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Estimating the non-health benefits of universal health care (UHC) for people with tuberculosis (TB)

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Background

A new approach for the economic evaluation of health policies toward UHC in the post-2015 era

Background contd.

Sustainable Development Goal 1

"End poverty in all its forms everywhere"

Sustainable Development Goal 3

"Achieve universal health coverage, including financial risk protection for all"

https://sustainabledevelopment.un.org
www.worldbank.org

Extended cost-effectiveness analysis (ECEA)

Incorporates equity and non-health benefits in the economic evaluation of policies

ECEA overview

- Builds on standard cost-effectiveness analysis (CEA)
- Identifies impacts on health *and* other dimensions
  - Investigates **financial risk protection (FRP):** Quantifies household medical impoverishment averted by policy
- Highlights **distributional consequences** across different strata of the population (e.g. socio-economic status, geographical setting, gender)

ECEA overview contd.

Examine specific policy
(e.g. public finance for TB treatment)

Health gains
(e.g. TB-related deaths averted)

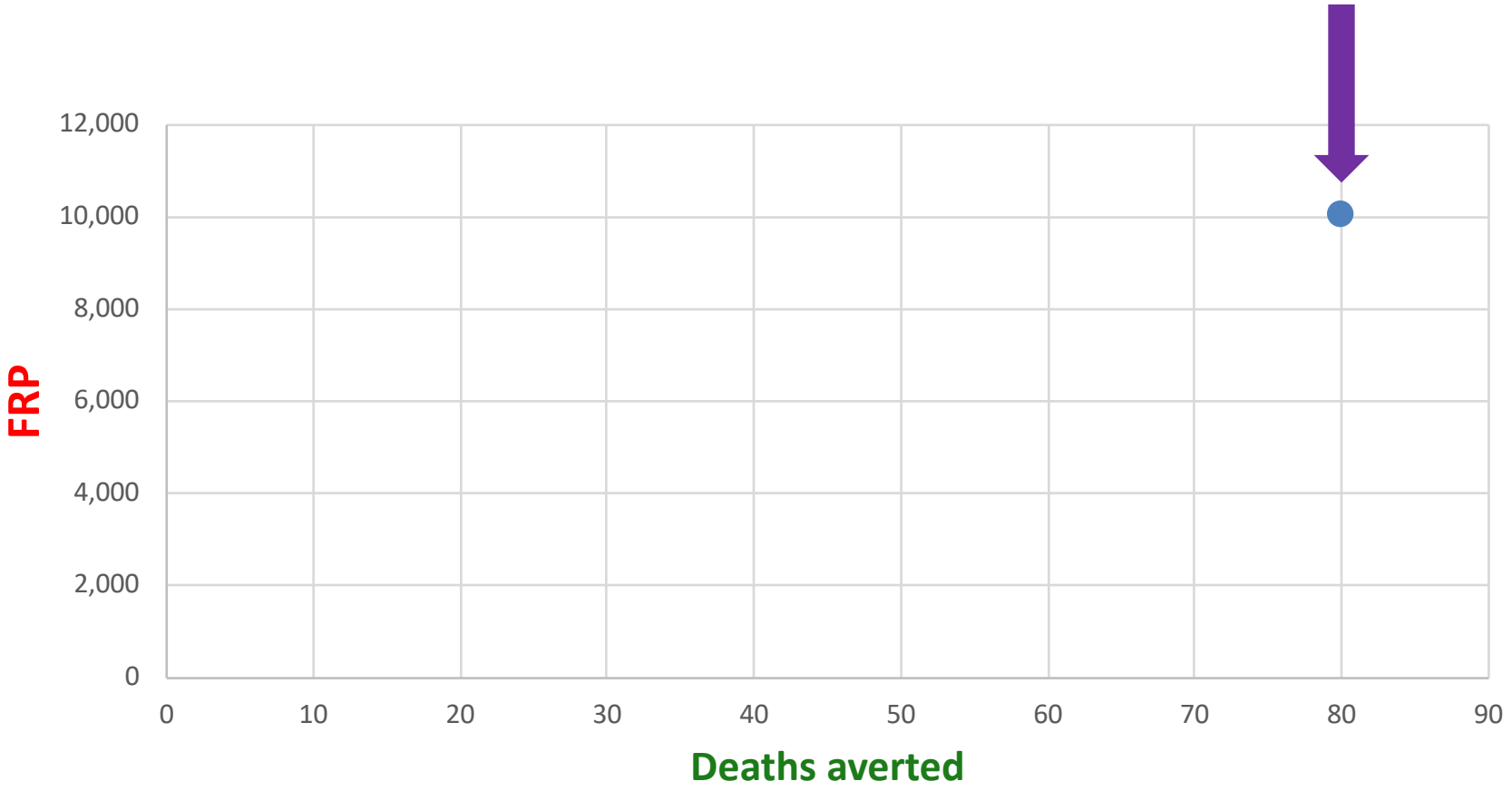
Household expenditure averted
(e.g. private TB treatment expenses averted)

FRP benefits
(e.g. household impoverishment averted)

Poorest | Poor | Middle | Rich | Richest

ECEA overview contd.

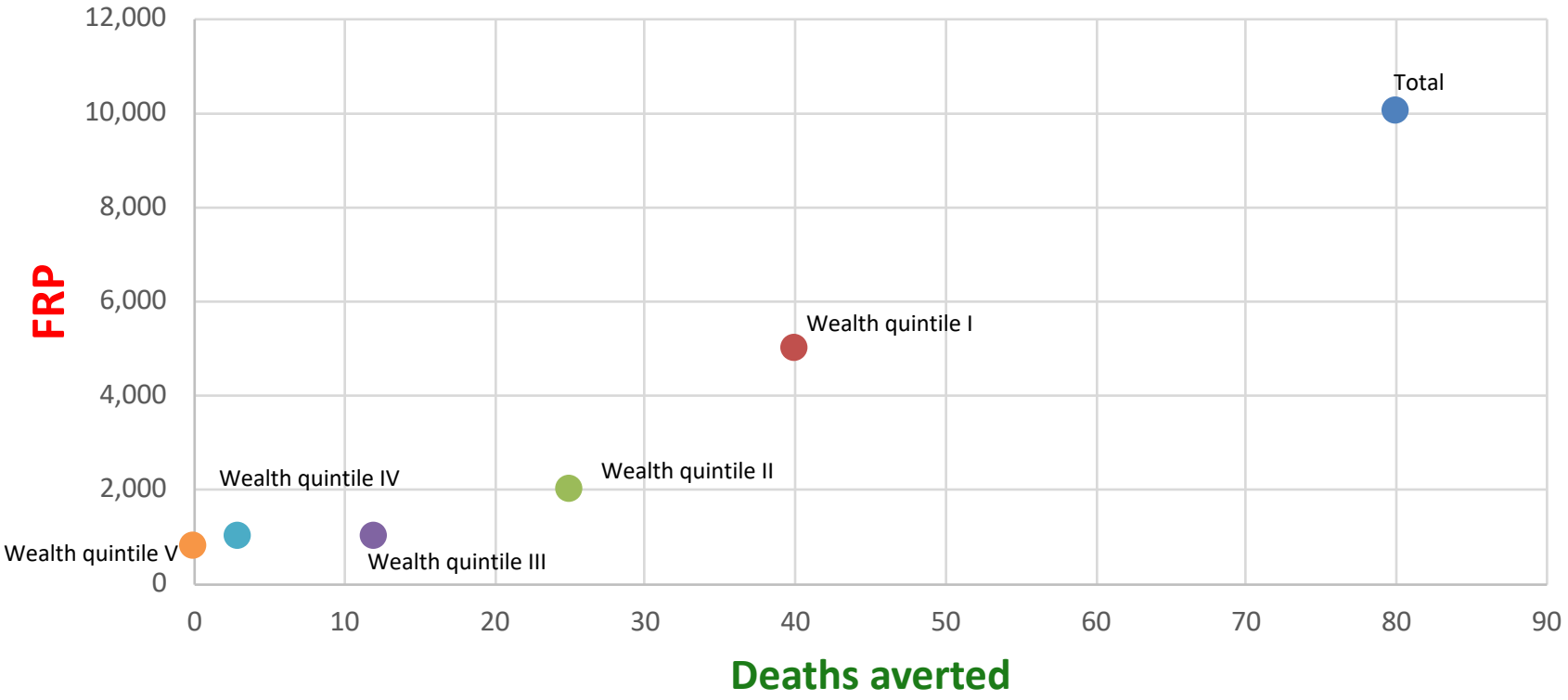
What you are getting for a given budget, e.g. $1,000,0000



Results used to calculate **$ per unit of health benefit (e.g. death averted)** and **$ per FRP provided (e.g. poverty case averted)**

ECEA overview contd.

Disaggregating results by wealth quintiles



Results used to calculate **$ per unit of health benefit (e.g. death averted)** and **$ per FRP provided (e.g. poverty case averted)**

ECEA overview contd.

A data intensive process

- **Program costs**
- **Health**: Disease incidence, existing treatment coverage rates, case fatality rate
- **FRP**: Income, Out-of-pocket (OOP) expenditures
  - Direct costs (treatment and transportation costs)
  - Indirect costs (forgone income)
- **Equity**: Inputs disaggregated by sub-populations

ECEA of TB control interventions

Case 1: ECEA of universal public finance of TB treatment in India

Outcome	Total	Income Quintile I	Income Quintile II	Income Quintile III	Income Quintile IV	Income Quintile V
TB deaths averted	80	**40**	25	12	3	0
Private expenditures crowded out	$30,000	**6,000**	6,000	7,000	7,000	4,000
Financial risk protection	$10,000	**5,000**	2,000	1,000	1,000	<1,000

Summary benefits over 1 year for 1M Indians

Adapted from:

Verguet, Laxminarayan, et al. Health Economics 2015

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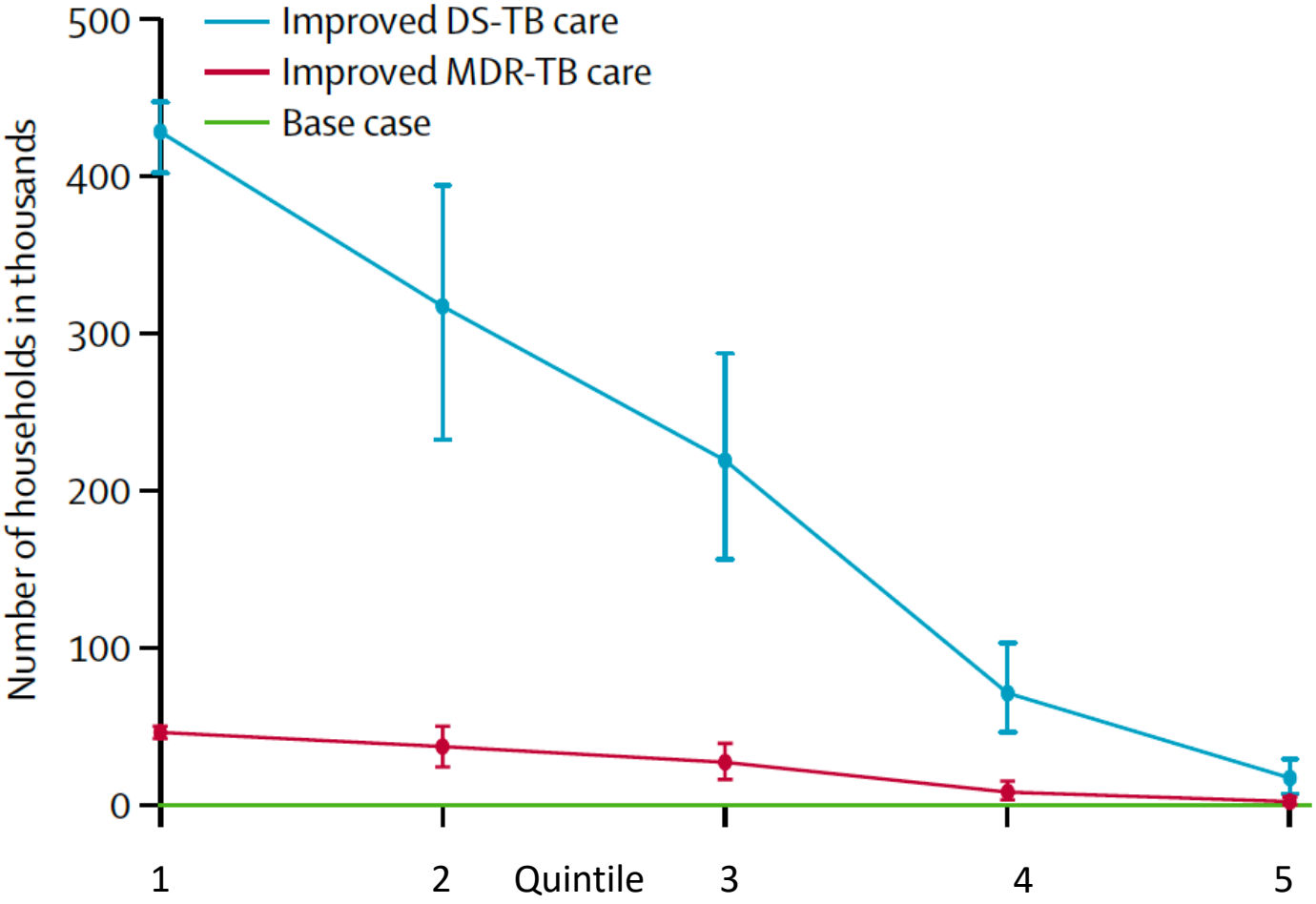
Case 2: ECEA of the End TB Strategy in India and South Africa, 2016-2035

Number of households with catastrophic costs averted by income quintile in India



Verguet, Riumallo-Herl, Gomez, et al. Lancet Global Health 2017

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Case 3: ECEA of the End TB Strategy in Ethiopia, 2016-2035

- Study in progress
- Evaluates scaling up of:
  - DOTs implementation
  - Drug resistance treatment
  - Active TB case finding
- Outcomes
  - TB cases/deaths
  - Catastrophic healthcare spending
  - Inequality

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Next steps

Pursue ECEA case studies

- **Different TB interventions**: cash transfers, public finance, control/elimination
- **Different delivery platforms**: facility vs. outreach
- **Subnational analyses**: province, district

More data needed on:

- **OOP spending** and **household expenditures**
- Distribution of burden of disease by key population subgroups
- Transmission within and across subgroups

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ECEA publications:

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