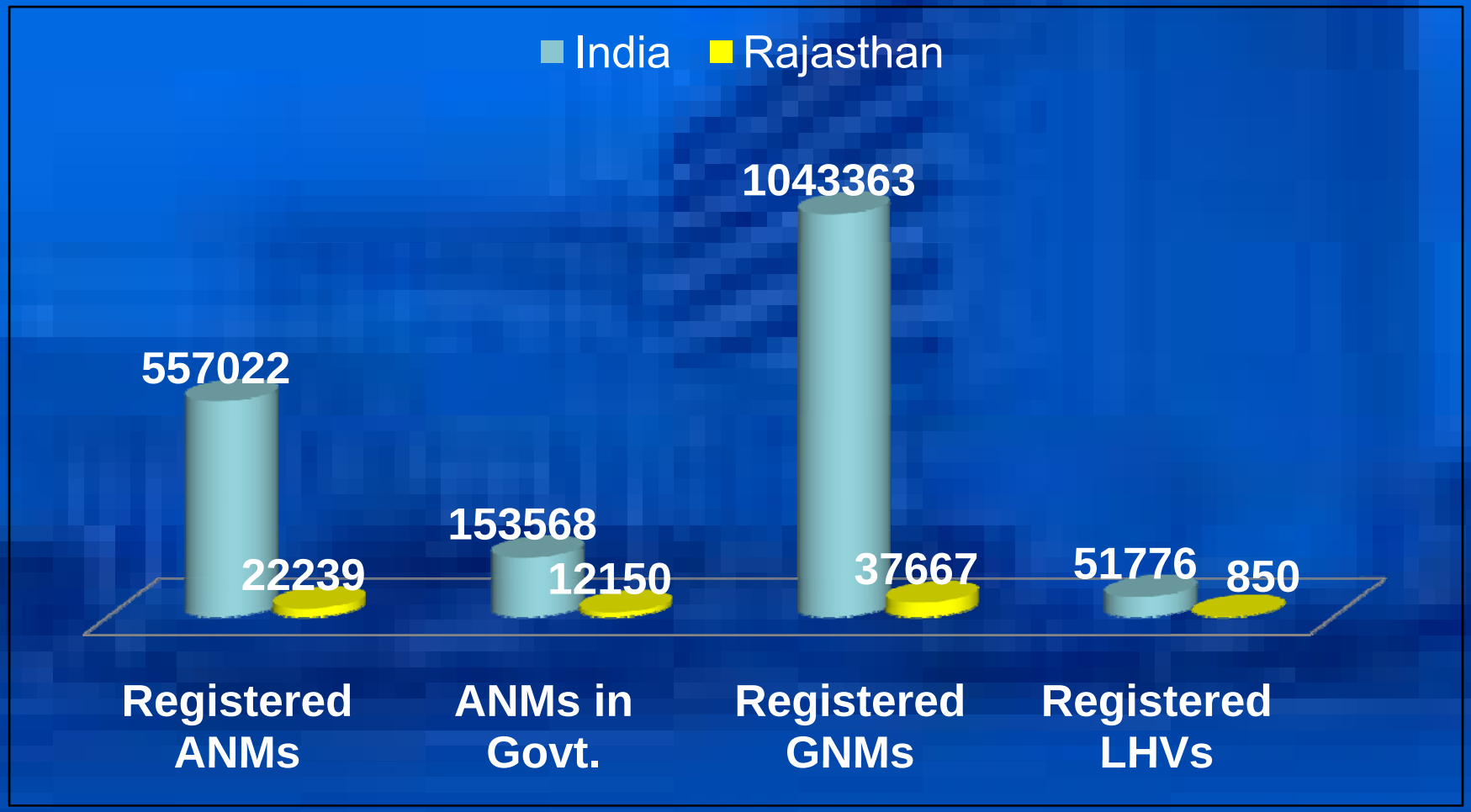
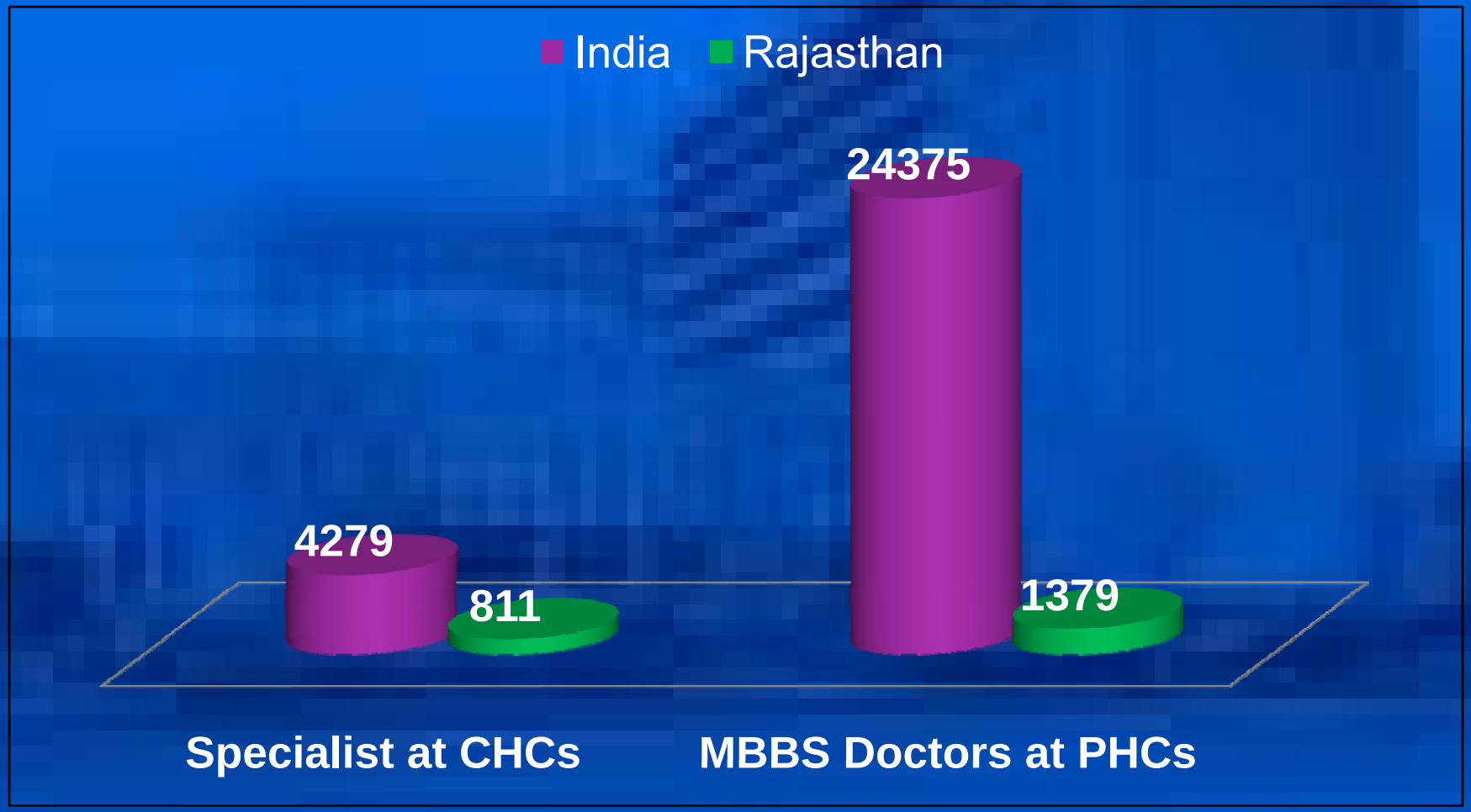


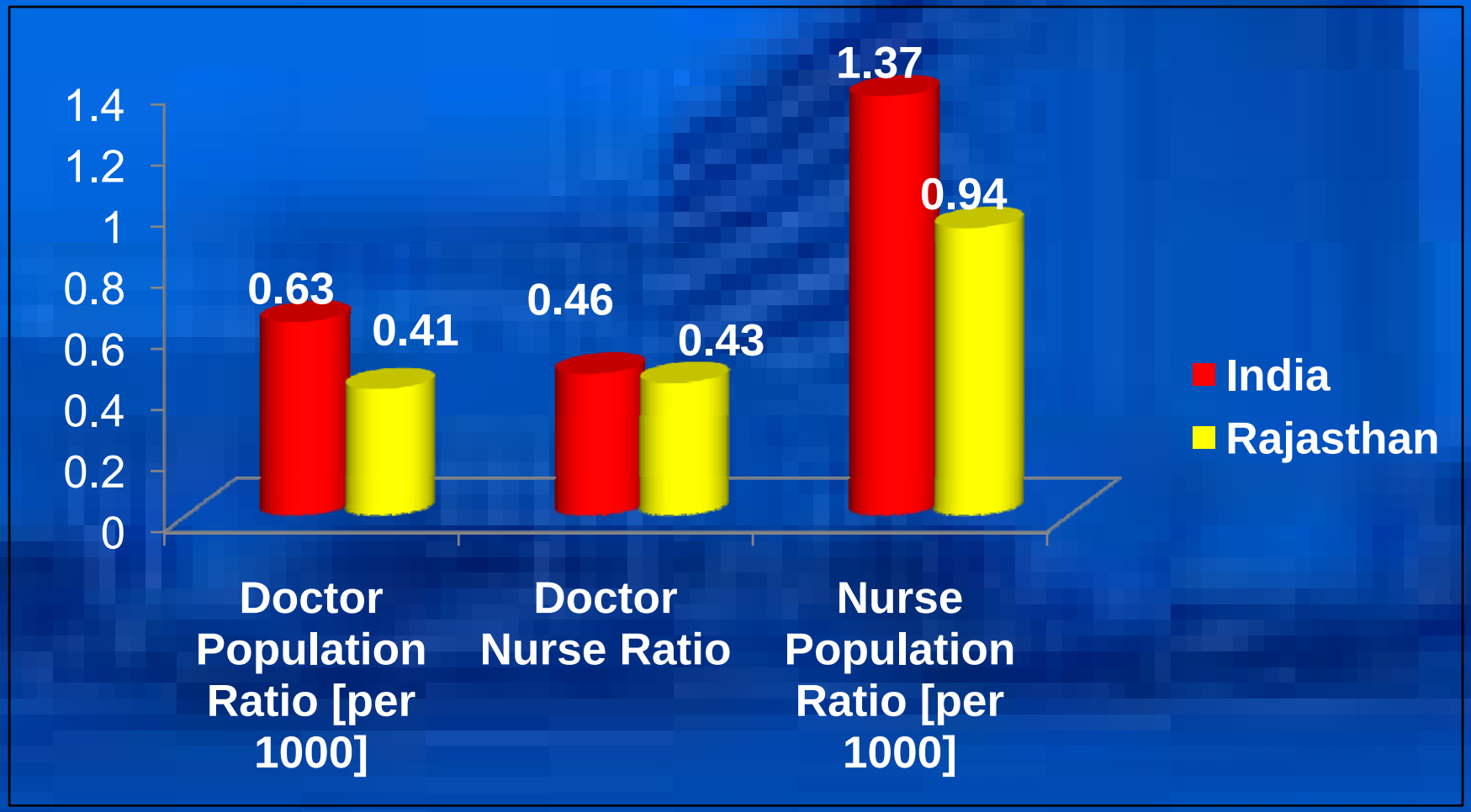
Source: CBHI

Manpower Status 2010



Source: CBHI

Service Provider Status (2008)



Source: DLHS 3

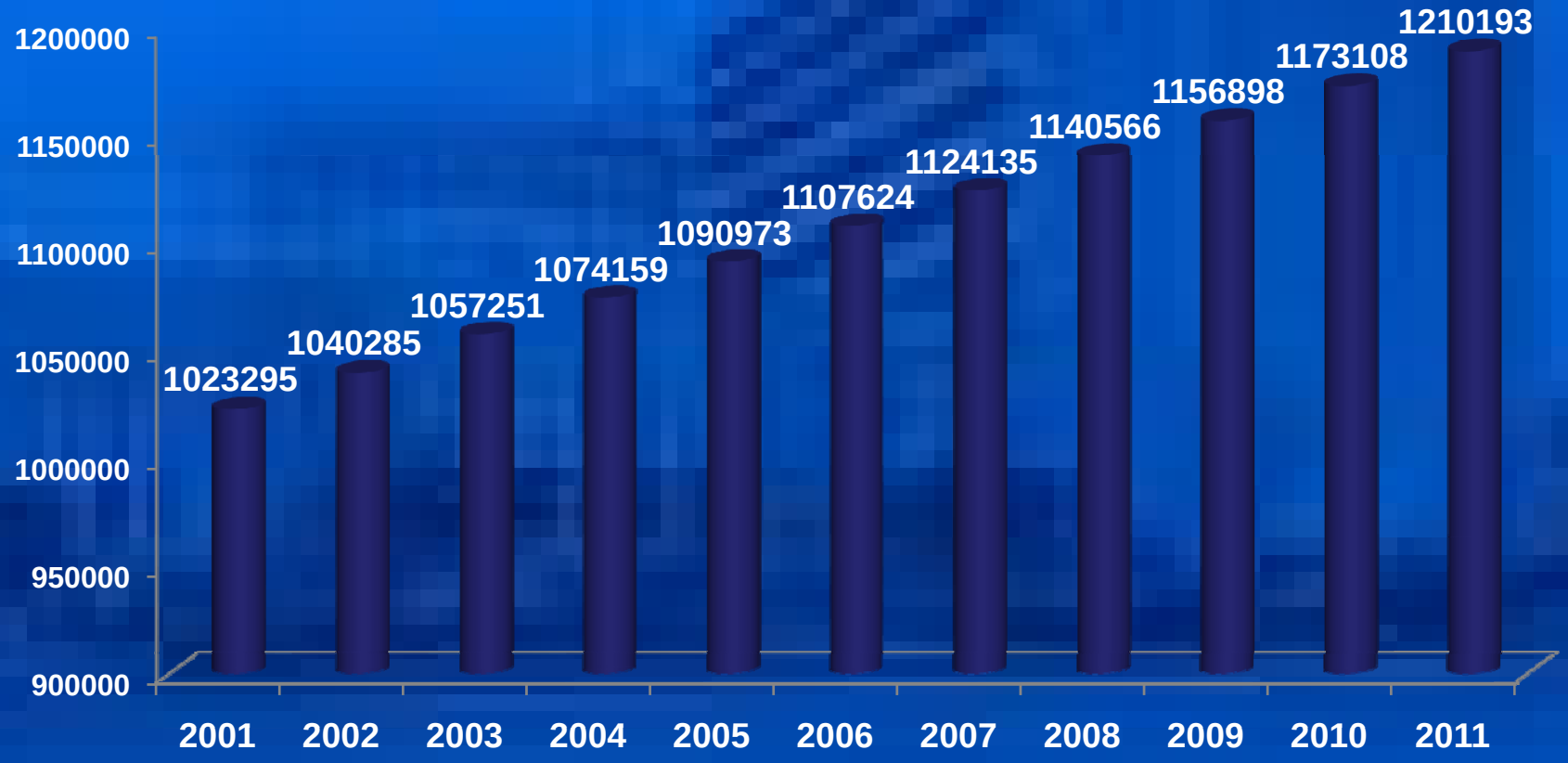
Health system's performance

Goals to be achieved by 2000-2015

Eradicate Polio and Yaws	2005
Eliminate Leprosy	2005
Eliminate Kalazar	2010
Eliminate Lymphatic Filariasis	2015
Achieve Zero level growth of HIV/AIDS	2007
Reduce Mortality by 50% on account of TB, Malaria and Other Vector and Water Borne diseases	2010
Reduce Prevalence of Blindness to 0.5%	2010
Reduce IMR to 30/1000 And MMR to 100/Lakh	2010
Increase utilization of public health facilities from current Level of <20 to >75%	2010
Establish an integrated system of surveillance, National Health	2005

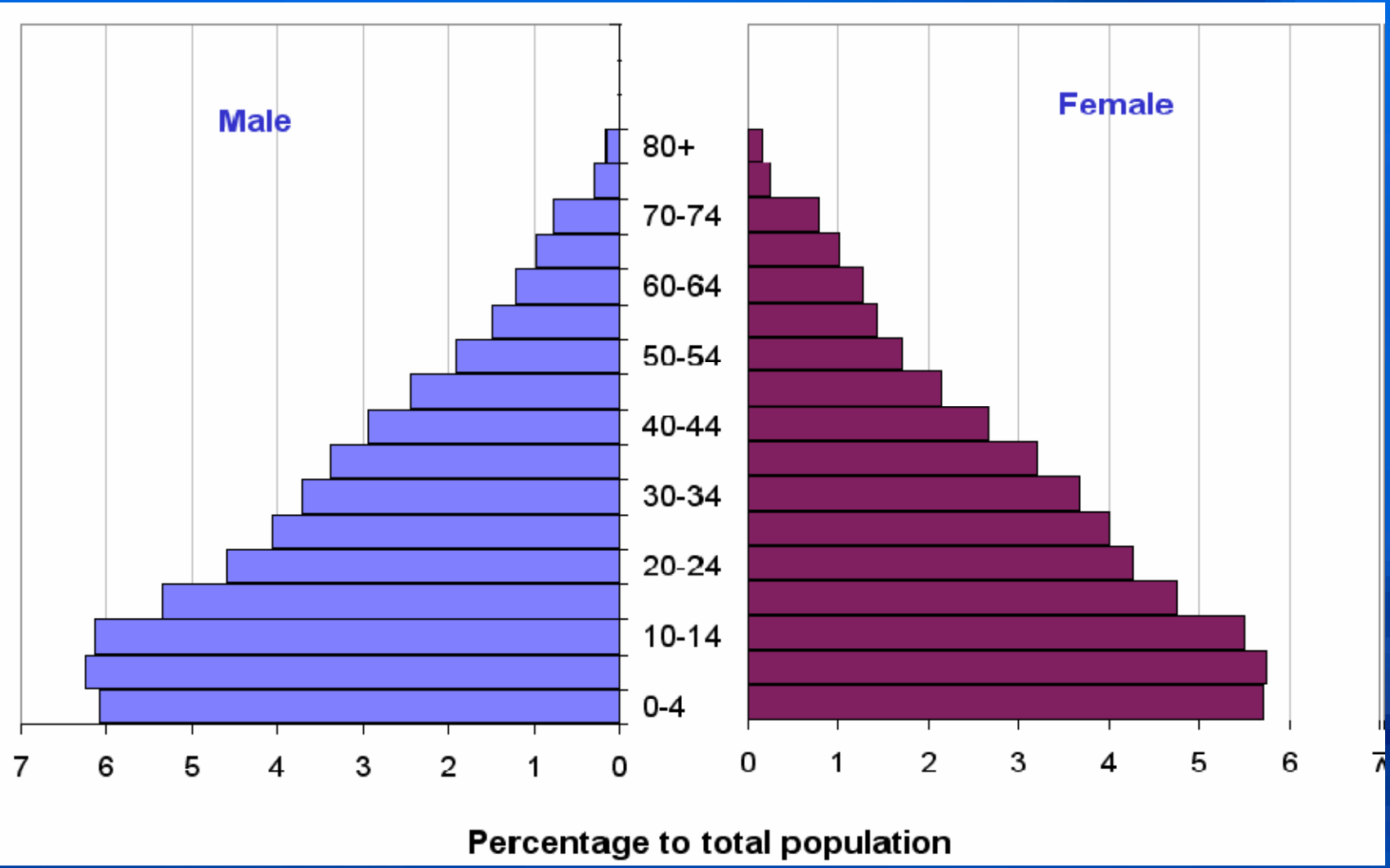
Population and Growth: India

Population Growth-India



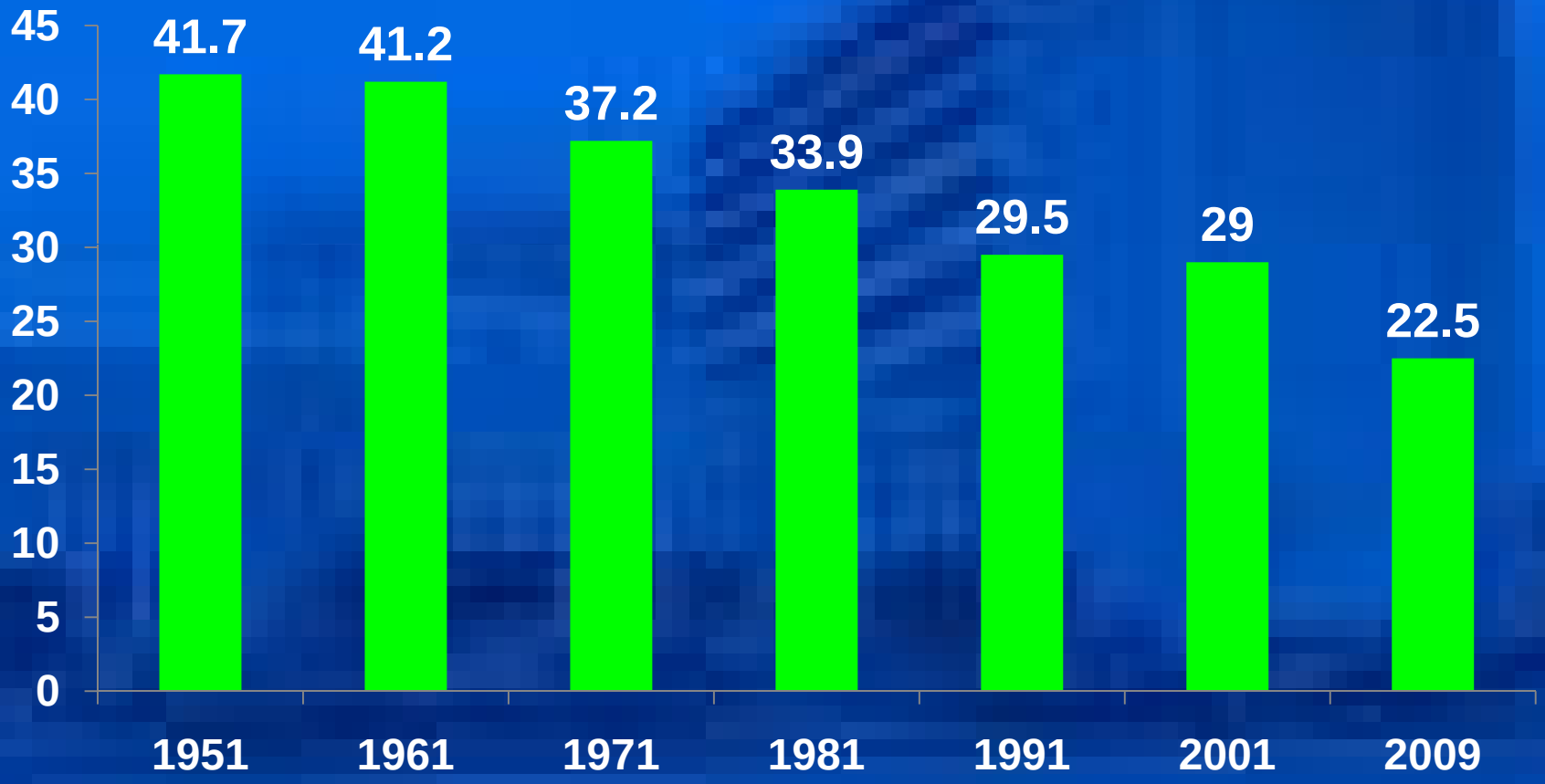
Source: Census India,2011

Population Pyramid: India, 2011



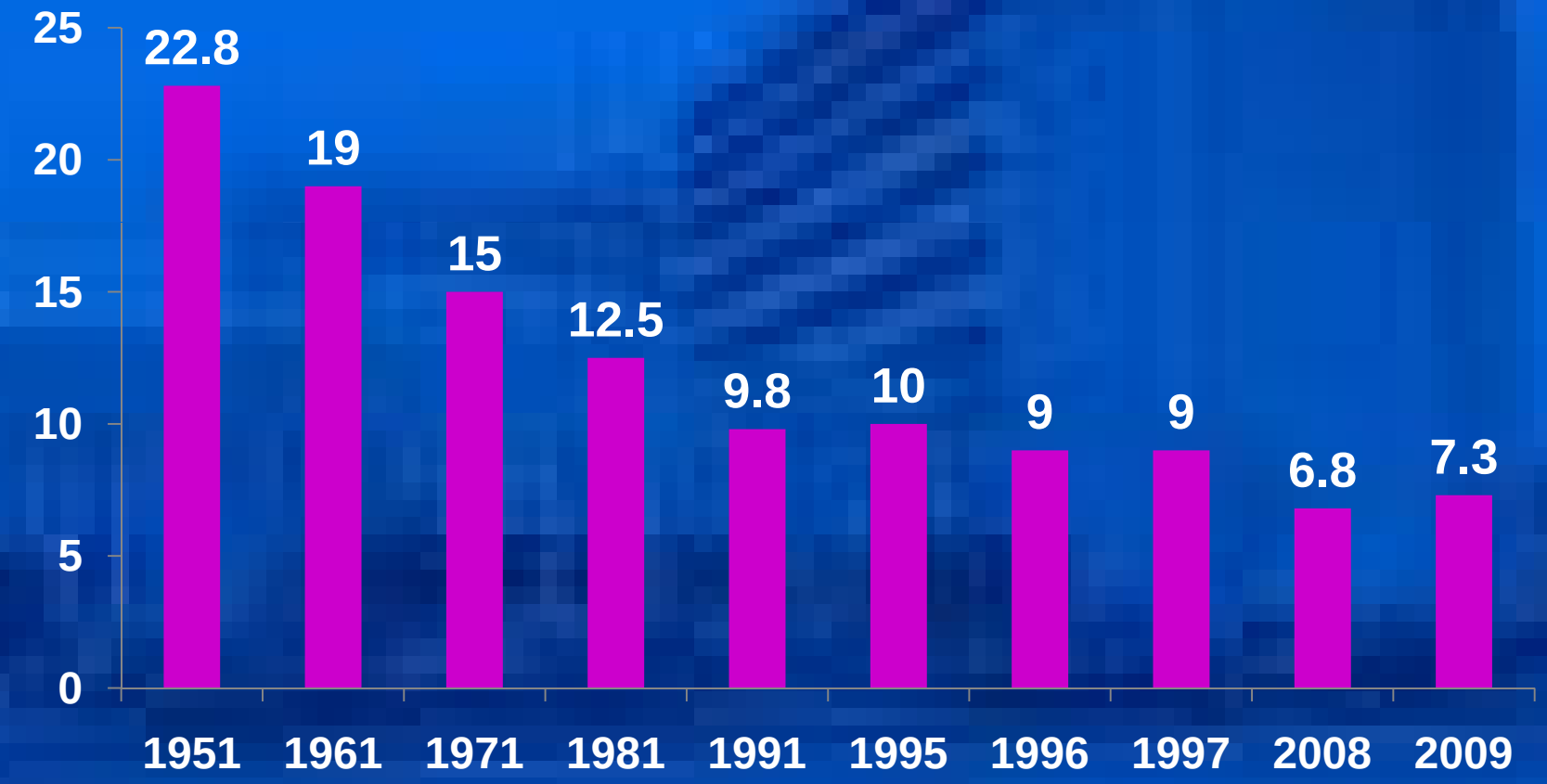
Source:U.S Census Bureau

Crude Birth Rate(India)



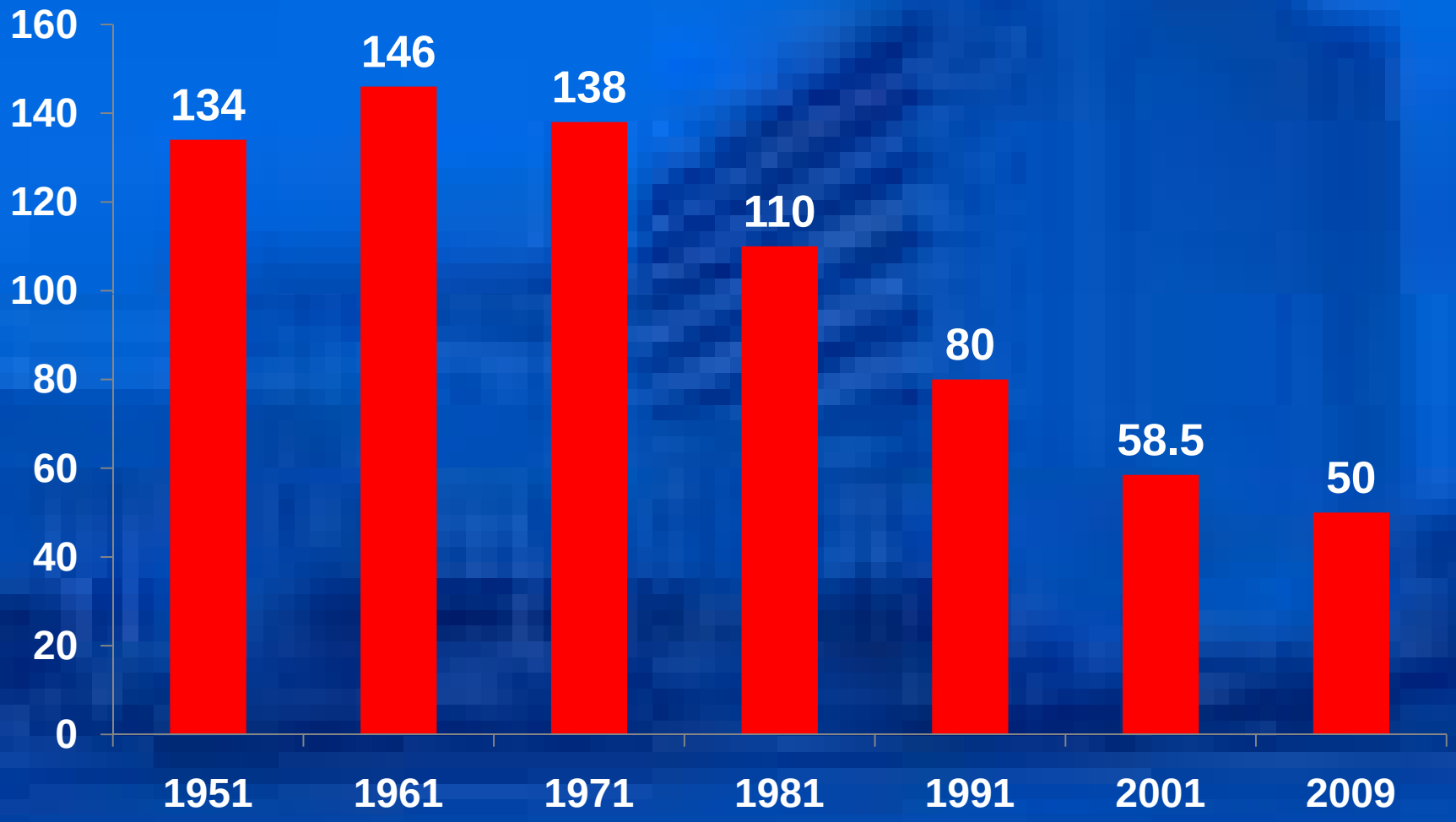
Source: SRS 2011

Crude Death Rate (India)



Source: SRS 2011

Infant Mortality Rate (India)

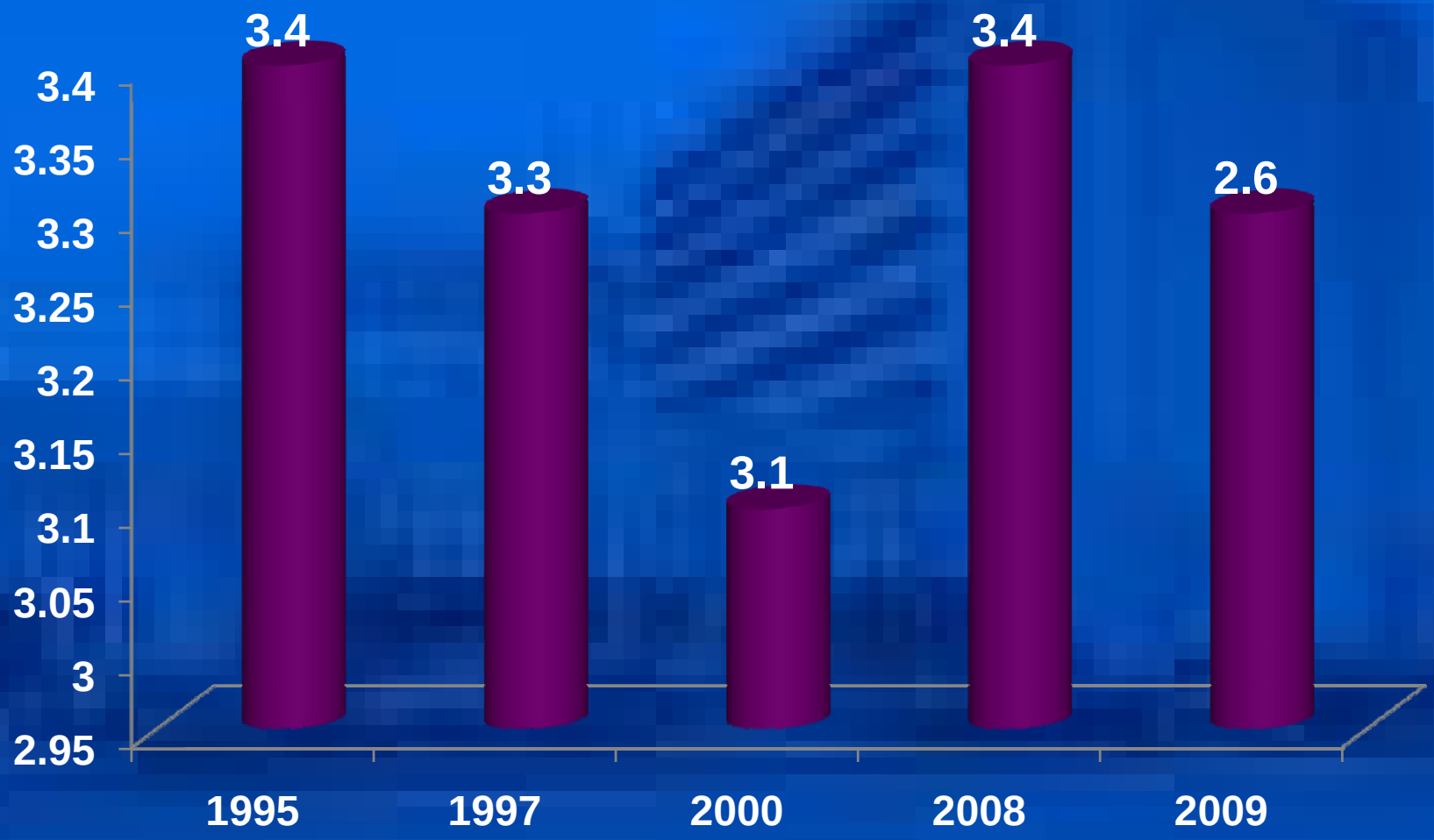


Source:SRS,2011

Maternal Mortality Ratio(India)

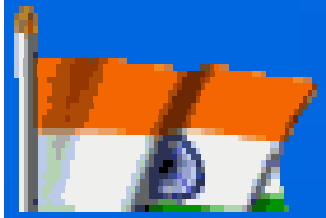
Source: SRS ,July 2011

Total Fertility Rate (India)

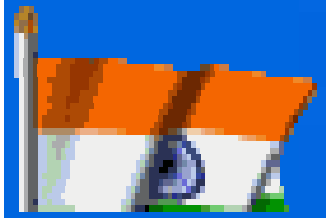


Source: SRS,July2011

How did Health system evolve



1947



1950

Committees & Commissions

Committees & Commissions

- 1946: Bhore Committee
- 1959-62 Mudaliar committee (Health Survey And Planning Committee): Health services restructuring
- 1963: Chaddah committee: TOR-Malaria
- 1964:Mukherjee committee: Family planning

- 1964-67:Junglewala committee: Integration Of Health Services
- 1972-73:Kartar Singh committee: MPW scheme
- 1974-75:Srivastav committee: Medical Education & Support Manpower

1959-62 Mudaliar committee (Health Survey And Planning Committee)

- Consolidate gains
- Strengthen district hospitals
- Regionalization of health services
- PHC for 40000 population
- Integration of medical & health
- Creation of all India health services cadre

1963: Chaddah committee

- **TOR-Malaria**
- **NMEP**
  - vigilance & maintenance by health services
  - Monthly home visits
  - 10000 population per worker
- **Basic health worker**
  - vital statistics &
  - family planning

1964:Mukherjee committee

- TOR-Family planning
- Exclusive family planning staff (uni-purpose worker)

1964-67:Junglewala committee (Integration Of Health Services)

- Unified cadre
- Common seniority
- Recognition of extra qualifications
- Equal pay
- Specialized pay
- No private practice

1972-73:Kartar Singh committee

- Conversion of ANM to MPHW (F)
- Uni-purpose to multi-purpose workers
- One PHC per 50000 population
    - 16 S/C per PHC
    - 3000-3500 population per S/C
    - One supervisor for 4 workers

1974-75:Srivastav committee (Medical Education & Support Man-Power Committee)

- Cadre of community health workers (CHW)
- Medical officer for maternal health at PHC
- Heath assistant to be a link between health worker and PHC

Bajaj Committee, 1986

- An "Expert Committee for Health Manpower Planning, Production and Management" was constituted in 1985 under Dr. J.S. Bajaj.
- Recommendations :
  - Formulation of National Medical & Health Education Policy.
  - Formulation of National Health Manpower Policy.

- Establishment of Educational Commission for Health Sciences (ECHS) on the lines of UGC.
- Establishment of Health Science Universities in various states and union territories.
- Establishment of health manpower cells at centre and in the states.

4 Reasons based on 4 lesser known facts

- Reason 1:
  - Public doctors in India are among the most absent in the world
  - Absences are never below 30 percent!
- Reason 2:
  - When public doctors do show up for work, the exert very little effort
- Reason 3:
  - Public doctors in PHCs are not particularly competent to begin with
- Reason 4:
  - You still have to bribe public doctors to do their work

One important question…

Why don't the poor use public health facilities more?

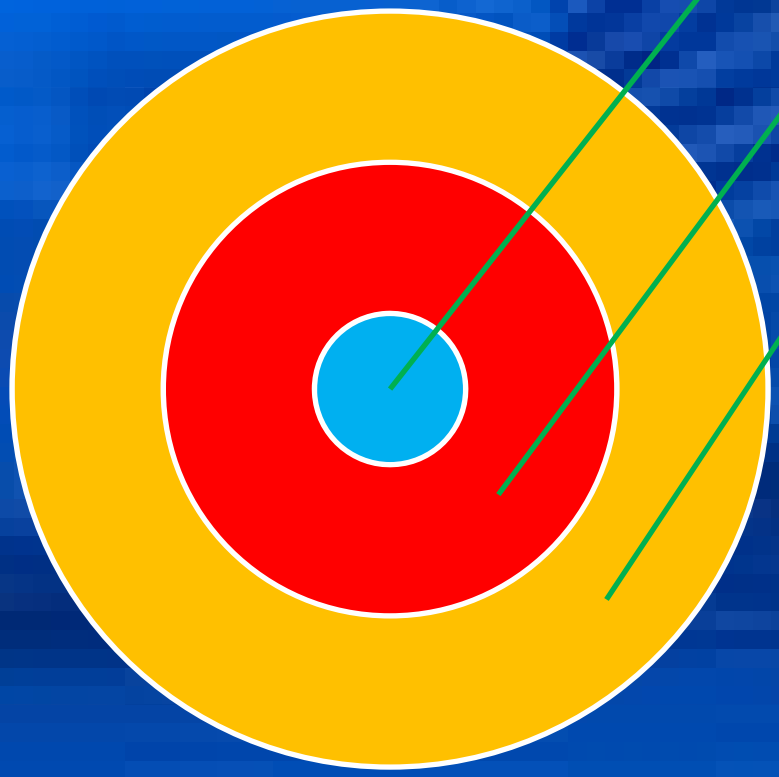
Some facts about Public Health care in India

- Fact #1:
  - Most spending is private; the fraction on genuine public goods is tiny
- Fact #2:
  - The poor use private care as much as the rich
- Fact #3:
  - More public money on health goes to the rich than the poor (because hospital use is regressive)

A summary of why poor people may not be using the PHC system

- The doctors are low on competence
- They don't show up for work
- When they do show up, they don't work to the level of their knowledge
- And patients have to pay bribes anyway

Service delivery:3-tier structure



Tertiary Care — DH

Secondary Care — CHC

Primary Care — PHC

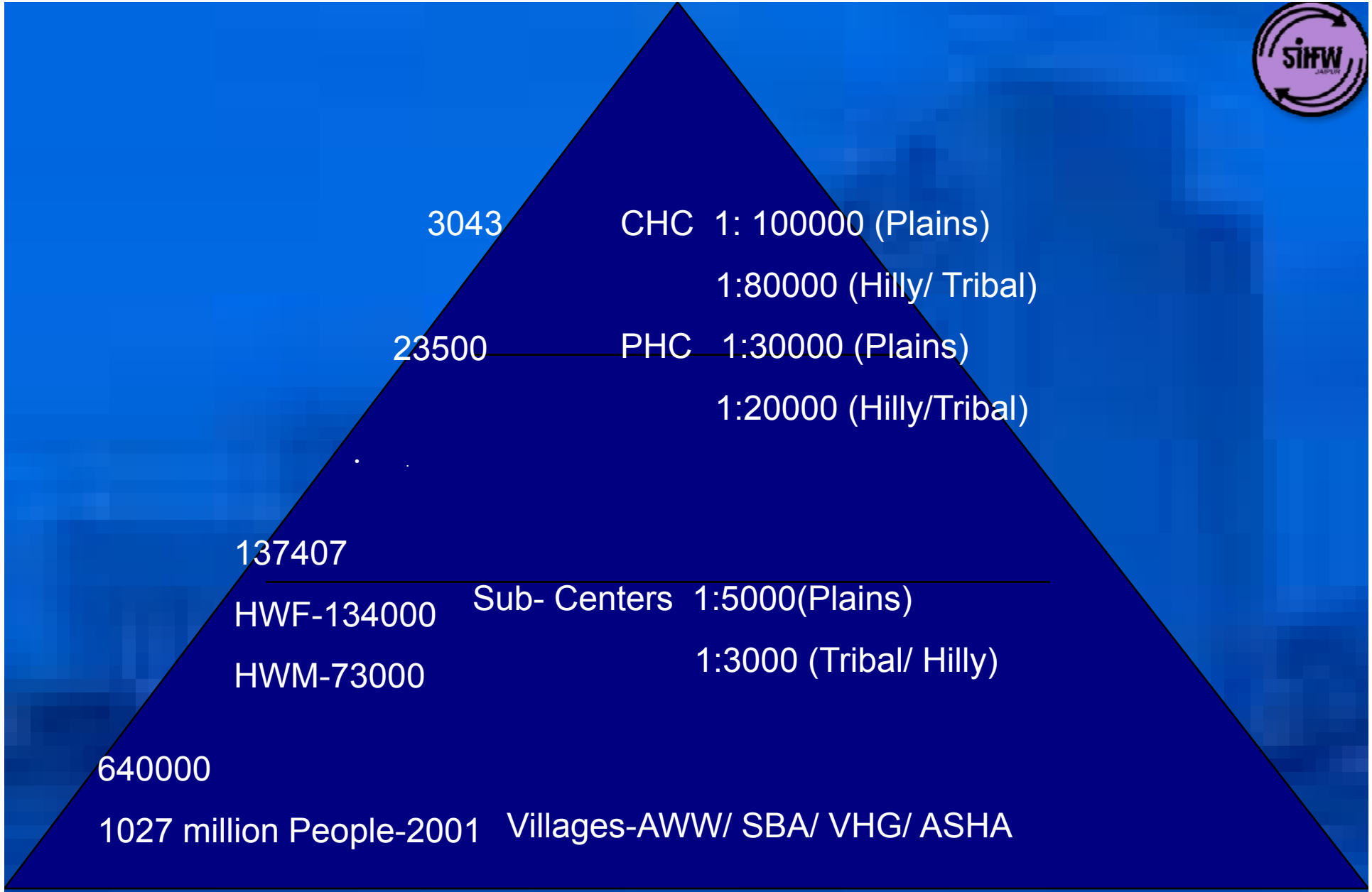
SC

Underutilized for-

Services

Supply

Funding


3043
CHC 1: 100000 (Plains)
1:80000 (Hilly/ Tribal)
23500
PHC 1:30000 (Plains)
1:20000 (Hilly/Tribal)
137407
HWF-134000
HWM-73000
Sub- Centers 1:5000(Plains)
1:3000 (Tribal/ Hilly)
640000
1027 million People-2001
Villages-AWW/ SBA/ VHG/ ASHA

The Political Economy Context

- A democratic federal system which is subdivided into

  28 States, 7 union territories and 593 districts
- In most of the states three local levels of government (Panchayati-raj)
- Per capita income US $440
- 435 million Indians are estimated to live on less than US $ 1 a day

- 36% of the total number of the worlds' poor are in India
- Tax based health finance system with health insurance
- 80% health care expenditure born by patients and their families as out-of -pocket payment (fee for service and drugs)
- Expenditure on health care is second major cause of indebtedness among rural poor

Characteristics of Indian Health System

- Complex mixed health system

  - Publicly financed government health system

  - Fee-levying private health sector

Different Phases of Indian Health System Development

- Pre-independence phase
- Development centred phase
- Comprehensive Primary Health Care phase
- Neoliberal economic and health sector reform phase
- Health systems phase

Main Systems of Medicine

- Western allopathic
- Ayurveda
- Unani
- Siddha
- Homeopathy

Government Health System

Three levels of responsibilities-

First-

- Health is primarily a state responsibility

Second-

- The central government is responsible for developing and monitoring national standards and regulations
- Sponsoring various schemes for implementation by state governments
- Providing health services in union territories

Third-

- both the centre and the states have a joint responsibility for programmes listed under the concurrent list.

Administrative Structure

1. Central Ministries of Health and Family Welfare –
   - Responsible for all health related programmes
   - Regulatory role for private sector
2. State Ministries of Health and Family Welfare
3. District Health Teams headed by Chief Medical and Health Officer

Service Delivery Structure

- Sub Health Centres-

  staffed by a trained female health worker and/or a male health worker for a population of 5000 in the plains and a population of 3000 in hilly and tribal areas.
- Primary Health Centres-

  staffed by a medical officer and other paramedical staff for a population of 30,000 in the plains and a population of 20,000 in hilly, tribal and backward areas. A PHC centre supervises six to eight sub centres.

Service Delivery Structure

- Community health centres- with 30-50 beds and basic specialities covering a population of 80,000 to 120,000. The CHC acts as a referral centre for four to six PHCs.
- District/General hospitals- at district level with multi speciality facilities (City dispensaries)
- Medical colleges, All India institute of Medical Sciences and quasi government institutes (NIHFW and SIHFWs)

Health Financing Mechanisms..

- Revenue generation by tax
- Out of pocket payments or direct payments
- Private insurance
- Social insurance
- External Aid supported schemes

Spending on Health

- Annually over 150,000 crores or US$34 billion, which is 6% of GDP (Government spending on health Is only 0.9% of GDP)
- Out of this only 15 % is publicly financed 4% from social insurance, 1% by private insurance remaining 80% is out of pocket spending (85% of which goes in private sector)
- Only 15% of the population is in organised sector and has some sort of social security the rest is left to the mercy of the market

The Aspects of Neoliberal Economic Reforms Affecting Public Health

- Increasing unregulated privatisation of the health care sector with little accountability to patients
- Cutting down government Health care expenditure
- Systematic deregulation of drug prices resulting in skyrocketing prices of drugs and rising cost of health services
- Selective intervention approach instead comprehensive primary health care
- Measure diseases in terms of cost effectiveness
- Techno centric approach(emphasis on content instead processes)

Contradictions

- India has the largest numbers of medical colleges in the world
- It produces the largest numbers of doctors among developing countries
- It gets “medical Tourists” from developed countries
- This country is fourth largest producer of drugs by volume in the world

But... the current situation....

- Only 43.5% children are fully immunised.
- 79.1% of children from 6 months to 5 years of age are anaemic.
- 56.1% ever married women aged 15-49 are anemic.
- Infant Mortality Rate is 58/1000 live births for the country with a low of 12 for Kerala and a high of 79 for Madhya Pradesh.
- Maternal Mortality Rate is 301 for the country with a low of 110 for Kerala and a high of 517 for UP and Uttaranchal in the 2001-03 period.

- Two thirds of the population lack access to essential drugs.
- 80% health care expenditure born by patients and their families as out-of -pocket payment (fee for service and drugs)
- Health inequalities across states, between urban and rural areas, and across the economic and gender divides have become worse
- Health, far from being accepted as a basic right of the people, is now being shaped into a saleable commodity

Contd….

- poor are being excluded from health services
- Increased indebtedness among poor
  (Expenditure on health care is second major cause of Indebtedness among rural poor)
- Difference across the economic class spectrum and by gender in the untreated illness has significantly increased
- Cutbacks by poor on food and other consumptions resulting increased illnesses and increasing malnutrition

Health Inequities

- The infant mortality Rate in the poorest 20% of the population is 2.5 times higher than that in the richest 20% of the population
- A child in the 'Low standard of living' economic group is almost four times more likely to die in childhood than a child in a better of high standard living group
- A person from the poorest quintile of the population, despite more health problems, is six times less likely to access hospitalization than a person from richest quintile.

Health Inequities

- A girl is 1.5 times more likely to die before reaching her fifth birthday
- The ratio of doctors to population in rural areas is almost six times lower than that for urban areas.
- Per person, government spending on public health is seven times lower in rural areas compared to government spending urban areas

Pop. Policy Draft 1976

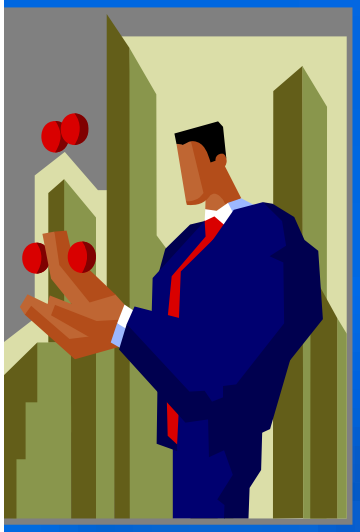
Small pox free-July 5, 1975 & ICDS started

MTPAct(1969) in force-1972

MTP Act-1969

Birth & Death Reg. Act-1969

Dept. of Family welfare -1966



Juggling Priorities

NSEP-1962

NMCP to NMEPP-1958

CHEB-1956

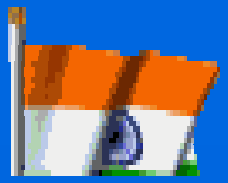
BCG Vaccination-1951

NMCP & NFPP-1951

India joins WHO- 1948

1947

HSDC-1946



ICDS renamed Integrated Mother and Child Development (IMCD) -1995

CSSM-1992

National Blood safety program- 1989

National Aids Control Program -1987

UIP-1985

NLCP-NLEP, 1983

NHP-1983

Alma Ata-Declaration(1977)-HFA-2000

NFWP-1977

NRHM-2005

National Health Policy- 2002

National Pop. Policy- 2000

RCH-1997

Family Planning Program made target free -1996

Beijing conference-1995

Legislation on Transplantation of human organs enacted 1995

ICPD-1994

Public Health Care in India

- Well developed administrative system
- Skills
- Reasonable Infrastructure

Something is wrong

- Poor health outcomes
- Design
- Misdirected efforts

1999 Plague epidemic-loss of $ 1 billion (WHO)

"Ten Great Public Health Achievements of the 20th Century"

- Vaccination
- Motor-vehicle safety
- Safer workplaces
- Control of infectious diseases
- Decline in deaths from coronary heart disease and stroke
- Safer and healthier foods
- Healthier mothers and babies
- Family planning
- Fluoridation of drinking water
- Recognition of tobacco use as a health hazard

Source: Center for Disease Control, *Morbidity and Mortality Weekly Report,* 48(12) 241-243 (April 2, 1999)

But we have known this for 64 years

"If it were possible to evaluate the loss, which this country annually suffers through the avoidable waste of valuable human material and the lowering of human efficiency through malnutrition and preventable morbidity, we feel that the results would be so startling that the whole country would be aroused and would not rest until a radical change has been brought about."

After 64 years of Health Services:

- Crude Death Rate ↓
- Crude birth rate ↓
- Life expectancy ↑
- S.pox & G. worm eradicated
- Leprosy eliminated
- IMR ↓
- Infrastructure – expanded

Health care in India

- Entitlements by policy and not rights
- Focus on preventive and promotive care
- Grossly under-provided facilities
- Poor investments hitherto
- Declining public expenditures and new investments
- Structural Adjustment programming under World Bank dictate

Major Programs

- National AIDS Control Program
- National Cancer Control Program
- National Diarrheal Disease Control Program
- National Filaria Control Program*
- National Family Welfare Program
- National Iodine Deficiency Disorders Control Program
- National Leprosy Eradication Program

- National Malaria Eradication Program*
- National Program for Control of Blindness & Visual Impairment
- National Reproductive and Child Health Program
- National Program for surveillance Program for Communicable diseases
- National Tuberculosis Control Program (Revised)

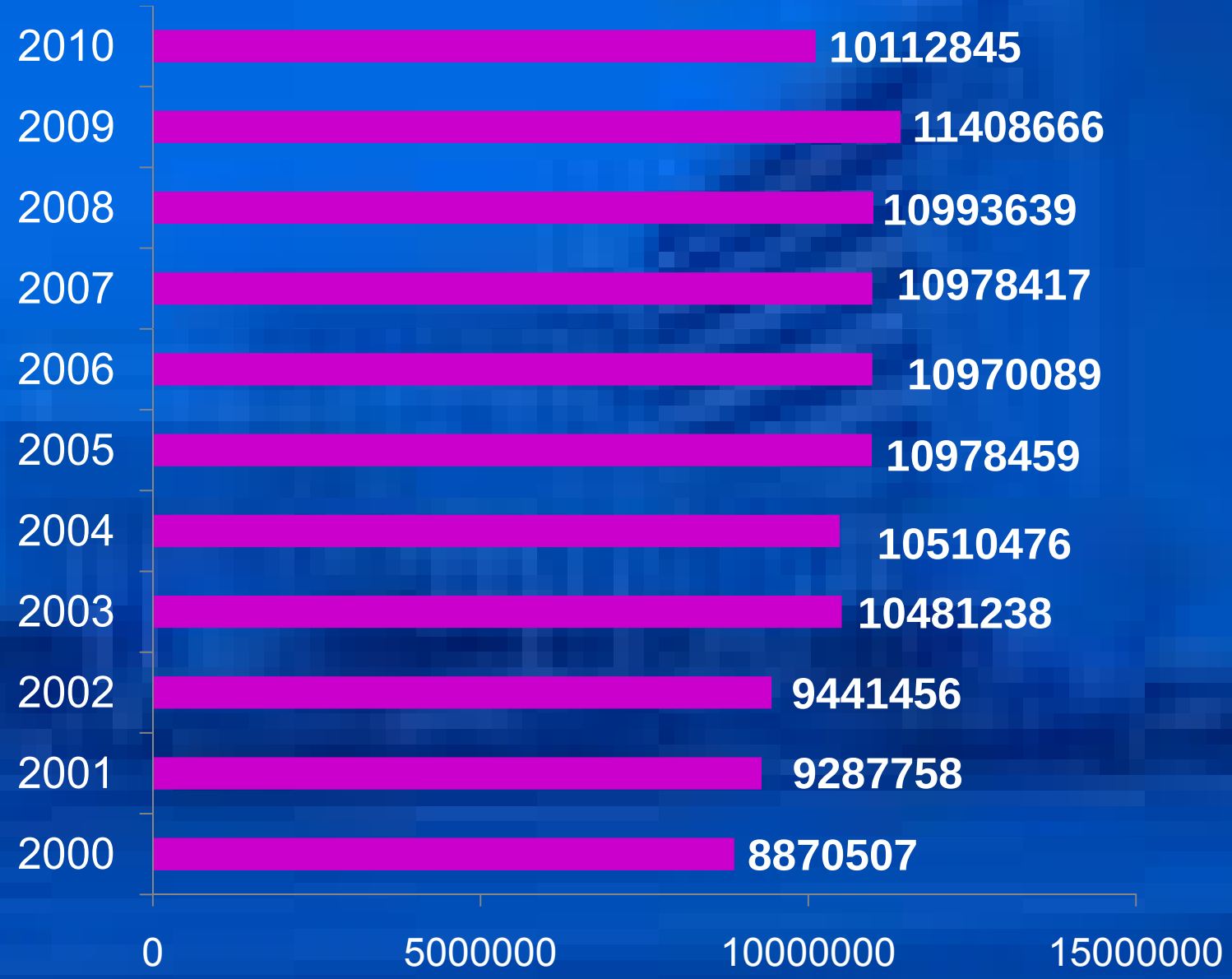
(* Programs are merged into

National Vector Borne Disease Control Program since 2003-04)

Epidemiological Profile

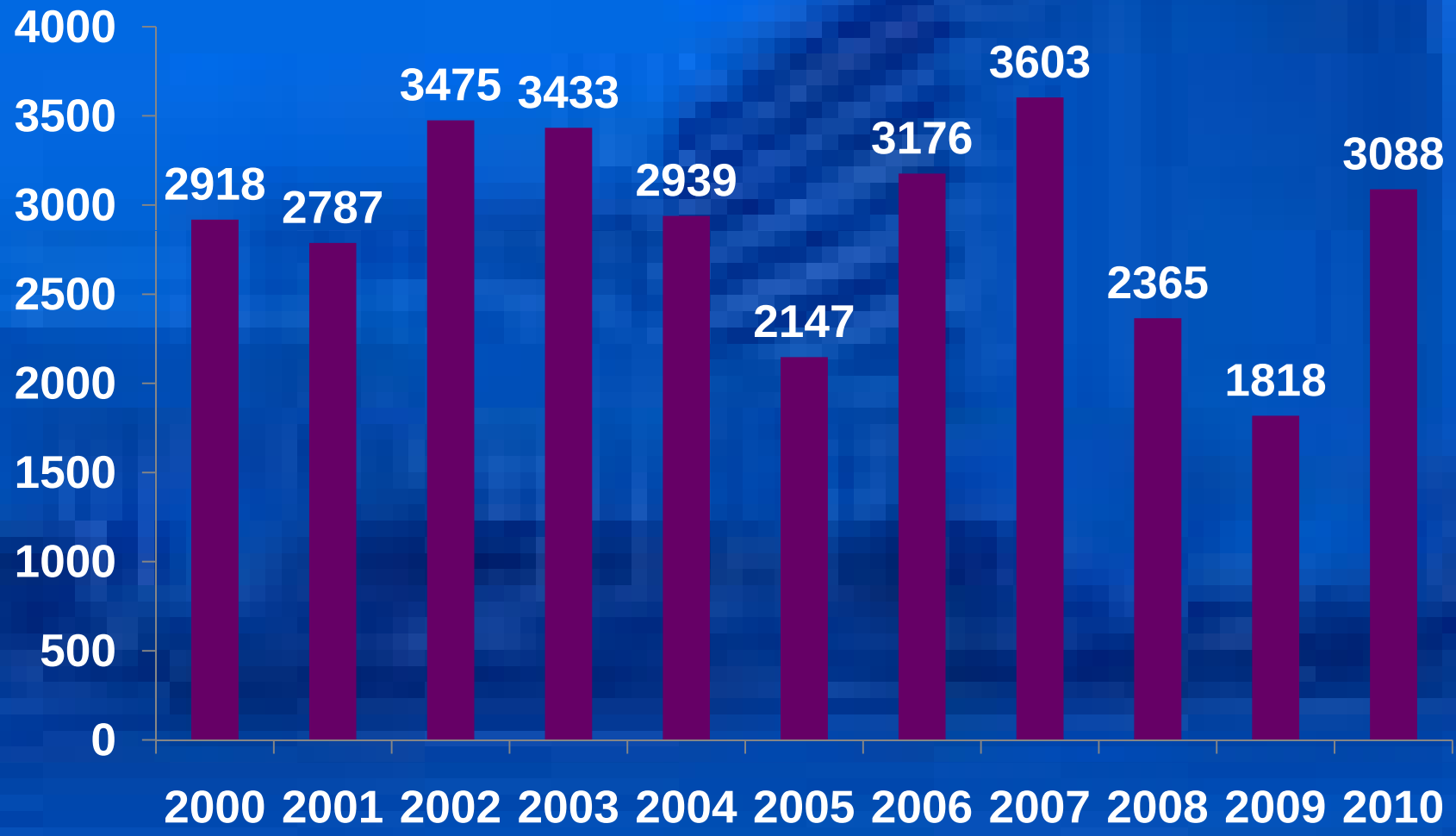
Diarrhea Cases

Source:CBHI,NHP-2010 and MOHFW



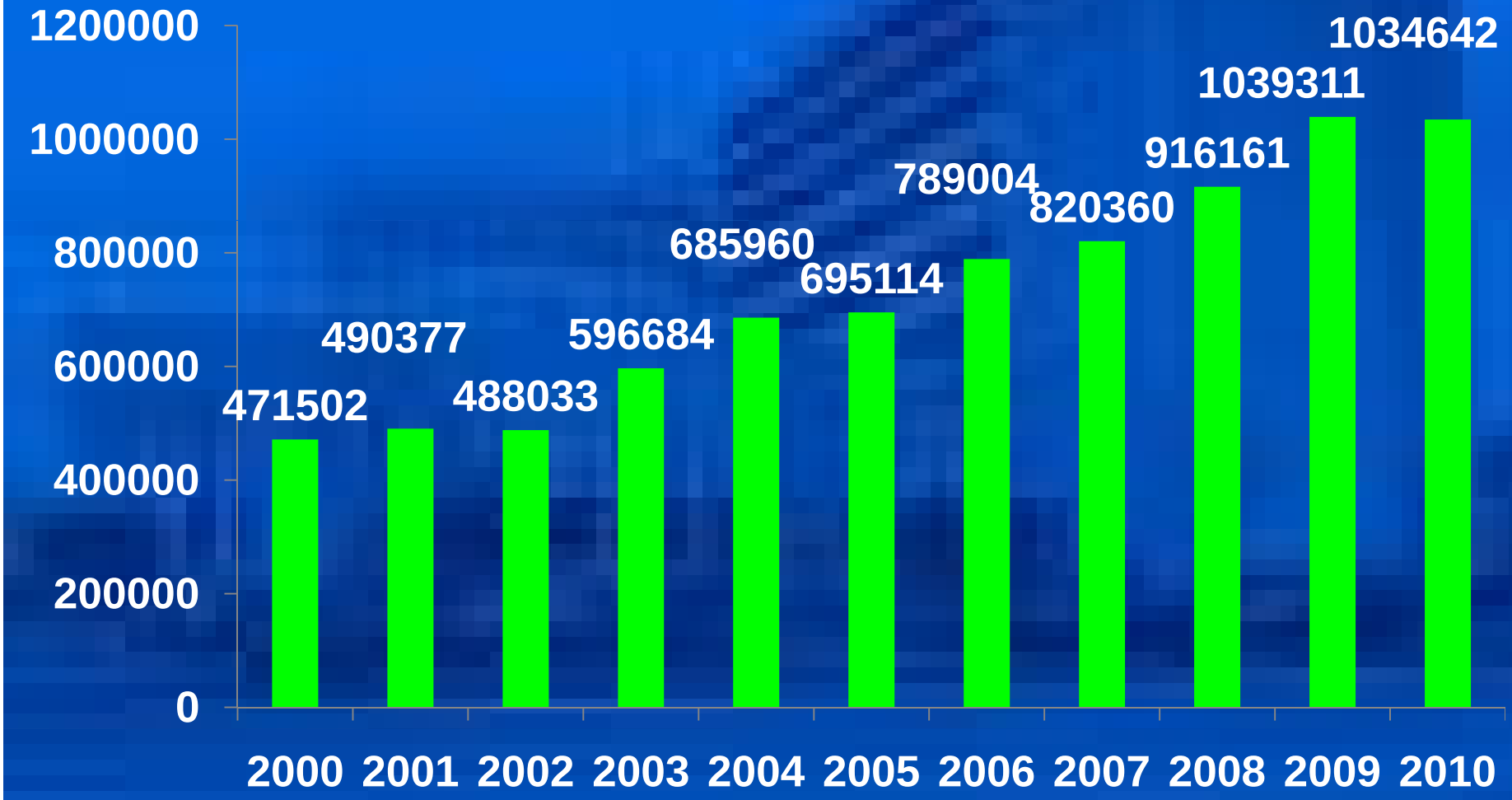
Diarrhea Deaths

Source:CBHI,NHP-2010 and MOHFW



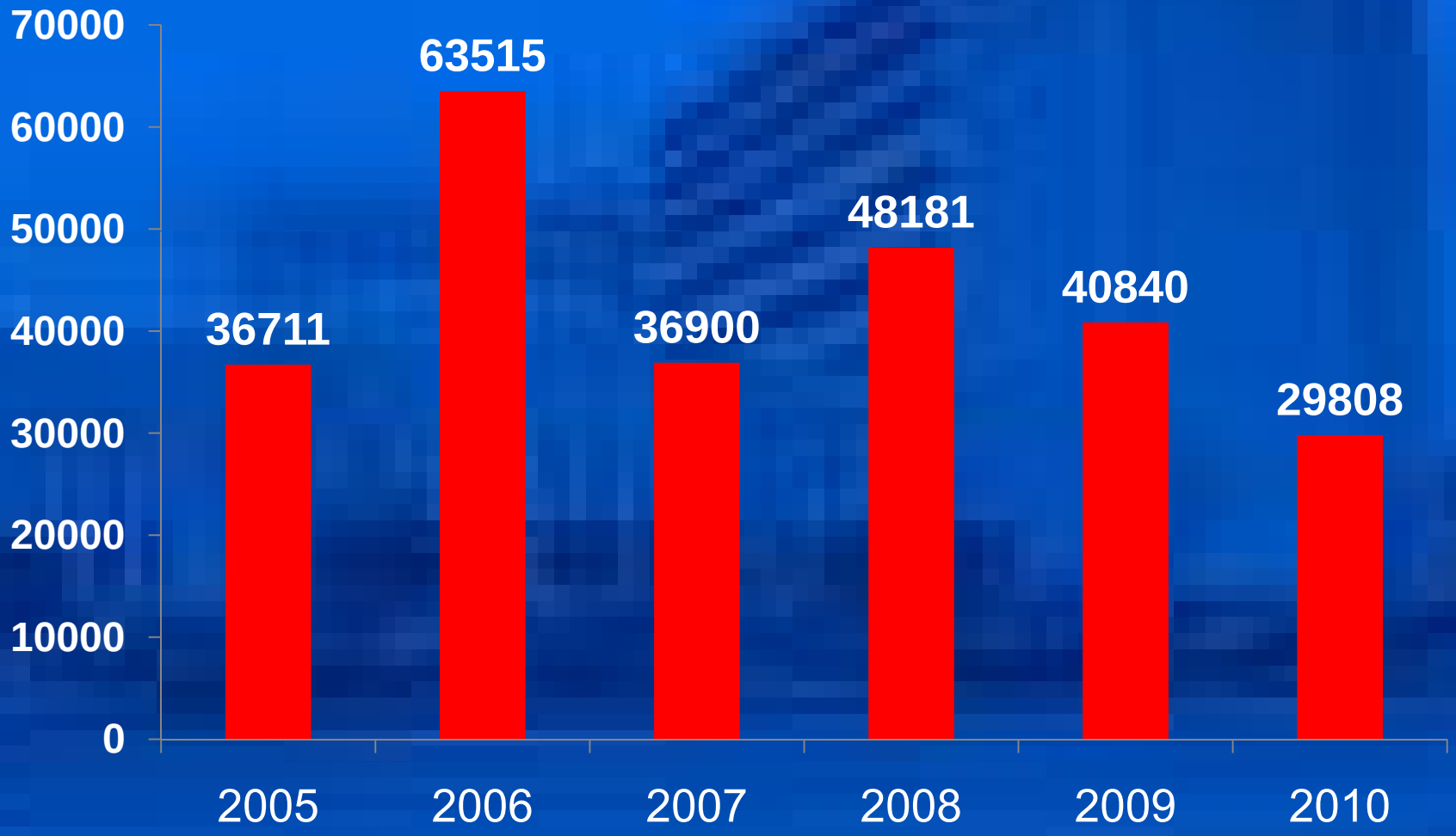
Enteric Fever Cases

Source:CBHI,NHP-2010 and MOHFW



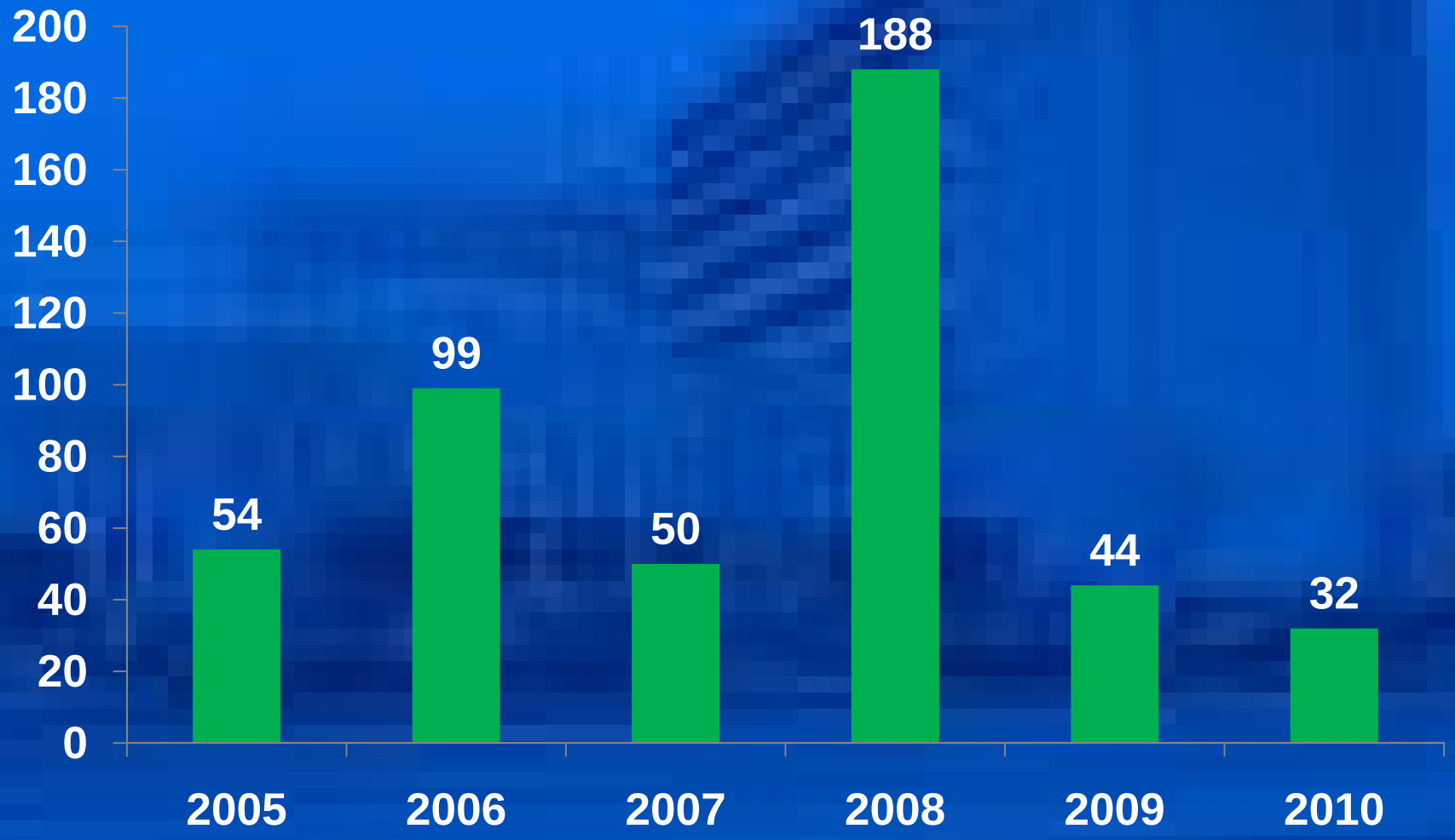
Measles Cases

Source:CBHI,NHP-2010 and MOHFW

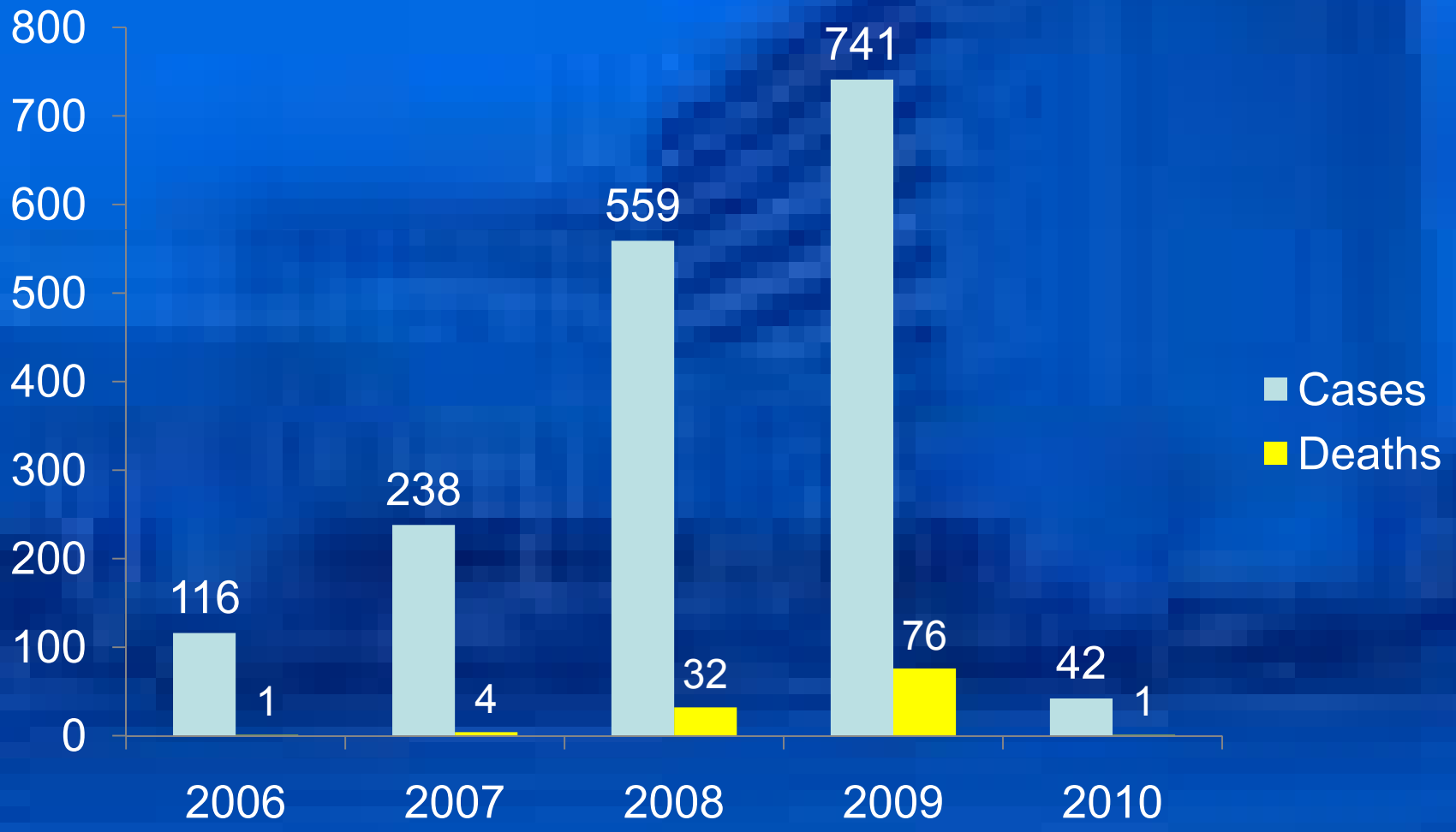


Measles deaths

Source:CBHI,NHP-2010 and MOHFW

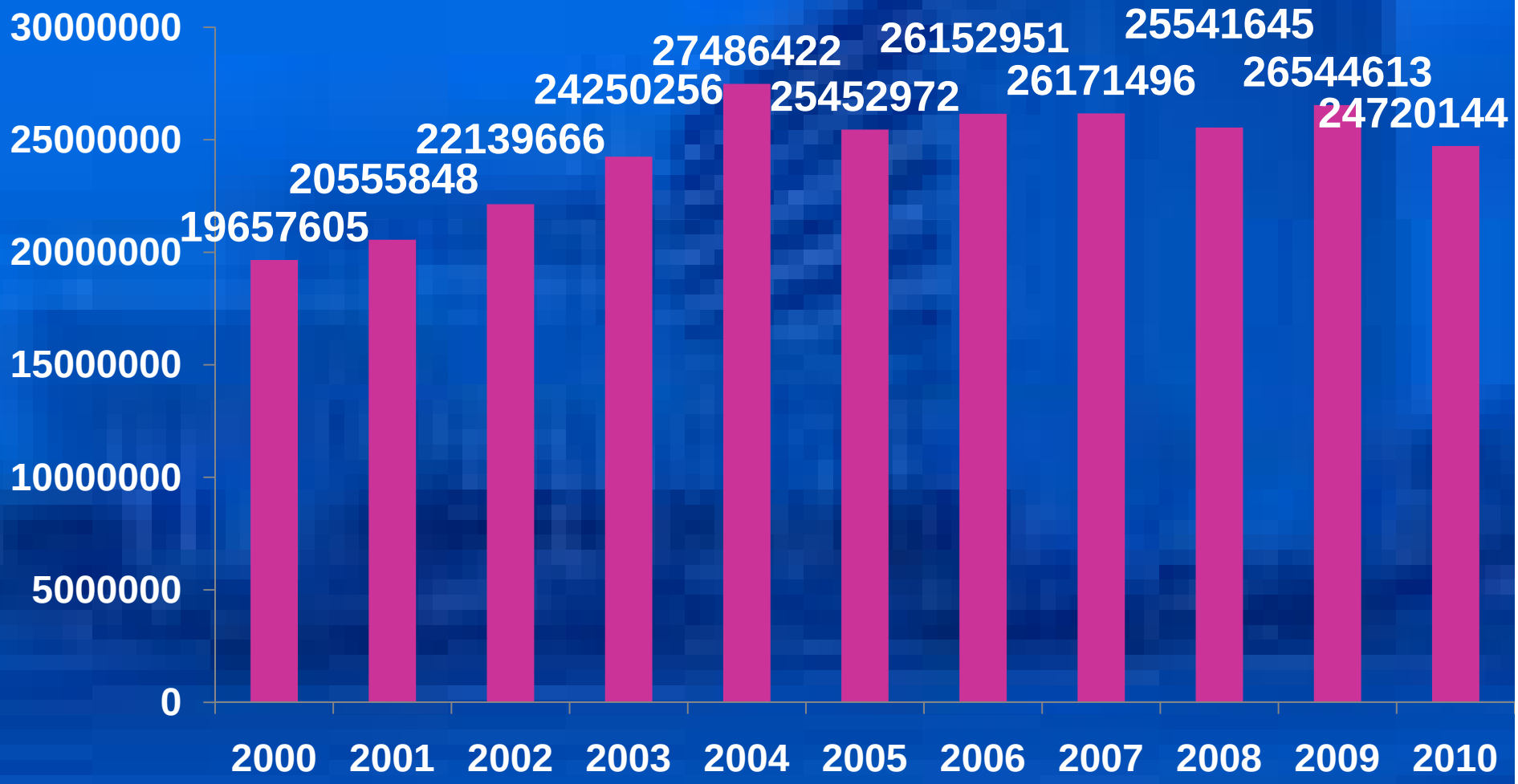


Polio


800
700
600
500
400
300
200
100
0
116
1
238
4
559
32
741
76
42
1
2006
2007
2008
2009
2010
Cases
Deaths

ARI Cases

Source:CBHI,NHP-2010 and MOHFW

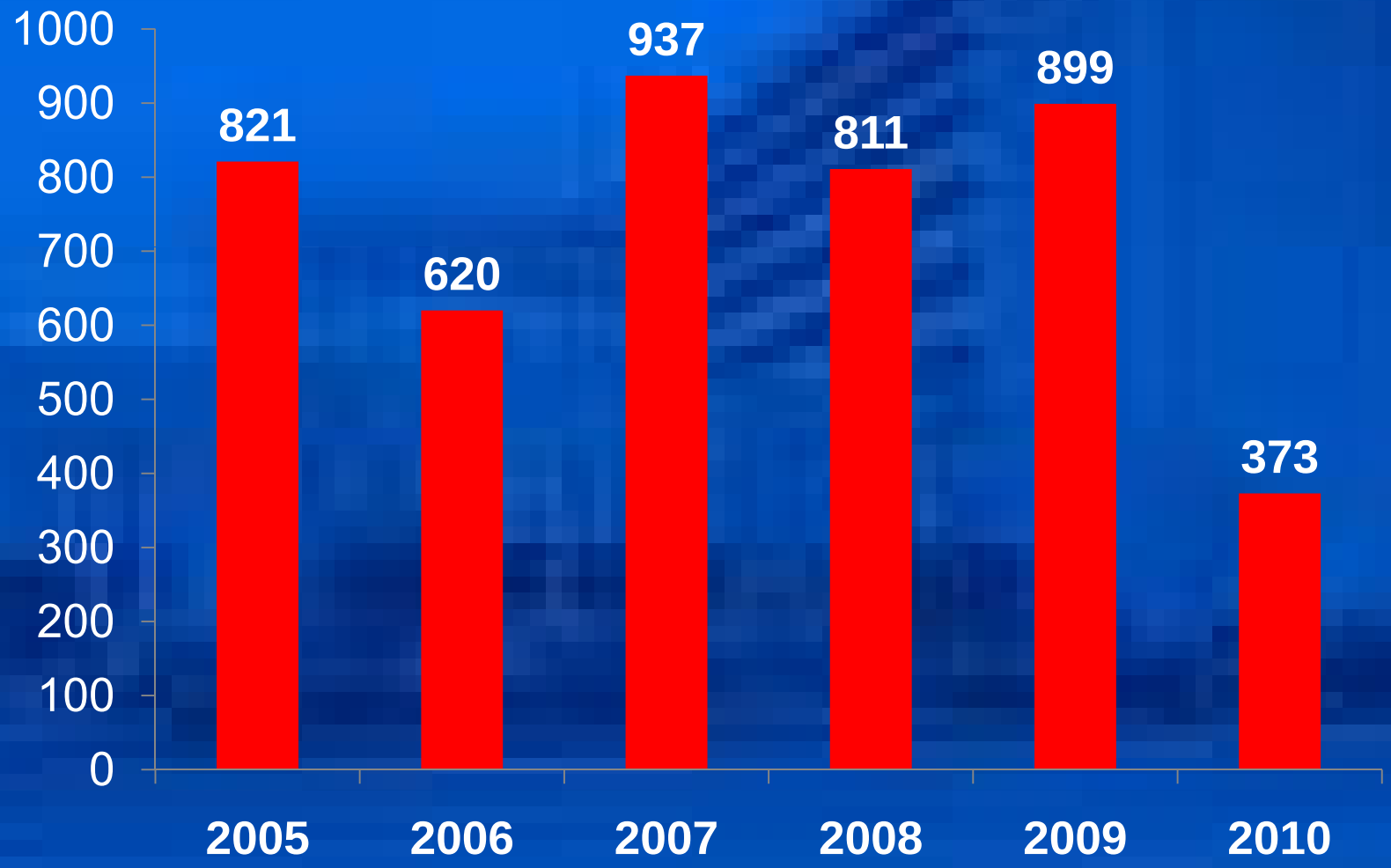


ARI Deaths

Source:CBHI,NHP-2010 and MOHFW

Neonatal tetanus Cases

Source:CBHI,NHP-2010 and MOHFW

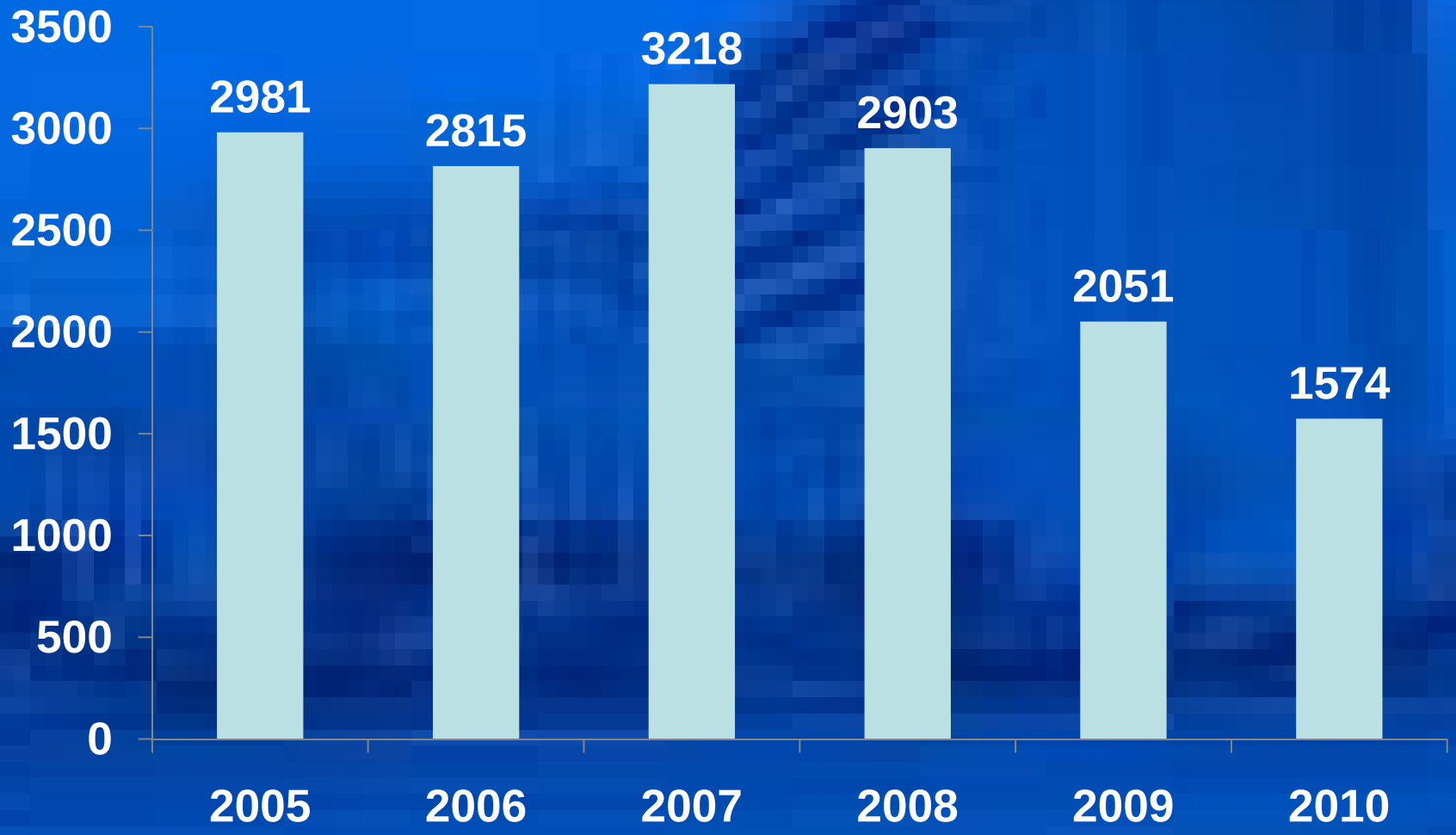


Neonatal tetanus Deaths

Source:CBHI,NHP-2010 and MOHFW

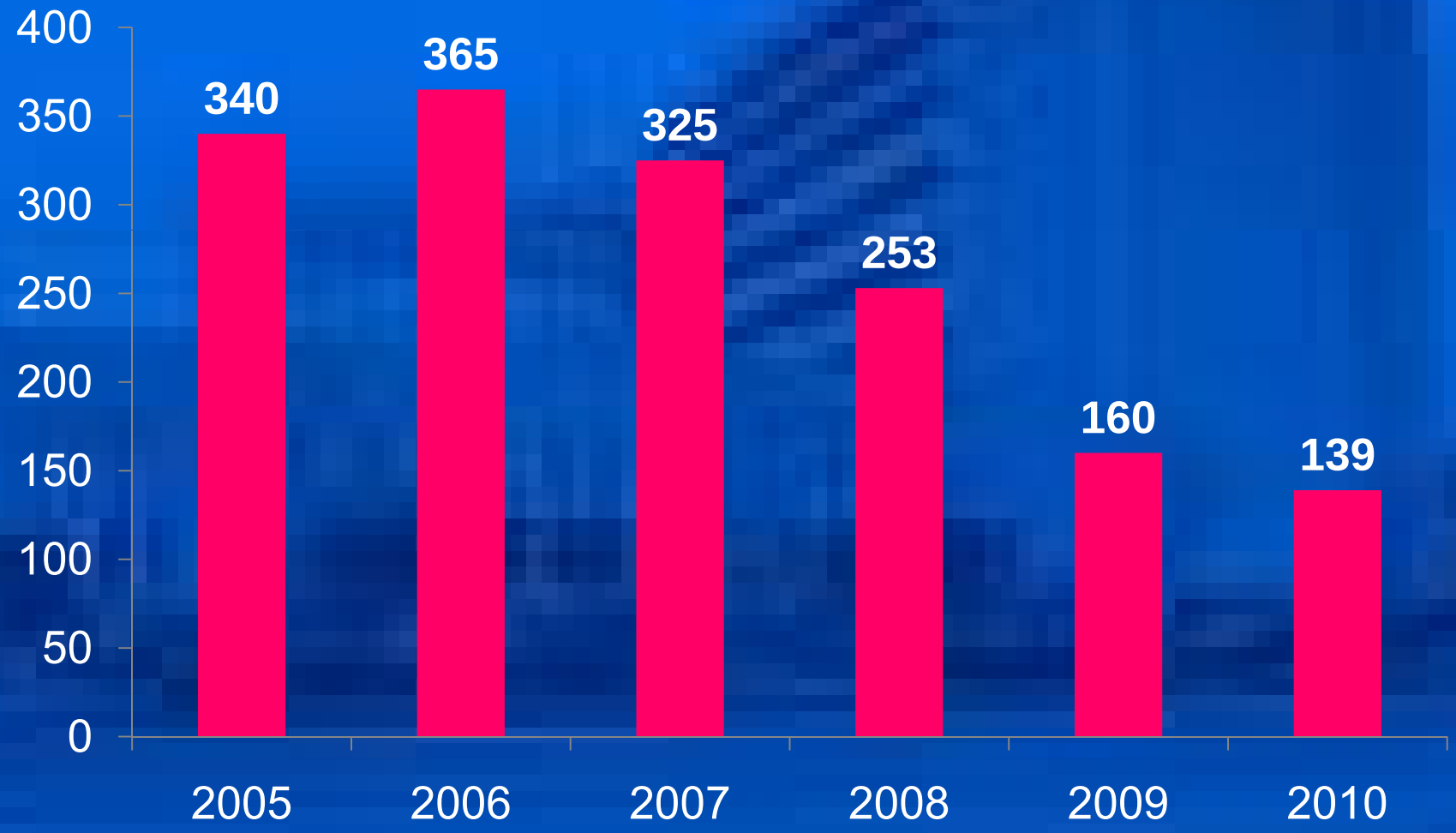
Tetanus other than Neonatal cases

Source:CBHI,NHP-2010 and MOHFW



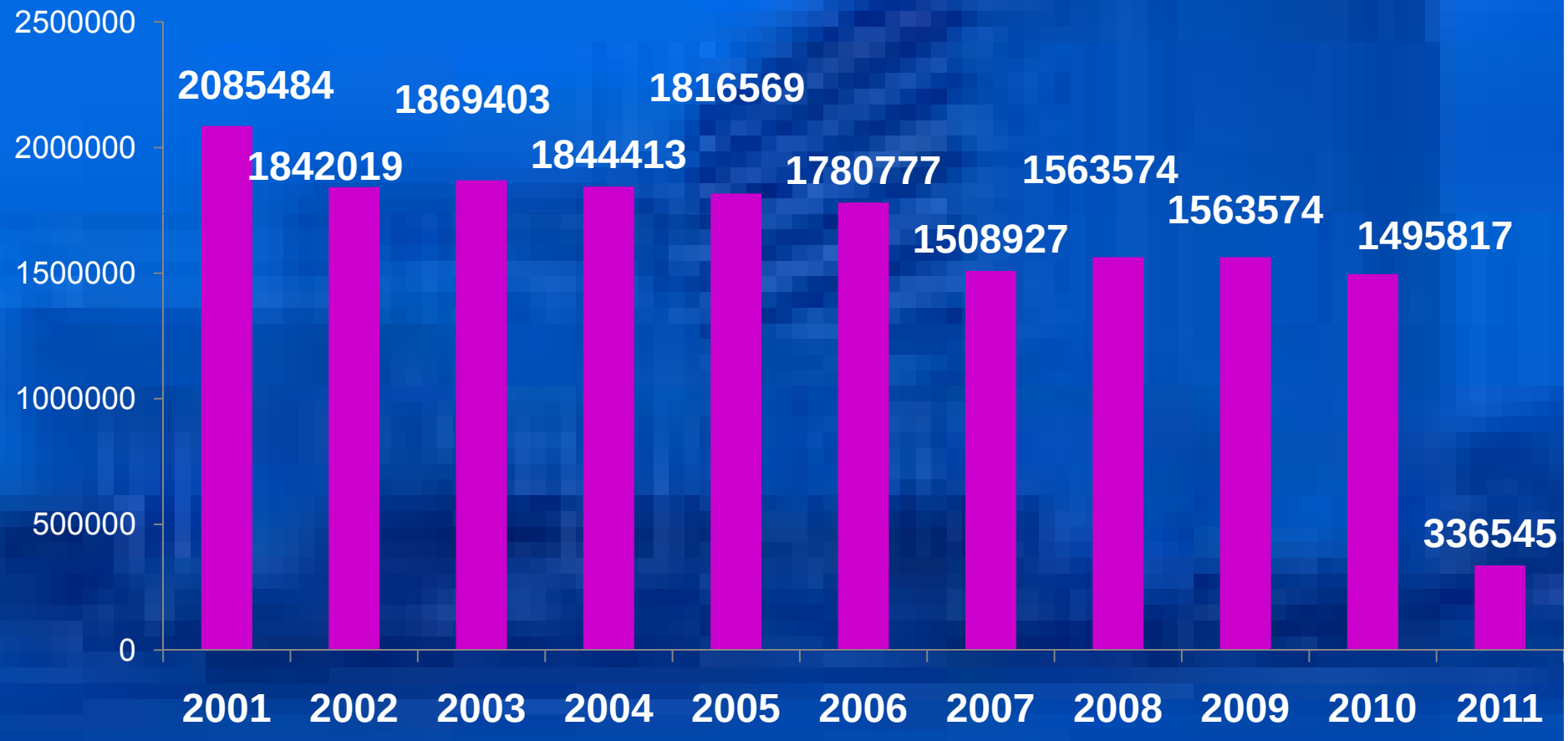
Tetanus other than Neonatal Deaths

Source:CBHI,NHP-2010 and MOHFW



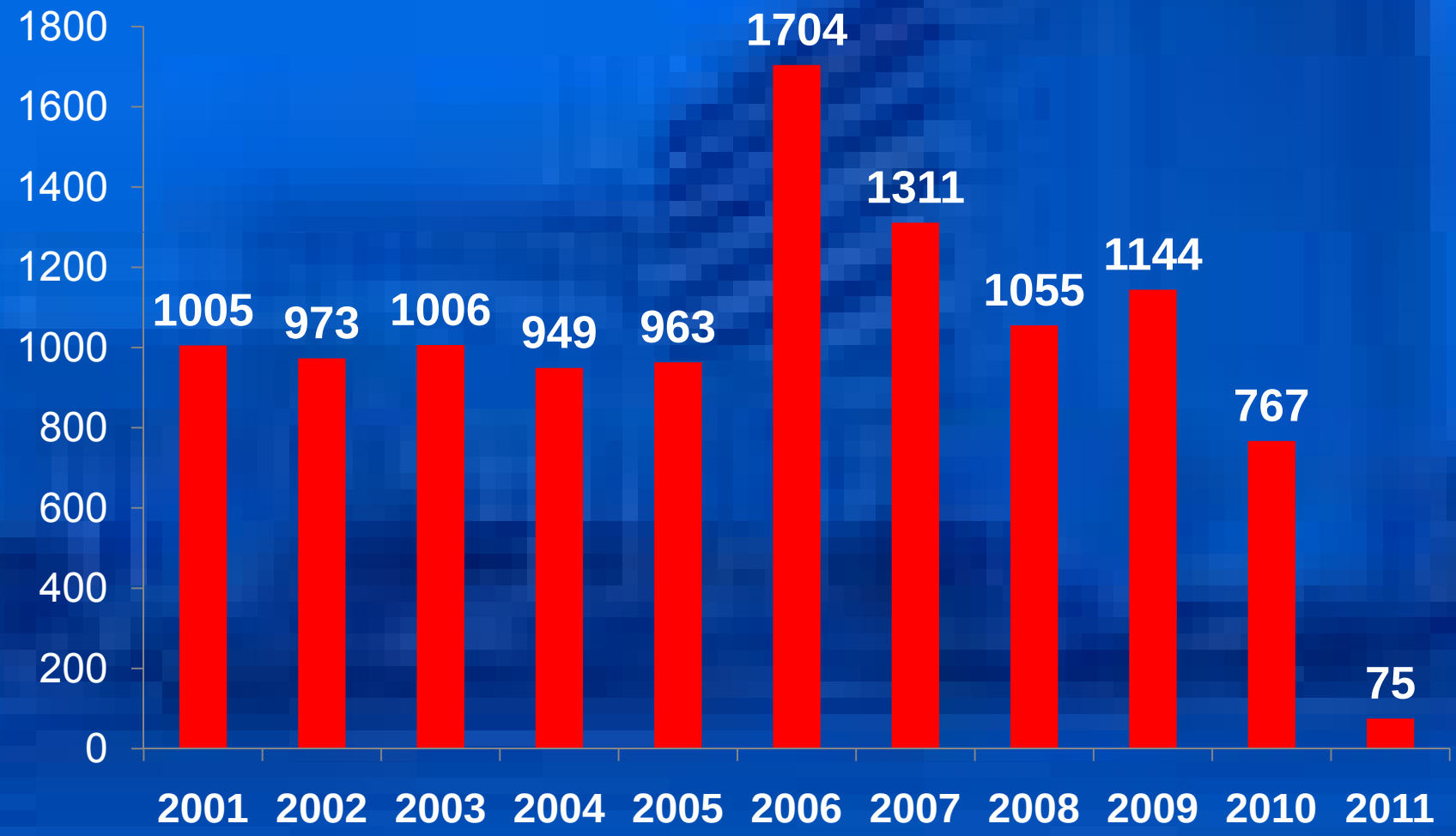
Malaria Cases : India

Source:CBHI,NHP-2010 and MOHFW



Malaria Deaths :India

Source:CBHI,NHP-2010 and MOHFW

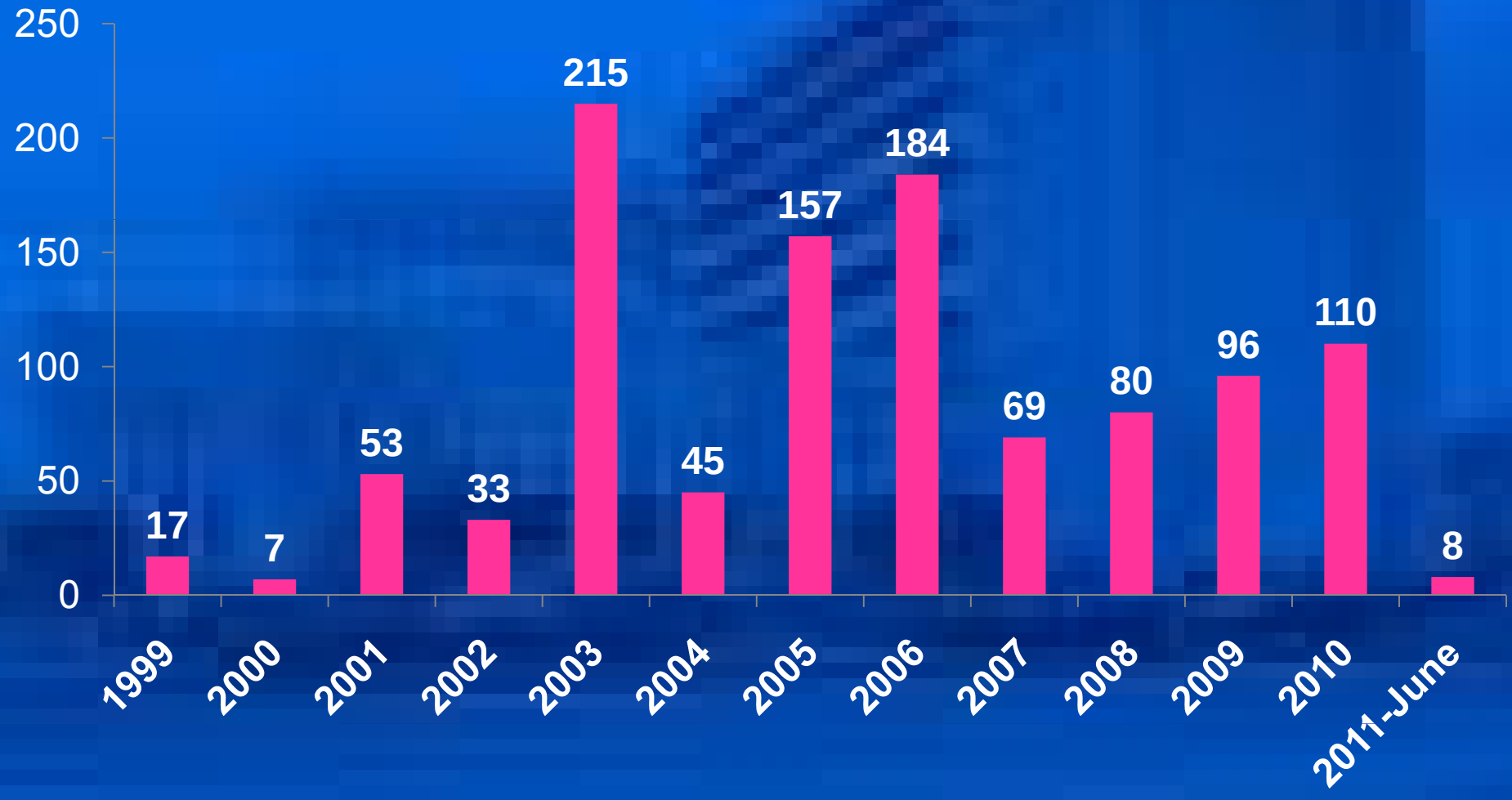


Dengue Cases : India

Source:CBHI,NHP-2010 and MOHFW

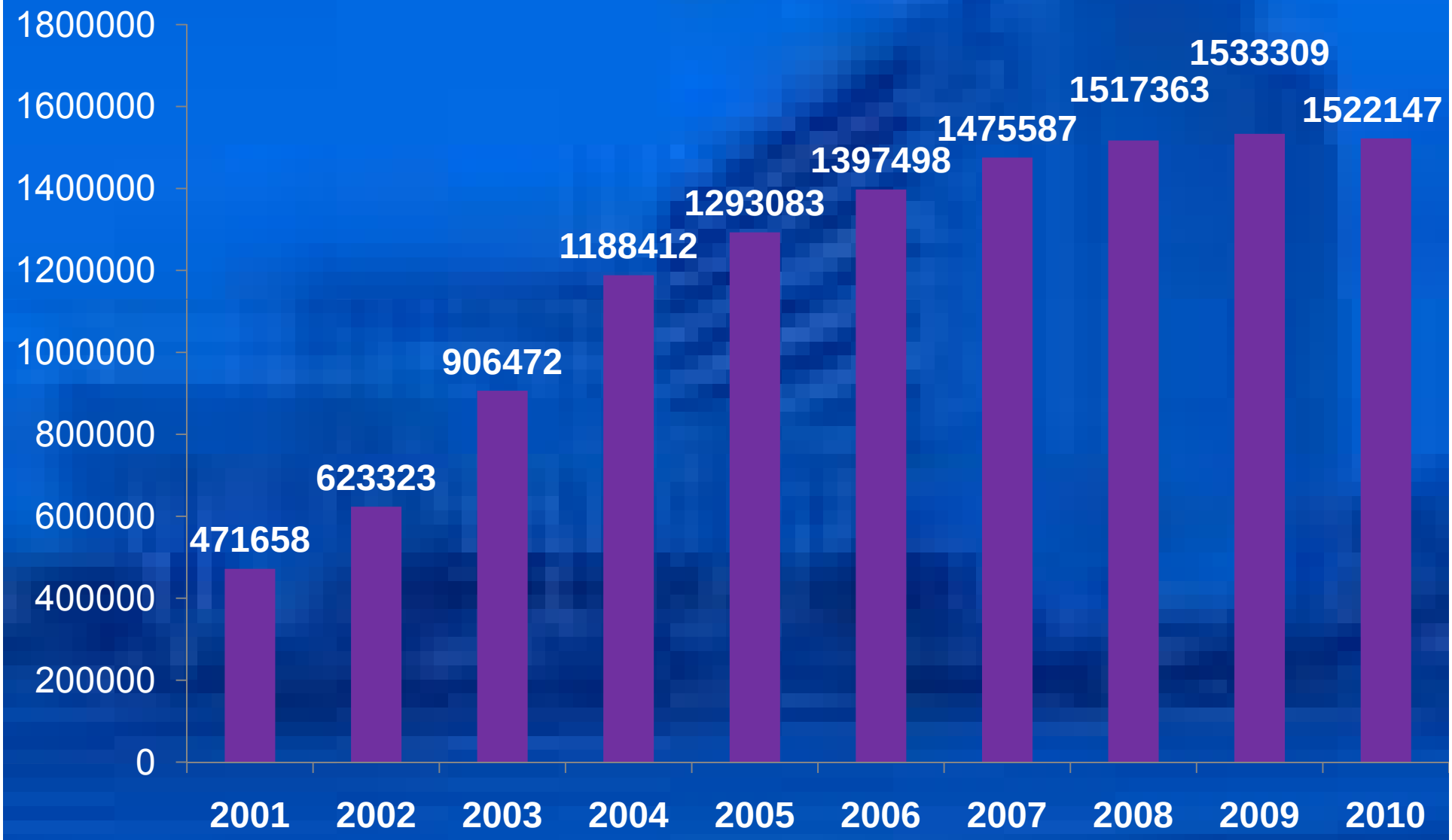
Dengue Deaths : India

Source:CBHI,NHP-2010 and MOHFW



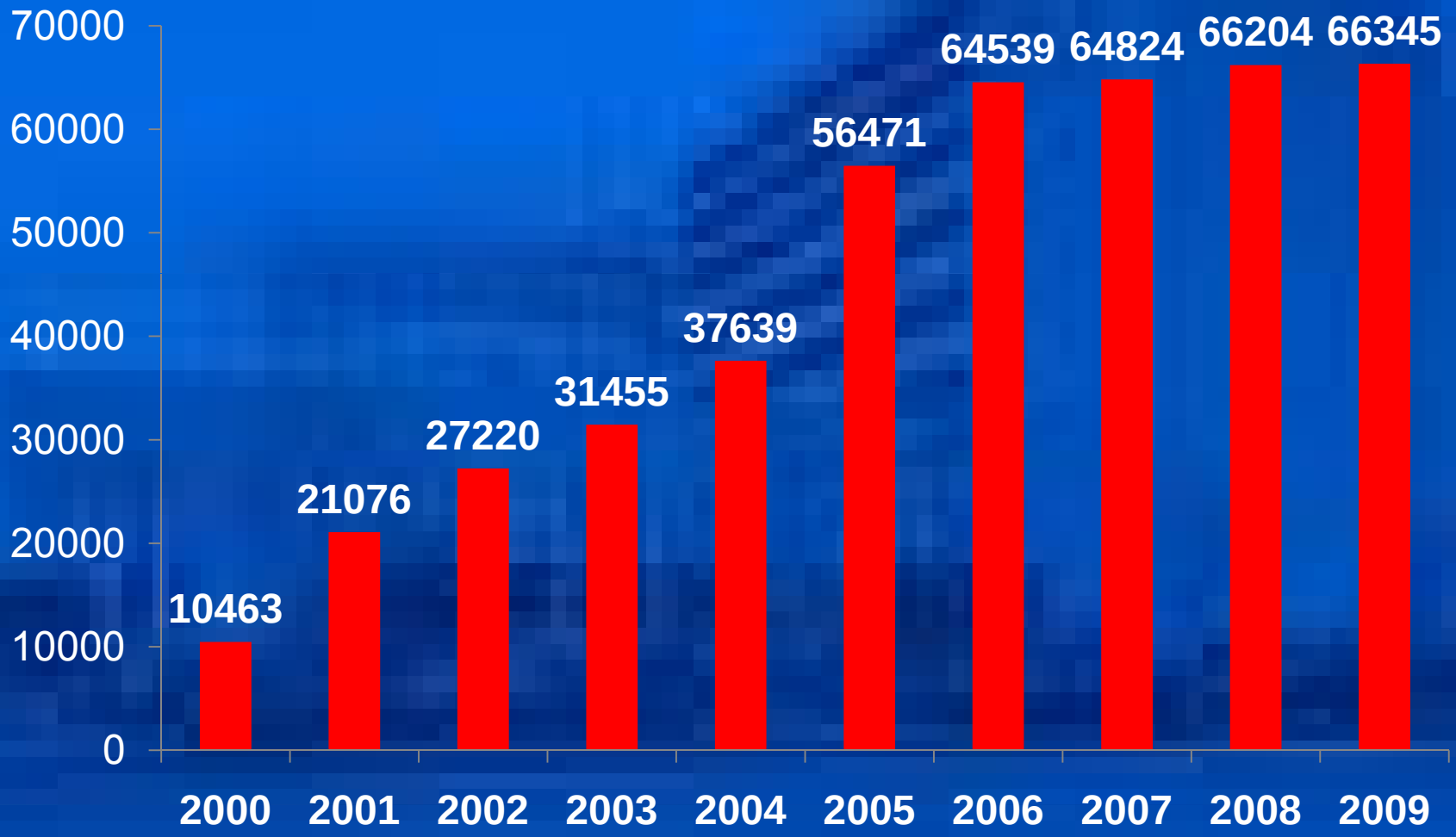
TB Cases : India

Source:CBHI,NHP-2010 and MOHFW



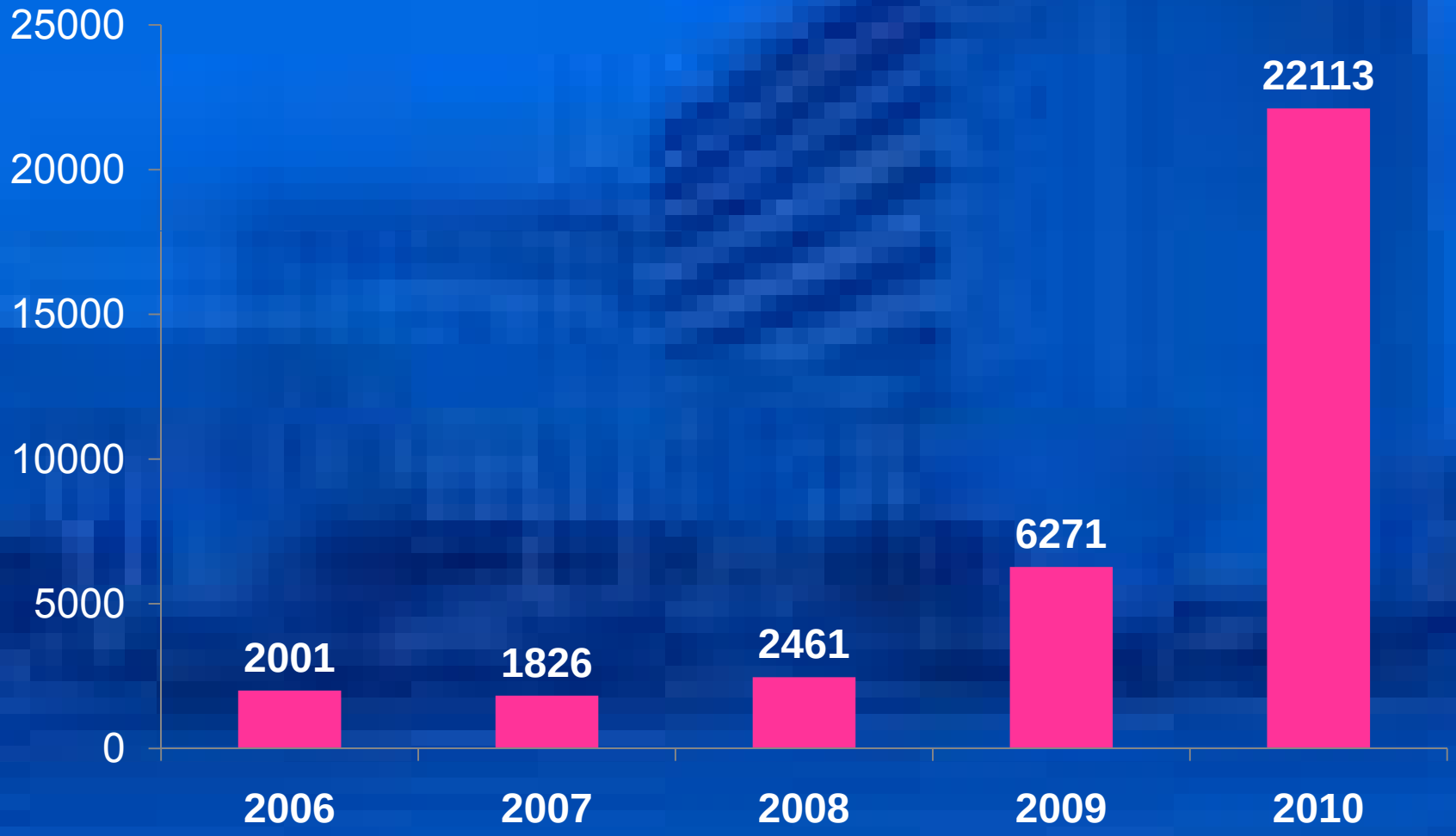
TB Deaths : India

Source:CBHI,NHP-2010 and MOHFW



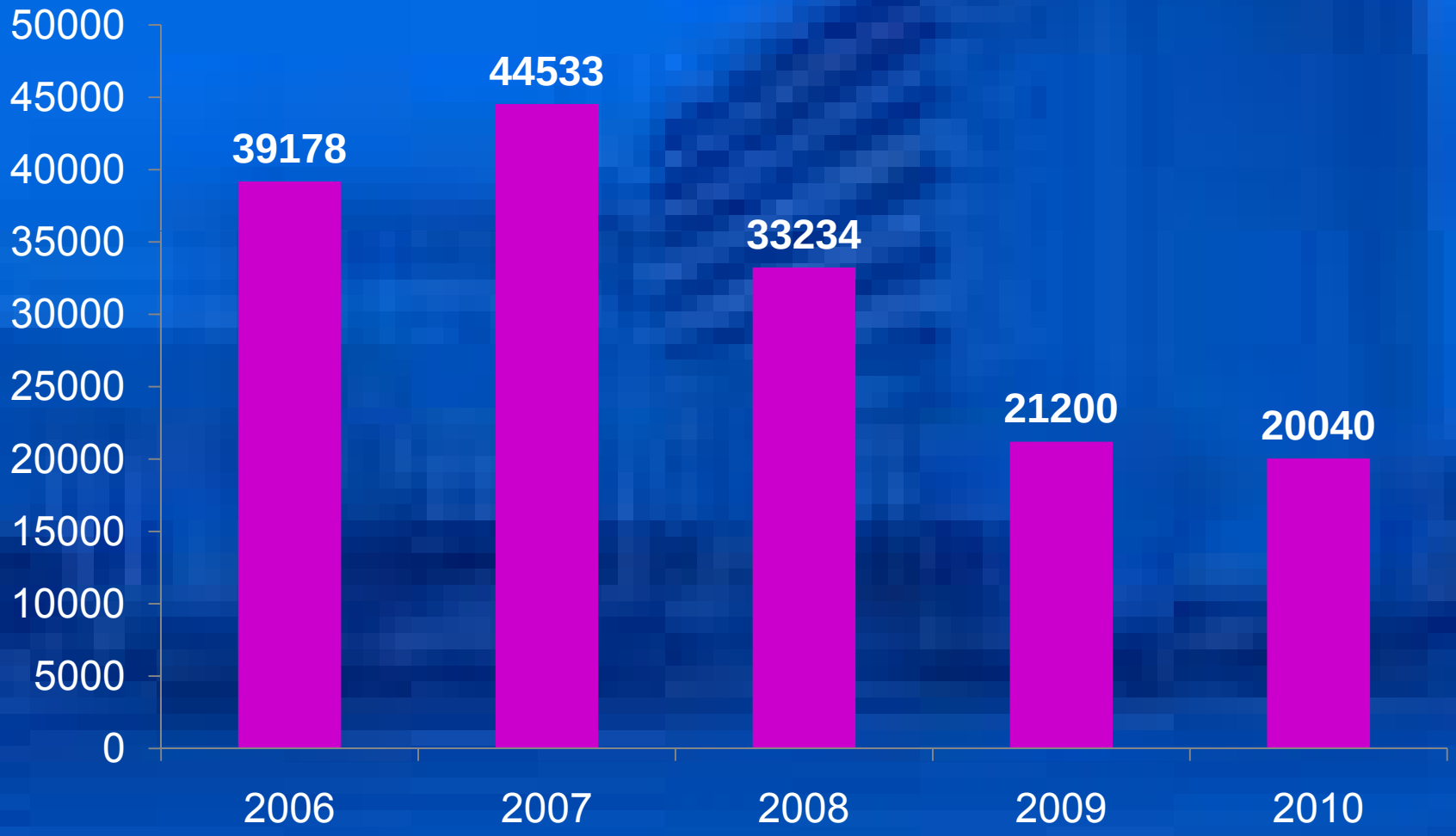
Chikunganya Cases : India

Source : NRHM India



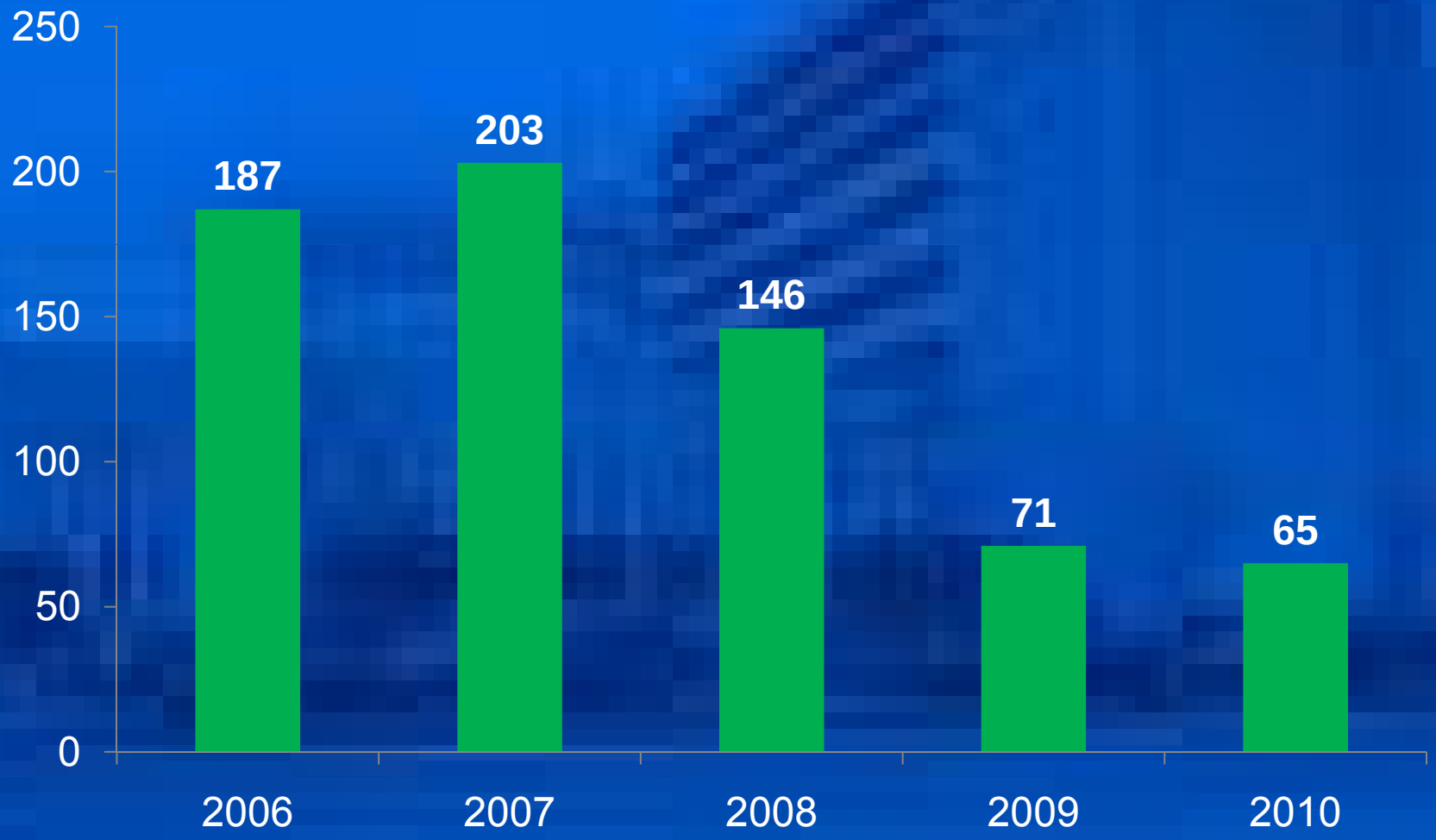
Kala Azar Cases : India

Source : NRHM India



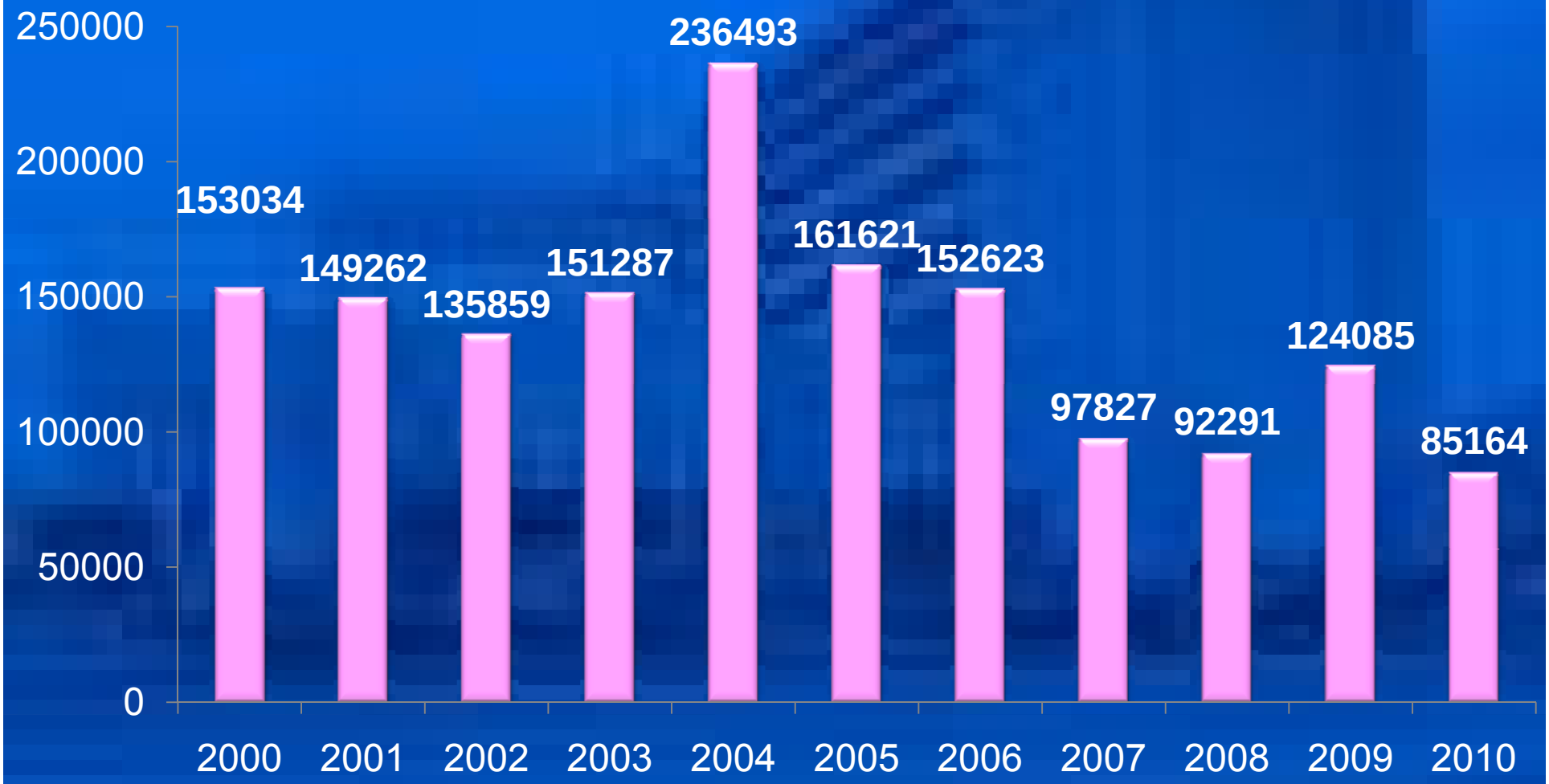
Kala Azar Deaths : India

Source : NRHM India



Viral Hepatitis Cases : India

Source:CBHI,NHP-2010



Viral Hepatitis Deaths : India

Source:CBHI,NHP-2010

Thank You

For more details log on to
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contact : Director-SIHFW
on

sihfwraj@yahoo.co.in