Is a Health Study the Answer for Your Community?
A Guide for Making Informed Decisions

Protecting Health in Latino Communities:
Spanish Health Studies Guide

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Boston University
Superfund Research Program
Outline

Why did we write this *Guide*?

Why is it critical to have the guide in Spanish?

Overview of the *Guide*
Background

BU Superfund Research Program
Community Engagement Core
e.g., community air pollution monitoring

National Institute of Environmental Health Sciences (NIEHS/NIH)
### Why a health study guide in Spanish?

#### Table 4.1 – Racial and Socioeconomic Disparities between Host Neighborhoods and Non-Host Areas for the Nation’s 413 Commercial Hazardous Waste Facilities (1990 and 2000 Census)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th></th>
<th></th>
<th></th>
<th>1990</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Host</td>
<td>Non-Host</td>
<td>Diff.</td>
<td>Ratio</td>
<td>Host</td>
<td>Non-Host</td>
<td>Diff.</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Pop. (1000s)</td>
<td>9,222</td>
<td>272,200</td>
<td>-262,979</td>
<td>0.03</td>
<td>8,673</td>
<td>240,037</td>
<td>-231,364</td>
</tr>
<tr>
<td>Population Density</td>
<td>870</td>
<td>29.7</td>
<td>840</td>
<td>29.0</td>
<td>820</td>
<td>25.1</td>
<td>790</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% People of Color</td>
<td>55.9%</td>
<td>30.0%</td>
<td>25.9%</td>
<td>1.86</td>
<td>46.2%</td>
<td>23.4%</td>
<td>22.8%</td>
</tr>
<tr>
<td>% African American</td>
<td>20.0%</td>
<td>11.9%</td>
<td>8.0%</td>
<td>1.67</td>
<td>20.4%</td>
<td>11.7%</td>
<td>8.7%</td>
</tr>
<tr>
<td>% Hispanic or Latino</td>
<td>27.0%</td>
<td>12.0%</td>
<td>15.0%</td>
<td>2.25</td>
<td>20.7%</td>
<td>8.4%</td>
<td>12.3%</td>
</tr>
<tr>
<td>% Asian/Pac. Is.</td>
<td>6.7%</td>
<td>3.6%</td>
<td>3.0%</td>
<td>1.83</td>
<td>5.3%</td>
<td>2.8%</td>
<td>2.5%</td>
</tr>
<tr>
<td>% Native American</td>
<td>0.7%</td>
<td>0.9%</td>
<td>-0.2%</td>
<td>0.77</td>
<td>0.6%</td>
<td>0.8%</td>
<td>-0.3%</td>
</tr>
<tr>
<td><strong>Socioeconomics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty Rate</td>
<td>18.3%</td>
<td>12.2%</td>
<td>6.1%</td>
<td>1.50</td>
<td>18.5%</td>
<td>12.9%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Mean Household Income</td>
<td>$48,234</td>
<td>$56,912</td>
<td>-$8,678</td>
<td>0.85</td>
<td>$33,115</td>
<td>$38,639</td>
<td>-$5,524</td>
</tr>
<tr>
<td>Mean Owner-Occupd.</td>
<td>$135,510</td>
<td>$159,536</td>
<td>-$24,025</td>
<td>0.85</td>
<td>$101,774</td>
<td>$111,954</td>
<td>-$10,180</td>
</tr>
<tr>
<td>Housing Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% with 4-Year College Degree</td>
<td>18.5%</td>
<td>24.6%</td>
<td>-6.1%</td>
<td>0.75</td>
<td>15.4%</td>
<td>20.5%</td>
<td>-5.1%</td>
</tr>
<tr>
<td>% Professional “White Collar” Occup.</td>
<td>28.0%</td>
<td>33.8%</td>
<td>-5.8%</td>
<td>0.83</td>
<td>21.8%</td>
<td>26.6%</td>
<td>-4.8%</td>
</tr>
<tr>
<td>% Employed in “Blue Collar” Occup.</td>
<td>27.7%</td>
<td>24.0%</td>
<td>3.7%</td>
<td>1.15</td>
<td>30.0%</td>
<td>26.1%</td>
<td>3.9%</td>
</tr>
</tbody>
</table>
UNEQUAL EXPOSURE TO ECOLOGICAL HAZARDS
2005:
ENVIRONMENTAL INJUSTICES
IN THE COMMONWEALTH OF MASSACHUSETTS

“Environmentally hazardous sites and facilities... are disproportionately located in working class towns and communities of color.”

ENVIRONMENTAL JUSTICE POLICY
OF THE EXECUTIVE OFFICE OF
ENVIRONMENTAL AFFAIRS
October 9, 2002

...targets EOEA resources to service those high-minority/low-income neighborhoods in Massachusetts where the residents are most at risk of being unaware of or unable to participate in environmental decision-making.
An Environmental Justice Community in Massachusetts…

…defined as neighborhoods (U.S. Census Bureau census block groups) that meet *one or more* of the following criteria:

- The median annual household income is at or below 65 percent of the statewide median income for Massachusetts; *or*
- 25 percent of the residents are minority; *or*
- 25 percent of the residents are foreign born, *or*
- 25 percent of the residents are lacking English language proficiency.
Demand for Studies... in Massachusetts

Annual Calls Taken Regarding Perceived Environment and Disease Clusters

Source: Mass DPH
Jemez Principles for Democratic Organizing

On December 6, 1996, forty people of color and European-American representatives met in Jemez, New Mexico, for the “Working Group Meeting on Globalization and Trade.”

The “Jemez Principles” for democratic organizing were adopted by the participants.

One of the key principles is:

**Let People Speak for Themselves**

We must be sure that relevant voices of people directly affected are heard. Ways must be provided for spokespersons to represent and be responsible to the affected constituencies. It is important for organizations to clarify their roles, and who they represent, and to assure accountability within our structures.*

* [www.ejnet.org/ej/](http://www.ejnet.org/ej/)
Why a health study guide in Spanish?

Case in point: Holyoke campaign to retire the Mt. Tom Coal Plant lead by Latino activists.
Is a health study the answer for your community?

A guide for making informed decisions

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TERC

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What is a health study?

An epidemiologic study (connecting exposure to outcome) is only one of the available types of community health studies.
Step 1: Why a health study?

Important to distinguish organizing **goals** from study **questions**
## Motives for a Health Study

### Table 1.2 Your Motives for a Health Study

<table>
<thead>
<tr>
<th>A. What do you want to know?</th>
<th>B. Why do you want to know?</th>
</tr>
</thead>
<tbody>
<tr>
<td>That is, what is your <em>question or concern</em>?</td>
<td>That is, what is your <em>goal</em>?</td>
</tr>
</tbody>
</table>

**Sample responses:**

**A.**
- How much soot from the power plant are we breathing?
- Is there too much illness in our community?
- Why are people sick?
- Is the mold in the school making our kids sick?

**B.**
- Stop the development
- Prove we were right
- Clean up the site
- Get compensation
Step 2: Define Research Question

Studies tend to focus on these things:

- Exposures
- Health outcomes
- Connecting exposures to outcomes
### Examples

<table>
<thead>
<tr>
<th>My concern is...</th>
<th>My study will address...</th>
<th>My research question is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>particulates emitted by a power plant in town</td>
<td>An <em>exposure</em>: Have we been exposed to something harmful?</td>
<td>Over the past 5 years, have people on the east side of town been exposed to high concentrations of airborne particulates emitted by the power plant?</td>
</tr>
<tr>
<td>too much breast cancer</td>
<td>An <em>outcome</em>: Are there more cases here than one would expect?</td>
<td>Over the past 10 years, does our town have a higher rate of breast cancer in women than other, similar communities do?</td>
</tr>
<tr>
<td>possible link between children’s poor school performance and our town’s old lead water pipes</td>
<td>An <em>exposure-outcome</em> relationship: Is a harmful exposure affecting our health and well-being?</td>
<td>Is lead in our drinking water responsible for the current poor performance of local children in school?</td>
</tr>
</tbody>
</table>
Chapter 2 Worksheet: Developing a Research Question

Check the boxes and fill in the blanks using the sample responses as examples.

1. Identifying your concern(s) (What):
   Are you concerned only about an exposure? __ yes ___ no
   If yes, what exposure? ____________________________

   Are you concerned only about a health outcome? __ yes ___ no
   If yes, what outcome? ____________________________

   Are you concerned about a possible link between an exposure and a health outcome? __ yes ___ no
   If yes, what exposure? ____________________________
   And what outcome? ____________________________

2. Who is the focus of concern?
   What groups (for example, children ages 5-12, women under age 30, atomic energy workers)?
   ____________________________________________

   About how many people do you think are affected? A rough estimate is fine: Fewer than 100?
### Step 3: Consider Possible Outcomes

<table>
<thead>
<tr>
<th>Positive things a health study might do</th>
<th>Negative things a health study might do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document disease and/or exposure</td>
<td>Document no significant relationship between a disease and exposure</td>
</tr>
<tr>
<td>Demonstrate a relationship between exposure and disease</td>
<td>Appear to show there is no problem</td>
</tr>
<tr>
<td>Educate residents about environmental health concerns</td>
<td>Give permission to polluters to continue polluting</td>
</tr>
<tr>
<td>Generate media coverage and motivate the community</td>
<td>Lead to legal issues over confidentiality or lawsuits by polluters</td>
</tr>
<tr>
<td>Be useful for political leverage in a campaign</td>
<td>Be used <em>against</em> your campaign or group</td>
</tr>
<tr>
<td>Create an opportunity for members of your community to get involved</td>
<td>Overwhelm your organizing efforts and sap members’ energy</td>
</tr>
<tr>
<td>Be useful in community efforts to protect the health of future generations</td>
<td>Generate statistics that may undermine your efforts</td>
</tr>
<tr>
<td></td>
<td>Identify health problems that you are unprepared to deal with</td>
</tr>
<tr>
<td></td>
<td>Delay action while waiting for results</td>
</tr>
</tbody>
</table>
“We were hoping to find a connection between the path of the smoke and cancer in town. And we thought [the study] was going to reveal the link between the power plant and our high rates of cancer.”

-Joe, Resident of Salem, Massachusetts

“I think it is really important when these studies are created to say...’How will [the results] be used...?’ To consider what the public perception is going to be, to look at the big picture...to think about, if it came out the way it did, it would be used against us. If I had a chance to do that with the study...I would have said, ‘Don’t do it!’”

-Erin, Resident of Salem, Massachusetts
“No matter how good a study may be, someone will have something bad to say about it. And if it is a flawed study but people are organized, it could move mountains.”

-Dr. David Ozonoff, BU SPH
### Capítulo 3: Un menú de estudios de salud

<table>
<thead>
<tr>
<th>Tipo de Estudio</th>
<th>Resultados</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(1) Mapeo</strong></td>
<td></td>
</tr>
<tr>
<td>Mapeo de exposición</td>
<td>Mapa(s) de exposiciones</td>
</tr>
<tr>
<td>Mapeo de resultados en la salud</td>
<td>Mapa(s) de distribución de enfermedades</td>
</tr>
<tr>
<td><strong>(2) Estudios de Exposición</strong></td>
<td></td>
</tr>
<tr>
<td>Monitoreo ambiental</td>
<td>Concentraciones en el medio ambiente</td>
</tr>
<tr>
<td>Monitoreo personal</td>
<td>Concentraciones en el entorno personal inmediato</td>
</tr>
<tr>
<td>Estudio de carga corporal (biomonitoreo)</td>
<td>Concentraciones en tejido o fluido corporal</td>
</tr>
<tr>
<td>Declaración de impacto ambiental</td>
<td>Descripción de cambios ambientales</td>
</tr>
</tbody>
</table>
¿Habrá algún patrón entre la ubicación de las exposiciones y los resultados en la salud en mi comunidad?

Así como el mapeo puede hacerse para la ubicación de exposiciones o de resultados en la salud en su comunidad, ambos pueden ser reflejados en el mismo mapa.

- Las vecindades de la parte Oeste de la ciudad presentan más casos de cáncer cerebral que otras vecindades. ¿Se encontrarán también más vertederos de desechos peligrosos?

- ¿Habrá más casos de cáncer de mama cerca de una pluma contaminante subterránea, comparado con áreas que no presentan contaminación del agua subterránea?

- ¿Existe un mayor número de casos de mortalidad por enfermedad cardiovascular a sotavento de la planta eléctrica de carbón?
Chapter 4: “More About Each Type of Health Study”

Mapping

Studies of Exposure
   Environmental or Personal Exposure Monitoring Study
   Body Burdens and Biomonitoring
   Environmental Impact Statement

Studies of Health Outcomes
   Community Survey
   Analysis of Disease Registry Data or Vital Events Data

Studies of the Exposure-Outcome Relationship
   Ecologic Study
   Cohort Study
   Case-Control Study

Studies of Contaminated Sites
   Risk Assessments
   Public Health Assessments
Chapter 7: “Who Conducts Health Studies?”

We’ve identified our health concern... Now what? Who do we go to?

“How do I navigate this sea of acronyms...”
Complementary Resources

- **CommunityHealthStudies.org** - An interactive website introducing users to environmental health issues and study designs using case studies. *California DPH EHIB*
- **Statistics for Action**, website with videos, activities and exercises on environmental sampling, understanding test results and data.
- **Community Environmental Health Assessment Workbook** – Environmental Law Institute
- **The Story of Health**: Interactive ebook that includes cases of asthma, leukemia, learning disabilities and environmental risk factors.
Acknowledgements

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http://www.bu.edu/sph/health-studies-guide/

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