ORAL PRESENTATIONS I

OP1

PREVENTION OF CHILDHOOD DROWNING IN MALAYSIA

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Introduction: Injuries are a major cause of death in children aged 1-18 years. Drowning deaths are an area that has received insufficient attention as an important cause of mortality locally. The World Health Organization commissioned this study with the support of Ministry of Health Malaysia. The objective was to “To collaborate data on childhood drowning in Malaysia and review existing drowning prevention measures in place”.

Methodology: This was a cross-sectional study using secondary data obtained from various sources on drowning events. Sources included Government: Ministry of Health, Ministry of Education, Ministry of Sport, Police, Policymakers, Ministry of Transport, Department of Statistics and NGOs (Life Saving Society Malaysia, newspaper sources, Fire & Rescue Volunteers Malaysia). Drowning deaths data were collected from Year 2000-2007. Data obtained were then analysed to provide understanding of the epidemiology of drowning incidents in Malaysia, risk factors contributing to it and preventive measures that need to be drawn up or revision of current preventive measures in addressing this problem. Drowning outcome was divided into three categories: Death, Morbidity, No morbidity.

Results: Notified fatalities due to drowning amounted to between 600-700 per year for the year 2000-2007. Of these between 250-300 (44.5%) were children under 18 years. An additional 200 children drowned but survived. Hence the burden of drowning in children is approximately 500 yearly. The national average drowning fatality rate in children was 3.05 per 100,000 children over the 8 year period. The national average drowning rate (fatal and non-fatal) in children was 5.0 per 100,000 children. An average of 26.3% of childhood drowning deaths were non-medical certified. There was no reduction in drowning fatalities from 2000 to 2007. Most drowning took place in east coast regions (Terengganu and Kelantan) from November-March. It was 3 to 4 times more common in boys than girls and was most prevalent in the 10 to 14 years age group. Most prevalent sites of all-age drowning were seas and rivers. Limited water safety regulations or legislation are currently available in the country. The Life Saving Society Malaysia has various water safety courses for the public, but is not widely implemented to the whole nation as yet. Although between 250-300 children die each year due to drowning (3 per 100,000 children), an approximately additional 200 or more drowned but survived (approximately 2 per 100,000 children). Hence the real burden of drowning in children is approximately 500 yearly (5 per 100,000 children).

Discussion: The average Malaysian childhood drowning fatality rate was below the global rate as well as the Western Pacific Region LMIC rate but this may still be due to underreporting. The Malaysia's rate was closer to the HIC region's rate. This report was based on reported sources, hence it may underestimate overall drowning rates. Very limited data was available on the drowning and mechanisms of events are not available. It was only possible to capture snapshots of detailed drowning information from local newspaper archives. Some government agencies did not respond to requests for information or data despite numerous requests in various forms. This however is the first comprehensive national study in Malaysia on drowning in children and serves to highlight the magnitude of the problem.

Recommendations:
1. Finding of this study need to be presented to senior manager in Health, Safety and other relevant agencies to plan intervention strategies.
2. Finding of this study need to be communicated to the general public to sensitize the general public. Health education material produced by the MOH need to incorporate clear messages on drowning safety.
3. Establish a national drowning database or registry to facilitate accuracy of rates as well assist in monitoring the effect of any interventions.