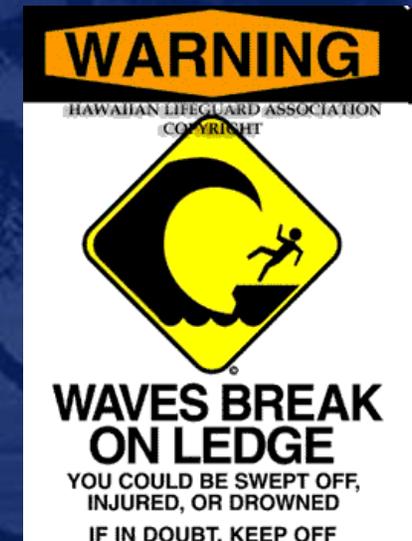
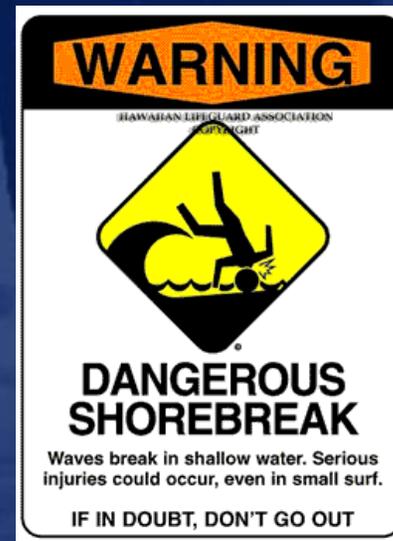




# Beach signage survey

# Beach signage survey

- 501 surveys at 5 Oahu beaches:
- Ala Moana, Waikiki, Hanauma, Sandy, and Makapuu
  - 42% residents, 58% non-residents
- Four sign types: strong current, high surf, dangerous shorebreak, waves breaking on ledge

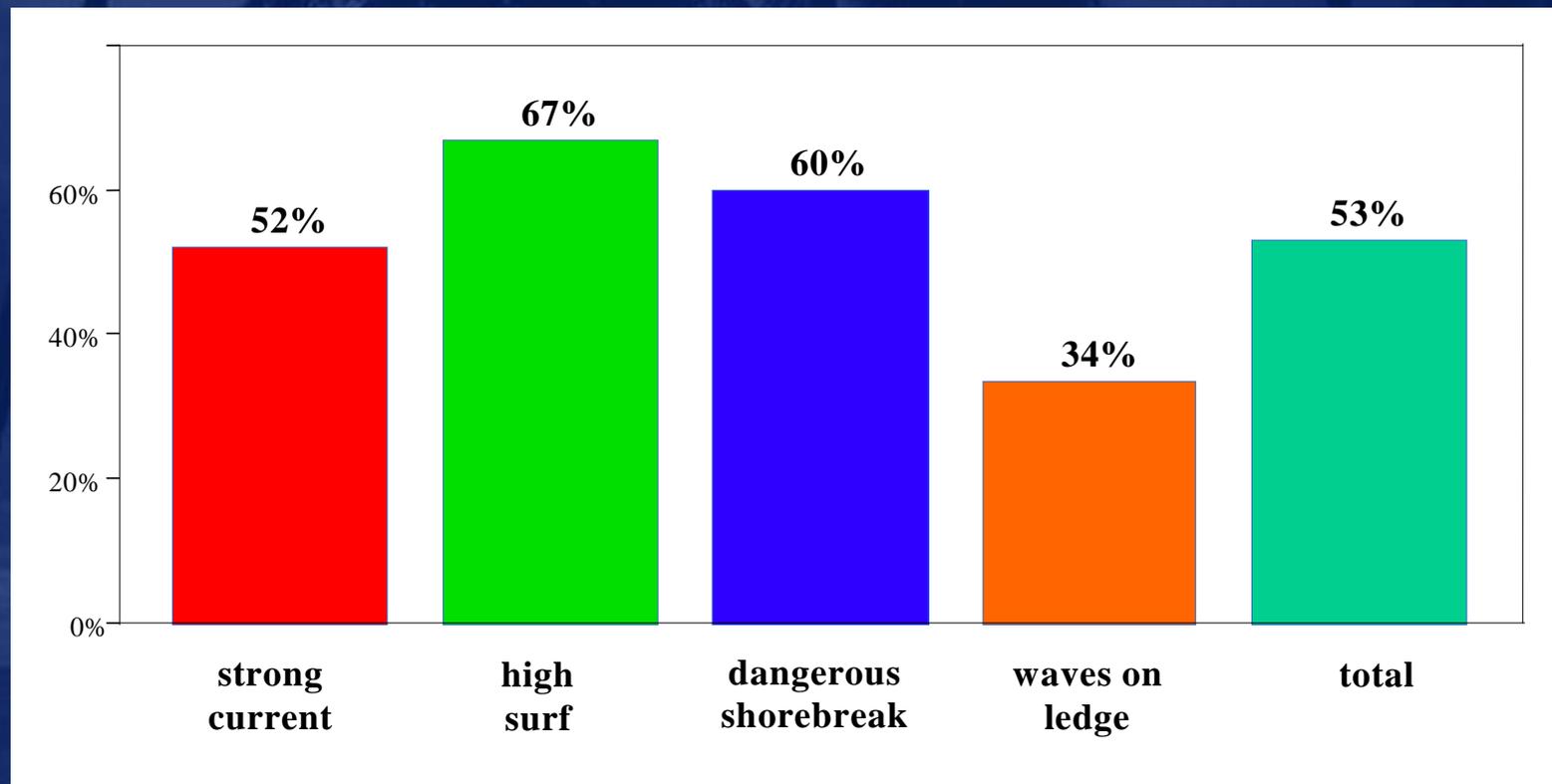


# Sample demographics

- Residence: 42% local, 58% non-residents
  - 33% mainland, 10% Japan, 15% other countries
  - Majority local at Ala Moana (88%)
    - Non-residents 83% of Hanauma, 77% of Waikiki
      - Sandy and Makapuu more equally distributed
  - Japanese only at Hanauma and Waikiki
- Gender: males 56%, females 44%
  - 63% male for locals, to 40% for Japanese
- Average age = 36y (range: 15 - 79)
  - Locals 34y on average, to 40y for Japanese
  - Sandy & Makapuu 26y on average, 40+ other beaches <sup>3</sup>

# Awareness of signage

- About half (53%) saw signs posted
  - Highest for "high surf" (67%), and "shorebreak" (60%)
  - Lowest for "waves breaking on ledge" (34%)

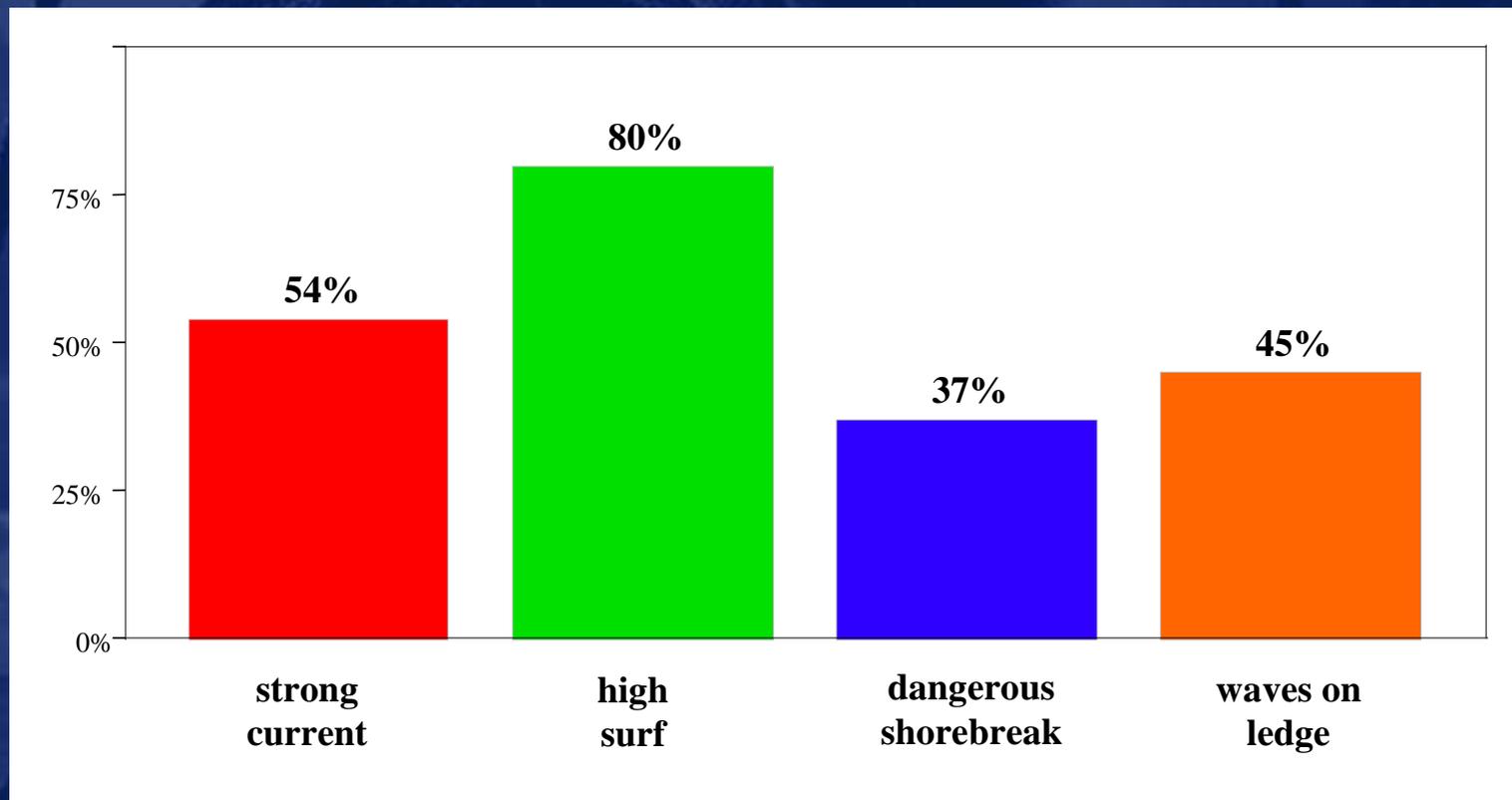


# Awareness of signage

- Residence
  - Not different for locals, mainland and foreign countries
  - None of the 32 Japanese noticed signs posted: 0-for-74!
    - At Waikiki only--limitations?
- Age
  - 40+ year-olds less aware (e.g. ~60% to ~30%)
- Distance
  - No differences up to 50'+ (e.g. from ~70% to ~40%)
- other
  - No differences between genders, swimming ability

# Interpretation of signage

- Signs were interpreted correctly about 54% of the time
  - Highest for "high surf" (80%)
  - Lowest for "dangerous shorebreak" (37%)

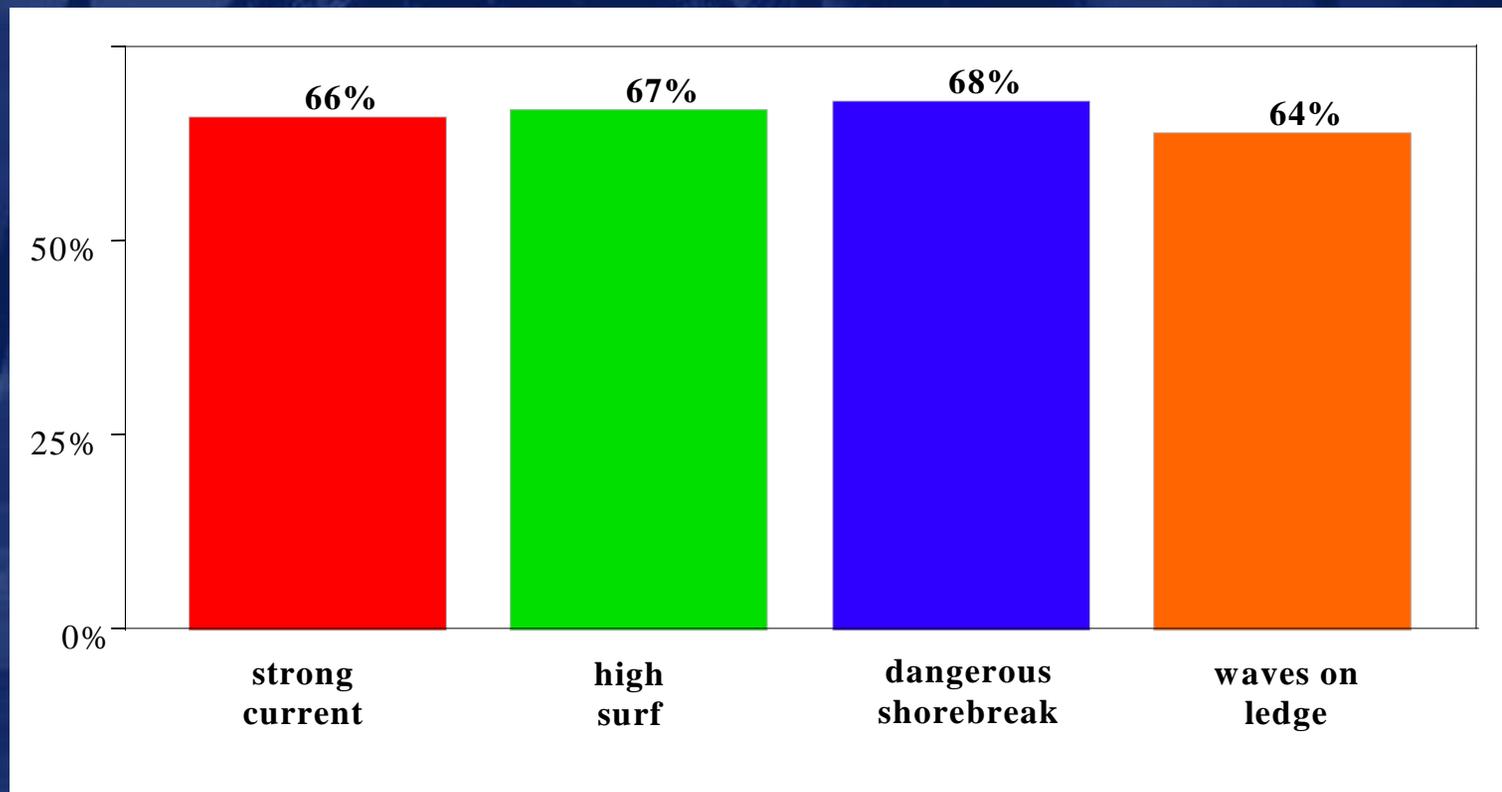


# Interpretation of signage

- **Residence**
  - **Locals significantly more likely to be correct (~20%)**
  - **Japanese less likely to be correct for "strong current" (4%), "shorebreak" (0%), and "ledge" (2%)**
    - **More likely to know "high surf", however (92%)**
- **Age**
  - **Strong associations: younger = more likely to be correct**
    - **Shorebreak ex: 58% of 15-24 y correct vs. 17% for 40+y**
- **Swimming ability (self-rated)**
  - **Clear associations: "expert" = more likely to be correct**
    - **Strong current ex: 66% of experts correct vs. 36% for novice**

# Effectiveness of signage

- About two-thirds (64%-68%) said signs would influence their behavior "a lot"
  - 20%-24% said "somewhat" influence,
  - 10%-12% said "not at all"



# Effectiveness of signage

- Residence
  - Tourists significantly more likely to be influenced "a lot": 76%-81%, vs. 49%-51% for locals
    - Not much difference among tourists
- Age
  - Younger respondents less likely to be influenced "a lot": 50%-57%, vs. 69%-73% for older respondents
- Swimming ability (self-rated)
  - Strong associations: "expert" = least likely to be influenced "a lot"
    - High surf ex: 43% of experts correct vs. 84% for novice/beginner