



# Family Health Protection Plans for India.

A Health Insurance Model.  
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# Presentation Plan.

- Insurance Concepts
- The Proposal:
  - ▶ Population coverage.
  - ▶ The benefit package.
  - ▶ Organization of health services.
  - ▶ Provider payment mechanisms.
  - ▶ Premium estimate.
  - ▶ Financing.

# Insurance Concepts



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Large enough insurance pool.

Accidental, i.e. beyond  
insured's control.

# Insurable Event

**What kind of loss are ideal  
for insurance coverage?**

Dorfman Mark S. Introduction to Risk  
Management and Insurance. 7th Ed.,  
New Jersey: Prentice Hall; 2001.  
Chapter-2, p18-42.

Large loss principle.

**Extremely low probability of a  
catastrophic loss to the insurance pool.**

# Insurable Event Conditions 1&2

- **Large enough insurance pool:**
  - ▶ Large enough to allow for predictive accuracy of adverse events and loss incidence.
  - ▶ Risk classification:
    - Each insured's mathematically fair share of losses and expenses is based on the expected probability of loss for the risk class in which the exposure is placed.  
**Subsidization** occurs if each insured does not pay the mathematically fair price for insurance. If significant subsidization occurs, the results would be so unfair to some insureds it would create either an incentive to switch insurers or forgo the insurance.
- **Accidental and beyond the insured's control:**
  - ▶ Wear and tear are not insurable events:
    - Here the premium would have to include cost of losses and cost of operating the insurance pool.
  - ▶ When losses produce no regret for the insured, claims go up.

# Insurable Event Conditions 3&4

- **Large loss principle:**
  - ▶ Insurance should be purchased when losses are large and uncertain.
    - Insurance operates most successfully when the potential damage caused by a peril is severe enough to cause economic hardship. Insuring inexpensive items, especially if losses are frequent, would result in premium charges equal to or greater than the potential damage, which makes the insurance unattractive.
- **Extremely low probability of a catastrophic loss to the insurance pool:**
  - Unpredictable event producing an extraordinarily large amount of damage relative to the assets held in the insurance pool.

# Uninsurable Risks

Borch, Karl Henrik; Economics of Insurance. Amsterdam: North Holland; 1990. Chapter-7

"There are at least two elements which can make a risk uninsurable."

## 1. Adverse Selection:

- ▶ The problem of adverse selection occurs if it is impossible or prohibitively expensive to examine each risk and set the correct premium.
- ▶ Its flip side is "Cream Skimming", commonly observed in health insurance field. Here the insurer uses various non premium mechanisms to increase the proportion of low risk persons.

## 2. Moral Hazard:

- ▶ Moral hazard is present if the insurance policy might itself change incentives and therefore the probabilities upon which the insurer has relied. \_\_ Arrow, 1963.
- ▶ A departure from the standards of conduct acceptable to society, which in turn increases the likelihood of loss. \_\_ Page, 1957.

# There are remedies!

## ■ Adverse Selection:

### ▶ No claims bonus

- Bonus-malus in Europe
- Experience rating or
- Merit rating in America

### ▶ Risk Rating based on

- Homogeneity of classes,
- Reliability,
- Incentive value, and
- **Social acceptability.**

### ▶ Mandatory Insurance Coverage.

## ■ Moral Hazard:

### ▶ Co payment

### ▶ Deductible

### ▶ Exclusion

Financial engineering enables insurance under less than ideal conditions. **However, private insurance ventures that depart too far from the ideal are likely to fail!**

# Insurability of Health Events

Insurability Requirement	Health Event Characteristics
Large enough insurance pool.	Yes
Accidental, i.e. beyond insured's control.	80% Yes 20% No
Large loss principle.	Preventive: No Amb. Care: Not quite Hospitalisation: Yes
Extremely low probability of a catastrophic loss to the insurance pool.	Not quite, given the medical technology developments.

# The Proposal



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# Population Coverage.

- Community based coverage model.
- Income lines for health & housing (ILH).
- Coverage of states and districts.



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# Community based coverage model.

- Target all residents of an area with a graded premium subsidy based on income lines for health and housing.
- Community enrollment:
  - ▶ Health insurance will be available to a community, if it guarantees at least 75% of its constituent families will purchase the policy.
  - ▶ Community will include all constitutional local bodies such as Gram Panchayat and Municipalities but not limited to them.
- Subscription by families living in enrolled community:
  - ▶ To purchase the family health protection plan, a family should be constituent of at least one enrolled community.
  - ▶ Whole family has to be covered.

# Income lines for health and housing (ILH).

## ■ Recommendation:

- ▶ Technical group on income lines for health and housing.
- ▶ Process similar to fixation of official poverty line.
- ▶ Consider following definitions graded health insurance subsidy.

Income Category for Health and Housing	Recommended Definition	Recommended Health Insurance Premium Subsidy
Poor Families	Official Poverty Line for food subsidy or targeting of anti poverty programs	High State Subsidy 75- 90%
Low Income Families	An income figure around the current official Low Income Limit for Housing Finance (Rs5500/mo) and salary limit for ESI coverage (Rs6500/mo).	Substantial State Subsidy or Mandated Employer Contribution. About 50%
Middle Income Families	Families with monthly income more than low income limit but with no taxable income.	Marginal subsidy equivalent to health insurance premium subsidy enjoyed by income tax paying families through income tax concessions. About 20%.
High Income Families	Families with income above the Official Low Income Limit for Housing Finance	Subsidy available through income concessions for health care expenditure.

# Coverage of states and districts.

- **Districts or Similar Administrative Units**
- **Phased implementation:**
  - ▶ **First phases:**
    - High infrastructure development,
    - lower levels of poverty,
    - higher levels of literacy, and
    - scope for development and sustenance of mutual health organization.
  - ▶ Phasing should be flexible so that emerging opportunity if any can be tapped.
  - ▶ Key criteria for inclusion of districts in earlier phases should be based on overall assessment of the probability of success and sustainability of health insurance schemes.

# **The benefit package.**



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# Benefit package overview.

Service	FHP-1	FHP-2	FHP-3
<b>Primary Ambulatory Care:</b>			
Out Patient services and First Aid	✓	✓	
Immunization and Access to Public Health Programs	✓	✓	
Preventive Dental and Eye care	✓	✓	
Diagnostic tests for ambulatory care.	✓	✓	
Drugs and Referral Services	✓	✓	
<b>Hospital Access and Services Upto Rs30000/fam/an</b>			
Facilitation and advocacy services to access Govt. Hospitals and Health Care Institutions	✓		✓
Supply / cost reimbursement of medicines and materials,	✓		✓
Emergency hospitalization treatment	✓		✓
<b>Catastrophic Illness &amp; Major Medical Expenses</b>			
Facilitate access to major medical relief from public or charitable sources.	✓		✓

# Primary Ambulatory Care

- Out patient consultation including clinical examination and ambulatory medical care.
- First aid; wound cleaning and dressing services including removal of foreign bodies, suturing of clean wounds, abscess drainage etc.
- Injection services for ambulatory treatment with small volume parenterals.
- Primary eye care including diag. & treat. of conjunctivitis, eye lid infections, removal of conjunctival foreign body, Vitamin A def.; first aid and referral.
- Dispensed primary medicines free of charge, and other essential medicines subject to 30% co payment.
- Referral services including information about location, appropriateness and access procedures of hospitals and health care institution and specialists.
- Access point for services provided by Public Health Authorities such as; (a) Immunization (b) Contraceptives (c) Amb. treatment under dis. ctrl pgms.
- Ante natal care.
- Prophylactic dental treatment including dental hygiene advice, dental examination and advice and scaling.
- Primary laboratory services including routine tests of blood, urine and stools, plain X ray and collection and dispatch of samples to referral lab.

# Hospital Access Services

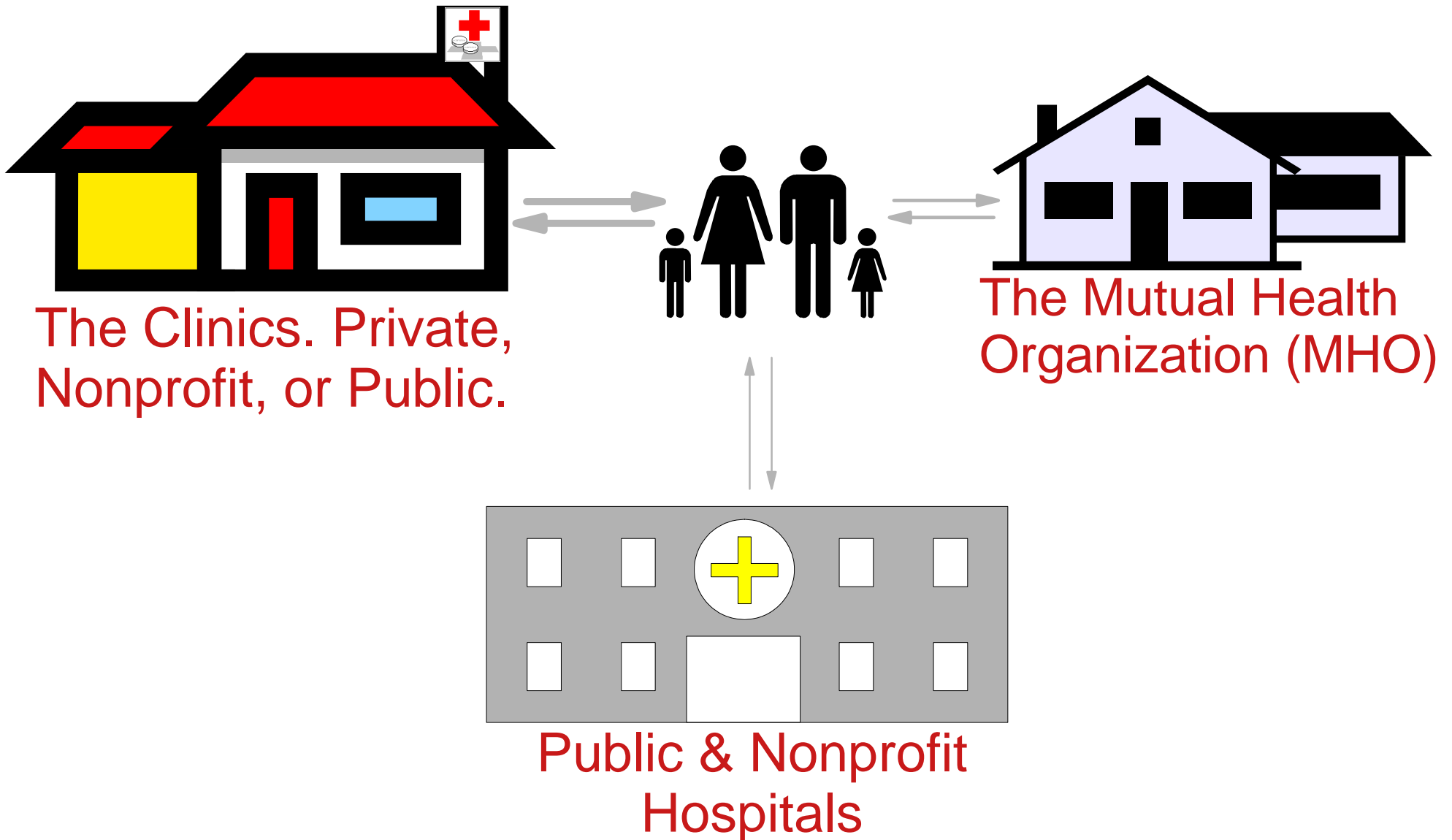
- Facilitation, assistance and advocacy to access Government Hospitals and Health Care Institutions (HCIs).
- Direct settlement of user fees charged by public hospitals and health care institutions.
- Supply or cost reimbursement of medicines and materials required but not available in government hospitals.
- Cost of treatment in designated non profit hospitals and health care institutions.
- Direct settlement or reimbursement of the cost of dispensed medicine, cost of diagnostic tests performed outside the public or designated non profit hospitals subject to 30% co payment by the policy holder. Reimbursement will be limited to price of generic drugs where available and rates of diagnostic test set by appropriate public agency or the insurer.
- Emergency treatment in any hospital.
- If treatment is not available in the first referral hospitals stated above, service charges of speciality / tertiary referral hospitals.
- In case of major medical conditions/ catastrophic illnesses requiring very high expenditure, facilitate application to State or Charitable sources of medical assistance.

# **Organization of health services.**



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# Major Institutions for Family Health Protection Plans



# The Clinics

- **Public-Private Mix**
  - ▶ PHCs, For-profit, Nonprofit.
- **PHCs must satisfy**
  - ▶ QoS standards, and
  - ▶ Demonstrate operational autonomy.
- **Any system of medicine**
  - ▶ Allopathy, Ayurveda, Homeopathy, etc.
  - ▶ Clearly display the system of medicine practiced by the primary care physician.
  - ▶ Policy holders implicitly choose by their decision to register.
- **Competition**
  - ▶ Policy holders will decide once a year, which clinic to register.
- **Quality of Service (QoS)**
  - ▶ All clinics to satisfy QoS
  - ▶ We have recommended a minimum QoS for clinics.
- **Accreditation Status**
  - ▶ A MHO may use credible third party accreditation status information, in addition to its in house quality assurance system.

# The Hospitals

## ■ Public Hospitals

- ▶ Bulk of first referral hospital services to be accessed from the public hospital network.
- ▶ Coverage includes social work to facilitate accessing of public hospitals.
- ▶ Supply of medicines, and materials not available in hospital.
- ▶ Will improve utilization of public hospitals.
- ▶ Consistent with structural reform policy of perf. linked financing of public hospitals.
- ▶ Keep premium down.

## ■ Nonprofit Hospitals

- ▶ Flexibility and wider access to hospital services.
- ▶ Expect modest service charges.
- ▶ Balance between premium cost and wide access to hospital services.

## ■ For-profit Hospitals

- ▶ Casualty and hospitalization services for accidents and emergencies.
- ▶ Balance between premium cost and wide access to hospital services.

# The MHO

- These fiduciary nonprofit health insurance organizations will underwrite the risk and issue health insurance policies.
- MHOs may arise from an existing public or nonprofit hospital base, community health or other social service organization, or may appear first and then develop affiliations with health care providers.
- To minimize scope for conflict of interest, a Trustees, or Director of MHOs should not have any financial or proprietary interest in any for-profit health care provider, medical and health equipment supplier, pharmaceutical concern or such other suppliers largely dependent on business from the health care sector in the area of operation of the MHO.
- About two to three MHOs should be encouraged in each district or a region.
- MHOs will compete in enrollment of communities and affiliated groups. A community can enroll with any one MHO only. Communities can review their enrollment with a particular MHO once in three years.
- Although, India does not have many mutual health organizations as of now, enough civil society formations and voluntary health care delivery efforts exist to facilitate development of mutual health organizations. The MHOs have to be carefully developed and should be governed by people with demonstrated potential for fiduciary trusteeship, and commitment of social work.

# **Provider payment mechanisms.**



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# Provider payment mechanisms.

## ■ Primary Ambulatory Care

- ▶ Out Patient services and First Aid
- ▶ Immunization and Access to Public Health Programs
- ▶ Dental and Eye care
- ▶ Lab services
- ▶ Drugs and Referral Services

Capitation fee to participating clinic nominated by the policy holder.

## ■ Hospital Access and Services

- ▶ Facilitation and advocacy services to access Govt. Hospitals.
- ▶ Supply / cost reimbursement of medicines and materials.
- ▶ Emergency hospitalization treatment.

Capitation

Price / Item or Bulk Purchase  
Capitation

## ■ Catastrophic Illness & Major Med Exp.:

- ▶ Facilitate access to major medical relief from public or charitable sources.

Capitation fee

# Premium estimate.



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# Healthcare Usage per Person Year - Some Empirical Estimates

Source	Study Year	Population	OP Visits	Hospital Adm.	Health Visits	Dental Visits
NCAER, 1998	1993	All India Sample		0.10000		
NSS-52nd Round	1995	All India Sample	1.02	0.02000		
NCAER (2000) Survey in Ahmedabad.	1999	SEWA	2.15	0.06000		
		ESIS	1.83	0.07000		
		Medicclaim	0.92	0.02000		
Bhaskaran and others, 2000.		Manipal - Medicare Scheme.	1.45	0.15000	Incl. in	OP visits
Rand Health Insurance Experiment, USA	1974 - 1982	Free plan	3.77	0.13300	0.790	1.330
		25 % co insurance	2.96	0.11000	0.640	1.060
		50 % co insurance	2.83	0.09900	0.720	0.970
Philippines, Institute of Dev. Studies, Survey.	1991	No Insurance		0.01312		
		Social Insurance		0.13150		
		Universal Coverage		0.13480		

# Marginal Cost (Price) of Healthcare Episodes.

Source	Study Year	Population	OP Visits	Hospital Adm.	Pblc Hospl - Av. Out of pocket Exp.
NCAER, 1998	1993	All India Sample	103	1,121	494
NSS-52nd Round	1995	All India Sample		3,562	2,218
NCAER, 2000	1999	Ahmedabad			
		SEWA	214	2,586	4,045
		ESIS	161	1,411	
		Mediclaim	686	4,045	
Mahapatra & others	2000	Pvt. Health Care Institutions in AP.	41	3,574	
Bhaskaran & others	1999	Manipal - Medicare Scheme.	173	4,031	

# Administrative Costs

- Evidence on Administrative Costs of Mutual Health Insurance Firms.
  - ▶ Blue Cross Blue Shield Plans, USA: 10%
  - ▶ Minnesota Health Plans, 2001: 9.4%
  - ▶ US Health Security Act premium estimate allows 13% of which 4% is transferable to regulators to support medical research. Thus net adm. cost allowed: 9%
  - ▶ Philippine Medicare: 12%
- IRDA allows between 20-35%
- **Our Recommendation: 10%**

# The Premium

## Average cost per person:

Service component	Visits / Person Year	Rate	Amount
Out patient visits + Diagnostic ser.	1.50	80	120
Health Visits	0.30	20	6
Hospital	0.07	1,000	70
Sub total of service costs			196
Insurance overheads (Adm costs)		0.1	19.6
Total Premium / Person			215.6

## Premium:

Family situation	Rate / Annum
Basic enrollment premium for individual or family with upto three members.	600
Additional premium for family members exceeding three.	220

# Financing.



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# Recommended State Financing of Family Health Protection Plans

Income Line for Health and Housing	Reco. Health Insurance Premium Subsidy
Poor Families	75-90%
Low Income Families	50%
Middle Income Families	20%
High Income Families	None
Additional premium for family members exceeding three.	220



**Jai Hind!**