

# Equity of Health Care Financing in Iran

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## Equity in Health Care

- **Equity of health care** is widely regarded as an important **policy objective** and a major criterion against which the performance of health care systems is often evaluated.
- In **Iran**, Article 29 of the Constitution guarantees all citizens the right of access to health care.
- Equity in the protection against financial losses and the distribution of the financing burden is a common challenge in all social systems.
- There is broad agreement on the principle that health care financing contributions should be determined primarily **according to ability to pay**, and **distributed according to need**.

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# Sources of Health Care Funding in Iran

- Health Insurance Premium Payments
- Consumer Co-payments
- Government Income:
  - General taxation revenue ( on average % 30)
  - The sale of natural resources principally, oil (on average % 70)

# National Health Accounts Indicators in Iran

**Table:** Selected National Health Accounts indicators

Per capita total expenditure on health (PPP int. \$)		Total expenditure on health as percentage of GDP		Private expenditure on health as percentage of total expenditure on health	
1995	2006	1995	2006	1995	2006
231	731	4.7	7.8	50.1	44.4

Source: WHO Statistical Information System (WHOSIS)

# Reforms in Iranian Health care Financing and hypothesised Effect

- The extension of insurance coverage: introduction of the Public Medical Service Insurance Coverage Act (PMSICA), *1995*
- Introduction of the Urban Inpatient Insurance Scheme (UIIS): extending health insurance to uninsured (approximately 10 per cent of the Iranian population), *2000*
- The extension of insurance to the 30 percent of Iran's population that lives in rural areas, *2005*
- *Hypothesis:* Health care financing in Iran will have become more progressive over the study period due to the introduction of the UIIS.

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# Data

- Household Income and Expenditure Surveys (HIES) from 1995/96 to 2004/05

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# Methodology

- *First step:* The Kakwani Progressivity Indices (KPI) were generated to measure the progressivity of two sources of health care financing—health insurance premium payments and consumer co-payments (and the sum of these)—for Iran as a whole, and for rural and urban areas of Iran, separately.
  - The KPI is calculated as twice the area between the payments concentration curve and the Lorenz curve (i.e. the concentration curve for income). Negative values indicate regressivity, *positive* values indicate progressivity and the zero value indicates proportionality.

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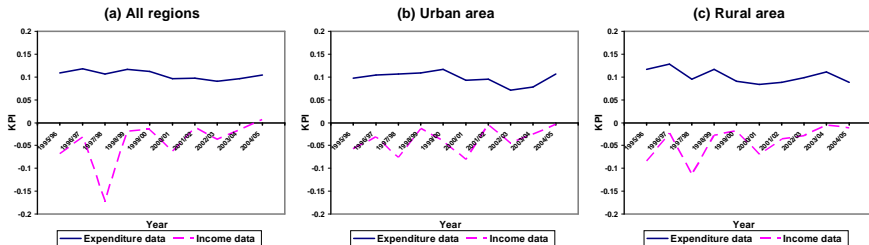
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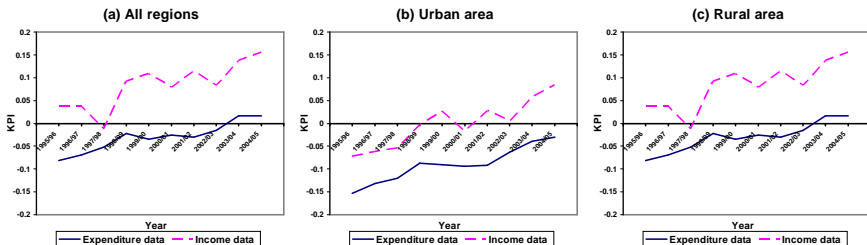
- *Second step*: to measure the size of any changes to these indices over time and their statistical significance, we estimated simple time-trend regressions of the following (general) form for each source:

$$I_t = \alpha_0 + \alpha_1 t + \alpha_2 DVUIIS_t + \varepsilon_t \quad (1)$$

# Figure 1. Kakwani Progressivity Indices for Total Private Health Expenditure in Iran, 1995/1996 to 2004/2005



# Figure 2. Kakwani Progressivity Indices for Private Health Insurance Premium Expenditures in Iran, 1995/1996 to 2004/2005



# Figure 3. Kakwani Progressivity Indices for Private Co-payment Expenditures in Iran, 1995/1996 to 2004/2005

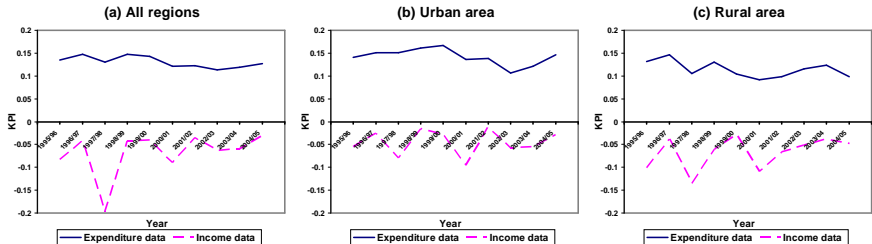


Table 2. Regression Results with Expenditure Measures

	KPI for Total Private Expenditure		KPI for Health Insurance Premium		KPI for Private Co-payments	
	t	DVUIIS	t	DVUIIS	t	DVUIIS
All regions	-	<b>-0.01528</b> <b>(0.001)</b>	0.01003 (0.000)	-	-	<b>-0.2023</b> <b>(0.001)</b>
Urban area	-	<b>-.03212</b> <b>(0.060)</b>	0.01750 (0.021)	<b>-0.03467</b> <b>(0.000)</b>	-	<b>-0.02436</b> <b>(0.012)</b>
Rural Area	-	-	0.00686 (0.021)	-	-	-

Table 2. Regression Results with Income Measures

	KPI for Total Private Expenditure		KPI for Health Insurance Premium		KPI for Private Co-payments	
	t	DVUIIS	t	DVUIIS	t	DVUIIS
All regions	-	-	0.01383 (0.000)	-	-	-
Urban area	-	-	0.02434 (0.000)	-0.05718 (0.029)	-	-
Rural area	-	-	-	-	-	-

# Conclusion

- The results suggest that health insurance premium payments became **more progressive** over the study period.
- The KPIs for consumer co-payments suggest that these are still **mildly regressive or slightly progressive**, depending upon whether household income or expenditure data are used to generate the indices.
- The Urban Inpatient Insurance Scheme (UIIS), introduced in 2000 to extend insurance to uninsured urban dwellers, appears to have had a **regressive impact on health care financing**, which is contrary to expectations.

*Thank you for your patience*