

## Drownings and Near-Drownings in Riverside County, 2000-2007

### Introduction

Drowning and near-drowning remain important public health issues in part because of their continued frequency of occurrence, the disproportionate and overwhelmingly tragic impact on young children, and because they are a mode of death and injury that affords ample opportunities for prevention and effective interventions. These efforts are highly dependant on understanding the who, when, where, and how of past circumstances and using this data to guide future actions in the way of program development, legislation, code enforcement, and behavior change. The analysis provided in this brief will cover a range of data sources from various snapshots in time, providing a useful glimpse at the trends in Riverside County over the past several years.

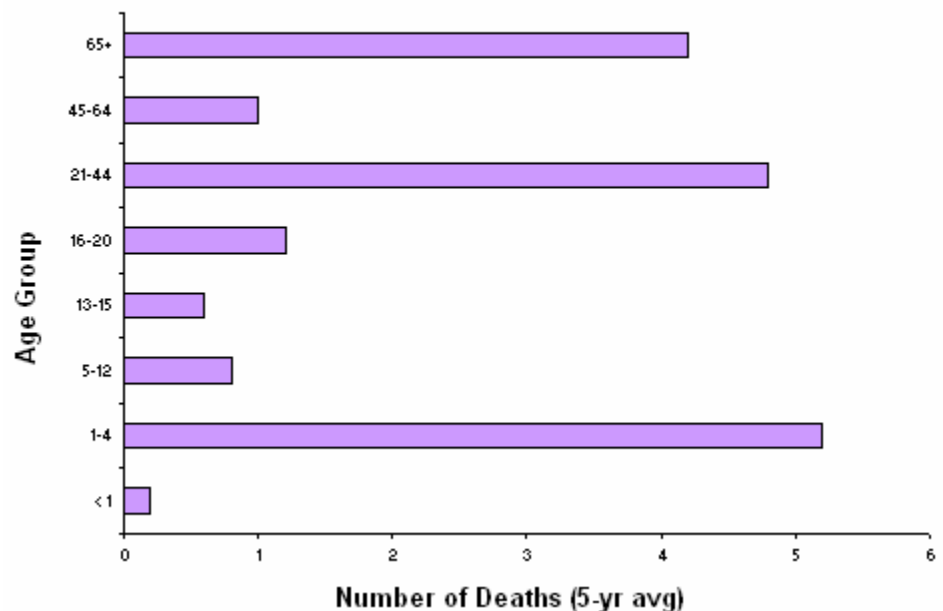
### Research Questions

1. Who are the victims of drowning?
2. When is a drowning most likely to occur during the year and at what time of day?
3. Where are drowning injuries and deaths occurring?

The total number of deaths from drowning in Riverside County has remained fairly stable with an average of eighteen deaths per year for the time period of 2000 through 2004. However, there was a noteworthy drop in 2004 which recorded just thirteen deaths. Figure 1 details the average number of deaths from 2000 through 2004 by age group, showing that deaths are disproportionately high among young children less than five years old. Alcohol may play a part in the increased numbers observed in the 21 to 44 year old age group. Future analysis will investigate this observation.

Data for 2005 is currently unavailable while 2006 provisional data shows a total of twenty-six drowning deaths among Riverside County residents. Again as in previous years, nearly 1/3 of the deaths were children aged 1 to 4 years. In this age group, drowning is the leading cause of unintentional death with an average of five fatal incidents per year from 2000 through 2004. The Riverside County Submersion Incident Report Form (SIRF) Project collects information on drowning and near-drowning incidents from emergency response personnel. *Continued on back...*

**Figure 1** Deaths from Drowning (5-Year Avg) by Age Group, 2000-2004: Riverside County



Source: California Department of Health Services, Death Statistical master Files, 2000-2004

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As Figure 2 shows, children 1 to 4 years of age are most likely to be hospitalized for drowning with more than twenty hospitalizations per year. This has remained consistent over the past four years.

**When are people drowning?**

Riverside County Department of Public Health began monitoring 9-1-1 emergency calls for specific triggers in April of 2006. Nearly 30 percent of drowning-related calls have occurred during July and another twenty percent in May. Summer months are a time of increased water exposure and a time to heighten vigilance around those seeking to enjoy the resources. Figure 3 shows that the frequency of emergency calls increases substantially in the late afternoon/evening hours, peaking at around 5pm.

**Where are people drowning?**

According to SIRF Project data, more than 50 percent of incidents occurred at the child's home and roughly 70 percent occurred in an in-ground pool. In a majority of the incidents the child had direct access to the water and the drowning/near-drowning occurred during an unsupervised moment rather than a safety barrier breach.

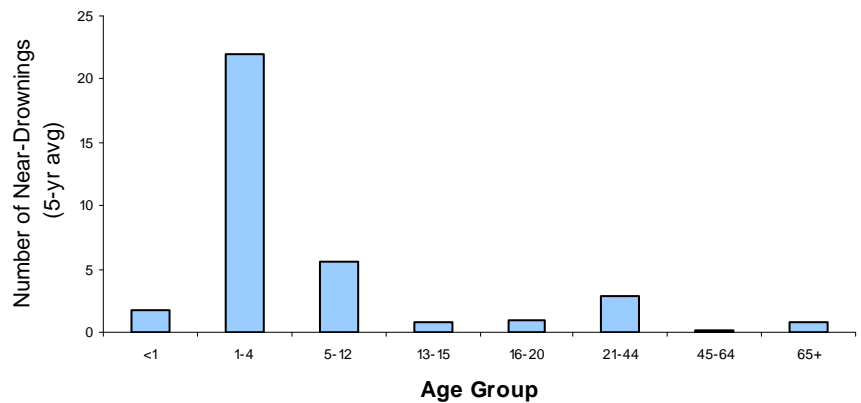
**What is being done?**

The analysis of drowning and near-drowning data allows for the timely identification of trends and the ability to address significant issues to not only direct educational efforts within Riverside County but to also guide our county and state lawmakers to develop more effective and consistent codes. Educational efforts are directed towards parents, daycare providers, and pool owners.

**What can I do to reduce childhood near-drownings and drownings?**

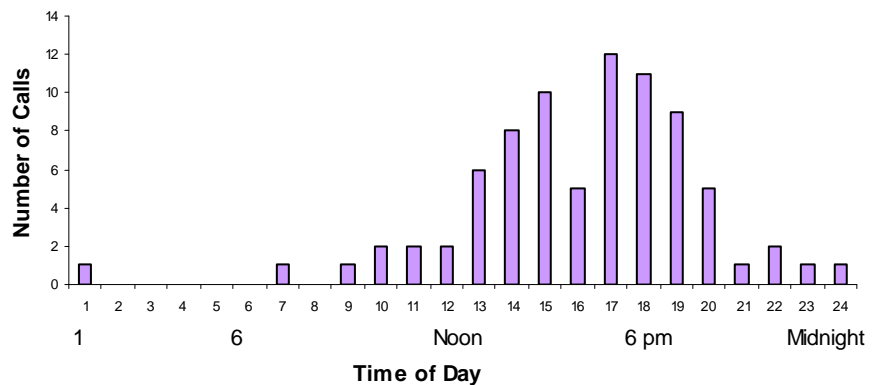
Please contact the Riverside County Injury Prevention Services at 951-358-7171 or [www.rivcoips.org](http://www.rivcoips.org) for more information on water safety.

**Figure 2. Near-Drownings (5-Year Avg) by Age Group, 2000-2004: Riverside County**



Source: Office of Statewide Health Planning and Development (OSHPD) Hospital Discharge Files, 2000-2004

**Figure 3. Drowning 9-1-1 Calls by Time of Day: April 2006 - May 2007: Riverside County**



Source: Riverside County FirstWatch, syndromic surveillance system, April 2006—May 2007

**Suggested Citation**

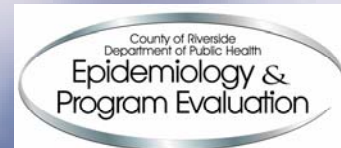
Meconis KD. *Drownings and Near-Drownings in Riverside County, 2003-2007*. Riverside: Riverside County Department of Public Health, Epidemiology and Program Evaluation, 2007.

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