Who uses and who pays for healthcare over a lifetime– and how does this impact income inequality?

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Based on: *Lifetime Distributional Effects of Publicly financed Health Care in Canada*

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Analysis in Brief

Supporting Factors Influencing Health

Lifetime Distributional Effects of Publicly Financed Health Care in Canada

Summary

Publicly financed health care provides access to a package of valuable core services to all Canadians—services that provide necessary care when needed and help improve the health and well-being of Canadians. In addition to being a valuable public service, publicly financed health care plays another role that is often overlooked: it redistributes income among different socio-economic groups. In effect, how much different population groups pay for health care through various mechanisms, such as income taxation, and how much they receive back in terms of services vary. As a consequence, health care financing may affect the income of population groups differently. Since health care represents a large and growing part of public-sector spending (35% of total provincial and territorial expenditure in 2011), it is important to consider the redistributive effects of publicly financed health care in Canada.

This analysis estimates how publicly financed health care expenditures

Our Vision

Better data. Better decisions. Healthier Canadians.

Our Mandate

To lead the development and maintenance of comprehensive and integrated health information that enables sound policy and effective health system management that improve health and health care.

Our Values

Respect, Integrity, Collaboration, Excellence, Innovation

Context

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- Health care represents a large and growing part of public-sector spending in provinces/territories (35% in 2011)
- Tax and cash transfer policies commonly assessed for their effects on the distribution of income
- It is also useful to consider publicly financed health care (a transfer “in kind”) and how it affects income groups differently
- Previously this has been done provincially and at a point in time, this study adds national and lifetime perspectives

Health Care Costs

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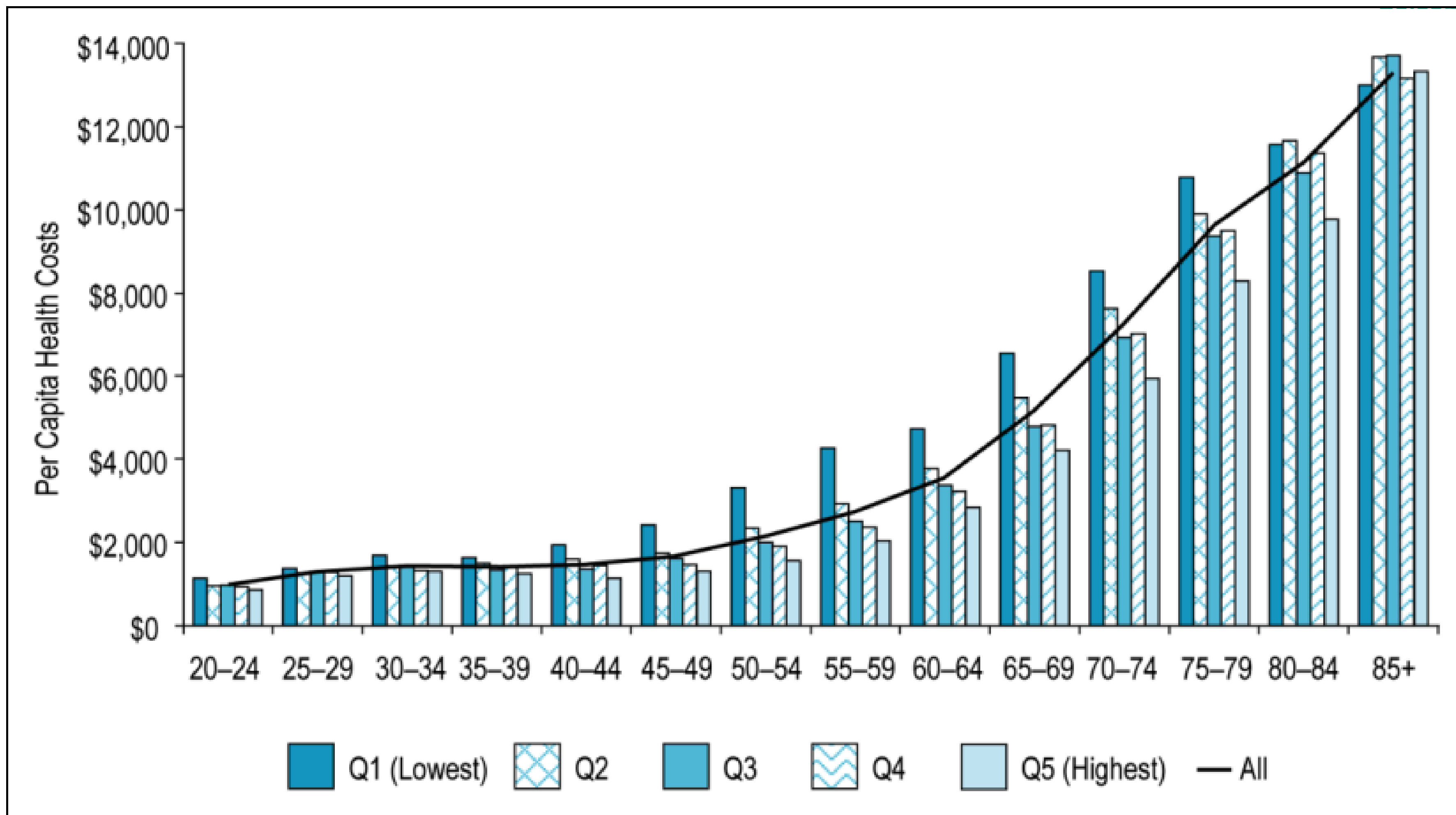
- $200 billion or $5,800 per person for 2011
  - $140 billion or 70% publicly financed
    - $81 billion on hospitals ($46), doctors ($24) and drugs ($10)
      - $3,050/person
- Costs vary across age groups, and income groups

Source: National Health Expenditure Trends, 1975 to 2012. CIHI, 2012

Figure 1: Per Capita Public-Sector Health Care Costs, by Income Group and Age Group, 10 Provinces, Population Age 20 and Older, 2011



Sources:

Costs: National Health Expenditures 2010. 2011(projections)

Distributions of use within age, sex groups : DAD/NACRS, CCHS 2010, NPDUIS 2011

Income groups for administrative data : Census 2006 (Neighbourhood Income)

Tax Payments To Finance Health Care

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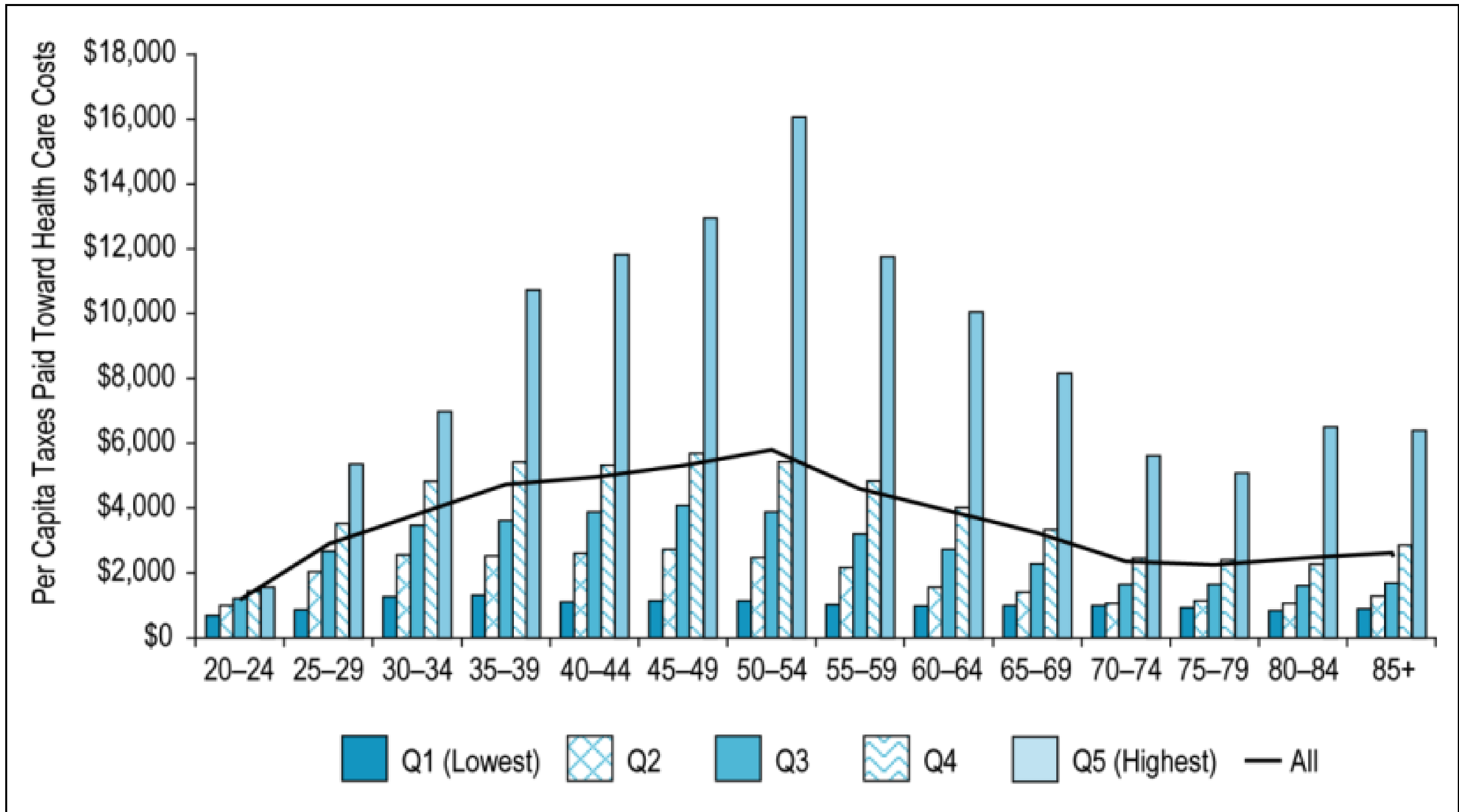
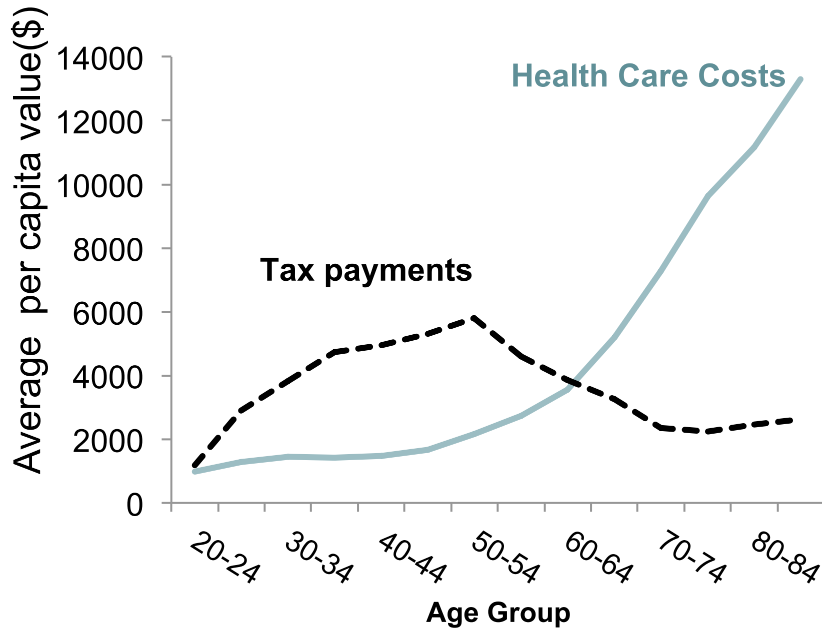
- Federal : $152 billion in household income and commodity taxes or $5,700/person
  - $51 billion estimated federal transfers to provinces that may be used towards health care costs
- Provincial: $129 billion provincial household income and commodity taxes or $4,800/person
- Tax payments to finance health are assumed to be the proportion required to cover select health care costs of $81 billion or $3,050/person
  - assuming all paid from household taxes

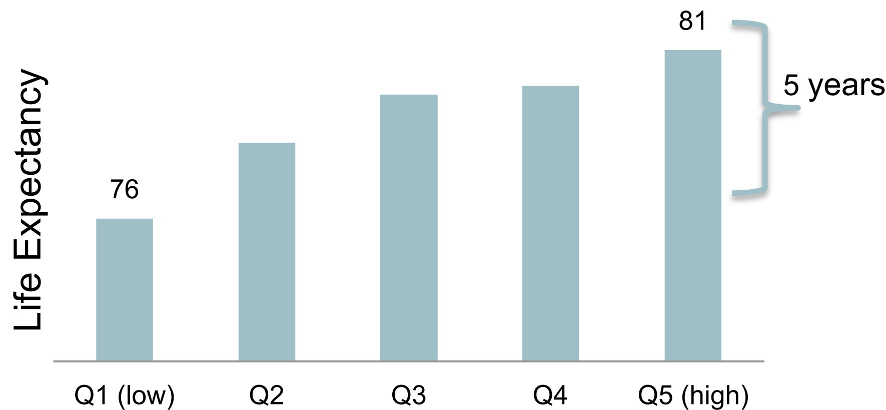
Figure 2: Per Capita Tax Payments Toward Health Care Costs, by Age and Income Group, 10 Provinces, Population Age 20 and Older, 2011



Source:
Based on *Statistics Canada's Social Policy Simulation Database and Model*. The assumptions and calculations underlying the simulation results were specified by CIHI.
Notes : the bottom income quintile represents people earning less than $24,000 and the top quintile is those earning more than $72,000, based on household income before taxes and adjusted for household size.

Lifetime Approach

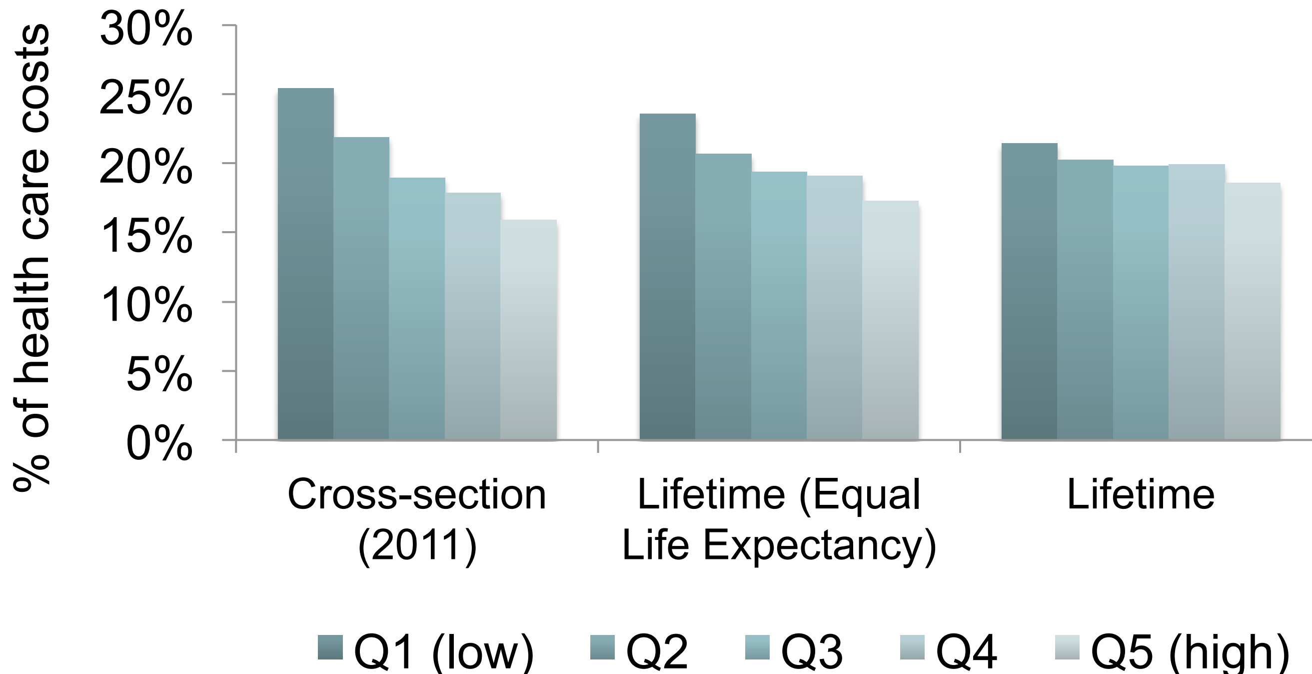




- We simulate 50,000 people from age 20 until death, max age 100
- Each person is assigned sex and lifetime income quintile at birth
- Each year, taxes and health care costs specific to record's age group, sex and income group are assigned
- The cohort is exposed to mortality rates based on their age, sex, and income group
- Then, at death, we add up health care costs and taxes paid over their lifetime

Lifetime Health Care Costs Even Out

- Lifetime average health care costs for cohort $220,000
  - $240,000 in lowest vs. $200,000 in highest income group – 15%
  - For 2011, estimated per costs range from $3,800 to $2400 - 60%



Health Care Costs and Tax Payments

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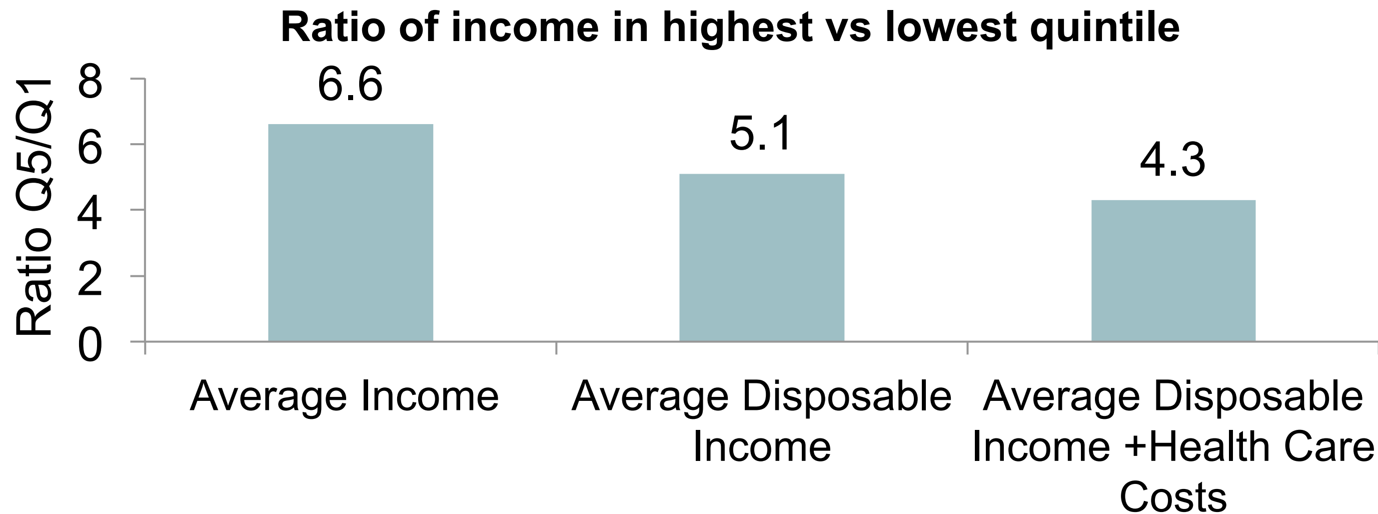
- Health care costs are higher for lower income groups
  - Costs incurred by lowest income group represent an estimated 24% of their average annual income in their lifetime ($4,200 of $17,000),
  - Costs in the highest quintile represent 3% of theirs ($3,400 of $115,000)
- Tax payments towards health care services are roughly proportional to income
  - 5.8 % of annual income paid by the lowest income group ($1,000) and 7.5% in high income group ($8,700)
  - While income taxes are progressive, this is substantially offset by the distributional impact of commodity taxes

How Does This Relate To Income Inequality?

- Progressive income taxes reduce income gap from average income to average disposable (after tax) income
- Similarly, publicly financed health care substantially offsets market income inequality



- OECD reports similar findings for other countries for health care services, education and housing as well.

Limitations & Future Work

- Key limitations
  - Data gaps in health care costs by income, ex. Long term care
  - Census area-based income measures likely under-estimate differences in health care costs by income quintile
  - Group (e.g.Quintiles) averages mask differences within groups
  - Health care service use need not be correlated with improvements in individuals' health (e.g. Inappropriate or unnecessary
- Future work may consider
  - Distributional effects of different mixes of provincial and federal funding, or mixes of revenue sources from income and commodity taxes.
  - Distributional patterns by household types, between sexes or across provinces could be incorporated to better understand effects on these populations

Key references

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Thank You

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