Reflections on child health

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The articles in this year's *South African Child Gauge* continue its now well-established practice of using research evidence and data to keep us all accountable to the most vulnerable in our society. The regular, objective and rigorous use of data and research to document trends, interventions and gaps allows for the identification of critical actions and actors required to improve the well-being of children.

The word 'gauge' derives from the Frankish word 'galgo' which was a 'rod or pole for measuring'. Ever since William Farr, the first Superintendent of Statistics in Britain's Office of the Registrar General, population measures have been at the heart of public health, epidemiology and evidence-based policy-making in the Western world. In Farr's case, he computed innovative national and sub-national measures of vital statistics and mortality to provoke public discussion and debate on the wide differences between cities and rural areas (where the mortality rates were much higher in urban settings), hence laying the ground for sweeping public health investments such as sewage and water works that still serve many English cities today. Meanwhile his French counterpart, Louis-René Villermé, was comparing mortality rates across parts of Paris which fundamentally changed theories of diseases, according to the historians Julia and Valleron:

> *… these studies contributed to the emergence of a new paradigm. Traditionally the neo-Hippocratic thesis dominated medicine and explanations of mortality difference were seen in the level of hygrometry, directions of the wind, orientation of the streets … With the census data and other surveillance Villerme was able to show how this was more related to changes of industrialisation and the wealth of the arrondissements.*[1]

A modern day comparison of the levels of mortality across different sub-districts in Cape Town has highlighted the continuing inequalities across the city. This is made even starker when the distribution of public health resources is plotted across the same districts. A phenomenon first described by the British GP Tudor Hart in England and Wales is also evident in Cape Town: Health resources are concentrated least amongst those who require them most. This example also illustrates the challenges of moving beyond description and towards actual policy change.

Whilst senior management has recognised the mismatch between need and supply, it has found it challenging to shift resources between sub-districts. This is partly because budgets are traditionally changed incrementally; so making large shifts is difficult. But the largest component of the budget is human resources, and moving health workers has proven very difficult. So the audience for this *Gauge* is not only policy-makers and politicians, but also ordinary health workers.

More recently, causes of death data have been collated for the different sub-districts in Cape Town. This analysis has brought to light the growing importance of non-communicable diseases. The rates of mortality caused by conditions such as strokes, diabetes, and heart disease were the same for poor districts such as Khayelitsha as they were for better-off sub-districts. Recent school surveys have found that levels of over-weight and obesity are almost the same as in Europe.

This finding is true across the whole socio-economic spectrum, with worrying implications for the future: These children are at increased risk of chronic diseases such as diabetes, hypertension and strokes later in life. Unless immediate action is taken to increase physical activity levels and modify diets, many children are going to face an even bleaker future. A future edition of the *South African Child Gauge* may wish to pay particular attention to this phenomenon which thus far has been relatively neglected.

Cause of death data have already played a pivotal role in shifting health policy. For many years the impact of HIV and AIDS in South Africa was either denied or seriously downplayed. Meticulous analysis by researchers from the Medical Research Council showed how AIDS was by far the leading cause of death in adults, and increasingly in children. Despite resistance even from their own management, the publication of the findings in an internationally renowned journal[2] was an important turning point in official recognition of the epidemic.

Unfortunately most people in Africa and Asia are born and die without leaving a trace in any legal record or official statistic. Absence of reliable data on births, deaths, and causes of death are at the root of this scandal of invisibility, which renders most of the world's poor unseen, uncountable, and hence uncounted.

Every year the births of around 51 million children go unregistered globally.[3] These children are almost always from poor, marginalised or displaced families, or from countries where systems of registration are not functional. The consequences for their health and well-being are often severe and long-lasting.

Although sub-Saharan Africa has the highest proportion (66%) of children not registered at birth, South Asia, with a corresponding ratio of 64%, has the highest number.[4] A recent UNICEF analysis revealed that high cost was the primary reason for the lack of birth registration in no fewer than 20 developing countries, resulting in large registration disparities between rich and poor children. In Tanzania, where overall birth registration is very low, there is a strong disparity between rich and poor, with only 2% of the poorest fifth of children being registered compared to 25% of the richest fifth.[5]

Approximately half the countries in Africa and southeast Asia have no cause of death data.[6] This lack of birth and death registration is not just a matter of deprivation of a basic human right. Recent evidence suggests it may also constrain economic growth. It is widely accepted that economic growth has, and continues to, depend upon a few key factors for which vital registration is critical. Firstly, registration facilitates the workings of a legal system that enables ordinary people to exercise their property and other rights. Secondly, it demonstrates, and gives confidence in, the capacity of the State to protect the property rights of the individual. Thirdly, a vital registration system is essential to develop any sort of universal social security system. Such a system has been shown to be vital in ameliorating the serious social problems of disruption caused by market growth. It also gives people the confidence to be more mobile in seeking economic opportunities, as leaving the family or present community network is not such a large welfare risk. It has been persuasively argued that the existence of a robust vital registration system is one of the key reasons why England was the first to undergo the Industrial Revolution.[7]

South Africa has made great strides in improving the coverage of vital registration. More than 90% of births and deaths are now captured in urban centers and the majority are also captured in rural areas with the proportion improving. The majority of births and deaths are now captured in official vital registration systems. The provision of widespread social benefits has greatly facilitated this increased coverage and serves as an important lesson for other countries.

The challenges are to improve efficiency in processing registration data such as death certificates, and for academics, civil society and government to engage with data to turn it into information and ultimately into knowledge that makes a positive difference in the lives of children. Publications such as the *South African Child Gauge* are an important contribution to this process.

References

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2 Groenewald P, Bradshaw D, Dorrington R, Bourne D, Laubscher R, Nannan N (2005) Identifying deaths from AIDS in South Africa: An update. *AIDS*, 19(7): 744-745.

3 Setel PW, Macfarlane SB, Szreter S, Mikkelsen L, Jha P, Stout S, Abouzahr C, on behalf of the Monitoring of Vital Events (MoVE) writing group (2007) A scandal of invisibility: Making everyone count by counting everyone. *The Lancet*, 370(9598): 1569-1577.

4 See no 3. above.

5 United Nations Children's Fund (2005) *The 'rights' start to life*. New York: UNICEF.

6 See no. 5 above.

7 Simon Szreter (2005) *Health and wealth: Studies in history and policy*. Rochester: Rochester University Press.