

C-22



Epidemiology Study at Nonpoint Source Contaminated Beaches

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Southern California Coastal Water Research Project

www.SCCWRP.org

ABOUT SCCWRP

- **Joint Powers Authority**
 - Largest regulated agencies in Southern California
 - Regulatory Agencies that permit them

- **Mission is to provide the unbiased science for informed decision-making**
 - Don't make policy

- **Address basic issues**
 - Is it safe to swim?
 - Is it safe to eat the fish?
 - Is the ecosystem protected?

STUDY BACKGROUND

- **Current bacteria standards are based on beaches contaminated by point sources**
 - Few beaches are impacted by point sources anymore
- **Existing methods are decades old**
 - Too slow to provide real-time public health protection
- **Not just a Malibu issue**
 - Other cities
 - State of California
 - US EPA
 - National Institute of Health (NIH)
 - National Oceanic and Atmospheric Administration (NOAA)

STUDY QUESTIONS

- **Is there a risk of swimming-related illnesses at nonpoint source polluted beaches?**
 - Comparing swimmers to non-swimmers
- **Do swimming-related illnesses correlate to traditional bacteria measurements?**
 - Total coliform, fecal coliform or *E. coli*, *enterococcus*
- **Do swimming-related illnesses correlate with new nontraditional indicators?**
 - Rapid methods for traditional bacteria
 - Other species of bacteria
 - Microorganisms with human specific markers
 - Human pathogens (viruses)

COMING TO MALIBU SUMMER 2009

- **Memorial Day through Labor Day**
 - Need at least 5,000 beach goers
- **Recruit swimmers at the beach**
 - Call them 2 weeks later for 20 different symptoms
- **Collect water quality samples the same day**
 - Set up a mobile laboratory nearby
- **Correlate illness with water quality measurements**
 - Answers in about one year

For Additional Information

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