

Kirsten Staggs Almborg, MS, PhD
Curriculum Vitae

EDUCATION

- 2012 – 2016 Ph.D., Public Health –Epidemiology, University of Illinois at Chicago, Chicago, IL, *Adverse Birth Outcomes and Contamination of Drinking Water by Arsenic, Atrazine, and Nitrate-Nitrite*
- 2010 – 2012 M.S., Public Health – Epidemiology, University of Illinois at Chicago, Chicago, IL, *A linkage study of birth outcomes and agricultural land use practices in Missouri, 2004-2006*
- 2002 – 2006 B.A., Biology, Carleton College, Northfield, MN

PROFESSIONAL EXPERIENCE

- 2016 – Present Research Assistant Professor, Division of Environmental and Occupational Health Sciences, University of Illinois at Chicago, Chicago, IL
- *Link and perform epidemiologic analyses of national surveillance, medical benefits, and mortality data on U.S. coal miners for a research project titled “Linkage of Active Miner Surveillance, Former Miner Disability Evaluations, and Mortality Data Sets to Evaluate and Prevent Lifetime Risk of Cardiopulmonary Disease in U.S. Miners”*
 - *Provide analysis of International Labour Organization classifications of chest x-rays as part of a coal workers’ pneumoconiosis screening contract with the Department of Natural Resources and Mines, Queensland, Australia*
 - *Develop and implement a patient-level, web-based data collection tool for all federally funded Black Lung clinics in the U.S.*
- 2014 – Present Guest Researcher, National Institute for Occupational Safety and Health, Morgantown, WV
- *Develop and execute methodologies for linking Department of Labor and NIOSH data sets containing health information on U.S. coal miners*
 - *Conduct an all-cause mortality study of U.S. coal miners and characterize the burden of coal mine dust lung disease among this population*
- 2013 – 2016 Research Assistant, Division of Environmental and Occupational Health Sciences, University of Illinois at Chicago, Chicago, IL

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- *Develop epidemiological research approaches to analyzing diverse databases containing health, administrative, and surveillance information about miners in the United States for a research project titled “Clarifying Distribution, Trends, and Determinants of Adverse Health in United States Miners: Exploration and Integration of Existing Data Systems”*
 - *Manage and integrate large data sets from diverse sources Coordinate administrative project duties and tasks*
- 2010 – 2013 Research Assistant, Division of Epidemiology and Biostatistics, University of Illinois at Chicago, Chicago, IL
- *Developed and implemented complex modeling approaches to assess the relationship between agricultural water contaminants and adverse birth outcomes across eight states in the United States*
 - *Spearheaded use of spatial statistical methods for the evaluation of the relationship between environmental exposures and birth outcomes across several complex statistical software programs; including ArcGIS, SAS, STATA, and R*
 - *Communicated research findings to diverse audiences including professional conference attendees and public lectures at the University of Illinois at Chicago*
- 2010 Research Assistant, Alexander Center for Applied Population Biology, Lincoln Park Zoo, Chicago, IL
- *Implemented and evaluated new data management systems for use in managing captive populations of animals in all North American AZA accredited zoos and aquariums*
 - *Analyzed data from past managements recommendations assess patterns within and between managed populations*
- 2008 – 2009 Dr. Scholl Research Fellow, Urban Wildlife Institute, Lincoln Park Zoo, Chicago, IL
- *Directed and conducted two field research projects for the Urban Wildlife Institute in Cook and DuPage counties with a focus on how landscape level changes influence ecological processes and human-wildlife interactions*
 - *Managed and mentored a field research team of six undergraduate interns conducting summer research projects*
- 2006 – 2007 Programs Coordinator and Research Assistant, Division of Environmental and Occupational Health Science, School of Public Health, University of Illinois at Chicago, Chicago, IL
- *Developed, implemented, and evaluated a Lead Safe Work Practices (LSWP) intervention for all hardware and paint retailers in the city of Chicago*

Young Investigator Award Alberg (PI) 03/2018 – 03/2019
ChicAgo Center for Health and EnvironmenT (CACHET)
This grant supports the methodologic development of a protocol to measure and characterize concentrations of three agricultural contaminants – atrazine, glyphosate, and glufosinate – in a sample of reproductive aged women in Champaign County, Illinois. This study aims to characterize intra- and inter-individual variation in urinary biomarkers of these chemicals.
Role: Principal Investigator

IPA # 17IPA1716605 Alberg (PI) 12/2016 – 11/2017
National Institute for Occupational Safety and Health (NIOSH)
This Interagency Personnel Agreement (IPA) allows for the linkage of NIOSH medical surveillance data from the Coal Workers' Health Surveillance Program (CWHSP) to medical benefits data from the Department of Labor's Black Lung Benefits Program (BLBP). This IPA supports Dr. Alberg's work on an all-cause mortality study among U.S. coal miners using the data from both federal programs.
Role: Principal Investigator

Grant # AFC316-53 Cohen (PI) 12/2016 – 11/2018
Alpha Foundation for the Improvement of Mine Safety and Health, Inc.
This project seeks to link respiratory surveillance and work history data from NIOSH's Coal Workers' Health Surveillance Program with the Department of Labor's Black Lung Benefits Program claims data, and mortality information from the National Death Index on all US coal miners appearing in either, or both, of these programs. This database will house longitudinal health information on coal miners while they were actively mining, after their mining career ended when they entered into the black lung compensation process, and cause of death records. Analyses using this database will allow for an improved understanding of the spectrum and characteristics of coal mine dust lung disease (CMDLD) as well as co-morbid conditions in this population. This project will also help identify participation gaps in both surveillance and benefits programs.
Role: Co-Investigator

Grant (41FY17S) Halldin (PI) 11/2016 – 09/2020
National Institute for Occupational Safety and Health (NIOSH)
This project will link respiratory surveillance and work history data from NIOSH's Coal Workers' Health Surveillance Program with the Department of Labor's Federal Black Lung Program claims data, and mortality information from the National Death Index on miners who have been evaluated in both programs and are deceased. Analyses using these linked databases will allow for an improved understanding of the spectrum and characteristics of coal mine dust lung diseases (CMDLD) as well as potential risks

associated with CMDLD. This project will also allow NIOSH to identify populations who are not participating in health surveillance while working, but apply for black lung benefits, as well as populations who may be eligible for benefits but have not applied.

Role: Epidemiologist

Grant #U3ARH27243 Cohen (PI) 06/2014 – 06/2017

Health Resources and Services Administration

University of Illinois at Chicago Black Lung Center of Excellence

The BLCE provides quality Technical Assistance, a medical provider health curriculum, and have develop a clinical database for existing performance improvement measures and to expand that collection of data to include patient level 1 measures in a comprehensive electronic medical data reporting program. These activities will support HRSA's efforts to ensure that grantees deliver high-quality screening, diagnosis, and treatment services by providing technical expertise and feedback on program data submitted by its Black Lung Clinics Program grantees. As the Federal Office of Rural Health Policy (FORHP) identifies barriers or challenges for clinics from successfully gathering program data that meet technical standards laid out by the U.S. Department of Labor (DOL) as well as the National Institute of Occupational Safety and Health (NIOSH), the office may direct grantees to work with the BLCE. Both UIC and their collaborators, National Jewish Health will provide a variety of types of technical assistance.

Role: Graduate Assistant

Contract #DOL-OPS-14-P-00121 Cohen (PI) 10/2014 – 10/2015

United States Department of Labor, Chief Evaluation Office

This project evaluated the extent of underreporting of injuries and illnesses among miners in Illinois to the MSHA Part 50 Program, using data from MSHA, Illinois Workers' Compensation Commission, and Illinois hospital discharge data.

Role: Research Coordinator

Grant #AFC113-4 Cohen (PI) 11/2013 – 11/2015

Alpha Foundation for the Improvement of Mine Safety and Health, Inc.

The goal of this research is to evaluate national and state-based data sets to assess disease prevalence and risk factors among miners in the United States. Linkage and analyses of these data will expand our understanding of diseases traditionally associated with mining as well as obstructive lung disease and cardiovascular disease.

Role: Research Assistant

Grant #E3851 488566 Alberg (PI) 07/2013 – 06/2014

National Institute for Occupational Safety and Health

The goal of the proposed research is to systematically estimate and characterize personal exposure to traffic-related pollutants for those who are working on or near roadways.

Role: Principal Investigator

Contract #200-2010-37442 Stayner (PI) 09/2010 – 09/2013
Centers for Disease Control and Prevention, Environmental Public Health Tracking
Network

This project examined the relationship between water contaminants, chiefly atrazine and nitrate, and adverse birth outcomes, including preterm births, low birth weight births, sex ratio, fetal deaths, birth defects, and childhood cancers. The project is aimed at developing methodologies for estimating exposures to these contaminants through drinking water.

Role: Research Assistant/Data Analyst

Grant #T42\OH008672 Conroy (PI) 09/2010 – 05/2015
National Institute for Occupational Safety and Health, Education and Research Center
Role: Trainee

HONORS AND AWARDS

Delta Omega Society, University of Illinois at Chicago, School of Public Health,
Chicago, IL, 2013

National Institute for Occupational Safety and Health (NIOSH) Education and Research
Center Trainee,
University of Illinois at Chicago, 2010

Dr. Scholl Research Fellowship, Lincoln Park Zoo, Chicago, IL, 2008

PUBLICATIONS

Alberg, K.S., Halldin, C.N., Blackley, D.J., Laney, A.S., Storey, E., Rose, C.S., Go, L.H.T., Cohen, R.A. 2018. Progressive Massive Fibrosis Resurgence Identified in U.S. Coal Miners Filing for Black Lung Benefits, 1970-2016. *Annals of the American Thoracic Society*, 15(12), 1420-1426.

Alberg, K.S., Friedman, L.S., Swedler, D., Cohen, R.A. 2018. Mine Safety and Health Administration's Part 50 program does not fully capture chronic disease and injury in the Illinois mining industry. *American Journal of Industrial Medicine*, 61(5), 436-443.

Mabila, S.L., **Alberg, K.S.**, Friedman, L., Cohen, R., Ndlovu, N., Vorajee, N., Murray, J. 2018. Occupational emphysema in South African miners at autopsy; 1975-2014. *International Archives of Occupational and Environmental Health*, doi:10.1007/s00420-018-1335-2. [Epub ahead of print]

Mabila, S.L., **Alberg, K.S.**, Friedman, L., Cohen, R. 2018. High exposure mining occupations are associated with obstructive lung disease, National Health Interview Survey (NHIS), 2006-2015. *American Journal of Industrial Medicine*, doi:10.1002/ajim.22890. [Epub ahead of print]

Alberg, K.S., Turyk, M.E., Jones, R.M., Rankin, K., Freels, S., Stayner, L.T. 2018. Atrazine Contamination of Drinking Water and Adverse Birth Outcomes in Community Water Systems with Elevated Atrazine in Ohio, 2006-2008. *International Journal of Environmental Research and Public Health*, 15(9).

Alberg, K.S., Cohen, R.A., Blackley, D.J., Laney, A.S., Storey, E., Halldin, C.N. 2017. Linking compensation and health surveillance datasets to improve knowledge of U.S. coal miners' health. *Journal of Occupational and Environmental Medicine*, 59(10), 930-934.

Graber, J.M., Harris, G., **Alberg, K.S.**, Rose, C.S., Petsonk, E.L., Cohen, R.A. 2017. Increasing Severity of Pneumoconiosis Among Younger Former US Coal Miners Working Exclusively Under Modern Dust-Control Regulations. *Journal of Occupational and Environmental Medicine*, 59(6), e105-e111.

Alberg, K.S., Turyk, M.E., Jones, R.M., Rankin, K., Freels, S., Graber, J.M., Stayner, L.T. 2017. Arsenic in drinking water and adverse birth outcomes in Ohio. *Environmental Research*, 157, 52-59.

Stayner, L.T., **Alberg, K.**, Jones, R., Graber, J., Pedersen, M., Turyk, M. 2016. Atrazine and nitrate in drinking water and the risk of preterm delivery and low birth weight in four Midwestern state. *Environmental Research*, 152, 294-303.

Graber, J.M., Worthington, K., **Alberg, K.S.**, Meng, Q., Rose, C.S., Cohen, R.A. 2016. High Cigarette and Poly-Tobacco Use Among Workers in a Dusty Industry: New Jersey Quarry Workers. *Journal of Occupational and Environmental Medicine*, 58(4), 133-139.

Mabila, S.L., Gracia, G., Cohen, R., **Alberg, K.S.**, Friedman, L.S. 2015. Injury and Illness Data for Illinois Mining Industry Employees, 1990 to 2012. *Journal of Occupational and Environmental Medicine*, 57(1), 1305-10.

Alberg, K.S., Turyk, M.E., Jones, R.M., Anderson, R., Graber, J., Banda, E., Waller, L.A., Gibson, R., Stayner, L.T. 2014. A Study of Adverse Birth Outcomes and Agricultural Land Use Practices in Missouri. *Environmental Research*, 134C:420-426.

Alberg, K.S. “A linkage study of birth outcomes and agricultural land use practices in Missouri, 2004-2006” Mater of Science Thesis, University of Illinois at Chicago, School of Public Health, August 23, 2012.

PRESENTATIONS

Alberg, K.S., Halldin, C.N., Blackley, D.J., Laney, A.S., Storey, E., Rose, C.S., Go, L., Cohen, R.A. Resurgence of Progressive Massive Fibrosis in U.S. Coal Miners Filing for Federal Black Lung Program Benefits. American Thoracic Society International Conference RAPID Poster Discussion Session. American Thoracic Society; 2018: A6064.

Gandhi, S., **Alberg, K.S.**, Go, L., Cohen, R.A. Lung Function Declines in Former Coal Mine Workers Absent Further Exposure. American Thoracic Society International Conference RAPID Poster Discussion Session. American Thoracic Society; 2018: A6069.

Cohen, R.A., Go, L.H., **Alberg, K.S.**, DePonte, K., Glass, D.C., Roberts, M.H., Sim, M.H. Coal Workers’ Pneumoconiosis Resurfaces in Queensland Australia: A Report of Chest Imaging from the Coal Mine Workers’ Health Scheme for the Queensland Department of Natural Resources and Mines. American Thoracic Society International Conference Oral Presentation. American Thoracic Society; 2017: A7310.

Alberg, K.S., Cohen, R.A., Blackley, D.J., Laney, A.S., Halldin, C.N. Linking Compensation and Health Surveillance Datasets to Improve Knowledge of U.S. Coal Miners’ Health. American Thoracic Society International Conference Oral Presentation. American Thoracic Society; 2017: A7311.

Alberg, K.S., Go, L.H., Rose, C.S., Petsonk, E.L., Graber, J.M., Harris, G., Cohen, R.A. Progression of Radiographic Coal Workers Pneumoconiosis Absent Further Exposure Among Former U.S. Coal Miners Applying for Federal Black Lung Benefits, 2000 – 2013. American Thoracic Society International Conference Oral Presentation. American Thoracic Society; 2017: A7313.

Alberg, K.S., Friedman, L.S. Graber, J.M., Rose, C.S., Petsonk, E.L., Swedler, D.I., Cohen, R.A. Completeness of Respiratory Injury and Illness reporting in the Illinois Mining Industry: Comparing Workers’ Compensation Claims to the MSHA Part 50 Program. American Thoracic Society International Conference Abstract. American Thoracic Society; 2016: A5442.

Cohen, R.A., Graber, J.M., Harris, G., **Alberg, K.S.**, Go, L.H., Petsonk, E.L., Rose, C.S. Spirometry and Chest Radiographs in US Coal Miners: Analysis of Data from the Federal Black Lung Program. American Thoracic Society International Conference Abstracts. American Thoracic Society; 2016: A2996.

Graber, J.M., Manderski, M.T., Cohen, R.A., **Alberg, K.S.**, Rose, C.S., Delnevo, C.D. Tobacco Use Patterns Among US Working Age Men: High Rates in the Mining Industry and Among the Unemployed. American Thoracic Society International Conference Abstracts. American Thoracic Society; 2015: A4032.

Alberg, K.S., Friedman, L.S., Graber, J.M., Rose, C.S., Petsonk, E.L., Cohen, R.A. Cardiopulmonary Disease Among Illinois Miners, Results of an Analysis of State Workers' Compensation Data. American Thoracic Society International Conference Abstracts. American Thoracic Society; 2015: A1748.

Gottschall, E.B., Robinson, M., Silveira, L., **Alberg, K.S.**, Cohen, R.A., Graber, J.M., Rose, C.S. Occupational Lung Disease in Navajo and Non-Navajo Western Miners. American Thoracic Society International Conference Abstracts. American Thoracic Society; 2015: A1746.

Alberg, K.S. Increased severity of radiologic pneumoconiosis among former US coal miners: Results from the US Federal Black Lung Program, 2001 to 2013. National Coalition of Black Lung and Respiratory Disease Clinics 2016 Conference, Sept 14, 2016, Lexington, KY. *Invited speaker.*

Alberg, K.S. A linkage study of adverse birth outcomes with agricultural land use practices in Missouri. UIC School of Public Health, Chicago, IL (Oct 10, 2012). *Invited speaker.*

Alberg, K.S. Oral presentation - International Society for Environmental Epidemiology Pre-Conference Workshop Session: 'Methodologic Issues in Tracking Children's Health & Agrichemical Water Contaminant Data'; Columbia, SC (August 26-30, 2012). *Invited speaker.*

Alberg, K.S., Turyk, M.T., Gibson, R. Graber, J.M., Jones, R.M., Kaliappan, R., Banda, E., Anderson, R., Rockne, K., Shi, F., Conroy, L., and Stayner, L. Poster presentation: 24th Annual Conference International Society for Environmental Epidemiology: 'A Linkage Study of Adverse Birth Outcomes and Agricultural Land Use Practices in Missouri'; Columbia, SC (August 26-30, 2012).

Kaliappan, R., Jones, R., Rockne, K., Stayner, L., Turyk, M., Graber, J., Anderson, R., **Alberg, K.S.**, and Conroy, L. Atrazine levels in Illinois Community Water System Drinking Water as Revealed by the Atrazine Monitoring Program Dataset. Presented at the 2012 WATERCON 2012, a joint conference of the IL-AWWA and IWEA, March 19-22, 2012, Springfield, IL. *Presentation.*

Stayner L.T., **Alberg, K.S.**, Anderson, R., Conroy, L., Graber, J., Jones, R., Kaliappan, R., and Rockne, K. A Record Linkage Study of Adverse Birth Outcomes and Water Contamination by Atrazine and Nitrates in the Midwestern United States. International Society for Epidemiologic Research (ISEE), September 14, 2011, Barcelona, Spain.