

**AGE PATTERN OF DROWNING MORTALITY ACROSS 44 COUNTRIES**

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**Background** Drowning mortality rates varied across age groups and countries because of differential exposure of body of water and activities.

**Objective** To have a global assessment of problems of drowning deaths, this study aimed to examine the age pattern of drowning mortality across countries.

**Methods** We used WHO mortality database of the latest available years to calculate age-specific drowning mortality in each country. To identify the age pattern, 95% CIs of mortality rate was computed to determine if particular age group had significant higher rate. We identified five types of age pattern.

**Results** Of 44 countries analysed, seven countries had high rates among children, 12 countries had high rates among elderly, seven countries had higher rates among both children and elderly, 12 countries (all in Eastern Europe) had higher rates among working age and six countries did not have significant high rates among particular age group. Within each age pattern group, huge differences in mortality level and proportions of nature of body of water involved and mechanisms of drowning were found between countries. For example, the mortality rate for children aged 0–4 years was 49.7/100 000 in China but was only 0.8/100 000 in Germany. The percentage of bathtub drowning among elderly aged 65 years or above was 72% in Japan but was only 2% in Finland. For deceased aged 45–64 years, Czech Republic, Finland, Netherland and Taiwan had higher percentage of drowning following fall into natural water than percentage of drowning while in natural water.

**Significance** Diverse age pattern drowning mortality rate, drowning mortality level, nature of body of water involved and mechanism of drowning across countries suggest that different strategies should be designed for countries with different geographic environment, climate, and cultural activities.