

Economic impact (Out-of-pocket and catastrophic health expense) of the National Health Insurance in Nepal: A quantitative study

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Background

- Nepal Health Insurance program started in 2016 with vision to achieve universal health coverage and offer protection against financial health shocks.
 - National Health Insurance Policy 2014
 - National Health Insurance Act 2020
- Numerous literatures suggest the need to plan for a process and outcome evaluation (Mishra SR et.al, 2015; (Nguyen C, 2016).
- The national insurance program has mixed results in different countries- which needs to be investigated.



Study objectives

To evaluate the outcome of the Social Health Insurance Programs in improving financial risk protection against health expenditures of the insured populations in Nepal.

Specific objectives

- Assess the financial protection of the insured populations in reducing the out-of-pocket expenditure
- Assess the financial protection of the insured populations in reducing the catastrophic health expenditure.

National Health Insurance-Nepal

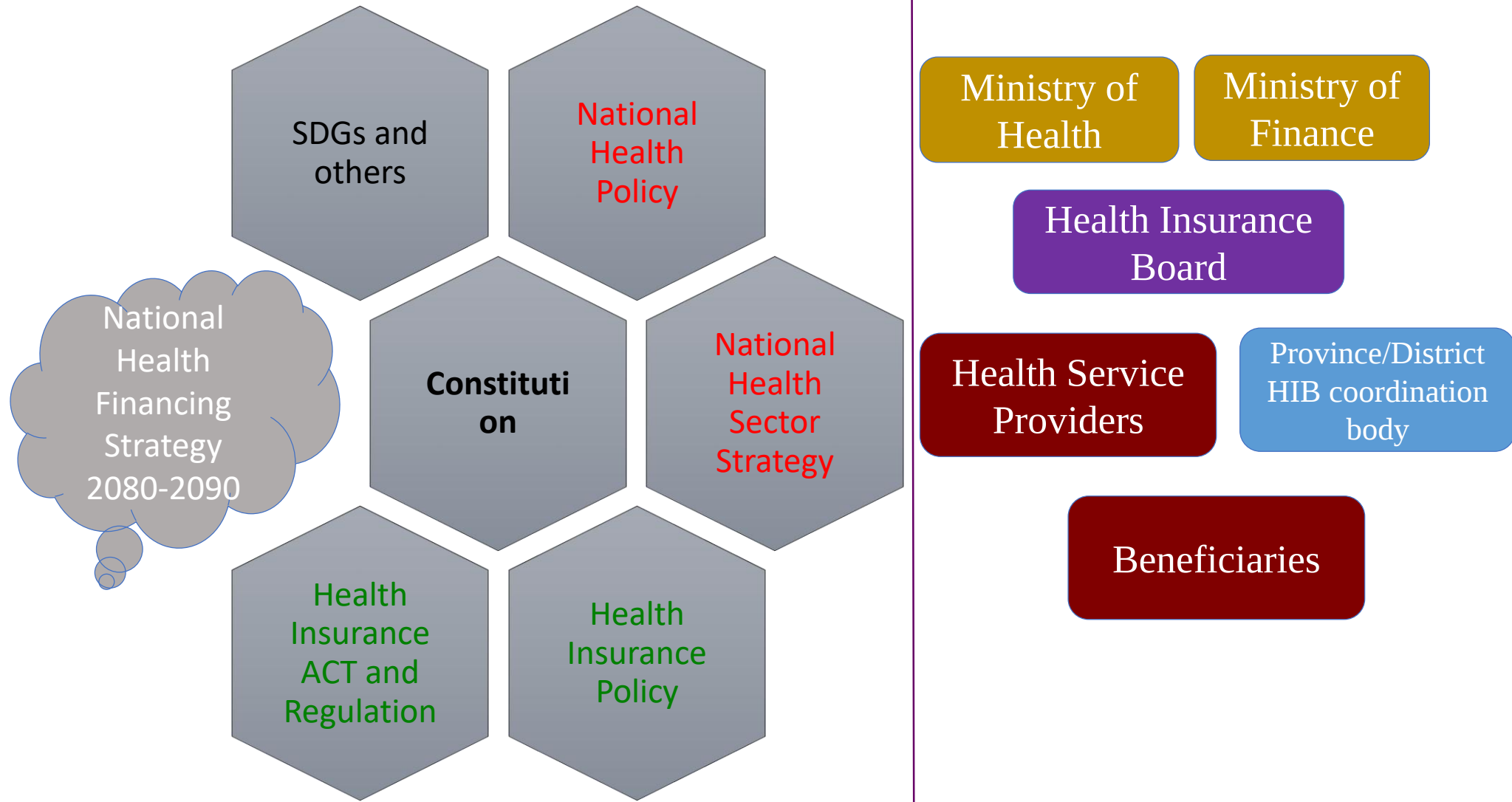
Vision: to ensure quality health services to all the citizens with improved access and utilization

Financing- revenue generation	Risk pooling	Service Delivery	Purchaser/ Payment mechanism
Mixed Model (govt tax+ HH contribution) Government revenue, household premium <i>Value added tax, investment income, formal sector payroll contribution, donor funding</i>	Single and centralized	Primarily public (with private sector) Public: 378 Private: 52 Community: 33	Health Insurance Board (HIB) Benefit package (revised 2081): Fee for service, case base payment

Flat NRs 3500 per five family members:
premium

Upto NRs 10000 worth service **benefit** as per package

National Health Insurance Policy, Governance -overview



Methodology

- **Study design:** Pre-post intervention group with control population (only at post data collection)
- **Study participants:** Insured (intervention) and uninsured populations (control)
- **Study area:** Kaski district (*one of the districts from process evaluation*)
- **Study period:** 17 months
- **Sample size:** 125 pre-post+125 controlled group during post data collection
- **Data collection:** Standard questionnaires; piloting, data collected by public health students, remote supervision

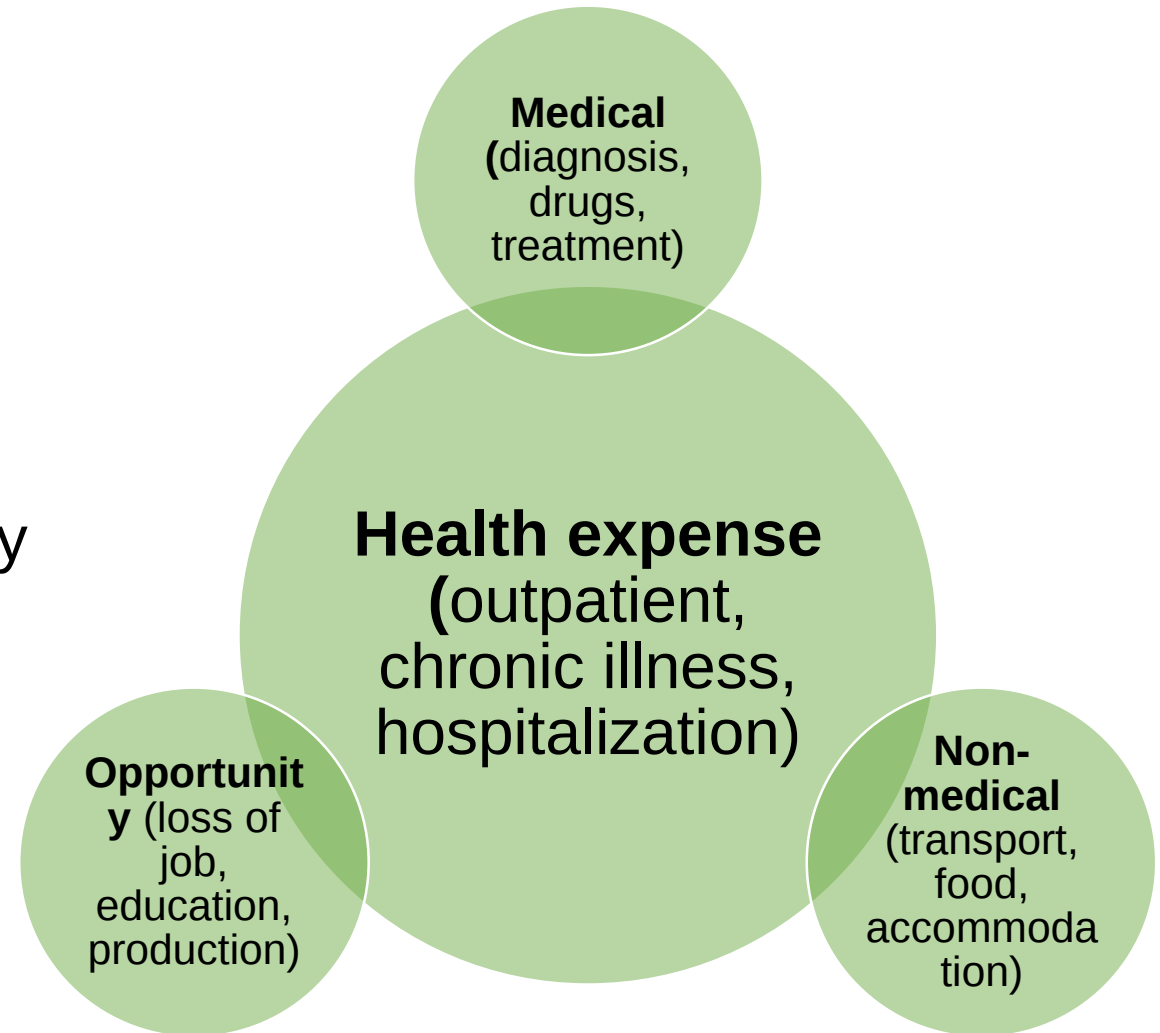
The methodology presented here is part of PhD thesis, which was a mixed method.

Involved implementation process and outcome evaluation

Outcome evaluation component (health expense) is only presented here

Data Analysis

- Descriptive analysis for frequency and percentage
- Non-parametric test (Wilcoxon signed rank, McNemar test, Wilcoxon rank sum) to measure two groups.
- Inflation adjusted for post intervention survey group
- COVID cost adjusted for post intervention and control group
- SPSS software to analyze the data



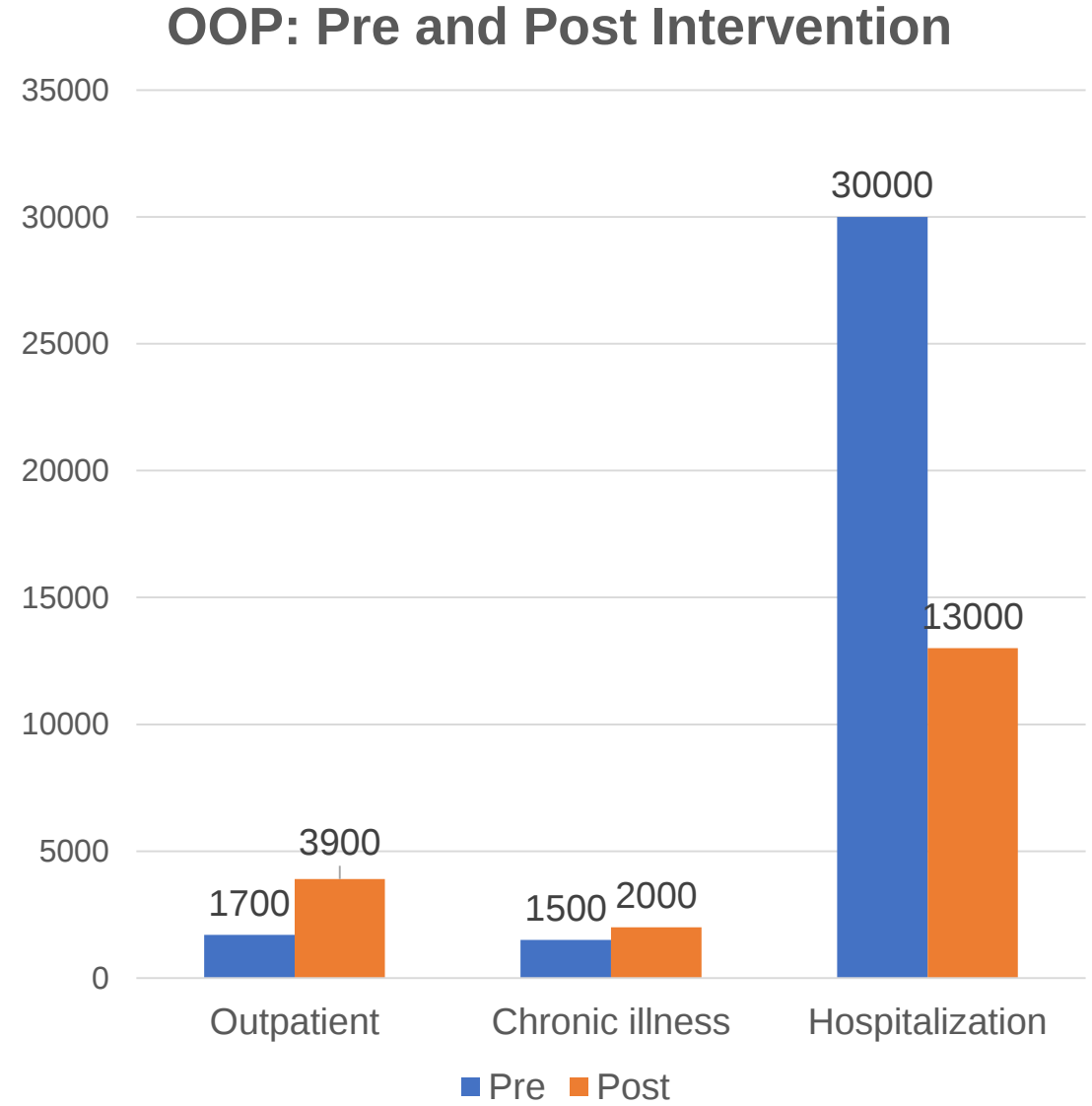
Results

- 125 responses collected at the pre data survey
- 100 responses collected at the post data survey
- 125 responses collected for the control group

- *No socio-economic statistical differences between the 100 HH with completed in post-intervention questionnaire and 25 with pre-intervention only*
- *No socio-economic statistical differences between intervention and control group*

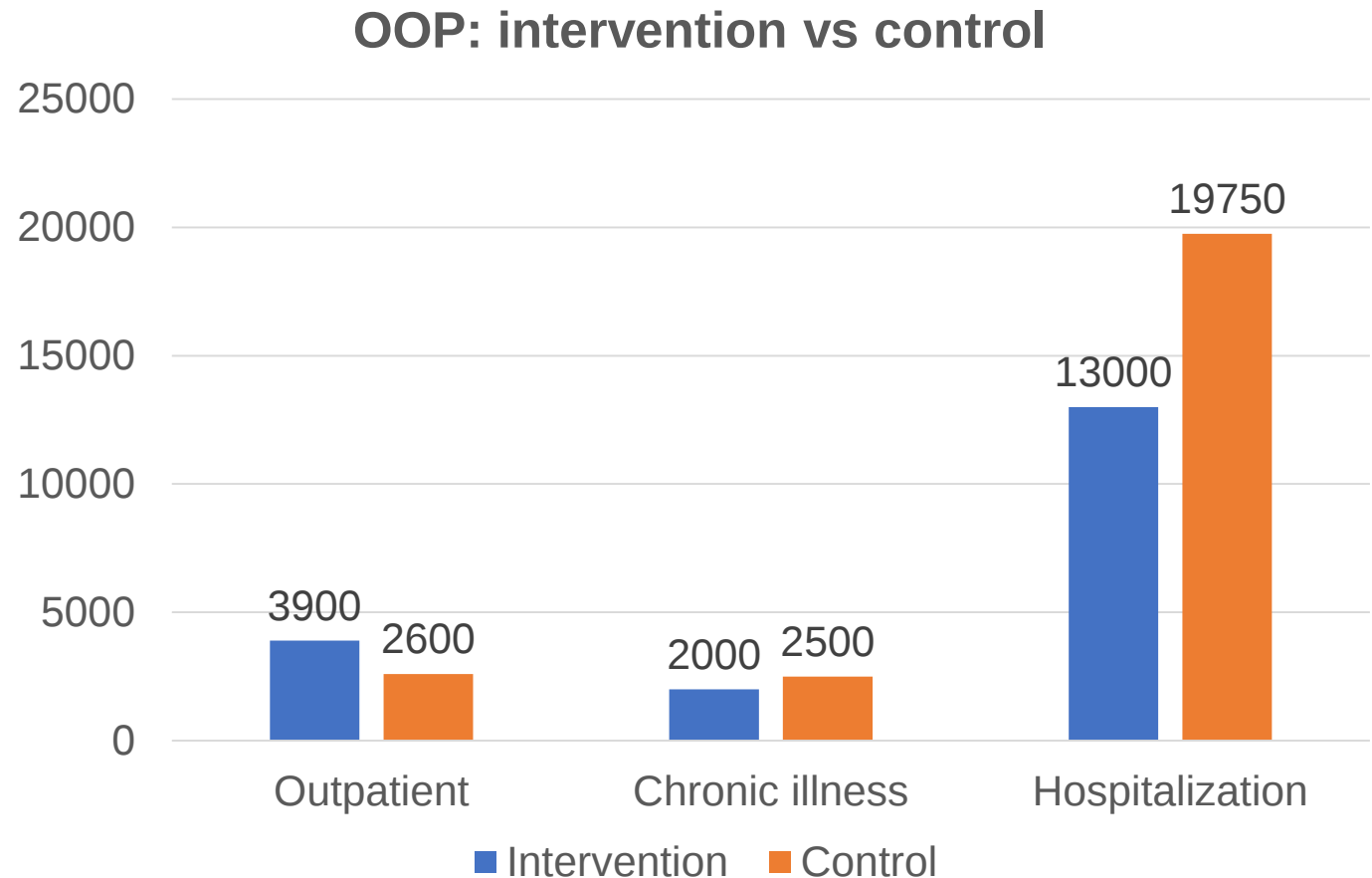
Out of pocket expenditures (OOP: pre and post intervention group)

- The outpatient visits dropped for post intervention (p:0.001)
- Majority paid the outpatient expense through their usual income (pre: 63.1%; post 44.4%) and savings (pre: 33.3%; post: 30.2%).
- Hospitalization cost decreased with partial insurance coverage. No complete hospitalization cost



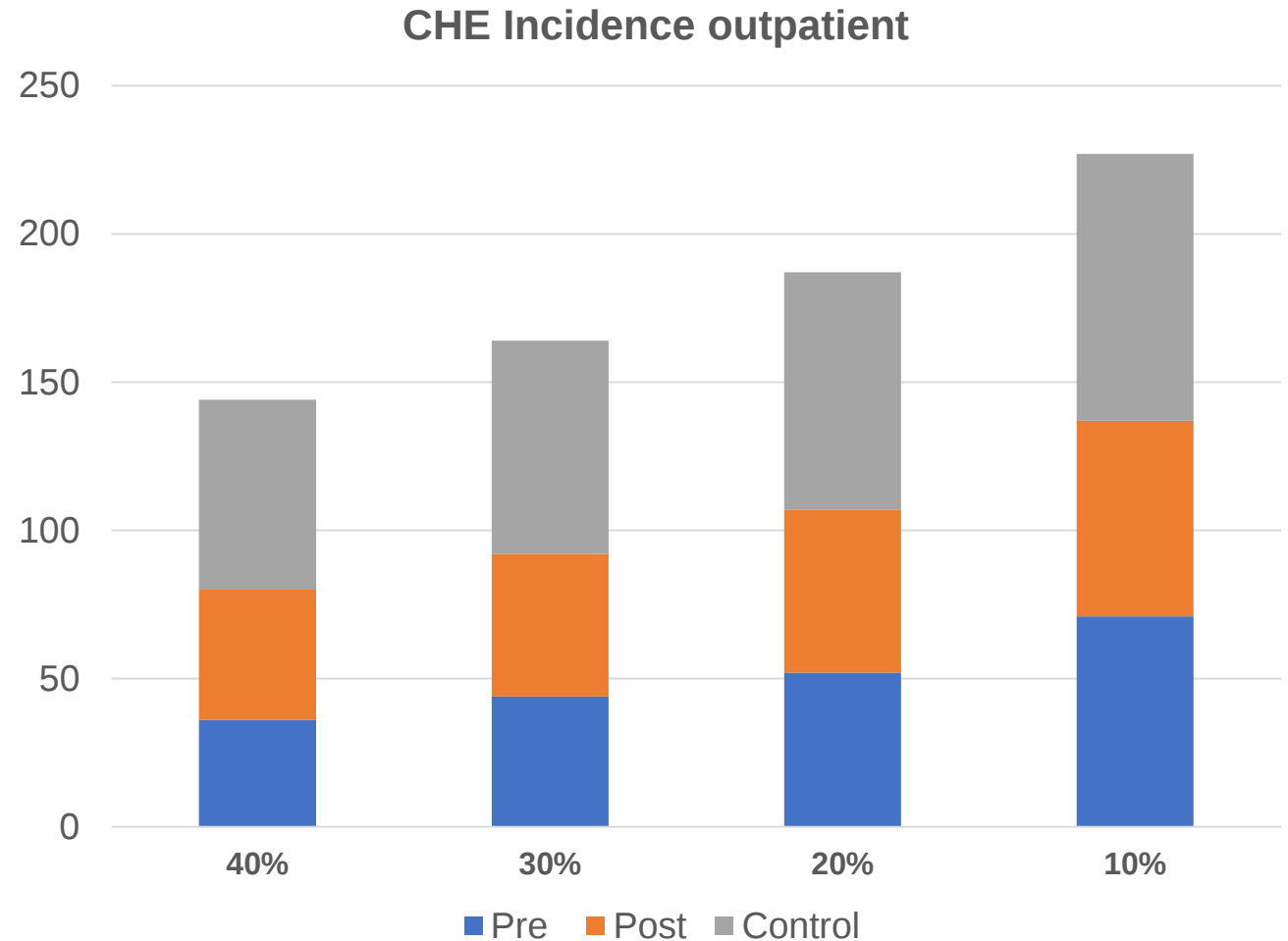
Out of pocket expenditures (OOP): **post intervention** and **control group**)

- No significant differences on number of visits to the health centers for both groups
- Control group health expense higher for hospitalization



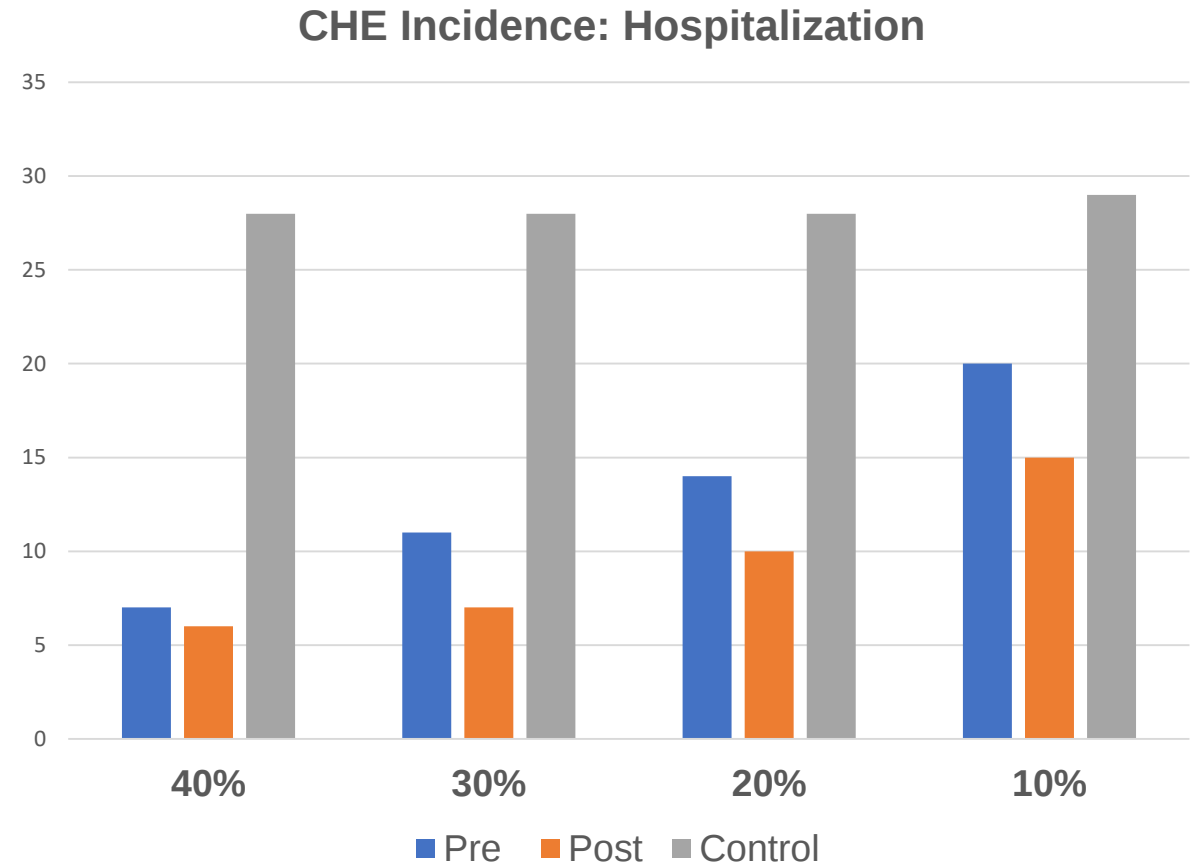
Catastrophic health expense (CHE) incidence for outpatient: **pre-post intervention-control group**

- No significant differences between any groups
- Slight increased CHE incidence from pre to post intervention group at 40%, 30% and 20% threshold
- However lesser CHE incidence compared to control group at all thresholds



Catastrophic health expense (CHE) incidence: Hospitalization: **pre-post interventio-control group**

- No significant differences between any groups
- CHE incidence decreased at post intervention group at all thresholds
- CHE incidence more at control group at all thresholds



Conclusion and discussion

Methodology and Data related discussion

- Small sample size, one district, design
- COVID-19 had an impact on the health expense for control group.
- Other factors (health expense data, HH income, health service utilization, moral hazzard, lack of complete services in the health centers)

Out of pocket health expense

- The outpatient and chronic illness cost increased
- The hospitalization cost decreased at post and its lesser than control group

Catastrophic health expense

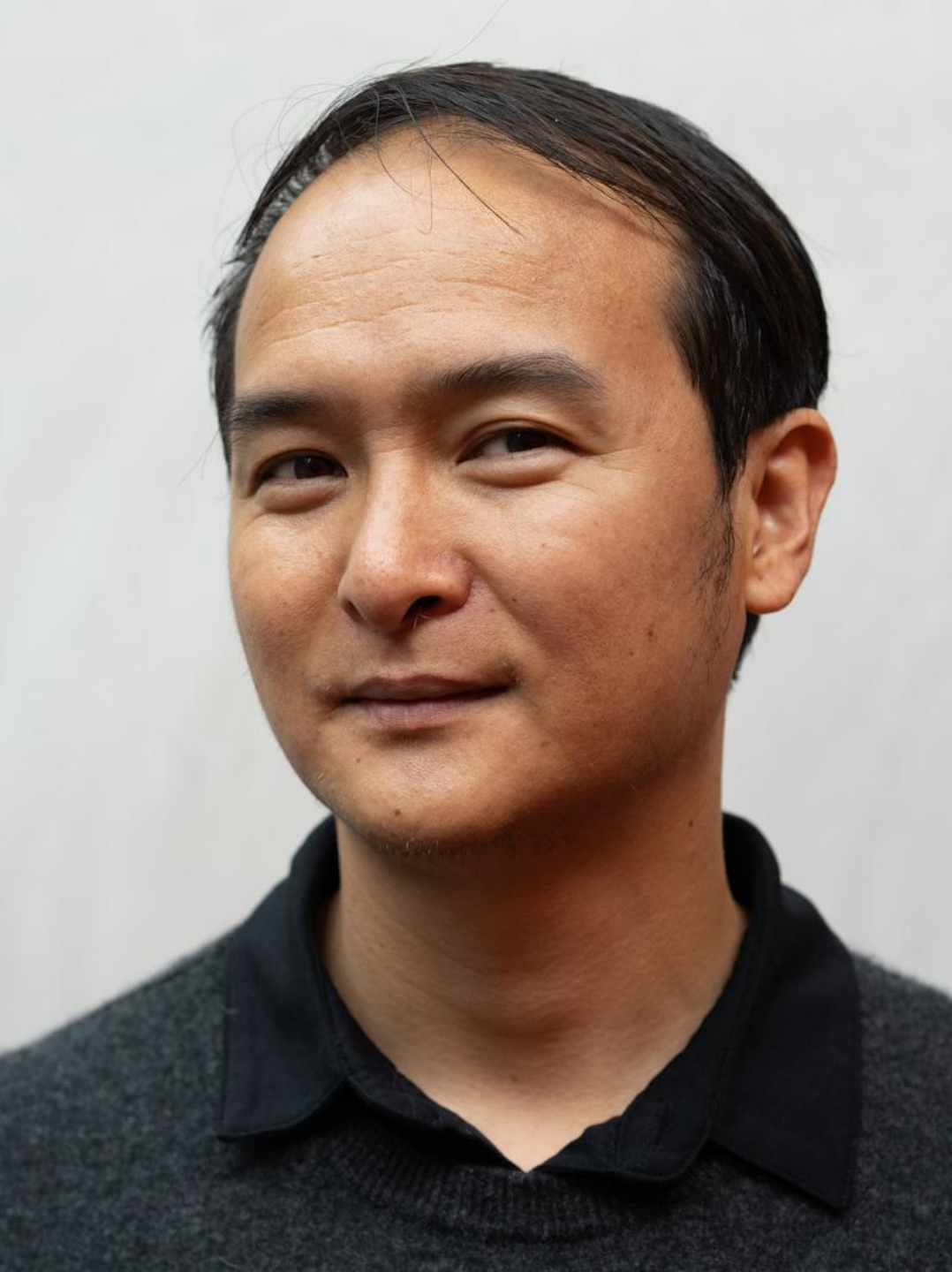
- Consistent decreased CHE rate for hospitalization from pre to post and as compared to control
- Findings from other countries supportive of this trend

Take away messages

- Economic impact is (one of) key to measure the success of National Health Insurance Program- *the benefit package amount should be adjusted accordingly*
- Health Insurance Board (HIB) should systematically include health expense data of their members during the enrollment as the base-line; and also conduct separate study on economic impact
- National data collection (Health account, Living standard survey) should include the implications of health insurance in OOP and CHE.
- Ripe time for researchers (health finance, economist) to pursue study on economic impact of health insurance

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