

prioritisation, communication and acceptance of hazards, but need not be the primary tool for the management of design safety.

E-Posters P3 – Drowning, March 24, 2021

P3.001 FATAL UNINTENTIONAL DROWNING IN INDONESIA: UNDERSTANDING THE GAP OF KNOWLEDGE

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10.1136/injuryprev-2021-safety.145

Background Most drowning deaths occur in low and middle-income countries (LMICs) (91%). However, a limited number of studies investigating unintentional drowning deaths were identified in LMICs, including in Indonesia.

Objective To investigate rates of unintentional drowning deaths in Indonesia, and to investigate the availability of drowning prevention strategies in Indonesia between 2010 and 2019.

Methods A systematic search, guided by PRISMA, was conducted to identify all relevant grey literatures, including government/other authoritative reports, policy statements and issues papers, published between 2010 and 2019.

Results The unavailability of the national injury surveillance system, including for drowning deaths documentation, was identified in Indonesia. Data on drowning deaths in Indonesia were potentially underrepresented, due to inefficient data collection and insufficient continuity of data. The WHO 2014 Global Report on Drowning did not report drowning fatalities from Indonesia. According to The Global Burden of Disease Study, a downward trend of drowning deaths was observed in Indonesia between 2010 and 2017, from 0.52% of total deaths in 2010 to 0.35% of total deaths in 2017, with average annual percent change of -5.33%. The lack of publications on drowning prevention in Indonesia was identified, therefore strengthening of multi sectoral coordination is needed to ensure the sustainability of drowning prevention in Indonesia.

Conclusion Inefficient data collection in Indonesia hinders the planning, implementation, and evaluation of prevention strategies. Further research investigating the gap in drowning deaths data recording, analysis, reporting and dissemination is vital for the development of the national and regional injury surveillance system in Indonesia

P3.002 THE SOCIO-ECOLOGICAL NATURE OF DROWNING IN LMICs: REVIEW INFORMING HEALTH PROMOTION APPROACHES

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10.1136/injuryprev-2021-safety.146

Background Most deaths by drowning worldwide have occurred in low and middle-income countries (LMICs) (91%), particularly in Southeast Asia (35%) and Africa (20%). Poor data collection in LMICs hinders the planning, implementation, and evaluation of prevention strategies.

Objective To review the rates and risk factors of unintentional drowning in LMICs, and to identify its prevention strategies within a socio-ecological health promotion framework.

Methods A systematic search, guided by PRISMA, was conducted on Ovid MEDLINE, CINAHL, Informit health, PsycINFO (ProQuest), Scopus, SafetyLit, Google Scholar, and BioMed Central databases for all relevant studies published between 2012 and 2017. McMaster appraisal guideline was used for critical review.

Results The disparity of drowning data availability was observed across countries investigated. The highest rates were identified in lower-middle income South-east Asian countries. The socio-economic background of the family, overcrowding, and living close to water bodies were important predictors for paediatric drowning in LMICs, while the presence of mother as caregiver was identified as a protective factor. The over-reliance on individual-focused, behaviour-based preventive measures was identified.

Conclusion Further research focusing on developing relevant upstream, population-focused, socio-ecological approaches of drowning prevention and water safety promotion is needed to ensure the sustainability of drowning prevention in LMICs.

P3.003 DROWNING ACROSS THE LIFESPAN: IDENTIFYING CRITICAL STAGES FOR INTERVENTION

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10.1136/injuryprev-2021-safety.147

Background Drowning deaths occur among people of all ages, however, the risk is not uniform across the lifespan. Conventional drowning prevention programs communicate risk using age bands, however, this approach may overlook critical time points through the life cycle.

Methods The Royal Life Saving National Fatal Drowning Database was used to examine drowning by single year of age from 1 July 2002 to 30 June 2019. This database includes all unintentional drowning deaths in Australian waters.

Results Drowning peaked at one year of age, with a significant spike observed following the first birthday (0 years: 1.2/100,000 vs 1 year: 4.2/100,000). Deaths decreased as children grew, before rising sharply at 15–19 years of age (15 years: 0.5/100,000 vs 19 years: 1.6/100,000). The drowning rate remained steady through adulthood, before rising again in early retirement (60 years: 1.8/100,000).

Conclusion Drowning risk changes across the lifespan, with the greatest risk observed among young children as they become increasingly mobile. A peak also occurs as teenagers reach adulthood, legal drinking age and gain greater independence. Assessing risk by single year of age allows for the design of targeted strategies, aligned to physical development stages and social changes.

Learning Outcomes Drowning prevention strategies need to be tailored to specific life stages, taking into consideration changes in mobility and independence. For example, existing broad prevention strategies for children aged 0–4 could be further tailored to highlight the importance of supervision for newly mobile for 1–2 year olds and water safety education for 3–4 year olds.