

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

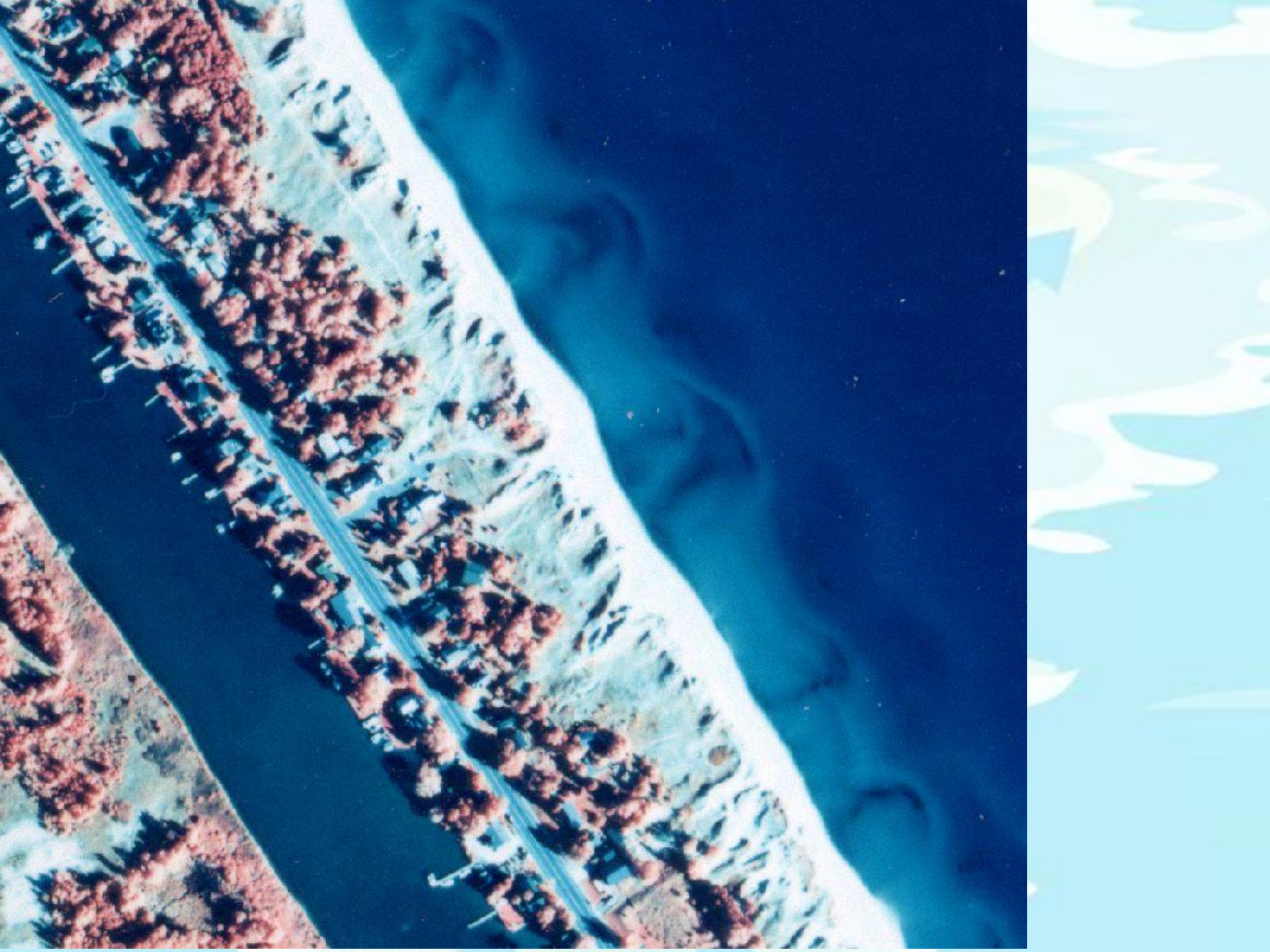
Jesse Schomberg
Minnesota Sea Grant
www.seagrants.umn.edu/rip

Our Beaches: a single 10-mile long sandbar

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

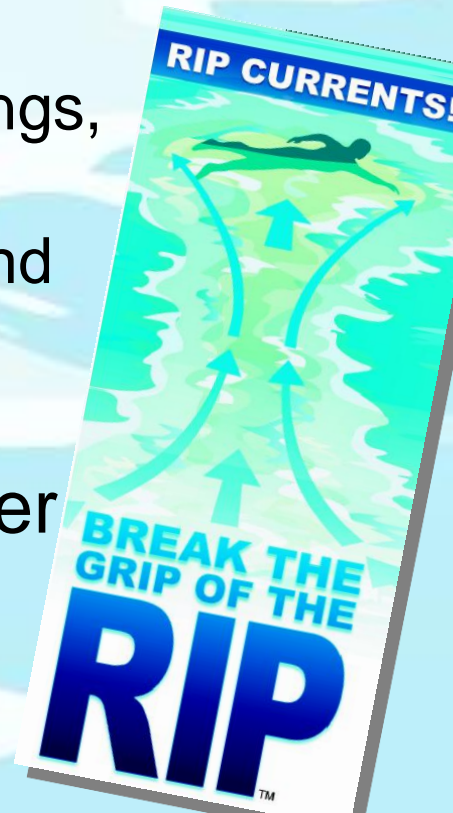
Wisconsin Point: fairly remote and mostly undeveloped, no services





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

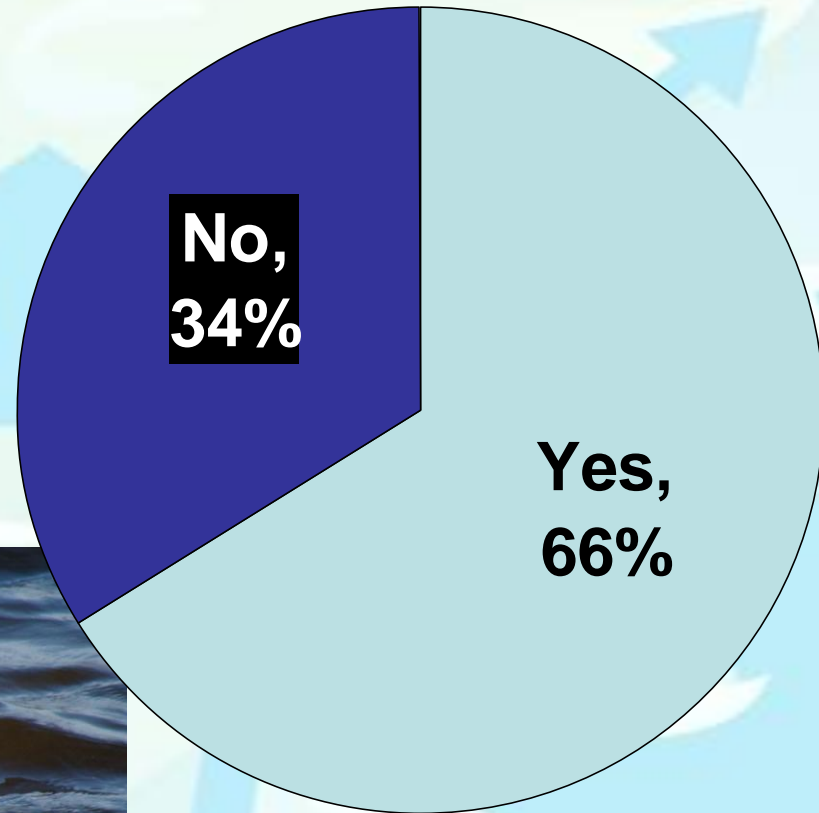
1. Have you ever heard about rip currents in Lake Superior? (y/n)
2. Where have you heard about them from? (signs, brochures, radio, TV, newspaper, friends or family)
3. Can you explain how to get out of a rip current? (swim sideways/parallel to shore, float/tread water until current slows, then swim 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

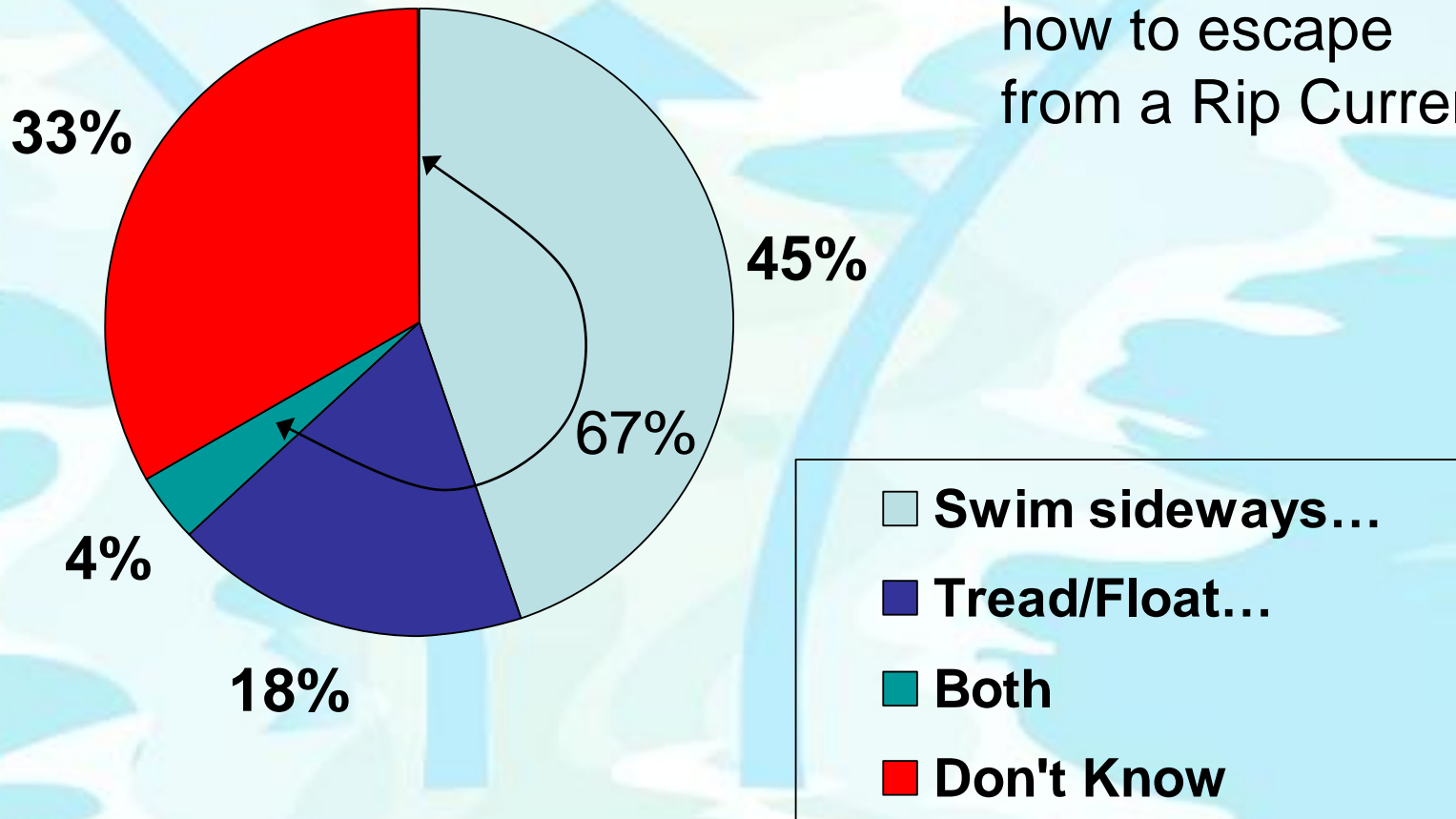
5. Have you seen the signs along the beach that show how to get out of a rip current? (y/n)
6. How often have you visited a beach in MN Point in the past 5 years? (many, a few, only a couple, 1st time)
7. Do you or anyone in your party have a cell phone that could be used to call for help? (y/n)
8. Year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

Have you heard about Rip Currents? (all beach users surveyed)

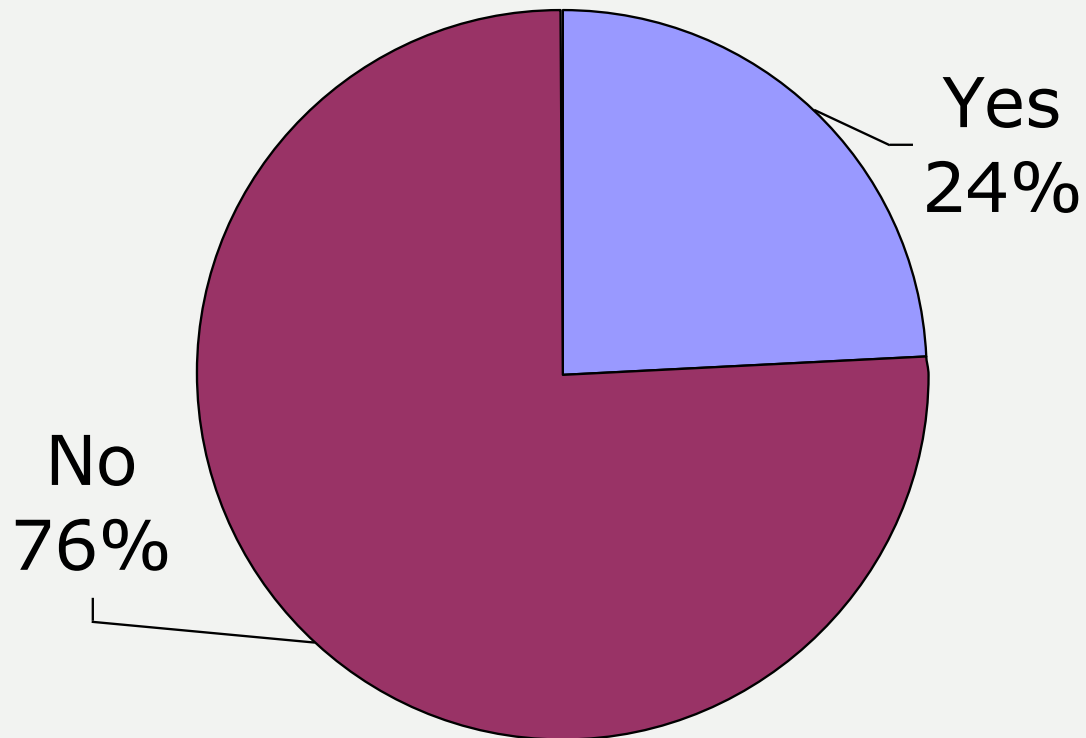


% of beach users able to explain how to escape a Rip Current

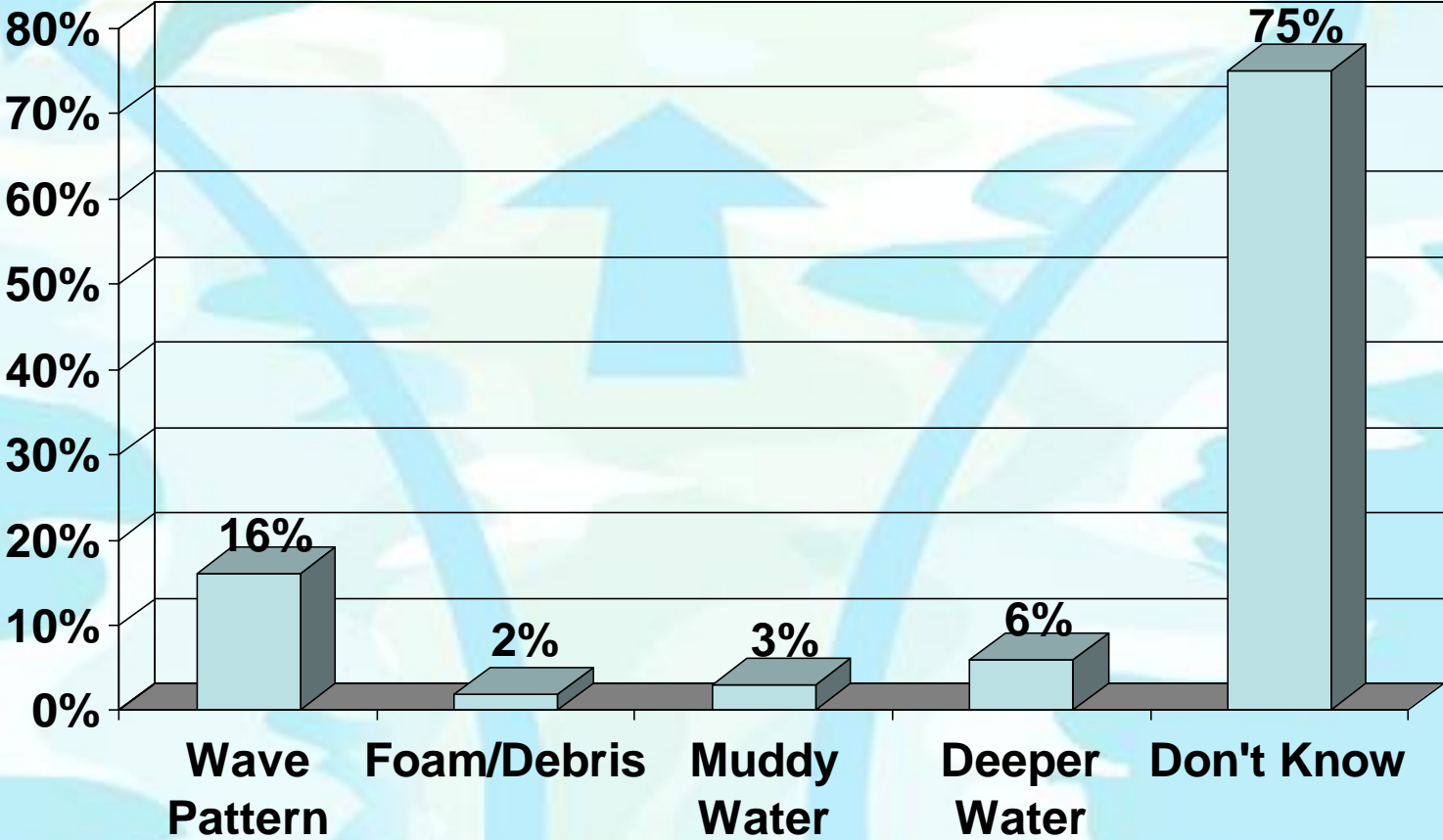
67% could explain how to escape from a Rip Current



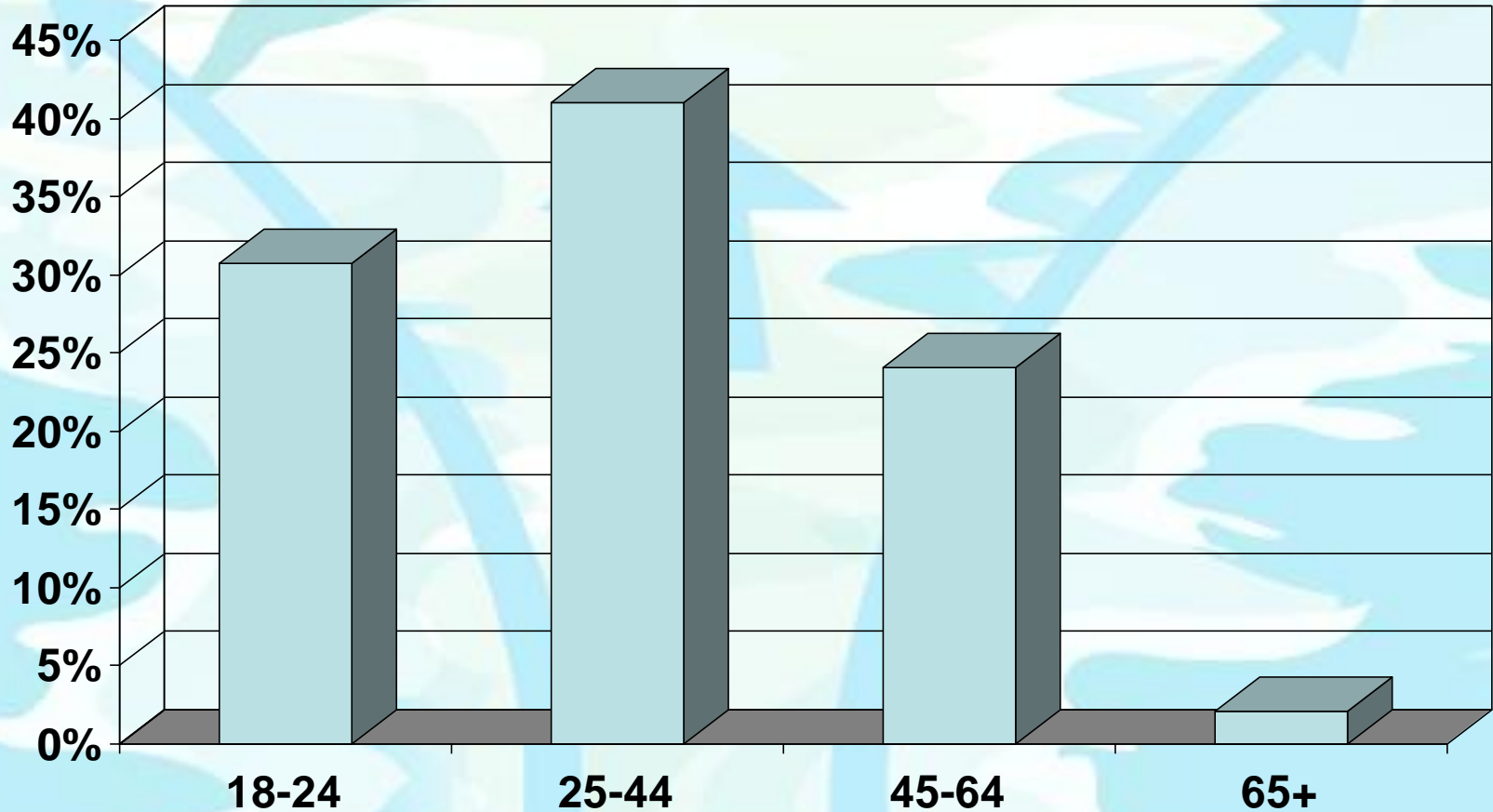
Percent of individuals that can identify visual signs of rip currents



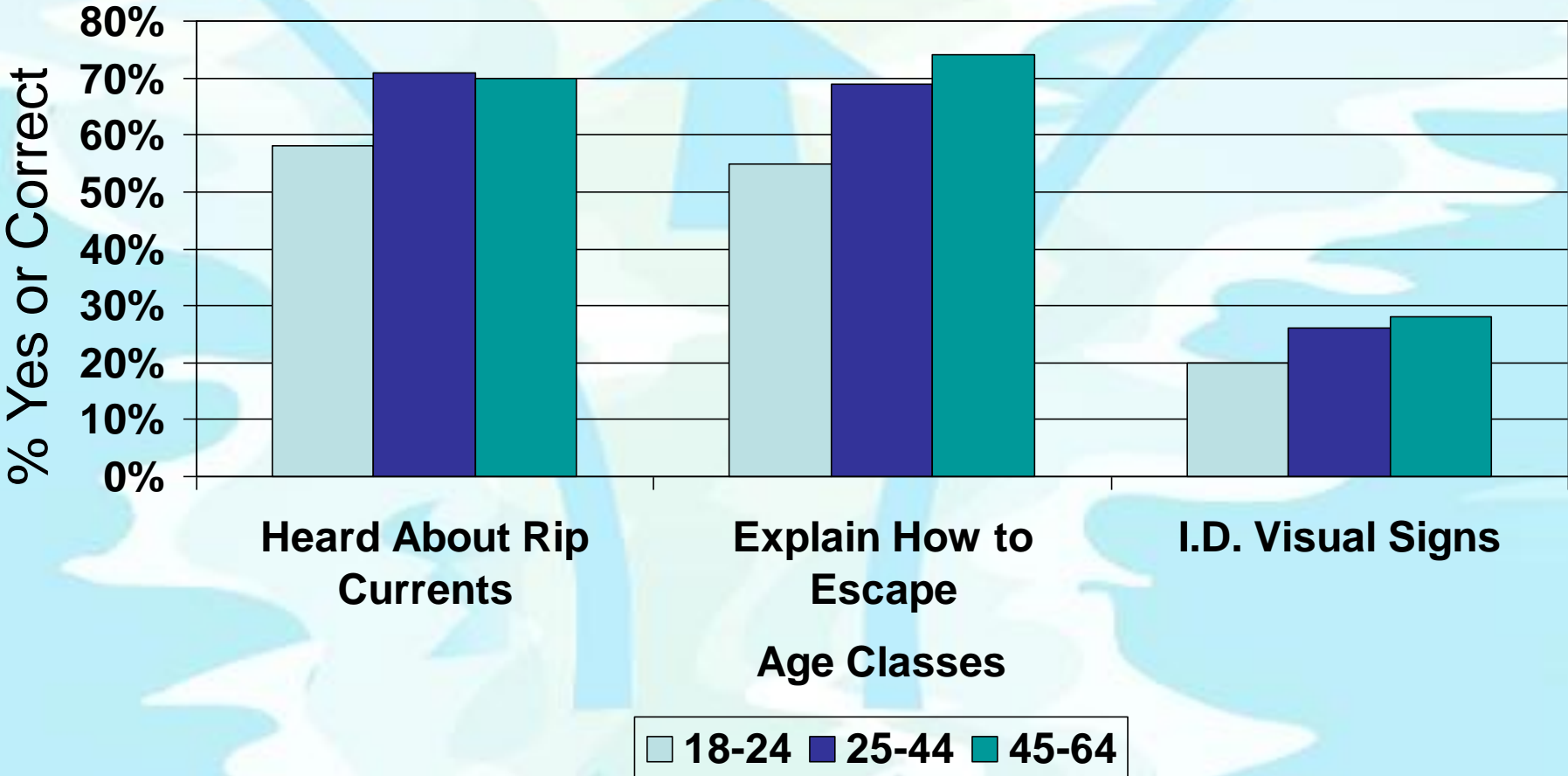
Identification of Visual Signs of Rip Currents



Age Classes: All Surveyed

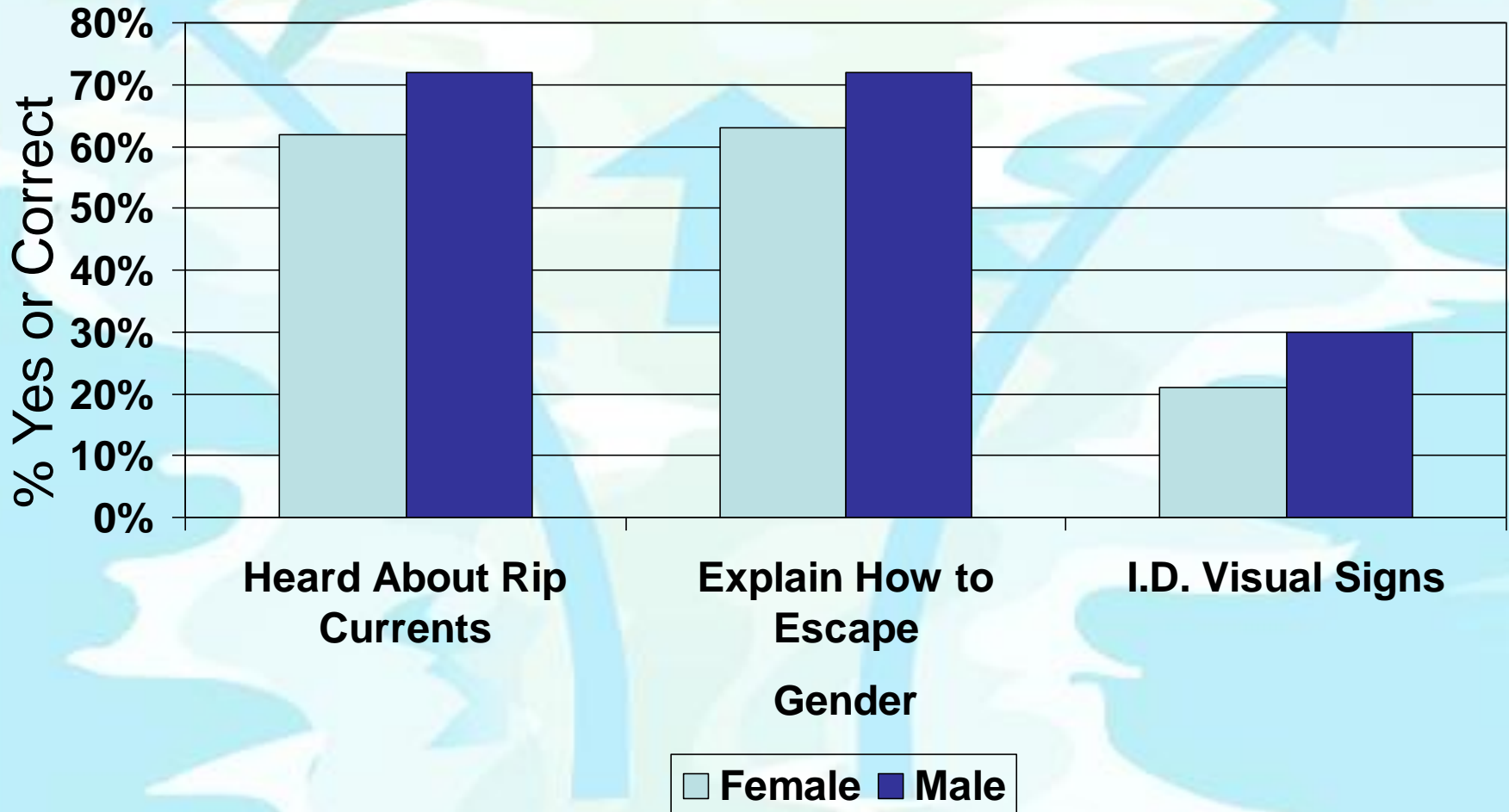


Knowledge of Rip Currents by Age Class



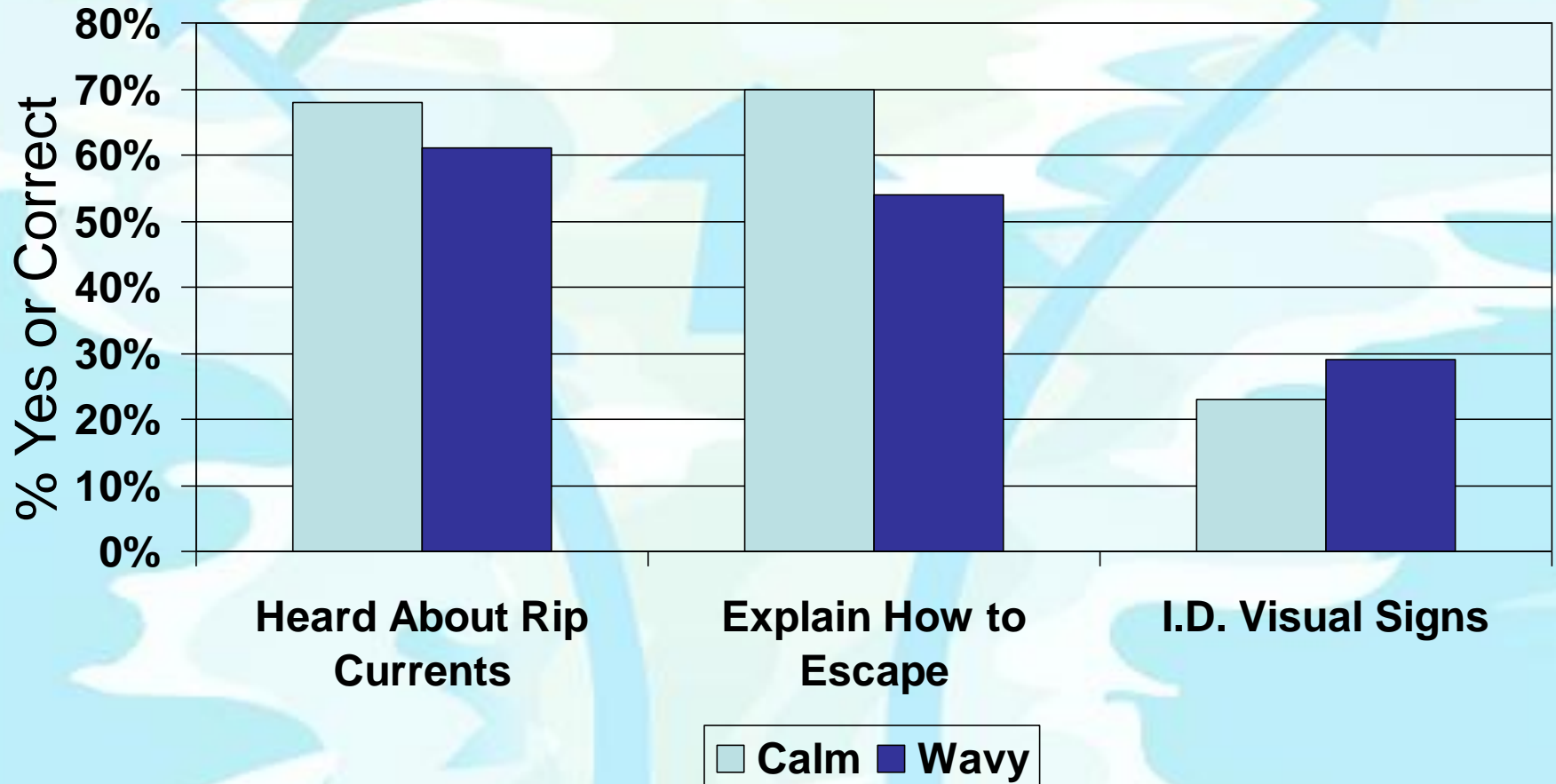
Results by Gender

Knowledge of Rip Currents by Gender



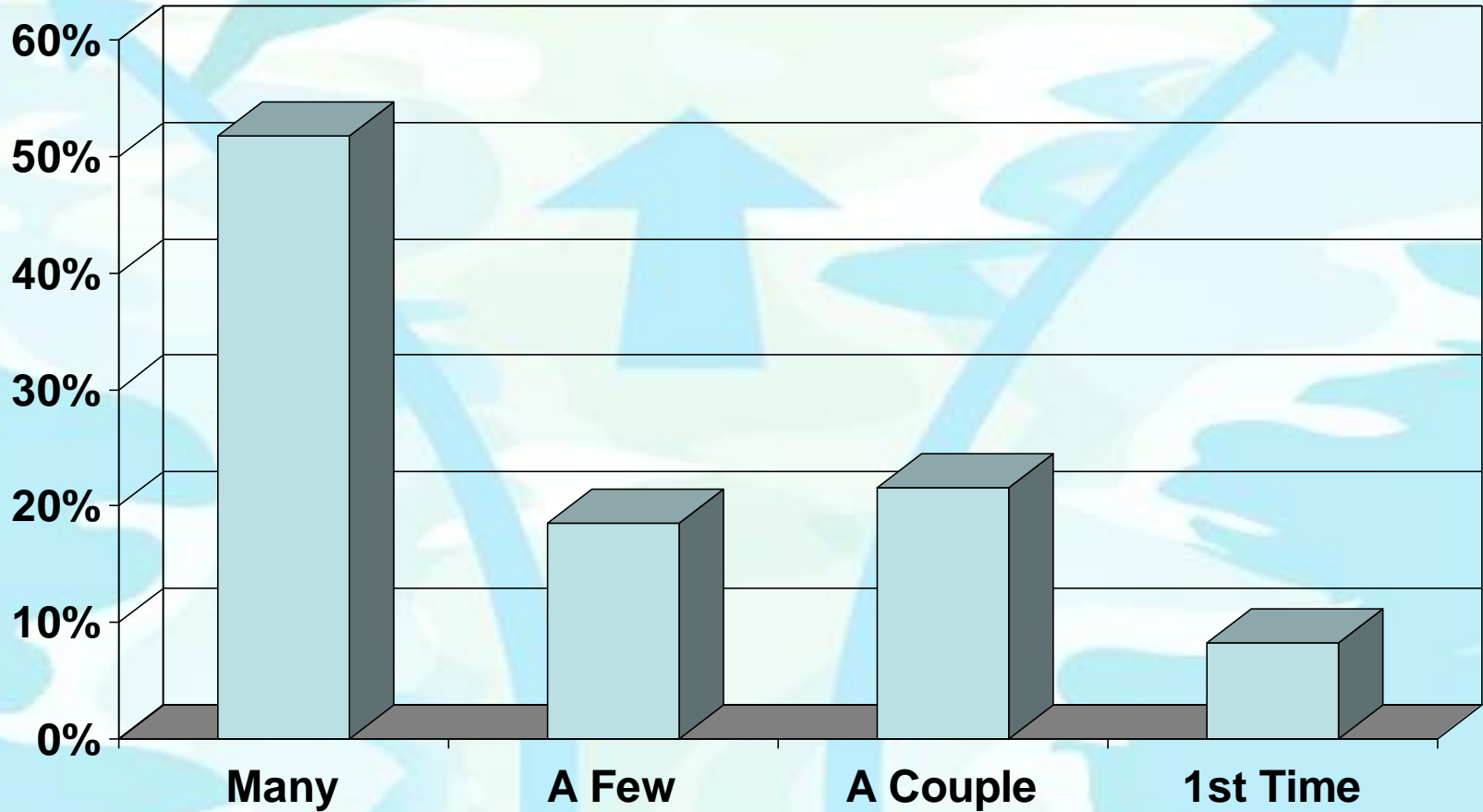
Chi square = 2.429, 2.056, 2.360 respectively; none significant at $p=0.05$

Knowledge of Rip Currents by Wave Conditions



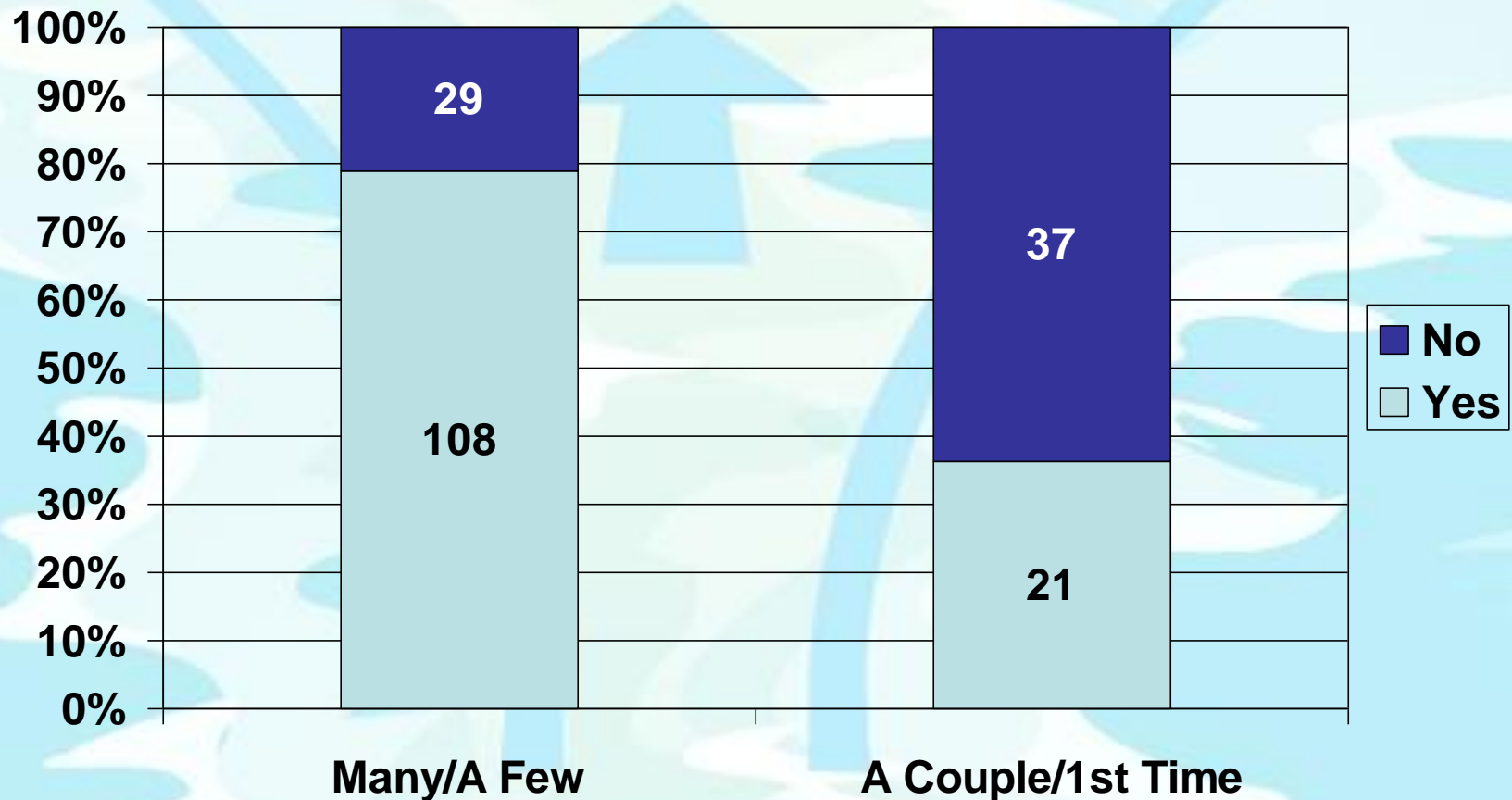
Chi square = 0.621, 3.953, 0.606, Respectively; Escape Knowledge significant at $p=0.05$

Frequency of Visits: All Surveyed



Results by Frequency of Visit

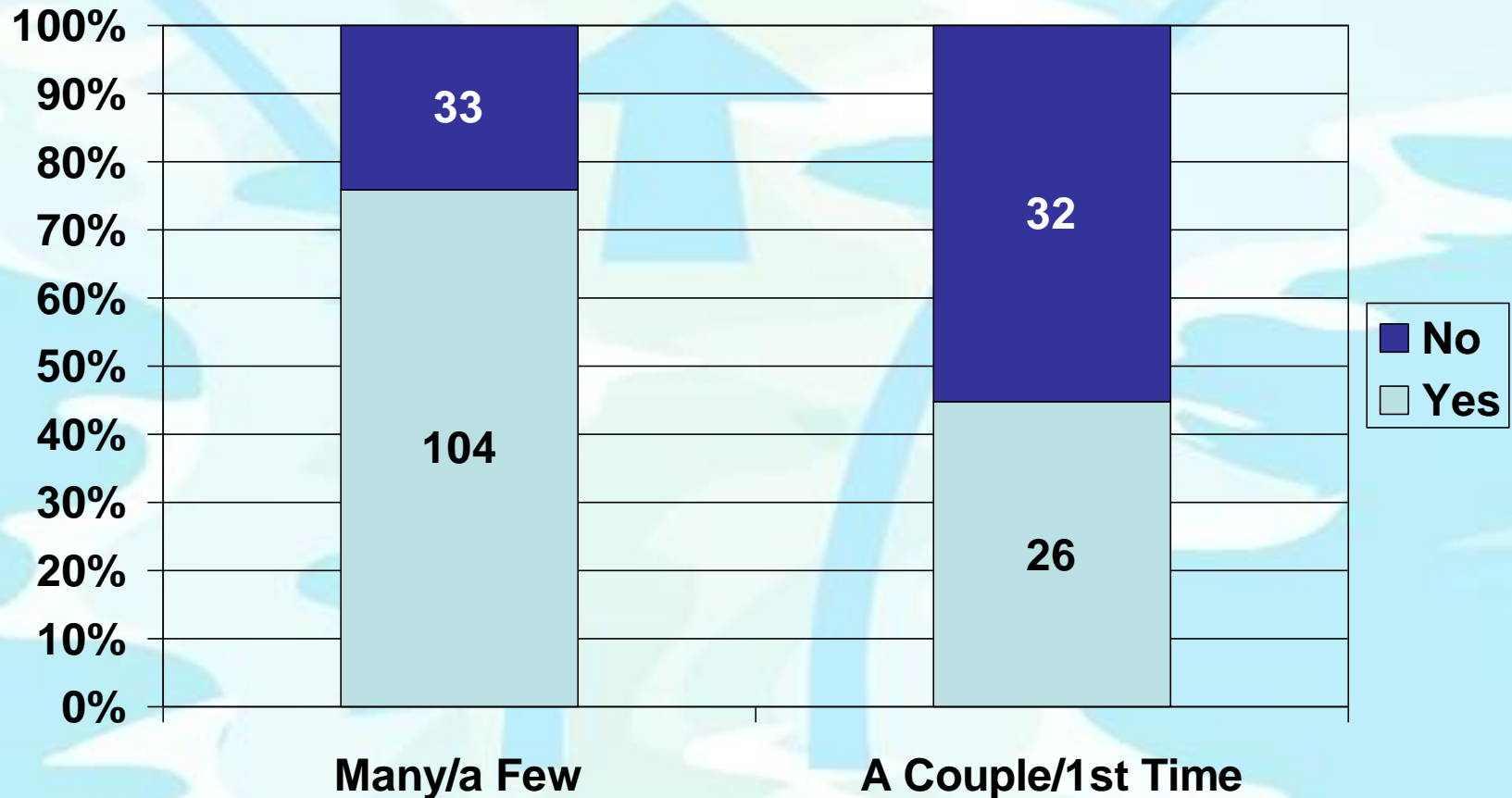
Have you ever heard about Rip Currents in Lake Superior?



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

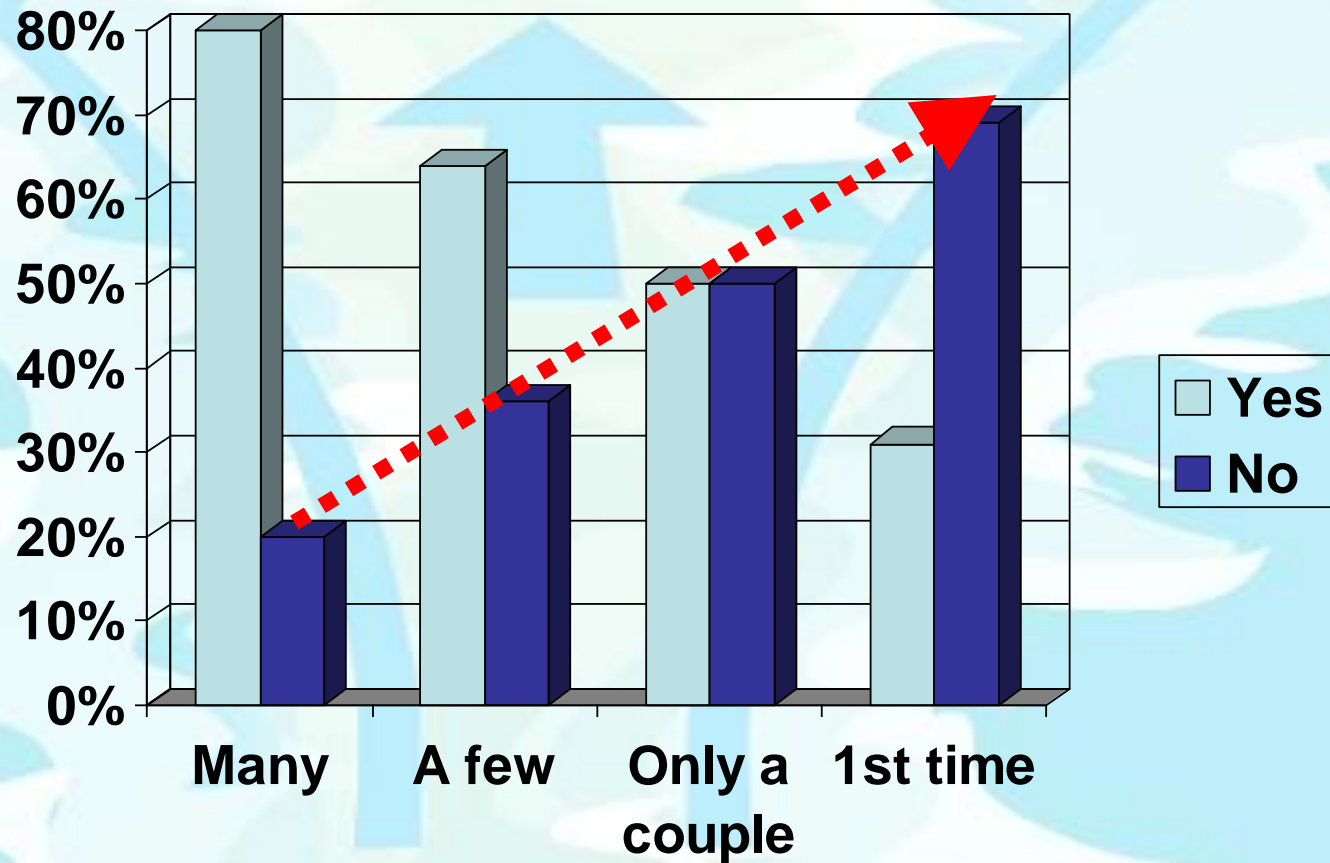
Results by Frequency of Visit

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



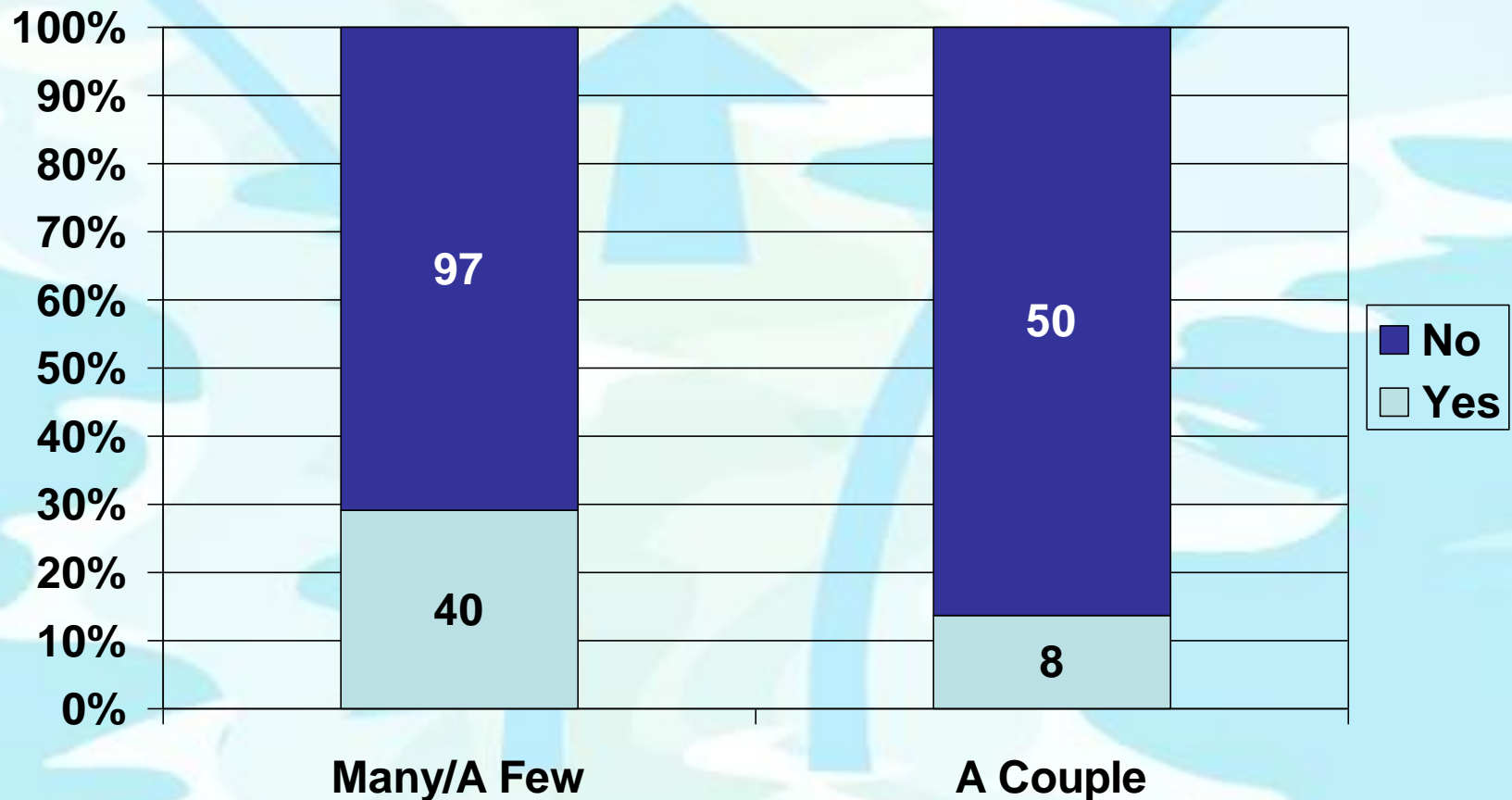
Chi square = 17.708; significant at p=0.05

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



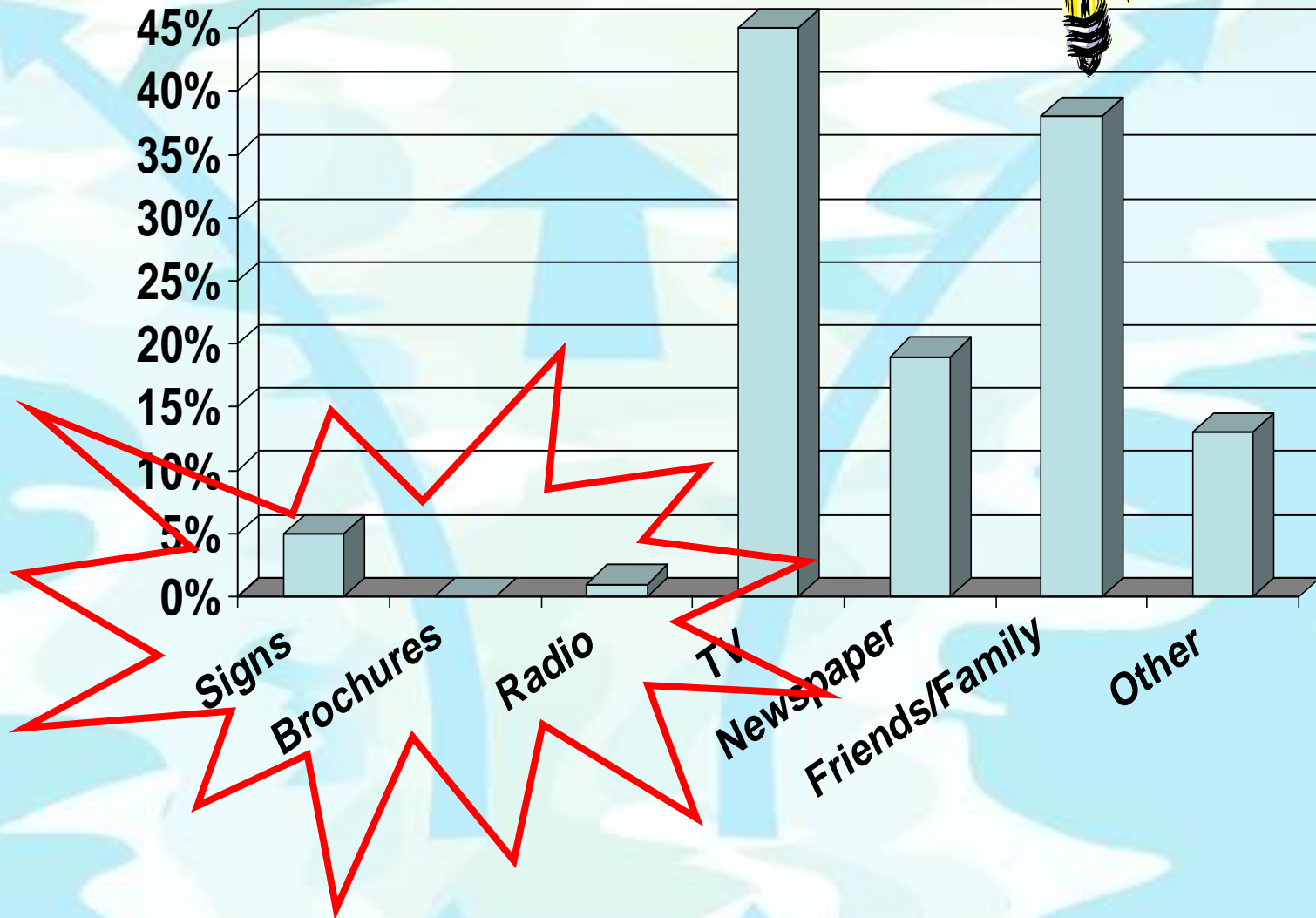
Results by Frequency of Visit

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

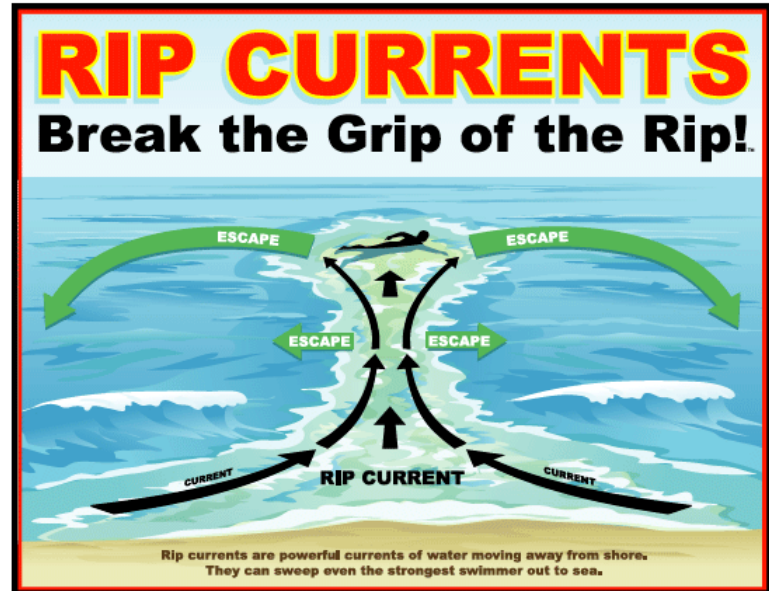
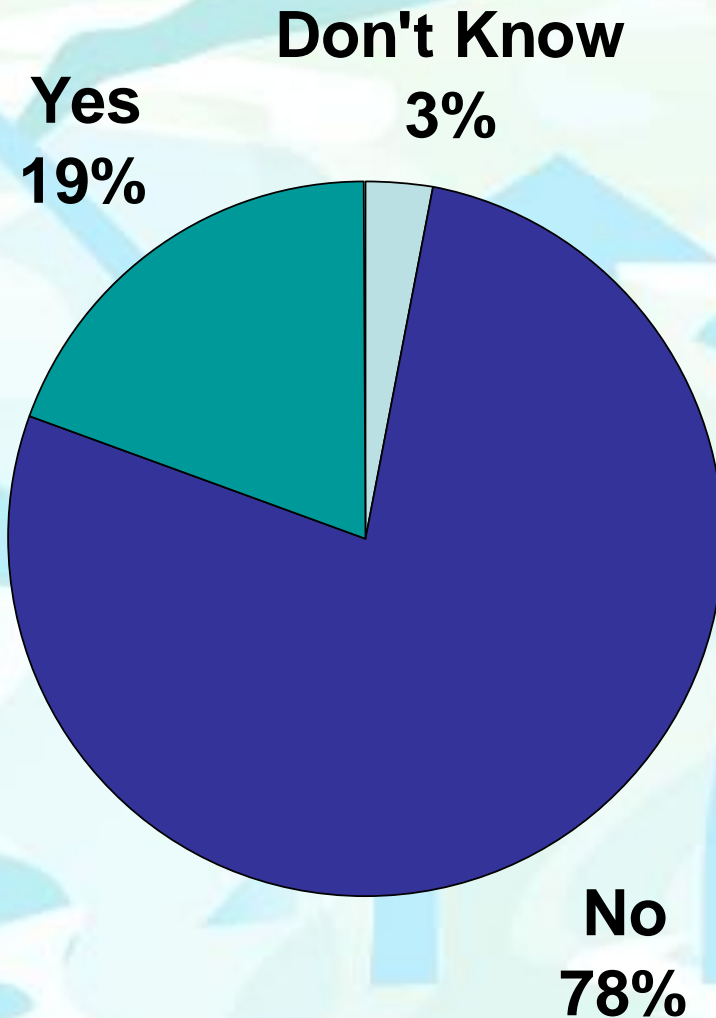


Chi square = 5.210; significant at $p=0.05$

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

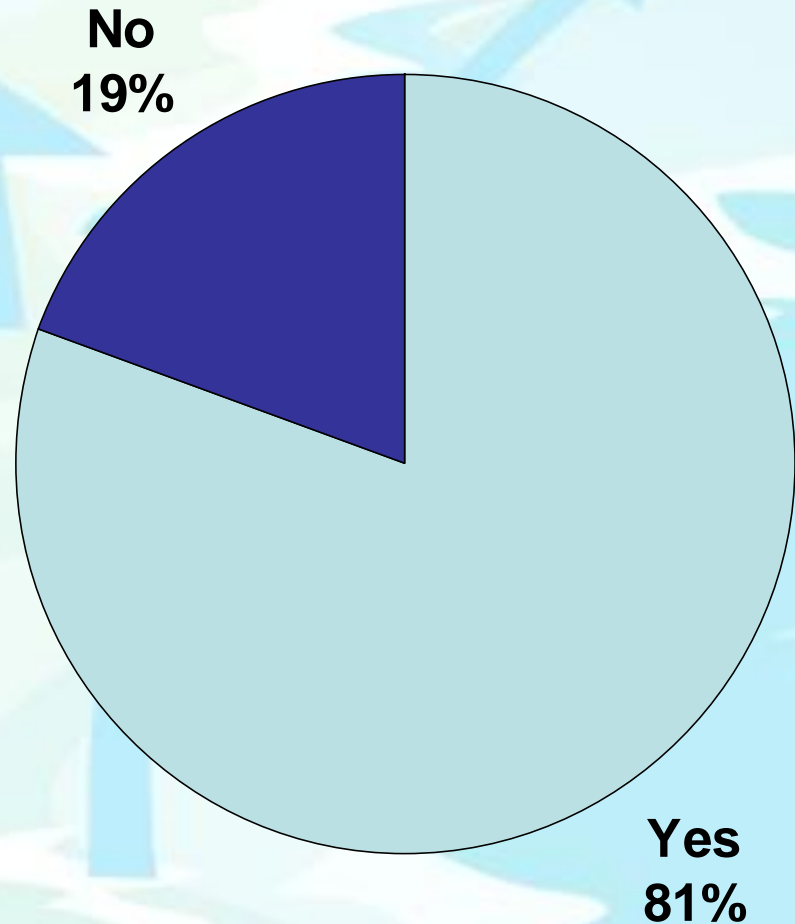
- ◆ Know how to swim
- ◆ Never swim alone
- ◆ If in doubt, don't go out

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

www.ripcurrents.noaa.gov
www.usla.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?



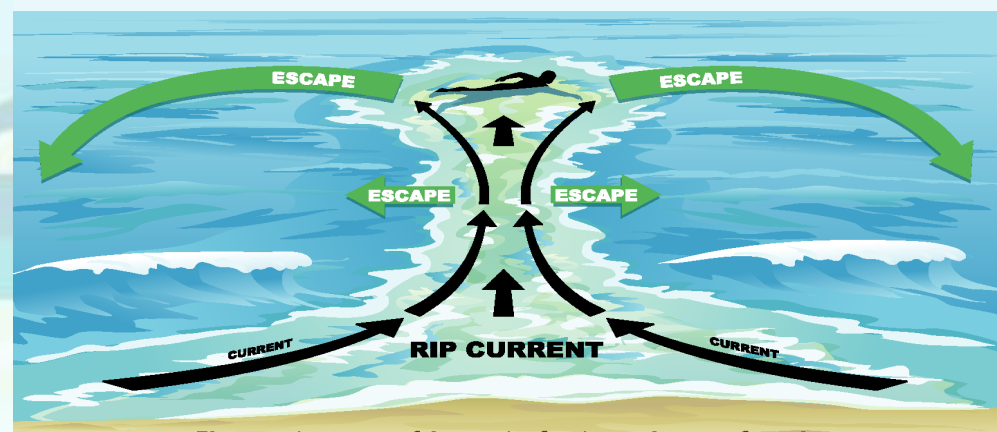
- Most beach users have heard about, and know how to escape from Rip Currents
- Males and Females, age classes similar in knowledge
- Approx. 75% of Frequent Visitors could explain how to escape from a Rip Current
- TV, Newspapers, and Friends/Family the most common source of knowledge about Rip Currents

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??



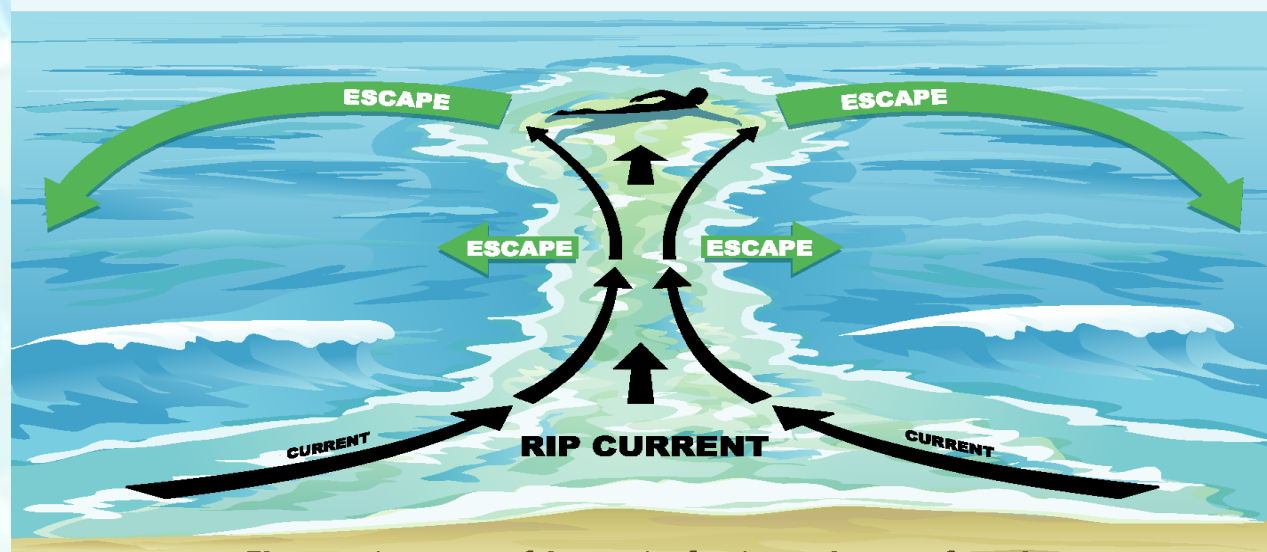
Jesse Schomberg
University of Minnesota Sea Grant
Program

www.seagrants.umn.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.seagrants.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

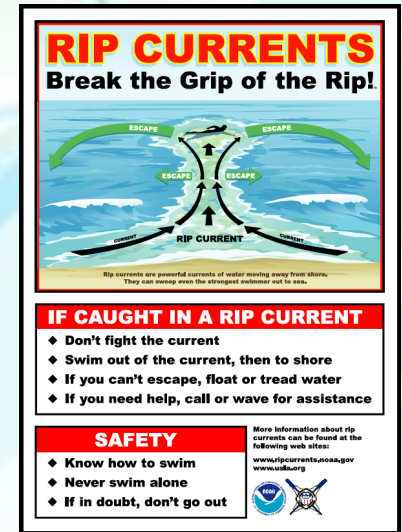


Junior Lessard, national collegiate hockey star, almost lost his life in a Lake Superior rip current last summer.



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