Child mortality is (estimated to be) falling

Undoubtedly child mortality is falling, and the world should be proud of this progress. Within the past 100 years, expectations around child mortality (and subsequently family size) have changed substantially, starting in countries that industrialised earlier and more recently pervading most of the world. Li Liu and colleagues,1 in The Lancet, describe detailed findings on the latest state of global child mortality. Naturally the levels of detail—by location, time, age, and cause of death—at which these findings can be presented in a single scientific article are limited, although a finer level of detail is available as online material. Liu and colleagues1 report that in 2015, among the 5·9 million under-5 deaths, 2·7 million are now estimated to occur in the narrow time window of the neonatal period (first 28 days of life), mainly around delivery or due to subsequent infections. They report that the leading under-5 causes of death were preterm birth complications (1·055 million), pneumonia (0·921 million), and intrapartum related events (0·691 million). Sub-Saharan Africa and Asia account for more than 80% of all under-5 deaths, with post-neonatal deaths mainly attributable to childhood infections and injuries. Reductions in mortality from pneumonia, diarrhoea, neonatal intrapartum related events, malaria, and measles were responsible for 61% of the total reduction of 35 per 1000 livebirths in under-5 mortality rates in 2000–15.

These headline outcomes were also reflected closely in the recently updated Global Burden of Disease Study estimates.2 Seeing different approaches leading to very similar findings in the two sets of estimates suggests high covalidity. All of these headline findings invite further exploration of the underlying detailed resources. Estimated numbers of child deaths are important, but are not very useful unless they are continually probed, interpreted, and applied into health policy solutions.

The UN Millennium Development Goals (MDGs), specifically MDG 4, have rightly focused considerable attention on child mortality in recent years.3 Although Liu and colleagues1 acknowledge that the goal of a two-thirds reduction in under-5 child mortality from 1990 to 2015 did not happen globally, more nuanced consideration needs to be applied to understand changing patterns of child mortality. Global goals and targets tend to be set on a one-size-fits-all basis, as was the case with the MDGs. However, there are notable exceptions. In 1990, South Africa had the lowest under-5 mortality rate in the sub-Saharan region, then encountered a massive HIV pandemic, but subsequently achieved a substantial improvement in child mortality towards the end of the MDG period. Using in-country data to reveal the details, this was dubbed “a successful failure” in terms of

References

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MDG 4.4 Additionally, country-level estimates could well obscure major geographical or socioeconomic inequalities in mortality that might well exceed intercountry differences.

In view of the substantial efforts that go into assessing global patterns of childhood mortality, it is important to consider additional creative ways of using and interpreting such findings. As well as the obvious need to monitor levels and trends of mortality over time and hold governments to account, mortality rates might also provide crucial pointers to other health and disease issues at the population level. Early life exposures are critically important1 and can exert epigenetic changes that affect the whole life-course, as expressed in the Developmental Origins of Health and Disease (DOHaD) hypothesis.1 Ideally, individual life-course information linking community and health facility events is needed to understand such processes, but rarely exists in low-income and middle-income countries.2 Clearly, early childhood death data cannot substitute on an individual basis for life-course details. However, each early child death probably reflects a similar set of exposures among a wider surviving peer-group, and making that connection could enable the application of indirect analytical methods, such as longitudinal estimates of population-attributable risks, to elucidate the health impacts of early stresses on later life.

In considering Liu and colleagues’ work,1 the world should not be proud of the persisting technical requirement to say that child mortality is estimated to be falling. Of the estimated 6 million under-5 child deaths in 2015, only a small proportion were adequately documented at the individual level, with particularly low proportions evident in low-income and middle-income countries, where most childhood deaths occur. Liu and colleagues,1 as well as other international groups,2 have made impressive methodological progress in applying increasingly sophisticated mathematical and computing techniques to the scant available data on child mortality, to arrive at reasonable estimates. Nevertheless, the proportion of child lives and deaths individually documented has not increased nearly as rapidly as (estimated) rates of child mortality have decreased. Despite the global information revolution—resulting in a single modern 256 gb laptop having enough capacity to hold a 250-character record on each of the 670 million under-5 children in the world, with space left over for full details of each of the 6 million annual under-5 deaths—such data are simply neither collected nor available.3

That 6 million under-5 children continue to die every year in our 21st century world is unacceptable, but even worse is that we seem collectively unable to count, and hence be accountable for, most of those individual deaths. A suggestion 5 years ago was that the MDGs lacked the hypothetical MDG 0, to increase coverage of individual vital registration beyond 95%.4 Instruments and expertise to expand civil registration and vital statistics (CRVS) still need much wider application.5 Automated verbal autopsy needs deploying as a routine part of CRVS, to track individual cause-of-death and decrease dependence on estimates.6 Disappointingly, the new Sustainable Development Goals (SDGs) do not explicitly mandate registering and counting major life events as the foundation for monitoring human health and development.7 Target 16.9, which calls for universal birth registration by 2030, almost implies by omission that registering other life events is unimportant, although Target 17.19 wishes for improved statistical capacity in general. But when will the world learn that slogans like “everyone counts—so count everyone” need to translate urgently into large-scale, globally funded actions that are determined to value every individual as the basic unit of observation for understanding and improving global health?8

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I declare no competing interests.

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1 Liu L, Oza S, Hogan D, et al. Global, regional, and national causes of under-5 mortality in 2000–15: an updated systematic analysis with implications for the Sustainable Development Goals. Lancet 2016; published online Nov 10. http://dx.doi.org/10.1016/S0140-6736(16)31593-8.

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The war in Syria has reached extraordinary levels of human suffering. Millions are displaced in Syria, throughout the region, and into Europe, an inestimable number of people killed, and hundreds of thousands are trapped in besieged areas. A popular uprising has been overtaken by a regional stand-off among great powers. The path that led us here calls into harsh light the utter failure of global governance and action to intervene to protect vast populations from the atrocities of war. The promises made and structures established in the wake of World War 2 have been broken, crumbling under political stalemates and lack of leadership at the UN. What is most disturbing to people in the region is the indifference and silence from the major nation states that defined the post-war consensus on law and norms relating to treatment of civilian populations in war.

In this shadow, The Lancet and the American University of Beirut have together established the Commission on Syria: Health in Conflict. The aim of the Commission is to describe, analyse, interrogate, and decry the calamity before us. The lens is health and wellbeing, always a productive way to assess grave issues of high mortality and morbidity, disruptions of home, family, settlement, environment, and such extensive loss that the future itself is hard to discern. With this Commission, we have embarked on the difficult effort to identify these costs and enumerate them where possible. Hence, the first task ahead is to account for the burden of war. We will also examine the challenges of the international response to the crisis and learn the lessons for future crises. The Commission will develop concrete recommendations to address the unmet current and future health needs, including those related to rebuilding and to strengthening the global health response to political conflict.

At the Commission’s first meeting in Beirut, Lebanon, on Dec 1–2, 2016, the participants recognised the terrible global meanings and dismal outlook of the conflict in Syria. But as members of the global health community, we must acknowledge our collective responsibility to respond through what we do best: science and advocacy. In so doing, we hope to advance global research, collaboration, and advocacy on matters of life and death in conflict—certainly at the core of our mission as health professionals in a globalised and increasingly violent world.

Many of the events and facts are widely known, a point that further underscores the enormity of the crime of inaction. The carnage in the cities and villages of Syria has left at least 250 000 people dead, but recent