

Health related deprivation measures

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Measuring deprivation

- Studies on health-related multi-dimensional deprivation indices first undertaken in early 1980s (allocation of public health resources)
- 2000 project on geographic patterns of deprivation and health inequalities in SA
- Index developed using PCA (1996 census); selection of variables informed by:
 - Understanding of deprivation having not only material but also social components
 - Relevant from a health perspective (contribute to ill-health and need for health services)

Health-relevant variables

- Type of housing
- Overcrowding
- Piped water on site
- Type of toilet
- Refuse disposal
- Electricity for cooking
- Live in rural area
- Unemployment
- Education level
- Disability
- Female household head
- Elderly household head
- Female
- Child (<5 years)
- Elderly (60 years +)
- Black African

Alternative index

- ‘Policy relevant’ index – included groups emphasised in policy documents as particularly disadvantaged or prioritised for social service & infrastructure; equal weighting of variables:
 - Black Africans
 - Elderly
 - Children
 - Women
 - Rural dwellers
- Correlation of 0.852 with PCA index

Some key findings

- Correlation between deprivation index and mortality indicators (but health data weak)
- “Inverse care law”: The majority of magisterial districts with a deprivation index in quintile 1 had very poor health service resourcing:
 - Implications for allocation of public sector health care resources
- Provides insights into social determinants of health

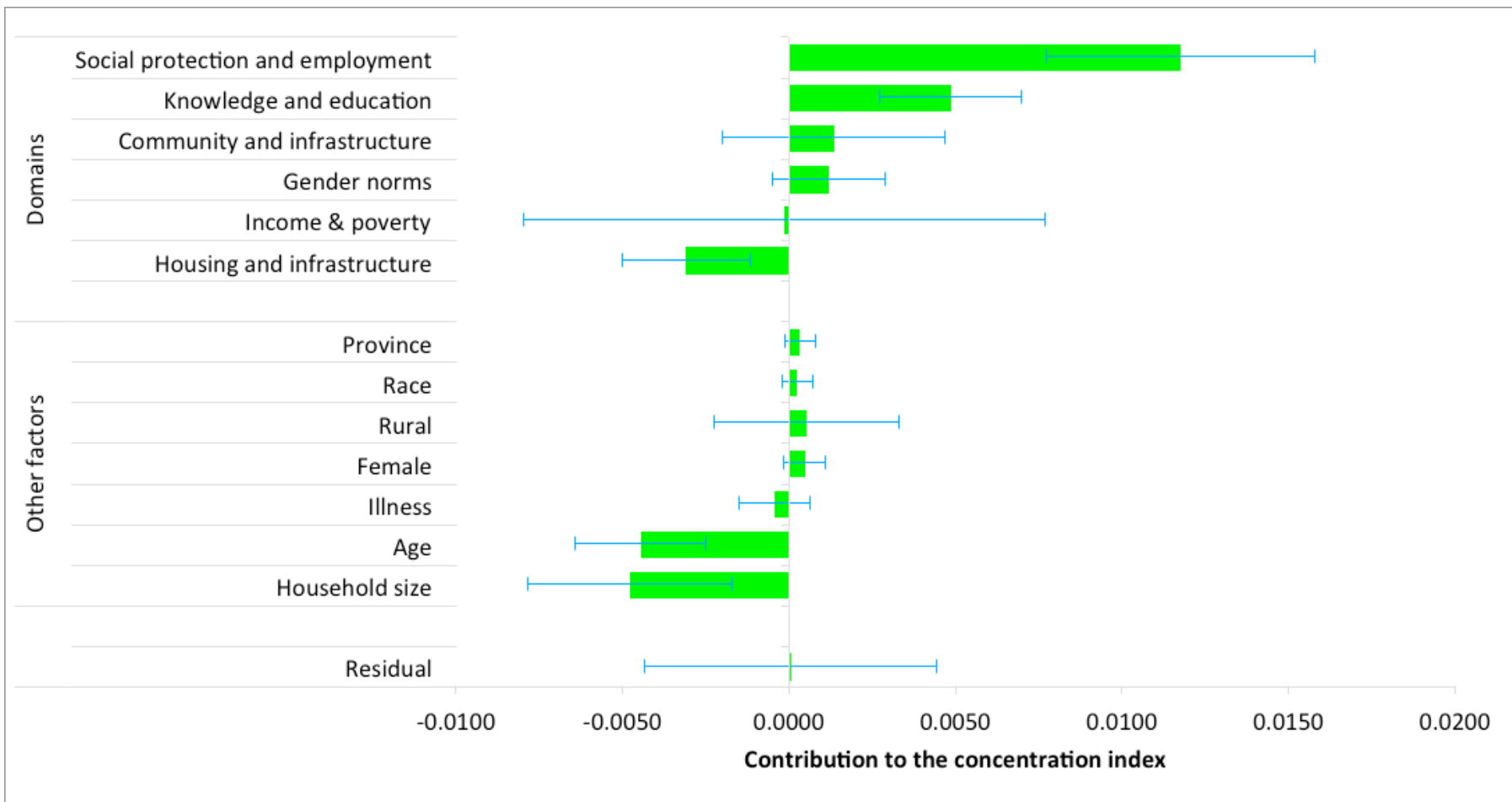
Most recent index

Variable	Coefficient
No piped water on site	0.16183
Female headed household	0.16098
Unemployed	0.15459
No education (household head)	0.14003
No clean energy	0.13845
Black African	0.13283
Child < 5 years	0.12465
Pit, bucket or no toilet	0.11695
Poor housing (e.g. shack)	0.11669

Okorafor (2008) for Health Systems Trust's District Health Barometer

Social determinants

What explains disparities in 'good' health status in South Africa

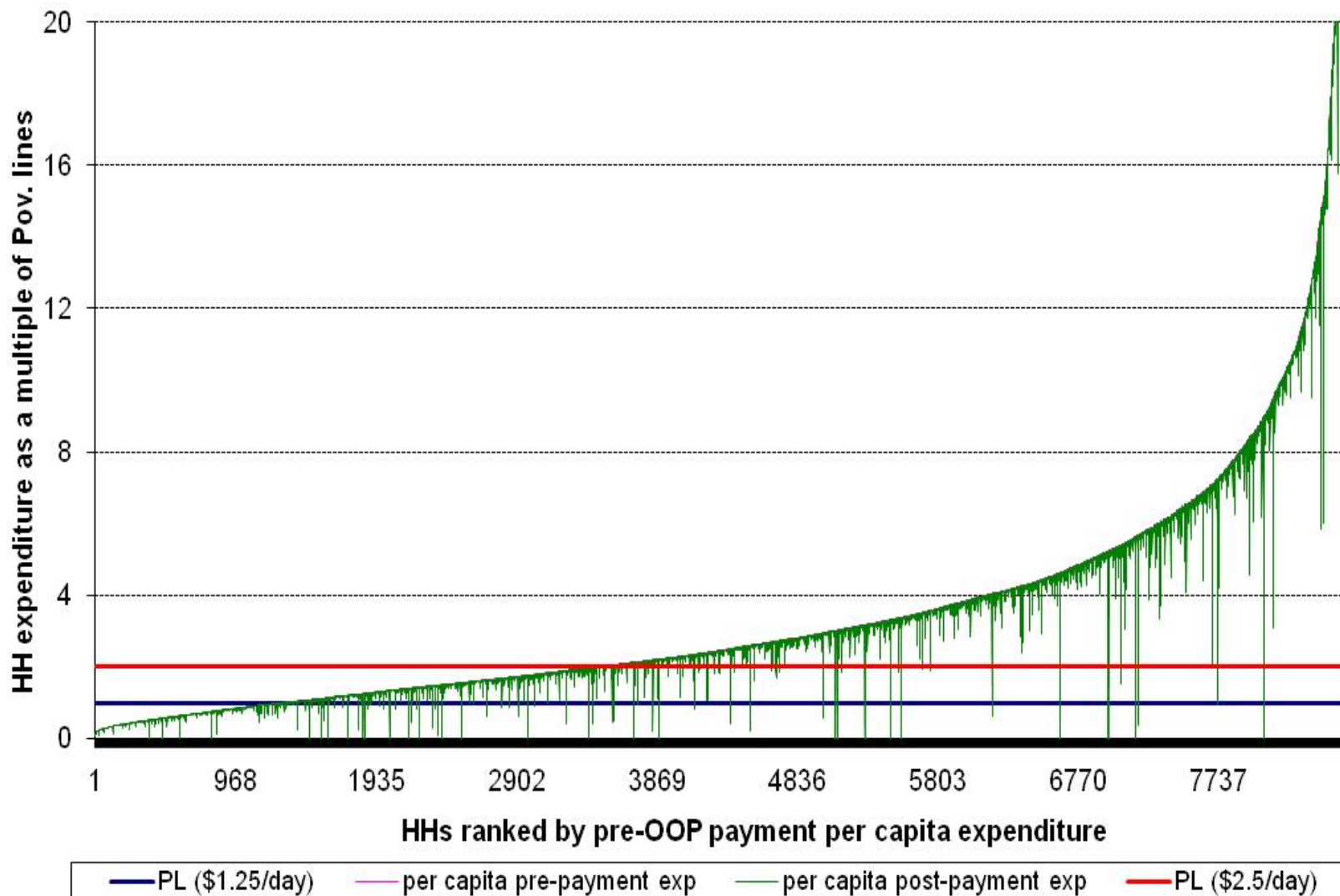


Ataguba, Day & McIntyre (under review). ***Please do not circulate***

Health system issues

- Universal health coverage – post-2015 SDGs:
All should have:
 - Access to needed health services of sufficient quality to be effective
 - Financial risk protection
- Use of services as proxy for access:
 - Critical to be able to accurately monitor changes in these in-kind services
 - Serious deficiencies in existing household surveys

Financial protection



Key issues

- From a health perspective in South Africa:
 - Material and social deprivation strongly associated with poor health
 - Less ‘direct’ relationship with income poverty
 - Other social sectors are critical (social grants and education) and employment opportunities
 - Infrastructure also important (housing, water, clean energy, sanitation)
 - Children particularly vulnerable
- Improved public funding of all social services and infrastructure, and equitable distribution

Data for measurement

- Within household surveys, urgent need to improve:
 - Measurement of health and ill-health
 - Utilisation of health services

References

- Akazili J (2010). *Equity in health care financing in Ghana*. PhD thesis, University of Cape Town.
- Ataguba JE, Day C, McIntyre D. Explaining the role of the social determinants of health on health inequality in South Africa. (Under review)
- McIntyre D, Muirhead D, Gilson L (2002). Geographic patterns of deprivation in South Africa: Informing health equity analyses and public resource allocation strategies. *Health Policy and Planning* 2002; 17 (Suppl 1): 30-39.
- Okorafor, O (2008). *Deprivation indices by health districts in South Africa: Technical Report for HST*. Cape Town: UCT.