

Rip Currents: A Survey of Beach Users

- Survey: Questions, Process
- General Results on Rip Current Knowledge
- Results by Age, Gender, Conditions, and Frequency of Visit
- Beach User's Sources of Information
- Summary



US Environmental Protection Agency, Karen Holland

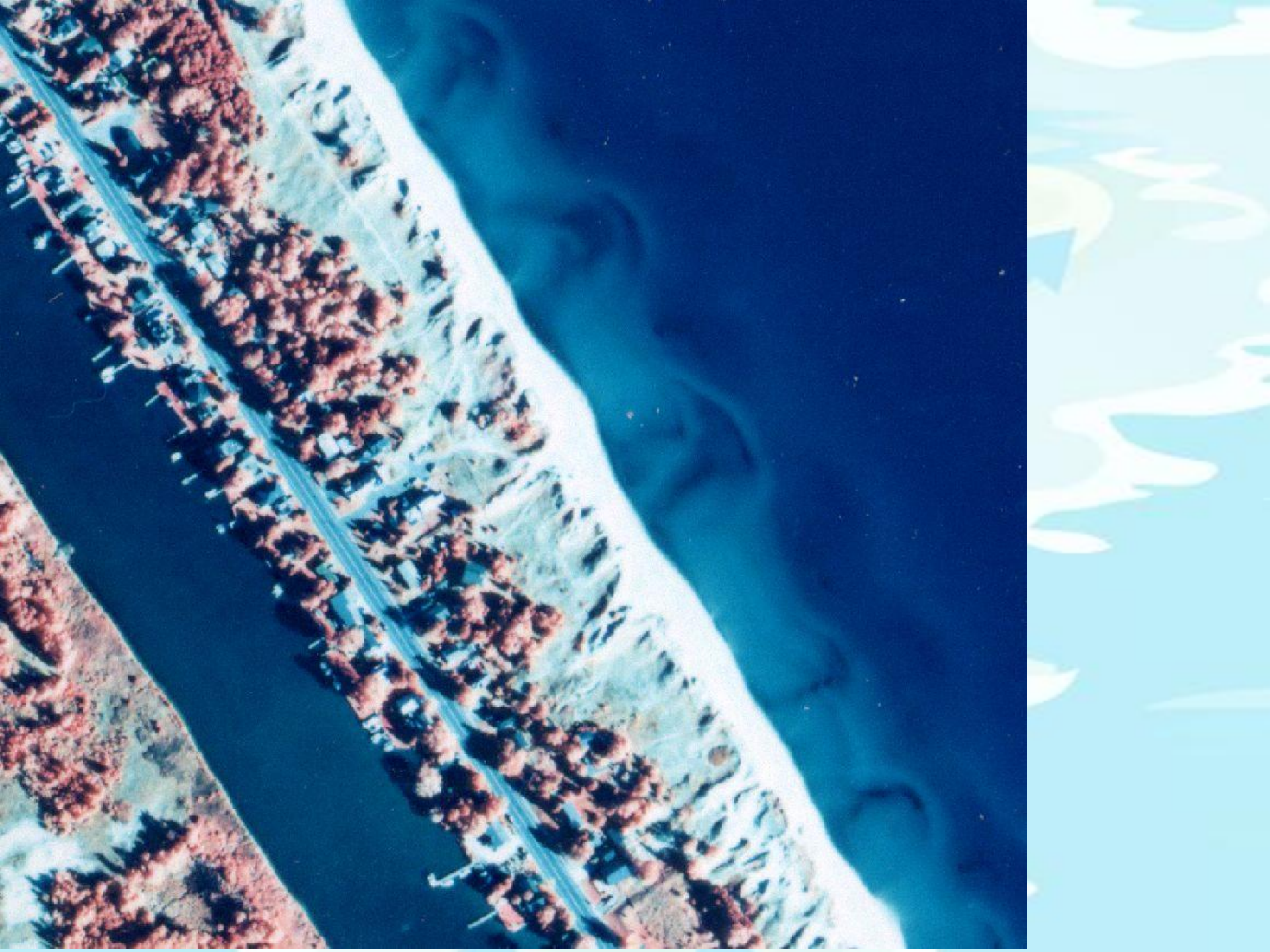
Jesse Schomberg
Minnesota Sea Grant
www.seagrants.mn.edu/rip

Our Beaches: a single 10-mile long sandbar

Minnesota Point: over 1,000 residents, park and recreation areas, official city beach

Wisconsin Point: fairly remote and mostly undeveloped, no services





Summer 2006 Rip Current Activities

- Student intern
- Face-to-face survey of 195 Minnesota Point beach users on Rip Current Awareness and Knowledge
 - Calm and wavy days, daytimes and evenings, various access points
 - “Random” selection among age classes and gender
 - 9 Questions
- Hand out brochures to beach users after survey



Rip Current Survey Questions

1. Have you ever heard about rip currents in Lake Superior? (y/n)
2. Where have you heard about them from? (signs, brochures, radio, TV, newspaper, friends or family)
3. Can you explain how to get out of a rip current? (swim sideways/parallel to shore, float/tread water until current slows, then swim at angle towards shore)
4. What are some visual signs of a rip current in the water? (different/choppy wave pattern, foam or debris flowing from shore, dirty/muddy water, darker/deeper looking water)

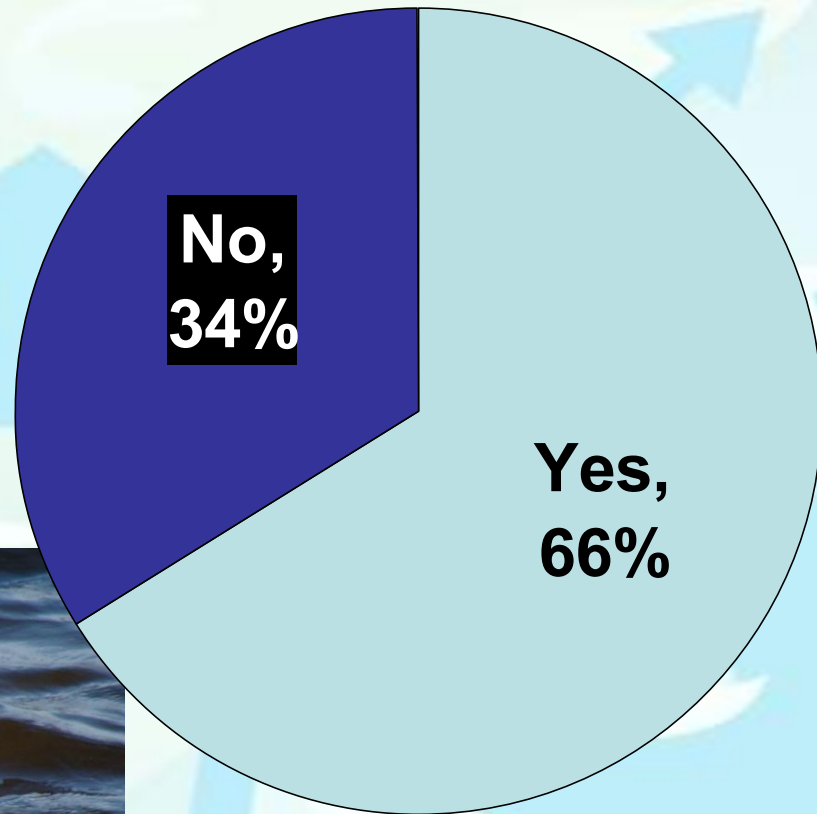
More...

Rip Current Survey Questions

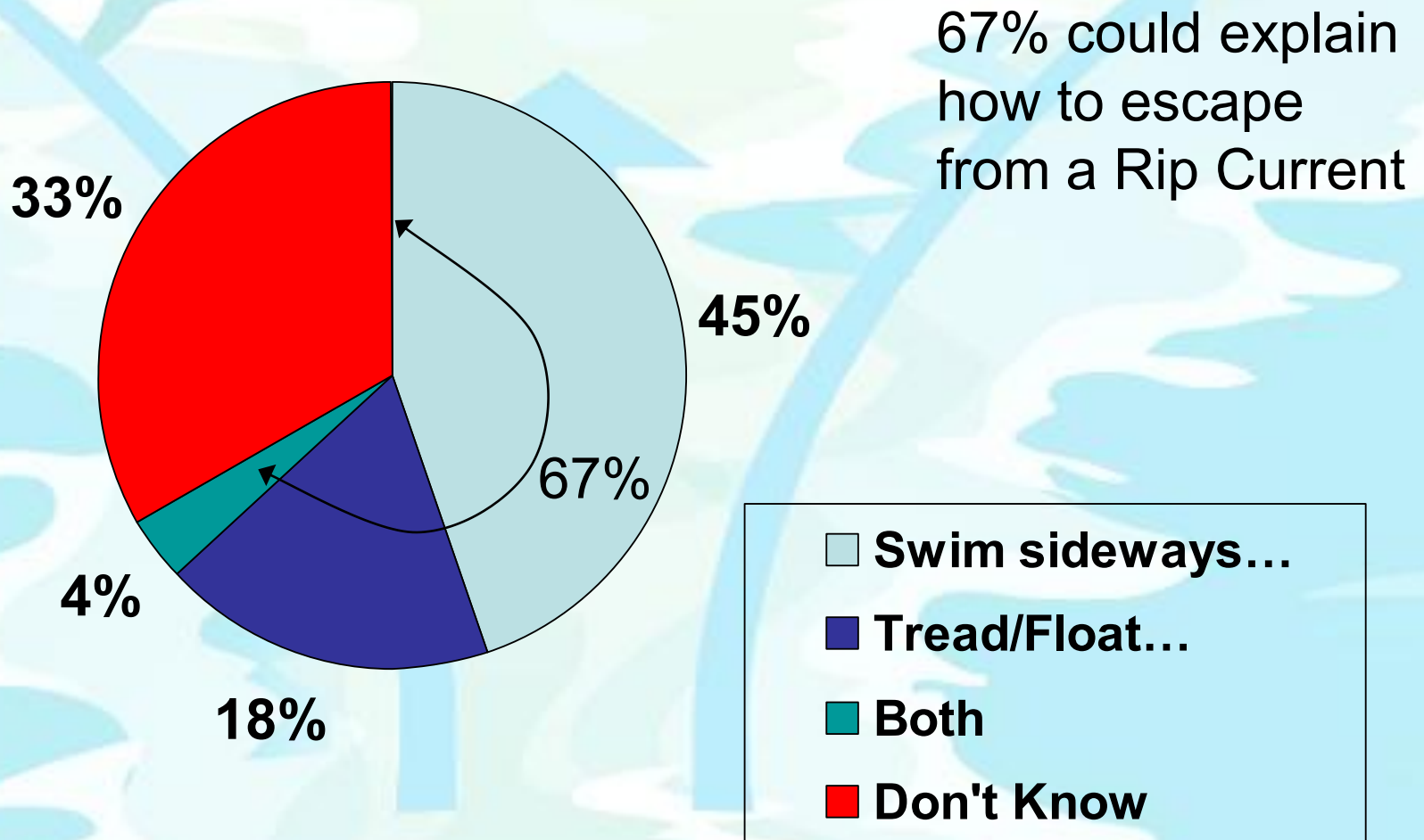
5. Have you seen the signs along the beach that show how to get out of a rip current? (y/n)
6. How often have you visited a beach in MN Point in the past 5 years? (many, a few, only a couple, 1st time)
7. Do you or anyone in your party have a cell phone that could be used to call for help? (y/n)
8. Year born
9. Zip Code

Have you heard about Rip Currents?

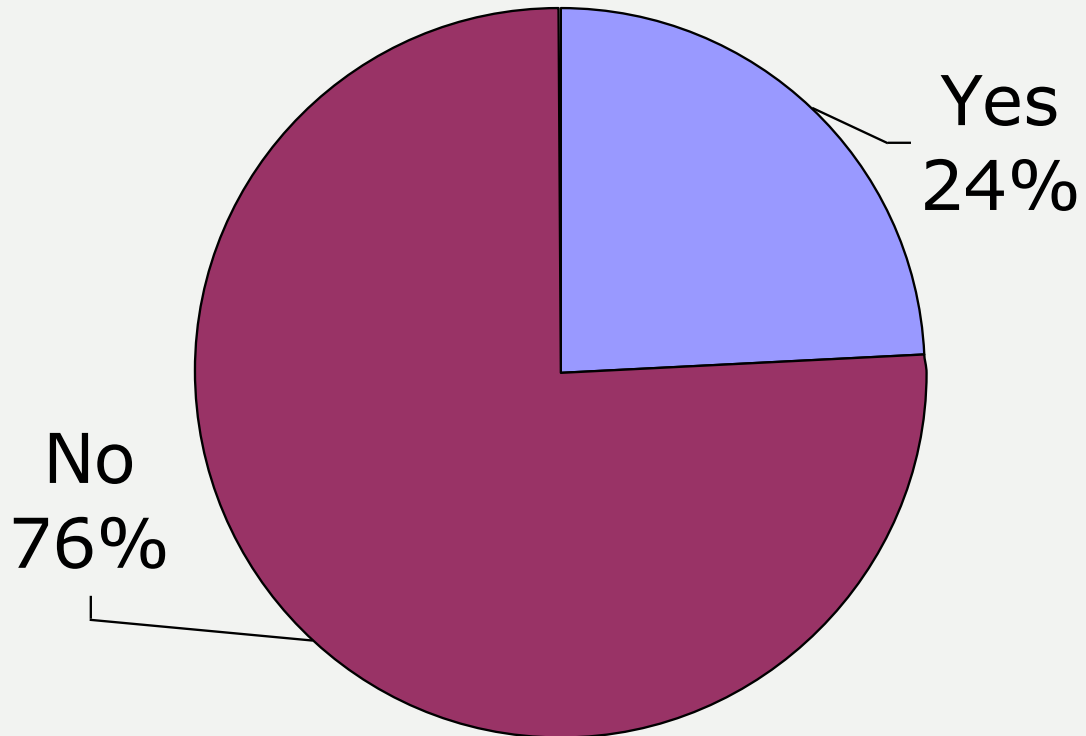
(all beach users surveyed)



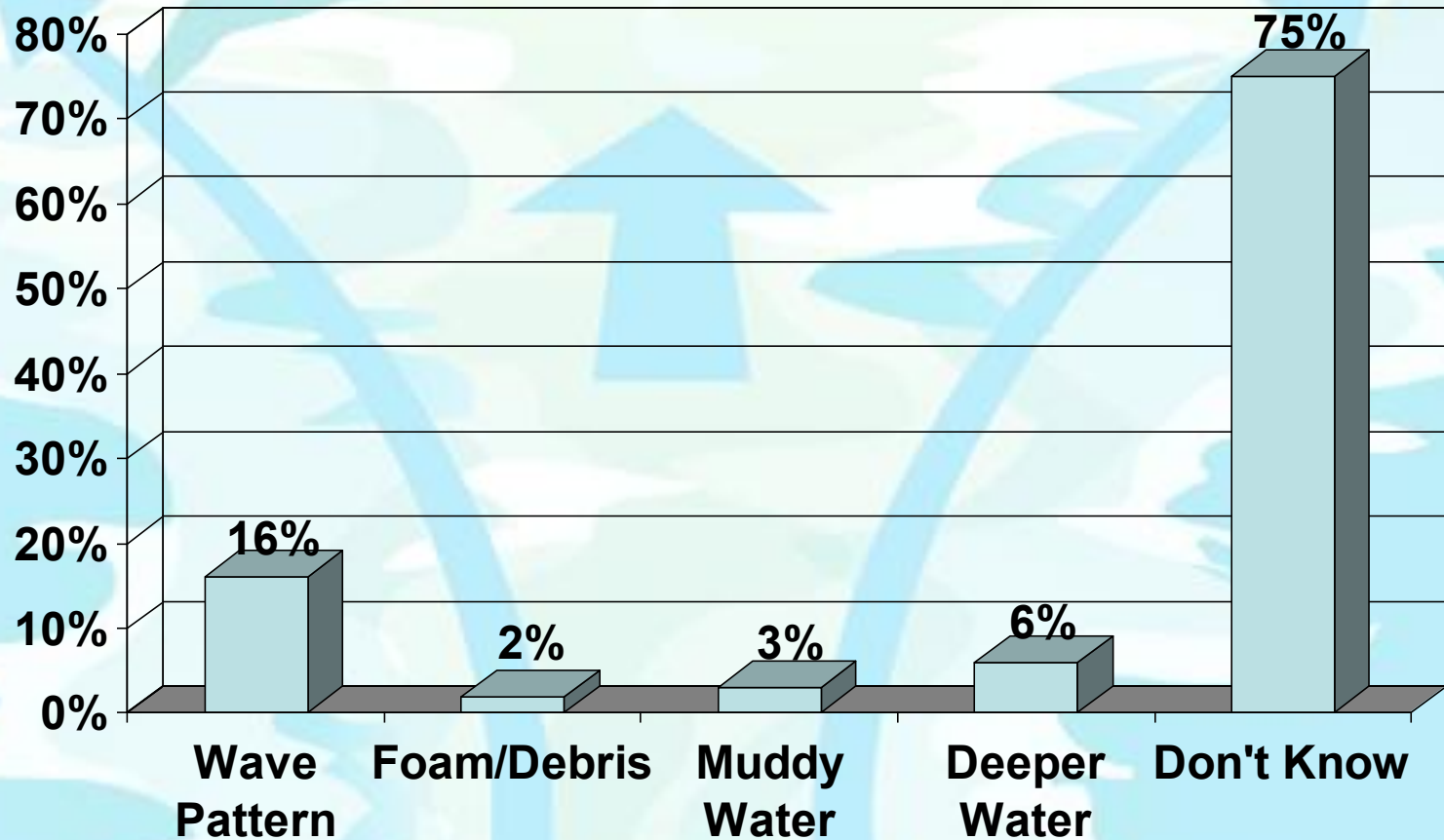
% of beach users able to explain how to escape a Rip Current



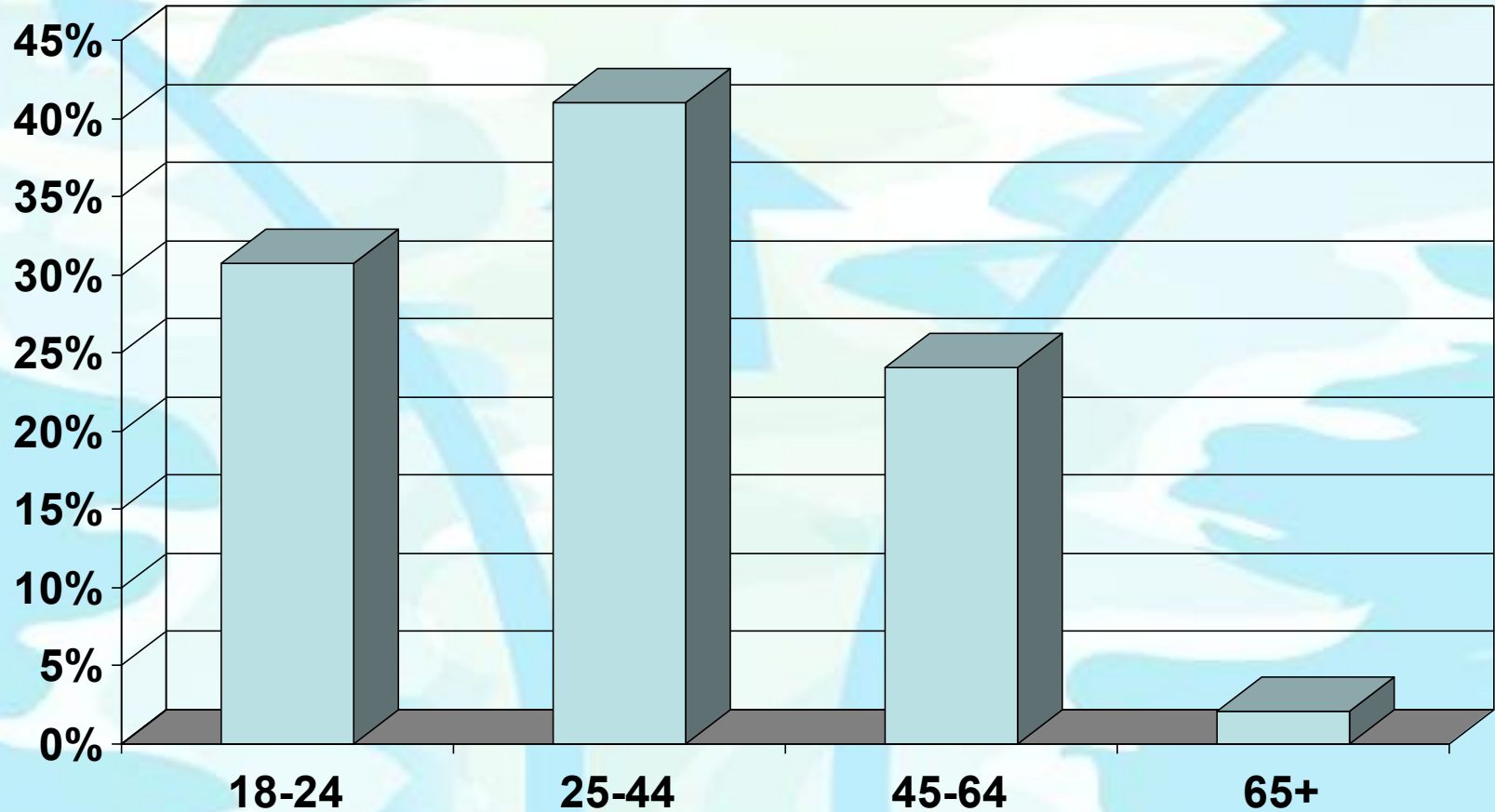
Percent of individuals that can identify visual signs of rip currents



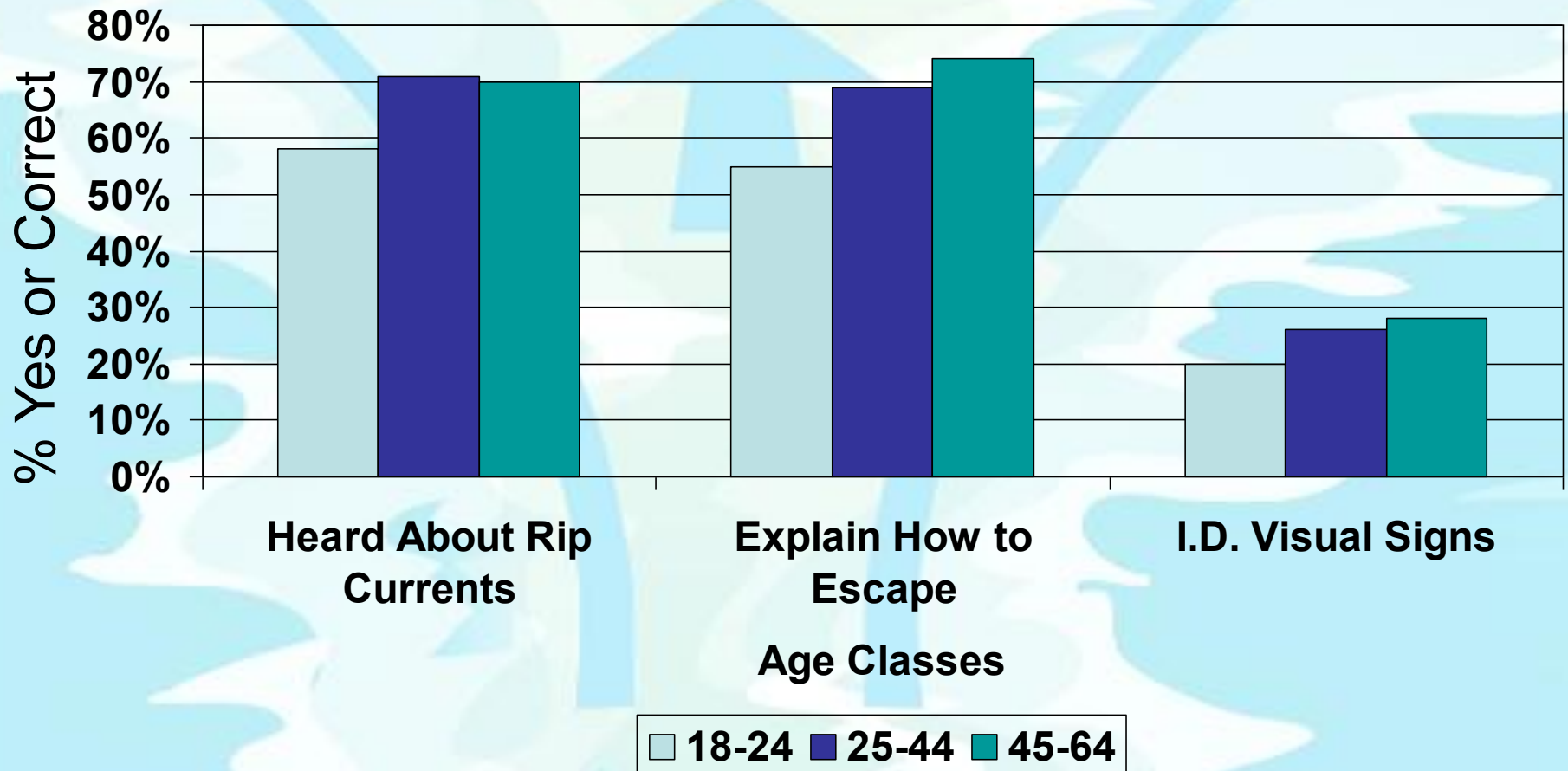
Identification of Visual Signs of Rip Currents



Age Classes: All Surveyed

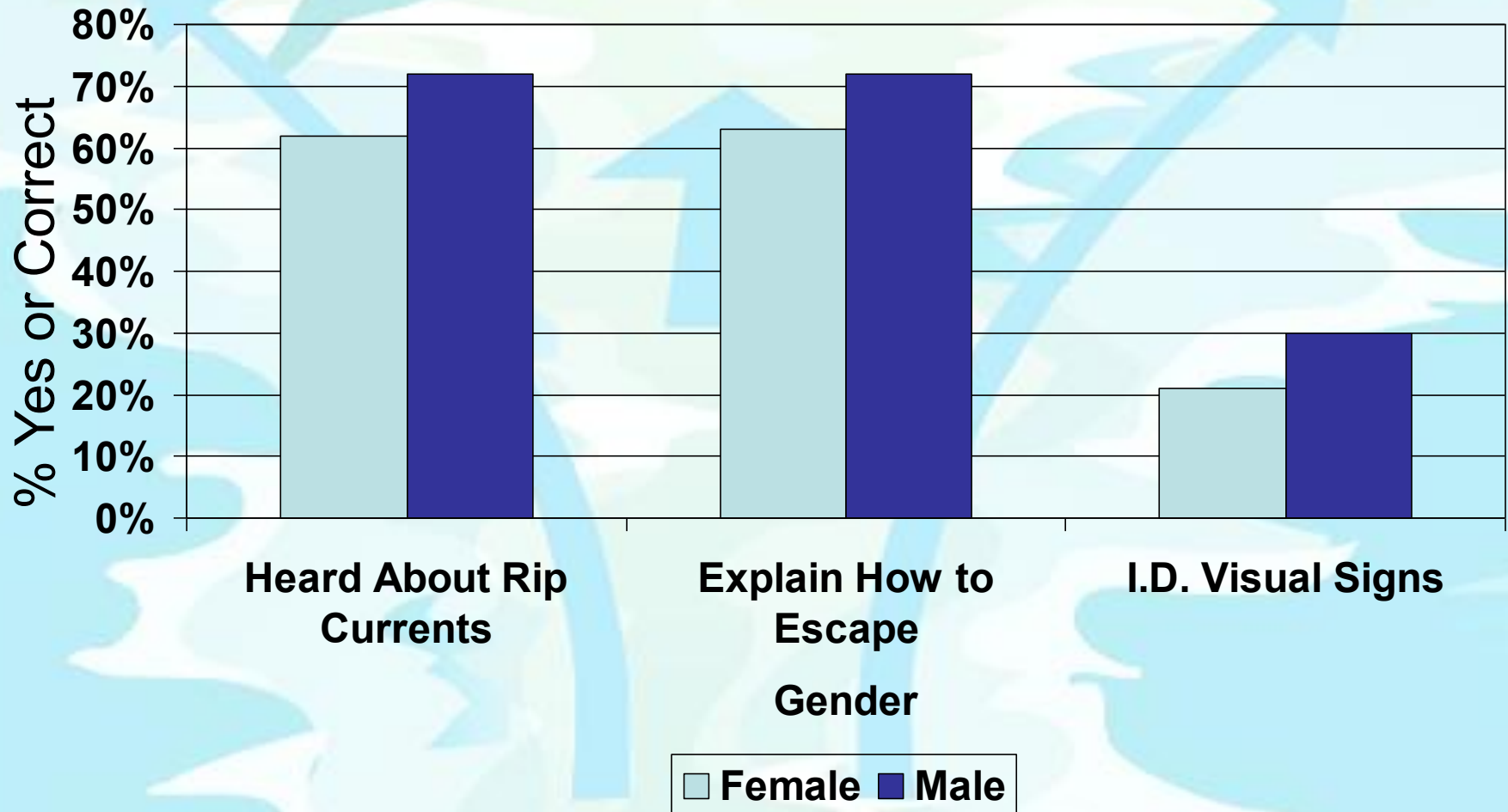


Knowledge of Rip Currents by Age Class



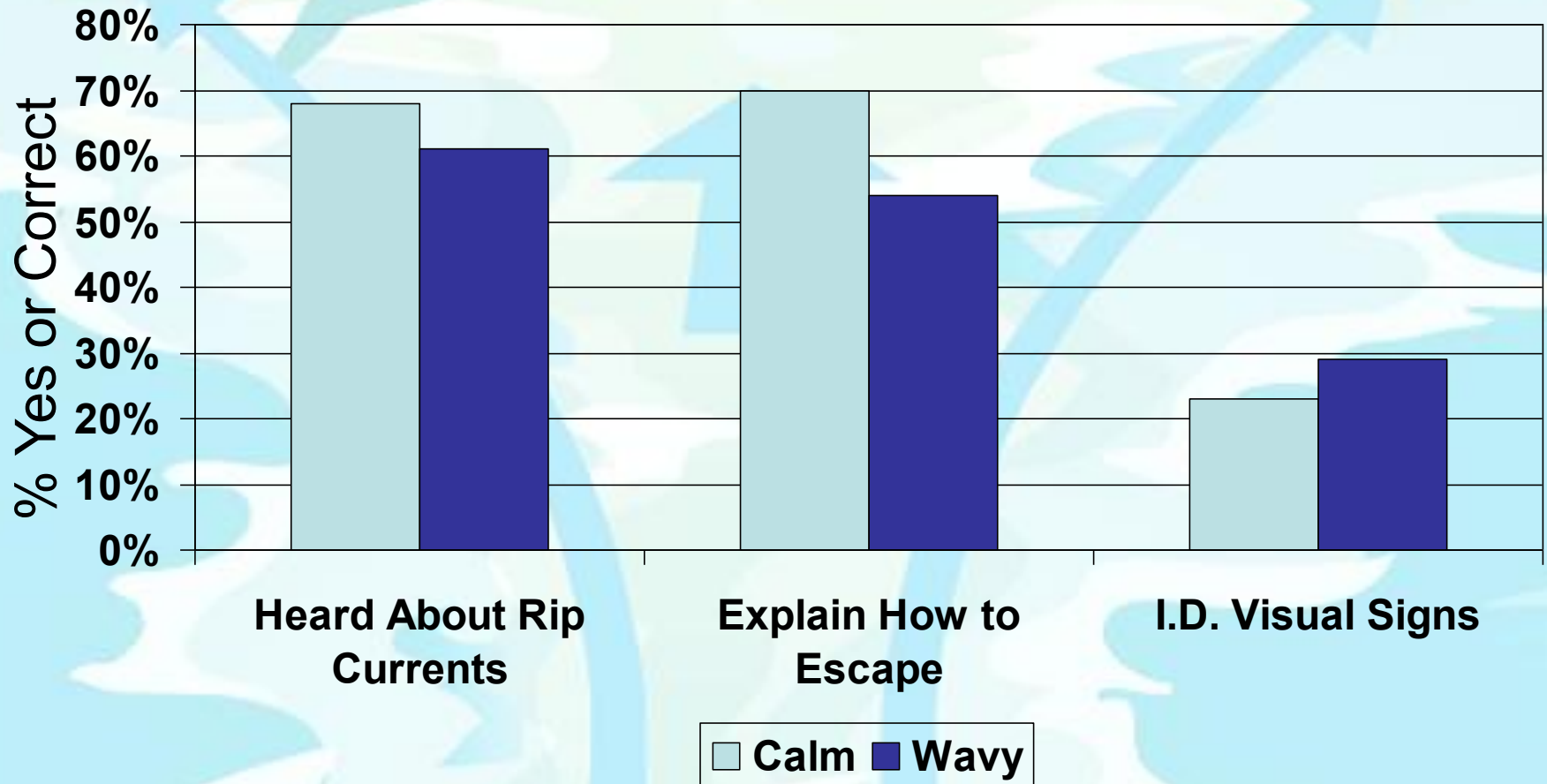
Results by Gender

Knowledge of Rip Currents by Gender



Chi square = 2.429, 2.056, 2.360 respectively; none significant at $p=0.05$

Knowledge of Rip Currents by Wave Conditions



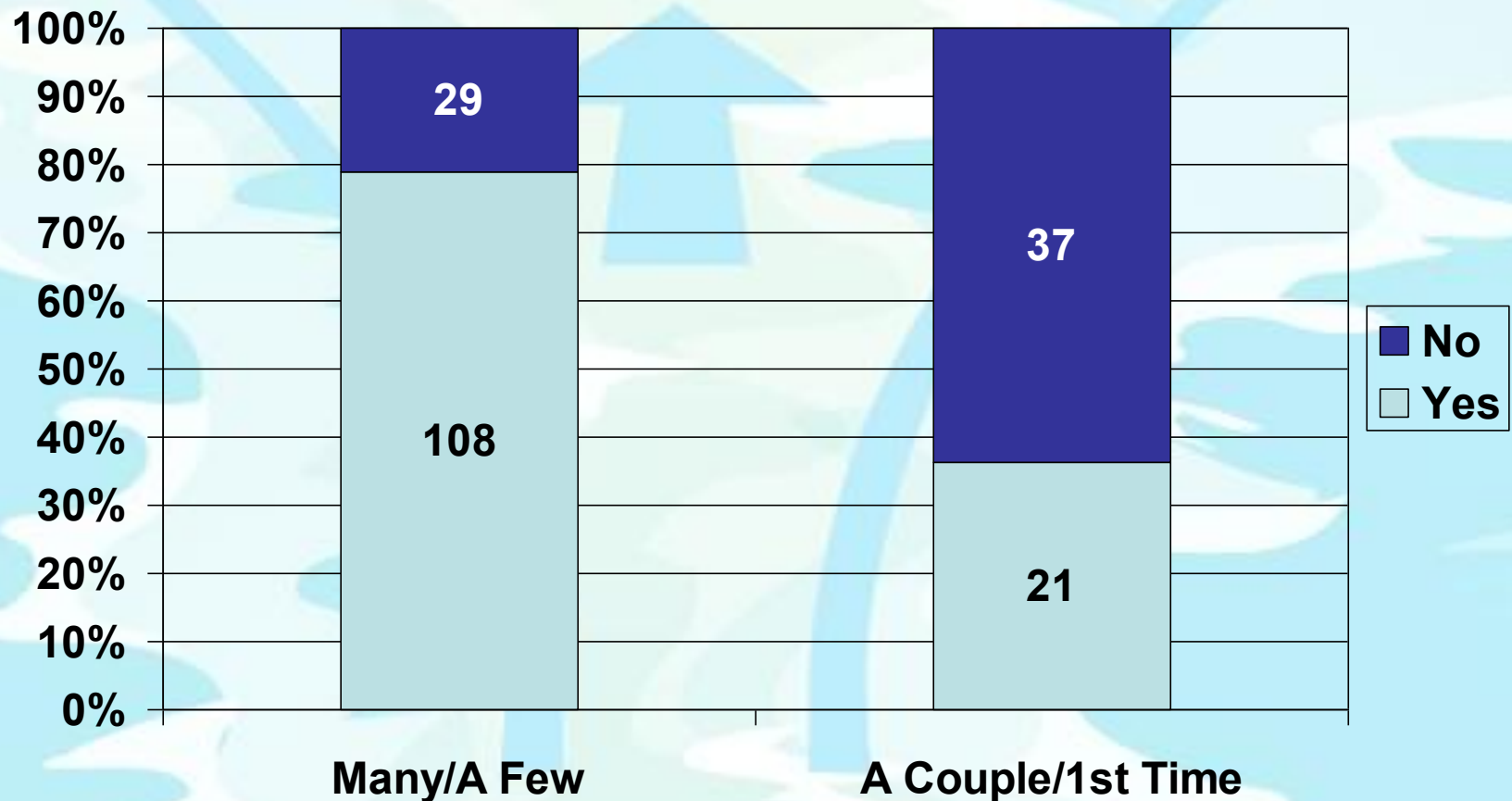
Chi square = 0.621, 3.953, 0.606, Respectively; Escape Knowledge significant at $p=0.05$

Frequency of Visits: All Surveyed



Results by Frequency of Visit

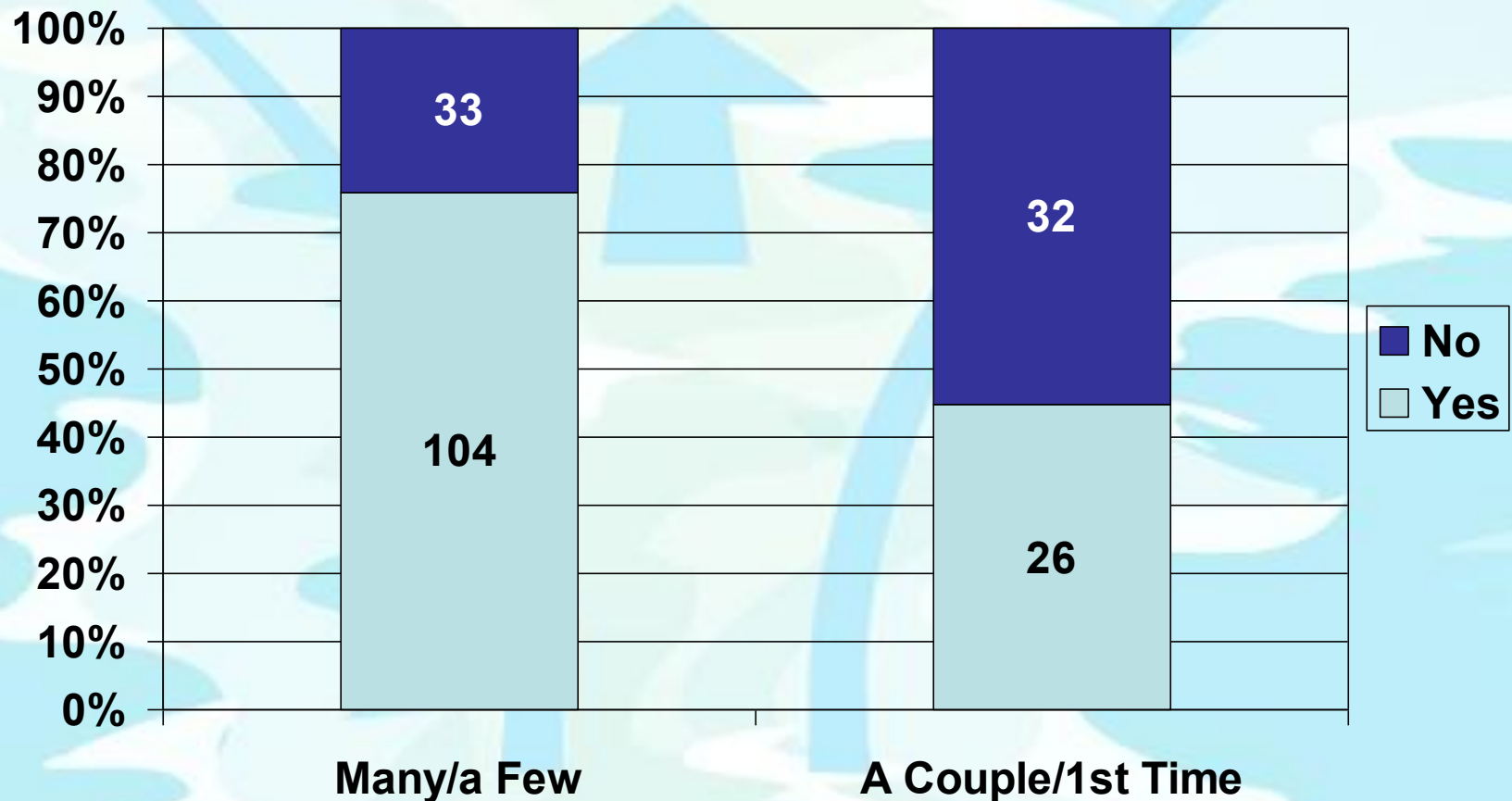
Have you ever heard about Rip Currents in Lake Superior?



Chi square = 33.066; significant at $p=0.05$

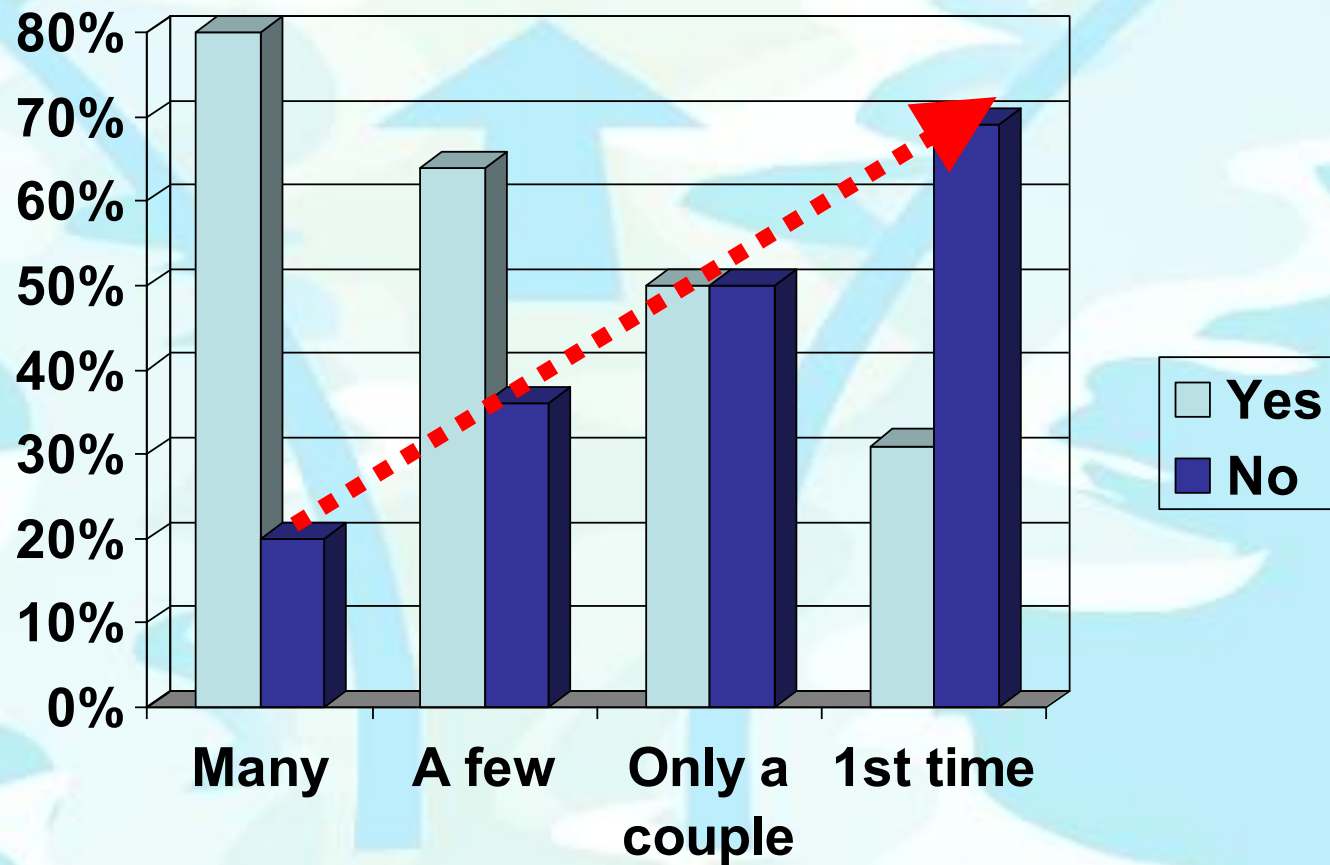
Results by Frequency of Visit

Can you explain how to get out of a rip current?



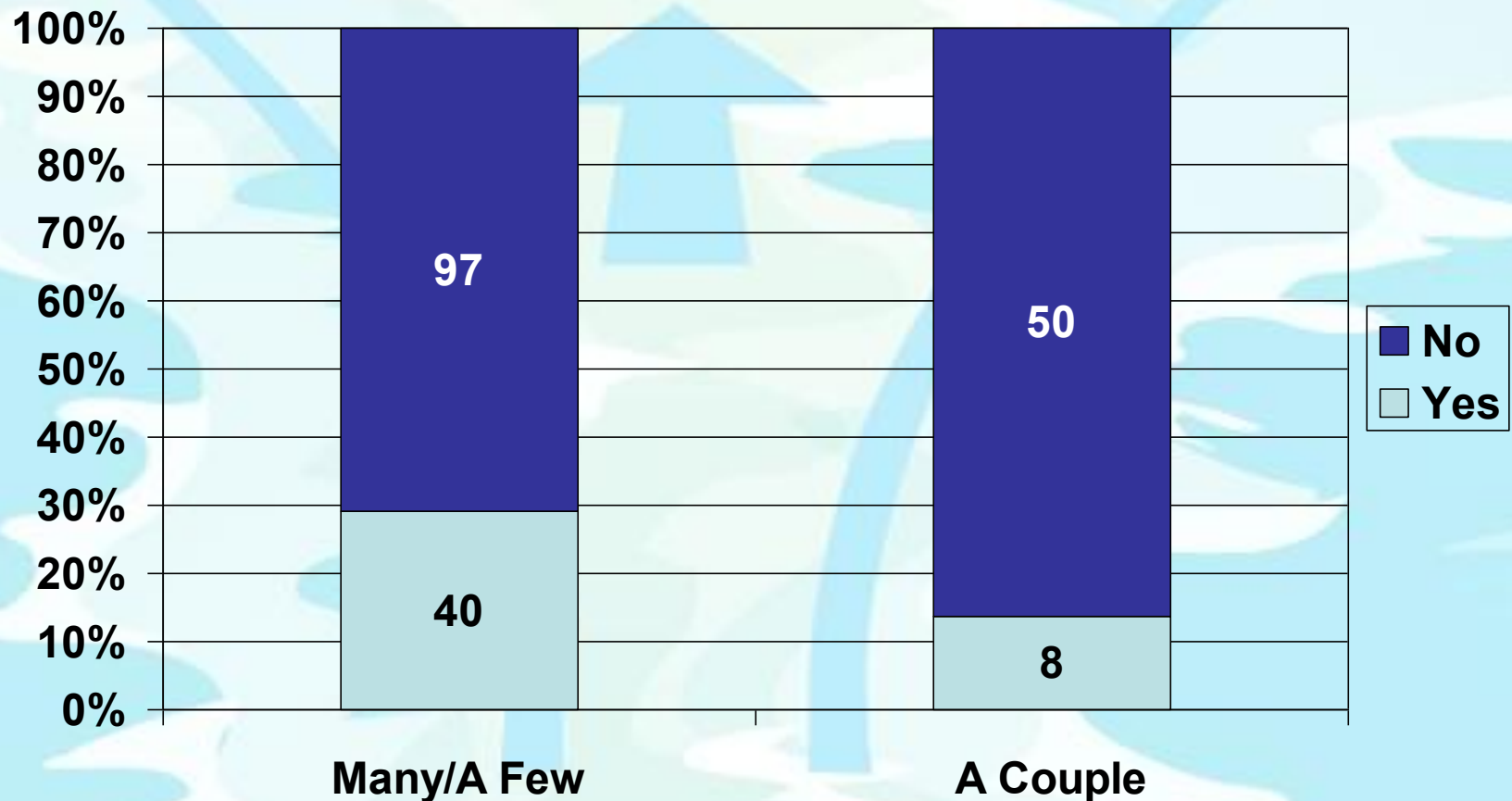
Chi square = 17.708; significant at $p=0.05$

% of beach users able to explain how to escape a Rip Current vs. frequency of visits to Minnesota Point



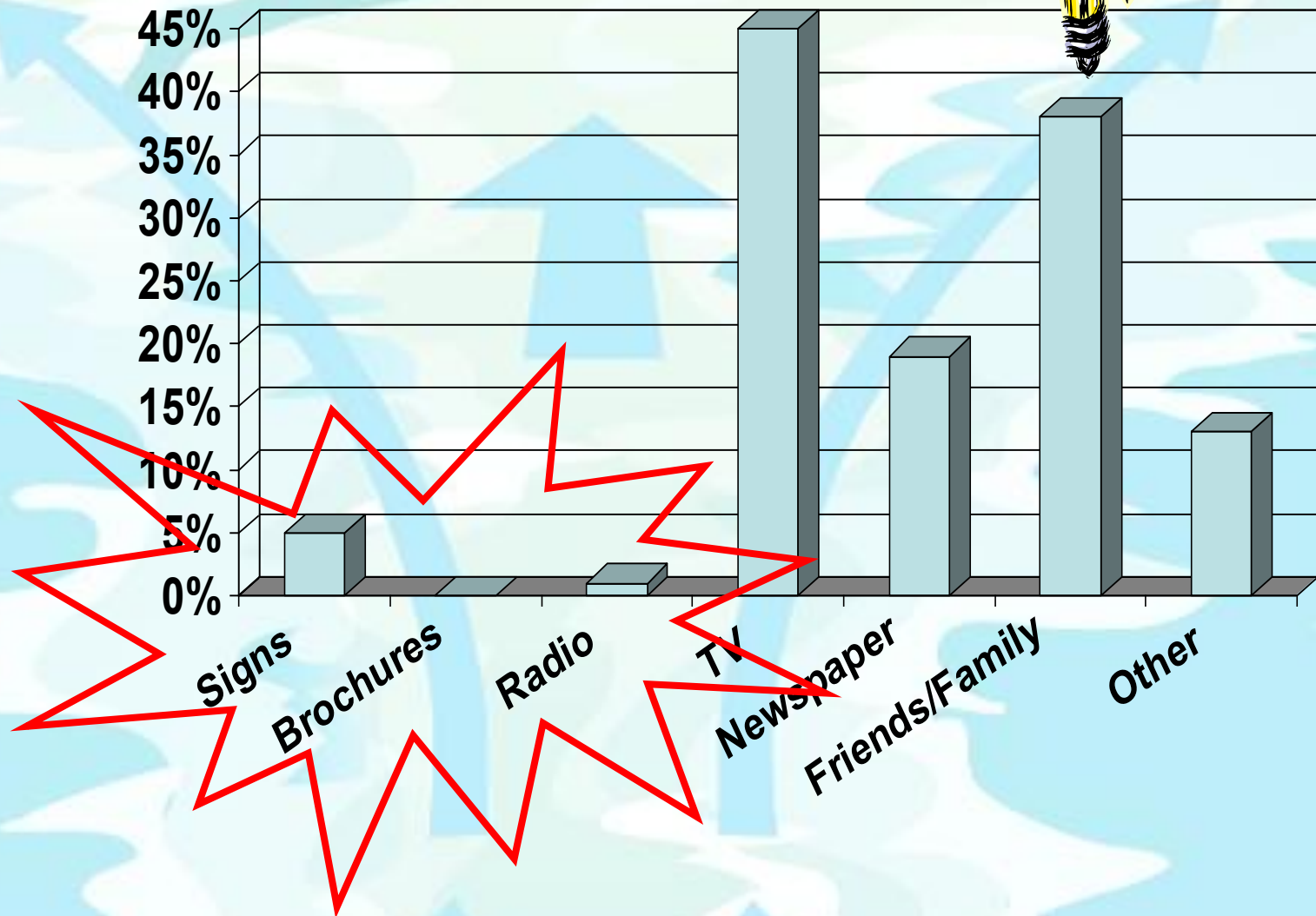
Results by Frequency of Visit

What are some visual signs of a rip current in the water?

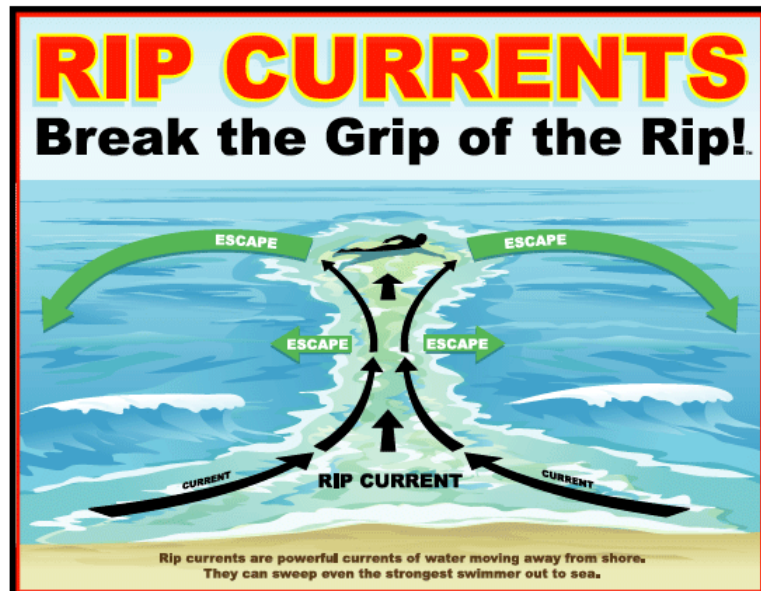
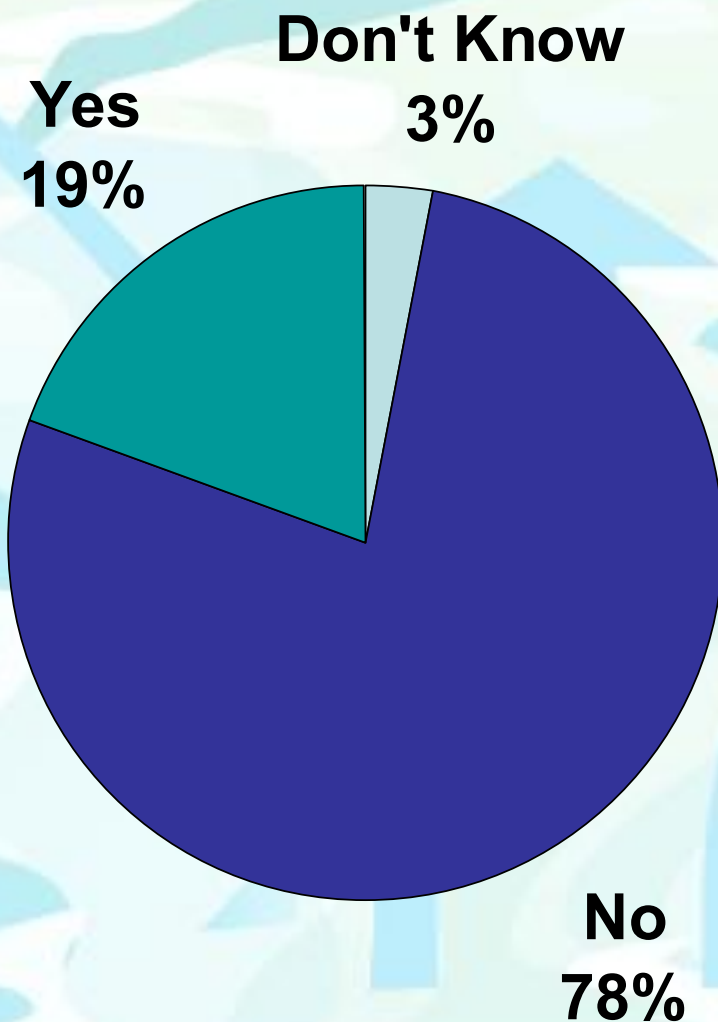


Chi square = 5.210; significant at $p=0.05$

Where have you heard about Rip Currents?



Have you seen the signs along the beach that show how to get out of a rip Current?



IF CAUGHT IN A RIP CURRENT

- ◆ Don't fight the current
- ◆ Swim out of the current, then to shore
- ◆ If you can't escape, float or tread water
- ◆ If you need help, call or wave for assistance

SAFETY

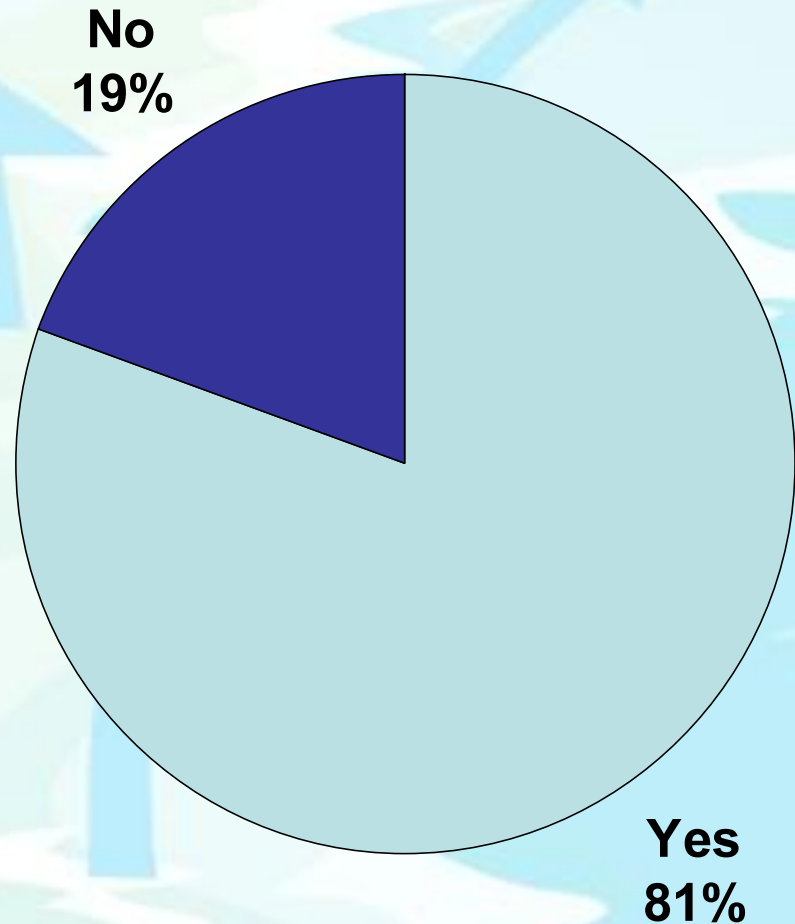
- ◆ Know how to swim
- ◆ Never swim alone
- ◆ If in doubt, don't go out

More information about rip currents can be found at the following web sites:

www.ripcurrents.noaa.gov
www.uslaa.org



Do you or anyone
in your party have
a cell phone that
could be used to
call for help?



Main Points From Survey: Who Knows What?



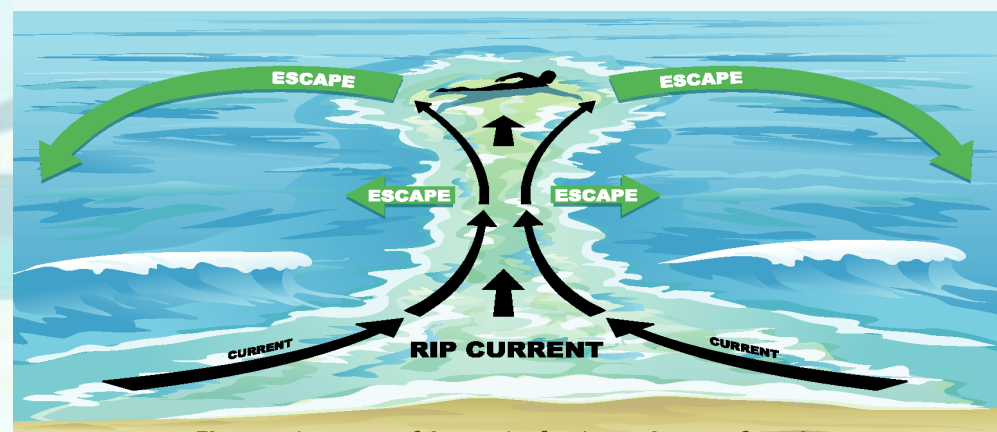
- Most beach users have heard about, and know how to escape from Rip Currents
- Males and Females, age classes similar in knowledge
- Approx. 75% of Frequent Visitors could explain how to escape from a Rip Current
- TV, Newspapers, and Friends/Family the most common source of knowledge about Rip Currents

Main Points From Survey: Who Doesn't Know What?

- Infrequent and new visitors constitute a significant portion of beach users (30% in this survey), but they are much less knowledgeable about Rip Currents
- Knowledge of visual signs low among all groups
- Wavy-day users less knowledgeable than calm day users



Conclusions



- Most at-risk group are infrequent visitors to beach, not easily reached by local outreach efforts
 - Work with tourism industry: hotels, restaurants
- Education efforts still needed in:
 - Visual identification of Rip Currents
 - Knowing both methods of escaping
- Is 67% knowing how to escape good enough??

The background features a stylized illustration of a swimmer in a blue and yellow color palette, overlaid with a large, light blue compass rose. The swimmer is positioned horizontally across the upper half of the image, with arms and legs extended. The compass rose has four prominent arrows pointing towards the corners.

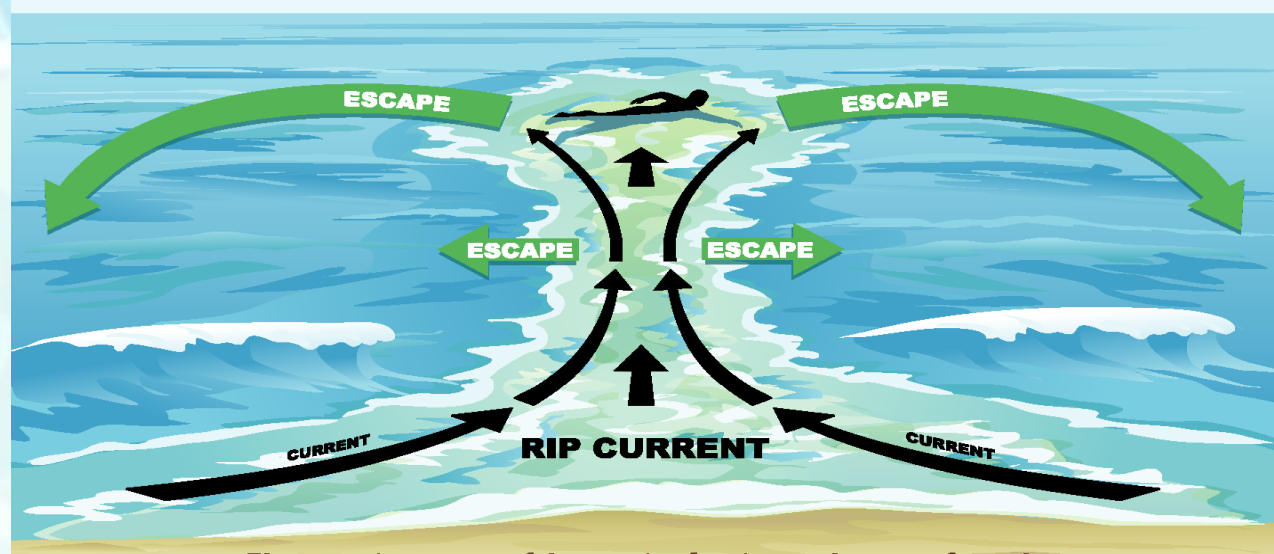
Jesse Schomberg
University of Minnesota Sea Grant
Program

www.seagrants.mn.edu/rip



Escaping a Rip Current

- **Third: If you get caught in a Rip Current:**
 - Don't fight the current; this will only exhaust you
 - Swim parallel to shore until you're out of the current, then angle back to shore
 - Or... float out in the current until the current dissipates, then swim at an angle back to shore



Escaping a Rip Current

- **First:**
 - Know how to swim, and swim with a friend!
- **Second:**
 - Don't get caught! Know the signs of a Rip Current, and LOOK for them!



Visual Signs of a Rip Current:

- Foam or debris floating away from shore
- a break in the wave pattern
- A channel of churning, choppy water
- Soon after formation, you may see a channel of dirtier looking water, but after a while, this dirtiness may vanish



Rip Current Activities in MN

- Sea Grant:
 - News Releases
 - Radio PSA's to local stations*
 - Brochures*
 - Radio interviews*
 - Seiche newsletter articles
 - Local Rip Current web page
 - www.seagrant.umn.edu/rip
 - Survey of beach users

June 2004

Rip Currents Hit Home

by Marie Zhuikov

Lake Superior swimmers received a deadly lesson last August when a young man drowned in a rip current off of Park Point. "That was really a wake-up call for many people," said Jesse Schomberg, Minnesota Sea Grant coastal

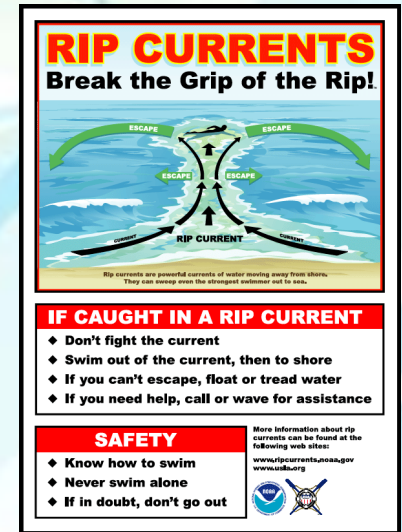


Junior Lessard, national collegiate hockey star, almost lost his life in a Lake Superior rip current last summer.



Rip Current Activities in MN

- City of Duluth:
 - Training for lifeguards
 - Signs along park point*
 - Signs at beach access points*
 - Brochures at beach house*
 - Information at all public swimming pools
 - Procedure for closing beaches and notifying public when Rip Current conditions exist
 - In cooperation with NWS office in Duluth





Courtesy of Lifeguard Captain Nick Steers, County of Los Angeles Fire Department