Strengthening the Reporting of Observational Studies in Epidemiology Enhanced Prevalence and Incidence Criteria (STROBE EPIC)

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Background

- **Lack of transparent and accurate reporting in published health research literature compromises reliability and comparability**
- **Enhancing the QUAlity and Transparency Of health Research (EQUATOR) Network to promote standardised research reporting**
- **Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) to improve reporting of cohort, case-control, cross-sectional studies**

Need for STROBE Enhanced Prevalence and Incidence Criteria (EPIC)

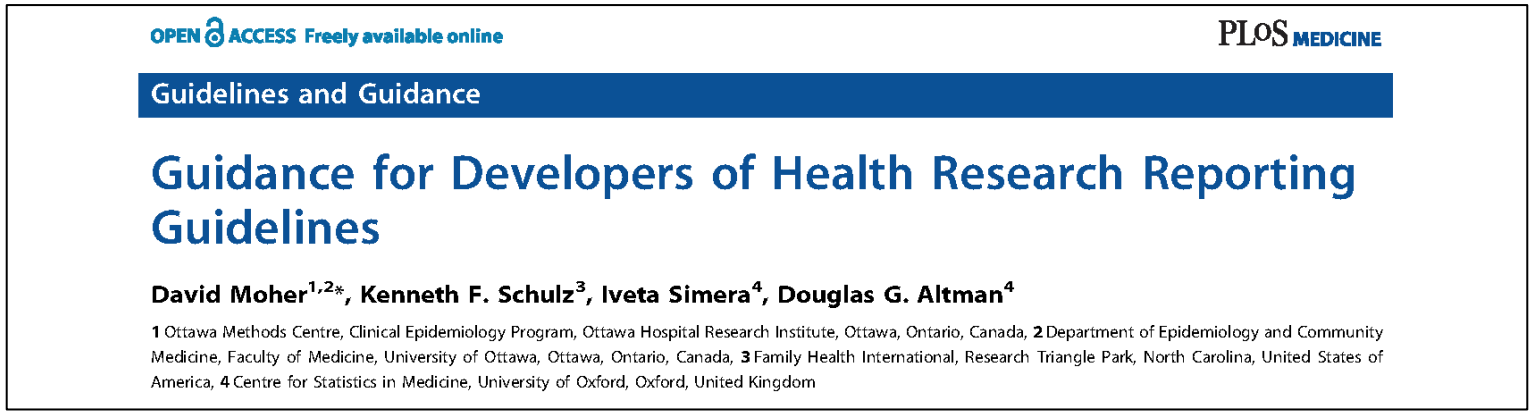
- Prevalence and incidence data have numerous applications in epidemiology

- We identified systematic reporting quality issues
  - Incomplete or inadequate reporting of observational studies of prevalence and incidence
  - Not addressed by STROBE or its extensions
  - Our proposed extension and its scope resonated with wider community working in prevalence and incidence

Aim of our project

To develop the STROBE extension Enhanced Prevalence and Incidence Criteria (STROBE EPIC)

Methods of STROBE EPIC development



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PLoS MEDICINE

Guidelines and Guidance

Guidance for Developers of Health Research Reporting Guidelines

David Moher[1,2*], Kenneth F. Schulz[3], Iveta Simera[4], Douglas G. Altman[4]

1 Ottawa Methods Centre, Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa, Ontario, Canada, 2 Department of Epidemiology and Community Medicine, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada, 3 Family Health International, Research Triangle Park, North Carolina, United States of America, 4 Centre for Statistics in Medicine, University of Oxford, Oxford, United Kingdom

- **Consensus development methods to elicit expert opinion to generate, revise, and reach consensus on proposed checklist items**

- **Piloting to critically assess if the checklist was clear, concise, complete, and free of errors**

Moher D et al. PLoS Med 2010;7(2):e1000217

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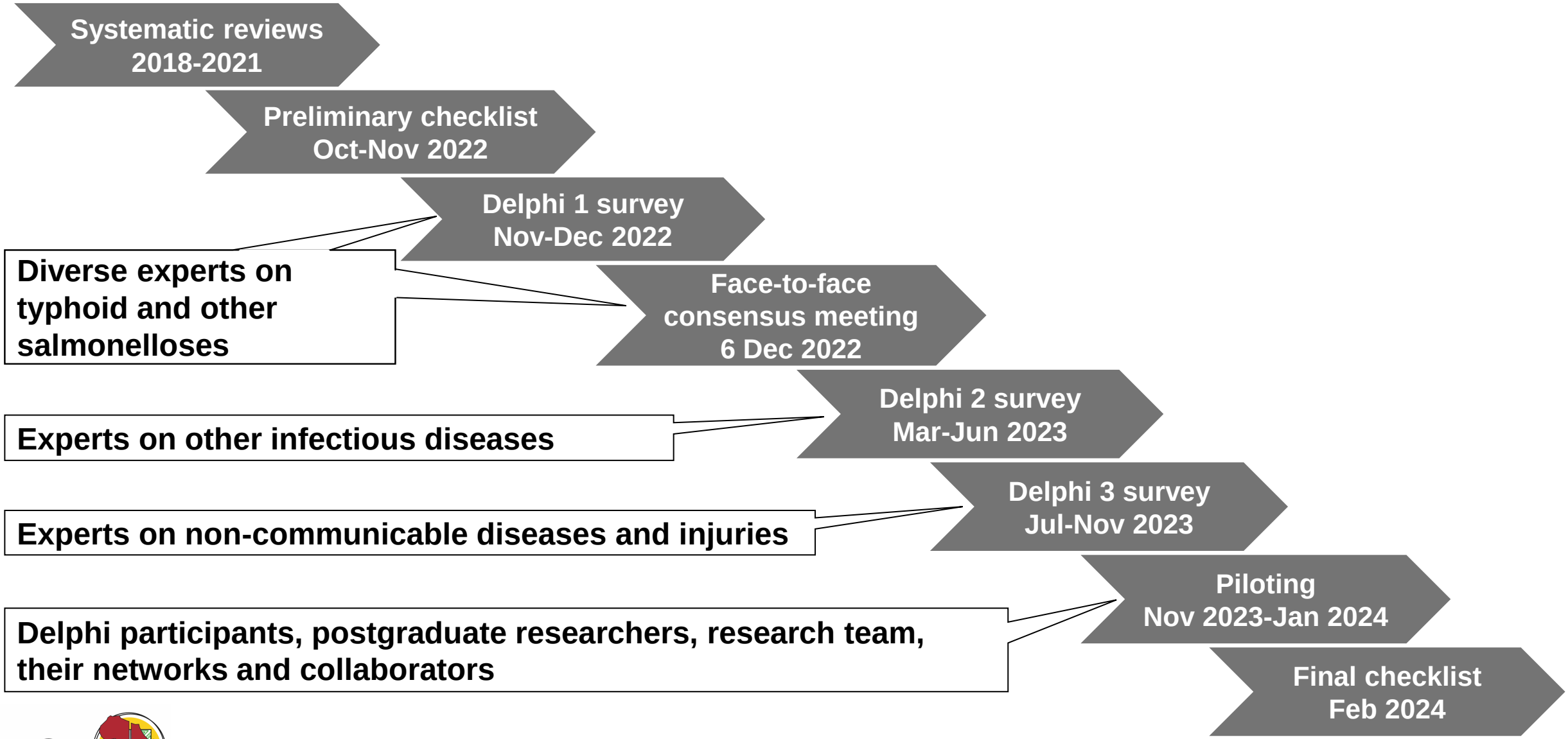
Activities and timeline of checklist development



Overview of checklist

- Provides guidance in the form of a 47-item checklist, and an accompanying explanation and elaboration statement
- Recommendations are in addition to, and not a replacement of, the STROBE guideline
- Applies to
  - Observational studies in epidemiology describing prevalence or incidence data, complications or deaths of communicable, non-communicable diseases, and injuries
  - All parts of a manuscript, including supplementary material
  - Essential items, and items ‘where applicable’

Checklist item 6.2: Eligibility and case definition

Rationale for inclusion

- **Inadequate description of eligibility criteria of participants**
- **Unclear or inadequate descriptions of definitions of cases, and classes of cases, or using inappropriate diagnostic criteria**
- **Ambiguity in how complications were attributed to a case, and assessed, including temporality (the sequence of disease and complication), and the time window for attribution**

Checklist item 6.2: Eligibility and case definition

6.2a) Provide diagnostic criteria in sufficient detail to be replicable

e.g., Diagnostic and Statistical Manual of Mental disorder classification, self-reported cough duration

6.2b) Case definitions: Provide definitions for classes of cases and co-morbidities in terms of person, place, and time, and others as relevant

e.g., suspected, probable, or confirmed leptospirosis, diastolic blood pressure above an accepted threshold of mmHg

Checklist item 6.2: Eligibility and case definition

6.2c) Where applicable for complications:

i. Provide definitions for complications

ii. Describe method, with references where applicable, for attributing a complication or death to a cause, including temporality and the time window for attribution

Impact and next steps

- **STROBE EPIC to improve the reporting of prevalence or incidence data**
- **Valuable for authors, modellers, burden of disease researchers, peer-reviewers, journal editors, health policy decision-makers**
- **STROBE EPIC will be available for download, use, piloting, and feedback**
  - **As a preprint in November 2024, and as a journal publication in 2025**
  - **EQUATOR-Network website and quarterly newsletter (https://www.equator-network.org/)**
- **Contact us to know more: strobe.epic@otago.ac.nz**

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Typhoid Vaccine Acceleration Consortium (TyVAC):

Reduce the global burden of typhoid by accelerating the introduction of typhoid conjugate vaccines (TCVs) in low-resource countries.

University of Maryland School of Medicine
Center for Vaccine Development and Global Health

University of Oxford

PATH

COLLABORATING ORGANIZATIONS

Blantyre Malaria Project

Coalition Against Typhoid
a program of the Sabin Vaccine Institute

Groupe de Recherche Action en Santé

icddr,b

International Vaccine Institute

Johns Hopkins Bloomberg School of Public Health

Malawi-Liverpool-Wellcome Clinical Research Programme

oucru

Patan Academy of Health Sciences

THECA
Typhoid conjugate vaccine introduction in Africa

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Ōtākou Whakaihu Waka

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