



Fish Contamination Education Collaborative
Partners Meeting
Wednesday, Nov. 14, 2007—10am to 1pm
Cabrillo Marine Aquarium
3720 Stephen M. White Drive
San Pedro, CA 90731

Meeting Purpose:

To update FCEC partners on status of Road Map Strategies and Tactics, community outreach and angler outreach programs

Agenda

1. Welcome/Introductions—Sharon Lin
2. Road Map Strategies & Tactics (60 min)—Stephen Groner
 - a. Presentation
 - b. Discussion
3. Awareness vs. Behavior Change (15 min)—Wes Schultz
4. Community Outreach Update (30 min)—Tiffany Jonick
 - a. Website
 - b. Community Outreach Phase 1: Vietnamese Community
 - c. Community Resource Council
5. Angler Outreach Update (30 min)
 - a. Program Developments—Khanh Nguyen
 - i. PDA usage
 - ii. Separation of outreach/data collection
 - b. Heal the Bay—James Alamillo
 - c. Cabrillo Marine Aquarium—Linda Chilton
6. Agency Updates (30 min)
 - a. EPA—Sharon Lin
 - b. MSRP
 - c. OEHHA
 - d. LA County Dept of Public Health—Janet Scully
7. Optional trip out to pier/tour of Cabrillo

Planned Outcomes:

- Engage in dialogue with partners on update topics; determine if follow-up on items is needed
- Decide timing for next meeting



Integrated ICs "Road Map" Strategies and Tactics

**Palos Verdes Shelf
Superfund Site
Institutional Controls Program**



Presentation Outline

- Review purpose of Road Map
- Process of developing Road Map
- Present document
- Questions and comments
- Next steps



Road Map - Purpose

- Informal Planning Document for Partners
 - Help Integrate IC Components
 - Provide Direction for Programs (Goals)
 - Help Set Priorities (Objectives)
 - Define Program Issues and Obstacles (SWOT Analysis)
 - Develop Strategic Direction (Tactics)



Road Map – Process/History

- Summer 2006
 - Strategic Planning Meeting
- Fall 2006
 - Develop Draft Outline
- Spring 2007
 - First Draft (Goals, Objectives and SWOT);
 - Presentation at Partners Meeting
- Summer 2007
 - Received Partner Comments
 - Second Draft



Road Map – Process/History


- Fall 2007
 - Presented Second Draft – Strategic Planning Meeting
 - Consensus on Draft
 - First Draft - Strategies and Tactics



Program Goal



- **Protection of the most vulnerable populations** (in Los Angeles and Orange Counties) from the health effects of consuming contaminated fish related to the **Palos Verdes Shelf superfund site**.







Program Goal

- **Reduce risk by targeting the two routes of exposure for DDT and PCB**
 1. Consumption of contaminated fish bought through commercial markets
 2. Consumption of contaminated fish caught by local anglers

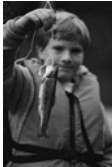

Long Term Objectives

1. **Commercial:** Eventually eliminate availability of contaminated White Croaker at commercial venues
 - Ensure catch ban boundaries accurate/up to date
 - Ensure adherence to bag limit by local anglers

Long Term Objectives

2. **Angler:** Adherence to local fishing advisories and bag limit
 - Reduce risk from consumption of contaminated caught fish (i.e., White Croaker)
 - Ensure fish consumption advisories are updated based on latest data

Organization


- **Objectives** (by Risk Area: Commercial and Local Angler)
 - **Target Audience** (within risk area)
 - **IC Component Strategy** (enforcement, monitoring, education)
 - **Individual tactics**



Commercial: Strategies and Tactics


Target Audiences

1. Commercial fishing operations
2. Fish markets (key areas: San Gabriel Valley, Central OC; Long Beach)
3. Fish distributors
4. Families / affected communities
5. Regulators

Commercial Fishing Operations


- **Enforcement:**
 - **Strategic Objective:** Increase understanding of regulations/ increase enforcement
 - **Tactics:**
 - Dock Side Inspection
 - Increase Patrol
 - Pocket Guide Regs
 - Increase Reg Availability
 - Catch Ban/Catch Block Alignment
 - Increased Technology
 - Marine Protective Area Designation







Commercial Fishing Operations

- Monitoring/Education:
 - **Strategic Objective:** Educate fishing operations regarding catch ban – engage industry groups
 - **Tactics:**
 - Develop a Database
 - Assess Behaviors/Awareness
 - Engage Trade Associations
 - Engage Operations
 - Develop Collateral
 - Conduct Outreach
 - Periodic Follow-up


Commercial Fishing Operations

- Measurement:
 - Number of reports of commercial fishing in the catch-ban area
 - Pre and post information on fishing operations regarding white croaker and catch-ban


Fish Markets

- Monitoring/Enforcement:
 - **Strategic Objective:** Assess the geographic extent and frequency contaminated white croaker found in markets
 - **Tactics:**
 - Educate Markets (Best Practices)
 - Conduct Inspections
 - Flag Undocumented White Croaker
 - Analyze White Croaker




Fish Markets

- Monitoring/Enforcement:
 - **Strategic Objective:** Market Certification Program
 - **Tactics:**
 - Develop Certification Criteria
 - Develop Certification Process
 - Create Materials
 - Promote Program Value

Fish Markets


- Monitoring/Enforcement:
 - **Strategic Objective:** Evaluate availability of other contaminated locally caught fish
 - **Tactics:**
 - Agree on Target Fish
 - Outline Market Protocol
 - Conduct Inspections
 - Flag Problem Markets
 - Market Inspections
 - Suspect Fish Tested





Fish Markets


- Public Education:
 - **Strategic Objective:** Educate Markets on Best Practices
 - **Tactics:**
 - Outline "Best Practices"
 - Engage Markets (informal focus group)
 - Develop Community Support
 - Voluntary Pledge
 - Community Based Media Outreach
 - Develop Materials
 - Periodic Follow-up




 **Fish Markets**


- Measurement:
 - Number of markets found selling undocumented white croaker
 - Number of certified markets
 - Number of markets selling other contaminated fish
 - Community awareness of certification program
 - Number of markets pledging to follow the "Best Practices"




 **Fish Distributors**


- Monitoring/Enforcement/Education:
 - Strategic Objective: Engage Distributors Regarding Best Practices and Overall Program
 - Tactics:
 - Develop a Database of Distributors
 - Identify Key Distributors
 - Engage Distributors
 - Develop Fact Sheet
 - Conduct Outreach




 **Families/Communities**


- Public Education:
 - Strategic Objective: Promote the Certification Program within Target Community
 - Tactics:
 - Promotional Outreach
 - Media Outreach
 - Engage Key Community Leaders
 - Evaluations




 **Families/Communities**


- Measurement:
 - Pre and post evaluation of behaviors
 - Community awareness of certification program



 **Regulators**

- Monitoring/Enforcement/Education:
 - Strategic Objective: Maintain and Further Develop Effective Communication Channels
 - Tactics:
 - Periodic Updates
 - Data Analysis



 **Anglers: Strategies and Tactics**

Target Audiences


Primary:

- Local anglers
- Local angler families

Secondary:



- Angler supply stores







Local Anglers

- Enforcement/Monitoring:
 - **Strategic Objective:** Examine Variations on the Daily Bag Limits for "Target Fish"
 - **Tactics:**
 - Increase Enforcement
 - Reduce White Croaker Bag Limit
 - Establish New Bag Limits
 - Location Specific Bag Limits



Local Anglers

- Public Education:
 - **Strategic Objective:** Educate Pier and Shore-Based Anglers Regarding Risks
 - **Tactics:**
 - Refine Outreach Targets (by risk)
 - Outreach At Piers
 - Outreach Through Bait Shops
 - Outreach Through Angler Organizations
 - Evaluate Outreach (AOATS)



Local Anglers

- Public Education:
 - **Strategic Objective:** Ensure All Local Anglers Receive Fish Advisory Information
 - **Tactics:**
 - Distribute Advisory with License
 - Promote Key Regulations
 - Disseminate Advisory to Key Audience



Local Anglers

- Measurement:
 - Number of bag limit violations
 - Pre and post changes based on AOATS data
 - Pre and post awareness of local advisory


Local Angler Families

- Public Education:
 - **Strategic Objective:** Educate the Families of Local Anglers Regarding Risks
 - **Tactics:**
 - Analyze AOATS Data
 - Identify Target Communities
 - Develop Baseline Survey
 - Outreach Through CBO, Health Industry, Local Media
 - Evaluate Efforts

Local Anglers Families

- Measurement:
 - Pre and post behaviors regarding:
 - Type of fish consumed
 - Amount of fish consumed
 - Parts of fish consumed
 - Cooking preparation





Next Steps

- Comments and Questions:
 - Road Map emailed to partners
 - Post Road Map on web site
 - Email comments to SGA:
tjonick@sga-inc.net



Motivating Behavior Change: Education, Awareness, and Action

Wesley Schultz, Ph.D.
California State University
and
Action Research, Inc.

Presentation prepared for SGA and EPA's Fish Contamination Education Collaborative. Address correspondences to: Wesley Schultz, Department of Psychology, California State University, San Marcos, CA, 92078.
Wschultz@csusm.edu, (760) 750-8045.

About the Presenter

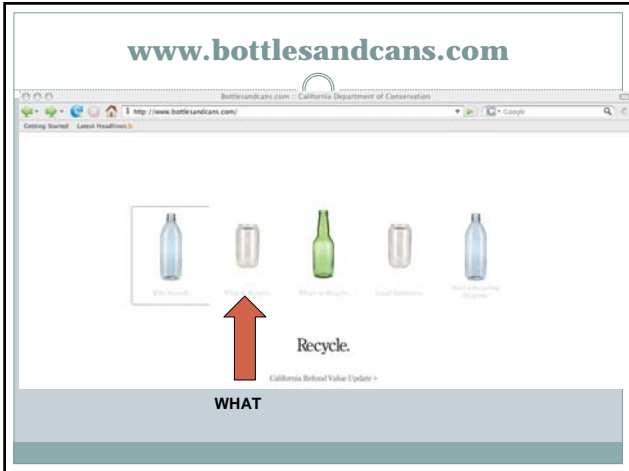
- Ph.D. in applied social psychology
- Academic position (professor)
- Numerous consulting, writing, and marketing projects
 - **Private:** Southern California Edison (energy), Hewlett Foundation, Brookfield Zoo, EDCO Waste Management, KAB
 - **State:** California Integrated Waste Management Board (used oil recycling, waste tires), TN, FL, TX
 - **Local and County:** Napa, Madera, Los Angeles, San Diego
 - × Cities of San Diego, Vista, San Marcos, Escondido
 - **Federal:** National Academy of Sciences, Environmental Protection Agency (EPA), Department of Justice, U.S. Air Force
 - **International:** United Nations, London Zoological Society

A Little Psychology

- Scientific study of behavior
- People act for reasons
- Successful behavior change strategies require an understanding of the individual and situational factors that motivate and/or constrain behavior
- Many examples of failed (or not tested) and even boomerang effects

So You Want to Change Behavior?

- **Information campaigns (education campaigns)**
 - Media messages intended to inform people about a behavior, program, or problem.
- **Awareness campaigns**
 - Media messages intended to convey to people the severity of a specific problem or issue.




DON'T BE A DIPSTICK!

**Don't Save It.
Recycle It When
You Buy New Oil!**

Call 1-800-287-9013 or go to
www.tdec.net/dca/oil.htm
for your nearest
Oil Collection Center.

**Don't Know
What To Do With
Used Motor Oil?**



The information contained in this pamphlet is based on current laws and best management practices. Recommendations may change and laws or any laws and information are amended. Contact the Division of Community Assistance if you have questions.

DIVISION OF COMMUNITY ASSISTANCE
TENNESSEE DEPARTMENT OF
ENVIRONMENT & CONSERVATION
8th Floor, L&C Tower
401 Church Street
Nashville, TN 37243-1551
1-800-287-9013

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Tennessee Department of Environment and Conservation
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FYI DHEC's Office of Solid Waste Reduction and Recycling
For Your Information...

Used Oil Recycling 101


We love to drive. To the supermarket, to the mall, to the post office, to school, to see friends, to get a pizza, to our job, to our vacation at the beach or mountains and to a million places in between. We get in the car, buckle up and hit the road every day.

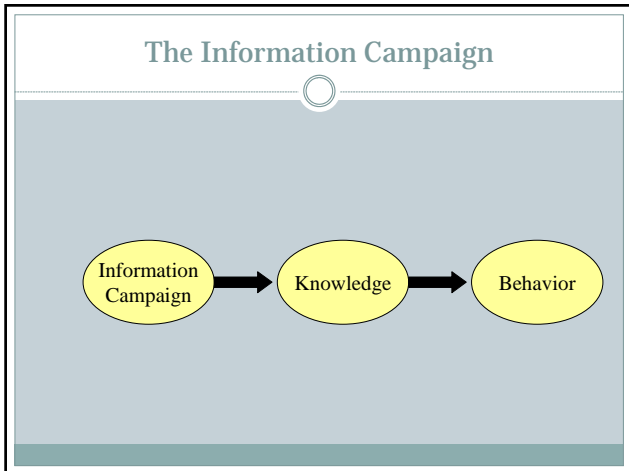
There are many responsibilities related to that privilege. Safety, for example. Car crashes are the No. 1 killer of teenagers. Buckle up. Slow down. Be careful out there.

Another responsibility often forgotten is the environmental impact of driving. Cars and trucks, for example, release pollutants into the air. Cars and trucks also consume

Why recycle oil?

- Recycling used motor oil protects human health and the environment. Recycling used motor oil keeps it from contaminating soil, leeching it out of rivers, lakes, streams and groundwater, and keeps it away from the beach, aquatic life and wildlife. The potential harm that improperly disposed of used oil may cause is staggering. One gallon of used motor oil improperly disposed of may contaminate 1 million gallons of fresh water — enough to supply 60 people with drinking water for one year. One pint of used motor oil





So You Want to Change Behavior?

- **Evaluation research consistently shows that information campaigns are generally ineffective at changing behavior:**
 - Recycling
 - Mass transit use
 - Smoking prevention in adolescents
 - Hazardous waste disposal
 - Collecting used e-waste (or u-waste)
- **Failure results (in part) from inability of messages to reach the target audience.**

So You Want to Change Behavior?



Knowledge-Deficit Model

- Knowledge-deficit model ignores the motives for behavior.
- People engage in behaviors for reasons, and knowing more is not a reason for action. (Oskamp et al., 1998; Vining & Ebreo, 1990; Werner & Makela, 1999)
 - Perceived benefits (positive)
 - Health protection (positive)
 - Personal inconvenience (negative)
 - External pressure (positive)
 - Financial motives (positive)

Knowledge-Deficit Model (caveat)

- Knowledge is not a motive for behavior.
- Lack of knowledge can be a barrier.
- Educational interventions can be effective in three situations:
 1. A substantial change has been made to an existing program.
 2. A program is being introduced for the first time to a target population
 3. No marketing materials have been provided in a long time, and there is evidence that people don't know what to do.

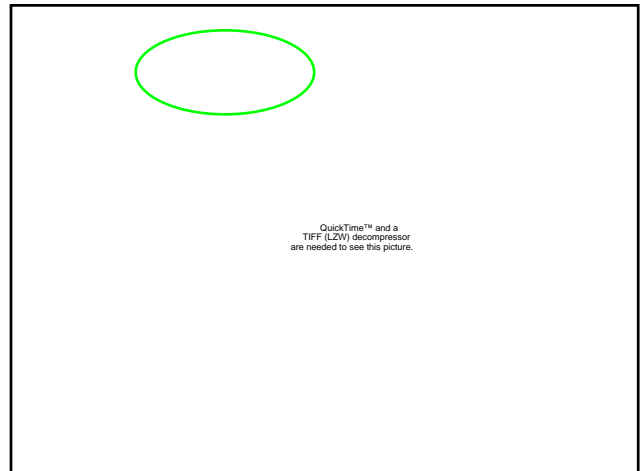
Knowledge-Deficit Model

Why is it so widely used?

1. No data is collected to evaluate the intervention, so agencies don't realize that it doesn't work
2. Public image-- "we're doing something"
3. It's relatively inexpensive and can be done by staff (or cheaply by a marketing firm)
4. It would work for us (because we *already* care)

Awareness Campaigns

- Highlight the seriousness of the problem by giving incidence rates
- “Look at this big problem”
- Based on medical and health research
- Public policy
 - Traffic, crime, hazardous waste, littering, steroid use among adolescents, eating disorders, tax evasion, mass transit, and many others
- Seen as a key ingredient to gaining funding for programs
 - Required by many grant applications, politicians, and funders





QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

dirty secrets

48% of
Tennesseans
polled say that
they have
knowingly
thrown trash on
the street.

About 1 in 5
people say they
do this on a
regular basis.

[Click here for
survey results.](#)

Tennessee's Had Enough. Have You?



The Awareness Campaign



"Most people litter"

"Mass transit usage is down
48% this year"

"Litter is a problem"

"Too many people are driving
their cars to work"

"I'm NOT going to litter"

"I'm going to take the bus"

Social Norms

- Can produce a *boomerang effect* for individual behavior
- **Social norms**--an individual's beliefs about the common and accepted behavior in a specific situation.
 1. Formed through social interaction
 2. Powerful influence on behavior
 3. Most powerful in novel situations
 4. Types of norms (injunctive and descriptive)

Social Norms

- Which one attracts more tips?



Common Practice

- Information campaigns tend to produce small effects.
- Awareness campaigns can produce boomerang effects
- Neither are reliable tools for behavior change
- Both are common practice in behavior change programs across the nation
- There are alternatives (CBSM)



Billboard
JFK International Airport

PLEASE DON'T SMOKE!

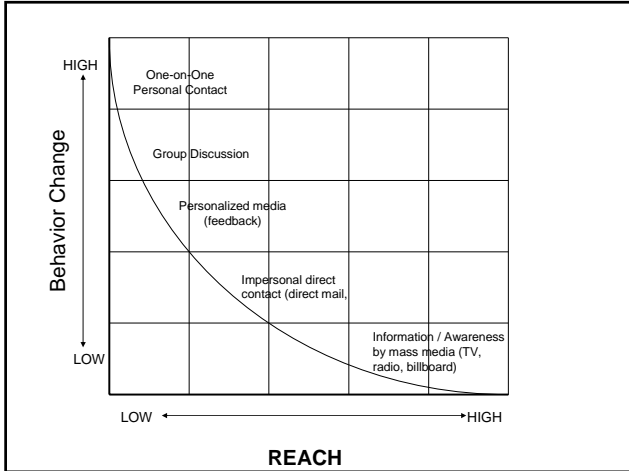
Illinois Attorney General Jim Ryan & Illinois Association of Park Districts

Elements of a Persuasive Appeal

- **Audience**
 - Topic is personally-relevant or value-based
 - Inattentive, distracted, unmotivated
- **Medium**
 - Television and radio move quickly
 - Print and internet more self-paced
- **Source**
 - Credible
 - likeable, humorous, attractive
- **Message**
 - Short versus long, humor, attention grabbing

Things to Keep in Mind

1. **Outreach to a specific audience**
Ex. People who DON'T engage in the target behavior
2. **Identify barriers for the target population**
Find them, talk to them, solicit their input,
3. **Where possible, use a personal communication channel**
Pier, retail point-of-purchase, ESL, high school classrooms
4. **Focus on a single action (Keep It Simple)**
What EXACTLY do you want people to do
Avoid "DON'T" or "NOT" messages



Some Useful References

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FCEC Community Outreach Update



Community Outreach Outline

- Revamped FCEC Website
- Community Outreach Phase 1:
Vietnamese Community
- Community Resource Council



FCEC Website

- www.pvsfish.org



Community Outreach Phase 1: Vietnamese Community

- Approaching Community Outreach by
Phases
- Focus on behaviors *and* awareness
- Outreach through community liaisons
and CBOs



The Outreach

- Work with 2-3 Vietnamese CBOs, Community Liaisons
 - Recruitment for Education Workshops
 - Health Clinic Outreach
 - Community Events
-



Evaluation

- Pre-Survey/Questionnaire
 - Immediate Recall & Intentions
 - Long term follow-up
-



Community Resource Council

- Purpose
 - Responsibilities
 - Attend Meetings
 - Represent Community
 - Serve as a Resource/Sounding Board
 - Application Process
-

Angler Outreach Program Update

1. Use of PDAs to collect data
2. Restructuring of Angler Outreach Program:

Chart 1

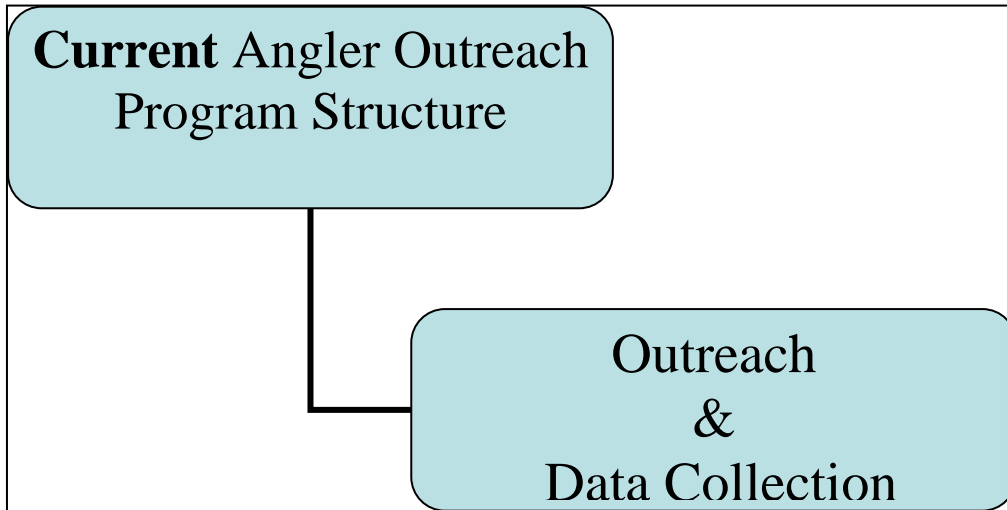


Chart 2

