

Comments on the case-control study on access to health care and child mortality

We have some comments and queries related to the paper "Access to health care and mortality of children under 5 years of age in the Gambia: a case control study" published in the *Bulletin of the World Health Organization*.¹ We appreciate the earnest attempts of the authors in measuring the effects of non-traditional variables in addition to traditional variables. However, the instrument to measure the social support variables shows vast overlapping, with such options as "someone who understood your problem", "showed kindness and caring" and "someone to relax". These are shown as individual variables and are heavy in both informer and observer bias. It would have been more appropriate to combine them into a complex variable. Further, "had someone to prepare meals if you were unable to" overlaps with "some showed kindness and caring".

Whereas standard textbooks in epidemiology suggest a maximum ratio of 1:4 between cases and controls,² the authors have not justified choosing 1:5 for their controls. Choosing controls from the same village would have strengthened the result in terms of general availability and accessibility to transport, thus minimizing the bias. Further matching for socioeconomic status (though a tough proposition) could have strengthened the results. Since 10 controls were randomly chosen for each case before deciding the first random 5 for controls, matching for socioeconomic status could have been a distinct possibility. Similarly the village of residence could also have been matched. Describing the method of deciding the centre of a village would have been useful as well.

The study period stretches over 28 months (31 December 2003 to 30 April 2006). The extra cases and controls included for the last 4 months of data collection would modify additional recruitment in that season, the variation of which might have influenced the results.

Under causes of deaths, "fever of unknown origin" accounts for 23.3%.

We feel that such a high percentage does not realistically reflect the situation. The "non-specific cause" of 24.8% makes the picture even more vague as the close identification of these causes could have given further clues on the variables measured. In total, almost half the cases are in these two categories, which is a huge deficit of information.

Table 1 in the paper says 52.9% of deaths were at home and 89.3% visited health centre or hospital. The proportion of deaths within or outside the variable of "visiting the health centre or hospital" needs further discussion.

Finally, though the authors are right that further studies are required, some specific recommendations (in conclusion) from the present study should have been made, for example, organizing community crèches to look after children when the primary caregiver is away. It is curious that a major conclusion is drawn from a reference³ rather than from the present study. ■

Competing interests: None declared.

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References

1. Rutherford ME, Dockerty JD, Jasseh M, Howie SRC, Herbison P, Jeffries DJ, et al. Access to health care and mortality of children under 5 years of age in the Gambia: a case-control study. *Bull World Health Organ* 2009;87:216-24. PMID:19377718 doi:10.2471/BLT.08.052175
2. Hennekens CH, Buring JE. Chapter 6 Case-control studies. In: *Epidemiology in medicine*, first edition. Boston, MA: Little Brown and Company;1987: p.142.
3. Fantahun M, Berhane Y, Wall S, Byass P, Hogberg U. Women's involvement in household decision-making and strengthening social capital-crucial factors for child survival in Ethiopia. *Acta Paediatr* 2007;96:582-9. PMID:17306012 doi:10.1111/j.1651-2227.2007.00147.x

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