Reviewer's report

Title: Progress towards the achievement of MDG4 in the Commonwealth of Independent States: uncertain data, clear priorities.

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Reviewer: Trevor Duke

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Progress towards the achievement of MDG4 in the Commonwealth of Independent States: uncertain data, clear priorities

This is a very important and well written editorial and I think the conclusions are largely correct. I have just a few minor comments.

Besides economic indicators (GNP, ODA, Gini coefficient) non-health sector indicators which may help explain the falls in U-5 mortality are not mentioned. I think particularly it is worth mentioning education of girls, which in countries throughout the world has been shown to be a more important determinant of child mortality and progress in child survival than any economic indicators, including expenditure on health. The 4 priorities in the conclusions: neonatal health, quality of care, social inequity and data collection are appropriate, and derived from the data that the authors used in their analyses. However if other data, such as on differences in education of girls between the 12 countries might have been analyzed, it is possible that the priorities may be expanded.

The paper describes some of the anomalies in globally available data on mortality in children under 5 years of age. Particularly the paper describes the fluctuations in baseline under 5 mortality rates for 1990 in 12 CIS countries, and apparently sudden falls in under 5 MR between 2004 and 2007 in the figures reported by UNICEF in their annual State of the World’s Children publication. The authors are right to question where the UNICEF figures are derived from (as these are rarely indicated in SOWC), however I’m not sure if the reason they give for the sudden drops is the only reason for apparently rapid changes. It is not entirely clear from UNICEF SOWC documents just how their under 5 mortality estimates are derived. It might be because of the availability of new DHS or MICS data, but other factors may be involved. DHS estimates have confidence intervals, and the years they refer to are not the year in which the data were collected, but usually a 5-year epoch preceding the data collection. Although the authors highlight that these more primary data sources (DHS and MICS) would be likely to lead to a greater understanding of mortality trends in these countries, they don’t use these data for their analysis. It would have been useful to do so, but a much larger exercise that would be difficult for 12 countries and not the scope of this paper. Thus, the methodology used by the authors, of analyzing secondary estimates from WHO and UNICEF between 12 countries is sound, but raises the questions as to how these data are derived, a question which is not
satisfactorily addressed in the UN agency publications.

It would be useful to indicate where the data from Table 2 came from, the sources are not stated.

The comparison between Moldova and Georgia is very interesting and the conclusions likely to be correct. It might be worth making the point in the sentence “Between 1990 and 2005-06, the U5MR fell by 53-55% in Moldova and by 32-36% (or by 4% if the 2004-05 data are used) in Georgia,” that Georgia has higher GDP and more ODA than Moldova, but the gains in child survival have been much greater. It would be interesting to explore this further to see how and to what extent neonatal mortality has been addressed, as an U-5 MR of 18 (Moldova in 2007) suggests some headway has been made on reducing neonatal mortality, and this, in the context of a system of universal coverage of essential public health interventions, may give some indication of the best approaches to take. If neonatal mortality data were available for these countries it would be useful to include, or perhaps explore in more detail in another paper.

I found the introduction a little hard going in terms of reading, and in terms of understanding how this relates to the main messages in the rest of the paper. The definitions of what “on track”, “off track”, and “seriously off track” are not given, so it is hard to understand if a minor change could result in a reclassification, and what the real significance of this would be anyway. The introductory paragraph seems to show general progress over time from 2007-2009, but Table 1 only presents the data up until 2007, so it is difficult for the reader to understand the progress in 2008 and 2009. Although this is what the opening paragraph is all about, but the remainder of the paper refers to the 2004-2007 data. Would it be useful to include 2008 and 2009 figures in Table 1?

“Based on the 2007 UNICEF report on the State of the World’s Children (SOWC),1 four (Belarus, the Russian Federation, Tajikistan and Ukraine) out of twelve countries in the Commonwealth of Independent States (CIS) were off track in 2005 as far as the achievement of the Millennium Development Goal on child mortality (MDG4) was concerned; four other countries (Azerbaijan, Georgia, Kyrgyzstan and Uzbekistan) were seriously off track, two (Kazachstan and Turkmenistan) were showing a reversal of the under five mortality rate (U5MR) since 1990, while only two (Armenia and Moldova) were on track. In 2006, based on the 2008 SOWC,2 three countries (Ukraine, Azerbaijan and Georgia) were seriously off track, three more (the Russian Federation, Tajikistan and Uzbekistan) were off track, all the other countries were on track, including the two that were showing a reversal in 2005. For the 2009 SOWC,3 only Ukraine remained seriously off track in 2007, the Russian Federation, Tajikistan and Georgia were off track, all the other countries were on track....”

This is an excellent paper which will be of great value in better understanding progress towards MDG-4 goals. There have been too few critical analyses of country situations in regard to this issue, and it adds to the papers from Mexico, Tanzania, Morocco, Chile and just a few other countries. The authors are to be congratulated for this important paper.
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Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Declaration of competing interests:

'I declare that I have no competing interests'