
Comparison between two surveillance methods, or feasibility of implementing the chosen surveillance method? Implications for study design and reporting

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SUMMARY

Policy-makers usually face a dilemma of 'choosing between two methods of surveillance for a disease event', or they may face a question to ascertain 'whether a chosen method is feasible in the given circumstance'. These two are different questions.

This study assessed the feasibility of using community health workers (CHWs) to conduct verbal autopsy (VA) interviews in a subcounty of a district in Uganda. The authors selected CHWs from village health teams of 36 villages and trained them to conduct VA interviews. The CHWs identified all deaths that occurred during 2016 retrospectively and then conducted VA interviews with the next of kin of the deceased using the WHO 2014 VA questionnaire. The cause of death was interpreted using the InterVA-4 tool.¹ Of the 230 identified deaths, 123 (53.5%) were reported to have happened outside of any healthcare facility; the authors attributed this additional yield of 53.5% deaths to the CHW-led initiative which would have otherwise been missed by the then existing reporting system. Moreover, cause of death from VA was reported to be consistent with that of previous studies² and national estimates. The authors concluded that CHWs can provide better mortality measures than the existing passive surveillance and can conduct good VA interviews that can provide valid cause-of-death information.

COMMENT

It is crucial for authors to decide *a priori* and clearly state in the

objective whether they intend to carry out a comparison between two surveillance methods, or to assess the feasibility of implementing the chosen surveillance method.

The information on cause of death is essential to understand health problems that are causing mortality in a population and accordingly plan for appropriate health policy responses.² This information can be obtained either from a country's Civil and Vital Registration System (CVRS), or from VA in settings where the former is weak.³

There might be situations when policy-makers would have to choose between two different surveillance systems that can provide cause-of-death information, that is, between the CVRS and VA. This decision will depend on the country's local need for a credible source of cause-of-death information in terms of cost, resource availability, training and sustainability of the system to provide the required information. If comparison between different surveillance systems (as in this case, between CVRS and VA) was the objective (as has been implied in this article's title and conclusion), then the methodology should include attributes that assess a surveillance system for health events, such as positive predictive value, timeliness, stability, simplicity, flexibility, interoperability and cost of the proposed systems.⁴ However, the present article does not cover an assessment based on any of these attributes, despite the title and conclusion claiming this to be a comparison of the two methods of surveillance.

There might also be situations when policy-makers have to assess the feasibility of introducing, implementing and sustaining a chosen method of surveillance system to provide cause-of-death information. If that was the objective (as has been explicitly mentioned in this article, in the objective and methods sections), then the approach will no longer be comparison between the existing and new surveillance systems as discussed above. The appropriate method in such a case would be to assess the feasibility of implementing this approach under various domains such as acceptability and demand for this new strategy by all the stakeholders; issues of barriers and challenges to implementation; practicalities of resources and contextual issues and requirement for adaptations and possibilities for integration into the existing information systems.⁵ Although not mentioned in the methods and results sections, some of these attributes of feasibility assessment including implementation (e.g. CHWs' training and selection of deaths and respondents) and practicality (e.g. quality assessment of interviews) were addressed by the authors. In addition, future prospects for adaptation (e.g. scope of InterVA-5 tool) and integration into the existing system and expansion

(e.g. CHWs in vital statistics and community disease surveillance) were discussed. However, despite these variables, acceptability of the proposed system, which is considered a cardinal attribute of any feasibility assessment, was not addressed in the article. This might limit the usefulness of the findings if the proposed strategy fails to convince the stakeholders.

Tracking vital events through VA by community volunteers can supplement the CVRS, and thus help decision-making in public health by improving the coverage of registration events. We have highlighted this mismatch between the intention reflected in the title of the article (which was to compare the two surveillance systems) and methodology (which was an assessment of feasibility), giving (mixed) results that are difficult to interpret and consequently of limited value to policy-makers. Perhaps the scope of the study was limited to assess the perspective of feasibility in detail. The purpose of a study should be clearly delineated in its title and objective and the methods should be accordingly designed, performed and reported.

Conflicts of interest. None declared

REFERENCES

- 1 Umeå Centre for Global Health Research. Inter-VA; 2018. Available at <http://interva.net> (accessed on 10 Aug 2019).
- 2 Mathers CD, Fat DM, Inoue M, Rao C, Lopez AD. Counting the dead and what they died from: An assessment of the global status of cause of death data. *Bull World Health Organ* 2005;**83**:171–7.
- 3 United Nations Statistics Division and Vital Strategies. *Guidelines on the Legislative Framework for Civil Registration, Vital Statistics and Identity Management, Final Draft; 2019*. Available at https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/CRVS_GOLF_Final_Draft-E.pdf (accessed on 28 Apr 2019).
- 4 German RR, Lee LM, Horan JM, Milstein RL, Pertowski CA, Waller MN. Updated guidelines for evaluating public health surveillance systems: Recommendations from the guidelines working group. *MMWR Recomm Rep* 2001;**50**:1–35.
- 5 Bowen DJ, Kreuter M, Spring B, Cofta-Woerpel L, Linnan L, Weiner D, et al. How we design feasibility studies. *Am J Prev Med* 2009;**36**:452–7.

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