



**World Health  
Organization**

# **The development of health financing systems in low-income developing countries**

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**References to case studies**

**References in [www.who.int/health\\_financing/](http://www.who.int/health_financing/)**

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# **I. TOWARDS SUSTAINABLE HEALTH FINANCING AND UNIVERSAL COVERAGE**

## WHA Resolution on 'Sustainable health financing, universal coverage and social health insurance' (2005)

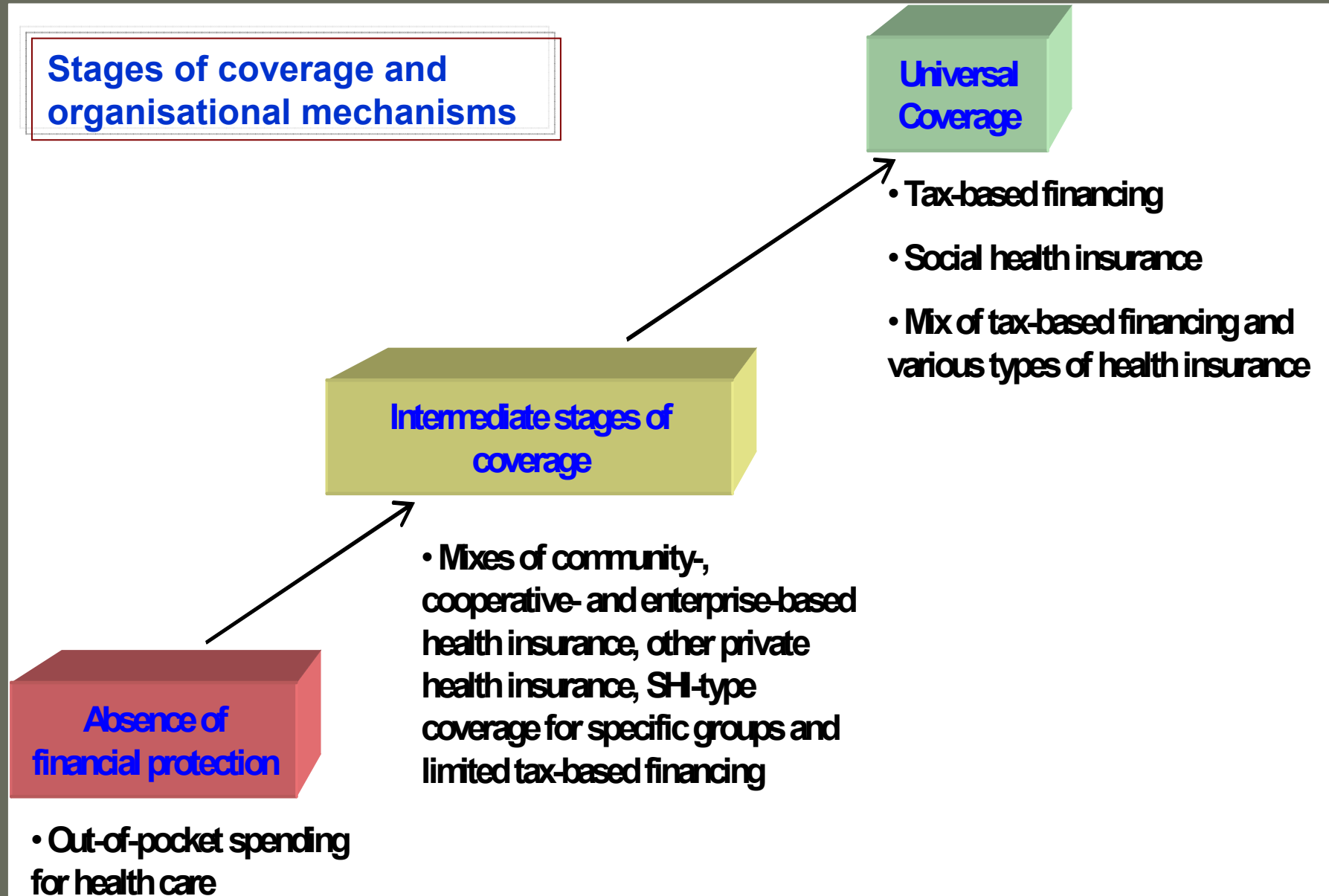
- The further development of health-financing systems is necessary...
  - *In order to guarantee access,*
  - *and provide protection against financial risk*
- Basic principles are ...
  - *revenue collection (prepayment)*
  - *pooling (of revenues and risks)*
  - *purchasing*

- The **choice** of a health-financing system is to be made **within the particular context of each country**
- Health financing reforms may involve a **mix of public and private approaches**, including the introduction of social health insurance
- Importance of the **role of State legislative and executive bodies** in further reform...with a view to achieving universal coverage

## What about the transition to universal coverage?

- Transition to UC generally has generally taken years, with co-existence of
  - Community-, cooperative-, enterprise-based health insurance
  - Other forms of private health insurance
  - Compulsory SHI-type coverage for particular population groups
  - Tax-based funding

## Stages of coverage and organisational mechanisms



## **II. COMMUNITY-BASED HEALTH FINANCING**

## II.1 Performance criteria

### 1. Revenue collection



#### **Enrolment**

- » **low membership is warning for adverse selection**
- » **broad membership makes the scheme viable over the longer run**
- » **membership to be accessible for vulnerable groups**



## **Ratio of prepaid contributions to health care costs**

**the higher volume of prepaid  
contributions**

**the more the financial consequences  
of treatment costs can be avoided**

## 2. Pooling



**Practice of risk pooling across groups in the community**

**so that transfers can be ensured between low-risk and high-risk members**

### 3. Purchasing



#### **Practice of strategic purchasing**

**is a search for the best health services to purchase, the best providers to purchase from, and the best payment methods and contracting arrangements**

**... in order to contribute to more rational and cost-effective health care**

## II.2 OVERVIEW OF EARLIER EMPIRICAL FINDINGS CONCERNING PERFORMANCE

**TABLE 1 Key characteristics of selected non-profit health insurance schemes**

<b>Countries</b>	<b>Bangladesh (1995)</b>		<b>D. R. Congo (1990)</b>	<b>Uganda (1999-2000)</b>		
<b>Scheme</b>	GK <sup>1</sup>	Grameen Health Plan	Bwamanda Health Plan	Kisizi	Mutolere	Nyakibale
<b>Starting date Of the scheme</b>	1975-1976	1993	1986	1998-1999	1998-1999	1998-1999
<b>Eligible population (number of households)</b>	37,200	37,500	19,400	19,900	11,500	23,500
<b>Population coverage rate<sup>2</sup> (%)</b>	27.5	41.0	60.0-65.0	6.1	2.0	1.4
<b>Insured services</b>	Community-based facility and hospital level OP and IP <sup>3</sup>	Community-based facility level OP	Hospital-level IP	Hospital-level OP and IP	Hospital-level OP and IP	Hospital-level OP and IP

**Notes:** <sup>1</sup> GK=Gonoshashthya Kendra

<sup>2</sup> Population coverage rate= ratio of insured population to eligible population

<sup>3</sup> OP and IP stand for outpatient care and inpatient care, respectively

## II.2.1 Performance criteria

### Enrolment

- WHO 1998 study: median of **24.9%** (44 schemes)
- Rwanda Project study: **7.9%** by end of first year of operation
- Thiès study (Senegal): average enrolment of **68%**

**Concern:** enrolment across different income groups

## Prepayment ratio

- WHO 1998 study:  
prepayment ratio in the range of **30% to 60%**
- Insurance scheme of Self Employed Women's Association (SEWA-Gujarat, India):  
**76%** of hospital costs

## Practice of risk-pooling

- Many CHI schemes are **small** and have **single** pools
- China's Rural Cooperative Medical Schemes: possibility of **separate** funds for workers and farmers
- ILO 2002 study: CHI as **entry point** to larger pooling arrangements, supported by other financial sources (governments, donors)

## Practice of strategic purchasing

- **WHO 1998 study:**  
previously weak definition of benefit packages  
(some exceptions: UMASIDA scheme in  
Tanzania, SEWA)
- **increasing attention to strategic purchasing:**  
E.g. Rwanda Project, CHIs in Guinea

## II.2.2 Factors that influence performance

**Revenue  
collection**

*Enrolment*



\* **Affordability  
of  
contributions**

\* **Unit of  
membership**

\* **Distance**

\* **Timing of  
collection**

\* **Trust**

**Revenue  
collection**

*Prepayment  
ratio*



**Mix of  
contributions**

by  
households  
government

donors

others

**Practice  
of Risk-  
pooling**



\* **Trust**

\*  
**Mechanisms  
for enhanced  
risk-pooling**

**Practice of  
Purchasing**



\*  
**Contracting**

\* **Provider  
payment  
methods**

\* **Referrals**

\* **Waiting  
period**

## II.3 SPECIFIC CASES

# **SEWA community-based health insurance in Gujarat, India**

*Sources: Kent Ranson, Bulletin of WHO, vol.80, 2002; Tara Sinha et al., Health Policy and Planning, December 22, 2005*

## *Key characteristics*

- Health insurance as part of the Self-Employed Women's Association (SEWA) Integrated Social Security Scheme, established in 1992
- Focus on women (between 18 and 58 years old); however they can insure their spouses and children
  - Membership in 1999-2000: 23 214 members
- Annual social security premium is 72.5 rupees (\$1.67)
  - Of which 30 rupees earmarked for health insurance
  - Coverage up to 1200 rupees (\$28) in case of hospitalization
    - Exclusion: chronic tb, certain cancers, diabetes, hypertension, diseases caused by addiction
- Cost-recovery (excl. Administrative cost): between 119 to 309%
- Administrative cost: between 10.2 and 22.9% of expenses

## *Key findings with respect to access to health care*

- Women who made claims were **poorer** than the general population
  - **27%** of claimants fell below the poverty line
- Mean rate of reimbursement for reimbursed claims (89% of claims submitted): **76.5%**
- Impact on catastrophic health expenditure (>10% of income):
  - For all claimants: **reduction of % households with catastrophic care from 35.6 % to 15.1 %**
  - For poorest claimants: **reduction of % households with catastrophic care from 72.4% to 24.8%**

## *Further challenges*

- Need to enhance financial protection: further **lower barriers** to effective access
  - **Direct reimbursement from SEWA to hospital providers**
  - **Issue of distance (rural vs. Urban): cost of transportation and loss of income and time**
- Expansion of the **benefit package**
  - **Financial feasibility could be enhanced by subsidies from government and donors**
- Making the insurance also more attractive to the **non-poor** by offering new packages
  - With the potential for better risk-pooling and cross-subsidization

# Grameen Kalyan Health Program

*Source: Letourmy & Letourmy, AFD, Notes et Documents, nr 26, december  
2005*

## *Key characteristics*

- GK-HP developed by the Grameen Trust in August 1997
  - Its **objectives**:
    - Provide primary health care services (19 health centres since 1996)
    - Develop health insurance with community participation
    - Self-sufficiency
- Health insurance is **voluntary**
- Two types of **contributions**
  - For Grameen Bank members: 120 Tk per year per family
  - For non-Grameen Bank members: 150 Tk per year per family
- Contributions are paid to a **Grameen Bank credit agent**
  - But micro-credit loans do not serve to finance the contribution

## *Key findings with respect to access to health care*

- **Health insurance benefits:**
  - Free vaccinations & yearly health check-up
  - Consultation with co-payment in health centres
  - Reductions on drugs, exams and consultations in reference health facilities
- **Poor non-members** of Grameen Bank (ultra poor) receive free treatment
  - Financed via Grameen Welfare Fund
  - About 10% of health centre patients benefit

## *Key findings with respect to membership and cost-recovery*

- **Beneficiaries**

- November 2001: 198,000
- February 2003 : 261,800

- **Cost-recovery**

- Health centre income is from:
  - Revenues from lab tests, drug sales, consultations of non-members
  - Health insurance contributions from members
  - Subsidies from Grameen Welfare Fund
- Cost-recovery evolution
  - 1996: 38%
  - 1999: 72%
  - 2002: 81%

**New ways to protect the poor**  
***Health equity funds: the case of  
Cambodia***

*Source: Hardeman et al, Health Policy and Planning, 2004, 19 (1).*

## *Focus on the poor*

- **Local and independent NGO to be contracted** that
  - identifies the target group of the poor population
  - manages the Health Equity Fund
  - acts as a 'third party payer'
- **Level of financial support to patients**
  - on case-by-case basis
    - from partial payment of admission fee to full coverage of total cost of hospitalization, including transport, food and basic items

## *Cost of the Health Equity Fund (HEF)*

- **Support to 1437 patients (1-9-2000 to 30-9-2002) or 30% of all patients** in 3<sup>rd</sup> Q of 2002
- In 2001, running cost of district hospital cost was US\$ 152,000 or \$53 per admission
  - 62% funded by government
  - 21% by user fees
  - 17% by MSF and UNICEF
- Cost of HEF for one year around \$ 13,000
  - 8.6% of running cost
  - \$ 0.06 per capita per year

## *Effects on households*

- **Health equity fund (HEF) supported nearly all extreme poor**
  - 87% were identified and supported for 50% of their total expenditure
- **Effects on financial constraints:**
  - Informal payments stopped
  - But, user fees (7 to 10\$ per admission) continue to be major obstacle to the poor
  - Besides, hospitalization itself is not the only cost: higher spending on transport and food

### **III. SOCIAL HEALTH INSURANCE**

## III.1 Basic principles

- Ensure **access to a benefit package** of health services among **all population groups**
- The provision of benefits needs to be ascertained through **sufficient and stable financing** of SHI
  - involving contributions by the **stakeholders**: employees, employers, self-employed, government
  - contributions are normally based on **ability to pay**
  - in principle membership is (or will eventually become) **compulsory**

## **III.2 Key Design Features**

# Population coverage

## *INDICATORS*

- **Percentage of population covered by SHI**
- **Coverage by target group**
  - employees of private and public enterprise
  - civil servants (incl. teachers, military personnel)
  - casual workers, migrants and other self-employed
  - retired civil servants and employees
  - non-working population (incl. students, unemployed, disabled)

## ***FURTHER CONSIDERATIONS***

- **‘ Inclusion ’ of groups depends upon national financial resources and government stewardship**
  - government financial support for those who cannot afford to pay
  - pooling: cross-subsidies between target groups

# Extent of prepayment

## *INDICATORS*

- **Ratio of prepaid contributions to total health care costs**
  - whole population
  - by target group
- **Percentage (%) of households with 'catastrophic' spending**
  - whole population
  - by target group

## ***FURTHER CONSIDERATIONS***

- **Issue of equity: income/wage related contributions vs. flat rate contributions**
  - considerations of administrative efficiency
  - degree of solidarity
- **Sufficient and stable contributions**
  - government financial support
  - other revenues (earmarked taxes etc.)

## Prepayment ratios in selected mature SHI systems, 2004

<b>Country</b>	<b>Prepayment Ratio (%)</b>	<b>Country</b>	<b>Prepayment Ratio (%)</b>
Austria	69.3	Israel	69.2
Belgium	71.7	Japan	77.9
Costa Rica	68.5	Luxembourg	89.9
France	76.0	Netherlands	63.3
Germany	74.9	ROK	44.4
		Switzerland	57.1

## Fragmentation in pooling

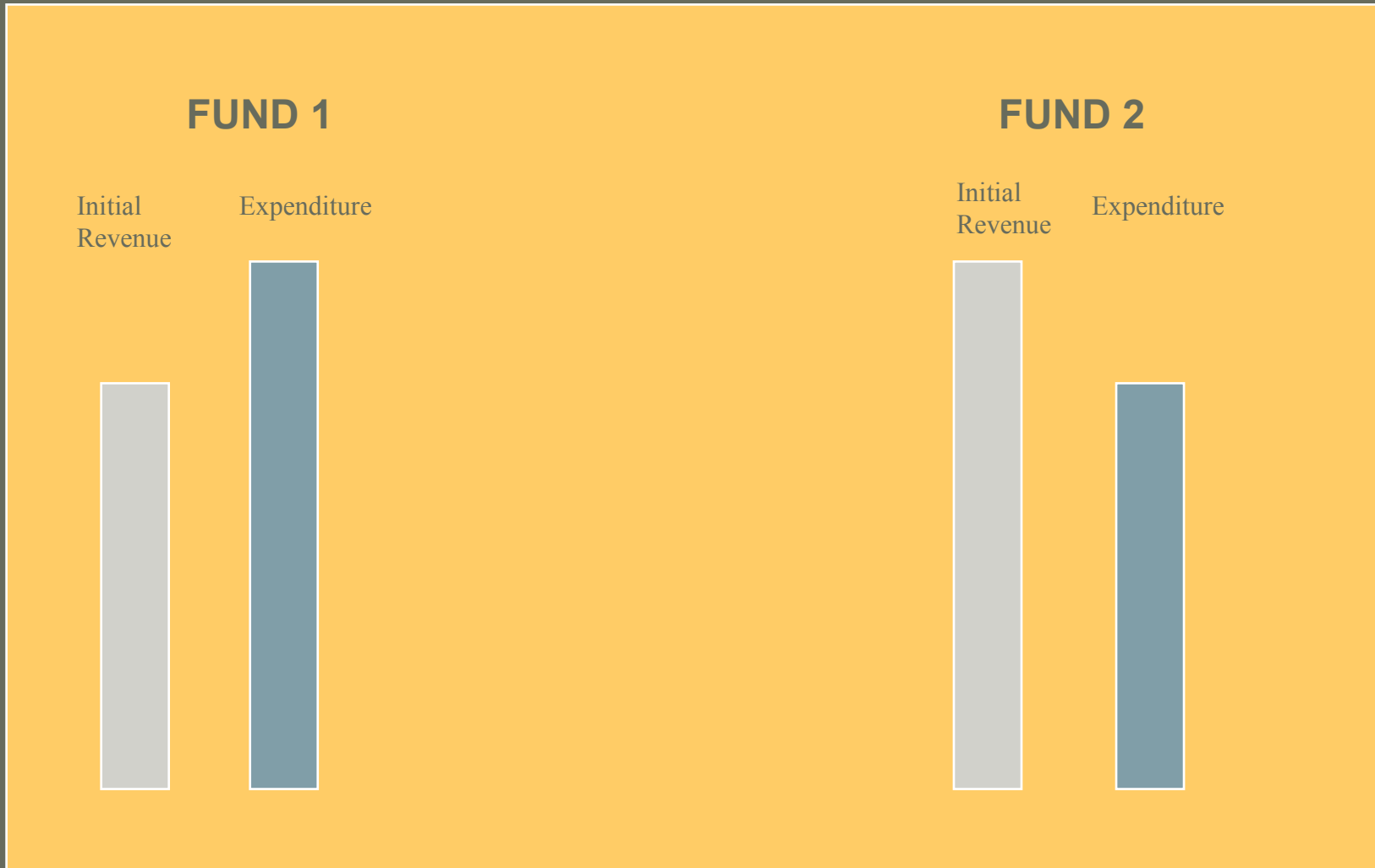
### *INDICATOR*

- **Multiple funds ? YES/NO**

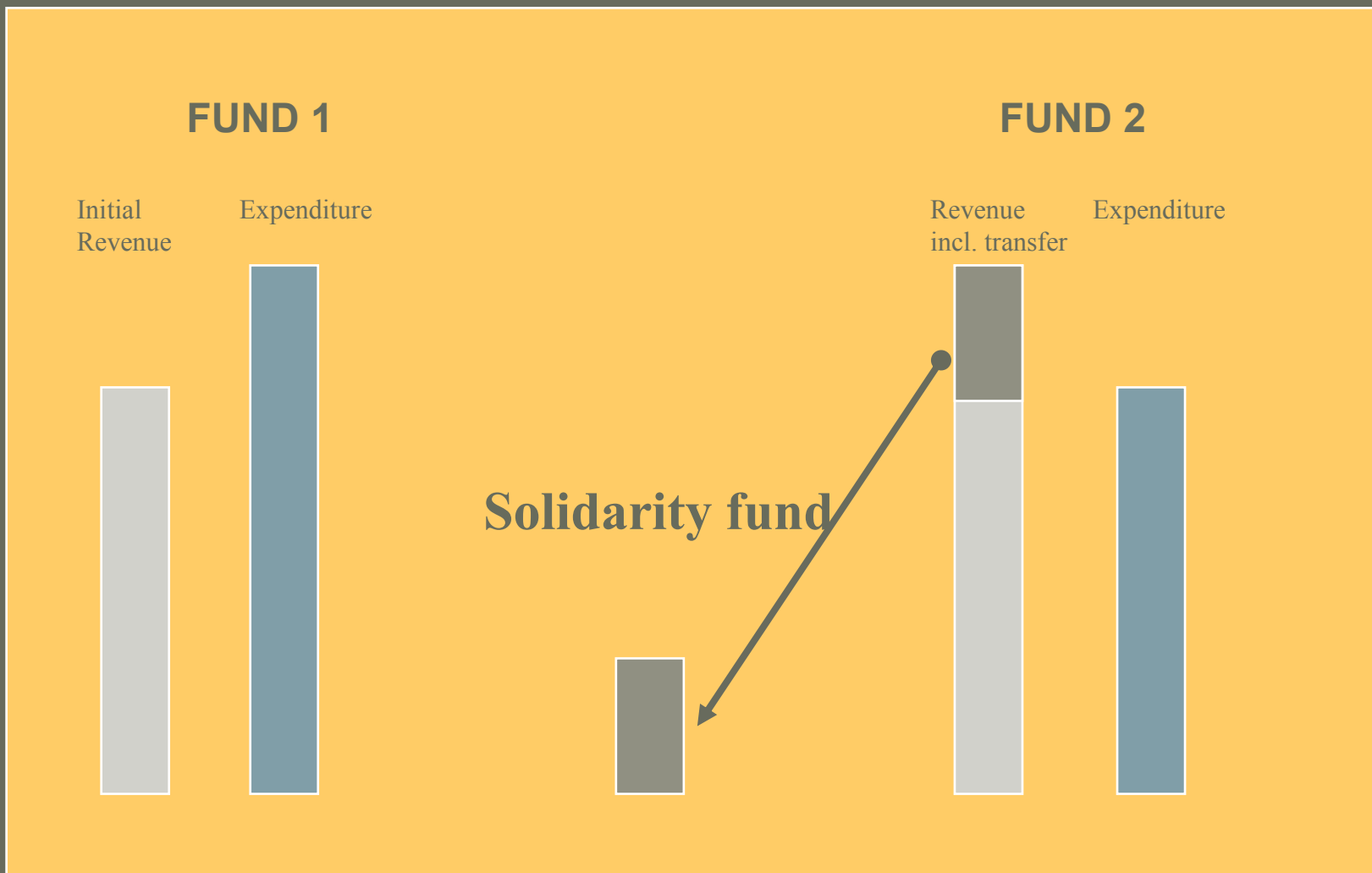
**If YES, what is the level of risk equalization ?**

*Risk equalization arranges for transfers across different funds such that each fund can offer the same benefit package to its members*

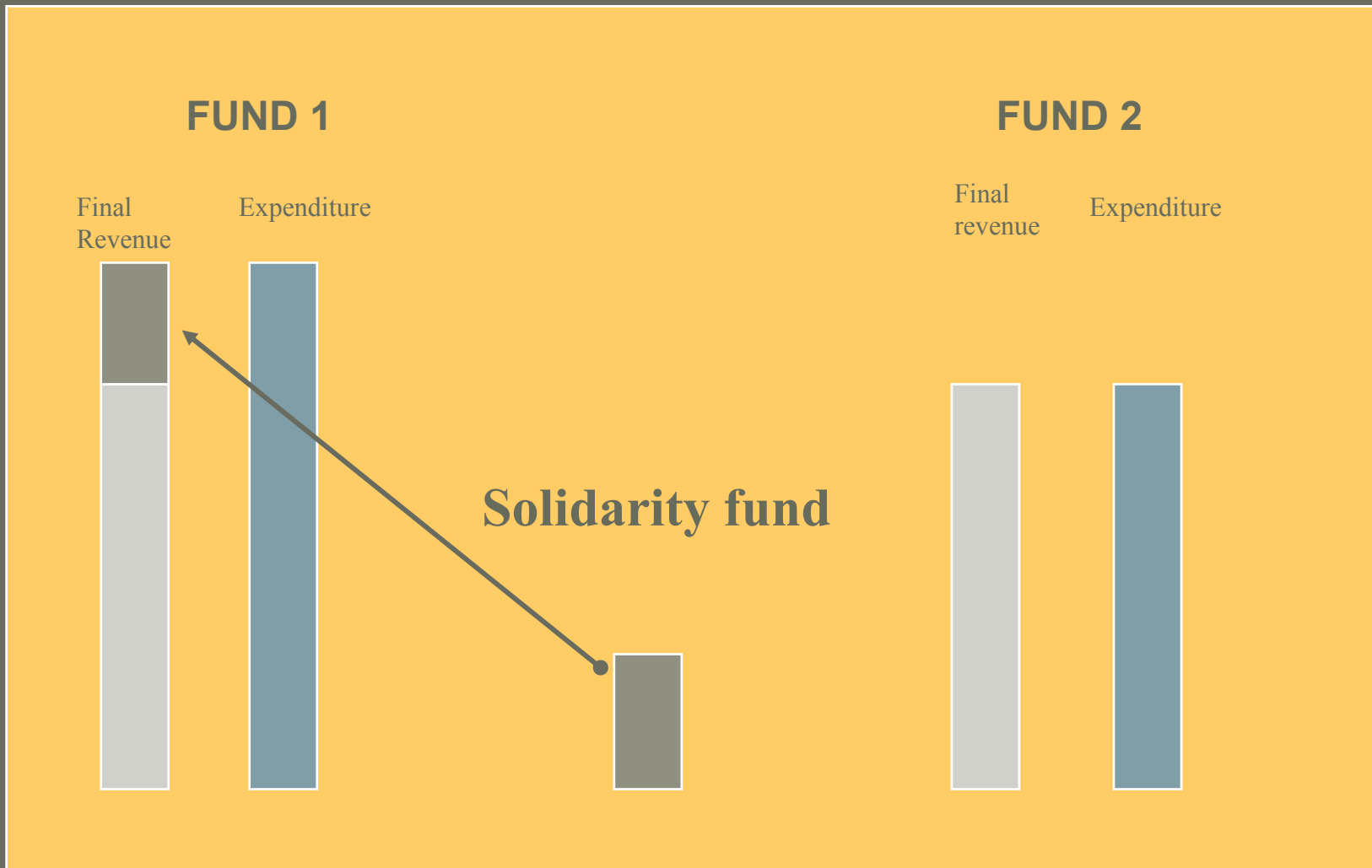
# Risk-equalization: example with 2 funds



# Risk-equalization: example with 2 funds (cont.)



# Risk-equalization: example with 2 funds (cont.)



# Composition of pools

## *INDICATORS*

- **Is membership compulsory ?**
- **Are dependants covered ?**

## *FURTHER CONSIDERATIONS*

- **Registration of the household or the individual ?**
- **Registration of migrants ?**

# The benefit package

## *INDICATORS*

- Do members have full information on their ' rights ' ?
- Do monitoring mechanisms exist: internal and external quality reviews ?

## *FURTHER CONSIDERATIONS*

- Criteria used in the design of the benefit package
- Design of contracts and renewal of contracts

# Administrative efficiency

## *INDICATORS*

- **Maximum percentage of expenditure on administrative costs ?**
- **Maximum percentage of reserves ?**

## *FURTHER CONSIDERATIONS*

- **Paying the providers: advance payment, proper timing**
- **Management of risk-equalization**

### **III.3 Country experiences with Social health insurance**

## Comparative data on countries *with or intention to move to social health insurance*

	<b>GDP per Capita</b>	<b>THE per Capita</b>		<b>THE %</b>	<b>GHE %</b>
<b>Country</b>	USD	USD	I\$	GDP	THE
<b>Japan</b>	37,282	2,908	2,009	7.8	76.7
<b>Rep of Korea</b>	9733	584	909	6.0	44.1
<b>Thailand</b>	1,919	71	237	3.7	57.4
<b>Colombia</b>	1,938	186	616	9.6	55.8
<b>Viet Nam</b>	404	21	129	5.2	25.8
<b>Indonesia</b>	741	20	73	2.7	23.7
<b>Kenya</b>	337	28	115	8.3	22.2

*Source: World Health Report 2002*

Transition to social health insurance:  
*the case of the R. of Korea*

## Timeline of social health insurance development

- **1977**: Start of implementation of Health insurance Law with **gradual** approach...universal coverage by 1989
- **1997**: 373 Health insurance funds
  - issue of **administrative cost** (8.5% on average)
  - issue of **different contributions**, even for insured with same income
- **1998**: Law of **National Health Insurance Corporation** (NHIC)
- **2001**: Pooling of insurance funds of government and school employees and industrial workers
- **2003**: Pooling with health insurance fund of the self-employed

## **IV. A WAY FORWARD:**

**Connecting community-based schemes to  
social security schemes**

## IV.1 Government's role



**adviser and regulator on the design of community based schemes (enrolment, size of pools, benefit package etc.)**



**monitor basic performance and trainer**



**co-financier**

## IV.2 The role of the Community-based schemes



**sharing available evidence and know-how**



**sharing monitoring protocols**



**collaboration in training**

## IV.3 Perspectives

- **connection-scenario feasible if there is trust and credibility**
- **complementary role of Community-based schemes, their role being defined by government as steward**

Linkage between social security and  
community based social protection  
*the case of Lao P.D.R*

*Source: A Ron, ILO/ISSA/AIM study on linkages between statutory social security schemes and community based social protection mechanisms to extend coverage, September 2006.*

## I. Introduction

- 1975-late 1990s: health care funded by government and provided for free in public health facilities
- Introduction of user fees in 1997 and expansion of Revolving Drug Funds (fees for drugs set at cost + 25%)
  - Important impact on out-of-pocket spending (10\$ per person per year)

## II. Social protection schemes

- Civil Servants Scheme (**CSS**)
- Social Security Organization (**SSO**) for private sector workers
- Voluntary Community-based health insurance (**CBHI**) developed by the MOH
  - 5 local schemes now operational
  - Policy set by Health Insurance Committee of the MOH
  - Local management with the CBHI District Management Committee

### III. Legal framework for CBHI

- All schemes follow the same core design as defined by the MOH
- Four manuals need to be respected:
  - Work plan preparatory phase and report on community consultation
  - Regulations for the pilot project
  - Guidelines and comments on regulations
  - Forms, registers and letters used in the administration of CBHI

## IV. Challenges

- Expansion of coverage
  - Currently the total insured proportion of the population is only **2.3%** of the 5.9 million population
- Stressing **harmony** between the different schemes rather than competition
- **Long-term strategy**
  - *Extension of SSO to all provinces and all enterprises*
  - *Merging of CCS with SSO*
  - *Enrolment of self-employed formal and informal sector workers in SSO*
  - *Legislation for the stages to reach universal coverage*

## CONCLUDING REMARKS

- There is no unique prescription on how to reach universal coverage:
  - Important to assess the role of Government as direct financier
  - Mixed systems may be indicated in the transition phase

*community-based health insurance and social health insurance belong to the various options...  
but, once selected, merits substantial preparation,  
and institutional and managerial capacity*

## References to case studies

- **SEWA:** K.Ranson (2002), Reduction of catastrophic health care expenditure by a community-based health insurance scheme in Gujarat, India: current experiences and challenges. *Bulletin of the WHO*, vol.80(8),pp.613-621.
- **Health equity funds Cambodia:** W.Hardeman et al. (2004), Access to health care for all ? User fees plus a Health equity fund in Sotnikum, Cambodia. *Health Policy and Planning*, 2004, vol.19(1), pp.22-32.
- **Grameen Kalyan:** A.Letourmy & A. Pavy-Letourmy (2005). La micro-assurance de santé dans les pays à faible revenu. Agence Française de Développement. *Notes et Documents*, nr. 26, pp.101-108.
- **SHI-Republic of Korea:** Th.Sein, Bayarsaikhan D. & A.Ron (eds.) Social Health Insurance---selected case studies from Asia and the Pacific (WHO, March 2005), p. 20 and pp.185-202.

## References to case studies (cont.)

- **LAOS:** A.Ron (2006). ILO/ISSA/AIM study on linkages between statutory social security schemes and community based social protection mechanisms to extend coverage---case study on Lao P.D.R. (unpublished document)
- **RWANDA:**
  - Ministère de la Santé de la République du Rwanda (2006). Cadre Stratégique d'Appui aux Mutuelles de Santé au Rwanda 2006-2010. Kigali, 2006.
  - Laurent Musango (2005). Organisation et mise en place de mutuelles de santé: Défi au développement de l'assurance maladie au Rwanda (Thèse). Université Libre de Bruxelles, Février 2005.

## References in [www.who.int/health\\_financing/](http://www.who.int/health_financing/)

- **WHA Resolution**

[http://www.who.int/health\\_financing/HF%20Resolution%20en.pdf](http://www.who.int/health_financing/HF%20Resolution%20en.pdf)

- **Community-based health insurance**

[http://www.who.int/health\\_financing/issues/mechanisms/en/index4.html](http://www.who.int/health_financing/issues/mechanisms/en/index4.html)

- **Social health insurance**

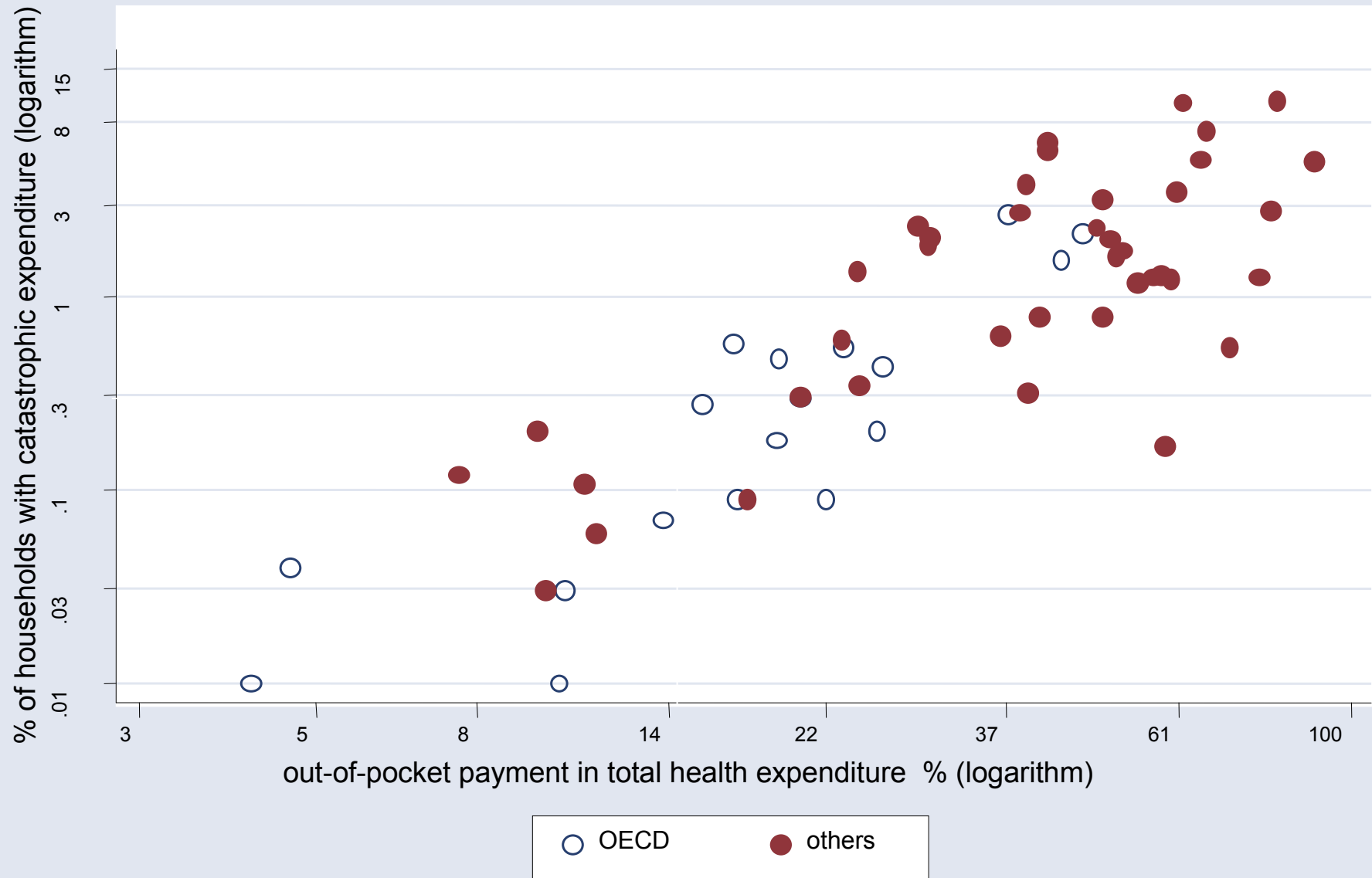
[http://www.who.int/health\\_financing/issues/mechanisms/en/index2.html](http://www.who.int/health_financing/issues/mechanisms/en/index2.html)

- **Catastrophic health expenditures**

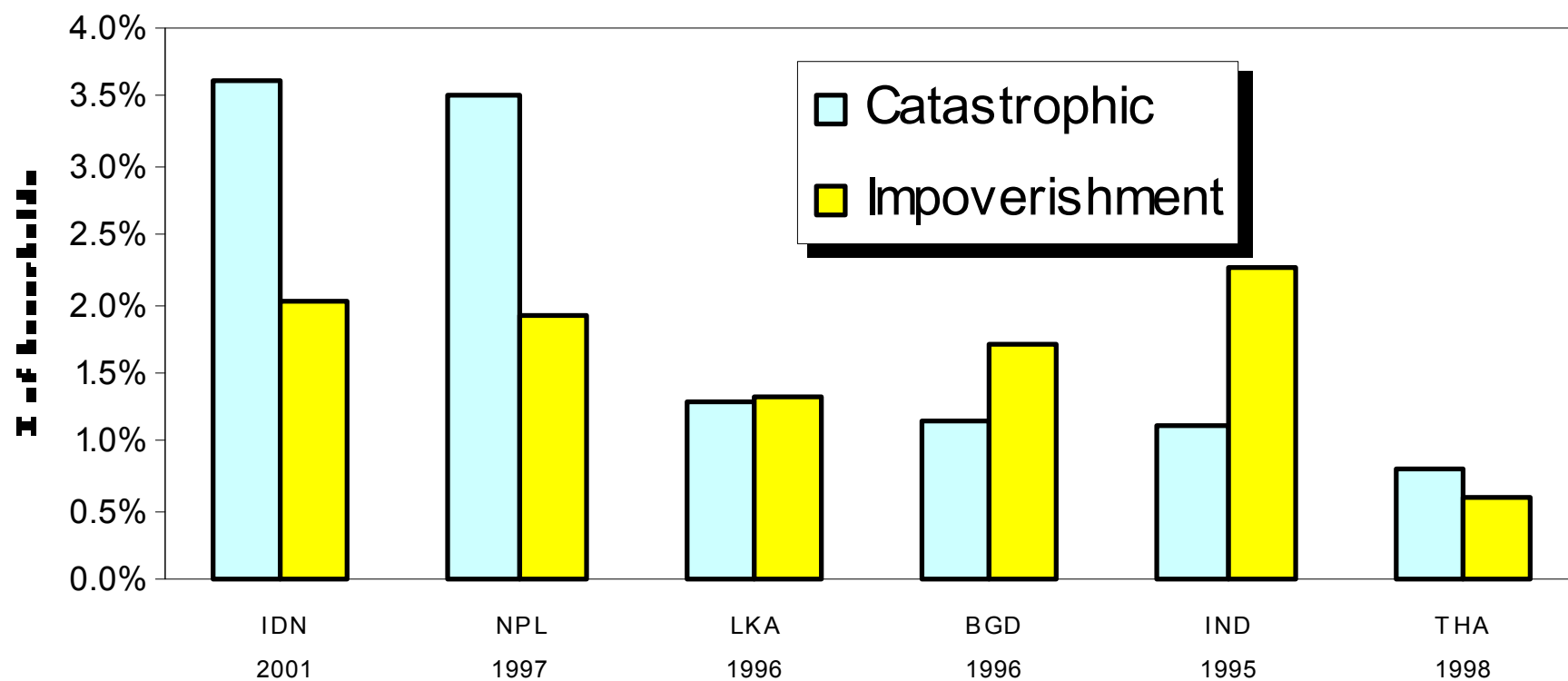
[http://www.who.int/health\\_financing/issues/catastrophic/en/index.html](http://www.who.int/health_financing/issues/catastrophic/en/index.html)

# ANNEXES

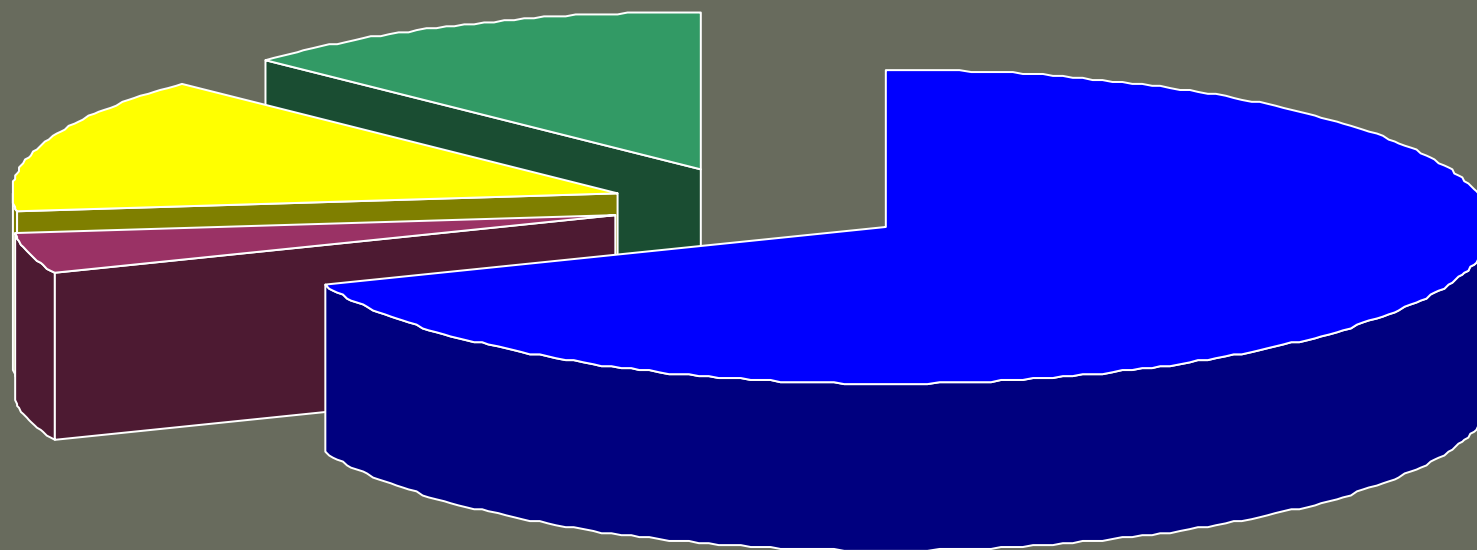
## Proportion of households with catastrophic expenditures vs. share of out-of-pocket payment in total health expenditure



## Percentage of households with catastrophic expenditure and impoverishment (SEAR)



# Composition of out-of-pocket health payment in Nepal (WHS 2003)



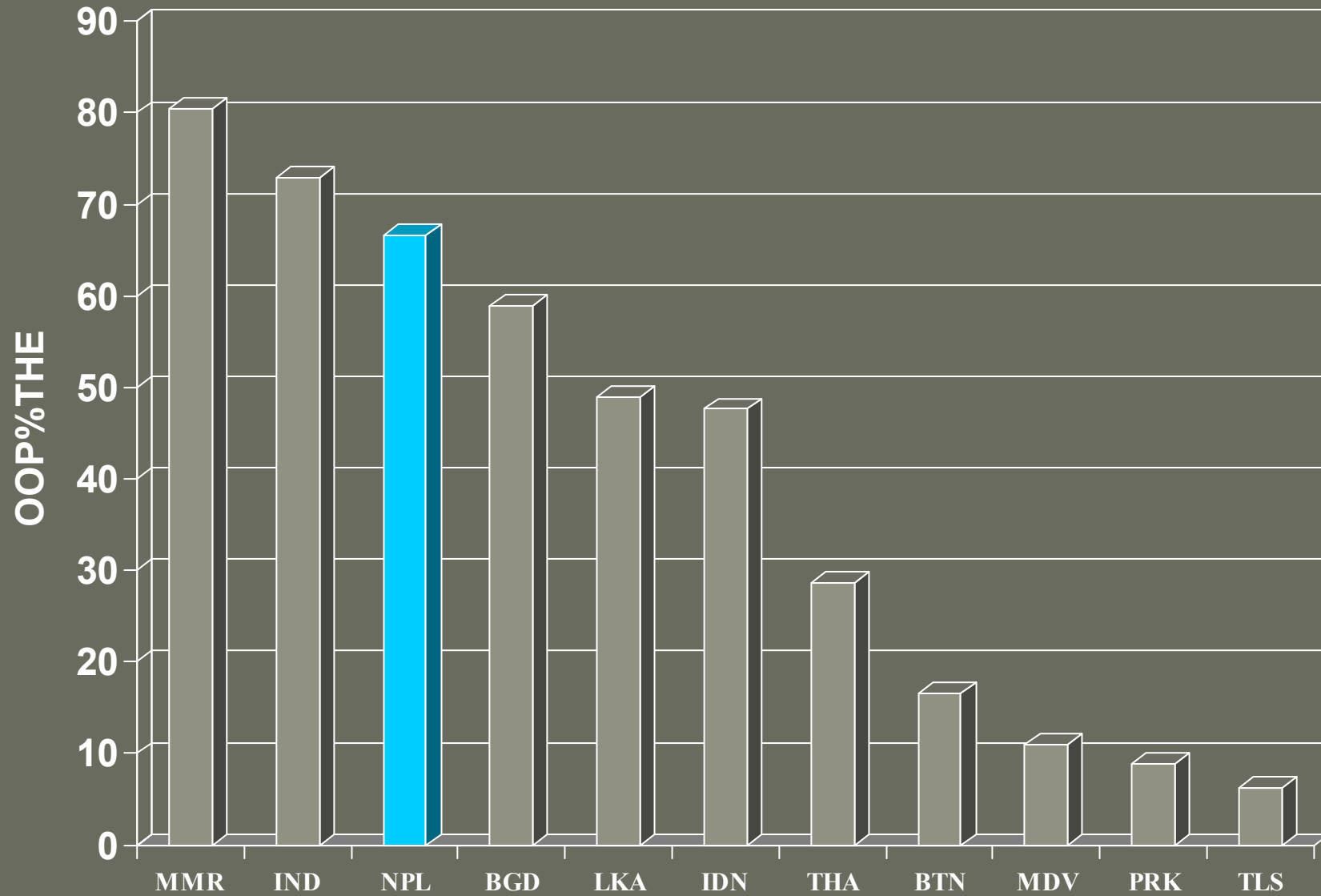
■ drug

■ outpatient

■ inpatient

■ other

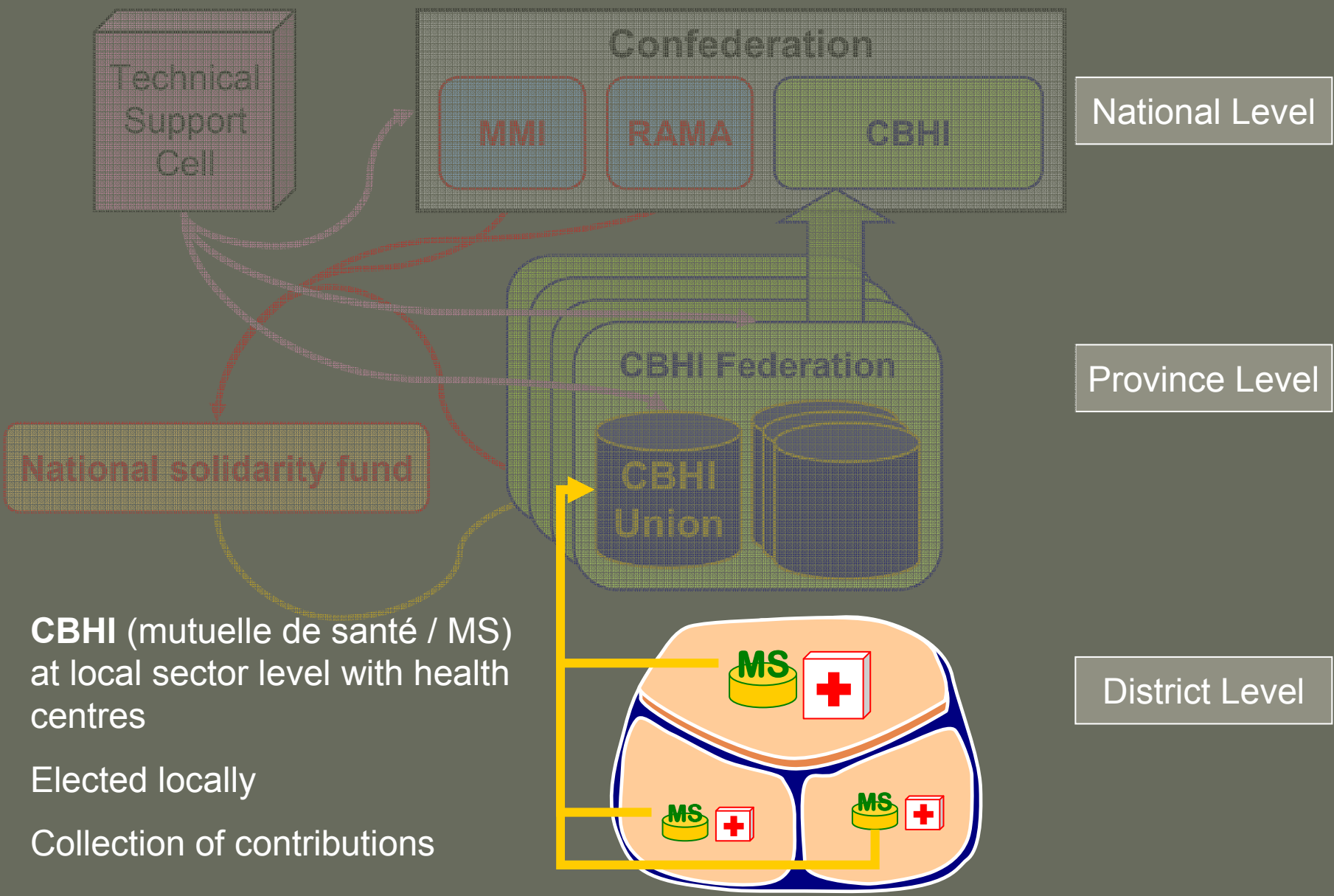
## Out-of-pocket health expenditure as a share of total health expenditure in SEA region (2003, NHA)



# CBHI in Rwanda

- CBHIs + government intervention
- Objectives:
  - universal coverage + local accountability
  - increased risk pooling + subsidy to cover the poor (much from donors)
- First CBHI initiatives in mid-1960s
- Gov pilot projects 1998, rollout since 2001
- 2006: about 40% of population registered with a CBHI
- True coverage probably lower (failure to pay recurrent contributions, other barriers to access e.g. continued user fees)





**CBHI (mutuelle de santé / MS)**  
at local sector level with health centres

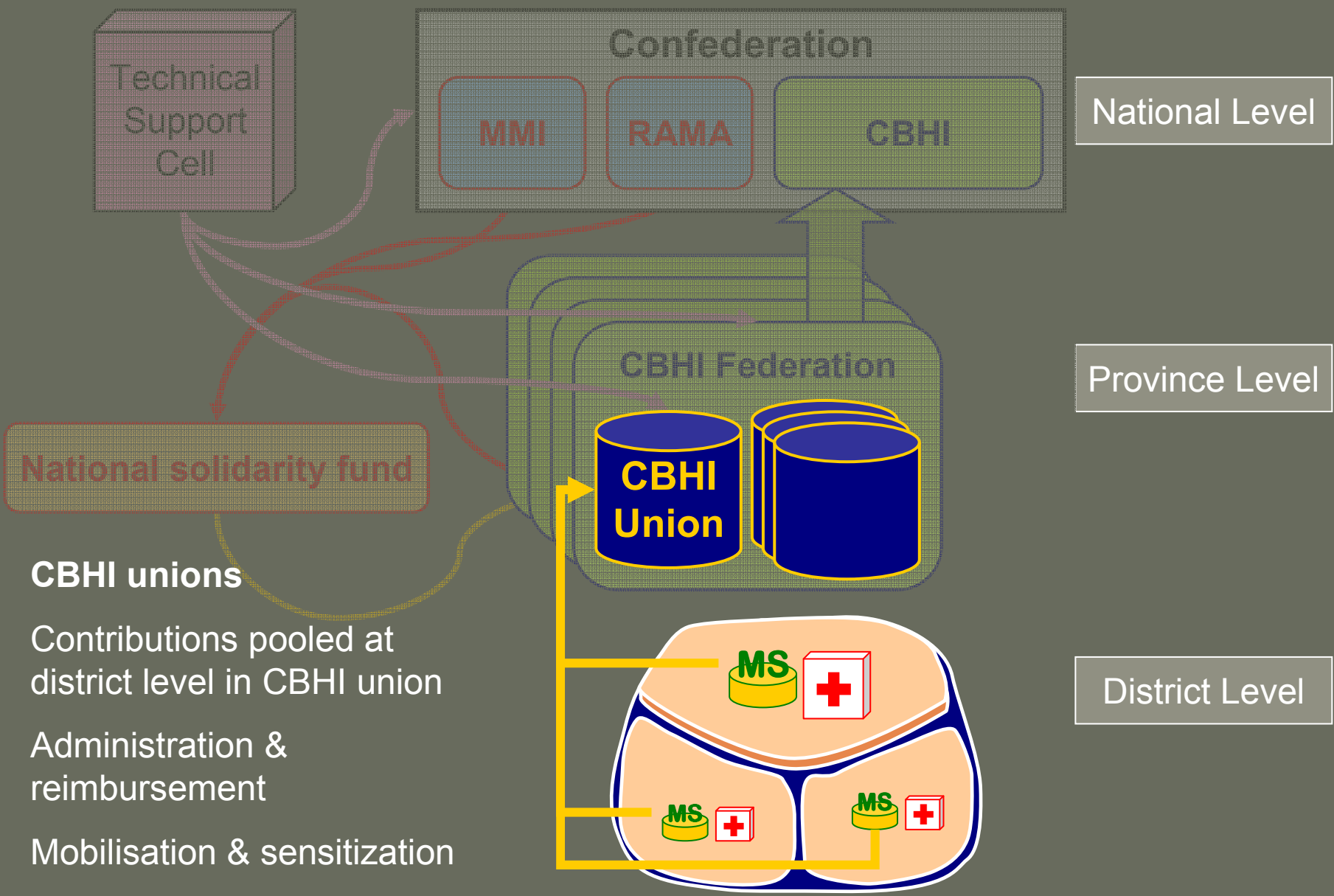
Elected locally

Collection of contributions

National Level

Province Level

District Level

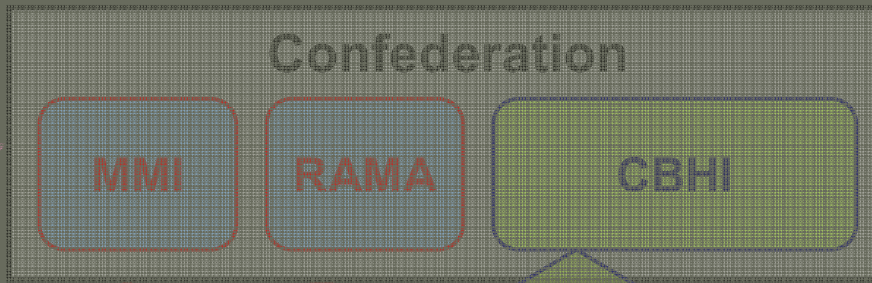
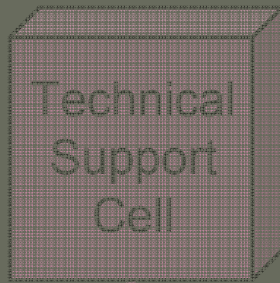


**CBHI unions**

Contributions pooled at district level in CBHI union

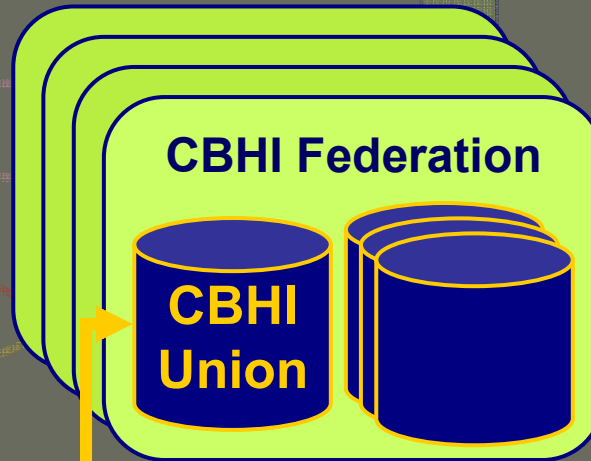
Administration & reimbursement

Mobilisation & sensitization



National Level

**Federations of CBHI unions at province level**  
National solidarity fund  
Supervision of activities



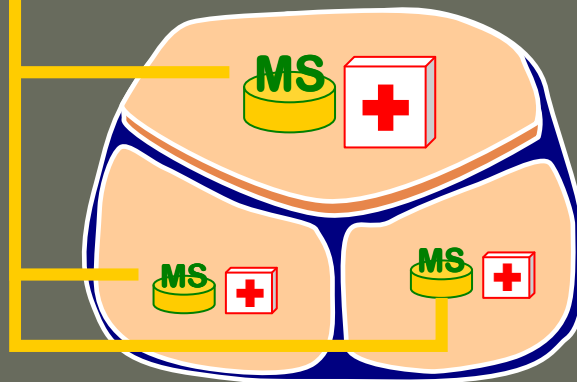
Province Level

Facilitate exchange of experiences

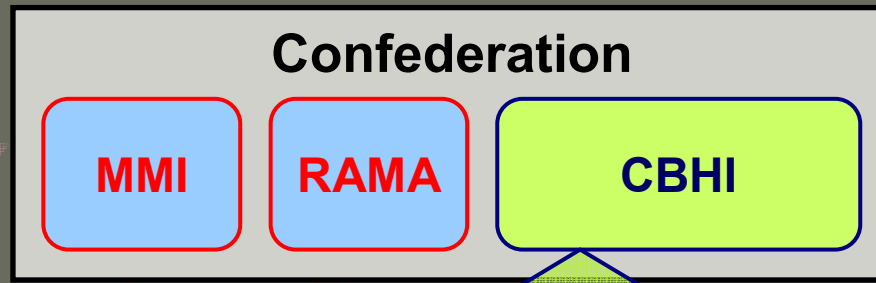
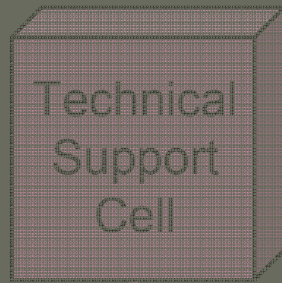
**Possible future roles:**

Aggregated risk pooling

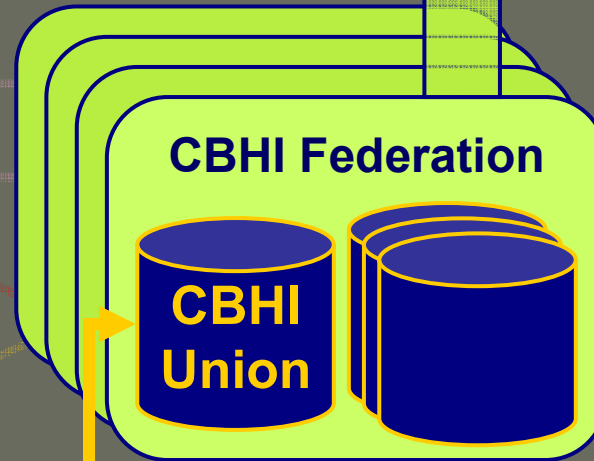
Reimbursement for "out-of-district" service utilization



District Level



National Level

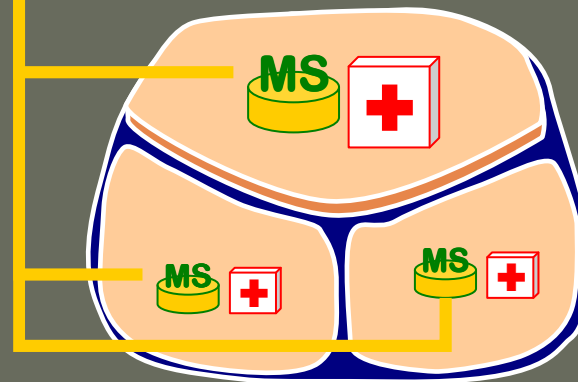


Province Level

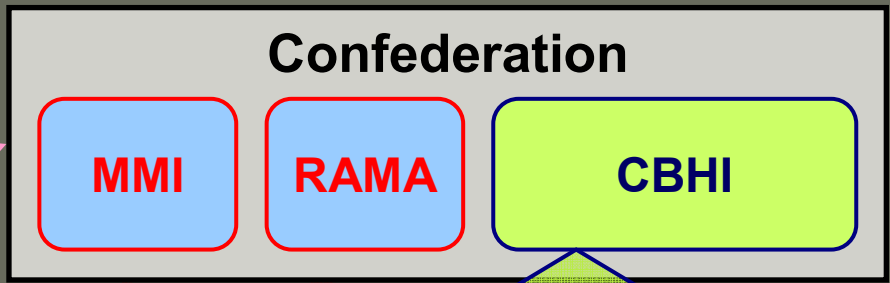
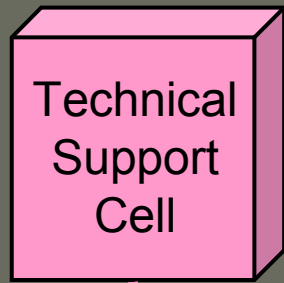
**National confederation**  
together with formal sector  
insurance

Defend interests of CBHIs

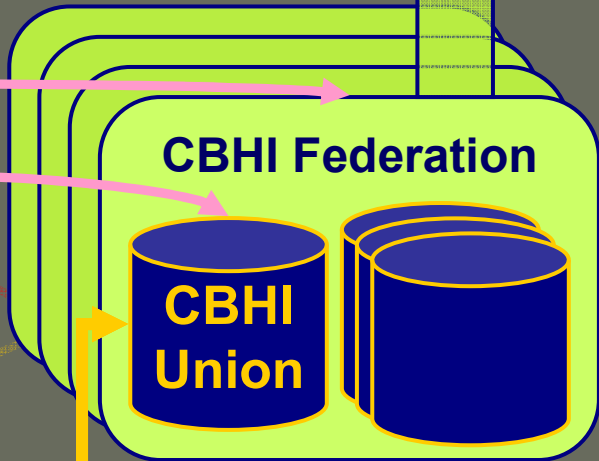
Be involved in policy making



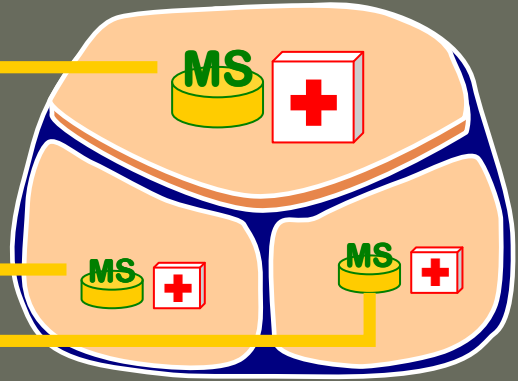
District Level



National Level



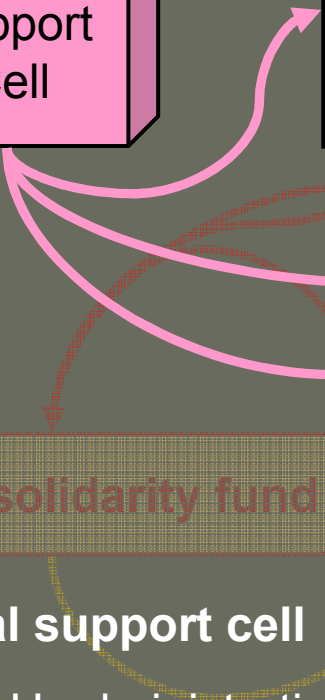
Province Level

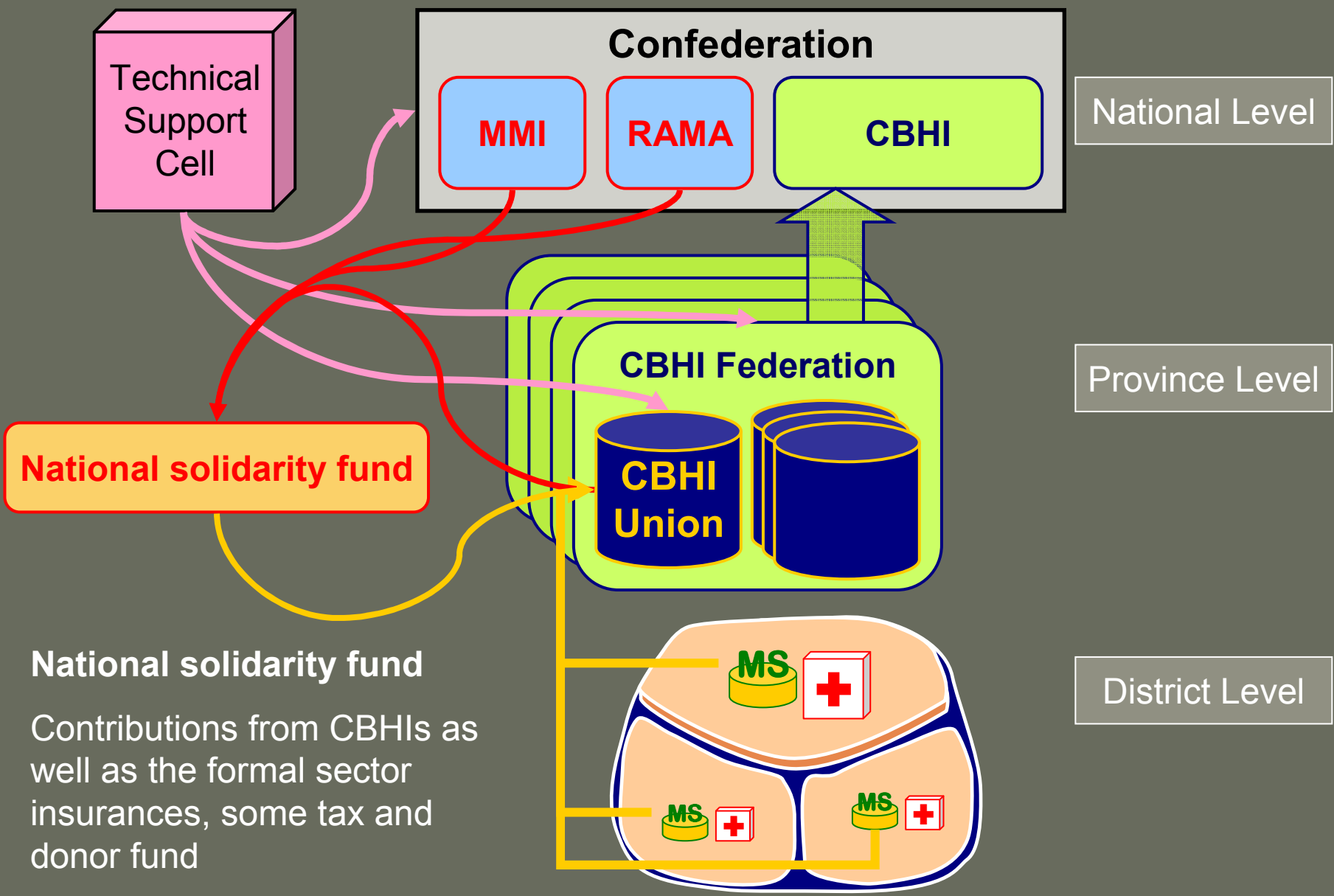


District Level



- Technical support cell
- Under MoH administration
- Policy making
- Monitoring
- Training
- Research





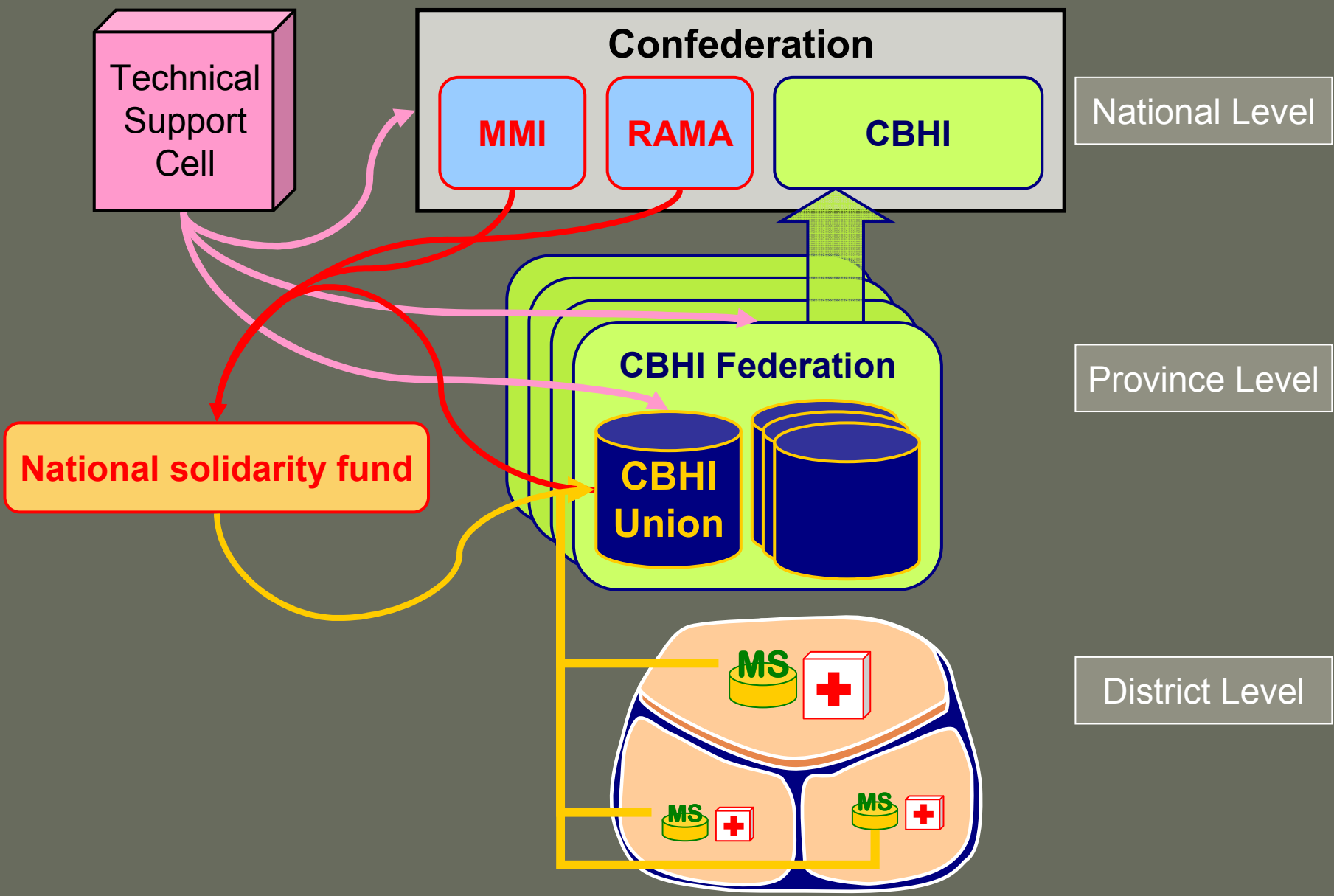
**National solidarity fund**

**National solidarity fund**  
 Contributions from CBHIs as well as the formal sector insurances, some tax and donor fund  
 Functions as "Re-insurance"

National Level

Province Level

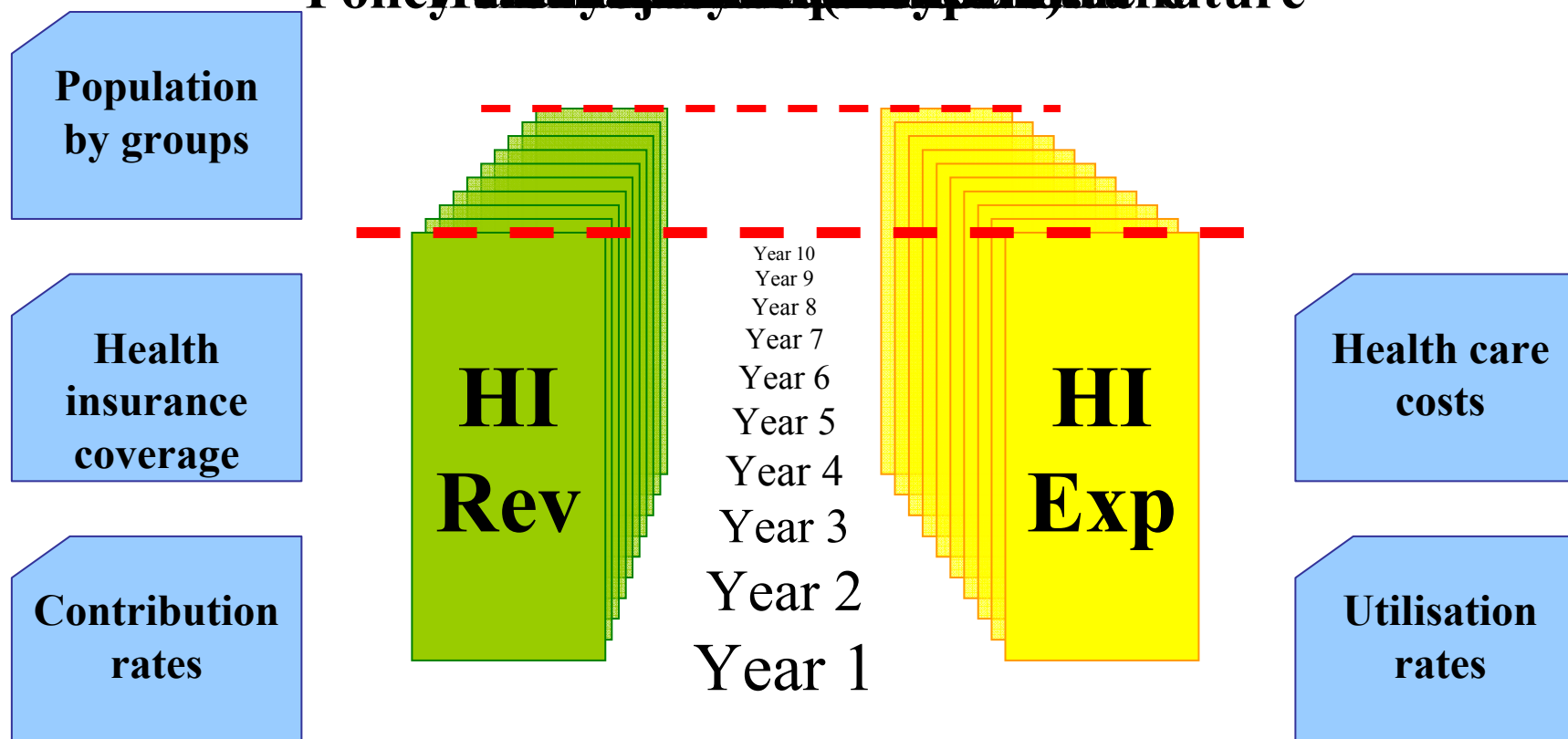
District Level



# 1. What is *SimIns*?

A tool to analyze the basic mechanism of health insurance

Policy Health Financing (HI) and the future



## 2. Principal uses of *SimIns*

- **Illustrate** different policy options with respect to key health insurance variables (not setting policies)
- **Facilitate** search for financial equilibrium:  
which sets of contributions and/or utilisation patterns and/or health care costs are compatible with this goal
- **Examine** the impact of health insurance on
  - the overall structure of national health financing
  - The structure of general government health expenditure

### 3. Examples of policy issues

- What **benefit package** can a health insurance offer given specified contributions?
- What is the required funding from different sources to **expand the benefit package**?
- Different combinations of contributions from government employees, employed workers and the self-employed, along with government subsidies can ensure **financial equilibrium while extending coverage**?
- What are the financial implications of providing **exemptions**?