Reviewers report

Title: Evaluation of the national surveillance system for point-prevalence of healthcare-associated infections in hospitals and in long-term care facilities for elderly in Norway, 2004-2008

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Reviewer: Benjamin Silk

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This is an evaluation of an important public health surveillance system in Norway. The authors have demonstrated their considerable expertise in surveillance for healthcare-associated infections (HAIs) in healthcare settings. However, the evaluation itself could be more quantitatively rigorous and important details are missing from the report. Some of the key findings appear to be subjective conclusions based on the authors' viewpoint, rather than explicit presentations of measurement approaches or data/evidence.

Major Compulsory Revisions

1. The methods section needs far more detail to clarify how certain attributes (e.g., simplicity) were actually measured or evaluated. With the current content, the reader can only determine that the methodological approach was a mix of surveys, interviews, and data reviews; none of these are described further. For example, a conclusion is reached that the system is simple but there is no information on how exactly simplicity was measured/evaluated. Similarly, it is determined that “Users consider the protocols comprehensible at most points,” but measurement of comprehensibility is not specified. Did the questionnaire use a Likert scale? Were qualitative, interview data synthesized? The reader can only guess. Similar comments sometimes apply to other surveillance attributes.

2. The evaluation is ostensibly based on the U.S. Centers for Disease Control's (CDC) “Updated Guidelines for Evaluating Public Health Surveillance Systems,” which includes nine attributes (simplicity, flexibility, data quality, acceptability, sensitivity, predictive value positive, representativeness, timeliness, and stability). A similar, but not identical list of attributes is evaluated in the authors' report. Of course it is not essential that the same nine attributes from CDC be evaluated, but an explanation of the rationale for using different attributes would be helpful.

3. The report refers to CDC case definitions for HAIs, but these definitions are not provided and there is no associated reference to the CDC document(s). As such, it is not possible to know what exact HAIs are actually being monitored by surveillance; furthermore, the evaluation of these case definitions is unclear. The report also refers to the NIPH website and other references that describe the case definitions, but realistically many readers will not invest time to search for these other references in order to understand the authors' report. Therefore, a
clear presentation of the case definitions in the report itself is recommended.

Minor Essential Revisions

1. References to table numbers in the text should be checked and corrected.

2. Under study of validity, the text suggests a comparison of site of infections as the focus of the evaluation. However, the corresponding table (table 2) suggests measurement of whether any HAI was recorded or not. It would be helpful to resolve this potential ambiguity.

3. At least two sentences include vague date references that could be clarified. Under other validity issues, the first sentence reads “… organise one or both surveys on other dates.” This may leave the reader wondering whether these other dates were generally proximal or distal to dates announced by NIPH. Under timeliness, the first sentence reads “… in the days after the survey.” Knowing how many days this actually is seems importance for characterizing timeliness.

4. In Table 3, the meaning or significance of “use of 48 hours cutoff” is not readily apparent. An explanatory footnote would be valuable.

Discretionary Revisions

1. In the introduction, data on the frequency of HAIs in Norway would help orient the reader to the scope and size of the problem of HAIs. Presumably these data are readily available to the authors since Eriksen (a coauthor) and others have previously published similar data. To a lesser extent, the prevalence of HAIs in hospitals and long-term care facilities (LTCFs) is later presented as results under the subheading ‘usefulness.’ Yet, this presentation could also do more to demonstrate how the surveillance system has met its objectives in relation to actual prevention and control of particular types of HAIs through specific interventions and awareness. Ultimately, this would be the most meaningful evaluation of the surveillance system.

2. It would be interesting to know the relative frequencies of the particular acceptability issues that were cited. This would help the reader identify those issues that are especially important, given that many issues were identified among hospitals and LTCFs (technical problems, lack of resources, etc).

3. The discussion section’s content could be improved with a comparison to other relevant studies or similar evaluations, assuming they exist. Notably, there are no citations in the discussion, which is unusual.

4. Is the second figure (the screenshot of the data entry screen) useful given that most English readers will not understand the content of that webpage? An equivalent version of the webpage may not exist in English, so a decision to omit the figure may be needed.

**Level of interest:** An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.