

## An approach for setting evidence-based and stakeholder-informed research priorities in low- and middle-income countries

Eva A Rehfuess,<sup>a</sup> Solange Durão,<sup>b</sup> Patrick Kyamanywa,<sup>c</sup> Joerg J Meerpohl,<sup>d</sup> Taryn Young<sup>e</sup> & Anke Rohwer<sup>e</sup> on behalf of the CEBHA+ consortium

**Abstract** To derive evidence-based and stakeholder-informed research priorities for implementation in African settings, the international research consortium Collaboration for Evidence-Based Healthcare and Public Health in Africa (CEBHA+) developed and applied a pragmatic approach. First, an online survey and face-to-face consultation between CEBHA+ partners and policy-makers generated priority research areas. Second, evidence maps for these priority research areas identified gaps and related priority research questions. Finally, study protocols were developed for inclusion within a grant proposal. Policy and practice representatives were involved throughout the process. Tuberculosis, diabetes, hypertension and road traffic injuries were selected as priority research areas. Evidence maps covered screening and models of care for diabetes and hypertension, population-level prevention of diabetes and hypertension and their risk factors, and prevention and management of road traffic injuries. Analysis of these maps yielded three priority research questions on hypertension and diabetes and one on road traffic injuries. The four resulting study protocols employ a broad range of primary and secondary research methods; a fifth promotes an integrated methodological approach across all research activities. The CEBHA+ approach, in particular evidence mapping, helped to formulate research questions and study protocols that would be owned by African partners, fill gaps in the evidence base, address policy and practice needs and be feasible given the existing research infrastructure and expertise. The consortium believes that the continuous involvement of decision-makers throughout the research process is an important means of ensuring that studies are relevant to the African context and that findings are rapidly implemented.

Abstracts in **عربي**, **中文**, **Français**, **Русский** and **Español** at the end of each article.

### Introduction

Mortality in sub-Saharan Africa is still predominantly caused by human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), malaria and other infectious diseases. However, premature deaths due to noncommunicable diseases and unintentional injuries are increasing.<sup>1</sup> Furthermore, Africa is facing significant challenges in the provision of preventative and curative health care. This is the result of a combination of factors – including insufficient human resources, poor health system infrastructure, limited supplies of essential medication and technology and suboptimal health-care seeking.<sup>2–4</sup>

While there has been a significant increase in health research conducted in the region in recent years,<sup>5</sup> the overall research has not been commensurate with the challenges in terms of quantity or quality.<sup>6</sup> Much of the research undertaken is less informative than it should be, often because of a mismatch between research required by decision-makers and that conducted by academic institutions. In some instances, the research agenda is driven by funders (including industry) and thus concerned with international rather than national or local problems. Furthermore, usability of findings tends to be hampered by limitations in quality of conduct, analysis and reporting of studies. Thus there is a need in the research field “to increase value and to reduce waste”,<sup>7–9</sup> especially in resource-constrained settings such as Africa.

Evidence-based approaches to address health problems are recognized as best practice. Evidence-based public health draws on the principles of evidence-based health care<sup>10</sup> and is defined as the “integration of the best available evidence with the knowledge and considered judgments from stakeholders and experts to benefit the needs of a population”.<sup>11</sup>

When allocating resources, policy-makers and health-care practitioners need to consider the significance of the health problem; the potential benefits and harms of the intervention and the quality of evidence on effectiveness. The cost and cost-effectiveness must also be weighed up, along with personal values and preferences, feasibility, acceptability and equity. To achieve evidence-based decision-making, data from rigorous primary research and evidence syntheses relevant to the African context must expand and translation of evidence into policy and practice must be enhanced.<sup>12,13</sup>

The Collaboration for Evidence-Based Healthcare and Public Health in Africa (CEBHA+) emerged from the Collaboration for Evidence Based Healthcare in Africa ([www.cebha.org](http://www.cebha.org)). CEBHA+ promotes evidence-based health care principles through (i) identifying relevant and context-sensitive research priorities; (ii) conducting robust, internationally competitive research; and (iii) linking primary research with evidence synthesis, implementation research, policy and practice.

Currently, the consortium comprises eight African partners in five countries (Ethiopia, Malawi, Rwanda, South Africa and Uganda), two German partners and two associate part-

<sup>a</sup> Institute for Medical Informatics, Biometry and Epidemiology, LMU Munich, Marchioninstr. 15, 81377 Munich, Germany.

<sup>b</sup> Cochrane South Africa, South African Medical Research Council, Cape Town, South Africa.

<sup>c</sup> University of Rwanda, Butare, Rwanda.

<sup>d</sup> Cochrane Germany, Freiburg, Germany.

<sup>e</sup> Centre for Evidence-based Health Care, Stellenbosch University, Cape Town, South Africa.

Correspondence to Eva A Rehfuess (email: [rehfuess@ibe.med.uni-muenchen.de](mailto:rehfuess@ibe.med.uni-muenchen.de)).

(Submitted: 20 August 2015 – Revised version received: 9 December 2015 – Accepted: 9 December 2015 – Published online: 12 February 2015)