EXECUTIVE SUMMARY

p. x

MERCURY EXPOSURE
The harmful effects of mercury pose another health threat to Latinos. The major ways in which Latinos are exposed to mercury are by eating mercury-contaminated fish and by using mercury in religious ceremonies, cosmetics, and folk remedies.

p. xi

Certain religious and cultural practices provide another route of exposure to mercury, which is sprinkled indoors by practitioners of Espiritismo and Santería (religious traditions found most commonly among people of Puerto Rican and Cuban origin, respectively), and in the Voodoo and Palo traditions. Surveys in Massachusetts, New York, and Chicago found that between 19 and 44 percent of Hispanic respondents reported using mercury for magic or religious purposes. Researchers estimate that 47,000 capsules of mercury are sold per year in botanicas (stores that sell remedies and religious items) in [the borough of the Bronx] New York City, and these capsules are likely to cause long-term contamination of more than 13,000 homes or apartment buildings each year. Use of mercury in an apartment building has been shown to cause elevated levels of mercury vapor in the hallways and entryway, and probably also in other apartments where mercury is not used. Toxic vapors can linger for months or even years, leading to neurological and respiratory symptoms in apartment residents.

p. 54
Chapter 6

MERCURY

Another substance posing a significant health threat to Latinos is mercury. Once known best as the silvery liquid in thermometers, mercury is better known today as a poison that damages the brain and kidneys. Despite the health risks associated with the chemical, the public largely does not appreciate the seriousness of the threat and the presence of its sources. This is especially true in the Latino community, where public education efforts in Spanish have so far been limited. The most serious ways in which Latinos may be exposed to dangerous amounts of mercury are eating mercury-contaminated fish and using mercury in religious ceremonies, cosmetics, and folk remedies.
MERCURY LEVELS IN THE BLOOD AND HAIR OF LATINOS
Nationwide, more than one in 12 women of reproductive age has mercury in her blood that exceeds the level set as safe by the Environmental Protection Agency (EPA). A large study done by the Centers for Disease Control and Prevention (CDC) tested for mercury in the blood and hair of more than 2,500 women and children around the United States. On average, Mexican-American children had higher levels of mercury in their bodies compared with non-Hispanic white children. In addition, three people tested in that study had mercury levels that were 100 to 1,000 times as high as the average for the other people tested. All of these people were Mexican-Americans, including a 37-year-old woman and two children ages 1 and 3. These people had both methyl mercury and inorganic mercury in their bodies, suggesting that they may have been exposed to this toxic chemical both from eating fish and from direct exposure such as from folk remedies or religious uses.

FOLK REMEDIES AND COSMETICS
Mercury, known as azogue in some Latino communities, is sometimes used as a folk remedy for empacho (indigestion or gastroenteritis). This practice is most common among Mexican-Americans, and surveys have found that one out of 12 Latinos in New Mexico mention azogue as a cure for empacho. Doctors have documented individual cases of children becoming ill, even requiring hospitalization, from the use of mercury for empacho. Not surprisingly, children are more likely than adults by ingesting azogue. Diagnosis is complicated by the similarity between the symptoms from consuming azogue and the symptoms of the illness it is used to treat. People who use azogue for the treatment of illness do not realize that it is harmful, just as most Americans did not realize until recently the potential hazards of mercury-containing disinfectants (such as Merthiolate or Mercurochrome) for treating cuts and scrapes in children.

RELIGIOUS CEREMONIES
Another source of mercury exposure that goes largely unnoticed is its use in the religious practices of some Latin American and Afro-Caribbean communities. Practitioners of Espiritismo and Santeria (religious traditions most commonly found among people of Puerto Rican and Cuban origin, respectively), Voodoo, and Palo use mercury. It is sometimes carried in capsules, burned in candles or oil lamps, sprinkled around the home, or added to perfumes. In these religious traditions, azogue helps summon spirits for magical spells and serves as an amulet that keeps evil spirits at bay and brings good luck.

Initial studies indicate that the use of azogue is relatively common in the Latino and Caribbean community. A 2003 study of 898 Latino respondents in [Lawrence] Massachusetts found that 38 percent have used or know someone who has used azogue for religious, spiritual, or health purposes. Similarly, a study of 203 adults in New York City revealed that 44 percent of Caribbean respondents and 27 percent of those from Latin America reported using mercury as a part of their cultural practices. In a Chicago survey, 19 percent of Hispanics reported using mercury for magic or religious purposes. And in another survey, 12 percent of practitioners reported sprinkling mercury around a child’s crib or bed.

Mercury is sold in most botanicas, stores that sell remedies and religious items. Studies show that more than 85 percent of botanicas around the country sell azogue and that in some areas the percentage is even higher. A canvass of 35 botanicas in the Bronx found that they collectively sold more than 420 kilograms (924 pounds) of mercury yearly. Based on this survey, researchers estimated that 47,000 capsules of mercury are sold per year in [the Bronx.] New York City, and these capsules would be likely to cause long-term contamination of more than 13,000 homes or apartment buildings each year.

Even if a family does not use mercury themselves, there can be a danger of exposure because mercury lingers in cracks in the floor or in carpets for months or years, slowly giving off mercury vapor that
can be inhaled by people living in the building. For example, use of mercury in an apartment building has been shown to cause elevated levels of mercury vapor in the hallways and entryway, and probably in other apartments where mercury was not used. Moving into a house or apartment where mercury was used in the past can expose new occupants to mercury hazards. Children have been reported to become seriously ill from living in a room where a mercury thermometer was broken eight months previously, and the amounts of mercury used in these rituals can be significantly more than the amount in a thermometer.28 In certain areas of New Jersey with large populations of Caribbean-Americans, indoor mercury levels have often been found to be five times the outdoor level.29 When mercury is in vapor form it can cause neurological problems and is also associated with respiratory symptoms such as shortness of breath, pneumonia, and lung diseas.30

In 2001, the New York State Senate adopted a resolution calling on state and federal agencies to investigate the residential use of mercury in New York. The Senate was especially concerned about the risks to women and children and about the risks to people who move into apartments unaware that the previous tenant scattered mercury that could make them sick.31 In 1994, the U.S. Environmental Agency warned state and local health officials of a mercury threat to Hispanics related to the use of mercury in many Hispanic communities.32

Studies have shown elevated levels of mercury in people’s bodies related to inadvertent exposure to mercury used in rituals. A survey of 100 Hispanic and Caribbean children from a Bronx, New York, community with known access to mercury for religious rituals revealed that 5 percent had elevated levels of the toxic metal in their urine.33 The mercury levels were as high as those shown to cause subtle cognitive defects, abnormalities in motor function, and mood changes in adults. Recently, health officials investigating a mercury spill in a school found that Latinos who used mercury in their homes had higher mercury levels than individuals exposed at the school.34

Mercury disposal is also cause for concern. A 1999 study showed that 64 percent of users of azogue reported throwing mercury into the garbage, and 27 percent reported flushing it down the toilet.35 New York’s Bureau of Wastewater Treatment has been unable to identify the source of about 68 pounds per year of mercury entering one of its plants from a region that contains the city’s largest Latino population.36 When mercury is disposed of in garbage or wastewater, it eventually is transformed into methyl mercury and contaminates the fish we eat.

p. 60

Conversations with azogue users indicate that some realize that touching or eating mercury may be harmful, but they are generally unaware that mercury is highly volatile and that inhalation is a very dangerous route of mercury exposure.37 A culturally sensitive education campaign that involves Santeros (Santeria priests), local groups, and local government officials could address this problem. Significantly, various studies show that botanica owners are already wary of outsiders and are trying to conduct sales in an inconspicuous manner. Any action that drives this business further underground will only hinder efforts at education. Therefore, an approach that allows practitioners to make well-informed decisions will help to protect children in these communities.

RECOMMENDATIONS

... 

- Local departments of health in cities with significant Latino populations should provide bilingual materials at public health clinics and in schools to inform Latinos about the risks of mercury use in folk remedies, cosmetics, and religious ceremonies.

ENDNOTES