

# How drowning data is collected in low- and middle-income countries: A Scoping Review

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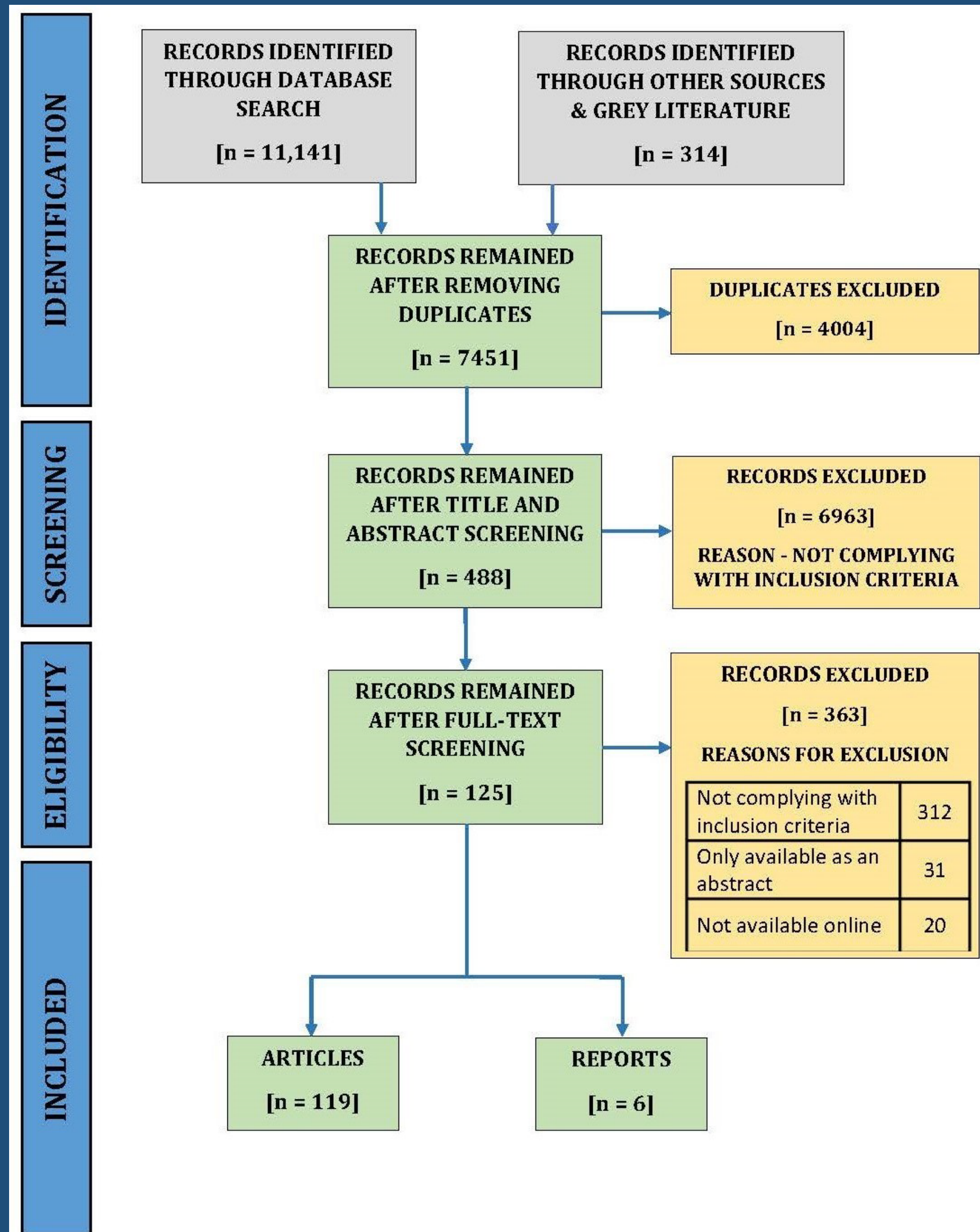
## BACKGROUND

- ❖ Drowning is a neglected public health threat causing morbidity and mortality worldwide.
- ❖ An estimated 236,000 people died from drowning in 2019 and 90% of these deaths occurred in low- and middle-income countries (LMICs).
- ❖ Drowning deaths are under-reported in LMICs and there is a need to improve local-level data collection procedures.
- ❖ This review was designed and conducted to address the research question **“What are the gaps in drowning data collection in LMICs and the actors addressing them?”**

## METHODS

- ❖ The database search was conducted from 8<sup>th</sup> of August to 25<sup>th</sup> of September 2023.
- ❖ Fourteen electronic databases, four academic search engines and nine grey literature sources were searched.
- ❖ Articles published in the English language after the 31<sup>st</sup> of December 2011 were included.
- ❖ 11,455 publications were identified and a total of 4004 duplicates were excluded. The remaining publications were included for screening.
- ❖ 119 journal articles and six reports were included in the final review.

## PRISMA FLOW-CHART



## RESULTS

- ❖ 45 publications were originated from studies conducted in India. Bangladesh (n=15), South Africa (n=12), China (n=11) and Turkey (n=10) were the following countries with a high number of publications.
- ❖ 69 publications reported drowning deaths and injuries of children and adolescents.
- ❖ Both intentional (n=27) and unintentional (n=71) drowning deaths and injuries were reported.
- ❖ Unavailability of medical and behavioural history of victims, and poor reporting systems in hospital and police records were identified as the major gaps in drowning data collection.

## CONCLUSIONS

- ❖ The high number of drowning deaths due to suicides and homicides in the population below 25 years is an area of concern.
- ❖ To overcome the gaps in drowning data collection and develop drowning prevention interventions, current data sources need to be strengthened to include information on the “circumstances” of a drowning incident.

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