ATSDR Public Health Activities at Oak Ridge Reservation (1992 – 2012)

1992 - ATSDR Begins Work

ATSDR reviews clinical data and medical histories (http://www.atsdr.cdc.gov/HAC/oakridge/phact/c_5.html#332) of 45 patients in the Oak Ridge area. Evidence is insufficient to associate low levels of metals with diseases present in these patients.

1993 - East Fork Poplar Creek

ATSDR's health consultation (http://www.atsdr.cdc.gov/sites/oakridge/east_fork_poplar_creek.html) reaches two important conclusions: 1. Soil in a few locations along East Fork Poplar Creek (EFPC) floodplain is contaminated with levels of mercury that pose health concerns, especially for children. 2. Fish eaten frequently over long time periods could pose a moderately increased risk of harmful health effects.

1995 - ATSDR Science Panel on Inorganic Mercury in Soil

ATSDR establishes an independent expert panel (http://www.atsdr.cdc.gov/HAC/oakridge/phact/c_4.html#325) to evaluate the type of inorganic mercury in soil and its ability to be absorbed in human bodies.

1996 - Health Consultation on Mercury Clean-Up Levels for EFPC Floodplain Soil

ATSDR health consultation uses the 1995 science panel findings to evaluate proposed mercury clean-up levels for the East Fork Poplar Creek (EFPC) (http://www.atsdr.cdc.gov/sites/oakridge/east_fork_poplar_creek.html) floodplain soil and concludes the clean-up levels will protect public health.

1996 - Health Consultation for Lower Watts Bar Reservoir

ATSDR health consultation for Lower Watts Bar Reservoir (http://www.atsdr.cdc.gov/sites/oakridge/watts_bar.html) concludes that the only possible health concern is consuming polychlorinated biphenyls (PCBs) in some fish; swimming and recreation are safe.

1996 - Community and Physician Education

ATSDR conducts health education programs (http://www.atsdr.cdc.gov/sites/oakridge/other_public_health_activities.html) for residents and physicians about health risks associated with PCBs in Watts Bar Reservoir fish and on health impacts of possible cyanide intoxication at K-25.

1997 - Fish Advisory Pointers Brochure

ATSDR works with the state of Tennessee and local community groups to develop the Watts Bar Reservoir Fish Advisory Pointers brochure (http://www.atsdr.cdc.gov/sites/oakridge/docs/Watts%20Bar%20Reservoir%20Brochure.pdf) [PDF, 91 KB] as a follow-up to recommendations in the ATSDR health consultation.

1997 - Science Panel Members Articles

Members of ATSDR science panel evaluating inorganic mercury (http://www.atsdr.cdc.gov/HAC/oakridge/phact/c_4.html#325) in EFPC floodplain soil publish four articles in the International Journal of Risk Analysis about their findings.

1998 - Exposure Investigation for PCBs in Fish

ATSDR conducts an exposure investigation to measure blood levels of PCBs and mercury in people who have eaten large amounts of fish and turtles from Watts Bar Reservoir (http://www.atsdr.cdc.gov/sites/oakridge/watts_bar.html) . ATSDR concludes that the serum PCB levels and blood mercury levels in participants were similar to levels found in the general population.

1999–2005 - Health Effects Subcommittee

ATSDR creates the Oak Ridge Reservation Health Effects Subcommittee (ORRHES) (http://www.atsdr.cdc.gov/sites/oakridge/orrhes_subcommittee.html), 21 people from the local area who unite community members, civic groups, and government agencies to work on health activities and research. ORRHES holds 25 meetings and 125 workgroup meetings and provides many helpful recommendations.

2000 - ATSDR Uses Oak Ridge Health Studies

National experts determine that ATSDR can use the Tennessee Department of Health's (TDOH) Oak Ridge Health Studies as a foundation for ATSDR's public health assessments.

2001–2005 - ATSDR Field Office in Oak Ridge, TN

ATSDR establishes and maintains a field office in Oak Ridge. Office staff promotes collaboration between ATSDR and Oak Ridge Reservation's surrounding communities.

2001 - Epidemiology Workshops

ATSDR gives presentations (http://www.atsdr.cdc.gov/sites/oakridge/epidemiology_workshops.html) to explain epidemiology and teach ORRHES and community members how to review and evaluate epidemiology reports. ORRHES evaluates an Oak Ridge cancer mortality study, concludes that it does not show a relationship between cancer deaths and radiation exposure, and recommends not using the study in assessments.

2001–2002 - ORRHES Evaluates Need for Health Clinic

ATSDR guides ORRHES (http://www.atsdr.cdc.gov/sites/oakridge/orr/m8_27_02.html#wor) in review of federal programs and legislation to determine if medical monitoring or an environmental health clinic can be established in Oak Ridge to serve exposed or ill persons. In August 2002, ORRHES recommends medical monitoring or establishment of an environmental health clinic be postponed until the ATSDR public health assessment process identifies people off-site who have been exposed to contaminants at levels of health concern.

2002 - ORRHES Endorses Public Health Assessments

ATSDR decides to build on TDOH's health studies, conducting nine public health assessments on hazardous substance releases that cause community concern and require further evaluation. ORRHES

(http://www.atsdr.cdc.gov/sites/oakridge/orr/m2_11_02p3.html) endorses ATSDR's process for choosing contaminants and community concerns to evaluate.

2002 - Education on Thyroid Disorders

ATSDR sponsors community and physician education presentations (http://www.atsdr.cdc.gov/sites/oakridge/other_public_health_activities.html) by a national expert on thyroid disorders: nodular diseases and cancer.

2004 - Y-12 Uranium Releases

ATSDR's public health assessment determines residents living in or near the city of Oak Ridge were exposed to past uranium releases from the Y-12 plant (http://www.atsdr.cdc.gov/sites/oakridge/y12_uranium_release.html), but levels were too low to be a health hazard. ORRHES concurs with ATSDR's finding.

2005 - TCSA Incinerator

ATSDR's public health assessment for Toxic Substances Control Act (TSCA) incinerator (http://www.atsdr.cdc.gov/sites/oakridge/tsca_incinerator.html) determines the incinerator released trace levels of contaminants in the past, but the amounts were far below those associated with health effects and do not present a public health hazard.

2005 - Community and Physician Education

ATSDR sponsors community and physician education (http://www.atsdr.cdc.gov/sites/oakridge/other_public_health_activities.html) presentations by a national expert on the causes of congenital malformations and cancer, especially as related to radiation exposure.

2006 - Radionuclides Released From White Oak Creek

ATSDR's public health assessment concludes past, current, and future exposures to radionuclides released from White Oak Creek (http://www.atsdr.cdc.gov/sites/oakridge/white_oak_releases.html) into the Clinch River and Watts Bar Reservoir are not a public health hazard. The amount of exposure is well below levels associated with a health hazard, and ATSDR does not expect adverse health effects to occur.

2006 - Off-site Groundwater Contamination

ATSDR's public health assessment determines that people who live near the Oak Ridge Reservation are not exposed to contaminated groundwater (http://www.atsdr.cdc.gov/sites/oakridge/contaminated_groundwater.html) from the Oak Ridge Reservation; therefore, off-site groundwater does not pose a public health hazard.

2006 - Cancer Incidence Assessment

ATSDR's assessment of cancer incidence (http://www.atsdr.cdc.gov/sites/oakridge/assessment_cancer_incidents.html) in eight counties adjacent to Oak Ridge Reservation does not identify any consistent pattern in cancer occurrence.

2007 - Current and Future Exposure

ATSDR's public health assessment determines that current and future exposures (http://www.atsdr.cdc.gov/sites/oakridge/Current%20_Future_Chemical_Exposures_Evaluation.html) to Oak Ridge Reservation site-related chemicals in off-site soil, sediment, surface water, air, and living things (other than fish) do not pose a public health hazard. The assessment recommends continuing to follow current fish consumption advisories.

2008 - I-131 Exposure from X-10 site

ATSDR's public health assessment finds that people who were at least 21 years of age living near the Oak Ridge Reservation during Radioactive Lanthanum (RaLa) processing from 1944–1956 are not expected to develop thyroid diseases from exposure to I-131 from the X-10 site (http://www.atsdr.cdc.gov/sites/oakridge/iodine_release.html) . Not enough monitoring data exists for ATSDR to state the potential for health effects in people who were younger than 18 years of age when exposed to I-131 from 1944 to 1956.

2009 - PCB Exposures

ATSDR's public health assessment concludes that frequently eating moderate to large amounts of certain species of fish is a potential public health hazard (http://www.atsdr.cdc.gov/sites/oakridge/pcb_releases.html) from PCB exposure, but occasionally eating small amounts of these fish is not. The assessment recommends continuing to follow current fish consumption advisories.

2010 - Radioactive Materials and Fluoride from K-25

ATSDR's public health assessment concludes that past exposures to uranium hydrogen fluoride, fluoride, and other radioactive materials (http://www.atsdr.cdc.gov/sites/oakridge/k25_s50_uranium_releases.html) from 1944–1995 are not a health hazard. Acute exposure to hydrogen fluoride in two communities near K-25 following the largest short-term or accidental uranium hexafluoride releases could have caused temporary respiratory irritation.

2012 - Mercury Exposure from the Y-12 Plant

The last public health assessment finds that current off-site exposure to mercury from the Y-12 plant http://www.atsdr.cdc.gov/sites/oakridge/mercury_release_at_Y12.html) is not a health hazard and that mercury exposures from 1950s–1960s may have caused possible health effects in children.

2012 - Findings Over Two Decades

ATSDR public health assessment findings indicate that additional epidemiology studies or medical monitoring are neither warranted nor scientifically appropriate.