

LUMA AKIL

1803 August Bend, Madison, MS 39110

601-212-9537

lumaakil@hotmail.com

EDUCATION

- August 2013** **Jackson State University, Jackson, MS**
Doctor of Philosophy Degree in Environmental Sciences.
Dissertation: Effects of Environmental Changes on Foodborne Illnesses and Associated Risk Assessment
- August 2009** **Jackson State University, Jackson, MS**
Masters in Science Degree in Environmental Sciences.
Thesis: Polycyclic Aromatic Hydrocarbons (PAHs) Mediate Diesel Exhaust Particles (DEP) Toxicity in the Alveolar Macrophage.
- May 2001** **The University of Memphis, Memphis, TN**
Bachelor of Science Degree in Biology.

EXPERIENCE

- Jan 2017- present** **Jackson State University, Jackson, MS. Assistant Professor**
Occupational and Environmental Health, Department of Behavioral and Environmental Health, School of Public Health
- Jan- Dec 2016** **Jackson State University, Jackson, MS.** Adjunct Professor,
Biology/ Environmental Science department
- Aug 2010-
Dec 2016** **Jackson State University, Jackson, MS.** Scientific Technician,
Bioinformatics and Biostatistics Core, RCMI-Center for Environmental Health.
- 2008-2009** **Jackson State University, Jackson, MS.** Teaching Assistant, Cell
Biology lab, Department of Biology.

ACTIVITIES/LICENSES/CERTIFICATIONS

- July, 2015** **Coursera Online course:** Epidemiology: The Basic Science of Public Health. The University of North Carolina at Chapel Hill
- July, 2015** **Coursera Online course:** Epidemics - the Dynamics of Infectious Diseases. The Pennsylvania State University

- January, 2015** **Coursera Online course:** Pathways to Climate Change Adaptation: the case of Small Island Developing States. The University of Geneva
- January, 2015** **Coursera Online course:** R Programming. Johns Hopkins University
- 2010-15** Member of Jackson Area SAS User Group (JASUG)
- June, 2012** SAS Live Web; SAS training class: Determining Power and Sample Size Using SAS/STAT® Software.
- September, 2011** Jackson State University, National Library of Medicine Web Resources for Environmental Health and Biomedical Research Training Course
- April, 2011** SAS Live Web; SAS training class: Statistics 2: ANOVA and Regression.
- Feb, 2011** SAS Live Web; SAS training class: Predictive Modeling using Logistic Regression.
- March, 2010** Office of Research and Sponsored Programs Grants Writing Workshop.
- September, 2009** Jackson State University, National Library of Medicine Web Resources for Environmental Health and Biomedical Research Training Course.
- February, 2009** Jackson State University, Mississippi Office of Homeland Security: Emergency Response Team Course.

HONORS AND AWARDS

- 2009-16** Member of Phi Kappa Phi, Alpha Epsilon Lambda and Alpha Chi honor societies
- 2010** Awarded Best of the show vote poster at 12th RCMI International Symposium on Health Disparities.
- 2011** Second place winner at 11th Annual Conference on Eliminating Health Disparities–Healthy Eating II: Winning the War against Obesity, poster presentation.

SERVICES

- September, 2015** 12th International Symposium on Recent Advances in Environmental Health Research: Students poster presentation Judging.
- 2011-2016** Reviewer for the *Journal of Health Care for the Poor and Underserved* and *Foodborne Pathogens and Disease*.
- September, 2014** 11th International Symposium on Recent Advances in Environmental Health Research: Students poster presentation Judging.
- June, 2013** Jackson State University, Jackson, MS. CESTEME Summer Research Institute Lecture on Research Design and Data Analysis.

March, 2013 Mississippi Science & Engineering Fair Judging, Jackson State University.

Teaching Experience

Spring 2017 Jackson State University, Jackson, MS. PHS 542, Environmental & Occupational Risk Assessment

Spring 2017 Jackson State University, Jackson, MS. PHS 601, Advanced Biostatistics and Computer Science Applications

October 2016 Jackson State University, Jackson, MS. Hands on Workshop for Developing Excel Based Meta-Analysis Models.

Fall 2016 Jackson State University, Jackson, MS. BIO 101 Introduction to Biological Science.

Fall 2016 Jackson State University, Jackson, MS. BIOL 101 Introduction to Biological Science laboratory.

Fall 2016 Jackson State University. Co-teaching/ software instructions for Biostatistics (BIO 511)

Fall 2016 Jackson State University. Co-teaching Elementary Biostatistics (BIO 202)

June 2016 Jackson State University, Jackson, MS. SAS procedures and data analysis workshop.

Spring 2016 Jackson State University, BIO 201, Introduction to Environmental science

Spring 2016 Jackson State University, BIO 423 / BIOL 423 Ecology lecture and Lab for undergraduates

Spring 2016 Jackson State University, BIO 523 / BIOL 523 Ecology lecture and Lab for graduate students

Spring 2016 **Jackson State University.** Co-teaching/ software instructions for Applied Environmental Biostatistics (ENV 711)

November 2015 Jackson State University, Jackson, MS. Biostatistics Data Analysis workshop

Fall 2015 Jackson State University. Co-teaching/ software instructions for Biostatistics (BIO 511)

Fall 2015 Jackson State University. Co-teaching Elementary Biostatistics (BIO 202)

June 2015 Jackson State University, Jackson, MS. Data Analysis Workshop Using SAS

Feb 2015 Jackson State University, Jackson, MS. Data Analysis Workshop Using SPSS

Spring 2015 Jackson State University. Co-teaching/ software instructions for Applied Environmental Biostatistics (ENV 711)

April 2014 Jackson State University, Jackson, MS. Workshop on Statistical Software: SAS, SPSS, Minitab

Fall 2014 Jackson State University. Co-teaching/ software instructions for Biostatistics (BIO 511)

Fall 2014	Jackson State University. Co-teaching Elementary Biostatistics (BIO 202)
Summer 2014	Jackson State University. Co-teaching Elementary Biostatistics (BIO 202)
Spring 2014	Jackson State University. Co-teaching/ software instructions for Applied Environmental Biostatistics (ENV 711)
Fall 2013	Jackson State University. Co-teaching/ software instructions for Biostatistics (BIO 511)
Fall 2013	Jackson State University. Co-teaching Elementary Biostatistics (BIO 202)
June 2013	Jackson State University. CESTEME Summer Research Institute lectures on research design and data analysis
Spring 2013	Jackson State University. Co-teaching Elementary Biostatistics (BIO 202)
Spring 2013	Jackson State University. Co-teaching/ software instructions for Applied Environmental Biostatistics (ENV 711)
June 2012	Jackson State University, Jackson, MS. CESTEME Summer Research Institute Lecture on Research Design and Displaying Data with Graphs.
Feb 2012	Jackson State University, Jackson, MS. Workshop: ANOVA using SAS and SPSS.
Spring 2009	Jackson State University. Co-teaching Cell Biology Lab (BIOL540)
Summer 2009	Jackson State University. Co-teaching Cell Biology Lab (BIOL440)

COMPUTER SKILLS

Professional experience in software packages including:

SAS 9.4, SPSS21.0, MINITAB14.0, MATLAB, SYSTAT13, STATVIEW, NEUROSHHELL2, PALISADE DECISION TOOLS, MS OFFICE 2013

PEER-REVIEWED PUBLICATIONS

- 1- **Akil, L.** and Ahmad, H.A. (2016). The Recent Outbreaks and Reemergence of Polio-Virus in War and Conflict Affected Areas. . *International Journal of Infectious Diseases* 49(8): 40-46. PubMed ID 27237735.
- 2- **Akil, L.** and Ahmad, H.A., 2016. *Salmonella* Infections Modelling in Mississippi using Neural Network and Geographical Information System (GIS). *BMJ Open* 2016;6:e009255. doi:10.1136/bmjopen-2015-009255. PMID: 26940103 PMCID: PMC4785344
- 3- He, X., **Akil, L.**, Aker, W.G., Hwang, H-m., and Ahmad, H.A. (2015). Trends in Infant Mortality in United States: A Thorough Investigation of Southeastern States from 2005-2009. *Int. J. Environ. Res. Public Health* 2015, 12(5), 4908-4920. PMID: 25955527 PMCID: PMC4454945

- 4- **Akil, L.** Reddy R.S and Ahmad, H.A., 2014. Effects of Climate Change on *Salmonella* Infections. *Foodborne Pathogens and Disease*. December 2014, 11(12): 974-980. doi:10.1089/fpd.2014.1802. doi:10.1089/fpd.2014.1802. PubMed PMID: 25496072.
- 5- **Akil, L.** and Ahmad, H.A., 2011. Relationships between Obesity and Cardiovascular Diseases in Four Southern States and Colorado. *JHCPU*, volume 22(4): 61-72. . PMID: PMC3250069, NIHMS342422
- 6- Mahmud, O., Dates, C., **Akil, L.**, and Ahmad, H. A., 2011. Recent Trends in HIV and Tuberculosis in the United States and Sub-Saharan Africa. *IJERPH* Volume 8 (6): 2524-2532. PMID: PMC3138039
- 7- **Akil, L.**, H.A. Ahmad, 2011. Effects of Socioeconomic Factors on Obesity Rates in Four Southern States and Colorado. *Ethnicity and Disease*, Volume 21, Winter 2011. PMID: PMC3101796 NIHMSID: NIHMS285430.

BOOK CHAPTERS:

1. H. Anwar Ahmad and Luma Akil. *Environmental and Socioeconomic Effects on Salmonella Infection Rates*. Salmonella. INTECH Publications. Accepted 2017

PAPERS IN PROGRESS

- 1- H. Anwar Ahmad, Sadaf Aslam, **Luma Akil**, Jibran Hussain, and Imtiaz Rabbani 2015. True Prevalence Rate of Hepatitis-C in Pakistan: A Meta-Analysis. Submitted, under review.
- 2- Eric Gullede, **Luma Akil**, H Anwar Ahmad. The Impact of Meteorological and Oceanographic factors on Sea Level Rise in the Gulf of Mexico from 1985-2015. Submitted, under review.
- 3- **Akil, L** and Ahmad, H.A. 2015. Quantitative Risk Assessment Model for *Salmonella* Infections in Broiler Chicken.
- 4- **Akil, L.** and Ahmad H.A. Effects of Climate Changes on Foodborne Infections in Mississippi.

GRANT WRITING EXPERIENCE:

1. **Akil, L** (US PI), and Dr. Jibran Hussain (Pakistan PI). 2017. Uplifting the socio-economic status of Pakistani rural women through hands on training on organic chicken farming, budgeting, and basic health management by establishing Rural Poultry Studies Center. National Academy of Science. Submitted on Jan 13, 2017.

2. **Akil, L.**, and Ahmad, H.A. 2014. Modeling Ebola virus using classical and other approaches. NSF- Rapid Response Mechanism Proposal submitted on Nov 2014.
3. **Akil, L.**, PI, Ahmad, H.A. Mentor, 2013. Effects of Climate Change and Extreme Events on Food Safety. NSF- Postdoctoral Research Fellowship. Proposal submitted on Oct 24, 2013: 1401706.
4. **Akil, L.**, PI, Ahmad, H.A. Mentor, 2013. Effects of Climate Change and Extreme Events on Food Safety. Submitted to USDA-AFRI NIFA (GRANT 11347212) on March 7, 2013 for 2013-15 with total funding request of \$150,000.00.
5. **Akil, L.**, PI, Ahmad, H.A. Mentor, 2012. Effects of Environmental Changes and Agriculture Practices on Foodborne Illnesses and Associated Risk Assessment. Submitted to USDA-AFRI NIFA (GRANT 11036958) on January 18, 2012 for 2012-14 with total funding request of \$75,000.00.

ORAL PRESENTATIONS

1. H. Anwar Ahmad and **Luma Akil**. Developing Excel Based Meta-Analysis Models for the Hepatitis-C Studies. 13th International Symposium on Recent Advances in Environmental Health. Jackson Marriott Hotel, Jackson, Mississippi, USA, September 11-14, 2016.
2. **Akil, L.** and Ahmad H.A. Effects of Climate Changes on Foodborne Infections in Mississippi (O46). 12th International Symposium on Recent Advances in Environmental Health. Jackson Marriott Hotel, Jackson, Mississippi, USA, September 13-16th, 2015
3. **Akil, L.** and Ahmad, H.A. Recent Polio Outbreaks and Movement in War Conflict Zones (O58). 11th International Symposium on Recent Advances in Environmental Health Research, Jackson Convention Complex, Jackson, Mississippi, USA, September 14-18th, 2014
4. Ahmad, H.A., S. Aslam, **L. Akil**, J. Hussain, and I. Rabbani, 2014. True Prevalence Rate of Hepatitis-C in Pakistan: A Meta Analysis (O53). 11th International Symposium on Recent Advances in Environmental Health Research, Jackson Convention Complex, Jackson, Mississippi, USA, September 14-18
5. Ahmad, H.A. and **L. Akil**, 2013. Effects of Environmental Changes on Foodborne Illnesses and Associated Risk Assessment. 10th International Symposium on Recent Advances in Environmental Health Research, Jackson Convention Complex, Jackson, Mississippi, USA, September 15-18
6. H. A. Ahmad and **L. Akil**, 2012. Neural Network Modeling: An Efficient Tool to Forecast Biological Variables (Invited presentation, O44). 9th International Symposium on Recent Advances in Environmental Health Research, Marriott Hotel, Jackson, Mississippi, USA, September 16-19

POSTER PRESENTATIONS

1. Ariane Mbemi, **Luma Akil**, and H. Anwar Ahmad. Climate Change and Vibrio-Cholerae Incidence in the Lake Chad Basin. 13th International Symposium on Recent Advances in Environmental Health. Jackson Marriott Hotel, Jackson, Mississippi, USA, September 11-14, 2016.
2. Rachael M. Curtis, **Luma Akil** and H. Anwar Ahmad. The Impact of Temperature and pH Change on Vibrio Infection in the State of Florida. 13th International Symposium on Recent Advances in Environmental Health. Jackson Marriott Hotel, Jackson, Mississippi, USA, September 11-14, 2016.
3. Eric Gullledge, **Luma Akil** and H. Anwar Ahmad. The Impact of Meteorological and Oceanographic Factors on Sea Level Rise in the US-Gulf of Mexico. 13th International Symposium on Recent Advances in Environmental Health. Jackson Marriott Hotel, Jackson, Mississippi, USA, September 11-14, 2016.
4. Taimei T. Harris, **Luma Akil** and H. Anwar Ahmad. Phosphate Spill Effects on Water Quality Parameters in the Grand Bay National Estuarine Research Reserve (NERR). 13th International Symposium on Recent Advances in Environmental Health. Jackson Marriott Hotel, Jackson, Mississippi, USA, September 11-14, 2016.
5. Tomeka S. Nailer, **Luma Akil** and H. Anwar Ahmad. The Impact of Benzene Emission on Human Health in Louisiana, Mississippi, and Texas. 13th International Symposium on Recent Advances in Environmental Health. Jackson Marriott Hotel, Jackson, Mississippi, USA, September 11-14, 2016.
6. H. Anwar Ahmad and **Luma Akil**, 2015. Developing a Complete Online Biostatistics Course using SPSS. 12th International Symposium on Recent Advances in Environmental Health. Jackson Marriot Hotel, Jackson, Mississippi, USA, September 13-16th, 2015.
7. **Akil, L** and Ahmad, H.A. 2014. Recent Polio Outbreaks and Movement in War Conflict Zones. Minority Health & Health Disparities Grantees' Conference, Gaylord National Resort and Convention Center, National Harbor, Maryland, USA, December 1-3rd, 2014
8. Ahmad, H.A., S. Aslam, **L. Akil**, J. Hussain, and I. Rabbani, 2014. True Prevalence Rate of Hepatitis-C in Pakistan: A Meta-Analysis (Abs. # 05.02.02.002). 2014. Minority Health & Health Disparities Grantees' Conference, Gaylord National Resort and Convention Center, National Harbor, Maryland, USA, December 1-3rd, 2014
9. Ahmad, H.A., S. Aslam, **L. Akil**, J. Hussain, and I. Rabbani, 2014. True Prevalence Rate of Hepatitis-C in Pakistan: A Meta Analysis (O53). 11th International Symposium on Recent Advances in Environmental Health Research, Jackson Convention Complex, Jackson, Mississippi, USA, September 14-18th, 2014
10. He, X., **L. Akil**, W. Aker, H-m, Hwang, and H. A. Ahmad, 2014. Trends in Infant Mortality in United States: a Thorough Investigation of Southern States from 2005-2009

- (PA84). 11th International Symposium on Recent Advances in Environmental Health Research, Jackson Convention Complex, Jackson, Mississippi, USA, September 14-18
11. **Akil, L.** and Ahmad, H.A. 2013. Quantitative Risk Assessment Model for *Salmonella* Infections in Broiler Chicken. Tenth International Symposium on Recent Advances in Environmental Health Research, Jackson Convention Complex, Jackson, MS, USA. September 15-18th, 2013
 12. **Akil, L.** and Ahmad, H.A., 2013. Neural Network Modeling of *Salmonella* Infections in Mississippi. XULA-COP Sixth Health Disparities Conference, New Orleans, Louisiana, USA. March 7-9th, 2013
 13. **Akil, L.**, Reddy RS, and Ahmad, H.A., 2013. Effects Of Temperature On *Salmonella* Infections In Mississippi. LSMAMP Symposium, JSU E-Center, Jackson, Mississippi, USA. Feb 7-8th, 2013
 14. **Akil, L.**, Reddy RS, and Ahmad, H.A., 2012. Effects Of Temperature On *Salmonella* Infections In Mississippi. 13th RCMi International Symposium on Health Disparities, Convention Center, San Juan, Puerto Rico, USA. December 9-13th, 2012
 15. **Akil, L.** and Ahmad, H.A., 2012. Neural Network Modeling of *Salmonella* Infections in Mississippi. 13th RCMi International Symposium on Health Disparities, Convention Center, San Juan, Puerto Rico, USA, December 9-13th, 2012
 16. **Akil, L.**, Reddy RS, and Ahmad, H.A., 2012. Effects of Temperature On *Salmonella* Infections In Mississippi. 9th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 16-19th, 2012
 17. Shavonda M. Morrow, **Luma Akil** and H. A. Ahmad, 2012. Socioeconomic factors affecting type II diabetes in Mississippi, Alabama, Louisiana, and Colorado (Abstract PA-23). 9th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 16-19
 18. Antia Cain, **L. Akil** and H. A. Ahmad, 2012. Effects of increased tobacco price on number of smokers in Mississippi from 2006-2010 (Abstract PA-25). 9th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 16-19
 19. Samuel Nittala, **L. Akil**, and H. A. Ahmad, 2012. Childhood obesity - persistent concern among young Mississippians (Abstract PA-26). 9th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 16-19
 20. **Luma Akil** and H. A. Ahmad, 2011. Artificial Neural Networks: Obesity Modeling. 11th Annual Conference on Eliminating Health Disparities–Healthy Eating II: Winning the War Against Obesity, Jackson Hilton Convention Center, Jackson, Mississippi USA, October 7th, 2011
 21. **Luma Akil** and H. A. Ahmad, 2011. Analysis of Food-Borne Related Illness and Death

- from Exposure to *E. coli*. LSMAMP Research Conference Jackson State University, e-center, Jackson, Mississippi, USA, October 3rd, 2011
22. **Luma Akil** and H. A. Ahmad, 2011. Obesity Modeling using Artificial Neural Networks (Abstract PA-37). 8th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 18-21, 2011
 23. **Luma Akil** and H. A. Ahmad, 2011. Analysis of Food-Borne Related Illness and Death from Exposure to *E. coli* (Abstract PA-38). 8th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 18-21
 24. Stacey May, O. Moore, **L. Akil** and H. A. Ahmad, 2011. Assessment of Body Fat Composition in an Obesity Study (Abstract PA-39). 8th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 18-21
 25. Ahmad, H.A., and **Akil, L.**, 2010. Effects of Socioeconomic Factors on Obesity Rates in Four Southern States and Colorado (Abstract # 09.03.02). 12th RCMI International Symposium on Health Disparities, Nashville Convention Center, Nashville, Tennessee, USA, December 6-9
 26. Ahmad, H.A., and **Akil, L.**, 2010. Relationships between Obesity and Cardiovascular Diseases in Four Southern States and Colorado (Abstract # 09.03.03). 12th RCMI International Symposium on Health Disparities, Nashville Convention Center, Nashville, Tennessee, USA, December 6-9
 27. **Akil, L.** and Ahmad, H.A., 2010. Relationships between Obesity and Cardiovascular Diseases in Four Southern States and Colorado. Jackson Heart Study Scientific Conference, Jackson Convention Complex, Jackson, Mississippi, USA, September 23-24
 28. Mahmud, O., Dates, C., **Akil, L.**, and Ahmad, H. A., 2010. Recent Trends in HIV and Tuberculosis in the United States and Sub-Saharan Africa. 7th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 12-15
 29. **Akil, L.** and Ahmad, H.A., 2010. Effects of Socioeconomic Factors on Obesity Rates in Four Southern States and Colorado. 7th International Symposium on Environmental Health, Marriott Hotel, Jackson, Mississippi, USA, September 12-15