



# Health systems

State Institute of Health & Family Welfare, Jaipur



# System ?



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

# Health System ?

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Structure & functions of a Country's MoH  
having-

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



# Health system boundaries

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The system includes all actors, institutions and resources that undertake health actions –where the primary intent is to improve health.

# Health system goals

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- ✓ Improving the health of the population they serve;
- ✓ Responding to people's non-medical expectations;
- ✓ Providing financial protection against the costs of ill health



# Health System: Components



# 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

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

# Determinants of Health System

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

# Main Systems of Medicine

- ✓ Western allopathic
- ✓ Ayurveda
- ✓ Unani
- ✓ Siddha
- ✓ Homeopathy

# Health delivery systems / models

- ✓ 200 countries, only 40 have established Systems
- ✓ 4 basic models of Health care delivery-
  - ✓ **Beveridge Model**- provided and financed by the Government through tax payments
  - ✓ **Bismarck Model**- based on insurance system- premium by company/ employee
  - ✓ **National Health Insurance Model**- private-sector providers, but payment comes from a government-run insurance program that every citizen pays
  - ✓ **Out-of-Pocket Model**- rich get medical care; the poor stay sick or die

# Why study



# Health Systems

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

# Problems:

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- ✓ Indirectly related to health
  - ✓ Environment
  - ✓ Education
  - ✓ Empowerment

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

# Problems–Why

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- ✓ Access
- ✓ Availability
- ✓ Utilization

# 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

# Challenges

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



# National Health Systems

## ✓ **Issues :**

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

# Development of Health Systems

- ✓ Organization-changes in character with time
- ✓ Resource expansion
- ✓ Increase in utilization
- ✓ Increase in expenditure & Financing pattern
- ✓ Cost-control strategies & Increasing system's efficiency
- ✓ Technological advances-demand & application
- ✓ Prevention emphasized
- ✓ Quality assurance
- ✓ Public-Private interaction
- ✓ Pattern of service delivery
- ✓ Public participation in Policy decisions

# Evolution of Health Systems

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- ✓ Early Health Systems
  - ✓ Traditional practices and medicine (China, India)
  - ✓ Effect of industrial revolution
  - ✓ Politicization of workers in Germany
  - ✓ UK National Health System (1948)
  - ✓ Bhore Report (India) 1946

# Evolution of Health Systems

- ✓ Alma Ata Declaration, 1978
  - ✓ Primary Health Care Themes
    - ✓ Equity
    - ✓ Social Justice
    - ✓ Community participation
    - ✓ Prevention/promotion
    - ✓ Intersectoral collaboration
    - ✓ Appropriate use of resources
    - ✓ Sustainability

# Evolution of Health Systems

- ✓ GOBI/FFF (UNICEF)
- ✓ Health economics brought in health care (1980-90)
  - ✓ Efficiency & effectiveness
  - ✓ Structural program adjustment-Health sector reform
  - ✓ Dominance of World Bank over WHO
- ✓ 1990-2000
  - ✓ “One size does not fit all”
  - ✓ Recognition of key elements-equity, empowerment & poverty reduction
  - ✓ Standardization & improving performance
  - ✓ HSR



# Types



# Health Systems

- ✓ Core capitalist-  
USA, Germany
- ✓ Core capitalist-social  
welfare  
Canada, UK, Japan
- ✓ Industrialized Socialist  
oriented  
USSR
- ✓ Capitalist dependencies  
India, Indonesia
- ✓ Socialist oriented  
China, Cuba

(Ray.H.Elling)

- ✓ Emergent
- ✓ Pluralistic  
USA, Switzerland
- ✓ Insurance/Social security  
Canada, Japan
- ✓ National Hlth.service  
Great Britain
- ✓ Socialized  
USSR

(Mark G.Field)

# Types of Health Systems in relation to traditional medicine

- ✓ Exclusive (tolerant) : UK, Germany
- ✓ Inclusive : India, Pakistan, Burma, Sri Lanka, Bangladesh, Thailand
- ✓ Integrated : China, Nepal

# Types-Health systems

Economic Level(GNP/ Capita)	Health System			
	Entrepreneurial & permissive	Welfare oriented	Universal & comprehensive	Socialist & centrally Planned
<b>Affluent</b>	USA	Germany	UK	USSR
<b>Developing</b>	Philippines	Malaysia	Israel	Cuba
<b>Poor</b>	Bangladesh	India	Sri Lanka	China
<b>Resource Rich</b>	-	Libya	Saudi Arabia	-

# Health Care System in India: Public Sector

## Rural Health Scheme

- ✓ Primary Health Centers
- ✓ Sub- Centers

## Hospitals/Health Centers

- ✓ CHC
- ✓ District Hospitals
- ✓ Teaching Hospitals

## Health Insurance Schemes

- ✓ Employees State Insurance
- ✓ Central Government Health Scheme

## Other Agencies

- ✓ Defense
- ✓ Railways



# Health Care System in India: Private Sector

- ✓ Hospitals and Nursing Homes
- ✓ General Practitioners
- ✓ Medical Insurance

# Health systems in India (Inclusive )

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- ✓ Official/ Allopathic
  - Cost
  - Coverage
  - Coordination
  - Culture
- ✓ Traditional (ethno/ alternative/ indigenous/un-official)
  - Roots
  - Respect
  - Reach
  - Rural
  - Renaissance
  - Role

# Allopathic / Modern system

- ✓ Systematic
- ✓ Strong Data base
- ✓ Pharmacopoeia
- ✓ Diagnostic support
- ✓ Quick
- ✓ Interventional procedures
- ✓ Epid. developments
- ✓ Cost
- ✓ Isolated approach-  
Anatomical approach
- ✓ Dependence on  
technology
- ✓ Human touch missing
- ✓ Iatrogenic disease
- ✓ Voracious resource  
eater
- ✓ Drug use-irrational
- ✓ western

# Traditional systems

- ✓ Ayurvedic
- ✓ Unani
- ✓ Homeopathy
- ✓ Naturopathy
- ✓ Siddha
- ✓ Chinese
- ✓ Tibetan
- ✓ Yoga & Meditation
- ✓ Hypnosis
- ✓ Divination & Exorcism
- ✓ Individual therapies like
  - ✓ Color
  - ✓ Flower
  - ✓ Diet
  - ✓ Hydrotherapy



# Traditional–Ayurveda– the science of life

- ✓ Oldest
  - ✓ Ref. in upveda of Athurveda (114 hymns) & Rigveda
- ✓ Doctrine
  - ✓ Panchbhutas
    - ✓ Air, Water, Fire, Space & Earth
  - ✓ Tridosha
    - ✓ Vata, Pitta, Cough
  - ✓ Ashta dhatus
    - ✓ Rasa, Rakta, Mansa, Asthi, Mazza, Meda, Shukra, Maila

# Ayurveda-

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- ✓ School of Physicians (Atreya Sampradaya)
- ✓ School of Surgeons (Dhanvantari Sampradaya)
- ✓ Specialties
  - ✓ Kayachikitsa
  - ✓ Balchikitsa
  - ✓ Grahchikitsa
  - ✓ Shalyachikitsa
  - ✓ Jarchikitsa
  - ✓ Vishaychikitsa



# Indian Health System



# Characteristics of Indian Health System

- ✓ Complex mixed health system
  - ✓ Publicly financed government health system
  - ✓ Fee-levying private health sector



# How did Health system evolve

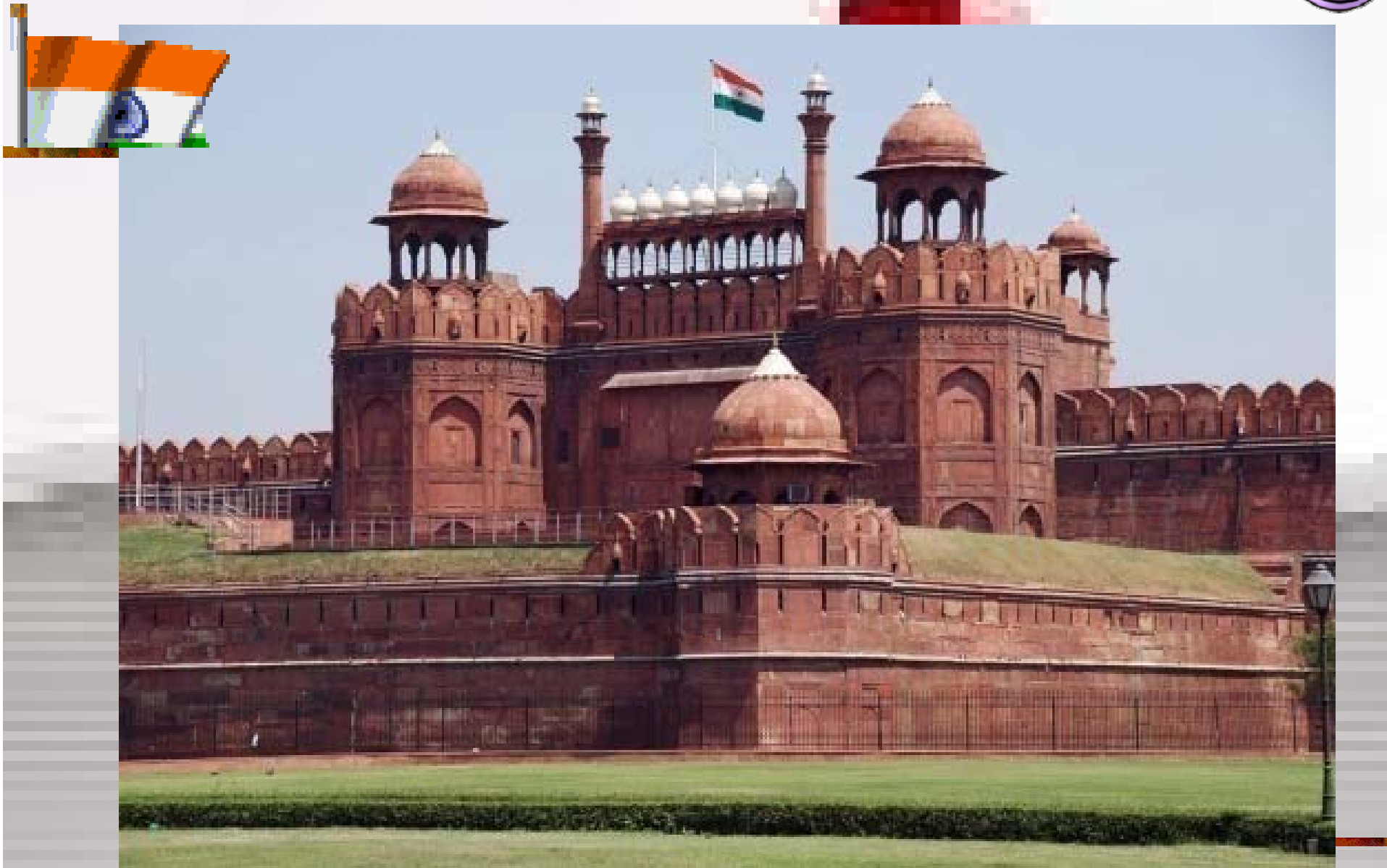
# Different Phases of Indian Health System Development

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

## ***Before Independence***

- **Healthcare has been based on voluntary work**
- **Medicinal properties of plant and herbs was passed from one generation to another**

1947



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1950



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# After Independence

- ✓ **Government of India laid down a stress on primary health care.**
- ✓ **Government initiative was not enough to meet the demand.**
- ✓ **Alternate sources of finance were critical for sustainability of the health sector.**

## *Entry of private sector*

- **Government on its own would not be able to provide more facilities for health care.**
- **Government allowed the entry of private sector to reduce the gap between the supply and demand for health care.**

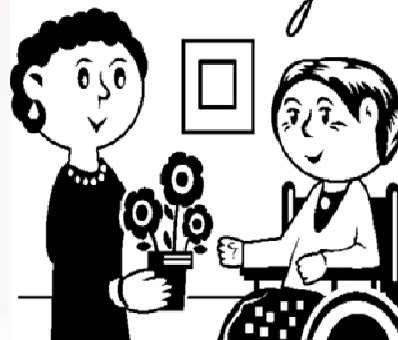


# Hospitals, Nursing Homes, Fitness centre. Ambulatory Services, pharmaceuticals



Nursing Home

*Ministry*



SLIMMING BEAUTY FITNESS

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# 7 P's of Health Services

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- ✓ Place
- ✓ Product
- ✓ Provisions
- ✓ Process
- ✓ People
- ✓ Price
- ✓ Performance



# 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

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- ✓ 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
- ✓ Health 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.

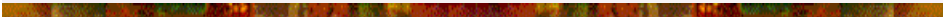
- ✓ Establishment of Educational Commission for Health Sciences (ECHS) on the lines of UGC.
- ✓ Establishment of Health Science Universities in various states and union territories.
- ✓ Establishment of health manpower cells at centre and in the states.

# Health services development in India

Bhore Committee 1943-46  
(Health Survey & Development Committee)

- a. Payment not to be a punctuation
- b. All facilities
- c. Prevention to be the priority
- d. Services close to people
- e. Participation
- f. Planning
  - Long term-20000 (PHC), 60000 (CSC), 3 million (DH)
  - Short term- 40000 (PHC), 1.5 million (CSC), 3 million (DH)
- g. Training in preventive medicine

# Mile stones:



**HSDC-1946**

**India Joins WHO-1948**

**NFPP-1952**

**Small pox eradicated-July 5, 1975**

**Alma Ata-1978**

**NHP-1983**

**UIP-1985**

**RCH-1996**

**NPP-2000**

**NHP-2002**

**NRHM-2005**



# Administrative Structure

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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
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# Health System's Organization- India

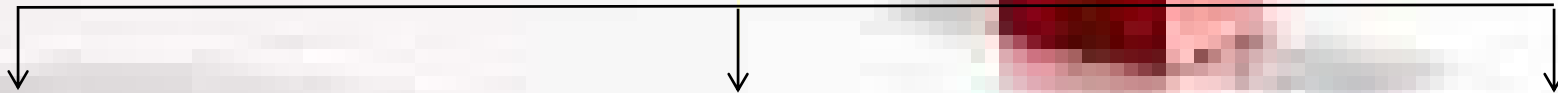
Central Govt.

Planning Commission



National Dev. Council  
CCHFV

**MOHFW**



**FW**

Secretary  
Jt. Secy. (3)  
Director

**Medical & Public Health**

Secretary  
Addl. Secy.  
Jt. Secy. (9)  
DGHS  
Addl. DGHS

**ISM&H**

Secretary  
Jt. Secy.  
Director



# National Developmental Council

Highest constitutional Policy making body to approve Policies and strategies for development

Composition:

Chairman-PM

Members- Central Ministers

Chief Ministers

Lt. Governors & Administrators of  
UTs, Dy.Chairman & members of  
Planning Commission

# Planning Commission

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March 15, 1950

Composition: Chairman—PM

Dy.Chairman

Members 5-7(Full time)  
2-3(Part time)

Functions :

- ✓ Assess & augment resources- material, capital & human
- ✓ Formulate Plan for utilization of resources
- ✓ Decision on priority based phased implementation
- ✓ Decide on nature of executing machinery
- ✓ Periodic progress review
- ✓ Make appropriate interim recommendations

# Role of Central Govt. in Health Care

- ✓ Policy formulation
- ✓ Maintaining International health relations
- ✓ Administration of central health institutions
- ✓ Regulating Medical education through statutory bodies- MCI/DCI/Councils
- ✓ Medical & Public health research-funding
- ✓ Standards- laying & maintenance (Drugs/Education)
- ✓ Coordination-Other ministries/States/Statutory bodies
- ✓ Central Health Acts
- ✓ Negotiation with International agencies

# Functions of FW

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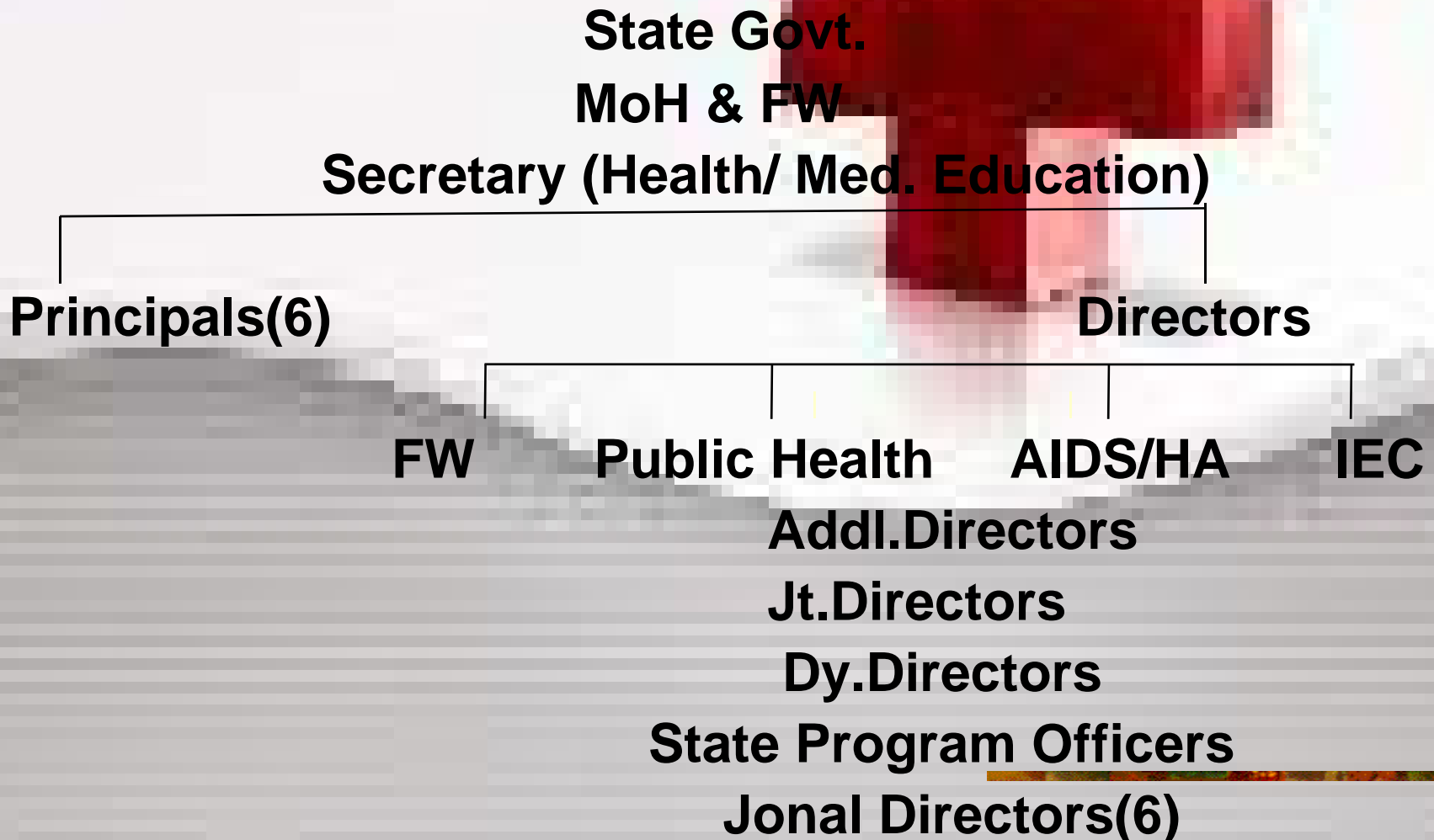
- ✓ Policy-Planning
- ✓ Information-Evaluation
- ✓ Contraceptive-Research /Supply
- ✓ Seeking International support
- ✓ EPI/UIP/CSSM/RCH/ARI/ORT-trainings & area development
- ✓ IEC
- ✓ Rural Health
- ✓ Paraprofessional training
- ✓ NGO support
- ✓ Development of Sub-center

# Functions of Medical & Public Health

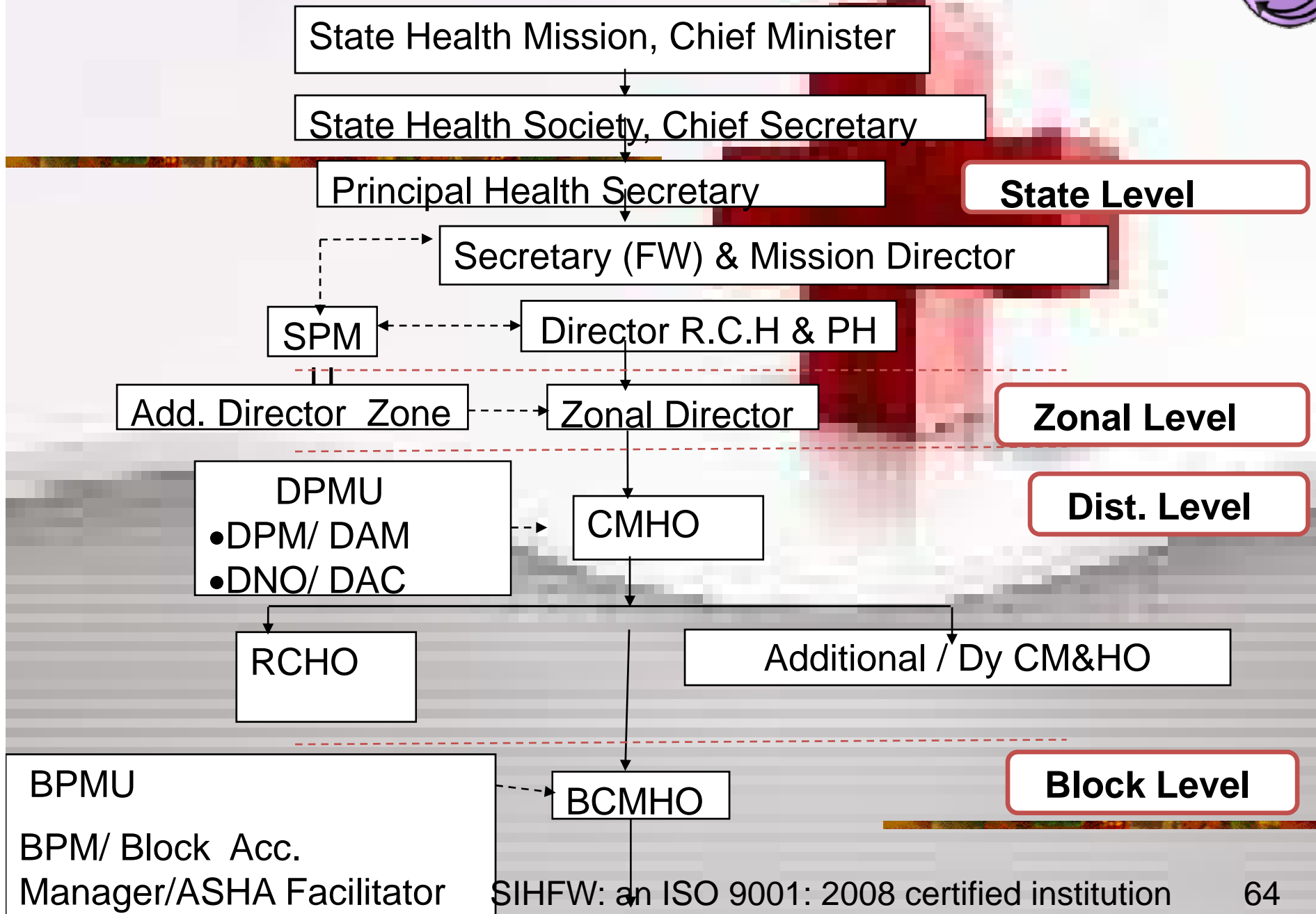
- ✓ Health Policy
- ✓ National Health Programs
- ✓ Drug Control
- ✓ PFA enforcement
- ✓ Diseases- Communicable/Non-communicable
- ✓ Supplies & Disposal
- ✓ CGHS
- ✓ CME & Trainings
- ✓ Nursing
- ✓ Medical Education & Research
- ✓ Vital statistics & Health intelligence
- ✓ International support



# Organization at State level



# Administrative Structure –NRHM



# District

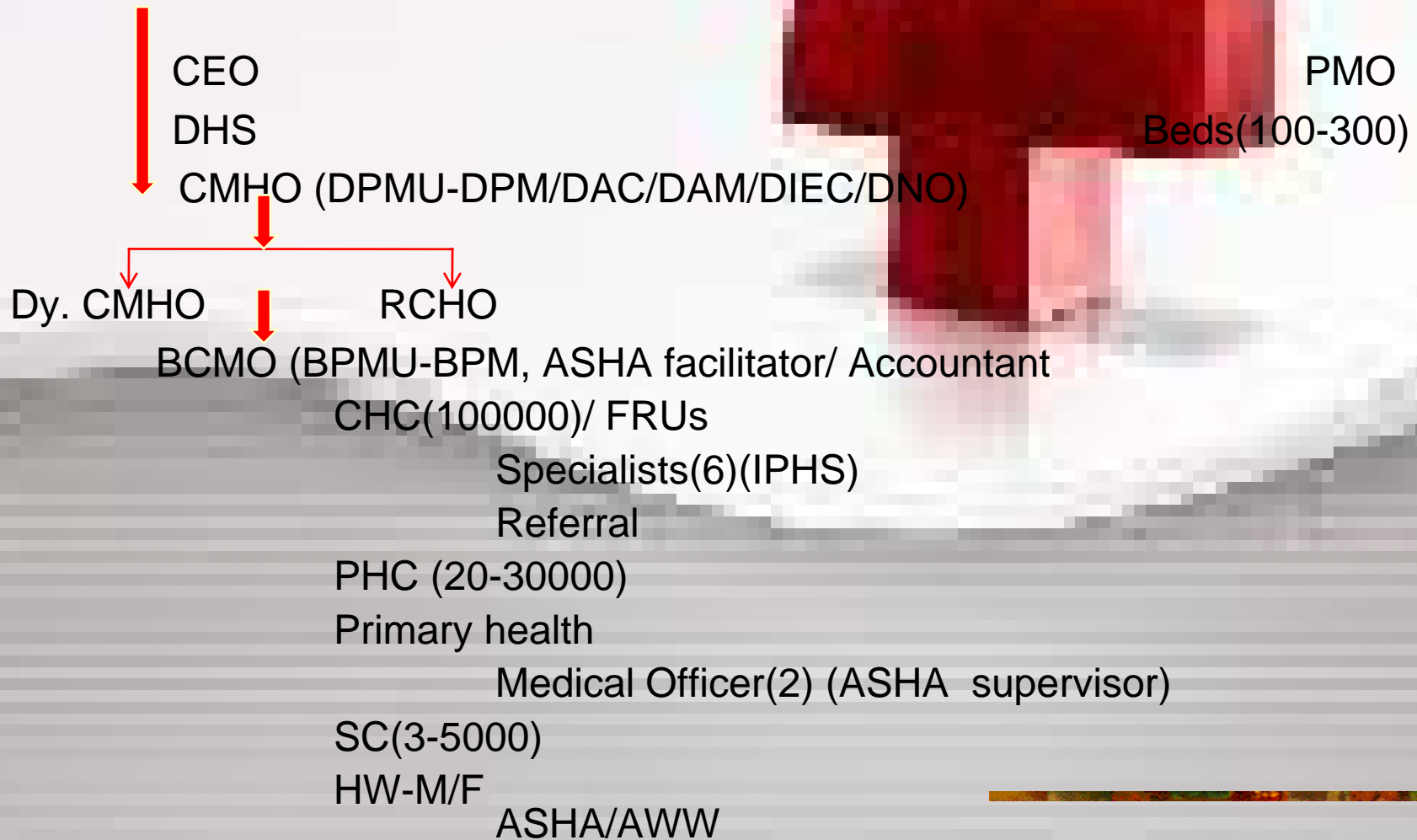
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- ✓ An Administrative unit
- ✓ Peripheral most Planning unit
- ✓ A self contained segment of National Health System

*Defined Geographical boundary and Population(5M)*



# District Health Organization





# Functions of District Health System

- ✓ Liaison between Field units & Headquarter  
Tools- Field reports  
Monitoring  
Meetings
- ✓ Implementation of Policy/Programs
- ✓ District level planning-Action Plans
- ✓ Rationale use of Finances
- ✓ Communication-  
Plans/Schedules/Progress/Problems
- ✓ Coordination- effective resources use, avoid duplication
- ✓ Control & Monitoring

# Problem Areas at District

- ✓ Quantity v/s Quality
- ✓ Cluttered Policy guidelines
- ✓ Decentralization on papers
- ✓ Roles/Responsibilities poorly defined
- ✓ Program integration ?
- ✓ HMIS-generation & use ?
- ✓ Managerial skills
- ✓ Donor initiative – “Societies”
- ✓ Resource restriction



# 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



And we still ponder over Health system

A system

not well understood

Large enough in content & context

A system

which needs inputs, and

aim to bring out

outputs and Outcomes

# Global Health Systems





# USA



# US Health system

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## Major Features:

- ✓ Dominant private sector
- ✓ Resources in abundance
- ✓ Highly Decentralized
- ✓ Free Market Economy
- ✓ Dynamic

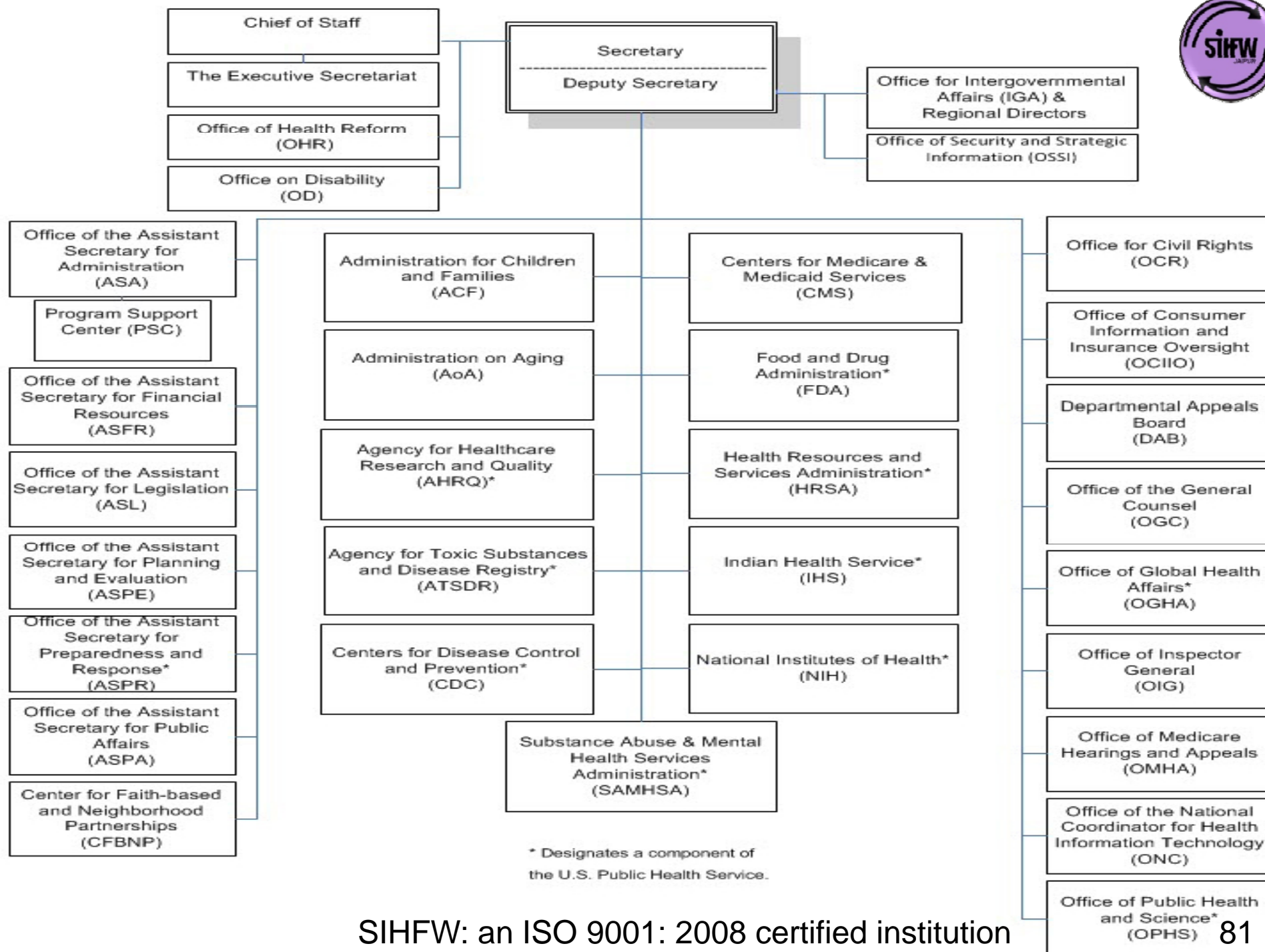
# US Health System- 5 drivers

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- ✓ Payments- Money based decisions
- ✓ Physician- Choices
- ✓ Products- Good care but good value
- ✓ Purchases- By business houses for employee
- ✓ Prospects- sustainability threatened



# Organization of US health system



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# Components of US health system

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- ✓ MoH
- ✓ Other ministries
  - ✓ Labor, Mines, Agriculture, Justice, Social welfare
  - ✓ Industry, Education, Local bodies, Planning, Public works
- ✓ Vol. bodies
- ✓ Professional bodies
- ✓ Private market

# Mgt. of US health system

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- ✓ Local responsibility
- ✓ Private sponsorship
- ✓ Minimum Govt. role
- ✓ Comprehensive health Planning
- ✓ Decentralization & Voluntarism
- ✓ Strict regulation-avoid misuse & negligence

# Service delivery in US Health System

## Primary-

- ✓ Private physician/ poly-clinics
- ✓ Payment-insurance, out of pocket
- ✓ Preventive NO
- ✓ Sec./Ter. Care-
- ✓ Govt. hospitals

Increasing cost

- ✓ HMOs ( pre-paid)
- ✓ PPO (groups, competitive cost)



# Health Manpower in US Health System

## Health manpower

Medical schools 50:50 Pvt.:Public

26.7/10000 –Physicians(2010) ; 98.2/10000-Nurses

Source: WHO, World Health Statistics,2011

## Health commodities

Patents-valid for 17 yrs.

Regulation-on prescription/OTC drugs

Drug formulary with hospitals

## Health knowledge

Extensive and varied research

Research grants from Govt.

## Health facilities

31bed/10000(2009)

Source: WHO World Health Statistics,2011

Govt. hospitals-free

OPD-only for poor

Health centers-Preventive care

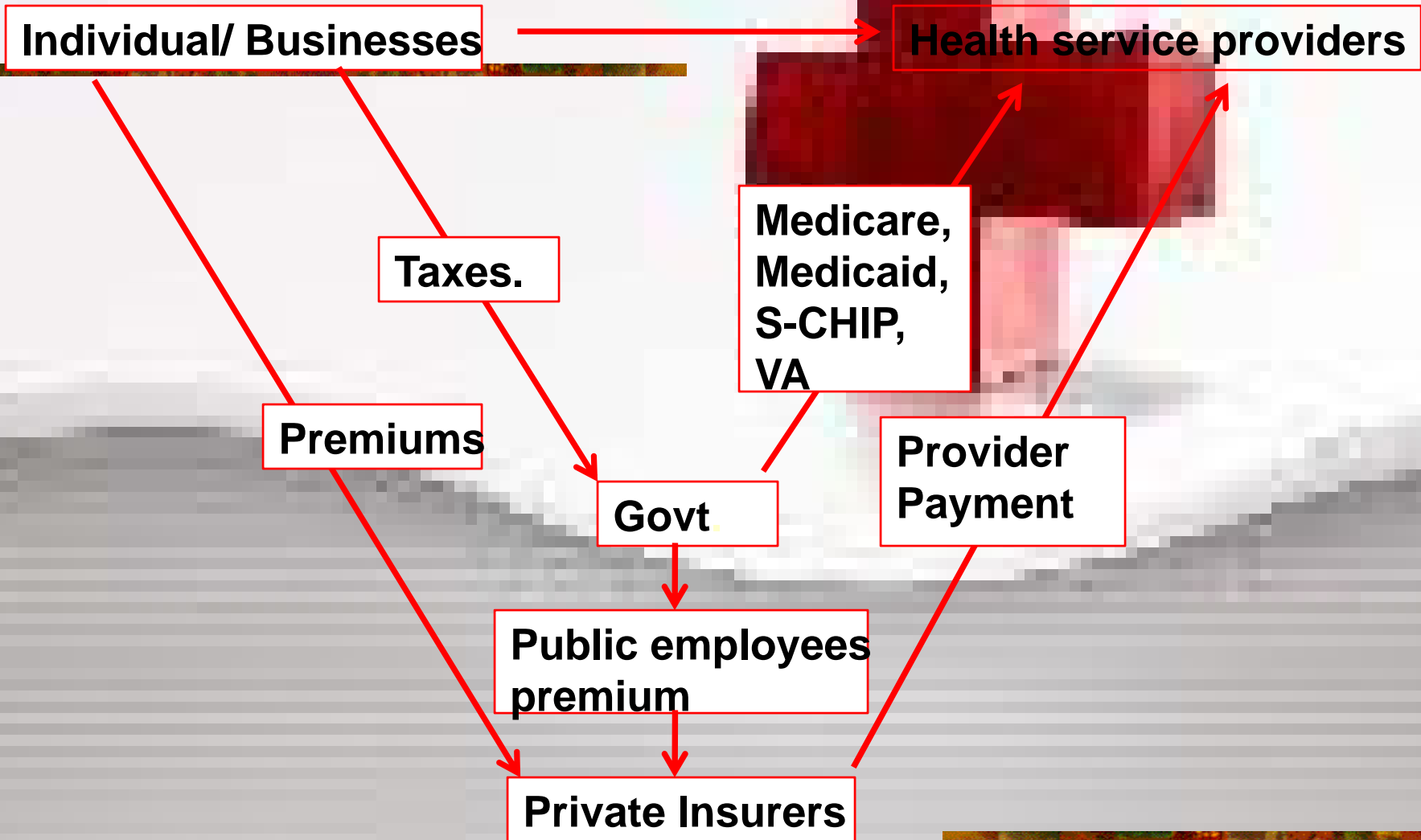
# Financing US Health System

- ✓ Funding
  - ✓ Total expenditure on health as % of GDP :15.2%(2008)
  - ✓ Per capita exp. On health (PPPint.\$):985(2008)
  - ✓ General Govt. exp.on health as % of Total exp. On health :47.8 (2008) Source: WHO, World Health Statistics,2011
  - ✓ Individuals (47 million U.S. residents 8 M –Children) have no health insurance)
  - ✓ Federal Govt.
  - ✓ State Govt.
  - ✓ Employers
    - ✓ Larger houses(500+ employees) with declining trend



# Financing US Health System

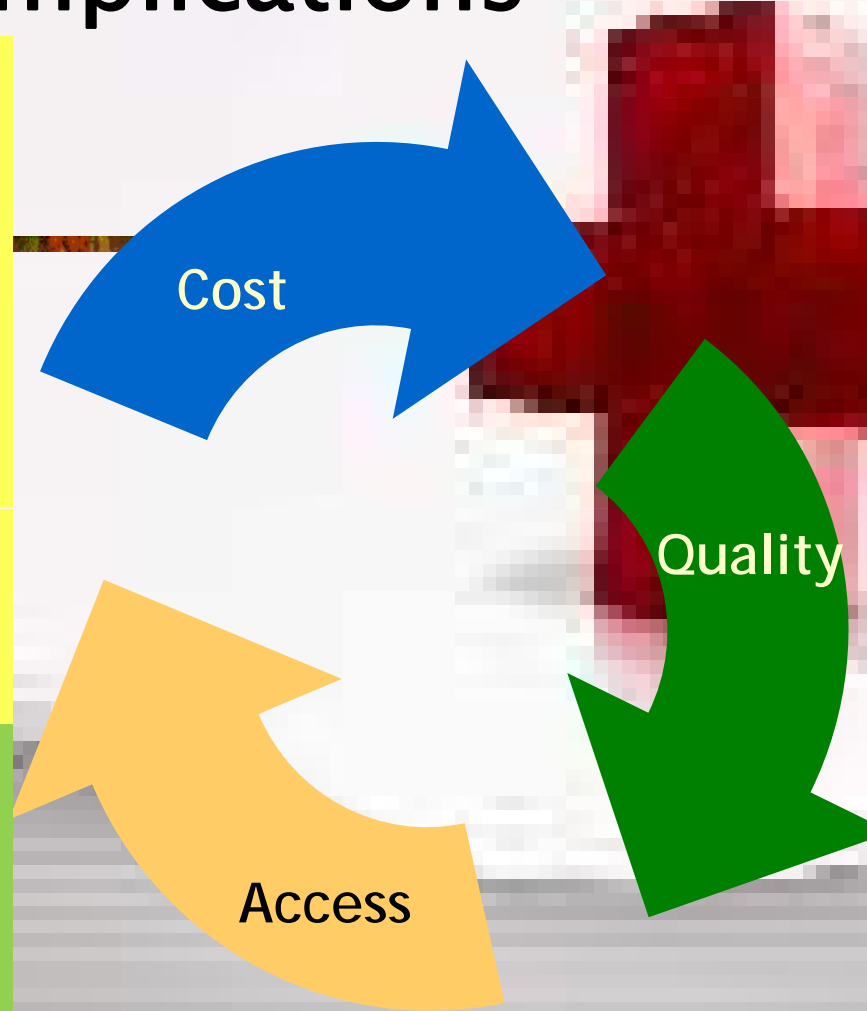
Direct OoP expenditure





# Financial implications

- In 1960, spent a nickel out of every dollar earned, on health; today spend 15 cents out of every \$1 on health.
- The U. S. spent \$6,400 per person in 2004; By 2014, this amount is expected to be \$11,000.
- Almost 46 million are uninsured.
- Many uninsured are from working families.
- The uninsured are 8 times more likely to skip medical care because they can't afford it.



- Quality often falls short of the mark.
- Adults get, on average, only 55% of the recommended care for many common conditions.

# Economics of US health System

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In 2003-

- ✓ Private Employer sponsored insurance- 62% of non elderly
- ✓ 15% in public insurance programs like Medicaid
- ✓ 18% were uninsured
- ✓ 5% purchased insurance on the private non group (individual) market

# Components of US Health system

- ✓ Large private market
- ✓ Ambulatory care
- ✓ Dental
- ✓ Prosthetic
- ✓ Surgical
- ✓ Optical
- ✓ Emergence of poly clinics  
(complimentary role)

# Public Health Insurance

## ✓ Medicare

- ✓ Beneficiary: 65+ and disabled
- ✓ Single payer(Govt.) program
- ✓ 3 parts-
  - ✓ Part-A- Hospital Services
  - ✓ Part-B- Physician's services
  - ✓ Part-C – pharmacy
- ✓ No coverage for skilled Nursing care, dental, hearing, vision, preventive care

# Public Health Insurance

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## ✓ **Medicaid**

- ✓ Financed jointly by the states and federal government through taxes
- ✓ Very poor pregnant women, children, elderly, disabled, and parents

# Public Health Insurance

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- ✓ **S-CHIP**: The State Children's Health Insurance Program (S-CHIP) (1997)
  
- ✓ **VA-**
  - ✓ Federally administered program for veterans of the military
  - ✓ Funded by taxpayer dollars

# Private Health Insurance

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- ✓ Private non-group (individual market)
  - ✓ private insurance companies
  - ✓ Individuals pay an insurance premium out-of-pocket for coverage
- ✓ Employer-sponsored insurance
  - ✓ financed both through employers (who usually pay the majority of the premium) and employees



UK



**ENGLAND**



# UK Health System (NHS: 1948)

- ✓ **Major features:**
- ✓ Publicly-funded healthcare system
- ✓ Biggest and oldest single-payer healthcare system
- ✓ Comprehensive nature of services
- ✓ Universal reach-primary care, in-patient care, long-term healthcare, ophthalmology and dentistry.
- ✓ Socialized medicine(social entitlement)
  - ✓ Funded through the general taxation system
  - ✓ "Free at the point of use"
- ✓ Initiated as worker's insurance
- ✓ National Health Service 1948- (NHS Act 1946,2006)



- ✓ It meet the needs of everyone
- ✓ Free at the point of delivery
- ✓ Based on clinical need, not ability to pay
- ✓ Since 2000 July
  - ✓ Provide a comprehensive range of services
  - ✓ needs and preferences of individual patients, their families
  - ✓ needs of different populations
  - ✓ improve the quality of services and to minimize errors
  - ✓ Use public funds for healthcare devoted solely to NHS patients
  - ✓ Work with others to ensure a seamless service for patients
  - ✓ work to reduce health inequalities
  - ✓ confidentiality of patients ,access to information about services, treatment and performance

# Service delivery

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- ✓ Community Hospitals, GPs, Teaching Hospitals and Public Health Authority
- ✓ Primary health care services by general practitioners, dentists, pharmacists and ophthalmic practitioners who were independent contractors
- ✓ Preventive services were provided by local Govt.
- ✓ Hospital services by regional hospital boards

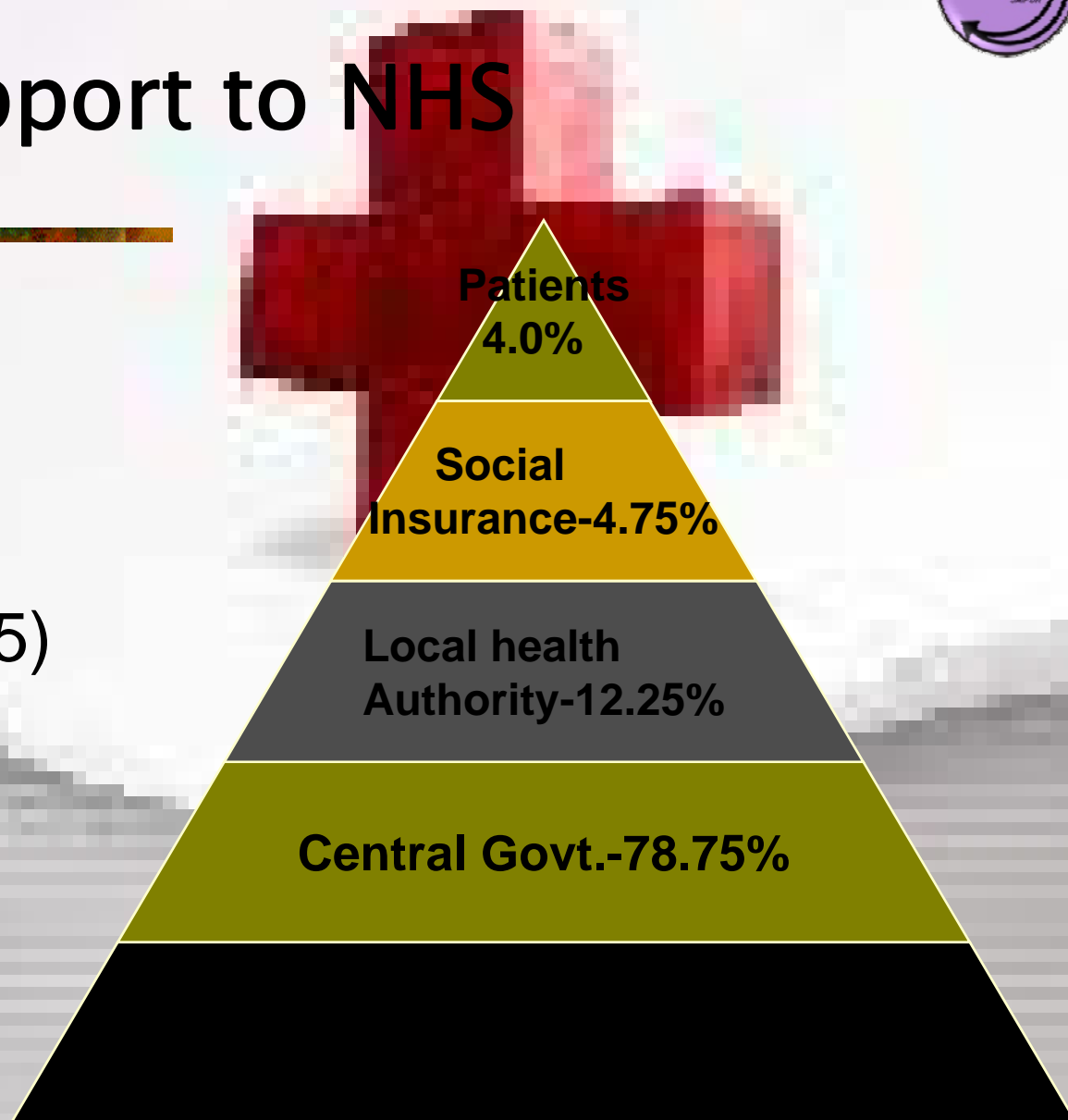
# The initiatives of the current NHS reforms

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- ✓ Providing incentives for people to take out private health insurance;
- ✓ Introducing new charges for health care services;
- ✓ Converting the tax-based financing system into a social health insurance system; and
- ✓ Limiting the provision of health care services to the core services.

# Economic support to NHS

✓ 6.1% of GNP(1985)



# Service trends

- ✓ National health insurance act (1911)
- ✓ Manpower supply increase-gradual & slow
- ✓ 27.4 physicians/10000population ,2010
- ✓ 103 Nurses/10000 population,2010
- ✓ 34 Bed/10000 population,2010 Source: WHO, World Health Statistics,2011
- ✓ Increase in hospitals expenditures
- ✓ Grouping of physicians-poly clinics
- ✓ Correction of geographic overloads
- ✓ NHS reorganization(1974) - Area health authority
- ✓ - Health districts
- ✓ Predominance of private sector-payment by govt.

# Financing UK Health system

## In 2008

- ✓ Total expenditure on health as % of GDP: 8.7
- ✓ General Govt. Expenditure on health as % of Total expenditure on Health: 82.6
- ✓ Per capita Expenditure on health (PPPint.\$): 3222
- ✓ Out of pocket expenditure as % of private exp. on health: 63.7

Source: WHO, World Health Statistics, 2011



# Socialist Health System – USSR

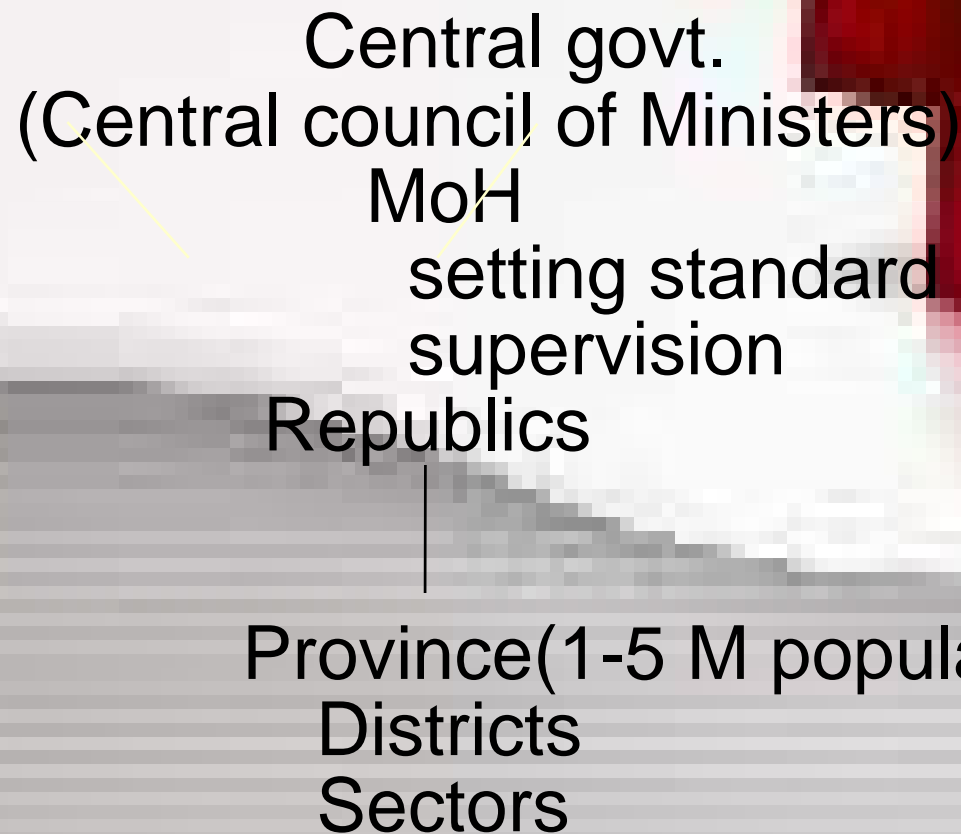
- ✓ Major features:
  - ✓ Health services-a social entitlement
  - ✓ Health –Govt. responsibility
  - ✓ Integration of Preventive & Curative
  - ✓ Resources/services-Centralized planning
  - ✓ Single authority-MoH with sub-divisions
  - ✓ Prioritize services-workers & children first
  - ✓ Regulate private practice
  - ✓ Application/practice only based on scientific principles

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# Organization



## ➤ **Manpower**

- ✓ Medical education under MoH
- ✓ Strength-430/lac (1986), M:F 50:50
- ✓ Middle medical workers
- ✓ CME
- ✓ Secondary medical schools
- ✓ Stations
- ✓ **Commodities**
- ✓ State owned enterprises
- ✓ Cost/competition-delays

## ➤ **Health facilities**

- ✓ Govt. owned, small no. in private
- ✓ Sector hospitals-35-50 beds, pop.-4000
- ✓ District-100-300 beds, 40-150 thousand
- ✓ Provincial –600-1200 beds, 1-5 M pop.
- ✓ Rural-Mid-wife post
- ✓ Emergency medical services
- ✓ Sanitary.-Epidemiology.

## Medical facilities:

- ✓ Bed:97/10000 population(2009)

## Man power:

- ✓ Physician:43.1/10000(2010)
- ✓ Nurses:85.2/10000(2010)

Source: WHO, World Health Statistics,2011

# Financing: USSR health system

- ✓ General taxation to the state, county or municipality
- ✓ Social health insurance
- ✓ Voluntary or private health insurance
- ✓ Out-of-pocket payments
- ✓ Donations

## In 2008

- ✓ Total expenditure on health as % of GDP: 4.8
- ✓ General Govt. Expenditure on health as % of Total expenditure on Health: 64.3
- ✓ Per capita Expenditure on health (PPPint.\$): 985
- ✓ Out of pocket expenditure as % of private exp. on health: 81.3

Source: WHO, World Health Statistics, 2011



<http://www.theworld.com/flags>



# China



# China

- ✓ Population: 1,313,900,000 (2006)
  - ✓ Some 900,000,000 in rural areas
- ✓ Life Expectancy: 70.9 male/ 74.5 female
- ✓ Infant Mortality: 23.1 per 1000 (2006)
  - ✓ Urban: 11 per 1000
  - ✓ Rural: 37 per 1000 (1999)
- ✓ Population >65: 7.7%

Health system classified in relation to traditional medicine-

- ✓ **Exclusive (tolerant):** UK, Germany
- ✓ **Inclusive** : India, Pakistan, Burma, Srilanka, Bangladesh, Thailand
- ✓ **Integrated** : China, Nepal

# China: Geographical units

**Country-National**



**Province (State), 21**



**Counties (Districts), 2300**



**Communes (Townships vs. Tehsils)**



**Production Brigades (Villages or Village clusters)**



**Production teams (Hamlets)**

## Exemplary Health Reforms(1985)




4% GDP on Health  
MMR 44/100000  
CPR-74% (1985)  
CBR-20/ 1000  
IMR-33/ 1000  
Life Expectancy-70 (1987)

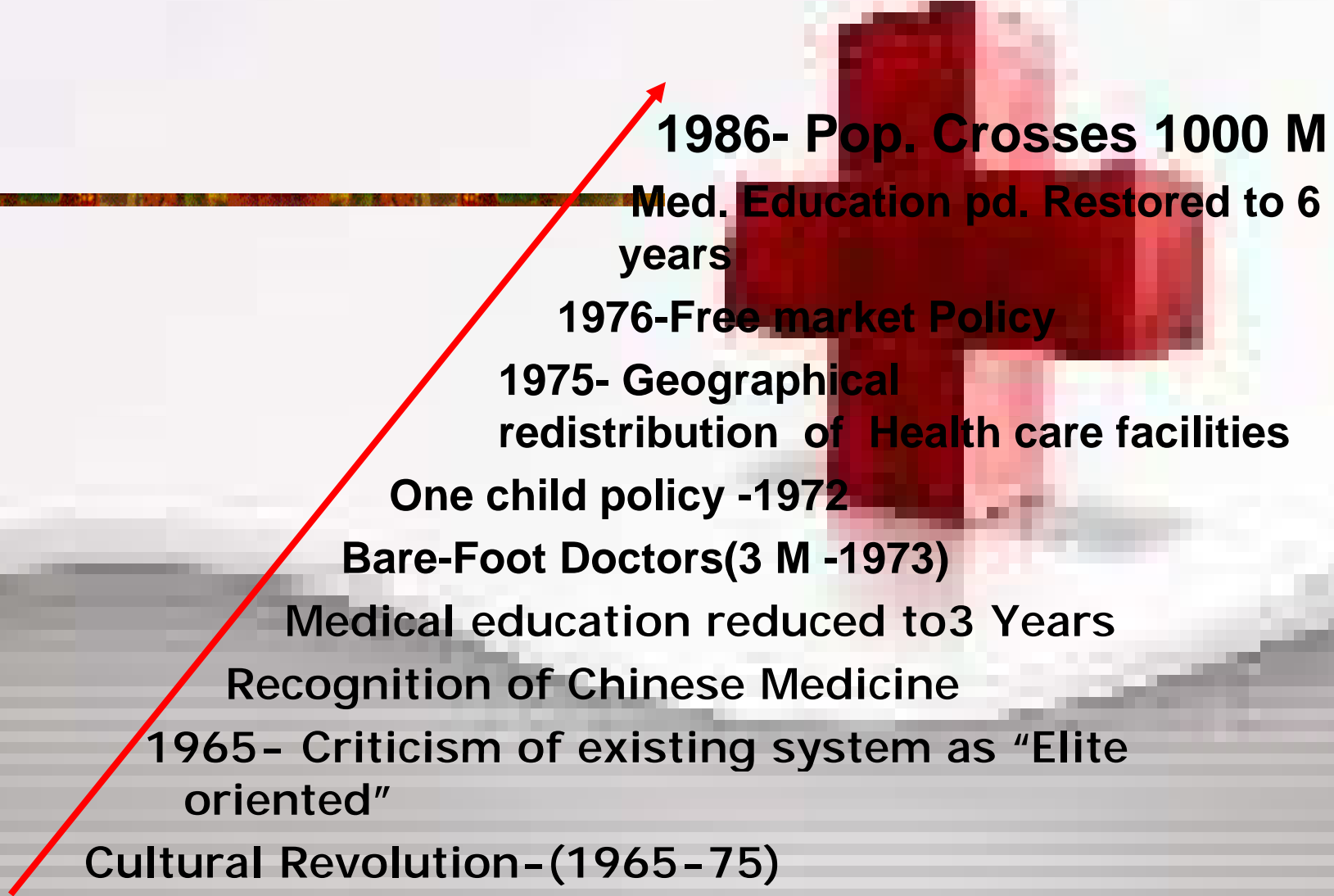
“Sick Man Of Asia”(1911)

(Malaria, Plague, TB, Small Pox, Trachoma, Leprosy, Chorea, Syphilis, Typhoid...)



## Health system evolution : China

- 
- Medical education reduced to 3 Years
  - Recognition of Chinese Medicine
  - 1965- Criticism of existing system as "Elite oriented"
  - Cultural Revolution-(1965-75)
  - 1957-Secondary Medical Schools established
  - First Five year plan-1953
  - 1951- Health insurance for Central Govt. Employees
  - Western Medical schools established
  - 1950-Adoption of a 3-tier Pyramid structure for Health
  - 1927-Public Health Dept. in Ministry of Interior
  - 1927-Dept of Public Health attached to PUMC
  - 1914-Perking Union Medical College
  - 1912-Republic China



# Health System–China

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## Major features

- ✓ Comprehensive-Universal
- ✓ Little regulation
- ✓ Wide variations in implementation
- ✓ Payment for services-reimbursed subsequently
- ✓ Large presence of Traditional healers
- ✓ Bare-foot & asset. Doctors trained in Sec.med.schools

- ✓ Universal reach of primary care-
  - Innovative trg,
  - Bare foot doctor
  - Asstt. doctor
- ✓ 3-Tier system-County
  - Commune
  - Village hlth.station
- ✓ Family welfare-social approach
- ✓ Unintended negligence –no action
- ✓ Health Insurance
- ✓ All services to be paid for

# Health Resources– Manpower:

- ✓ Practitioners of Traditional Chinese Medicine (31.9 /100000, 1986) Curriculum– Traditional: Western 70:30
- ✓ Physician 14.2/ 10000,(2010) Source: WHO, World Health statistics,2011
- ✓ Nurses 13.8/ 10000,(2010) Source: WHO, World Health statistics,2011
- ✓ Assistant Doctors (Products of Secondary Medical Schools, 3-4 yrs of Training) 45/ 100000
- ✓ Bare Foot Doctors
  - ✓ Rural Doctors
  - ✓ Orderlies

# Health Facilities–

- ✓ 41 Beds/ 10000(2009) Source: WHO, World Health statistics,2011
- ✓ 1414 Hospitals (12% Traditional Medicine)
- ✓ All Govt controlled
- ✓ Encouraging Entrepreneurs under PPP
- ✓ Specialty Hospitals
- ✓ Epidemiological units(3410 by 1985)
- ✓ Health centers (48100 by 1986, 1/22000)
- ✓ Pharmaceutical Industry for Western & Traditional herbal drugs- Private sector by 1976

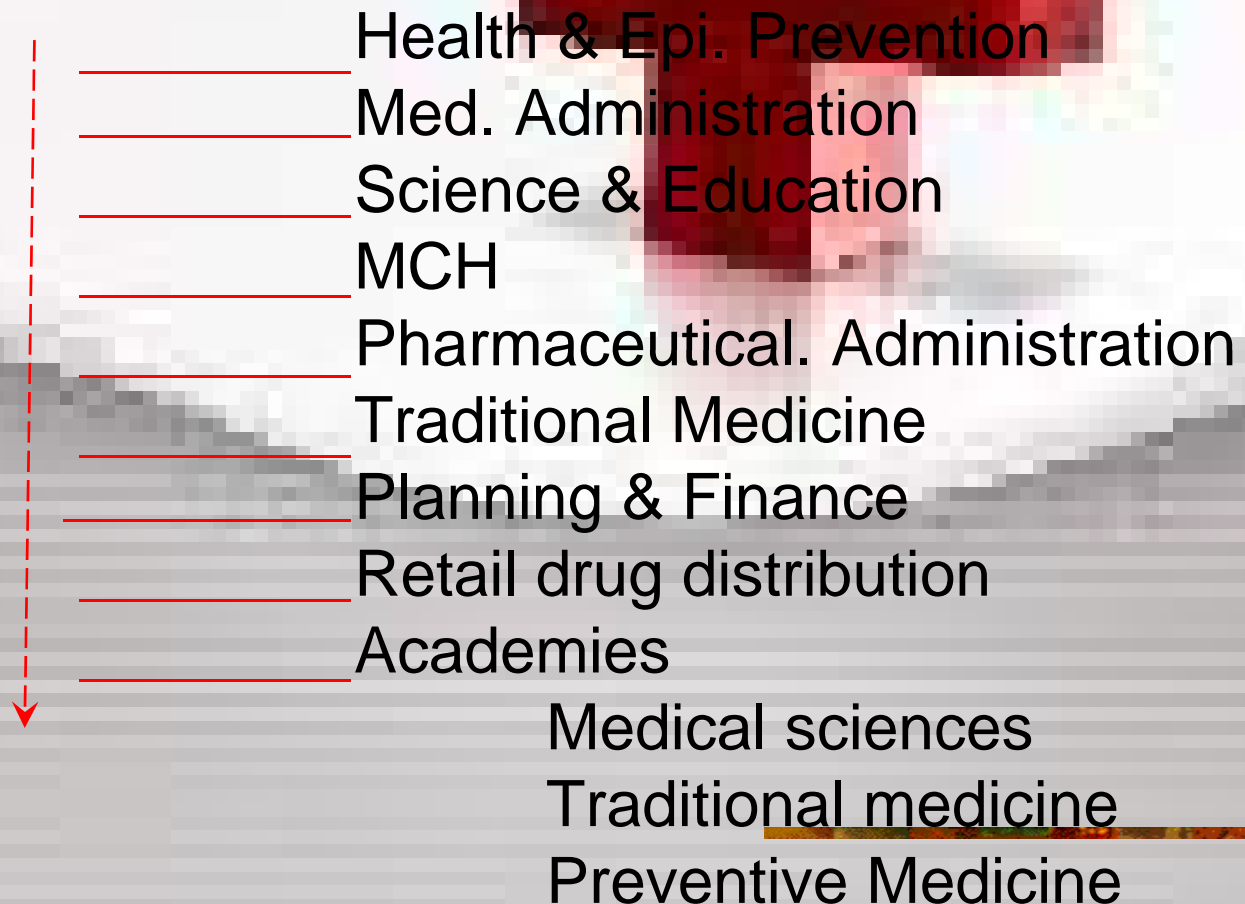


# Organizational Structure –

National Level-

**Ministry Of Public Health**

(Centre for Policy leadership)





## Province level-

Bureau of Public health

Provinces to finance up to 90%

Services to be area specific

## County Level-

Bureau of Public health

Hospitals

Epidemics

Health campaigns

Drugs

Secondary Medical Schools

Supervision of township

✓ Township level-

Health centers (CHCs)

No public health admn. Office

✓ Village level-

Village Health Stations (PHCs)

# Other Govt. Agencies –

Petroleum & Chemicals

(Drug Production)

Commerce

(Drug Distribution)

Light Industry

(Medical Equipments)

Labor + MoPH

(Safety standards)

Education

(Medical education Standards)

Finance + Labor

(Health Insurance)



# Non-Governmental Agencies-

No significant presence  
Professional Bodies like-

Chinese Medical Association  
Anti-Tuberculosis Association  
Mental Health  
Leprosy  
Anti-Cancer  
Anti Smoking  
Family Planning Association

Chinese Red Cross Society

Chinese Communist Party-

Privatization

Decentralized authority

Local self reliance

Private Market

# Economic Support–

- ✓ On payment services

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- ✓ Price regulated by Govt. and kept at its min.
- ✓ Urban Oriented
- ✓ Not Obligatory for Govt. to finance
- ✓ Health –Personal responsibility rather than collective action(1983)
- ✓ Covers cost of care to central employees
- ✓ Govt. Insurance (Health), not for Dependents
- ✓ Labor Insurance – Workers & Dependents, Freedom to choose, Reimbursement
- ✓ Health care cooperatives at Village levels with Annual Membership fee (Participation)
- ✓ Health Expenditure-4.0 % of GDP (1987)
  - ✓ 95.3% Recurrent Expenditure
  - ✓ 4.7% Capital construction

# Economic Support-

## Sources of Health funds (%)

	1980	→	1987
Insurance	48		50
Govt.	35	→	18
Individuals	17	→	32

# Health Care delivery



- ✓ Primary Health Care
  - ✓ **Universal coverage**
  - ✓ **Innovative training**
  - ✓ **Bare foot Doctors**
  - ✓ **Assistant Doctors**
- ✓ 3 Tier structure below province levels
- ✓ Largely preventive, though to be paid for
- ✓ Traditional Chinese system
- ✓ Say of lowest cadre of workers respected
- ✓ Unintentional mistake not punished
- ✓ Uninsured rarely hospitalized( High cost)
- ✓ 40 % pop. Covered by some insurance

## Family Planning services in China-

- ✓ Regular policy changes

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- ✓ Birth planning committees at each level
- ✓ Easy access to delivery of contraceptive services
- ✓ Deliveries assisted by SBA(97%)
- ✓ Strong IEC
- ✓ 1968-National policy
  - ✓ Late marriages, (23 & 20 yrs.)
  - ✓ Incentives on single child
  - ✓ IEC for FP
  - ✓ Abortions legalized

# Summary Highlights–

- ✓ Decentralized Administration, Centralized planning leading to regional disparities
- ✓ Dominant role of CCP
- ✓ Strong Soviet influence
- ✓ Local Self Reliance
- ✓ Area specific planning & Service Delivery
- ✓ Resources public but services on payment
- ✓ Health facilities need to be self supporting
- ✓ Even preventive services are to be paid for
- ✓ Community participation- Communes
- ✓ Bare-foot Doctors

# Summary Highlights–

- ✓ 4% of GDP
- ✓ Incremental Govt. Health spending
- ✓ Traditional System not neglected
- ✓ Gradual decline in Rural Health Cooperatives
- ✓ Health Insurance to cover rising costs
- ✓ Separate funds for different socio-economic groups
- ✓ Pooled contributions to meet Pooled risks
- ✓ Communicable diseases not in first 5 leading causes of Death
- ✓ General Anesthesia by Acupuncture



# China: Health Indicators

(<http://www.who.int/gho/countries/chn.pdf>)

<b>(2009 data)</b>		<b>Country</b>	<b>Regional average</b>	<b>Global Average</b>
<b>Total population (thousands)</b>		1353311	-	-
<b>Population living in urban areas (%)</b>		44	48	50
<b>Gross national income per capita</b>		6890	9497	10599
<b>Life expectancy at birth</b>	Male	72	72	66
	Female	76	77	71
	both	74	75	68
<b>Maternal mortality ratio</b>		38	51	260

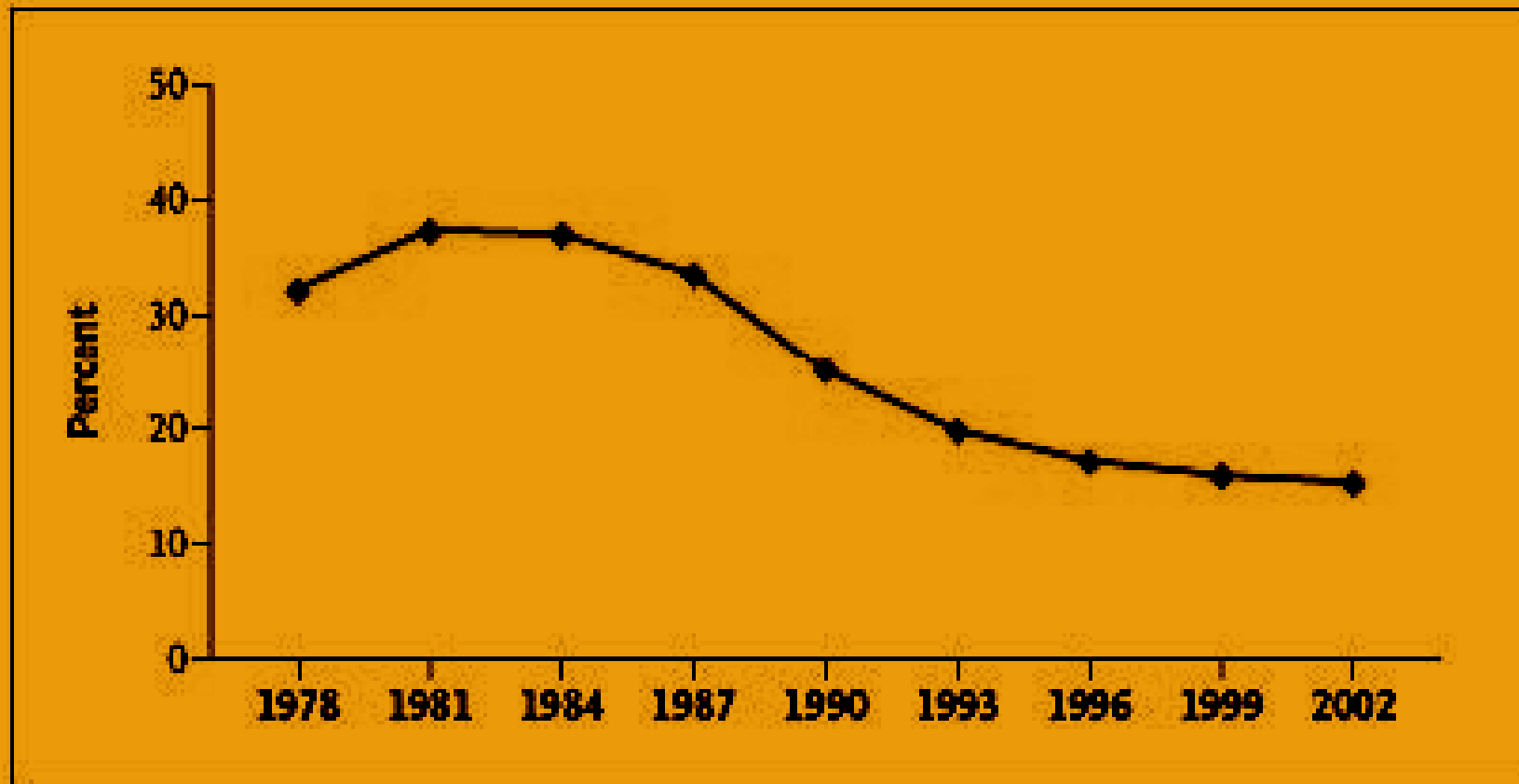


# 4 Historical and Economic Steps to a Decline in Population Health Outcomes

- ✓ 1<sup>st</sup>: 1978 to 1999, reduced federal funding of healthcare from 32 to 15%—in favor of provincial/local gov'ts having more “control” (result: disparities & privatization)
- ✓ 2<sup>nd</sup>: Govt. imposed Perverse Price Regulations: hospitals and physicians that generated more income got bonuses; promoted use of new, expensive pharmaceutical products and high-technology services



# Chinese Federal Health Expenditure as % of Total Health Expenditures



- ✓ Dismantling of Cooperative Medical System,
  - ✓ 900 million rural Chinese became uninsured overnight,
  - ✓ barefoot doctors became unqualified peddlers of high cost pharmaceuticals, loss of preventative emphasis
  
- ✓ Reduced govt. funding for public health efforts
  - ✓ local agencies switched to revenue generating focus (restaurant/food inspection) vs. MCH, epidemic control & health ed.

Blumenthal D, Hsaio W *Privatization and Its Discontents — The Evolving Chinese Health Care System*. NEJM. Volume 353:1165-1170 (11)

- ✓ Health expenditure as % of GDP: 4.3 (2008)
- ✓ Per capita total health expenditures: \$ 63 US (2008)
- ✓ General Government expenditure on health as % of total expenditure on health: 32.4(2008)
- ✓ Private expenditures out of pocket: 82.6%(2008)
- ✓ External resources for health as a % of total expenditures on health: 0.2%(2008)

50-70% of ALL healthcare spending is on pharmaceuticals—many of which are counterfeit

Source: WHO, World Health statistics,2011

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## ✓ Privatization

- ✓ Hospitals: 15% cooperative ownership, 15% private, for-profit
- ✓ Rural area clinics and hospitals allowed to privatize

# Rural Healthcare

- ✓ Rural residents pay for 90% of their own healthcare (out-of-pocket)
- ✓ Public Health Campaigns: Government and NGOs/INGOs frequently sponsor immunization or other healthcare campaigns
- ✓ No opportunity for rural residents to purchase health insurance (no competitive market place for insurers)
- ✓ In 2002, officials launched several experiment inpatient care insurance plan as a rural health safety net. The government provides \$2.50 a year, rural residents must match this with an annual \$1.25.

# Urban Healthcare



- ✓ Public hospitals: 70%, state mandated charges
- ✓ Two tier “National” insurance system: based on employer and employee contributions—started in 1998
  - ✓ 1<sup>st</sup> Tier: Personal medical account
  - ✓ 2<sup>nd</sup> Tier: Universal fund available when the personal account is exhausted
  - ✓ A “young” program, not all employers participate, time will tell the impact



# Canada



# Health System– Canada

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- ✓ **Major features:**
  - ✓ Welfare oriented
  - ✓ Resource rich
  - ✓ Health-Provincial responsibility
  - ✓ *National Health Insurance*

# Organization–

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- ✓ Deptt. Of National Health & Welfare
- ✓ Provincial Health bodies
- ✓ Federal agencies
- ✓ Deptt. Of Veterans affairs- Military hospital
- ✓ Other agencies-Justice, Defense, Agriculture
- ✓ Workmen's compensation board
- ✓ Voluntary agencies

- ✓ Private clinics-fee for service
- ✓ Insurance payment-strict reg.
- ✓ Low malpractice rate-Quality
- ✓ Hosp.Insurance-strong Govt. Surveillance
- ✓ Med.faculty- NO pvt. practice
- ✓ Weak chain of CHCs
- ✓ Legislative action against harmful health practices



# Health Manpower in Canada Health System

## Health manpower

- ✓ 19.1/10000 Physician (2010)
- ✓ 100.5/10000 Nurses (2010)

## Health Facilities

- ✓ 34/10000 Bed (2009)

Source: WHO, World Health statistics, 2011



# Financing in Canada Health System

- ✓ Total expenditure on health as % of GDP- 9.8
- ✓ General Govt. expenditure on health % of Total expenditure on health-69.5
- ✓ Per capita expenditure (PPPint.\$)-3867

Source: WHO, World Health statistics,2011

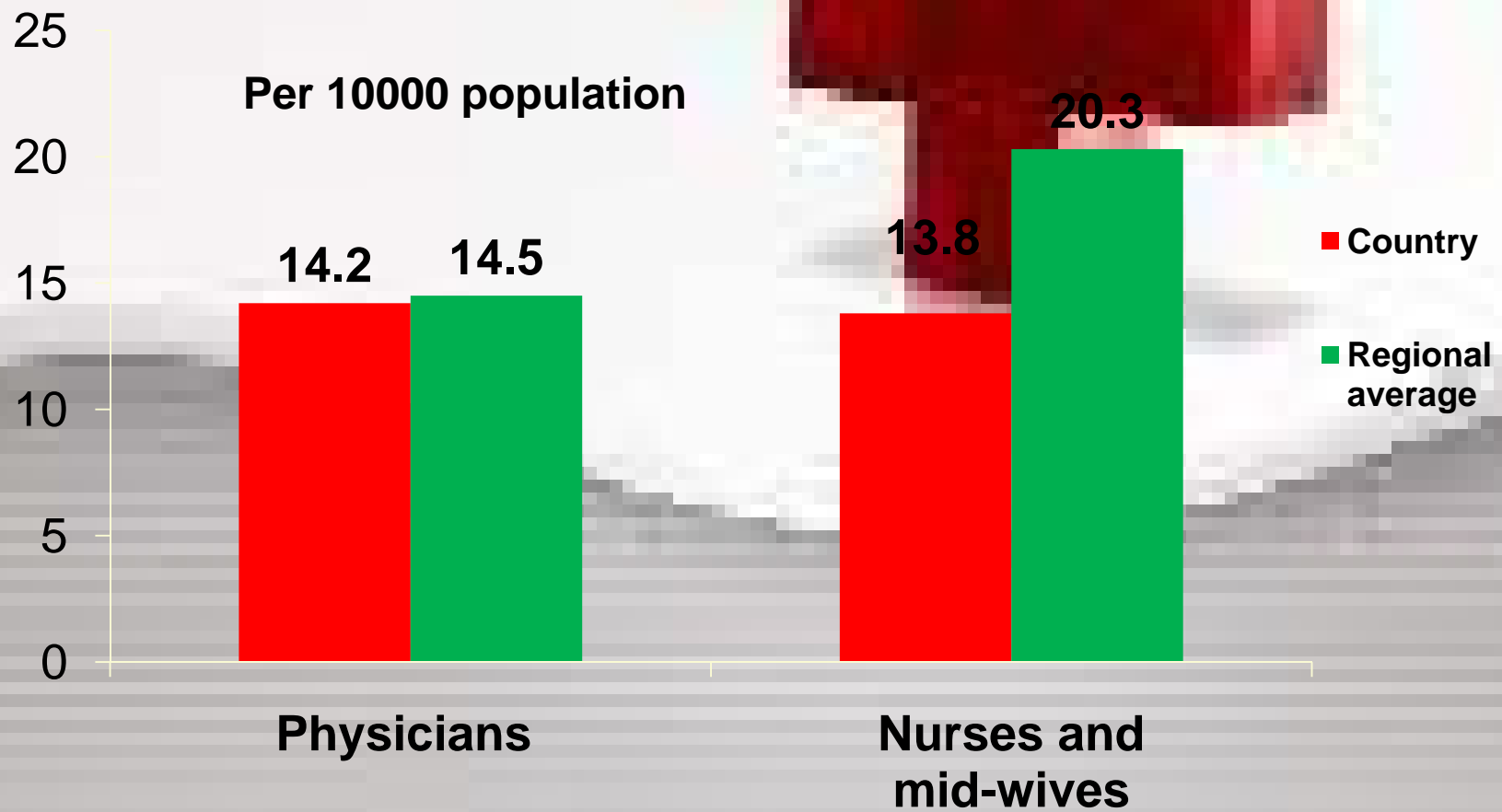


# Some Indicators across the countries



# Health Indicators

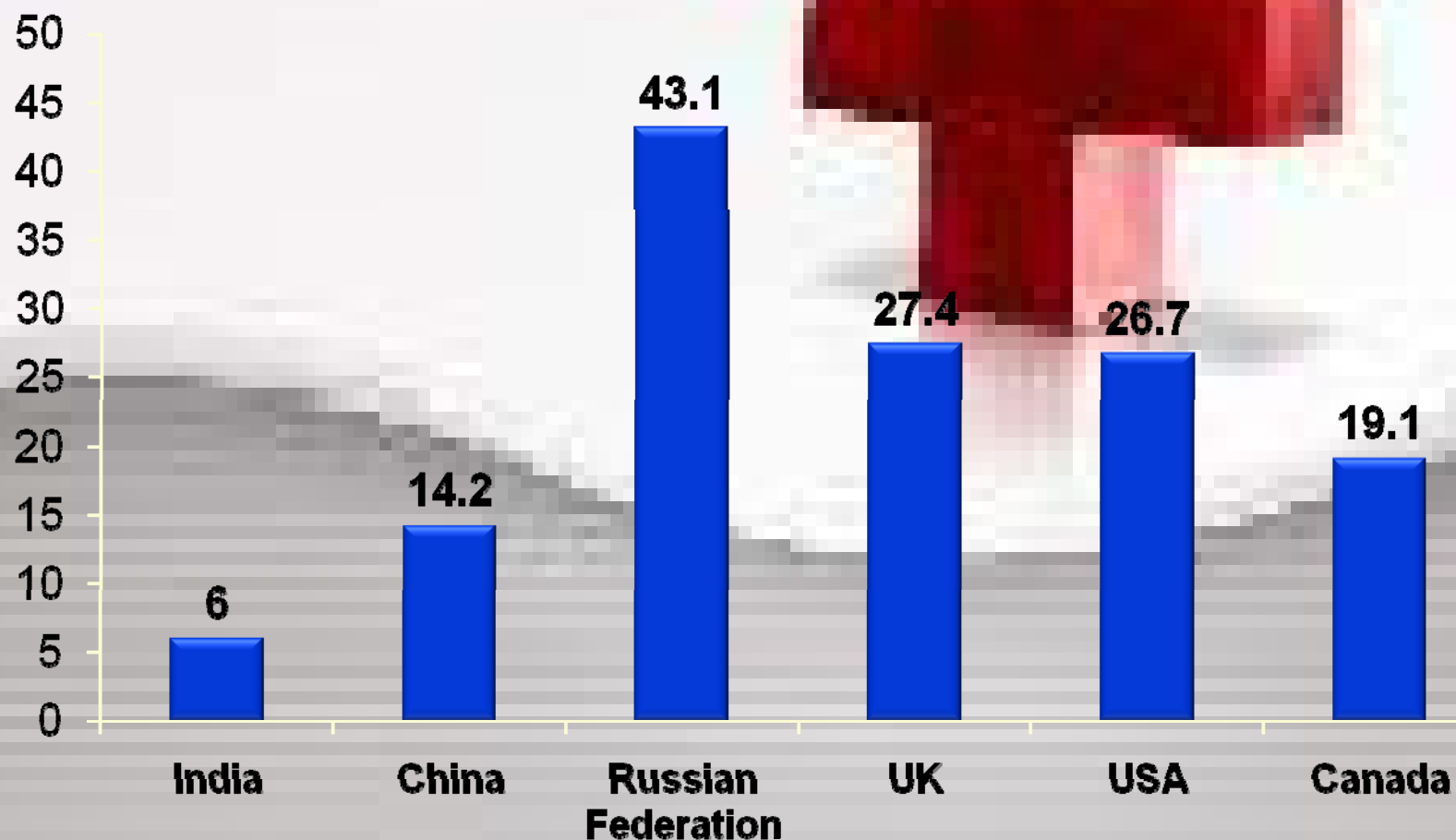
(<http://www.who.int/gho/countries/chn.pdf>) (2009 data)





# Physician Per 10,000 Population)

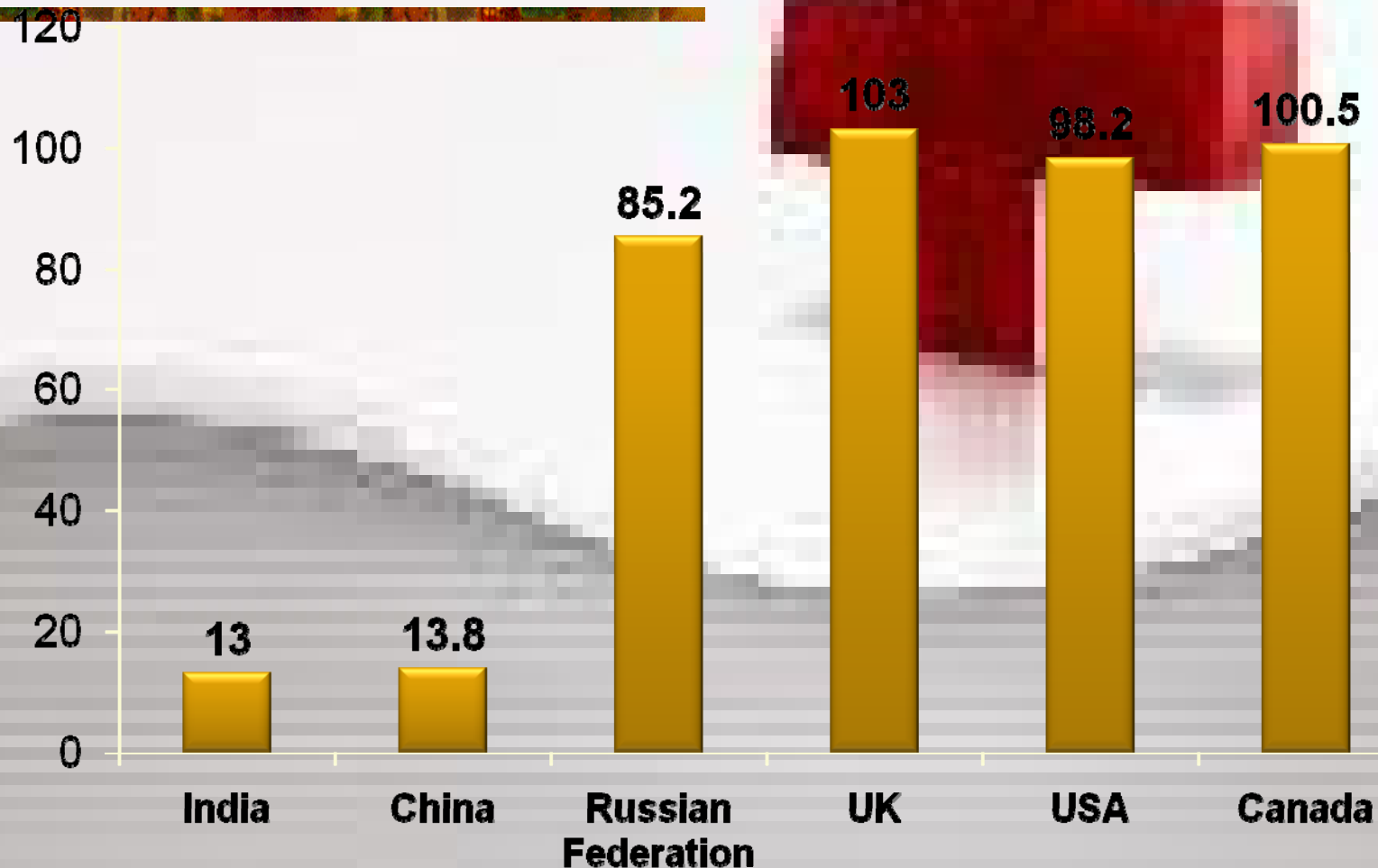
Source: WHO World Health Statistics 2011





## Nursing/midwifery personal Density(Per 10,000 Population)

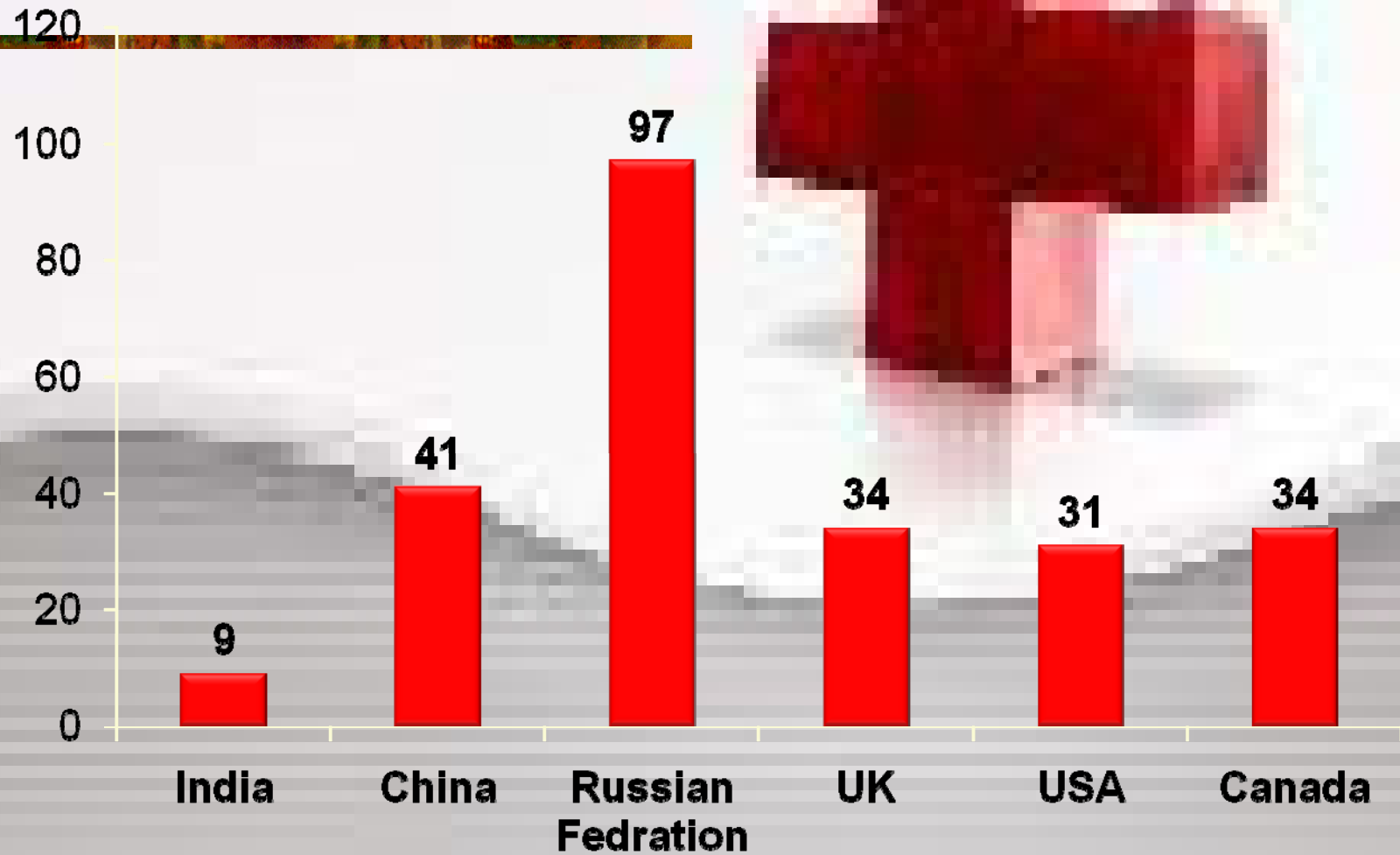
source: WHO World health statistics 2011





## Hospital Bed(Per 10,000 Population)

Source: WHO World health statistics 2011

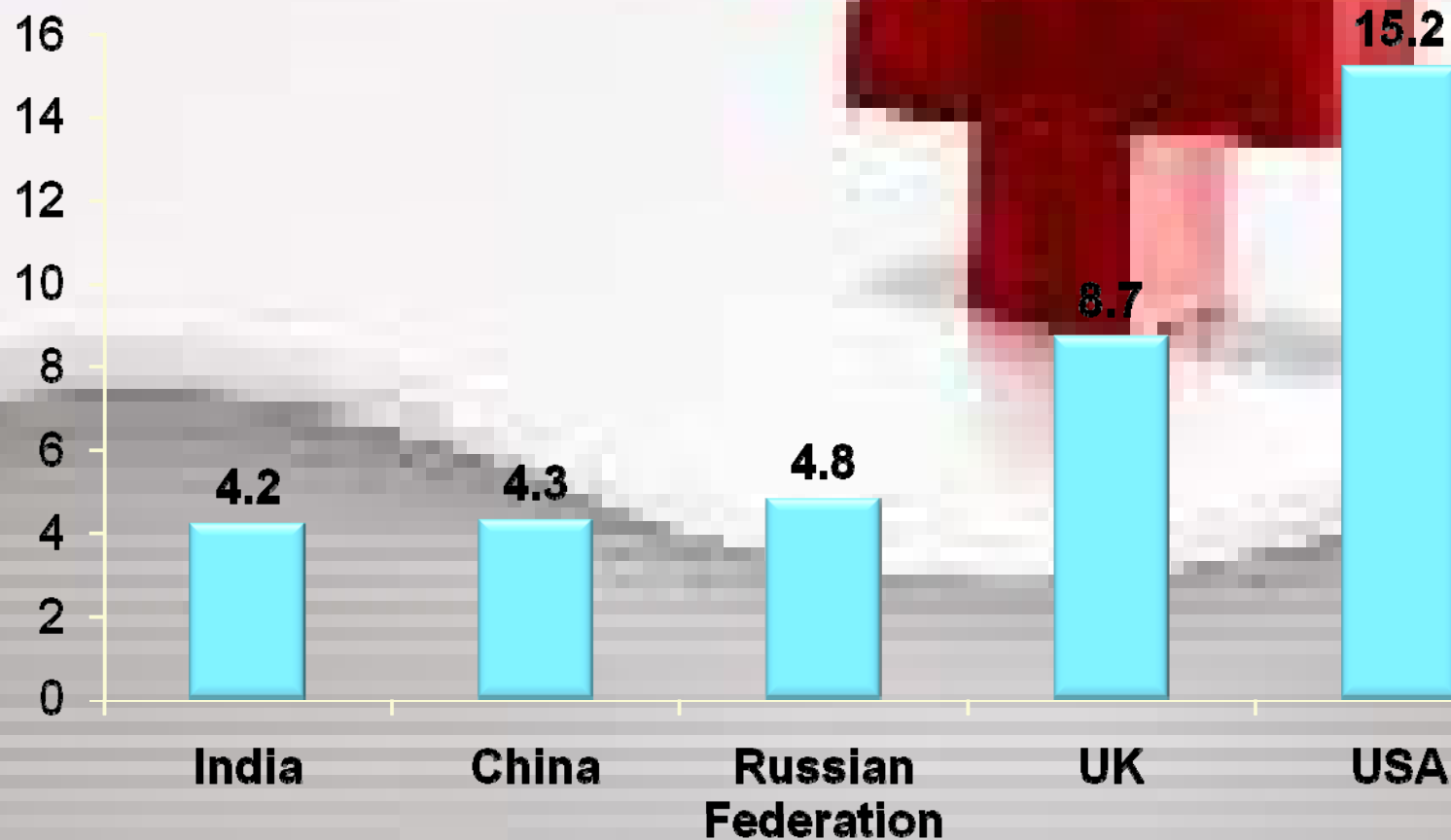




# Health expenditure ratio

## Total expenditure on health as % of GDP

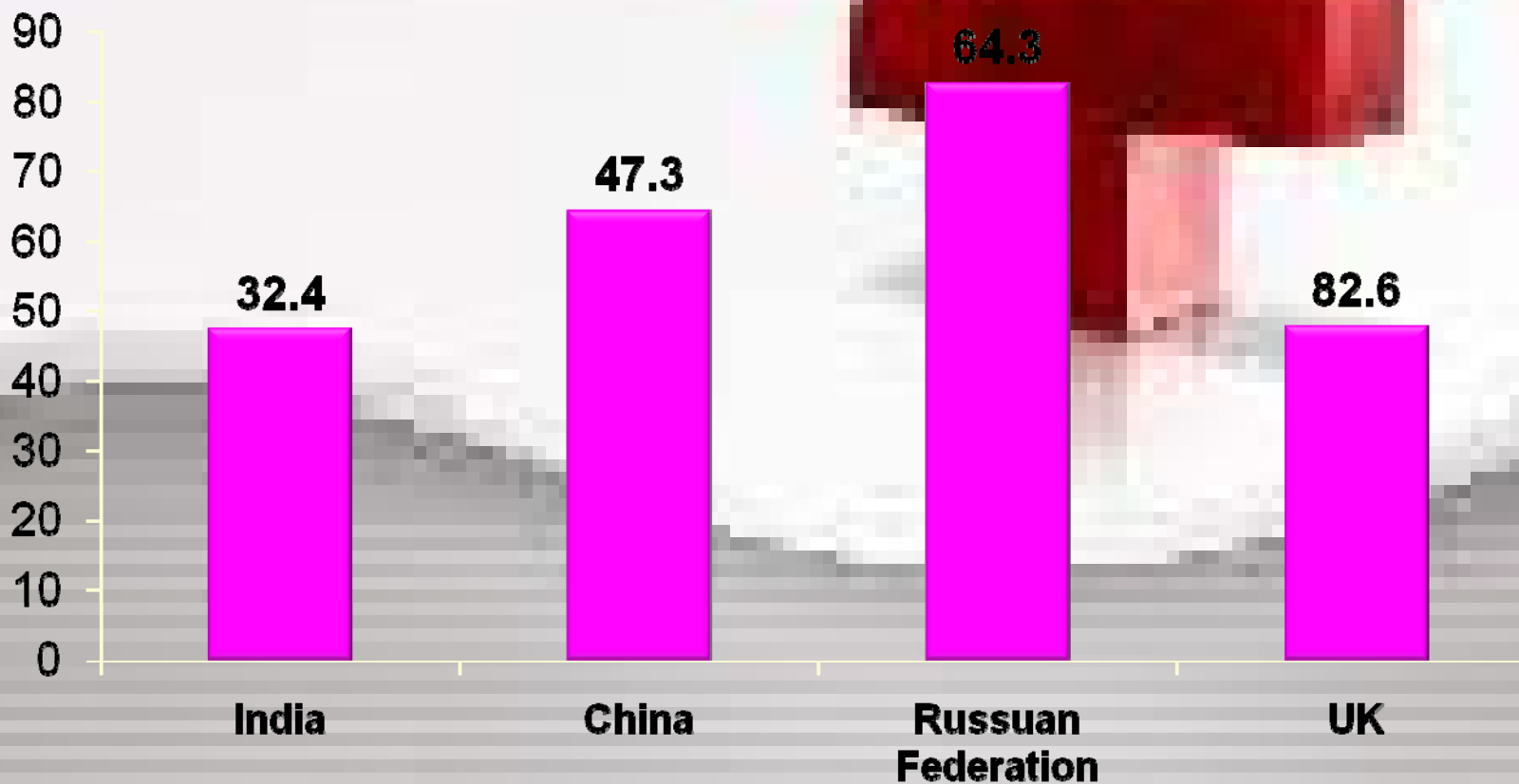
Source: WHO World Health statistics 2011





## General Govt Expenditure on health as % of Total expenditure on health

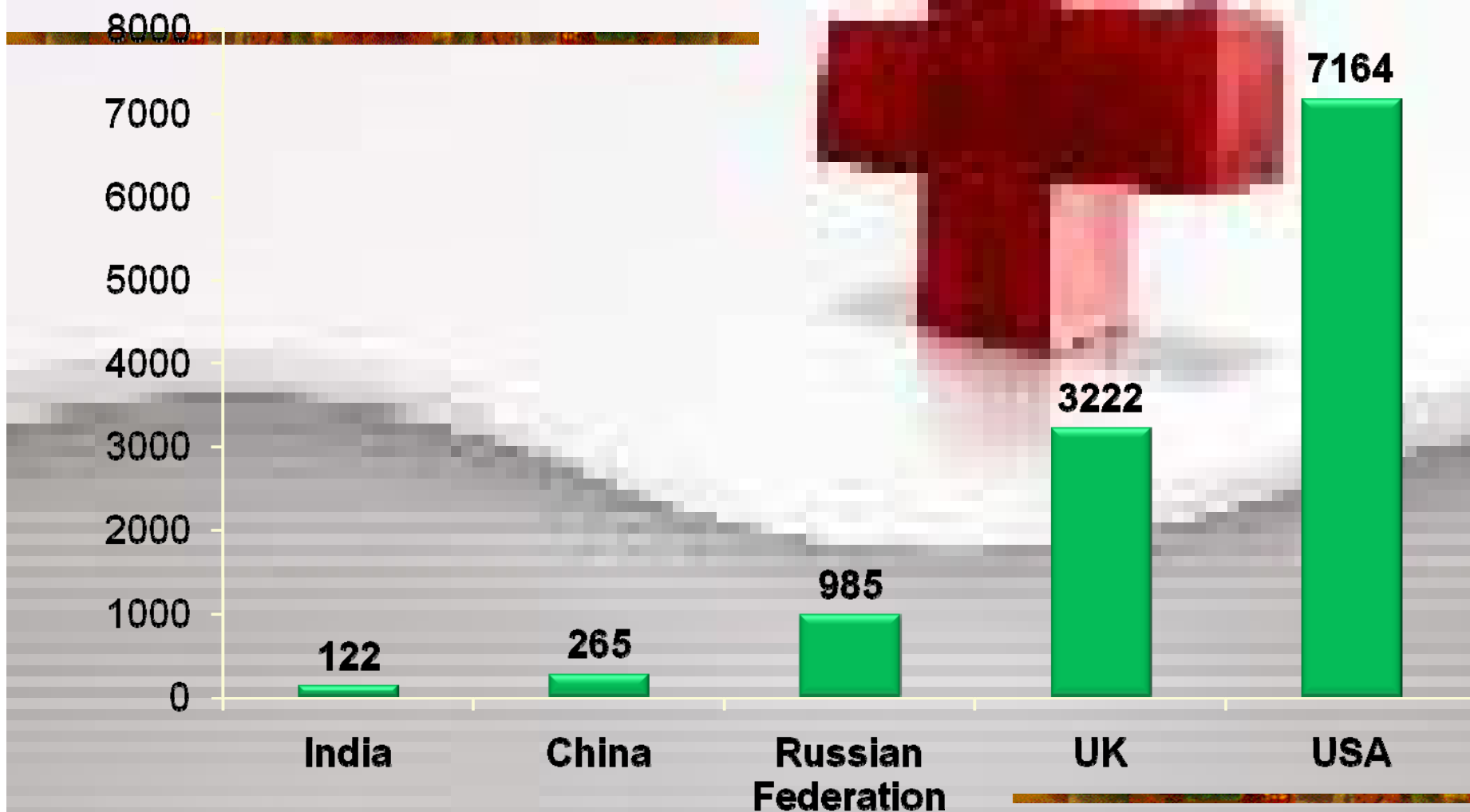
Source: WHO World health statistics 2011





## Per Capita total Expenditure on Health (PPP int.\$)

Source: WHO world health statistics 2011





**Thank You**