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Reporting of studies Conducted using Observational Routinely-collected health Data (RECORD) framework in clinical research on dengue: Protocol for a scoping review

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Declaration of Conflict of interest

The authors declare that they have no conflict of interest in relation to this work. We have not received funding or support for research, nor have we had any professional relationship with the pharmaceutical industry or entities that could influence the results or interpretation of the data in this scoping review.

This research was carried out independently and free of external influences that could compromise its objectivity or scientific integrity.

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INTRODUCTION

What is Dengue?

- Also known as "break-bone fever" 🤒
- Cases rose from 505,430 in 2000 to **5.2 million in 2019** 🔥
- WHO emphasizes the importance of conducting research (successful interventions).

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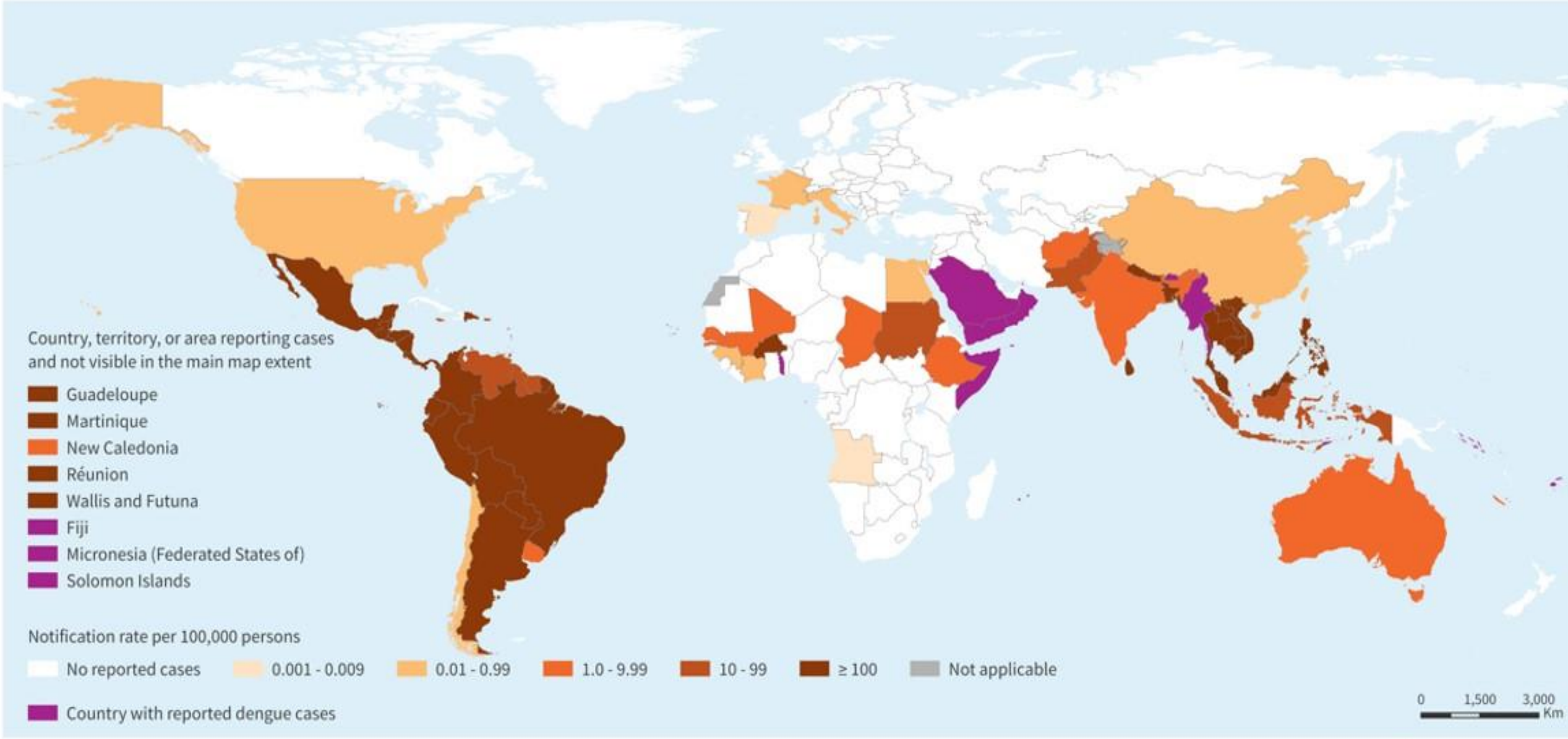

Data Source: World Health Organization, European Centre for Disease Prevention and Control
Map Production: WHO Health Emergencies Programme
Map Date: 8 December 2023

World Health Organization

Research challenges (among others…)

1	2	3	4	5
Data limitations	Inconsistent reporting	Address these inconsistencies	Effective public-health strategies	Need for guideline

RECORD
REporting of studies Conducted using Observational Routinely-collected Data

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The RECORD Framework

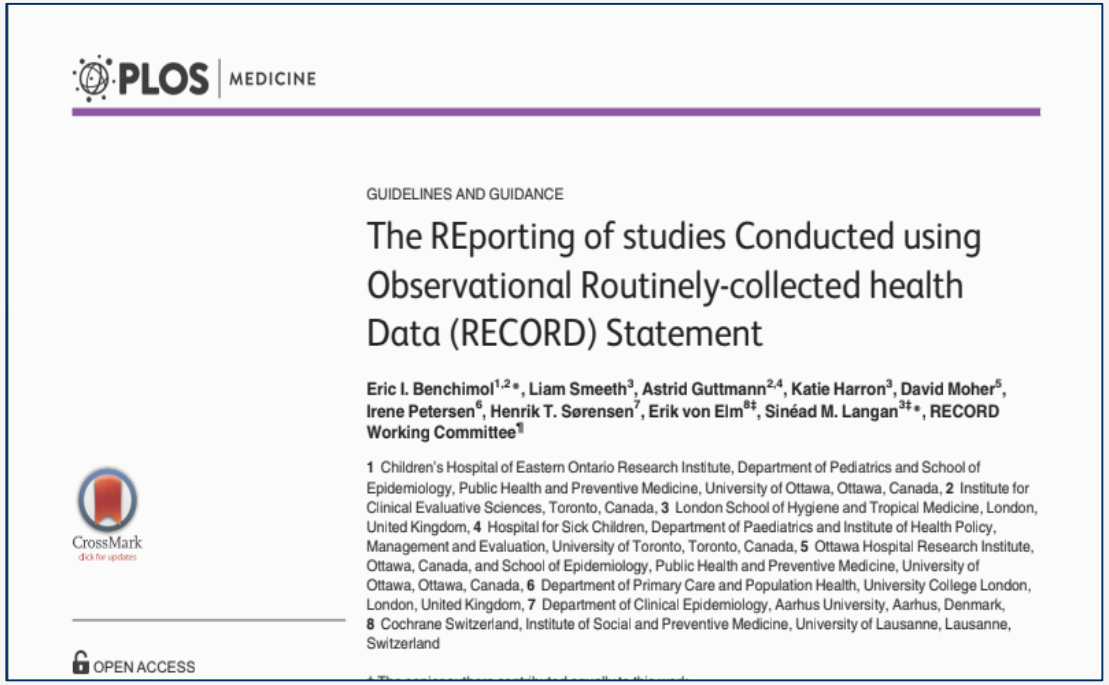
- The RECORD framework addresses issues in **research quality**.

- It improves reporting in studies using **routinely-collected healthcare data**.

- The goal is to enhance confidence in study results for better clinical decision-making.

- RECORD ensures more reliable data, especially important for dengue research.

- Better reporting leads to stronger public health interventions and policies.



PLOS | MEDICINE

GUIDELINES AND GUIDANCE

The REporting of studies Conducted using Observational Routinely-collected health Data (RECORD) Statement

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Our study proposal

- **AIM: to analyze dengue research quality using the RECORD framework**
- Purpose: Strengthen evidence for public health decisions 💪

METHODS: SCOPING REVIEW

Eligibility criteria	PCC framework: *What is the quality of reporting (CONCEPT) in studies on dengue (POPULATION) conducted using routinely collected data (CONTEXT), as assessed through the lens of the RECORD framework?*
Information sources	MEDLINE and Embase(Ovid); LILACS (Bireme), from inception to date
Selection of sources of evidence	Observational studies
Data charting process	Extract key data on how they align with the RECORD framework

Data extraction sheet… WIP 🛠

A	B	C	D	E	G	H	I	J	K	L	M
					Title and Abstract					Introduction	
					1					2: Background rationale	3: Objectives
	General information				STROBE		RECORD			STROBE	STROBE
Study ID	Title	DOI	Lead Author	Country	(a) Indicate the study's design with a commonly used term in the title or the abstract.	(b) Provide in the abstract an informative and balanced summary of what was done and what was found.	1.1: The type of data used should be specified in the title or abstract. When possible	1.2: If applicable, the geographic region and time frame within which the study	1.3: If linkage between databases was conducted for the study, this should be	Explain the scientific background and rationale for the investigation being reported.	State specific objectives, including any prespecified hypotheses.

AU	AV	AW	AX	AY	AZ	BA
Discussion					Other	
18: Key results	19: Limitations		20: Interpretation	21: Generalisability	22: Funding	22: Accessibility of protocol, raw data, and programming code
STROBE	STROBE	RECORD	STROBE	STROBE	STROBE	RECORD
Summarise key results with reference to study objectives	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	19.1: Discuss the implications of using data that were not created or collected to answer the specific research question(s). Include discussion of misclassification bias, unmeasured confounding, missing data, and changing eligibility over time, as they pertain to the study being	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Discuss the generalisability (external validity) of the study results	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	22.1: Authors should provide information on how to access any supplemental information such as the study protocol, raw data, or programming code.

13: Participants											17: Other Analyses
STROBE											STROBE
(a) Report the numbers of individuals at each stage of the study (e.g., numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed)	(b) Give reasons for non-participation at each stage.	(c) Consider use of a flow diagram	13.1: I select includ study including filtering based on data quality, data availability and linkage. The selection of included persons can be described in the text and/or by means of the study flow diagram.		clinical, social) and information on exposures and potential confounders	each variable of interest	(e.g., average and total amount)	Report numbers in each exposure category, or summary measures of exposure *Cross-sectional study* - Report numbers of outcome events or summary measures	(e.g., 95% confidence interval). Make clear which confounders were adjusted for and why they were included	variables were categorized	relative risk into absolute risk for a meaningful time period	Report other analyses done—e.g., analyses of subgroups and interactions, and sensitivity analyses

CONCLUSIONS (use and criticize)

- The RECORD framework can improve dengue research by enhancing reporting standards.
- Preliminary analysis shows some adherence to guidelines, but gaps remain.
- Addressing these gaps will lead to more reliable research and better public health outcomes.

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Thanks

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