Publication bias - a cross-sectional study of randomised trials in Sub- Saharan Africa: Ongoing challenges of research waste

Publication bias - a cross-sectional study of randomised trials in sub-Saharan Africa: ongoing challenges of research waste

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The South African Medical Research Council
recognizes the catastrophic and persisting consequences of colonialism and apartheid, including land dispossession and the intentional imposition of educational and health inequities.

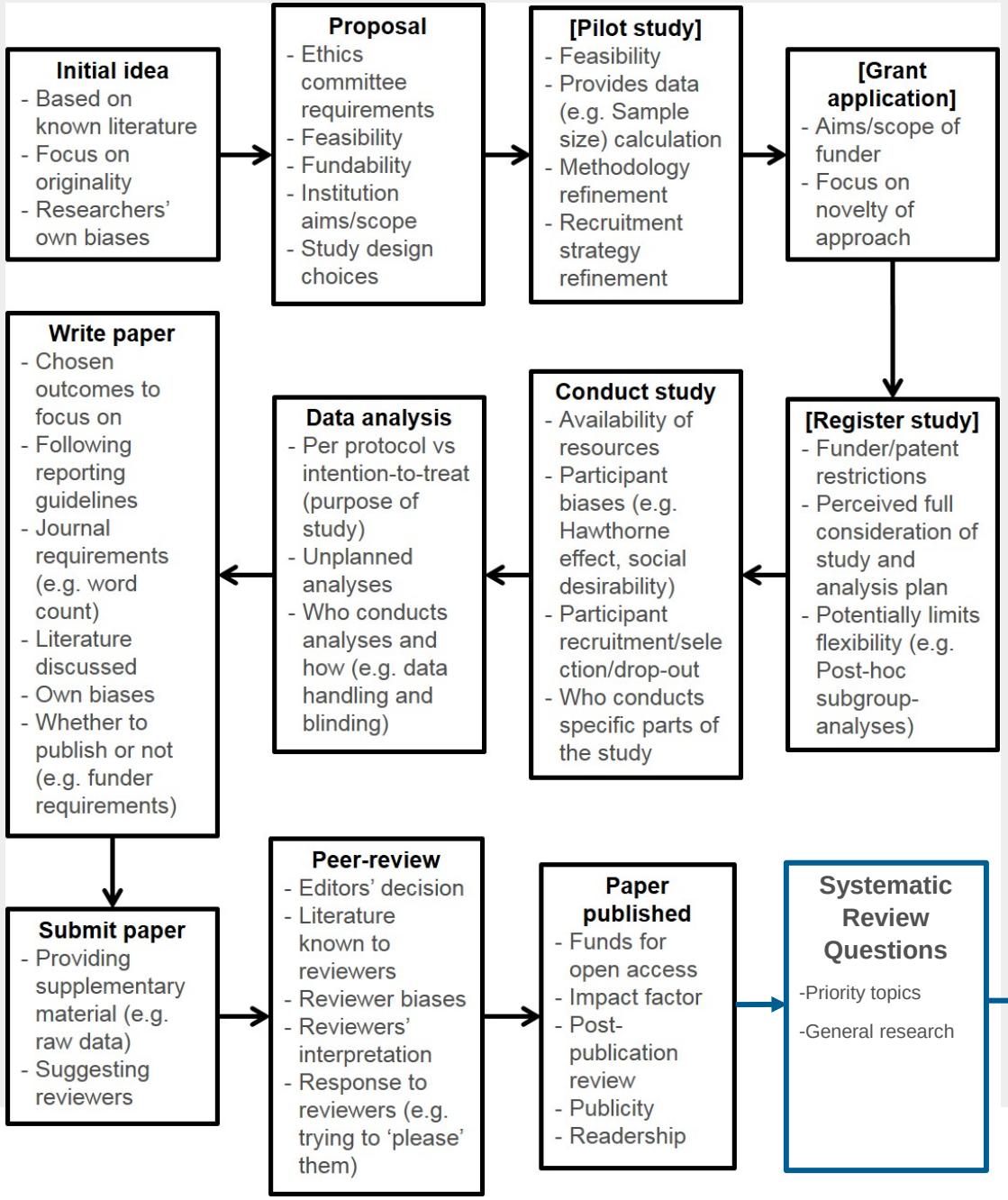
Acknowledging the SAMRC's historical role and silence during apartheid,
we commit our capacities and resources to the continued promotion of justice and dignity in health research in South Africa.

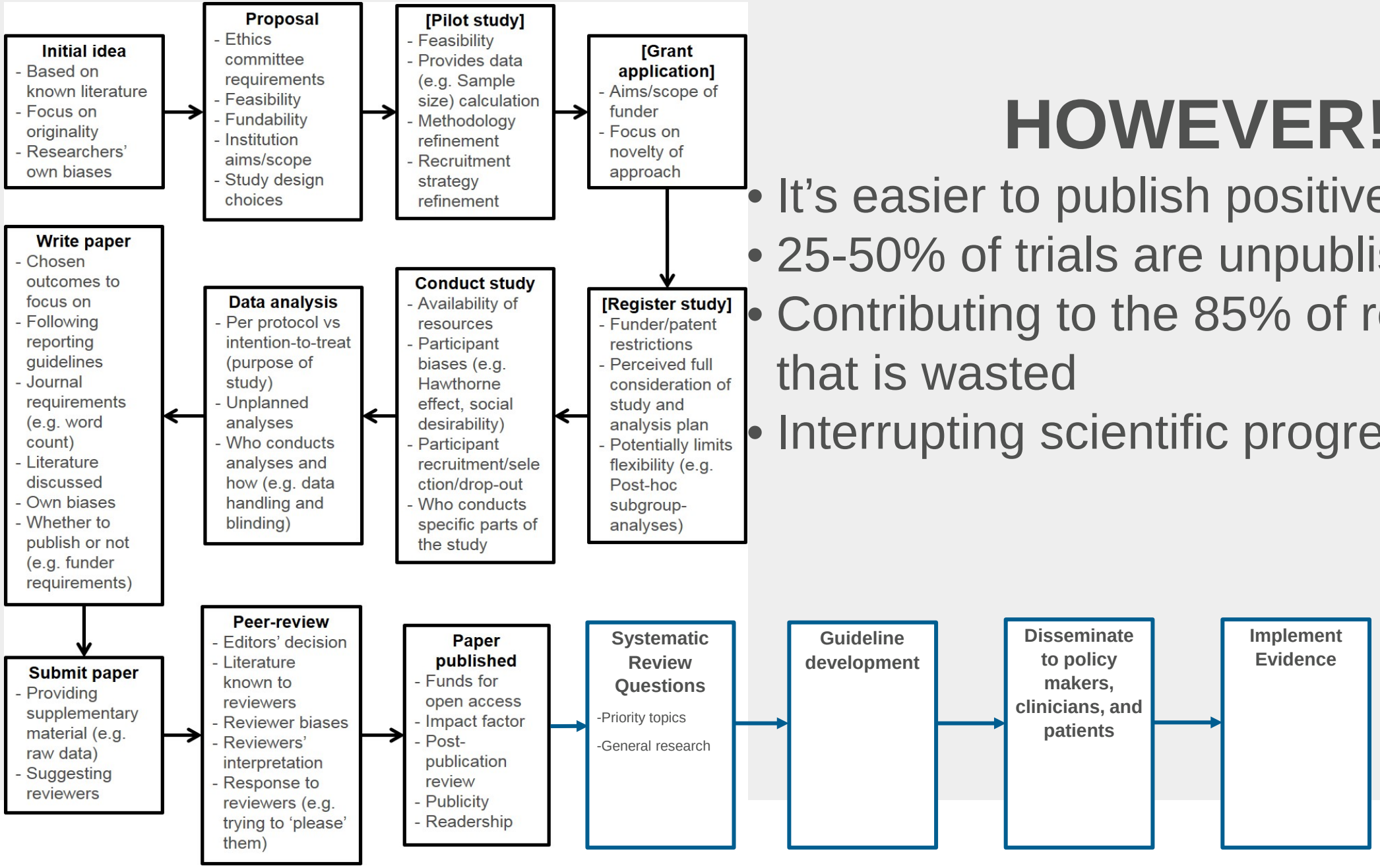
transformation
WORKING TOGETHER FOR EXCELLENCE

Personal Declaration

- I have no actual or potential conflict of interest in relation to this presentation.

Pathway of randomized trials





HOWEVER!

- It's easier to publish positive findings
- 25-50% of trials are unpublished
- Contributing to the 85% of research that is wasted
- Interrupting scientific progress

Carroll et al. The perceived feasibility of methods to reduce publication bias. PLoS One. 2017: **12**:e0186472

Questions

- What is the extent of publication bias of RCTs conducted in sub-Saharan Africa (SSA) countries?

- What is the time taken to publish completed trials?

Methods

Data source

- WHO-ICTRP

Inclusion criteria:

- RCTs, registered from 1 January 2010
- At least one sub-Saharan African site
- Results reported by February 2020

Search methods for identifying RCTs in WHO-ICTRP:

- Comprehensive search
- Filters: RCTs and Africa

Methods

Sample and sampling approach:

- All records meeting inclusion criteria

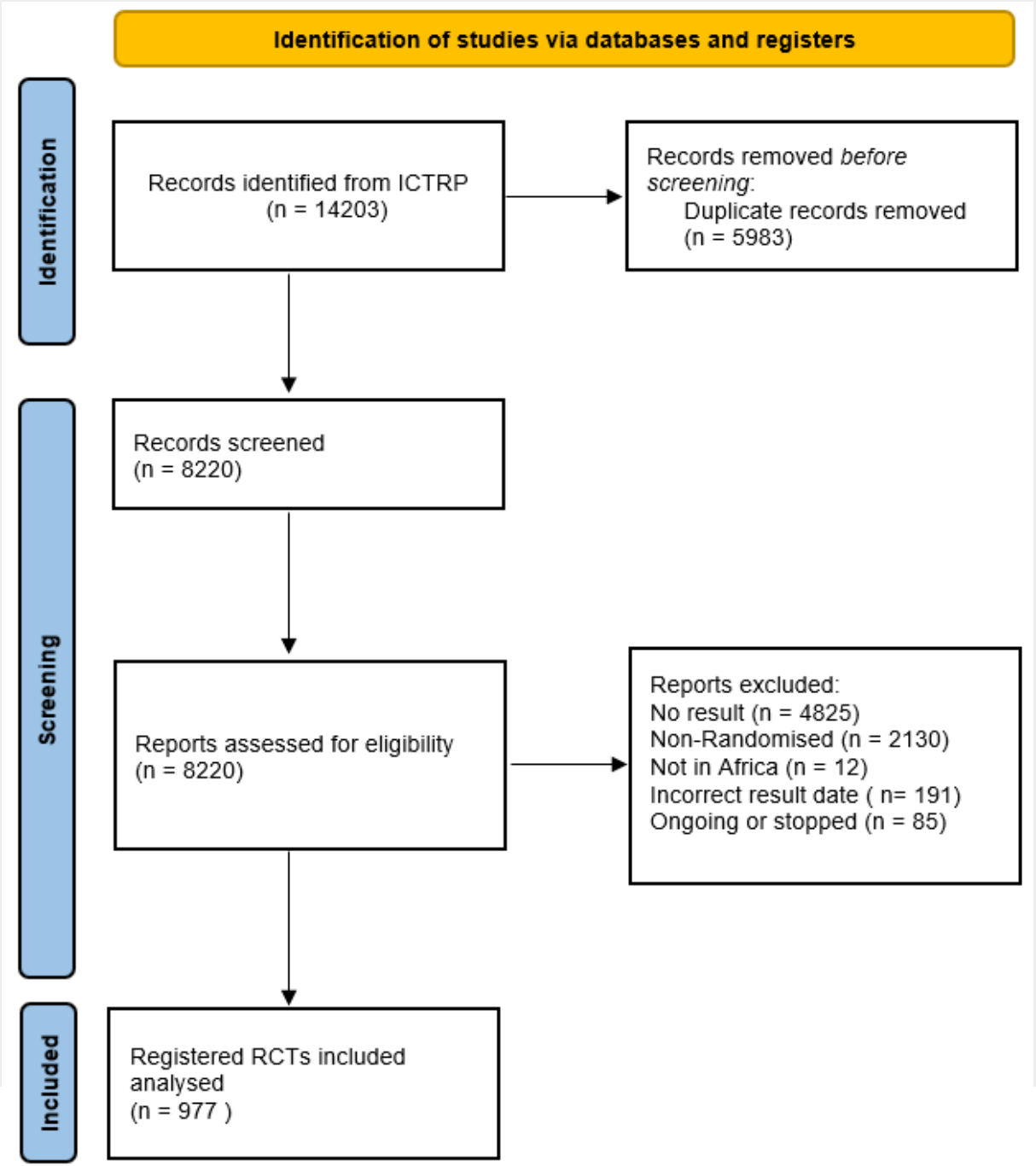
Time to publication analysis:

- Determined the time for publication using ICTRP's "results date completion"
- Searched for publications and their dates in PubMed and Google Scholar using the trial ID

Statistical analysis

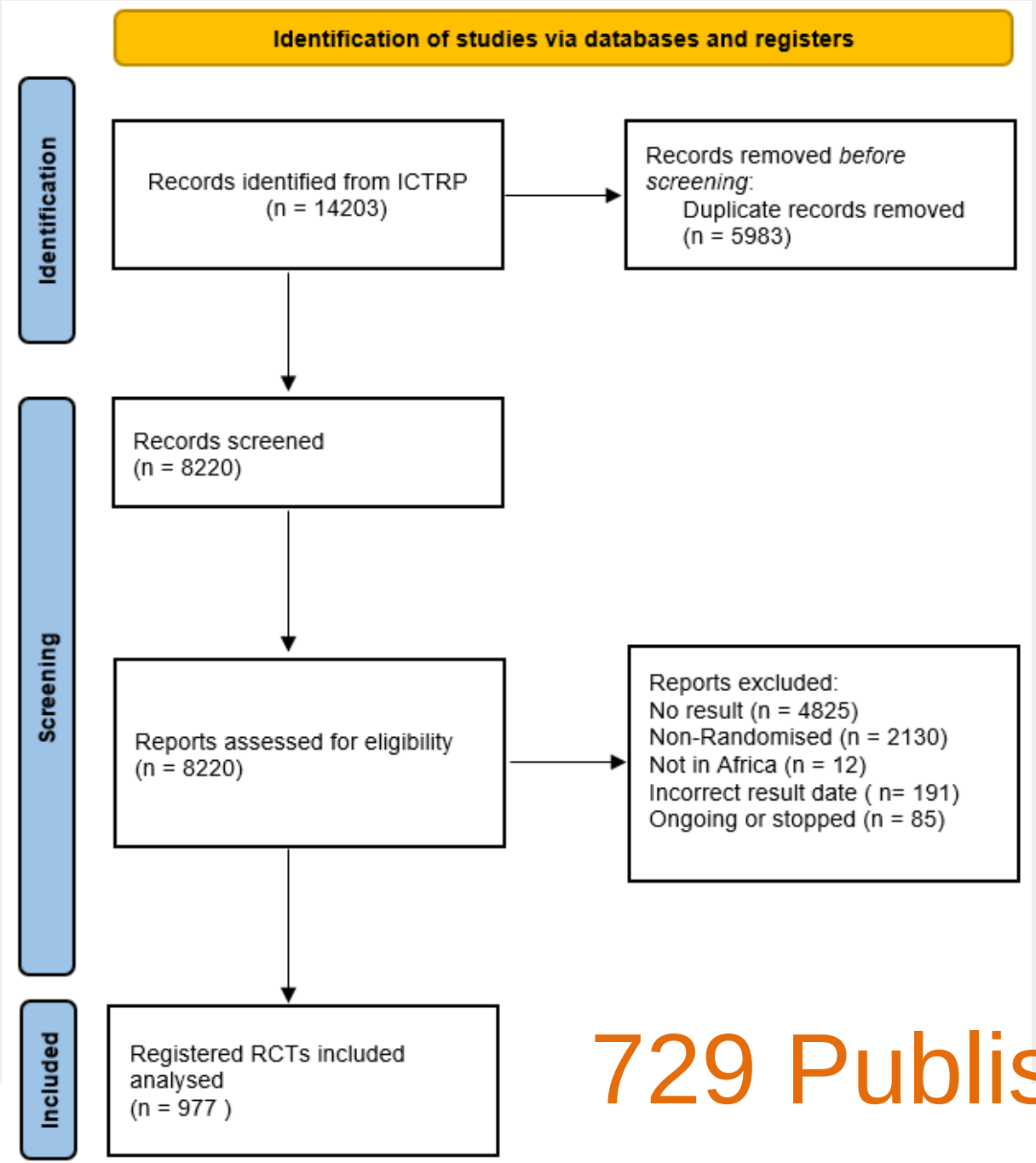
- Kaplan-Meier for time to publication

Results



Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

Results



729 Published

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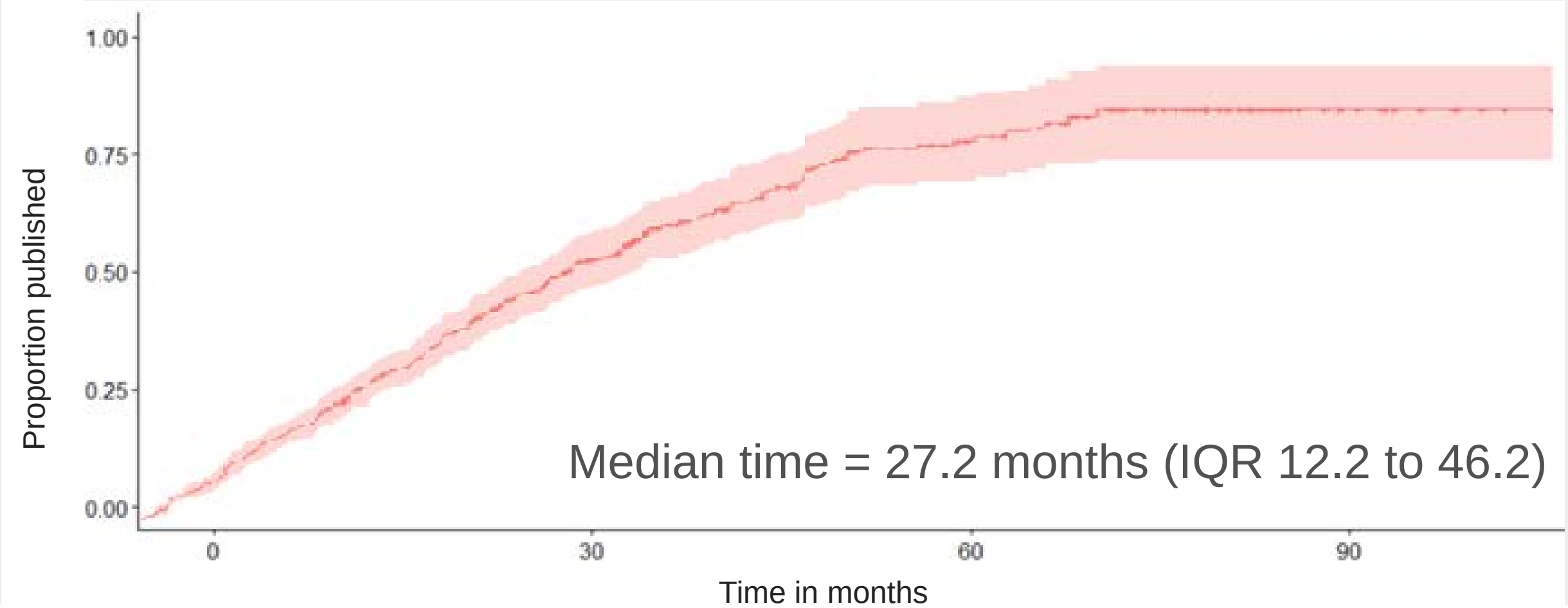
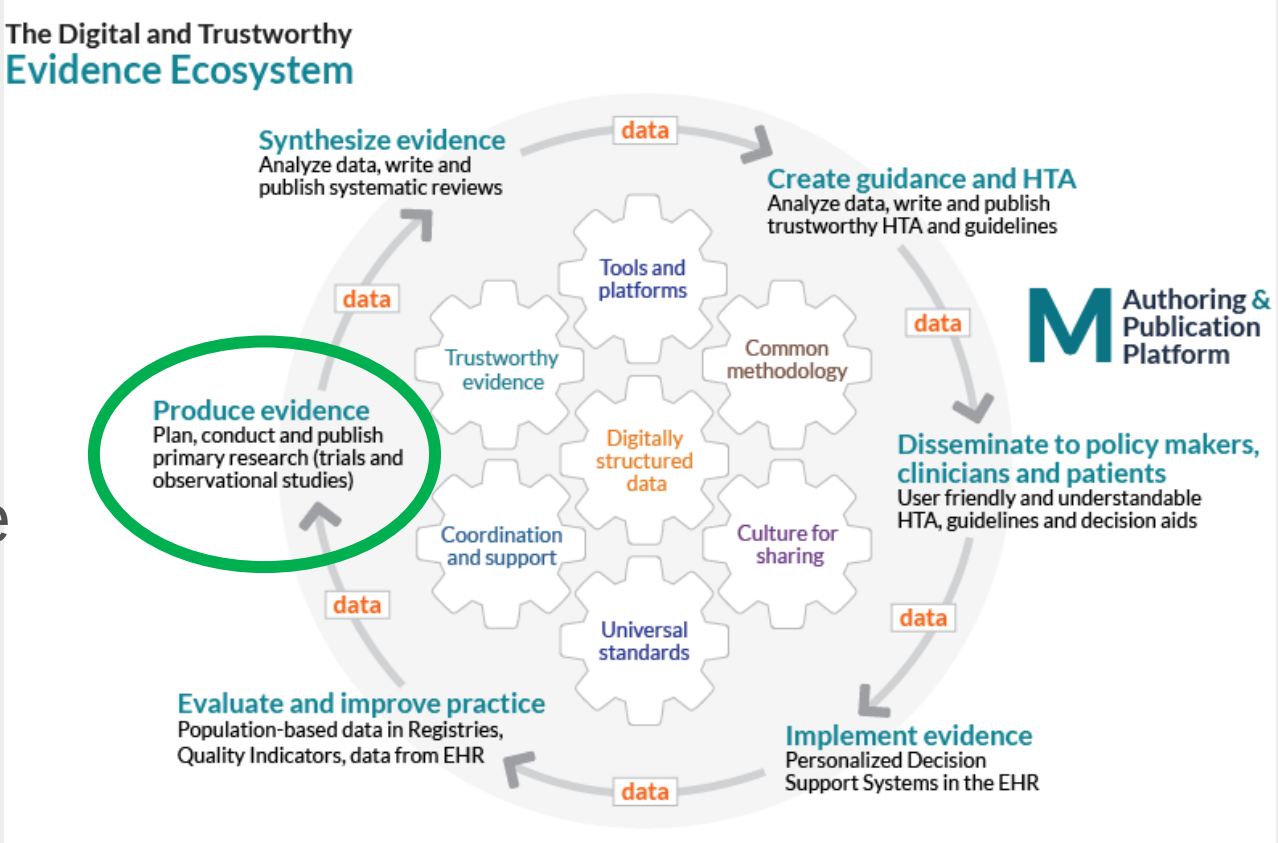
Time to publication from results completion



Consequences

- Failure to follow the main pathway to convey findings
- Limits access to evidence
- “Missing trials”
- Overestimates treatment effects
- Introduction of less (or in-) effective interventions to health and social care
- Damage to patient care & health costs



Vandvik et al. Future of Evidence Ecosystem Series: Evidence ecosystems and learning health systems: why bother? Journal of clinical epidemiology. 2020: **123**:166-70

Key findings

- Timely public dissemination is needed
- Sponsors and investigators need to prioritise the publication process
- The RCTs included here are not necessarily representative of African researchers

How does this study differ from other studies of publication bias and time to publication?

- Larger sample size
- Limited to RCTs
- First study of this nature to include ICTRP rather than specific trial registers
- Broad topic focus, i.e. any Condition/Topic area included
- Continent/Regional focus

Thank You!

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