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AUSTRALIAN CENTRE
FOR
ECONOMIC RESEARCH
ON HEALTH

Population ageing, longevity, health care systems and funding arrangements:

what can we learn from low/middle/high income countries' experiences?

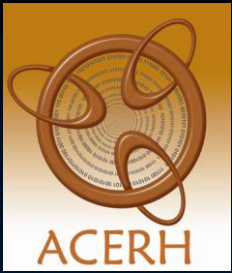
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Background

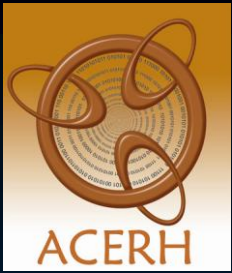
Design or reform of health and long term care financial systems are currently of global concern

- since much improved medical technologies resulted in improved life expectancies, and thus in older populations

Ability to learn from other countries' experiences can improve on 'trial and error' approaches, and help the development of more timely and effective health and aged care systems

However, across country quantitative comparisons are difficult, especially outside the OECD group

- due to scarcity of comparable data



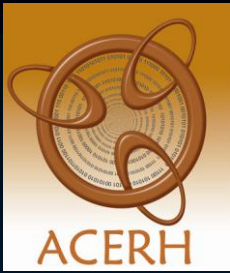
Aims

Investigate whether, at a national level, the key policy drivers of health outcomes can be identified:

- *using 2006 World Health Organisation (WHO) database*
 - comparable across 193 WHO member countries (70 health indicators)
- *exploring use of regression techniques to identify the main policy variables contributing to health outcomes*

Study which key drivers can best explain health differences across low/middle/high income WHO countries

- *marking these as important when designing or reforming health and aged care systems*



The WHO Indicators Considered

Extent of population ageing

- Proportion of population aged 60 years or more (%)

Health outcomes

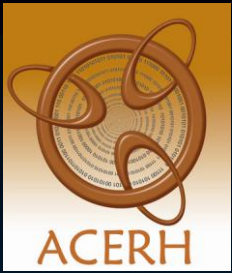
- Life expectancy and Healthy life expectancy (HALE) at birth (years)

Income

- Gross national per capita income (PPP* international \$)

Health expenditures

- *Total* health per capita expenditure (PPP int. \$)
- *Total* health expenditure as % gross domestic product (GDP)
- *Government* per capita health expenditure (PPP int. \$)
- *Government* health expenditure as % total health expenditure
- *Social Security* health expenditure as % government health expenditure
- *Private* expenditure on health as % total health expenditure
- *Private prepaid plans* as % private health expenditure
- *Out-of-pocket* expenditure as % of private health expenditure



Finding 1

Initial regression analyses showed the most important variable explaining HALE to be:

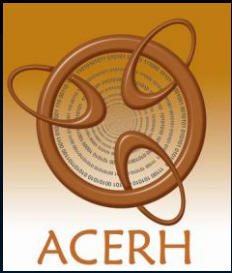
- per capita Gross National Income (PerCapGNI) – ie how rich the country is

Next, national income was accounted for by grouping the 170 WHO member countries with data on PerCapGNI into:

- Low PerCapGNI (the WHO Low+Lower Middle Income countries) and
- High PerCapGNI (the WHO Upper Middle+High Income countries)

A little over 80 countries fell in each group

- just enough in size to carry out regressions on each separately
- but results need to be interpreted carefully (*national data points only, relatively small number of observations, unclear comparability, missing data*)



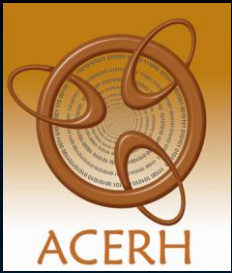
Finding 2

Regressing HALE on the remaining indicators resulted in two statistically significant explanatory variables being common to the Low and High income country groups

- *Per capita total health expenditure (PerCapTotHealthE)*
- *Social Security health exp as % government health expenditure (SShealthEinGovHealthE)*

For the High Income group another variable was also highly significant:

- *Out-of-pocket expenditure as % of private health expenditure (OOPhealthEinPrivHealthE)*



CONCLUSIONS

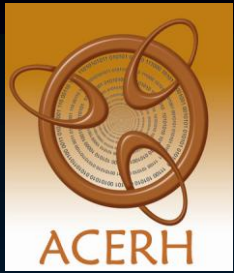
LESSONS from studying patterns across 170 WHO countries are that

(a) if aim of health and aged care system review is to improve a nation's health, than it is worth focussing on factors that impact at the *person* level:

- lifting the total health expenditure, per head of population
- improving poorer groups' access to health and aged care services
 - *through targeting via Social Security spending on health/aged care*
- lifting the % of out-of-pocket health expenditures in total private expenditures for better off population groups
 - *for example through higher copayments set for those who can afford these*

(b) despite popular belief, the government/private health expenditure split was not shown to be that important

- *ie it was not statistically significant*



Further information

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