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Equity impact of community-based health insurance

(2004-2008)

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Equity in health financing

- Equity is an ethical principle
- Health care should be:

  1. financed according to *ability-to-pay*
     - Horizontal Equity: those who have the same ability-to-pay should pay the same
     - Vertical Equity: those with greater ability-to-pay should pay more
  2. accessed according to *need*

Reference: Culyer (1995)

The study

Data source: Household panel survey 2004-2008 (n=4695 individuals)

Equity focus:

- SES (poor vs. non-poor):

  Asset-based SES index was created by Principal Components Analysis (PCA). Data on ownership of household assets (durable goods and livestock) and housing conditions were used. Quartile 1 (Q1) was considered as 'poor'.

- Gender (women vs. men)
- Age (children vs. adults)

Equity at 2 levels:

1. Equity in enrolment: Are the vulnerable groups enrolling into CBHI?
2. Equity in utilization: Are the vulnerable groups utilizing healthcare?

CBHI design & equity

- Poor: Premium subsidies for poor (Q1) households in every village, since 2007
- Women: No specific benefits.
  - Deliveries not covered by CBHI
  - Government: ANC free and since 2007, 80% subsidy on deliveries at public facilities
- Children: Premium subsidies, since the beginning (2004)
  - Government: Essential immunizations, malaria treatment & consultations

Equity in enrolment

Variable	OR	SE
Male	0.886	0.187
Child	0.456	0.132***
Poor	0.274	0.090***
Near	0.985	0.197
Household Size	1.027	0.011**
Ethnicity_Bwaba	0.961	0.235
Literate	1.974	0.403***
Year2005	1.792	0.436**
Year2006	0.890	0.216
Year2007	2.775	0.644***
Year2008	1.524	0.366*

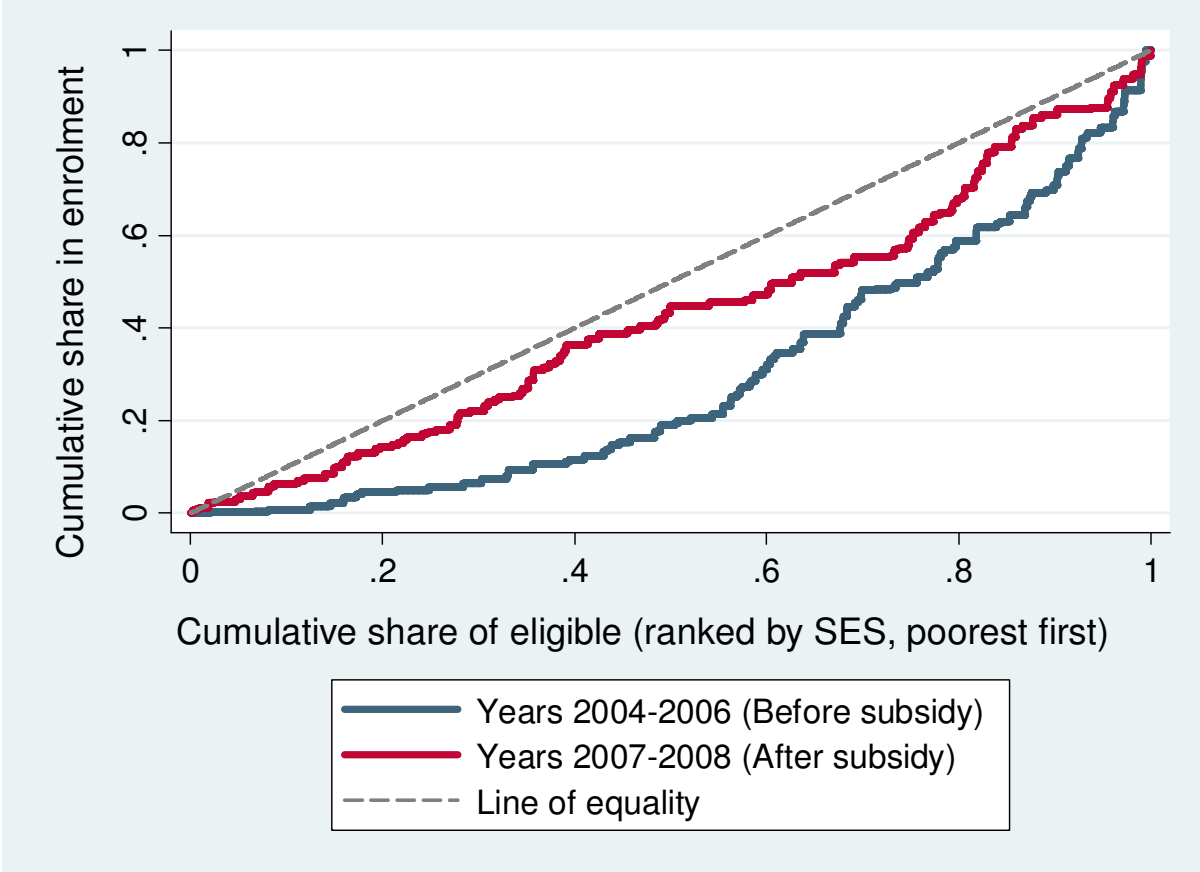
- **No gender effect**
- **Children less likely to enroll**
- **Poor less likely to enroll**

Dependent variable: CHI (0,1)
*** p<0.01, ** p<0.05, * p<0.1

Only those individuals who were offered CBHI were included (n=4695)

Equity in enrolment: *impact of subsidies*

Concentration curves: Before & after subsidy



Equity improved

Poor enrolling more after subsidy

Equity in utilization

Variable	OR	SE
Male	0.876	0.130
Child	0.565	0.175*
Poor	0.499	0.115***
CHI	**2.182**	**0.531*** **
Near	1.454	0.212**
Household Size	1.016	0.009*
Ethnicity_Bwaba	1.155	0.183
Literate	1.545	0.230***
Year2005	1.904	0.231
Year2006	0.723	0.181
Year2007	0.826	0.212
Year2008	0.733	0.185

- **No gender effect**
- **Children less likely to utilize**
- **Poor less likely to utilize**

Dependent variable: Facility care (0,1)
*** p<0.01, ** p<0.05, * p<0.1

Only those individuals who reported being sick in the previous month at the time of the survey were included (n=1710)

Equity in utilization

Variable	OR	SE
Male	0.876	0.130
Child	0.565	0.175*
Poor	0.499	0.115***
CHI	**2.182**	**0.531*** **
Near	1.454	0.212**
Household Size	1.016	0.009*
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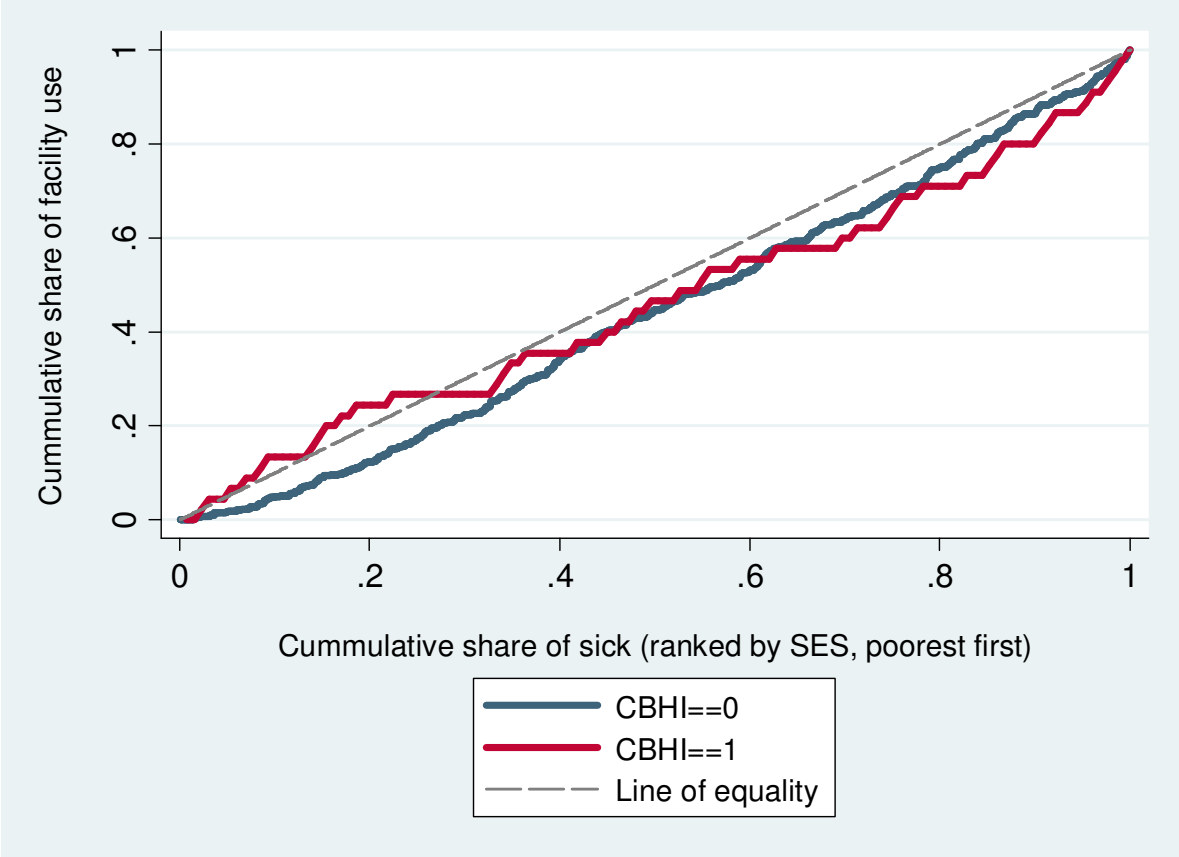
– No gender effect
– Children less likely to utilize
– Poor less likely to utilize

But, are enrolled poor women and children utilizing care more than the non-enrolled?

Equity in utilization: *SES*

Utilization by enrolment status

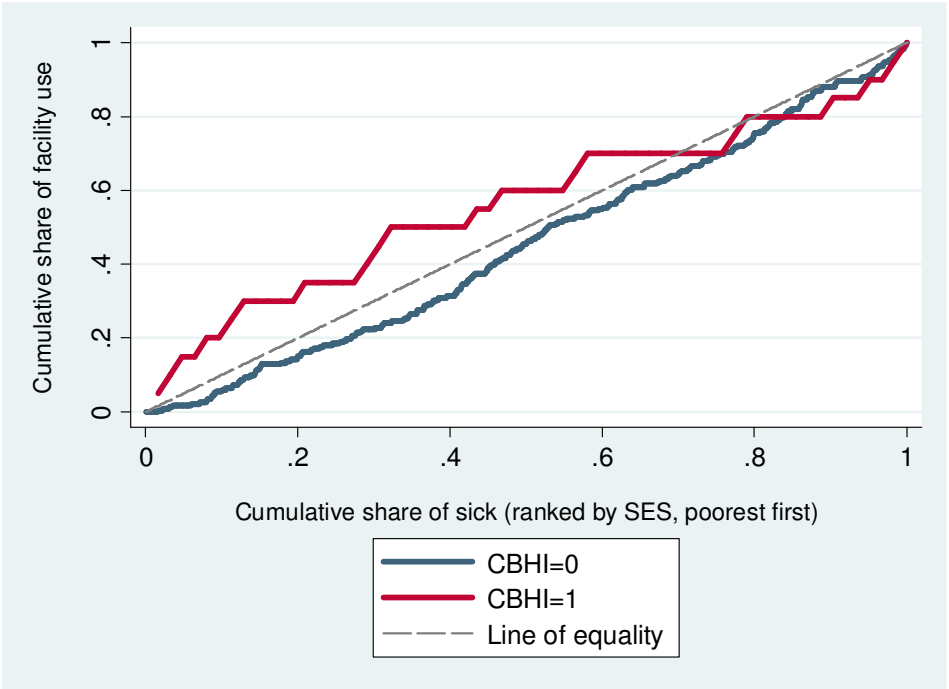


Utilization slightly more among poor who enrolled

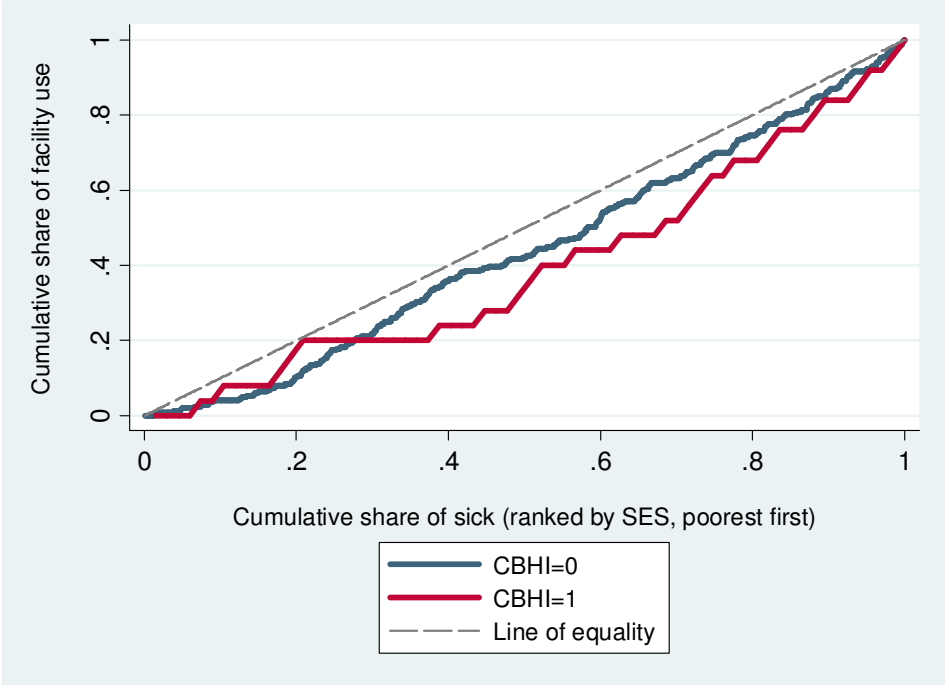
(CC above line of equality for poorest)

Equity in utilization: *gender*

Women, by enrolment status



Men, by enrolment status

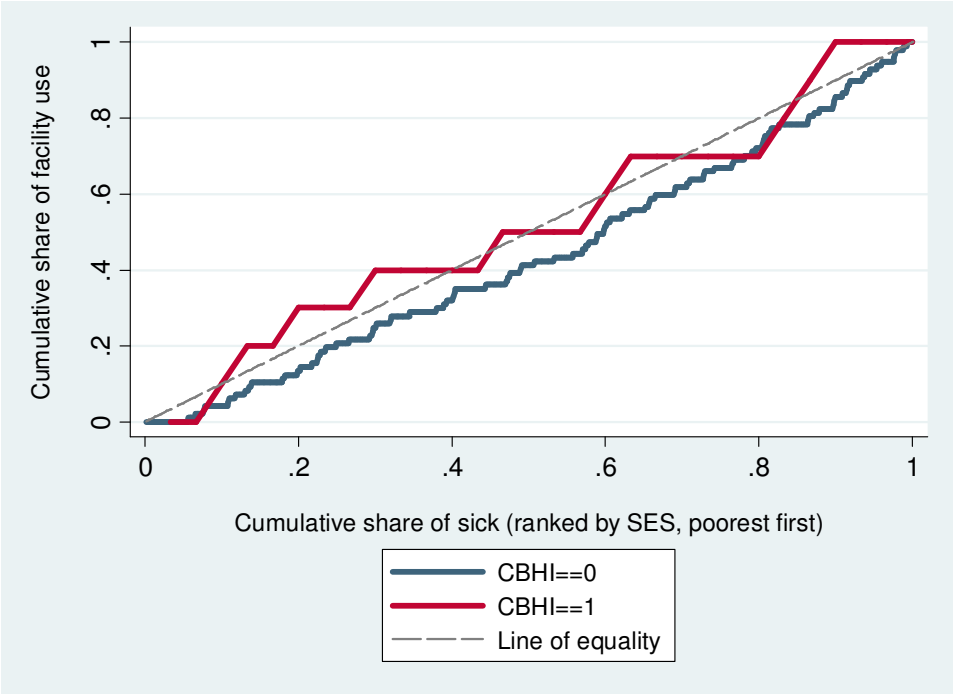


Among women: utilization more among poor women who enrolled
(CC above line of equality)

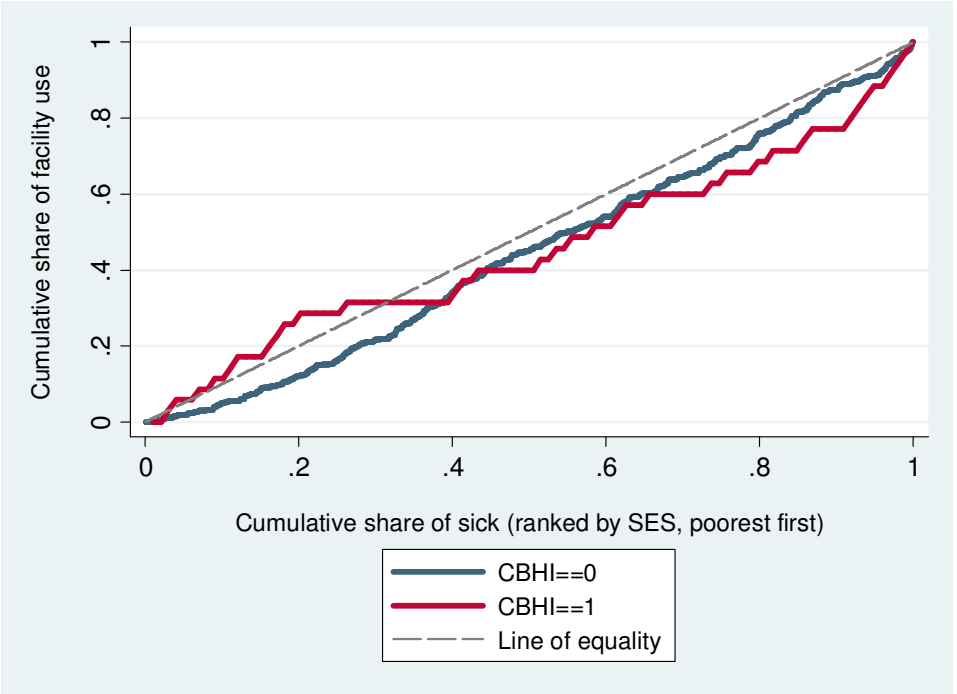
Among men: no difference in utilization for poor
(For non-poor, utilization slightly less for enrolled)

Equity in utilization: *age*

Children, by enrolment status



Adults, by enrolment status



Among children: utilization more among poor children who enrolled

(CC above line of equality)

Among adults: utilization more among poor adults who enrolled

(CC above line of equality for poor)

Results

1. Equity in enrolment
   - Poor: enrolment increased after subsidy (still pro-rich)
   - Children less likely to enroll
   - No gender effect
2. Equity in utilization
   - Poor: slight increase in utilization for those that enrolled
   - Women: pro-poor effect for those that enrolled
   - Children: pro-poor effect for those that enrolled

Note: Shows the status with and without CBHI; but does not mean that CBHI caused changes in utilization

Implications for National Health Insurance

- Poor: Premium subsidy essential but not enough
  - Less likely to enroll. Even after enrolling less likely to utilize care
  - Other costs, health awareness, behavior at health facilities, sensitization….
- Children: Premium subsidy essential but not enough
  - Less likely to enroll. However, once enrolled utilize care
  - Continue free/subsidized services for children at health facilities
  - Sensitization to increase enrolment
- Women: Premium subsidies not essential
  - Continue free/subsidized maternal care at health facilities

Thank you

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