Adam Wagstaff Memorial Lecture

Juan Pablo Uribe
Global Director of the Health, Nutrition and Population Global Practice

Justice Nonvignon
Head, Health Economics Programme, Africa Centres for Disease Control and Prevention, Ghana

Owen O’Donnell
Professor, Erasmus University Rotterdam

Marcos Vera-Hernandez
Professor of Economics, University College London

Radhika Jain
Lecturer in Health Economics, University College London
Adam Wagstaff Memorial Lecture
Financial Protection

Owen O’Donnell, Erasmus University Rotterdam
Global monitoring report on financial protection in health 2021
Figure 2. Global financial hardship due to out-of-pocket health spending, 2017

996 MILLION PEOPLE
Catastrophic health spending (SDG 3.8.2, 10%)

435 MILLION PEOPLE
Pushed further into extreme poverty

70 MILLION PEOPLE
Pushed into extreme poverty

AT LEAST 1.4 BILLION PEOPLE INCURRED FINANCIAL HARDSHIP
Figure 9. Percentage point change in the incidence of catastrophic health spending as tracked by SDG indicator 3.8.2 at the 10% threshold, by country income groups

Source: Authors calculations using the data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update (27,28).
Figure 11. Trends in the global rates of extreme poverty and global rates of the population pushed and further pushed into extreme poverty (living with less than PPP$1.90 per day) because of OOP health spending.

Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update [27,28].
Huge gaps in financial protection

Financial protection is worsening by CATA
improving by IMPOV
Financial protection ≠ CATA & IMPOV

Proxies

Feasible with limited data

Incomplete picture of FP
What do CATA & IMPOV miss?

Financial barrier to healthcare
What do CATA & IMPOV miss?

Financial barrier to healthcare

Coping
CATA assumes no coping

Higher OOP budget share
→ sacrifice consumption only if budget fixed

Households partially smooth consumption over health shocks
## Effects of health shocks in Thailand (post UC)

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Effects of health shocks in Thailand (post UC)  

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<td>Consumption (non-medical)</td>
<td>2.0%</td>
<td>-2.5%</td>
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Neelsen et al. *World Development* 2019
IMPOV assumes no coping

$$\text{IMPOV} = \text{poverty}(y-\text{OOP}, \text{PL}) - \text{poverty}(y, \text{PL})$$
IMPOV assumes no coping

\[
\text{IMPOV} = \text{poverty}(y-\text{OOP}, \text{PL}) - \text{poverty}(y, \text{PL})
\]
Another view ...

Individuals ranked by expenditure net of OOP

expenditure gross of OOP
expenditure net of OOP

O’Donnell Oxford Research Encyclopedia Health Economics 2019
What do CATA & IMPOV miss?

Financial barrier to healthcare

Coping

Risk
Figure 1. Financial hardship due to out-of-pocket health spending

All people in need of health care goods and services

Non financial barriers

Financial barriers

Utilization

Out-of-pocket spending

Catastrophic payments

Impoverishing OOP

No out-of-pocket payment

Neither catastrophic, nor impoverishing

Non-financial barriers ➔ Foregone care

Financial barriers ➔ Foregone care

Financial hardship due to out-of-pocket spending

No financial hardship due to out-of-pocket spending

Lack of financial protection
Protection
No protection
Protection against *risk* of healthcare cost is valued
Protected?
Not protected
Beyond financial hardship to financial protection

Risk premium

Catastrophic medical expenditure risk
Thailand Universal Coverage reform

Pre-reform: CATA = 4.2%

UC → welfare gain from risk reduction > 84% cost

Limwattananon et al. J Public Economics 2015
CATA mainly due to spending on medicines

Partly bias due to pro rata scaling of monthly spending

Even if bias small,

↓ OOP on medicines need not generate greatest ↑ welfare
Financial protection puzzle

Huge gaps in financial protection

Insurance take up low, even when highly subsidised
Explanations of financial protection puzzle

Misperception of medical expenditure risk
Protected?
Deluded!
Explanations of financial protection puzzle

Misperception of medical expenditure risk
Insurance perceived as risky
Insurance benefits underestimated by inexperienced
Hassle costs of enrollment
Upfront premium looms large over future benefits
Evidence from the Philippines

Misperception of medical expenditure risk ✗
Insurance perceived as risky ✓
Insurance benefits underestimated by inexperienced ✓
Hassle costs of enrollment ✓
Upfront premium looms large over future benefits ✓ ✓

Baillon et al. 2022abc
What do CATA & IMPOV miss?

Financial barrier to healthcare

Coping

Risk

Sensitivity to health financing policy
## Table 2. Marginal effects of macroeconomic characteristics on catastrophic and impoverishing health spending

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**Poverty headcount rate at the PPP$1.90 per day poverty line**

**Poverty headcount rate at the relative poverty line**

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Making FP metrics more sensitive to health financing

OOP share of total health expenditure

Inequality in distribution of OOP across households

Share of health payments by poor and near-poor households
References


Baillon A., O'Donnell O., Quimbo S., van Wilgenburg (2022) Do time preferences explain low health insurance take-up? Journal of Risk and Insurance forthcoming,


Private Hospital Behavior Under Government Insurance: Evidence from India

Radhika Jain, University College London
Shift to private healthcare delivery through public insurance

• Historically, LMIC policy focused on direct public provision of healthcare

• Over last decade, rapid expansion of public health insurance to meet UHC goals
  • Target low-income households
  • Free care at public and private hospitals
  • Bundled prospective payments (hospitals paid fixed prices)

• Major shift from direct public provision to outsourcing to private hospitals
  • Market mechanisms → access, quality, efficiency
  • Profit motivated → over-provision, cream-skimming, overcharging...

• Two key policy levers to alight provider incentives: prices, oversight
  • Limited data, fragmented private sector, weak oversight → price-setting, enforcement difficult

• How do private hospitals behave within government insurance?
How do private hospitals respond to prices within insurance?

• Rajasthan BSBY health insurance program
  • 46M poor individuals
  • Free coverage of 1400 services
  • Public + empaneled private hospitals (800/1200 private)
  • Hospitals reimbursed at fixed prices per service, unadjusted for costs, health risk

• Policy reform of prices across services → study private hospital responses
  • Data: 1.6M claims + 20K patient surveys (scale + depth)
  • Outcomes: coding manipulation, service volumes, OOPE
Patients continue to face financial risk

Out-of-pocket charges by hospitals are widespread, substantial, unanticipated

- Any OOPE: 41%
- OOPE markup on insurance price: 37%
- Unaware of OOPE amount before visit: 46%

Patients continue to face financial risk
Effects of increasing health service prices

• Large, immediate changes in coding manipulation (overbilling)
  • Increases hospital revenue at government expense

• Significant increase in health service volumes
  • Prices affect provider treatment decisions, patient welfare

• Significant decrease in patient OOPE
  • OOPE is partly compensating for low prices (balance billing)

• BUT hospitals capture 50% increase, no reduction in OOPE where monopoly
  • INR 100 price increase → INR 50 decrease in OOPE (50% captured as profit)
  • Hospitals with monopoly power don’t reduce OOPE (double billing)
Unique challenges of contracting the private sector

• Reimbursement rates (prices) are key policy lever
  • Shape government spending, treatment decisions, OOPE

• ...but hard to set correctly, enforce
  • Require detailed data on costs, quality, outcomes
  • High prices → transfer public funds to private hospitals
  • Low prices + poor enforcement → transfer financial risk to patients
  • Low prices + high enforcement → drive hospitals out

• Market structure (competition) shapes effectiveness of outsourcing
  • Hospital monopoly → public subsidies captured, don’t benefit patients
Cost-Sharing in Medical Care Can Increase Adult Mortality Risk in Lower-Income Countries

Giancarlo Buitrago
Grant Miller
Marcos Vera-Hernández
Research questions

• Does increasing patient cost-sharing in primary care lead to lead to reduce health care use in the short-term?

• What happens in the longer-term?
  • Does it lead to worse health and even higher mortality?
  • If so, does it lead to higher health care use in the long-term?
  • If so, savings in the short-term might be partially compensated with larger costs in the longer-term
Background

The Colombian Health system and Patient Cost-Sharing
The Colombian Health system

• Social health insurance system offers a benefits package administered by both public and private insurers.

• Two major ‘regimes’ within this system: the ‘Contributory Regime’ (for formal sector workers) and the ‘Subsidized Regime’ (for informal workers who pass a means test)

• This paper is about the ‘Contributory Regime’
Primary care patient cost-sharing

Stark discontinuity in the level of cost sharing at 5 minimum wages

Workers with very similar wages have very different levels of primary care patient cost-sharing

![Graph showing the relationship between monthly minimum wage and copayment in USD, with a threshold at 5 MMW where there is a significant increase in copayment from 3.65 to 9.62 USD.](image)
Data

The Colombian Health system and Patient Cost-Sharing
Data

• Administrative health care use data (primary, secondary and tertiary) for all years 2011 to 2019

• All Colombian employees working in the formal sector
  • Exclude individuals who reached the legal retirement age by 2011
  • Number of health care use records: 2,220,546,088

• Linked to payroll data (to obtain the wage)

• Linked to death certificates
Contemporaneous effects of increasing cost-sharing in primary care
Monthly Outpatient Consultations

Individuals with very similar wages, but much higher cost-sharing have less outpatient consultations.
Monthly Outpatient Prescription Drugs
Monthly Outpatient Diagnostic Images
Monthly Outpatient Laboratory Services
Medium and longer run effects 
of increasing cost-sharing in primary care
Intention to treat effects

• Direct and indirect effect of higher cost-sharing:

  • **Direct**: Contemporaneous effect on health care use

  • **Indirect**: More likely that cost-sharing will be high in future months, which will also impact future health care use
Monthly Outpatient Consultations
Monthly Outpatient Prescription Drugs
Probability of Chronic Disease Diagnosis
Probability of being hospitalized at least once
Probability of dying over time
Summary

• Increasing primary care cost-sharing reduces the use of outpatient services

• But the detection of new chronic diseases also declines, and potentially avoidable, more expensive hospital services increase in the longer term

• Ultimately, mortality increases as well

• Social welfare evaluations of cost-sharing policy need to incorporate health effects – as well as increase in health care use in the long term
Acknowledgements

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2. School of Medicine – Universidad Nacional de Colombia
3. Office of Technology and Information – Colombian Minister of Health and Social Protection

Thank you!