

Why They Don't Want to Know

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The objectives of ATSDR's February 2009 report, *Children's Exposure to Elemental Mercury: A National Review of Exposure Events*, are to "1) identify the common sources of elemental mercury exposure in children; and 2) describe the location, demographics and proportion of children exposed or potentially exposed to elemental mercury in the United States."

Although the report's subtitle implies it is confined to reported exposure events, the mention of "children ... potentially exposed" allowed the inclusion of significant exposures that go un-reported. Specifically, the report describes potential pediatric exposure from mercury put to magico-religious use in some Caribbean and Latino communities. The majority of pediatric mercury exposures are from broken thermometers, and even that small amount of mercury (~0.7 g) can "create hazardous conditions if spilled indoors and improperly cleaned." Although thermometer mercury spills are common, they are relatively small, and are generally cleaned up. In contrast, ritualistic mercury spills are relatively uncommon, but they are relatively large (mean weight ~10 g), may be repeated, and are not cleaned up.

In the context of magico-religious and ethnomedical belief systems prevalent around the Caribbean basin, mercury is believed to attract good and repel evil. Many of these esoteric uses expose individuals with mercury by ingestion, dermal contact, and inhalation of mercury vapor. The single most problematic use, and apparently one of the most common, is to sprinkle mercury

"around the home, where it is easily disbursed into fine beads that sink into carpets, furniture, [and] cracks in the floor. ... Although the extent of [ritualistic] mercury use in the home is not well characterized, such use may lead to chronic mercury exposure among those who use it in this manner and for subsequent occupants of the contaminated homes. ... Because mercury contamination in the home can persist for years, ceremonial use of mercury in the home could expose future occupants and their children, contributing to health disparities in these [Caribbean and Latino] populations. ... The individuals affected are most likely to be members of minority populations, raising concerns about environmental injustice in these communities."

In 1990, the initial publication on Caribbean and Latino magico-religious mercury use stated there was "ample justification for a programme to measure mercury vapor levels and to test exposed individuals."

Two decades later, these recommendations have yet to be implemented. This (current) article explains why an environmental health threat and environmental justice issue as obvious and serious as that posed by mercury contamination of minority housing has been substantively ignored.

Research found unlabeled mercury widely sold by botanicas, shops in Caribbean-Latino communities that stock traditional medicines, magical, and religious paraphernalia. Shopkeepers and other ritual experts recommend that mercury be sprinkled on floors and put to other environmentally problematic uses. One study found 5% of Bronx children with clinically elevated

urinary mercury levels. A survey of mercury vapor in public hallways of housing in heavily Caribbean New Jersey communities found highly elevated concentrations emanating from occupied apartments. The ATSDR report suggests “concerns about environmental injustice in these communities,” but there has been no outcry from these mercury-impacted communities. Why?

There is no “community of suffering” to advocate for attention to a latent epidemic of mercury poisoning. This is similar to the case of pediatric lead poisoning in the earlier 20th century, when the subclinical, mainly neurodevelopmental, behavioral and cognitive symptoms and signs of chronic lead exposure were collectively missed, miss-attributed, and mis-diagnosed by parents, teachers and physicians. The posited epidemic of mercury poisoning currently is, just as the lead poisoning epidemic was, a latent epidemic.

Those who put mercury to occult use are unaware of its vapor’s toxicity. Those exposed at second-hand, from prior ritualistic spills, are ignorant of their exposure. There is no published case of ritualistic mercury use causing environmental contamination or disease, therefore clinicians are unaware these exposures are occurring, and unfamiliar with the signs and symptoms of mercury intoxication.

In similar cases of putative toxic exposure, environmental advocates serving minority communities vociferously call for implementation of the Precautionary Principle, petitioning government to assess exposure by measuring levels of toxin in the human environment. There has been no such advocacy in the case of ritualistic mercury contamination, as the polluters are neither exogenous deep-pocketed corporate or governmental ‘bad-guys,’ but are themselves members of the very ethnic, religious minority communities they are inadvertently poisoning. The educated elite of these communities are embarrassed that these magical uses of mercury are occurring, and fear the adverse publicity their communities will endure should the sequelae of these practices be demonstrated.

Beginning in 1990, when they were first apprised of these domestic mercury exposures, city, state and federal government agencies have been loathe to substantively assess and address this issue, and the basic research on levels of mercury vapor exposure in occupied dwellings has never been undertaken. The closest approximation was made by the NJDEP in 2002, when the vapor level measurements mentioned earlier were made in unoccupied public hallways, allowing the research to be conducted non-invasively, and more importantly, avoiding the need to evacuate apartments should the EPA mandated evacuation level of 10 micrograms of mercury per cubic meter of air be reached. Government has made a pretense of measuring urinary mercury levels (UML’s), with inadequate sample sizes and questionable correlation of UML’s with ambient mercury vapor levels.

In the event these potential exposures are found to be real, and their latent burden of disease demonstrated, government will be faced with the responsibility and expense of assessing and decontaminating tens of thousands of dwellings around the country and Puerto Rico. This will lead to the diagnosis of mercury poisoning in large numbers of mostly minority people. The potential for legal, political, economic and social backlash against government agencies that failed to exercise their mandated oversight of this issue is enormous.

The gatekeepers of the Caribbean and Latino communities who have been aware of, but have failed to act on these exposures is a further disincentive to their taking substantive action on the issue. In short, this is why they don’t want to know.