One size does not fit all: Rethinking pediatric water safety and drowning prevention in high income countries (HICs)

Dr Rose Jones1, Kristen Beckworth1, Jennifer Pewitt2, Medora Jackson1, Jesus Alderete1 and Claudia Romo1
Children’s Medical Center1, YMCA of Greater Dallas2, Safe Kids Dallas Area3, International Pool Spa & Safety Association4, Vickery Meadow Improvement District5

Background
Drowning is a significant cause of mortality and morbidity for children, particularly in high income countries (HIC) where a disproportionate number of drowning occur within minority populations. Although pediatric drowning has consistently been higher in African-American, Hispanic and Native American populations, prevention efforts have failed to address cultural diversity. Accordingly, drowning prevention efforts tend to be homogenous in approach, generic in scope and acultural in focus. The result is a ‘one size fits all’ approach to drowning prevention that is grossly inadequate for meeting the water safety needs of children in multicultural, low resource communities.

Objectives
The primary objective of this research was to identify, document and assess the various ways in which social, cultural, economic and political factors interface with pediatric drowning prevention education and outreach.

Target
Research was conducted at ten inner city, low income apartment complex swimming pools in Dallas, Texas, USA. Residents in the apartment complexes came from culturally and linguistically diverse backgrounds and include refugees, immigrants and native born Americans who have roots in a diverse array of communities, including Mexico, Eritrea, Nepal, Burma, Iraq, Thailand, Cameron, Bhutan and the United States.

Methods
Ethnographic methodologies, including participant-observation, informal interviews, surveys and focus groups were used to collect data during the period of June–August 2010. Each apartment complex was targeted for three hours of aquatic instruction/education; twice a week for four week sessions by a traveling group of YMCA trained lifeguards who were ethnically and linguistically diverse. The research generated approximately 250 hours of observations, scores of informal interviews, three focus groups and water skills assessment on approximately 300 children.

Results
This research demonstrates that political, social, economic and cultural factors are inextricably linked to drowning prevention education and outreach; no singular approach or uniform message is sufficient to meet the needs of children in multicultural HICs. Barriers to teaching children water safety skills included not owning swimming attire, misconceptions about the acquisition of water borne diseases, modesty linked to gender and sexuality, grooming rituals, fear and semantic/conceptual misinformation from prevention campaigns. Children and family members often had a different understanding of the key concepts associated with water safety and swimming than did the life guards and the conventional aquatic curriculum they utilized.

Discussion
The public health response to drowning in HICs has largely been limited to developing and supporting research, education, and policies that comprise a ‘one size fits all’ paradigm. All children, regardless of cultural background, social environment or economic resources are taught how to swim in virtually the same manner; namely in small group settings with an adult instructor and several peers. The notion that peer-to-peer aquatic instruction, same sex swim lessons or parent-child lessons may be more effective and relevant in some communities has not been explored. Similarly, parents are taught how to keep their children safe in the water by imparting the same exact public health message; one that typically does not take into account variations in culture, environment, economic resources or social dynamics.

Conclusion
This research suggests that greater attention needs to be extended to understanding the precise ways in which social, cultural, economic and political factors converge to create community specific needs for pediatric drowning prevention. We cannot continue to develop and apply water safety education that fails to recognize and address issues related to poverty, cultural beliefs and traditions, familial dynamics and political processes.

Corresponding Author
Dr Rose Jones, Research Scientist
Children’s Medical Center
1935 Medical District Drive, Trauma/Injury Prevention
Dallas TX USA 75235
Email: rose.jones@childrens.com
Telephone: +1 214 4567936