

Kathryn (Katie) Tomsho, PhD MPH

Education

2017 - 2021	Doctor of Population Health Sciences Department of Environmental Health <i>Harvard T.H. Chan School of Public Health</i>
2014-2017	Master of Public Health Department of Environmental Health <i>Boston University School of Public Health</i>
2008-2012	Bachelor of Arts Honors in Environmental Studies <i>Dickinson College</i>

Teaching Experience

August 2019 – May 2020

Teaching Assistant

Harvard T.H. Chan School of Public Health – Department of Social & Behavioral Sciences

Teaching assistant for 500-level course *Health Literacy: Measuring Accessibility of Health Information* under Drs. Rima Rudd and Lindsay Rosenfeld (2 semesters). Responsibilities include facilitating class discussion, providing support to students for final projects, and providing feedback regarding final papers. In Fall of 2020, responsibilities also included facilitating interactive student engagement and adapting course material to the virtual learning environment.

January 2019 – October 2020

Teaching Assistant

Harvard T.H. Chan School of Public Health – Department of Environmental Health

Teaching assistant for *Water Pollution* course under Dr. Ronnie Levin (1 semester). Responsibilities include developing and giving 2 course lectures (*River Ecosystems* and *A Brief History of Sanitation*), assistance with grading student assignments, and providing support to students throughout the semester.

August 2015 – December 2017

Teaching Assistant

Boston University – School of Public Health

Teaching assistant for 700-level course *Introduction to Environmental Health* under Dr. Robin Dodson, Dr. Junenette Peters, and Dr. Patricia Janulewicz (3 semesters). Responsibilities include weekly office hours and reviewing and grading student materials.

August 2011-December 2011

Teaching Assistant

Dickinson College

Teaching assistant for 300-level course *Analysis & Management of the Aquatic Environment* under Dr. Candie Wilderman (1 semester). Responsibilities included weekly meetings to plan and prep for laboratory sessions, helping with lab presentations and activities, assisting students with equipment and protocols in lab, assisting with content creation and lecture, and helping with a weekend field trip to the Chesapeake Bay.

Professional Experience

June 2014 – August 2017

Research Assistant

Boston University – School of Public Health – Department of Environmental Health

Worked within the department to facilitate smooth operation of several environmental health related projects. Oversaw the department's Exposure Biology Research Laboratory. Research assistant and

trainee for Superfund Research Program Research Translation Core, and collaborator with Community Engagement Core.

- Communicated and taught sophisticated scientific concepts to relevant stakeholders
- Analyzed and interpreted data for community members
- Assisted with grant-writing and reporting
- Coordinated and facilitated biological sample collection and in-lab processing for McClean Exposure Biology Research Laboratory

May 2016 – August 2016

Intern: Bureau of Waste Site Clean Up

Massachusetts Department of Environmental Protection

Data analyst for long-term seafood monitoring dataset related to polychlorinated biphenyl (PCB) contamination in the New Bedford Harbor Superfund Site.

- Analysis of over a decade's worth of data collection on PCB concentrations in quahogs
- Producing data visuals to identify and communicate trends in PCB concentrations in quahogs over space and time
- Performing a human health risk analysis for New Bedford Harbor quahog consumption for multiple subpopulations
- Communicating data analysis outcomes via professional conference and final report

June 2012-May 2014

Assistant Director of Outreach

Alliance for Aquatic Resource Monitoring (ALLARM)

Managed ALLARM's shale gas volunteer monitoring program across Pennsylvania – a program designed to train community members to monitor streams for early detection of pollution associated with natural gas extraction.

- Communicated and taught complex scientific concepts to varying audiences
- Developed and delivered accessible presentations to both communities and professional audiences
- Organized and managed data for Pennsylvania volunteers
- Coordinated statewide volunteer community of about 1,000 people
 - Fostered a feeling of involvement and purpose
 - Developed motivational & personal interest products for volunteer network
- Mentored and supervised ALLARM student employees
- Developed volunteer training materials
- Designed and developed data management tools for volunteers

August 2009-May 2012

Watershed Coordinator

Alliance for Aquatic Resource Monitoring

Worked collaboratively & independently with ALLARM employees on various projects. Responsibilities ranged from protocol development research to community training and professional conference presentations.

- Developed research and protocol products
- Planned conferences and large-scale events
- Developed content for community trainings
- Presented at professional conferences

Professional Presentations & Conferences

April, 2021: Boston Area Research Initiative Conference: Building Back Smarter

Virtual Conference

Panelist: “How Do We Build Back When We Rebuild”

Evaluating Environmental Health Data Communication to Participants of a Boston-area Indoor Air Quality Study

March, 2021: Northeastern University Global Health Annual Conference: COVID-19 and Racial Equity

Virtual Conference

Co-presenter: Dr. Lindsay Rosenfeld

Health Literacy: Unravelling Health Information for the Public

March, 2021: NIH-EPA Environmental Health Disparities Research Webinar Series: Fostering Community Engaged Research in Environmental Health Disparities

Virtual Presentation

Co-presenter: Erin Polka, MPH

Combining Evidence-Based Health Literacy Tools and Computer Programming Tools to Create Accessible, Individualized Report-Backs to Meet Communication Goals

February, 2020: Partnerships for Environmental Public Health Annual Meeting: Past, Present, and Future

Durham, North Carolina

Poster: Addressing Shortcomings of Data Report-Back Efforts

January, 2019: NIH-EPA Environmental Health Disparities Annual Grantees Meeting

Baltimore, Maryland

Poster: Report back of NO₂ and PM_{2.5} concentrations to community participants: A proposed framework for evaluation

December, 2018: Partnerships for Environmental Public Health Annual Meeting: Reporting Back Research Results

Research Triangle Park, North Carolina

Poster: Evaluation of Report back of household-level NO₂ and PM_{2.5} concentrations to community participants in exposure assessment study

October, 2016: AEHS Foundation 32 Annual International Conference on Soils, Sediments, Water and Energy

Amherst, Massachusetts

Poster: Examining PCB Concentrations in New Bedford STUDENT Harbor Quahogs for Human Risk Implications

April, 2014: National Water Quality Monitoring Conference

Cincinnati, Ohio

Volunteer Monitoring for Shale Gas Impacts: Success through Collaboration

August 10, 2013: Mid-Atlantic Volunteer Monitoring Conference

Shepherdstown, West Virginia

Co-presenters: Jinnie Monismith, Kelly McIntyre

Shale Gas Monitoring

March 25-27, 2013: Technology to Empower Citizen Scientists

Highland Heights, Kentucky

Invitational Conference

May 7, 2012: River Rally

Portland, Oregon

Co-presenter: Julie Vastine

Shale Gas Volunteer Monitoring

May 7, 2012: River Rally

Portland, Oregon

Examining Marcellus Shale Region Grass Roots Mobilization

May 4, 2012: National Water Quality Monitoring Conference

Portland, Oregon

Co-presenter: Julie Vastine

Shale Gas Volunteer Monitoring Workshop

May 4, 2012: National Water Quality Monitoring Conference

Portland, Oregon

Co-presenter: Julie Vastine

Coordinated Monitoring Efforts in Shale-Gas Plays: Case Study Pennsylvania Marcellus Monitoring

March 12, 2011: Schuylkill Watershed Congress

Pottstown, Pennsylvania

Examining Marcellus Shale Region Grass Roots Mobilization

Publications

Polka, E.; Childs, E.; Friedman, A.; **Tomsho, K.S.**; Claus Henn, B.; Scammell, M.K.; Milando, C.W.; MCR: open-source software to automate compilation of health study report-back. *Int. J. Environ. Res. Public Health*, 2021. 18, 6104. 1-12.

Schollaert, C.; Alvarez, A.; Gillooly, S.; **Tomsho, K.S.**; Bongiovanni, R.; Chacker, S.; Aguilar, T.; Vallarino J.; Adamkiewicz, G.; Scammell, M.K.; Reporting Results of a Community-Based in-Home Monitoring Study: Developing Methods and Materials. *Progress in Community Health Partnerships: Research, Education, and Action*. 2021. 117-125.

Heiger-Bernays, W. J.; **Tomsho, K. S.**; Basra, K.; Petropoulos, Z. E.; Crawford, K.; Martinez, A.; Hornbuckle, K. C.; Scammell, M. K. Human Health Risks Due to Airborne Polychlorinated Biphenyls Are Highest in New Bedford Harbor Communities Living Closest to the Harbor. *Sci. Total Environ.*, 2019. <https://doi.org/10.1016/j.ygyno.2016.04.081>.

Tomsho KS; Schollaert C; Aguilar T; Bongiovanni R; Alvarez M; Scammell MK; Adamkiewicz G. A Mixed Methods Evaluation of Sharing Air Pollution Results with Study Participants via Report-Back Communication. *Int. J. Environ. Res. Public Health*, 2019, 16 (21), 4183. <https://doi.org/10.3390/ijerph16214183>.

Tomsho KS, Basra K, Rubin SM, et al. Community reporting of ambient air polychlorinated biphenyl concentrations near a Superfund site. *Environ Sci Pollut Res*. 2018;25(17):16389-16400. doi:10.1007/s11356-017-0286-6.

Martinez A, Hadnott BN, Awad AM, Herkert NJ, **Tomsho KS**, Basra K, Scammell MK, Heiger-Bernays W, Hornbuckle KC. Release of Airborne Polychlorinated Biphenyls from New Bedford Harbor Results in Elevated Concentrations in the Surrounding Air. *Environ. Sci. Technol. Lett*. 2017, Feb.

Positions & Honors

Harvard T.H. Chan Lead Pedagogy Fellow August 2021 –present
Harvard T.H. Chan School of Public health

Harvard T.H. Chan Teaching Assistant Recognition Award May 2021
Harvard T.H. Chan School of Public health

Harvard T.H. Chan Pedagogy Fellow August 2020 – May 2021
Harvard T.H. Chan School of Public health

President: T.H. Chan Environmental Justice Student Organization August 2018 – May 2021
Harvard T.H. Chan School of Public health

- Worked with Environmental Health department to facilitate inclusion of ‘environmental justice’ and ‘environmental health disparities’ as core competencies for students
- Assisted Environmental Health instructors to include ‘environmental justice’ content in their courses
- Organized conferences, including recruiting speakers, fundraising, administrative coordination, and graphic design of promotional materials
- Organized on-campus speaker events
- Facilitated student events

May 2012

Honors in Environmental Studies
Dickinson College

Computer Skills

- Microsoft Outlook, Word, Publisher, Excel, Powerpoint
- NVivo Pro 12
- R Software
- ArcGIS
- Canvas Learning Management Platform
- InDesign
- Adobe Premiere Elements 9.0
- Jadu Content Management System
- Ektron Content Management System