PUBLIC HEALTH DIVISION
Office of the State Public Health Director

Kate Brown, Governor

Oregon Health Authority

800 NE Oregon St, Suite 930
Portland, OR 97232-2185
971-673-1222
FAX: 971-673-1299
TTY-TDD: 971-673-1222
public.health.oregon.gov

Plan for Monitoring Human Health Data Related to Metals Emissions in Portland

Released March 9, 2016
Updated March 14, 2016

The Oregon Health Authority (OHA) is working with the Oregon Department of Environmental Quality (DEQ) and Multnomah County Health Department (MCHD) to investigate high environmental levels of heavy metals (e.g., cadmium and arsenic) found in preliminary monitoring data in areas around glass manufacturing plants in inner Southeast and North Portland. Air and soil samples are being collected to further determine levels of these metals in the environment. State and local agencies are coordinating their efforts to analyze these data, assess human exposures, and provide health-related information, as summarized below.

Evaluation of Neighborhood Cancer Rates

Based on available environmental data indicating affected geographic areas, the Oregon State Cancer Registry[1] (OSCaR) evaluated cancer rates for the Census tracts near Bullseye Glass with the highest reported environmental levels of cadmium and arsenic. These evaluations focused on lung and bladder cancers, the two cancers most strongly associated with these types of exposures to cadmium and arsenic. Initial results showed that rates for these cancers were no higher in these areas than would be expected. The full report on these cancer analyses, including the specific census tracts and methods, is available here:
http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Cancer/oscar/Documents/se-portland-cadmium-arsenic-report-2009-2013.pdf.

Similar analyses were done for the areas of North Portland near Uroboros Glass with the highest reported environmental levels of cadmium. Based on available cancer data, initial analyses indicate that there was no increase in rates of either lung or bladder cancer during 2009–2013 in these areas. The full report on these cancer analyses, including the specific census tracts and methods, is available here:
http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Cancer/oscar/Documents/n-portland-cadmium-arsenic-report-2009-2013.pdf.

Urine Testing for Cadmium

[1] OSCaR is a statewide, population-based registry that collects and analyzes information about cancer cases occurring in Oregon. OSCaR analyses allow for tracking of cancer rates over time at the state and county level.

The Public Health Division is collecting and analyzing data indicative of human exposures using urine testing for cadmium. Urine cadmium is the focus of testing because it remains in the body for a long time and more accurately reflects long term exposure.

Population being testing: Currently, some people in the exposed communities near Bullseye Glass in Southeast Portland, and Uroboros Glass in North Portland have self-identified to their physicians and requested screening.

Laboratory testing: The recommended testing for determining exposure to cadmium is urine screening; such testing is not urgent, since cadmium can be found in the urine for years following exposure. Guidelines for clinicians about obtaining the samples and where to send the specimens for testing have been published and updated; further updates will follow as more information about exposure becomes available, see: http://public.health.oregon.gov/newsadvisories/Documents/se-portland-metals-emissions-physician-guidance.pdf. Notifications have been sent to medical care providers within the Portland metro tri-county area. As of March 4, 2016, more than 200 people have already had urine testing for cadmium done through their private health care providers.

Reporting results to Public Health: The Oregon Health Authority's Public Health Division has a list of diseases, conditions, and laboratory findings that are reportable by law to public health authorities. On February 18, 2016, OHA amended these rules on an emergency basis to require that detectable cadmium in urine be reportable, and have established electronic reporting of these results from the laboratories to the Public Health Division.

Investigating positive results: OHA has developed guidelines for the investigation of all positive urine cadmium tests received:
http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/ReportingCommunicableDisease/ReportingGuidelines/Documents/Cadmium_toxicity.pdf

OHA has sent a "Health Alert Network" alert to local health departments to inform them of the guidelines and asking them to begin contacting any person with a positive urine cadmium result to query about these potential exposures.

Additional testing: If individuals or parents are concerned about exposure, they should talk to their healthcare provider to make the best choice for their health. The Oregon Health Plan (OHP) will cover urine cadmium testing for members who live in the highest-risk areas, as will most private insurance plans. For persons residing, working, or going to school or day care within one-half mile of either glass manufacturing plant, the OHA is in the process of contracting with a health care system to arrange for urine cadmium testing. By March 18, details will be posted at SaferAirPortland.Oregon.gov.

Analyzing and releasing results: Once we have received a sufficient number of test results to ensure confidentiality of individuals, we will summarize and release the results. Preliminary analyses should be available by the week of March 14, and will include the overall number of tests performed, the numbers above the threshold for detection, and interpretation that includes comparison to national reference levels when available. These will be presented by age-group and sex of the individual. Currently, addresses are available for only about 40% of reports received; when address data are more complete, OHA will present data on test results by area of exposure, aggregated (rather than a dot map) to protect confidentiality.

Environmental Health Assessment Future Plans

While the glass factories have stopped using the heavy metals of concern since February 15th, OHA Public Health must be responsive to the community concerns about how past exposures might affect their health. In order to address this and other related health concerns, OHA's Environmental Health Assessment Program will be conducting a comprehensive Public Health Assessment for the persons living, working, or going to school or day care within ½ mile of each of the facilities. These assessments will use the Center for Disease Control's (CDC) Agency for Toxic Substances and Disease Registry (ATSDR) standard process for evaluating the health risks of environmental contamination. We are in discussions with national experts from the CDC about whether additional biological testing of community members is appropriate. We also will identify a community advisory group to: 1) assure that the strengths and limitations of any such potential study are shared; and 2) understand community needs for the more detailed information that such a study would provide.

Timeline of Human Health Monitoring Related to Elevated Environmental Levels of Heavy Metals
March 4, 2016

Neighborhood cancer rate evaluation	Bullseye Glass vicinity lung and bladder cancer report released	2/18
	Uroboros Glass vicinity lung and bladder cancer evaluation initiated	2/22
	Uroboros Glass vicinity lung and bladder cancer report released	3/15
	Complete additional years' cancer incidence evaluation for relevant cancers in census tracts around Bullseye and Uroboros Glass and report results to the public.	3/31
Urine testing and reporting	Rule-making for urine cadmium results to be reportable	2/18
	Establish electronic reporting system for results	2/26
	Provider notification emailed to Multnomah County providers	2/29
	Publish investigative guidelines for health departments	3/2
	HAN alert to LHDs to begin investigating positive urine cadmium results	3/4
	Begin analyses of reported urine cadmium results (the "convenience sample")	2/25
	Initial public release of preliminary results of convenience sample. Weekly updates of numbers to begin thereafter	3/7
	Coordinate and pay for urine testing: For persons residing, working or attending school or daycare within ½ mile of either glass manufacturing plant, pay for and coordinate urine cadmium testing.	3/18
Systematic biomonitoring study	Initiate and maintain discussion with federal partners (ATSDR) about conducting a comprehensive Environmental Public Health Assessment (including necessary resources)	2/26, Ongoing