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In This Issue:

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Gearing Up for Summer and Drowning Prevention: Study Assesses Use of PFDs Among Boaters

From 1980 to 1998, nearly 2,400 Washington residents died due to unintentional drowning. Although the number of drowning deaths has significantly declined during the past two decades, drowning remains a leading cause of injury death for children, adolescents, and young adults.

For the past five years, the Department of Health, Office of Emergency Medical and Trauma Prevention, has worked in partnership with Children's Hospital and Regional Medical Center to reduce the incidence of drowning in Washington. Through this partnership, and with funding assistance from federal grants, DOH has conducted several projects designed to better understand and reduce the incidence of premature mortality caused by drowning in open waters.

One of these projects studied use of personal flotation devices (PFD) among boaters. PFD use is of particular interest because boating deaths represent a major proportion (40%) of drowning deaths in Washington, and the use of PFDs has potential to prevent drowning.

Scope of Study

For this study, boaters were observed in six of the eight emergency medical/trauma regions of Washington State, and in the Portland, Oregon area. These regions represent the full range of geographic and climatic variability in the Northwest, from dense forest to desert, and include diverse bodies of water from Puget Sound to large and small rivers and lakes. Boaters were

Continued page 2

May Is Skin Cancer Prevention Month

There is good news: skin cancer can be prevented. The challenge, however, lies in changing the attitudes and behaviors that increase a person's risk of developing skin cancer.

David Satcher, M.D., Ph.D.,
Assistant Secretary for Health
and Surgeon General

Skin cancer is the most common and most rapidly increasing form of cancer in the United States. The three major types of skin cancer are the highly curable basal cell and squamous cell carcinomas and the more serious malignant melanoma. Untreated, basal cell and squamous cell carcinomas can cause considerable damage and disfigurement, but if detected and treated early, these carcinomas have a cure rate of more than 95%.

Malignant melanoma causes more than 75% of all deaths from skin cancer. In Washington, 1,552 new cases of melanoma were diagnosed in 1997. While mortality rates for melanoma have remained constant in recent years, the rate of new cases has increased an average of nearly 5% per year since 1992.

Several risk factors are associated with the development of skin cancer including exposure to the sun's ultraviolet (UV) radiation (especially acute sunburn in the case of melanoma), age, race, precursor lesions, and a family history of skin cancer. Age is a risk factor because of the cumulative exposure to the sun. Lightly pigmented skin magnifies risk due increased likelihood of acute sunburn.

Continued page 4

PFD Use *(from page 1)*

observed at 19 sites that met the following criteria: (1) a popular boating recreation area with a high volume of small boats used by families with children; (2) a safe place for an observer to sit.

The study was restricted to persons in boats less than 19 feet and excluded personal watercraft (jet skis), rowing sculls, and sailboards. Observers collected data on 4,210 boaters, including estimated age (<5 years, 5–14 years, and >14 years), gender, type of boat, PFD use, and water, wind, and weather conditions.

Findings and Strategies

The study found that PFD use did not vary with observed water and weather conditions. However, all observations were made under conditions of calm or nearly calm water and little wind. Although PFD use varied somewhat by water type and region, most differences were not statistically significant after data were adjusted for boat type.

Table 1 summarizes key findings and Table 2 presents relative prevalence of PFD use among groups of boaters and types of boats. Study findings have been published in *Injury Prevention*.* Of particular interest was the observation that children were more likely to use a PFD when an adult wore one. Studies of bicycle helmet and seat restraint use have noted this same correlation. The link between adult and child use has been attributed to the effect of peer and adult role models and has prompted recommendations to require adult seat restraint use to increase seat restraint use by children. Similarly, efforts to increase PFD use by adults could be a strategy to increase child use.

The findings of this study will help identify groups who do not wear PFDs and focus efforts to increase use. The findings suggest that strategies should target adolescents, adults, and specific boating populations, especially those in motor boats. Physicians, emergency medical service providers, and other public health professionals are urged to take an active role in this effort. Anyone interested in drowning prevention may access the web sites maintained by the Department of Health (www.doh.wa.gov/hsqa/emtp) and the Children's Hospital and Regional Medical Center (www.seattlechildren.org/dp/). These sites include drowning prevention curriculum and information packets with messages targeted to specific groups.

TABLE 2 : Observed prevalence of personal flotation device use

Category	Relative Prevalence	95% C.I.
Age (years)		
0-4	6.7	6.0 - 7.5
5-14	5.3	4.7 - 5.9
>14	1.0	
Sex		
female	1.5	1.3 - 1.6
male	1.0	
Boat Type		
sailboat	2.3	2.0 - 2.8
rowboat	1.3	1.1 - 1.5
canoe	2.2	2.0 - 2.5
kayak	5.5	4.9 - 6.2
raft	1.1	0.8 - 1.5
motorboat	1.0	

TABLE 1: Key findings of Department of Health study

- The prevalence of PFD use among the Washington boaters was low (25%), but varied according to age, gender, and type of boat.
- PFD use was highest (91%) among children less than 5 years old regardless of type of boat or gender. For those aged 5–14 years, use was less frequent (64%) but varied by type of boat. Among those over 14 years, use was low (13%) and varied with type of boat and gender.
- Children were more likely to wear PFDs if an adult wore one. When a child less than 15 years was in a boat with an adult, PFD use was 65% if no adult wore a PFD but 95% if at least one accompanying adult wore a PFD. These differences were statistically significant ($p < 0.001$).
- Females were more likely to wear a PFD (31%) than were males (21%).
- PFD use was highest in kayakers (78%), followed by sailors (50%). Motor boaters were the least likely to wear a PFD (19%), even after adjustment of data for age and gender.

For More Information

Contact: Kathy Williams, M.S., trauma prevention specialist at the DOH Office of Emergency Medical and Trauma Prevention, 360-705-6738, or by email: kathy.williams@doh.wa.gov

*Quan L, Bennett E, Cummings P, Trusty M, Treser C: Are life vests worn? A multiregional observational study of personal flotation device use in small boats. *Injury Prevention* 1998; 4:203-205.

Monthly Surveillance Data by County

April 2000* – Washington State Department of Health

County	E. coli O157:H7	Salmonella	Shigella	Hepatitis A	Hepatitis B	Non-A, Non-B Hepatitis	Meningococcal Disease	Pertussis	Tuberculosis	Chlamydia	Gonorrhea	AIDS	Pesticides†	Lead§#
Adams	0	0	0	0	0	0	0	0	0	4	0	0	0	1/34
Asotin	0	0	0	0	0	0	0	0	0	2	0	0	0	0/0
Benton	0	0	0	0	0	0	0	0	0	24	0	1	1	0/7
Chelan	0	1	0	0	0	0	0	0	0	11	0	0	7	1/5
Clallam	0	0	0	0	0	0	0	0	0	9	1	0	0	0/#
Clark	0	3	2	5	0	0	1	1	1	63	7	3	1	0/9
Columbia	0	0	0	0	0	0	0	0	0	1	0	0	0	0/0
Cowlitz	0	0	2	4	0	0	0	0	0	6	0	1	0	0/38
Douglas	0	0	0	0	0	0	0	0	0	0	0	0	1	0/0
Ferry	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Franklin	0	0	0	0	0	0	0	0	0	6	0	1	2	0/12
Garfield	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Grant	0	0	0	4	0	0	0	0	1	8	1	0	1	3/59
Grays Harbor	0	0	0	0	0	0	1	0	0	10	0	0	0	0/0
Island	0	0	7	0	0	0	0	0	0	24	2	0	0	0/6
Jefferson	0	1	2	0	0	0	0	0	0	5	0	0	0	0/#
King	0	11	18	16	4	1	0	24	12	319	82	17	1	2/136
Kitsap	0	0	0	0	0	0	0	0	0	51	19	3	0	0/12
Kittitas	0	1	0	0	0	0	0	1	0	6	0	0	0	0/0
Klickitat	0	0	0	0	0	0	0	0	0	3	0	0	3	0/0
Lewis	0	0	0	0	0	0	0	0	0	7	3	0	0	0/0
Lincoln	0	0	0	0	0	0	0	0	0	0	0	1	0	0/0
Mason	0	0	0	0	0	0	0	0	0	6	1	1	0	0/0
Okanogan	0	0	0	0	0	0	0	2	0	5	0	0	2	0/#
Pacific	0	0	0	0	0	0	0	0	0	1	0	0	0	0/0
Pend Oreille	0	0	0	0	0	0	0	0	0	1	0	0	0	0/0
Pierce	1	6	4	0	2	1	0	2	2	179	40	5	3	0/24
San Juan	0	0	0	5	0	0	0	0	1	2	0	0	0	0/0
Skagit	0	1	0	0	0	0	0	2	0	17	0	0	0	0/#
Skamania	0	0	0	0	0	0	0	0	0	1	0	0	0	0/0
Snohomish	1	3	2	2	0	0	0	1	4	99	9	4	0	1/11
Spokane	0	0	0	0	0	0	0	0	0	50	6	0	2	0/8
Stevens	0	0	0	0	0	0	0	0	0	1	0	3	1	0/0
Thurston	0	1	1	0	0	0	0	0	1	38	1	0	0	0/0
Wahkiakum	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Walla Walla	1	0	0	0	0	0	0	0	0	8	0	0	0	6/9
Whatcom	1	1	0	0	0	0	0	2	0	25	0	0	0	0/#
Whitman	0	1	0	0	0	0	0	0	1	8	0	0	0	0/0
Yakima	0	0	0	0	0	0	0	0	1	71	4	1	3	0/16
Unknown														0/0
Current Month	4	30	38	36	6	2	2	35	24	1071	176	43	28	14/398
February 1999	6	42	13	19	9	2	7	185	23	716	149	21	23	11/196
2000 to date	12	98	208	94	17	8	15	89	76	4261	762	166	61	37/1294
1999 to date	10	116	29	92	18	4	24	395	88	3836	689	115	44	44/1234

* Data are provisional based on reports received as of April 30, unless otherwise noted.
† Unconfirmed reports of illness associated with pesticide exposure.
§# Number of elevated tests (data include unconfirmed reports) / total tests performed (not number of children tested); number of tests per county indicates county of health care provider, not county of residence for children tested; # means fewer than 5 tests performed, number omitted for confidentiality reasons.

Clusters of Hepatitis Cases Draw Attention

WWW
Access Tips

The Centers for Disease Control and Prevention offers a web-based training program and information about hepatitis at http://www.cdc.gov/hepatitis

Various types of viral hepatitis have prompted concern in Washington this month. A cluster of hepatitis A cases in elementary school students in Grant County prompted plans to provide vaccine coverage to children there. Pierce County health officials have identified a cluster of hepatitis D (delta hepatitis) cases among injection drug users and are working with the Centers for Disease Control and Prevention to plan intervention.

The CDC Hepatitis Branch is launching an interactive web-based training program for health professionals on hepatitis C and is offering free continuing education credits available to physicians and nurses. "Hepatitis C: What Clinicians and Other Professionals Need to Know" provides up-to-date information on the epidemiology, diagnosis, and management of HCV infection and HCV-related chronic disease. Users can also test their knowledge of the material through study questions at the end of each section and through case studies. Visit the CDC web site (see WWW Access Tips) for details on the training program and other information.

The Tacoma-Pierce County Health Department will offer special vaccination clinics for intravenous drug users, their sexual partners, and household contacts of persons with acute hepatitis B. More information is available at: http://www.healthdept.co.pierce.wa.us./HealthAlertsYes.htm.

Skin Cancer *(from page 1)*

Exposure to UV rays appears to be the most important factor in the development of skin cancer. Parents, health care providers, schools, and community organizations can play a major role in reinforcing sun protection behaviors. The Centers for Disease Control and Prevention's national skin cancer prevention campaign, "Choose Your Cover," includes the following five steps for sun safety:

- *Wear a Hat* with a wide brim to shade the face, ears, scalp, and neck from UV rays.
- *Cover Up* with a shirt, beach cover-up, pants, or other clothing to protect exposed skin — the tighter the fabric weave, the better.
- *Grab Shades* that block both UVA and UVB rays to protect eyes and prevent future cataracts.
- *Seek Shade* under a tree, beach umbrella, tent, or other shelter, especially if outdoor activities are unavoidable during midday when UV rays are strongest and do the most damage.
- *Put on Sunscreen* to protect exposed skin — choose a sunscreen and a lip balm with at least SPF 15 and both UVA and UVB protection.

For more information, contact Mary LeMier, 360-236-3693 or mary.lemier@doh.wa.gov.

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