Child Poverty and Under Five Mortality: Urban-Rural Differentials and Trends in Kenya, 1989 -2013

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Contents.

Background

- Social science research has mainly applied the Wealth Index or income/consumption shortfall to the poverty line in explaining the influence of poverty on the demographic aspects of mortality, fertility and migration.
- As such, social scientists have analysed neonatal and post-neonatal mortality among children using the traditional measures of monetary adult poverty or wealth status based on the presence of assets in the household rather than the multidimensional relative deprivations approach of measuring incidence, depth and severity of Child Poverty

Study goals

- With more recent knowledge, wider acceptance and adoption of the multidimensional approach as an objective methodology of measuring the extent and the depth of Child Poverty, the first novel issue in this study is to fill in the above gap in knowledge in the case of Kenya.

- We use the relative deprivation theory to establish the influence of the extent and depth of Child Poverty on the infant and child mortality in Kenya.

Study goals (II)

- Examine the relationship between deaths among U5 children and severity of child poverty as measured by deprivations of food, health, nutrition, safe drinking water and sanitation, shelter, education, and information and classified as: not deprived, moderate and severely deprived.

- Using KDHS, estimate Child Poverty and trends and compare to the under-five mortality trends for Kenya for the last decade

- Furthermore, the paper also offers some suggestions to the discussion of establishing nationally acceptable child deprivation thresholds for Kenya, a third innovative contribution of this paper.

Review of literature

- Shows a dichotomy between demographers and economists on the subject of determinants of U5M and poverty

- On U5 mortality determinants - DHS / MICs / HBS – most of the analyses are focused on wealth index (based on HH assets) which is a proxy of monetary poverty

- “Information on household assets is used to create a wealth index as an indicator of HH economic status” Kenya’s DHS, 2013

- The wealth index serves as an indicator of household-level wealth that is consistent with expenditure and income measures (Rutstein, 1999). Has been used in many DHS and other country level surveys (Rutstein et. Al., 2000).

Review of literature (II)

- Traditionally, the wealth index is computed, national level quintiles (from L – H) are obtained by assigning household scores then ranking ; which is ranked into 5 equal categories comprised of 20 percent of the population
- Other approaches used included that of a child being considered poor if he/she comes from a household whose asset index is below an asset poverty line
- There is increasingly wider acceptance and adoption of the multidimensional approach as an objective methodology of estimating incidence and depth of child specific poverty
- Micro-determinants (e.g. birth spacing, presence of SBA) and macro-determinants (e.g. poverty, public spending on health)

Latest Child Poverty and Childhood Mortality

However, it has been argued that

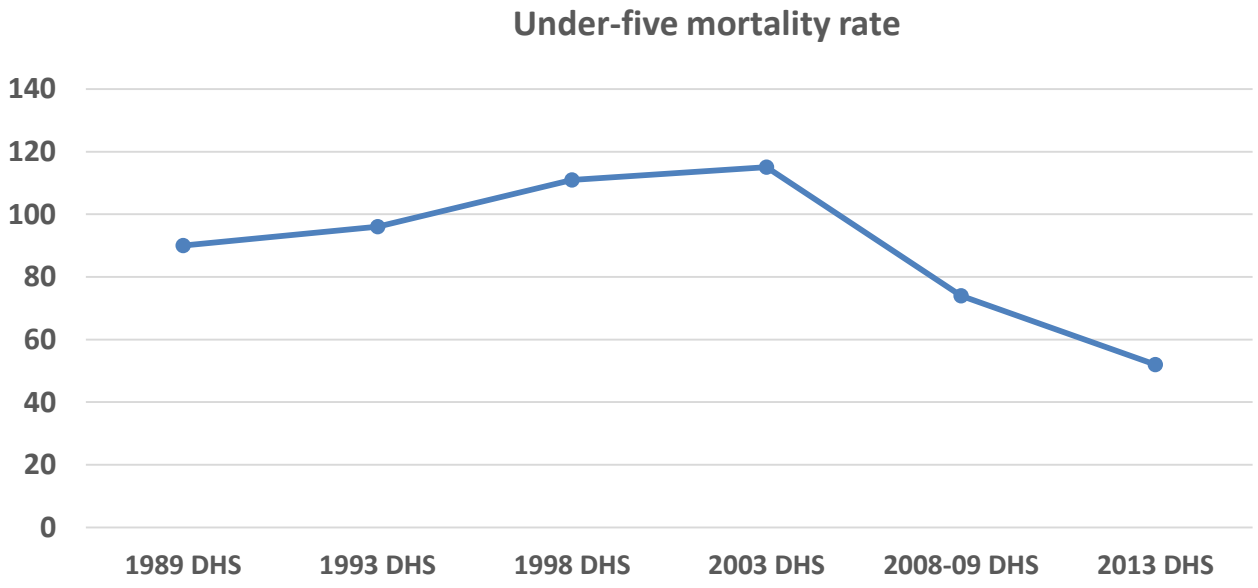
- Children suffer poverty differently from Adults (M. Abdu & E. Delamonica)
- Income is not the most important for children but their access to food, housing, education, health etc.
- Higher income could have detrimental effects on the child (e.g incase of child labor, or parents working long hours and neglecting their children)
- With latest child Poverty measurements, CP is assessed cross a range of aspects separately before combining them to calculate the child poverty index
- Scope of analysis on influence of child poverty on childhood mortality should be through multidimensional approaches and not limited to the wealth index

Methodology

- We used Mosley & Chen's analytical framework for the study of child survival in developing countries.
- We used six rounds of KDHS data for the period 1993-2013 for U5M and examined child poverty in 2003, 2008, 2013 data
- The DHS is nationally representative samples of women aged 15 to 49 years and of their children.
- We examine the urban–rural differentials of U5 mortality for the two decade period. We highlight the U5 mortality rates for the period against the wealth quintile differentials
- We estimated the child deprivations for health, nutrition, vaccination, water, sanitation, overcrowding and information
- We estimated the child poverty index for a decade through combining the different aspects of deprivations
- We present the trends of U5M and Child poverty over the decade (2003 – 2013)

Kenya's Under-five mortality rate

Survey (KDHS)	Total
1989	90
1993	96
1998	111
2003	115
2008	74
2013	52



Trends in U5 mortality

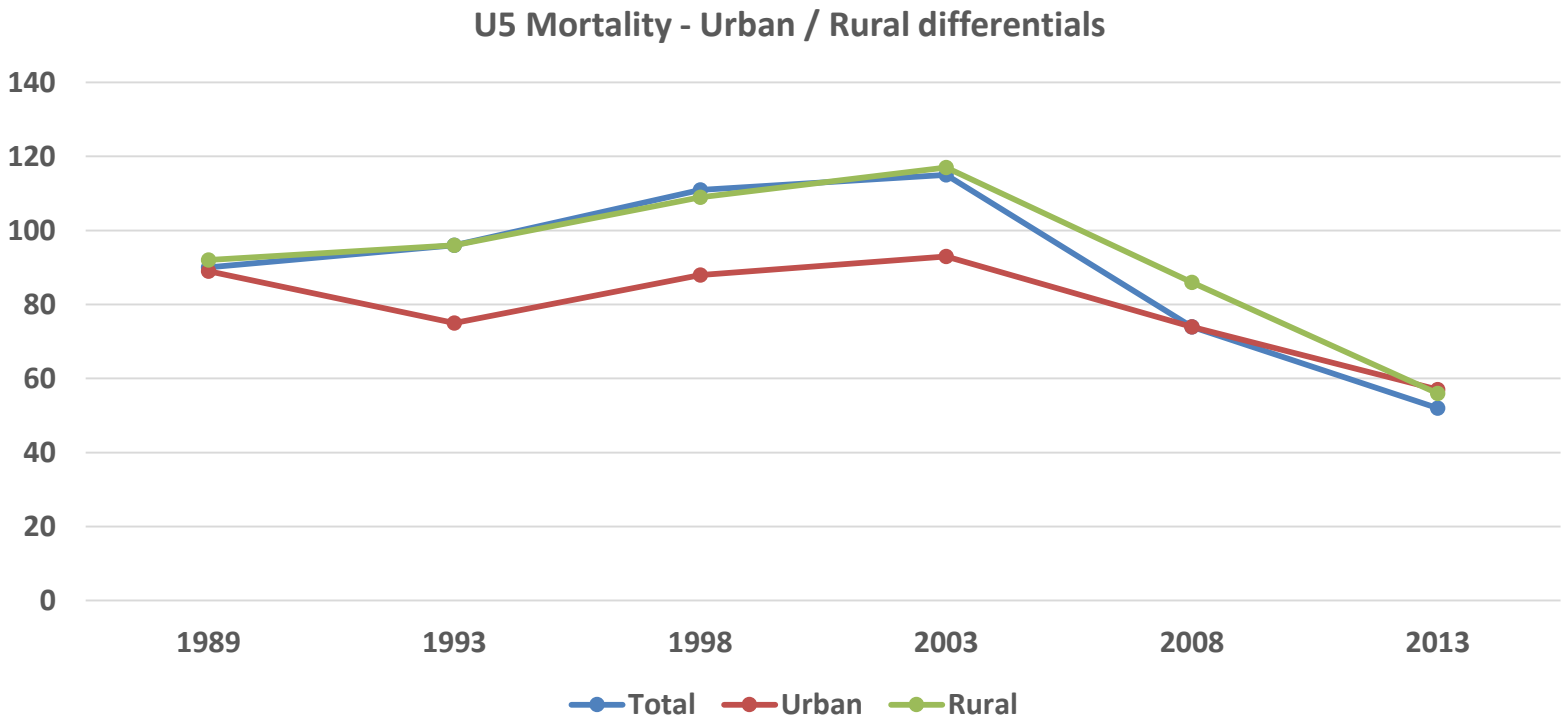
	U5 Mortality	Residence	
KDHS	Total	Urban	Rural
2013	52	57	56
2008	74	74	86
2003	115	93	117
1998	111	88	109
1993	96	75	96
1989	90	89	92

Results showed that under-five mortality rates were taking an upward trend since early 1990s until 2003.

Upward trend - attributed to a combination of factors, including increased poverty, adverse effects of economic hardships, poor maternal and child health services (Ikamari, 2004).

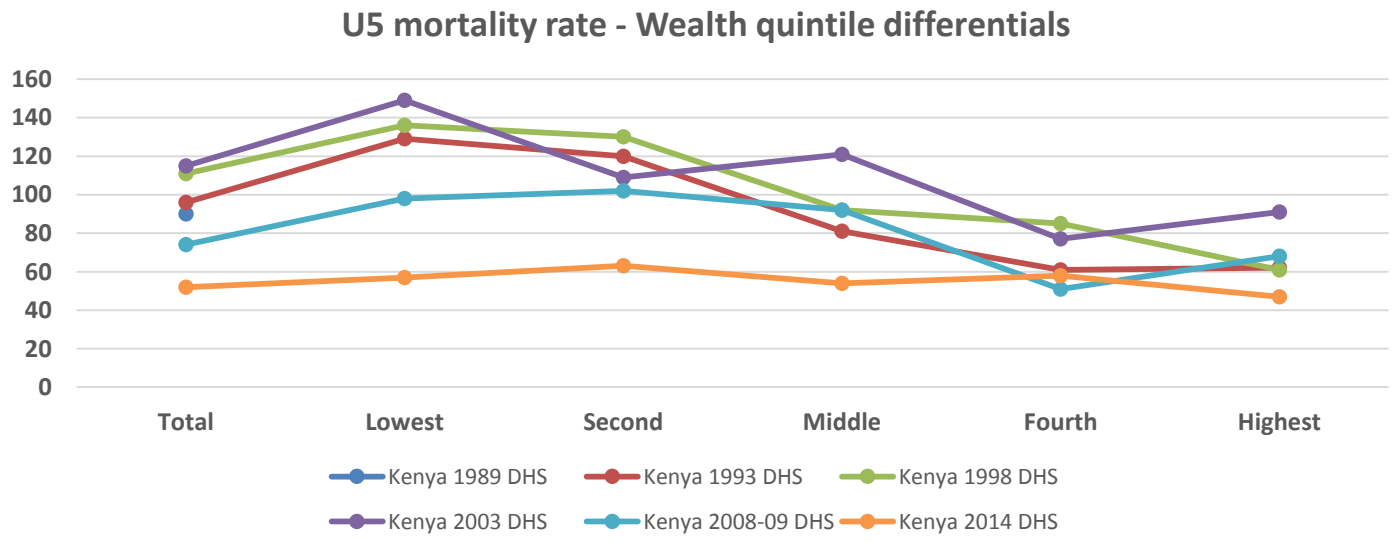
Trends in U5M - urban–rural differentials

- From 1990, the declining infant and child mortality rates saw a reversal and the rates increased until from 2003 when a downward trend was recorded
- The decline was more rapid and significant in rural areas hence the gap in urban–rural differentials narrowed over time



Under-five mortality rate - Wealth quintile differentials

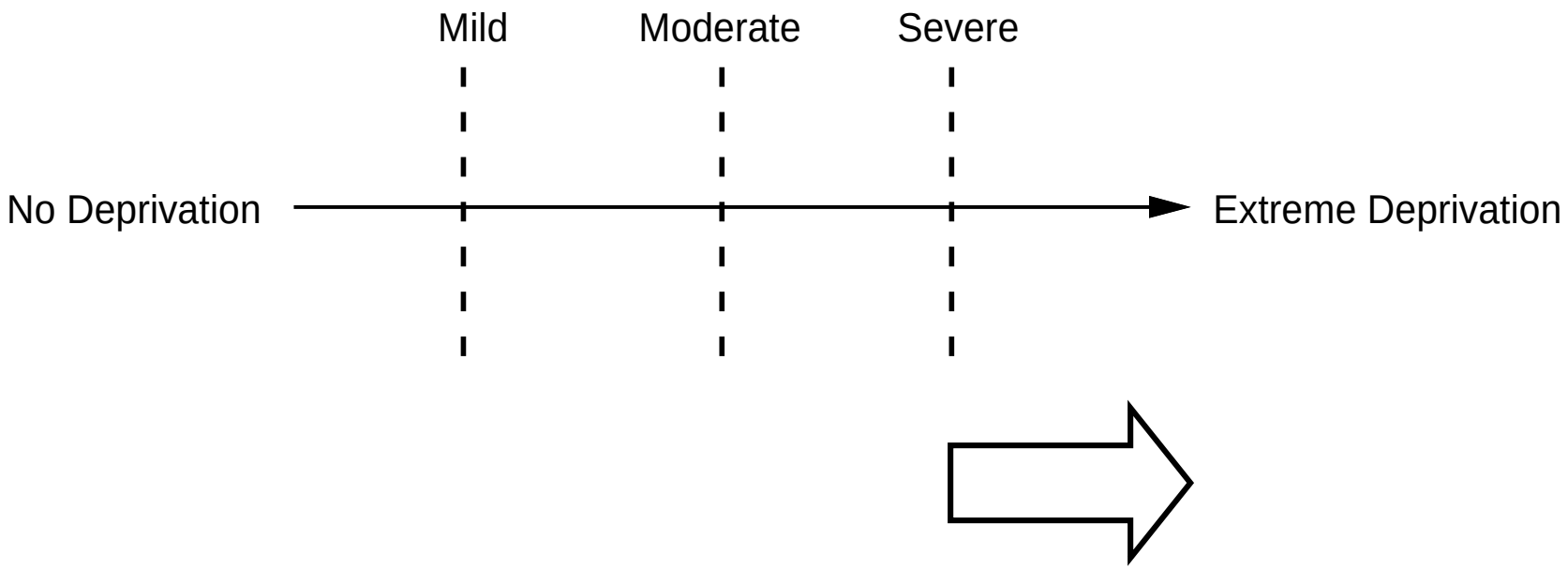
	U5 Mortality	**Wealth quintiles**				
Survey	Total	Lowest	Second	Middle	Fourth	Highest
1989	90					
1993	96	129	120	81	61	62
1998	111	136	130	92	85	61
2003	115	149	109	121	77	91
2008	74	98	102	92	51	68
2013	52	57	63	54	58	47



Child deprivations

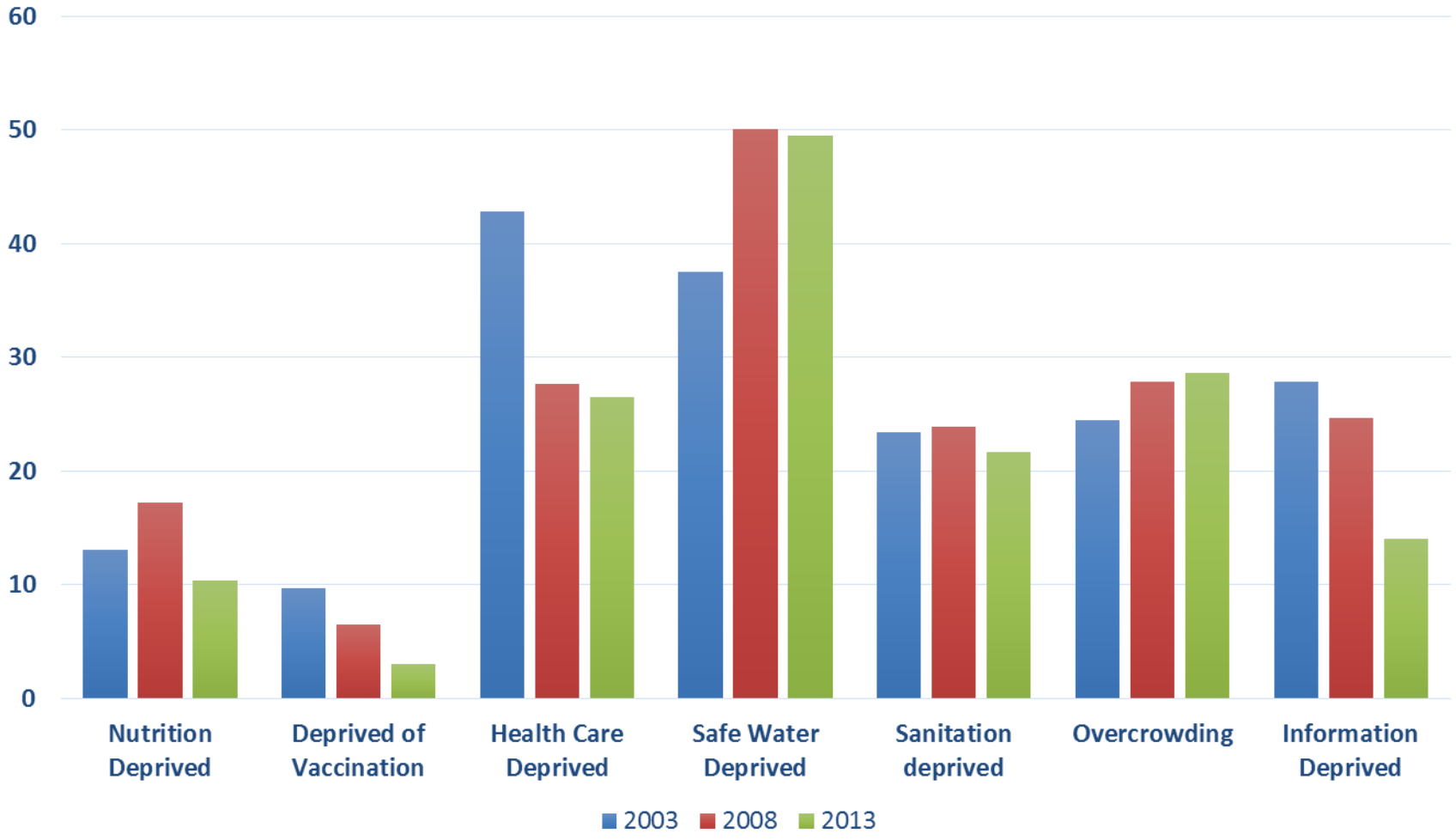
	Percentage		
Deprivations	2003	2008	2013
Nutrition Deprived	13.08	17.27	10.4
Deprived of Vaccination	9.7	6.49	2.98
Health Care Deprived	42.84	27.61	26.46
Safe Water Deprived	37.5	50.1	49.52
Sanitation deprived	23.39	23.92	21.69
Overcrowding	24.48	27.88	28.66
Information Deprived	27.84	24.68	14.07
Child Poverty (Weighted)	85.8	83.08	78.74

Determining thresholds
Continuum of Deprivation and Child Poverty

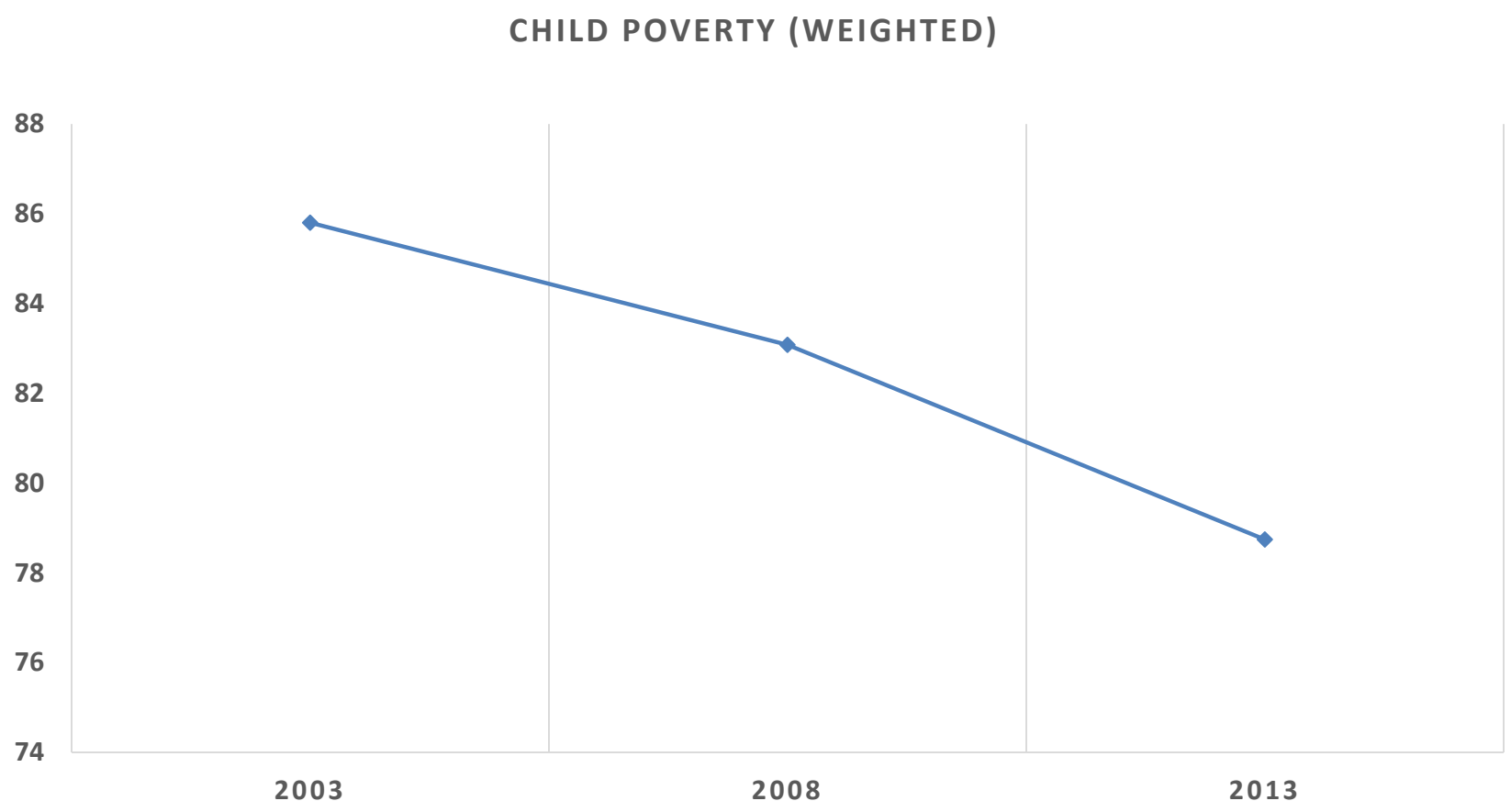


E. g. : **Children who have <u>never</u> been to school**
Children in dwellings with more than <u>five</u> people per room
Children whose heights and weights are <u>3 SD</u> below the norm

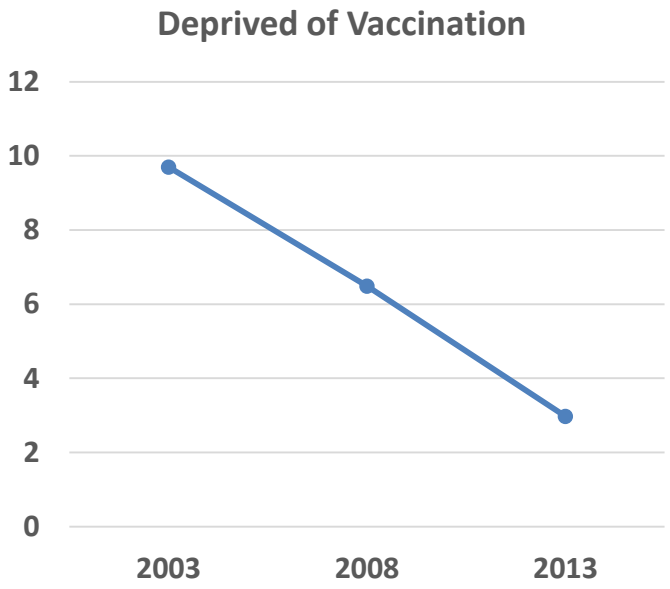
Child deprivations

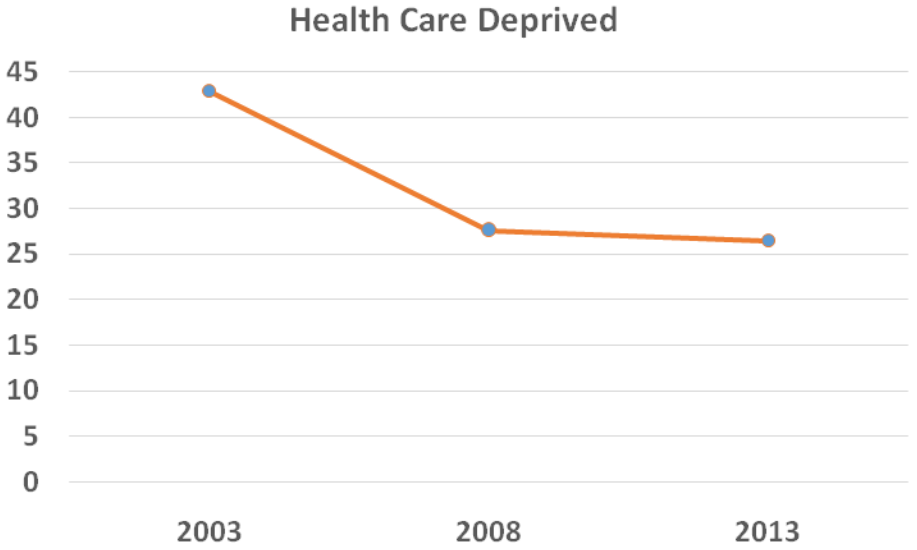


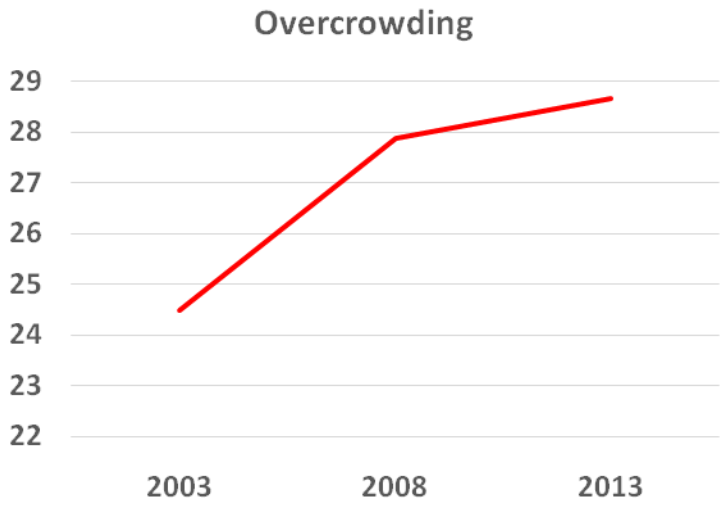
Child poverty trends

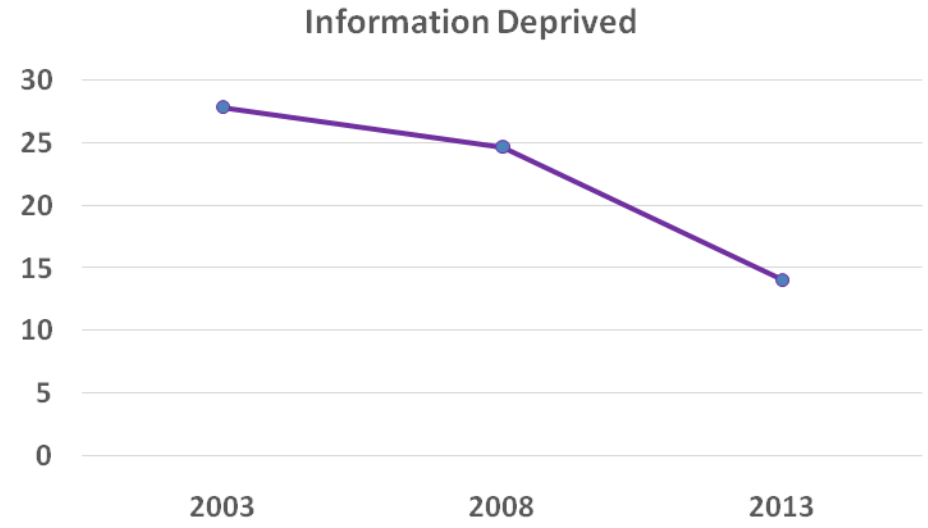


Trends on dimensions of deprivations

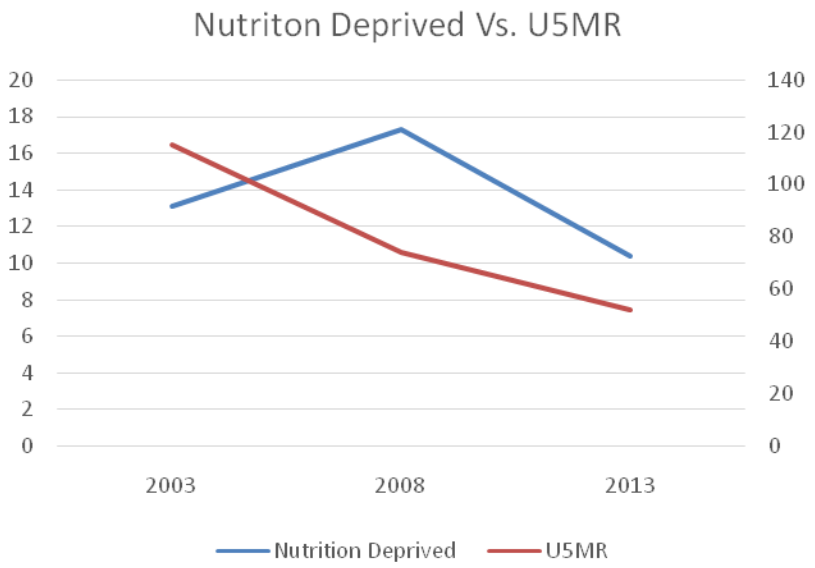


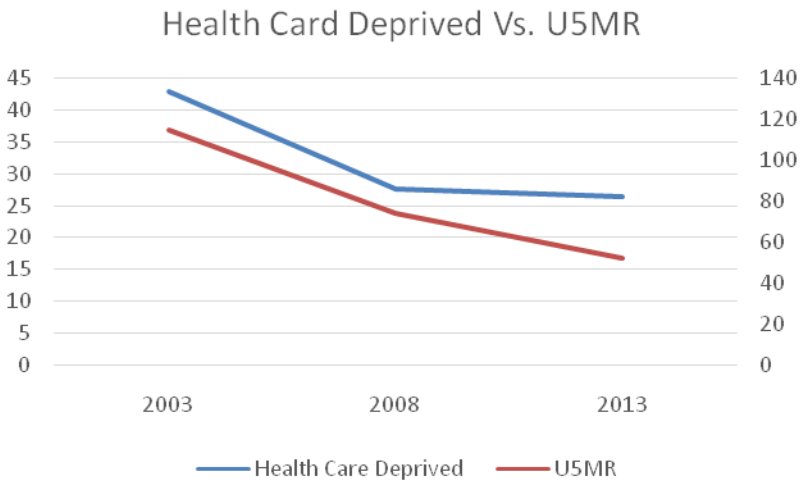


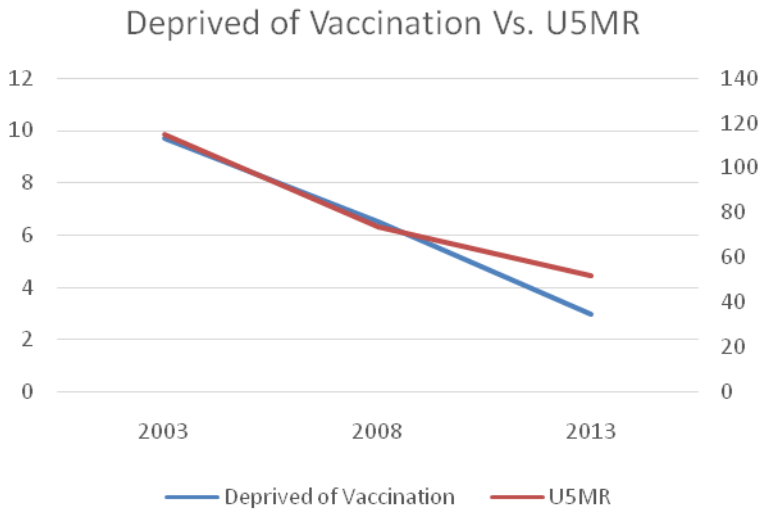


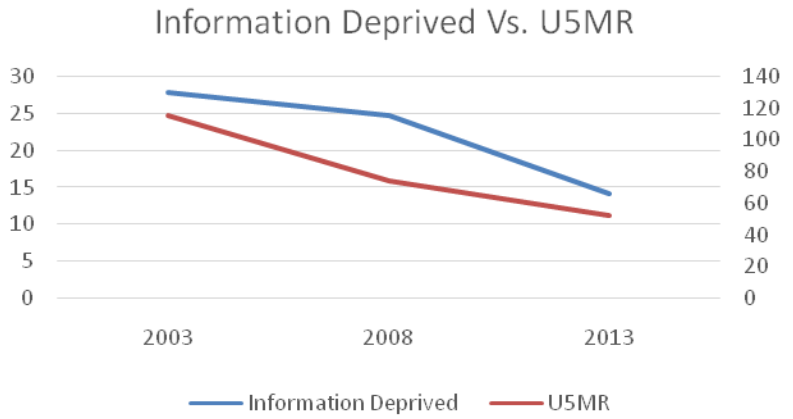


Comparison of trends of U5 Mortality and Child Poverty

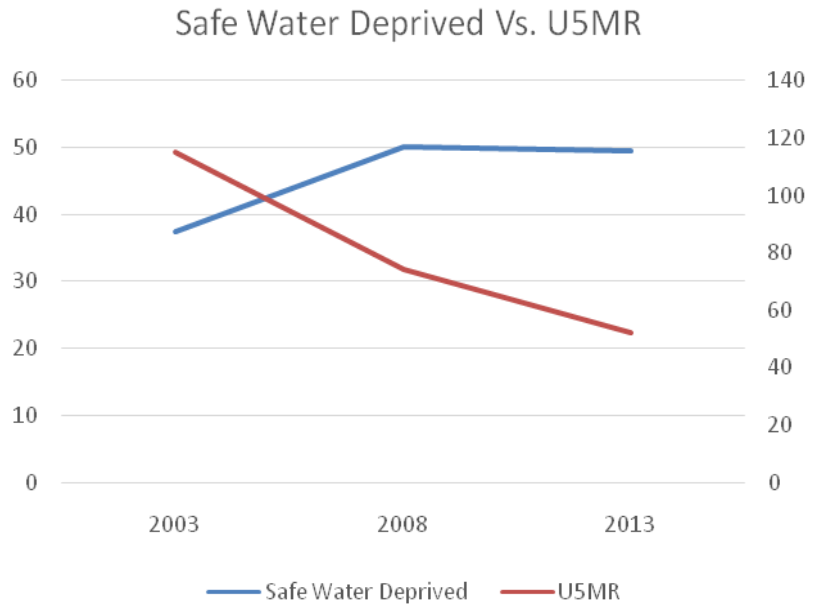


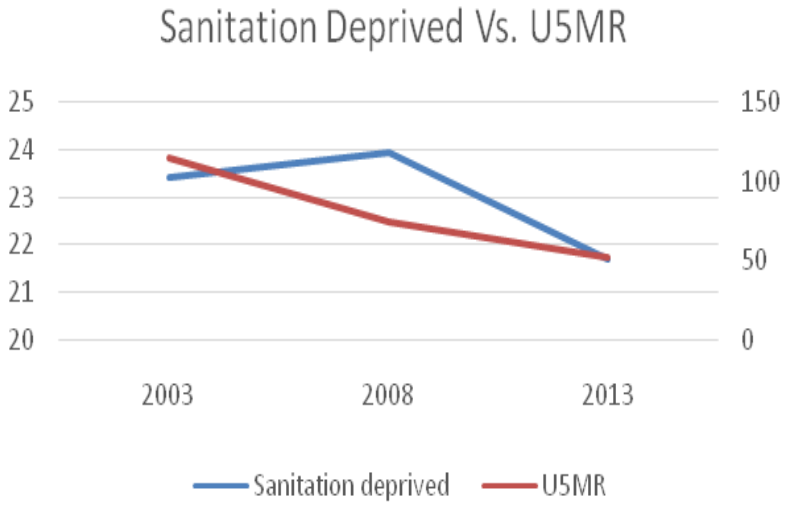


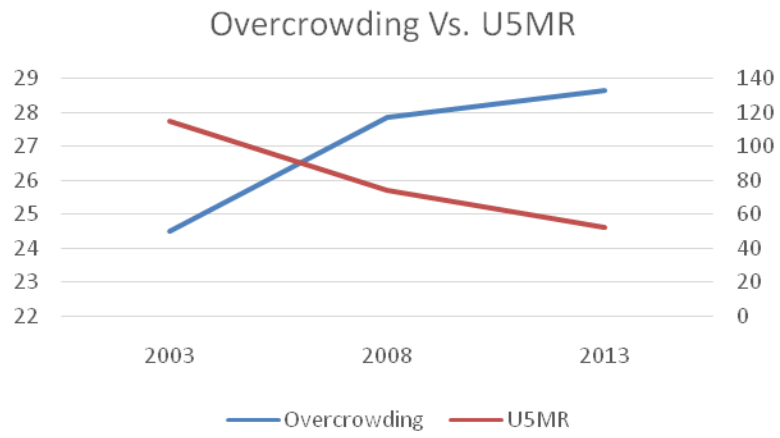


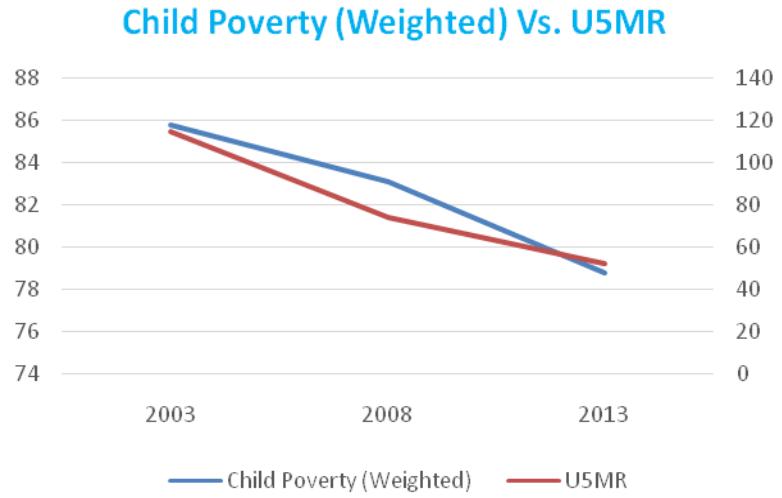


Trends in U5 Mortality and child poverty









Trends in U5 Mortality and child poverty

- Between 2003 and 2013, there was a downward trend in IMR, CMR and U5MR in both rural and urban areas.

- Rural areas had a more rapid decline compared to the urban areas, hence the gap in urban–rural differentials narrowed down to 57 and 56 for urban and rural respectively

- The decline in U5M is strongly explained by good immunization services, improved nutrition, increased access to health and education and information

- Conclusions: The narrowing gap between U5M in urban and rural areas may be attributed to severe deprivations of safe drinking water, sanitation and due to overcrowding conditions mostly associated with urban slums.

- To speed the decline in U5 mortality, there is need to improve the environment where children live particularly in slums in urban areas.

Conclusions

- Examining U5 mortality and child deprivations analyses is best revealed by combining income with other dimensions: health, education, nutrition, water, sanitation, shelter and information

- The study concluded that there exists a positive correlation between deaths among U5 children and severity of child poverty as measured by deprivations of health, nutrition, safe drinking water and sanitation, shelter, education, and information and classified as: not deprived, moderate and severely deprived

Recommendations

- Expand the scope with a shift from uni-dimensional measurements(using poverty line) to multi-dimensional approaches in determining U5M determinants

- For national surveys (DHS, MICS) which are most referenced in policy and practice, there is need to systematically combine income with other dimensions of child deprivations in analyses and reports.

- Concerted efforts should be made and geared towards implementing policies and programmes that address the access to basic social services, especially water, sanitation, and improving living conditions to reduce the high infant and child mortality in the high mortality areas of Kenya.

Acronyms

DHS : Demographic Health Survey

MICs : Multiple Indicator Cluster Survey

HBS : Household Budget Survey

IMR : Infant Mortality Rate – for children of 0 -11 months

CMR: Child Mortality Rate – for children of 12 – 59 months

U5MR: Under-five– for children 0 – 59 months Mortality Rate

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THANK YOU!