UPDATE ON CALIFORNIA-BAJA CALIFORNIA ENVIRONMENTAL HEALTH TASK FORCE

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Border 2012 Environmental Health Workgroup Meeting
March 16, 2006 – Brownsville, Texas
California Members of Task Force

- California Department of Health Services (CDHS)
- California Environmental Protection Agency (Cal/EPA)
- Pala Tribe
- San Diego State University
- Southwest Consortium for Environmental Research and Policy (SCERP)
- Imperial and San Diego Counties
- US EPA Region 9
- US Food and Drug Administration
ACTIVITIES TO DATE

- Convened binational meeting on April 13, 2005 to
  - Identify pressing environmental health issues in California-Baja California border region
  - Discuss formation of task force
- Met with ISESALUD and SEMARNAT officials in Mexicali on September 28, 2005
- Convened three conference calls with CA members of Task Force between October 2005-February 2006
ACTIVITIES TO DATE

- Responded to US EPA Border 2012 Request for Proposals
  - Four Draft Project Recommendations submitted by Task Force members and presented at Border 2012 Regional Work Group Co-Chairs meeting in December 2005
  - One Final Project Recommendation submitted

- Updated document, Environmental Health Priorities in the California-Baja California Border Region: The California Perspective

- Met with ISESALUD officials in Mexicali on March 14, 2006 to discuss ISESALUD collaboration in formation of Task Force
Environmental Health Priorities in the California/Baja California Border Region

- Air Quality
- Lead Exposure
- Pesticides Exposure
- Water Quality
AIR QUALITY

- Imperial County is serious non-attainment area for PM-10
  - In 2003, ranked 2nd for PM-2.5 and 3rd for PM-10 air pollution in California
    - Likely impact of water transfer from Salton Sea to San Diego on air pollution due to shoreline and lakebed exposure

- Non-attainment area for ozone
  - Ranked 8th in California

- City of Calexico is non-attainment area for CO
AIR QUALITY

- Sources of air pollution in Imperial County:
  - Use of agricultural pesticides
  - Field burning
  - Unpaved roads
  - Truck border crossings
  - Power plant emissions
  - Fugitive dust from receding Salton Sea
In 2003, prevalence of asthma in children 1-14 years old in Imperial County is nearly 17% compared with 14% statewide.

Imperial County has highest asthma hospitalizations rates among children in California:
- 54/10,000 versus 17.7 statewide
Children are more vulnerable to negative effects of pollution given:
- Continued lung development into adolescence
- Rapid respiration rates
- More time spent outdoors

Recent studies have found links between air pollution and pre-term birth, and infant mortality
AIR QUALITY

- These issues point to need to:
  - Increase monitoring, surveillance, and health studies related to air quality and health
  - Advocate for cross-border approach to resolving air contamination
LEAD EXPOSURE

- In California border counties during 2001 – 2005, largest proportion of childhood lead poisonings cases involved Latino children

- Among new cases of blood lead poisoning in children
  - in San Diego County, 74 percent were Latino
  - in Imperial County, 75 percent were Latino
LEAD EXPOSURE

- Primary source of lead exposure is older housing containing leaded paint or lead-contaminated soil.

- Other sources of concern for border populations include:
  - certain ethnic folk remedies
  - imported lead-contaminated food products, such as some Mexican spices, candies, and fried grasshoppers (*chapulines*)
  - traditional glazed ceramics used for food preparation or storage
  - take-home exposures resulting from a family member’s job
Recent survey revealed:

- 6% of Californians used Mexican ceramics to store, serve, or prepare food
- 37% of Latino households reported eating Mexican candy, some of which is known to be lead-contaminated
LEAD EXPOSURE

- Recent California surveillance data indicates Latino home remedies (azarcón and greta) account for 10.4% of non-dust/paint/soil sources of lead poisoning.

- Other potential sources of lead exposure include:
  - lead-contaminated sites (particularly in Tijuana)
  - export from California to Baja California of old doors and windows with lead paint.
LEAD EXPOSURE

- Lead poisoning is the major preventable environmental health problem affecting children.

- Short and long-term childhood lead exposure may cause damage to the central nervous system, resulting in compromised intelligence, learning disabilities and behavioral disorders.

- New research indicates adverse effects may be seen with only small increases in blood lead levels.
LEAD EXPOSURE

● These issues point to need for:

  – More investigation on importance of various exposure sources that contribute to elevated blood lead levels in Latino populations

  – Culturally appropriate outreach and education strategies targeted at families and health care providers on both sides of border to reduce lead poisoning among Latino children and other border-area residents
PESTICIDE EXPOSURE

- California is leading agricultural state in the U.S.
  - Generates $28 billion annually in revenues

- Estimated 1.6 million agricultural workers and families
  - More than 90% born in Mexico

- In 2004, about 705 million pounds of pesticides sold in California
  - About 180 million pounds applied by commercial applicators and were restricted use pesticides
PESTICIDE EXPOSURE

- Agricultural workers are at particular risk of exposure to pesticide products.
  - In 2004, Department of Pesticide Regulation (DPR) reported that of the 828 cases recognized as definitely, probably, or possibly related to pesticide exposure, 390 (47%) involved use of pesticides for agricultural purposes.
PESTICIDE EXPOSURE

- Persistent problems:
  - Underreporting of pesticide-related illness among agricultural workers and others
  - Lack of awareness among farm workers of hazards and proper handling of pesticides
  - Lack of access to health care
  - Limited training of health care providers to recognize, manage, and report pesticide-related illnesses
California law requires that a physician who knows, or has reasonable cause to believe, that a patient has a pesticide-related illness must report to the local health officer by telephone within 24 hours.

For work-related pesticide illness cases, physicians also must send a copy of the “Doctor’s First Report of Occupational Injury or Illness” (DFR) to the local health officer within seven days.
In a typical year, most pesticide-related illness cases (67% to 75%) are identified through review of DFRs. <br><br>Less than one-third of cases are identified through physician reporting. <br><br>Without complete information, it is difficult to determine: <ul><li>if proper care was received</li><li>which individuals are repeatedly becoming sick from exposure</li><li>trends with respect to pesticide-related illnesses</li></ul>
PESTICIDE EXPOSURE

- These issues point to need for:
  - Valid and reliable means of monitoring pesticide-related illness to:
    - Identify problems that may occur with different uses of pesticides
    - Determine whether risk assessment and management practices are effective in preventing hazardous exposure incidents
  - Training of health care providers to improve recognition, management, and reporting of pesticides illnesses
  - Awareness raising among farm workers about safe use of pesticides
WATER QUALITY

- Rapid population growth in border region
- Many new arrivals live in unserviced colonias
- Safe drinking water and sewage treatment often not available for 7-14 years
- Leaking sewer pipes pollute surface and ground waters
WATER QUALITY

- Higher than average gastro-intestinal diseases and other water-associated diseases
  - Hepatitis
  - Cryptosporidium
  - Giardia
- Other contaminants of concern
  - Agricultural runoff
  - Arsenic
  - Poisons from groundwater wells
Interventions to address water quality issues include:

- Monitoring (both water quality and health)
- Modeling (i.e., correlation of levels, exposures, and effects)
- Minimization of pollutant levels
- Mitigation (i.e., nutrient trading)
- Water quality management (both surface and ground water).
NEXT STEPS

- Convene binational meeting in spring 2006 to formally establish California-Baja California Environmental Health Task Force

- Develop work plan, time line, and evaluation measures for Task Force activities

- Continue to seek funding support for activities
FOR MORE INFORMATION

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● Please refer to:
  - http://www.dhs.ca.gov/ps/dcdc/COBBH/