

## Background

Evidence-based public health (EBPH) integrates use of best available evidence with judgements from stakeholders to benefit population needs. It involves applying the five principles of evidence-based health care (EBHC) to public health decision-making. To inform a workshop on EBPH in Sub-Saharan Africa (SSA) as part of the Collaboration for Evidence-based Healthcare and Public Health in Africa (CEBHA+), we conducted a scoping review of existing EBPH training initiatives.

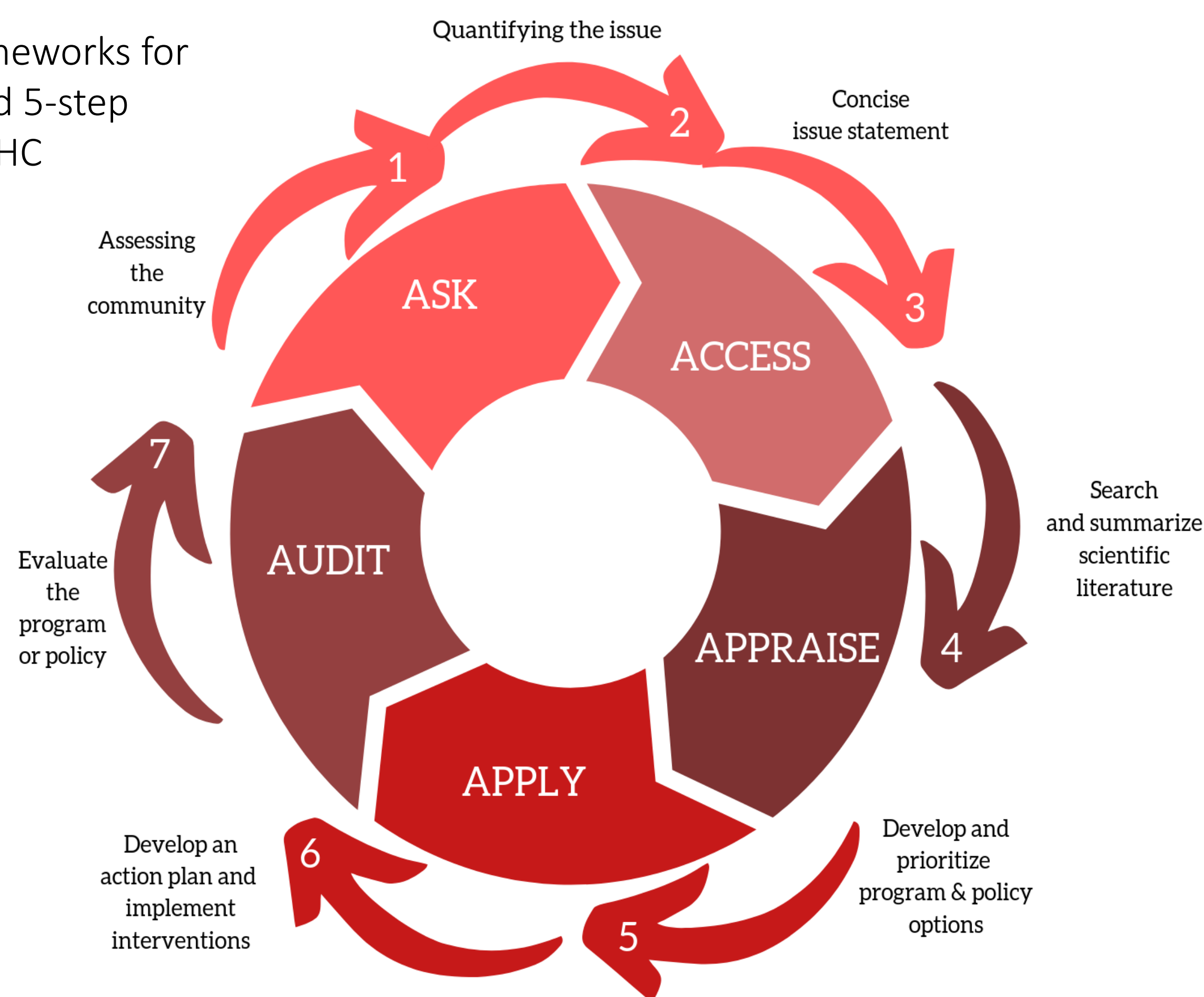
## Methods

We included any type of training initiative at postgraduate or continuing health professions education level, in any country, irrespective of duration and format (online, face-to-face or blended). Courses were included if they explicitly referred to EBPH, referred to any one or more steps of EBPH, and were either described in published reports or on websites of institutions. We developed a search strategy to identify published reports and searched PubMed, Web of Science, Scopus and CINAHL (25 June 2018). In addition, we conducted a snowball search on Google to identify courses described on websites. We contacted experts in the field and authors of published reports for further courses and missing data. Two authors independently screened titles, abstracts and full texts. One author extracted data using a pre-specified data extraction form, which was checked by a second author. We reported on existing courses narratively and summarised characteristics in table format.

## Results

We identified a total of 23 reports of EBPH courses. Twenty of these were described in published papers, and three were described on websites of institutions (Figure 1). Twelve courses were based on the course 7-step EBPH framework (Figure 2), and were almost identical to the first course developed by Saint Louis University in 1999.

Figure 2: Frameworks for the 7-step and 5-step process of EBHC



We therefore viewed these courses as one unique course, offered in various settings (Table 1). The remaining 11 courses were based on the 5-step EBHC approach (Table 1). We thus included 12 unique courses that provided training on EBPH in our scoping review. All courses were offered in high-income countries (Figure 3), as face-to-face or online courses and included several teaching strategies for delivering the content.

## Conclusions

Capacity development is crucial for meeting the needs of evidence informed decision making. With no existing EBPH courses in SSA, this scoping review may serve as a guide in adapting courses to local requirements and provide opportunities to public health professionals for using an evidence based approach in making policies or decisions for the benefit of the community at large.

Figure 3: Courses across countries according to the 7-step EBPH framework and 5-step EBHC approach

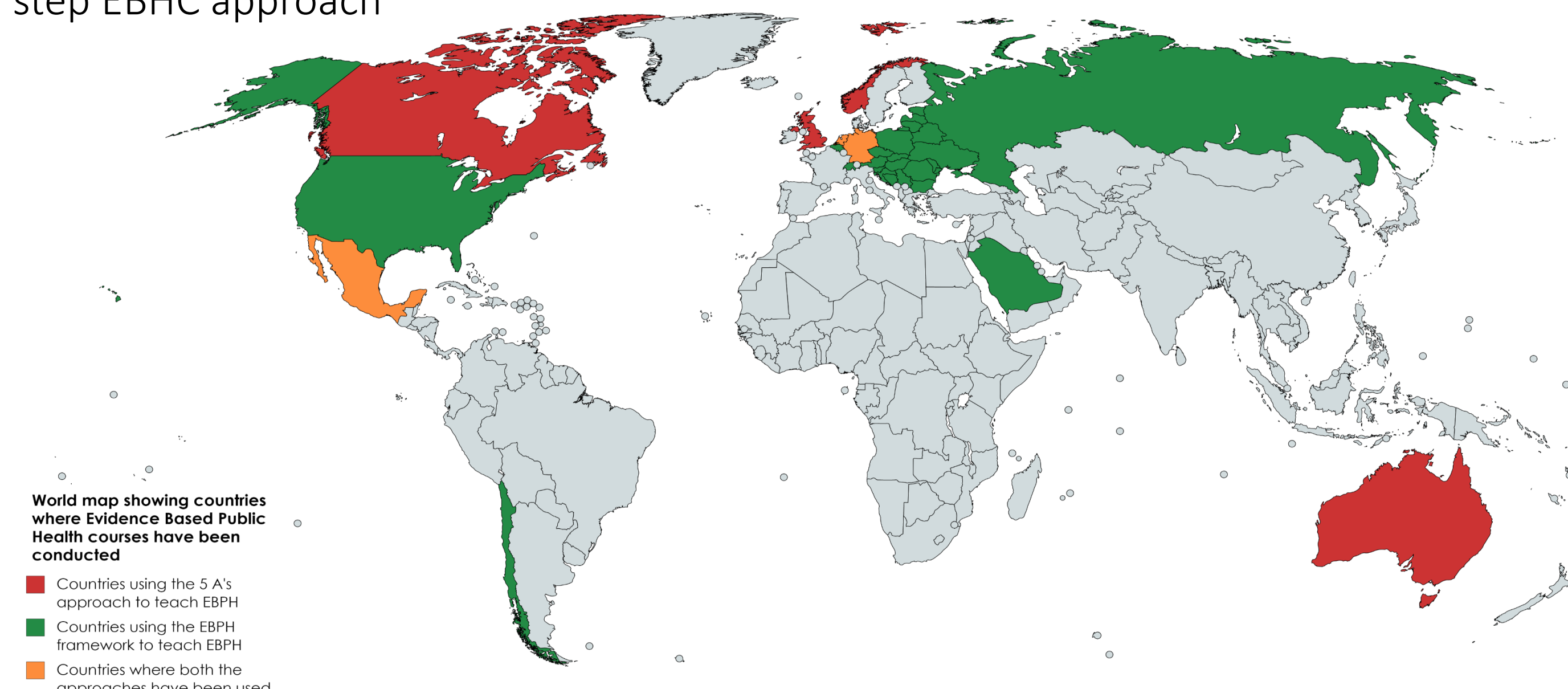


Figure 1: PRISMA flow diagram

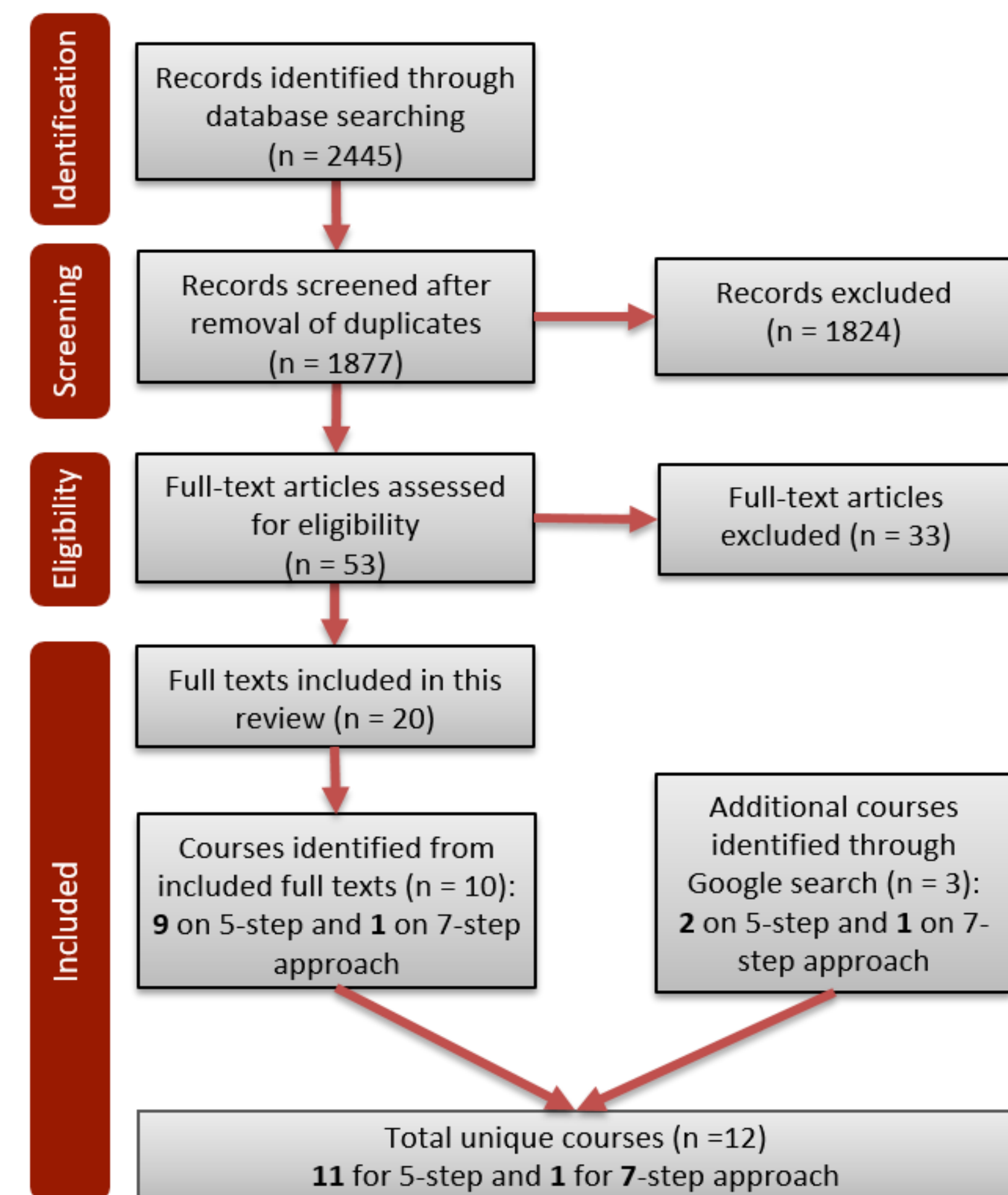


Table 1: Summary of courses identified

Name of course	Duration	Format	Objectives
<b>Summary of courses according to the 7-step framework</b>			
EBPH course for chronic disease prevention (Brownson 2007)	4-5 days	Face to face	<ul style="list-style-type: none"> <li>To improve public health practice by learning the 7 key steps of EBPH approach</li> <li>Train professionals to use a comprehensive approach to program development and evaluation from a scientific perspective</li> </ul>
Just-in-Time Training of EBPH (Douglas 2018)	4-5 days	Face to face & online	<ul style="list-style-type: none"> <li>Develop a concise written statement of the public health problem, issue, or policy under consideration in a measurable way</li> </ul>
EBPH course (Dreisinger 2008)	3-4 days	Face to face	<ul style="list-style-type: none"> <li>Describe several applications within public health practice that are based on strong and weak evidence</li> <li>Strengthen skills in finding data and using evidence from scientific literature to inform programmatic and policy decisions</li> </ul>
Prevention Research Centers EBPH course (Franks 2005)	2.5-4.5 days	Face to face	<ul style="list-style-type: none"> <li>To review current models for teaching EBPH and consider what changes need to be made to ensure the development of culturally competent curricula congruent with the skills and resources available</li> </ul>
Training the public health workforce in implementation of EBPH (Gibbert 2013)	3-5 days	Face to face	<ul style="list-style-type: none"> <li>Describe the barriers to evidence-based decision making in public health</li> <li>Describe approaches to community and stakeholder involvement in prioritization</li> </ul>
Evidence-Based Approach in Public Health Practice (Jacobs 2012)	3-5 days	Face to face	<ul style="list-style-type: none"> <li>Include health equity as a consideration in prioritization</li> <li>Understand the basic components of program evaluation and the various types of study designs useful in program evaluation</li> </ul>
EBPH Training (Jacobs 2014)	3-5 days	Face to face	<ul style="list-style-type: none"> <li>Understand the purpose and use of logic models</li> <li>Describe steps used in constructing logic models.</li> </ul>
EBPH for Local Health Practice – (Maylahnn 2008)	2 days	Face to face	
Teaching EBPH to Public Health Practitioners (O’Neill 2005)	3-5 days	Face to face	
Pre-conference workshop on EBPH (Rarick 2007)	2 days	Face to face	
Evidence-Based Decision Making in Public Health (Wahabi 2015)	Over 2-3 years (Masters’ program)	Face to face	
EBPH Training Series	10 hours	Online	
EBPH-Online Course	2-3 months	Online	
<b>Summary of courses according to the 5-step framework</b>			
The effect of training on question formulation among public health practitioners (Eldredge 2008)	3 hours	Face to face	<ul style="list-style-type: none"> <li>To train public health professionals to design and conduct scientific research based on a problem in practice or policy</li> </ul>
EBPH Practice (Forsetlund 2003)	1-5 days	Face to face	<ul style="list-style-type: none"> <li>Promote understanding of the whole process of evidence-based practice by formulating questions, teaching them searching skills, critically appraising results and translating them into interventions in complex real-life settings</li> </ul>
EBPH Masterclass (Jansen 2013)	Class: 180 hours Self-study: 480 hours	Face to face	<ul style="list-style-type: none"> <li>Develop skills and training capacity of potential trainers who can then train and support large numbers of colleagues reducing the need to employ specialist trainers</li> </ul>
Tools for identifying and prioritizing evidence based obesity prevention strategies (Kaplan 2013)	2 days	Face to face	<ul style="list-style-type: none"> <li>To build awareness, and understand the types and breadth of evidence</li> </ul>
The EBPH train-the-trainer (Lloyd 2009)	3 days	Face to face	<ul style="list-style-type: none"> <li>Increase the participants’ knowledge, skill and confidence to engage in evidence informed decision making</li> </ul>
Evidence-Informed Public Health training courses by Cochrane Public Health Group (Pettman 2013)	Not reported	Not reported	<ul style="list-style-type: none"> <li>To support the use of the best available research evidence in public health practice and policy to optimize the health of populations</li> <li>To verify the need for a public health informatics course and determine the course content through identification of knowledge gaps between learning and practice</li> </ul>
Rudolph Matas Library’s Program (Walker 2009)	Short courses & lunch time sessions	Face to face	
EBPH informatics Course (Yu 2015)	Not reported	Not reported	
Evidence-informed decision making knowledge, skills, and behaviours (Yost 2014)	5 days	Face to face	
European summer school	5 days	Face to face	
Evidence-Informed Public Health - NCCMT’s learning centre	39 hours	Online with user interface	