

# Evidence-based public health and information needs of public health workers: a systematic search and review

Jill Barr-Walker<sup>1</sup>

<sup>1</sup> Research conducted as part of MPH thesis at London School of Hygiene & Tropical Medicine

## Objective

This study aims to assess the information needs of public health workers based on a review of the literature using a systematic search strategy.

## Methods

### Screening

- Databases searched: PubMed, Web of Science, Library Literature, LISTA
- Inclusion criteria: English language, published between 2005-2015, primary data collection only, study population of PH workers
- After screening 1037 records, 12 qualitative studies and 21 quantitative studies (total= 33) were included in the final analysis.

### Data extraction & critical appraisal

- What is critical appraisal?
- The process of carefully and systematically examining research to judge its **trustworthiness** and its **value** and **relevance** in a particular context<sup>1</sup>.
- Data extraction and critical appraisal were conducted using CASP (qualitative) and STROBE (quantitative) checklists<sup>2,3</sup>.

### Example questions

- Was data analysis sufficiently rigorous? (CASP)
- Discuss generalizability of study results. (STROBE)
- Describe efforts to address potential sources of bias. (STROBE)

## Results

- Critical appraisal revealed potential biases that affected the validity of studies.
- Five themes emerged in the analysis: defining information needs, defining evidence-based information, information-seeking behaviour and use, barriers to information needs, and public health-specific issues.



Fig. 1 Critical appraisal issues identified in the analysis of 33 studies.

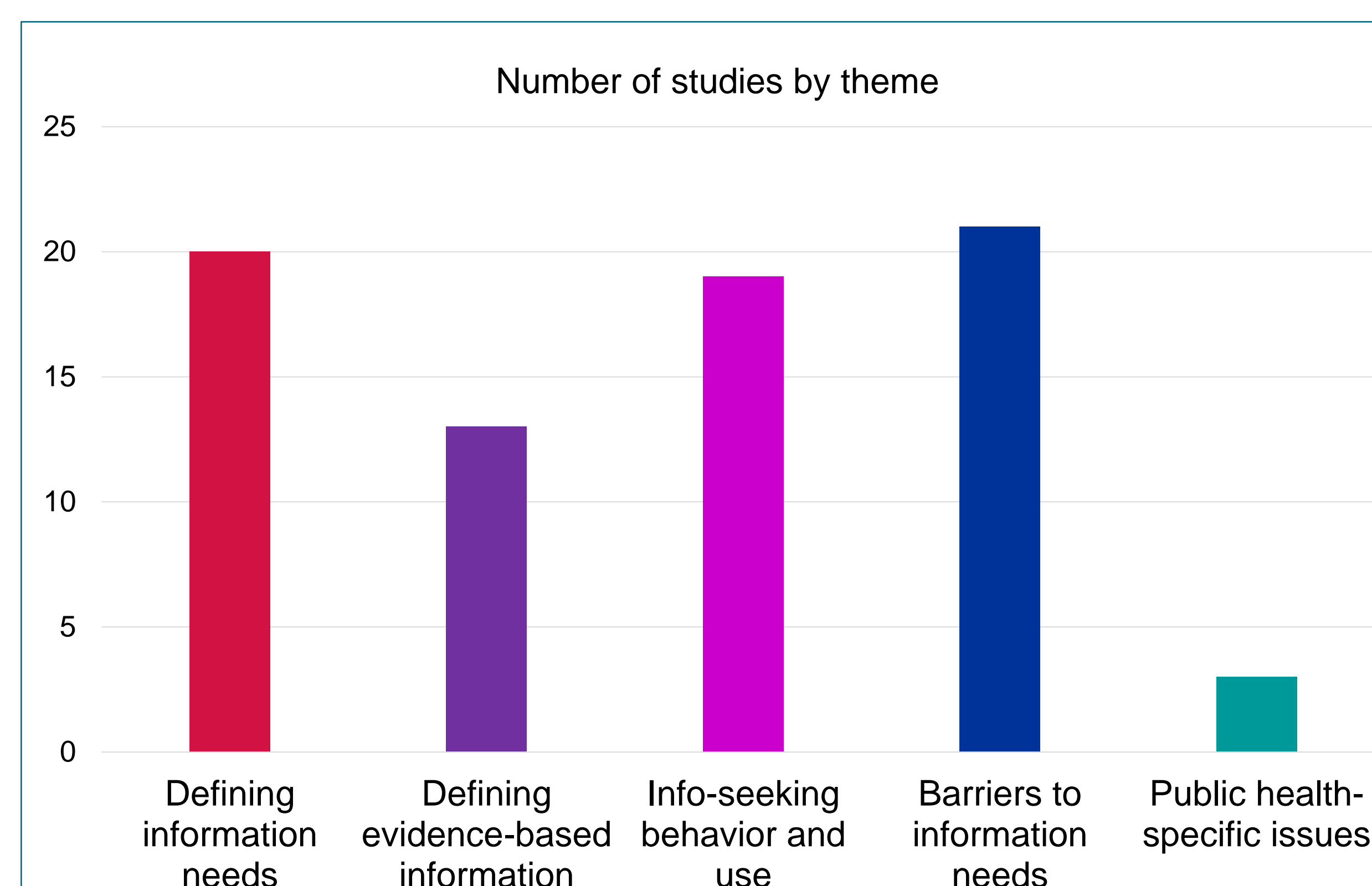


Fig. 2 Themes identified in the analysis of 33 studies.

## Conclusions

- PH workers do not have a clear understanding of evidence and how to apply it to PH practice
- PH workers are unaware of library services including databases and librarians' expertise
- PH workers are interested in improving their skills in epidemiological research methods and finding & using information to inform practice
- Research studies conducted by librarians had low internal and external validity

### Recommendations for librarians working with public health populations

- Teach evidence-based information basics (e.g. what is evidence, importance of peer-review)
- Increase awareness of library collections, services, and public health-specific resources
- Measure actual use of library services in addition to reported use to inform purchase decisions and outreach needs

### Recommendations for librarians conducting research

- Increase sample size to increase generalizability
- Use multiple data collection methods
- Pilot surveys to increase face & content validity
- Analyze data; do not report primary data
- Acknowledge potential biases and confounders

## References

1. Burls, A. (2009). *What is critical appraisal?* London: Hayward Medical Communications.
2. CASP. (2013). *CASP qualitative checklist*. <http://www.casp-uk.net/#casp-tools-checklists/c18f8>
3. Institute of Social and Preventative Medicine at the University of Bern. (2007). *STROBE statement*. <http://www.strobe-statement.org>