Author's response to reviews

Title: Are global health initiatives enabling countries put sufficient health workers in place to deliver services?

Authors:

Ruairí Brugha (rbrugha@rcsi.ie)
John Kadzandira (johnkadzandira@rcsi.ie)
Joseph Simbaya (josephsimbaya@yahoo.com)
Patrick Dicker (patdicker@rcsi.ie)
Victor Mwapasa (vmwapasa@medcol.mw)
Aisling Walsh (aislingwalsh@rcsi.ie)

Version: 2 Date: 12 February 2010

Author's response to reviews: see over
RESPONSE TO REFEREE’S COMMENTS
12.02.10

Firstly, we would like to thank the reviewer for posing questions that helped us identify flaws in both the data and its interpretation. Below are responses to each point. We have also summarised other changes made.

Reviewer’s report: This is an example of useful and important research. I have made lots of comments and suggestions, although I have struggled to distinguish between what I would call compulsory or minor revisions, especially as I have had to do this relatively quickly. Many of my comments relate to improving clarity on the meaning of the data presented. So my comments are mainly about improving clarity. I hope they help!

ABSTRACT
Re-drafted to reflect revised health worker data from Zambia.

BACKGROUND
We have left background data as is so as to reflect scale up until 2007, covering the period of data collection.

A more detailed table showing Global Fund and PEPFAR grants is included (Table 1) and the summary of GHI disbursements to human resources has shifted from the discussion to here.

Major compulsory revisions / Minor essential revisions

1. The description of the sample of facilities was inadequately detailed. I think it would be useful to have a table describing the sample of facilities actually used for the data analysis, and an indication of the number that were government, mission and non-government. It should also include what is known about the facilities within the districts that were excluded from the data analysis (e.g. the central hospitals in the urban areas).

New text on page 3 under Sampling. Because the two countries have different facility ownership patterns (more NGO/faith-based providers of HIV services in Zambia) and different sampling strategies were used in the two studies, this has been dealt with in the text instead of as a table.

2. The paper states that a random sample of facilities not providing ART were selected. But I didn’t see any separate analysis of the HRH and workload statistics of these facilities, compared to those that were providing ART. This would help show a possible impact of HIV funding on the rest of the health system.

Malawi: a probability sampling (of public sector facilities only as they were the main providers of core HIV services) was done prior to mapping and quantification of ART service delivery. The implications of the sampling strategy are considered in the text.
Zambia: This has been addressed on page 3 – sampling: All fixed health facilities in the three districts were mapped and
a) all ART-providing facilities were sampled, as the objective was to describe and measure the health systems effects within both public and NGO ART/HIV service providers.
b) a small purposive sample of other facilities that were not ART providers but were considered by DHMTs to be important providers of other HIV services, including prevention and support, was also surveyed

A new analysis has been included that analyses clinical staff allocation and workload, stratified by whether facilities were delivering ART or not: see new Figure 3. A comparison of the different health worker allocation responses in the two countries in the light HIV/ART scale-up is included in the discussion.

3. In results section, it would be useful to make the point at the outset that ‘OPD visits’ as per Figure 1 means non-HIV attendances. At the same time, it would be useful to describe what is known about the composition of these ‘OPD visits’. Do they include ANC visits, and routine immunisation visits, for example, and do these visits make a big proportion of the total?

We have specified in the second paragraph of ‘Results- record reviews’ (p.5), that OPD visits estimates exclude HIV and antenatal clinic attendees.

4. In Figure 1, there are mixed data – some is of number of clients, others are of number of visits. Comparing ART clients against OPD visits is confusing – can this be addressed? If it shows the number of clients, is this a reasonable proxy for number of visits, and adequately comparable to OPD visits? Same with PMTCT clients. Do these figures reflect workload related to PMTCT only, or does it also include ANC care for HIV positive pregnant women?

In Zambia, we collected data on OPD visits at the facility reviews, as a proxy for workload. We were able to get data on OPD clients from the DHMT. Our problem is that we only have comparable data from Malawi on OPD visits. To get data on OPD clients in Malawi, we would have to go back to national offices, and possibly to the facilities (or at least the 9 district offices), which would be very difficult and perhaps impossible.

We could either omit or keep the OPD visits’ lines from the line graphs. We feel the latter is better, as they at least illustrate that scale up of both types of activities is taking place, even if the indicators are different.

OPD client data in Zambia does show a similar trend to that of OPD visits. Specific PMTCT data were collected in both countries, separate to antenatal care data. Figure 1 shows PMTCT data.
5. There is a major difference between Zambia and Malawi that is not really explained in the paper. In Malawi, OPD visits are consistently higher than ART clients. In Zambia, ART clients outstrip OPD visits massively. What is going on here? My first reaction was to think that the Zambia data in Figure 1 is incorrect - unless the facilities selected in Zambia were primarily HIV clinics. Which goes back to the point 3 made earlier. Either way the differences between the countries reflected in Figure 1 should be discussed and explained.

The reviewer’s observation, which we missed in our initial write up and interpretation, is correct. We have now explained the different nature of the ART scale-up and the effect of the different sampling strategies across the two countries. A small number of very large, mainly Lusaka-based ART providers account for most of the ART scale-up in Zambia.

6. Table 3 is very useful and obviously key. In addition to also looking at the differences between ART and non-ART facilities (as mentioned in point 3 above), it would be useful to have some comment on the extent to which health workers are HIV-specific versus non-specific. When it comes to HIV counsellors, this is clear. But to what extent were HSAs in Malawi used specifically to work on HIV, and similarly for the rise in urban doctors, nurses and technicians – is there any sense of the proportion of the increase in numbers that were HIV-dedicated, versus being more generalised HWs? A second point about the data in Table 3 is to describe the extent to which HSAs and HIV counsellors are full time or not. In some countries counsellors may be employed on a full time basis; in others, they may be employed to work two days a week.

Questions asked in Zambia on time allocation to HIV and non-HIV services by general staff did not elicit data of sufficient quality to answer that question. Data were not sought to distinguish full-time from part-time counsellors or to estimate their time allocations to this work.

Trends in HIV service specialisation versus task sharing, including differences between rural and urban areas, is the focus of another paper, based on a questionnaire administered to facility managers in Zambia which has since been submitted for peer review.

The Malawian co-authors included a specific module (a questionnaire) on staff time allocation to specific HIV/AIDS related services, which would merit a separate paper. The data collection tools in the two countries were sufficiently different to preclude a cross country paper on task sharing.

7. In figure 3, it was not clear what the workload indicator was. Was it for non-HIV OPD visits, or for all visits? I presume it’s a measure of all workload, in which case the figure needs to be re-labelled.

It now labeled to show it is for routine non-HIV OPD.
8. Page 7, second last para: it states that increase in HIV workload has been superimposed on ‘increases in routine outpatient workload’ - but Figure 1 suggests this not the case in Zambia; and it would be useful to have disaggregated data on routine OPD workload trends (e.g. rural versus urban).

We have included disaggregated OPD visit data on p.5 (under Results, Record Reviews, 3rd paragraph) for rural and urban Zambia. It shows within an overall decrease in OPD numbers, an increase in the rural district that was less than the decrease in urban facilities.

9. I am concerned about the limitations to the data, particularly the exclusion of the central hospitals and NGOs/private sector. This could have a huge effect on the calculation of staff: population ratios to the extent that the data in Figure 2 are meaningless. Can you give more detail of how the catchment populations for each facility were calculated, and whether it adjusted for other providers/facilities in the locality?

The limitations of such data in urban areas are acknowledged on p.13 (second last paragraph on Getting better evidence for action). Catchment populations were obtained from census data in Malawi and from DHMTs in Zambia. They were not available for district hospitals in Malawi and large urban facilities (tertiary hospitals in both countries and large NGO/faith-based facilities in Zambia).

Given the limitations, which pertain particularly to urban areas and to Malawi, where only public sector and faith-based facilities were sampled, we have deleted the previous Figure 3. What we believes justifies retention of the data in the text are the trends over time, which have greater validity in rural districts, especially Zambia where all rural fixed ART facilities were sampled.

10. Page 8 – caveats and limitations: Overall, there are very significant data limitations, and it’s hard to judge how bad these limitations are and to what extent the data are ultimately good enough. I felt concerned that the data may not be good enough! I also wonder if some of the limitations could be explained more in the methods section, as it helps the reader better interpret the data earlier in the paper.

We have moved most of the methodological caveats and how data problems were dealt with to the methods section and retained some higher order issues and consideration of the consequences of data problems in the discussion.

11. The doubling of clinical: population ratios in urban Zambia is striking. But it wasn’t clear to me how this was achieved. The paper mentions a rural-urban drift of health workers, but this seems an inadequate explanation. Was it simply that there was an expansion in the number of
posts and positions, created by HIV funding? Or is it that a higher proportion of urban Zambian facilities are non-government, compared to in Malawi, and that they are able to make better use of external funding to hire and recruit short-term contract workers? Perhaps more discussion on this?

*Numbers for Zambia table 2 have changed (we had incorrectly included facilities that reported staff at the later but not the earlier time period in the earlier analysis). New analysis shows a slight decrease in rural clinical staff-population densities, and only a slight increase in urban densities.*

12. Conclusions and discussion. Page 10, second para: Zambia appears to have been more effective in recruiting and retaining health workers. Is this really the case? Is it short-term? And what about in rural areas? Comes back to point 17 made earlier.

*As above, see new analysis, which shows a slight decrease in clinical staff in Zambia from 2004-2008. The discussion now considers why the Zambia data show no improvement in clinical staff numbers.*

13. The section on interviews I found to be a little unclearly organised. I wonder if the structure should be country by country, but that within each country sub-section, there is a clear framework for presenting the data?

Discretionary Revisions

*This has partly been addressed. However, the Malawi data pertains more to scale-up and workload generally, and the Zambia data refer mainly to the rural-urban divide, so the findings are not always comparable; and in the discussion we first draw attention to the Zambia findings.*

14. When discussing the data or presenting data, it would help to always maintain the same sequence. i.e. always discuss and present Zambia first and then Malawi, or vice versa. But it helps the reader to keep consistent (in text, in figures and in tables).

*This has been addressed.*

15. In Table 3, I would present the data in such a way that the numbers of technicians doesn’t appear to be clumped together with the number of HSAs and HIV counsellors.

*This was a formatting issue.*

16. The urban-rural differences are quite stark within Table 3, and I wonder if these data should also be presented diagrammatically as done in Figure 3.

*The new analysis shows that the differences are not so stark.*
17. The quote from the hospital lab technician struck me. Were there any comments about the impact of HIV lab work on other lab work?

Some positive system-wide effects were reported, with respect to infrastructure and non-HIV patient care, though not specifically with respect to lab work. One sentence has been included, though this is not central to the paper.

18. On page 7, at the bottom of page, the paper talks about the differences between the three Zambian districts in terms of which received global fund support and which got pepfar support. This was unclear. Was GF funding targeted at specific districts?

We removed the sentence, as Global Fund support could not be tracked down and attributed to particular districts, although rural Mumbwa could be specified as a non-PEPFAR district

19. Page 8, para 1: HSAs are supposed to be in community-based. But isn’t it true that HIV/AIDS has caused many HSAs to become increasingly facility-based?

True, but the Malawi team did not collect data on the shift in HSA geographical location and duties. This is being looked at in a subsequent study.

20. Page 8, para 2: I couldn’t understand how the rural-urban inequity relates to caveats about the data?

We have removed this section.

21. Some of the description of the different uses of funding from GF and pepfar which are in discussion on page 9, last para – could be usefully combined into Table 1. When you first come to Table 1 earlier in the paper, you want to immediately know a little about the HR and HIV components of each of these proposals, but it isn’t till page 90 that you get a sense.

Available data have been added to table 1 and reported in the Background, except the reference to the re-allocation of the Malawi Global Fund grant, which fits better in the Discussion.

22. Conclusions and discussion. I think the different approach of the GF in Malawi vis-à-vis the EHRP and its approach in Zambia is worth drawing out. In other words, it’s not just a case of differences between countries, or between funders, but also differences within the Global Fund?

This point is now made in the last paragraph of the discussion.

23. The failure of pepfar-funded organisations to make data available should be highlighted much more. This is really unacceptable! By contrast, the paragraph on mixed methods could be removed. I’m not sure if there is any argument against the need for more mixed methods?
We have removed the paragraph on mixed methods.

PEPFAR funded recipients did not provide data on HIV services; but we were able to obtain these data directly from facilities. Reluctance to provide data was an issue in dealings with the DHMT in Lusaka – possibility of a capital city issue. But we don’t feel the experiences of our colleagues would be sufficient to justify a statement on the latter.