

# CAROLINE M. BARNES

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## Education

### **Master of Public Health (MPH), Health Policy & Management**

University of Tennessee, 2024 | **GPA: 3.93**

- *Minor:* Epidemiology
- Community Engagement Academy, Fall 2024 Cohort
- Finalist, Three Minute Thesis (2024)
- *Master's Thesis:* BeMore Tennessee: A Health Community High Obesity Program with the University of Tennessee Institute of Agriculture
  - *Supervisor:* Dr. Melinda Spooner, Dr. Soghra Jarvandi

### **Bachelor of Science (BS), Neuroscience**

University of Tennessee, 2022 | **GPA: 3.63**

- *Minor:* Public Health
- Chancellor's Scholar
- Chancellor's Honors Program
- *Undergraduate Thesis:* Creating a Backyard Buzz: Evaluating the Effectiveness of Using a Video Infographic To Communicate Information and Increase Awareness About Mosquito Populations and Diseases in TN
  - *Supervisor:* Dr. Rebecca Trout Fryxell

### **Bachelor of Arts (BA), Psychology**

University of Tennessee, 2022 | **GPA: 3.63**

- *Minor:* Entrepreneurship
- Chancellor's Scholar
- Chancellor's Honors Program

## Research and Work Experience

### **Program Anchor** (*June 2026 – Present*)

The Bergel Institute

- Lead local engagement for a pilot community-based poverty initiative in Tennessee, centered on community-defined needs and locally driven solutions.
- Build relationships with regional stakeholders and identify partnership opportunities across health, food access, and community support systems.
- Adapt program frameworks and action guides for local implementation in a rural context.

- Collaborate with institute leadership and partners on planning, meetings, and early-stage program development.
- Note: Part-time, ~5hr/week

### **Insurance Producer** *(June 2026 – Present)*

Colonial Life

- Conduct daily outbound prospecting to small and mid-sized businesses, generating a consistent pipeline of qualified leads for supplemental and voluntary benefits.
- Identifying coverage gaps and presenting tailored solutions to business owners and HR decision-makers while building long-term relationships with clients through a consultative, needs-based approach.

### **Caregiver, Family** *(June 2025 – June 2026)*

### **Community Health Research Analyst** *(Jan 2025 – June 2025)*

University of Tennessee Institute of Agriculture

- Leads qualitative and quantitative surveys and interview teams to assess intervention effectiveness.
- Analyzes health system policies, program evaluations, and funding mechanisms.
- Creates policy briefs and research reports for stakeholders, including the Tennessee Department of Health.
- Left Due to Grant Cancellation

### **Graduate Research Assistant** *(Jan 2024 – Dec 2024)*

Be More Tennessee | University of Tennessee

- Conducts community-based cognitive and behavioral health research targeting public health disparities.
- Designs qualitative and quantitative surveys to assess intervention effectiveness.
- Develops print and digital health communication materials for rural health education.
- Analyzes health system policies, program evaluations, and funding mechanisms.
- Creates policy briefs and research reports for stakeholders, including the Tennessee Department of Health.

### **Business Analyst** *(May 2022 - May 2024)*

Safety and Regulatory Compliance | Knoxville Utilities Board

- Led & Coordinated Root Cause Analysis Meetings
- Personal Protective Equipment (PPE) Program Manager
- Program Development, Implementation, and Management of Personal Protective Equipment and Safety Training

- Developed Dynamic Power Bi Dashboards to communicate critical metrics across the company's divisions
- Led the integration of data governance pathways through Cloud-Based Analytic Platforms
- Coordinated environmental compliance and regulation projects with engineers, consultants, EPA, TDEC, the City of Knoxville, and Knox County.
- Coordinated annual reports across departments and strategic initiatives.
- Managed, Set, and Monitored Budget (\$8.5 M) for the Department
- Data Analytics for Safety, Regulatory, Damage Prevention, and Environmental projects with the integration of governmental and regulatory data
- Coordinated Employee Recognition program across multiple departments and vendors
- Procurement sourcing and processes for all PPE equipment (boots, FR clothing, emergency sourcing)
- Creation of Quarterly Reports for the Executive Team relating to critical department initiatives
- Created Educational & Tutorial Videos for Technology Tools
- Implemented SharePoint Transition and Developed SharePoint Site for departmental interactions
- Updated and maintained websites in SharePoint and departmental presentations.

### **Undergraduate Research Assistant** *(April 2019 – May 2022)*

University of Tennessee, Department of Entomology

- Investigated the impact of health communication strategies using video-based public education tools.
- Conducted data analysis, GIS mapping, and disease modeling of mosquito-borne disease transmission.
- Designed and implemented behavioral interventions and surveys on public engagement with health risk messaging.
- Used PCR DNA testing, field data collection, and biostatistics to analyze disease prevalence

### **Student Business Analyst** *(August 2018 – May 2022)*

Vegetation Management, System Operations | Knoxville Utilities Board

- Coordinated Tree Replacement and Planting Program
- Coordinated Arbor Day Foundation
- Resolved Customer Interactions
- Scheduled and Planned Circuit Inspections for service reliability

## **Publications**

- Barnes, C.M., Rao, M.R., Rowe, R.D., Paulsen, D.J. and Trout Fryxell, R.T. UTK (2019). “From County to Local: Investigating Aedes Egg Populations at a Local Scale.”

- C. Barnes, S. Roth, D. Paulsen, M. Camponovo, K. Butefish, and R. T. Trout Fryxell UTK (2020) "Implementation and initial evaluation of a community-driven mosquito-surveillance system known as MEGA:BITESS."
- Barnes, Caroline M.; Trout Fryxell, Rebecca T.; Barroso, Cristina; and Andsager, Julie, "Creating A Backyard Buzz: Evaluating the Effectiveness of Using a Video Infographic To Increase Knowledge About Mosquito Populations and Diseases in TN" (2022). Chancellor's Honors Program Projects. Available Via University of Tennessee TRACE.
- Jarvandi, S., Barnes, C., Spooner, M., Sturgill, N., Sanders, E., & Ellenburg, K. (2024). "Clay County Needs Assessment Summary". University of Tennessee Extension Family and Consumer Sciences.
- Jarvandi, S., Barnes, C., Spooner, M., Sturgill, N., Sanders, E., & Ellenburg, K. (2024). "Crockett County Needs Assessment Summary". University of Tennessee Extension Family and Consumer Sciences.
- Jarvandi, S., Barnes, C., Spooner, M., Sturgill, N., Sanders, E., & Ellenburg, K. (2024). "Henderson County Needs Assessment Summary". University of Tennessee Extension Family and Consumer Sciences.
- Jarvandi, S., Barnes, C., Spooner, M., Sturgill, N., Sanders, E., & Ellenburg, K. (2024). "Hancock County Needs Assessment Summary". University of Tennessee Extension Family and Consumer Sciences.
- Jarvandi, S., Barnes, C., Spooner, M., Sturgill, N., Sanders, E., & Ellenburg, K. (2024). "Decatur County Needs Assessment Summary". University of Tennessee Extension Family and Consumer Sciences.
- Jarvandi, S., Barnes, C., Spooner, M., Sturgill, N., Sanders, E., & Ellenburg, K. (2024). "Haywood County Needs Assessment Summary". University of Tennessee Extension Family and Consumer Sciences.

## **Works in Progress**

- Health Connections in the Digital Age: A Literature Review on Digital Health Literacy in the Rise of AI Deep Fakes in Social Media Platforms.
- Lively Communities, Thriving People: A Framework for Identifying and Integrating Regional Food Banks, Farmers, Grocers, and Community Assets to Reduce Food Insecurity and Revitalize Rural Communities.

## **Presentations**

- "Avoiding an Artificial Intelligence: Working to Create an Educational Model to Empower Youth to Identify Health Misinformation in Social Media Platforms," American Public Health Association National Conference, Washington, D.C, USA. November 2025.
- "Nourishing Appalachia: Addressing Food Access Disparities through Innovation," Rural Roots Conference, University of Kentucky, Lexington, KY, USA. May 2025.
- "BeMore Tennessee: A Health Community High Obesity Program with the University of Tennessee Institute of Agriculture," Applied Experience Thesis Presentation, Master of Public Health Program, University of Tennessee, Knoxville, TN, USA. December 2024.

- “Lively Communities, Thriving People: Addressing Nutritional Disparities in Rural Tennessee,” University of Tennessee, 5 Minute Thesis Competition, Knoxville, TN, USA. November 2024.
- “Lively Communities, Thriving People,” University of Tennessee Community Engagement Academy, Knoxville, TN, USA. May 2024.
- “Creating a Backyard Buzz: Evaluating the Effectiveness of Using a Video Infographic To Communicate Information and Increase Awareness About Mosquito Populations and Diseases in TN,” University of Tennessee Exhibition of Undergraduate Research and Creative Achievement (EUR̄CA), Knoxville, TN, USA. 2022.
- “Implementation and initial evaluation of a community-driven mosquito-surveillance system known as MEGA:BITESS,” University of Tennessee Exhibition of Undergraduate Research and Creative Achievement (EUR̄CA), Knoxville, TN, USA. 2020.
- “From County to Local: Investigating Aedes Egg Populations at a Local Scale,” Tennessee Entomological Society, Nashville, TN, USA. 2019.

## Research Grants

- Health Extension for Diabetes, United Health Foundation, \$2 M, 2 years.
- Health Extension for Diabetes, Tennessee Department of Health, \$1M, 2 years.
- Be More Tennessee, High Obesity Prevention Program, Centers for Disease Control, US Department of Health and Human Services, Total \$2.5 M Grant, 5 years.
- “Creating a Backyard Buzz”, Summer Undergraduate Research Internship Program (SURIP), University of Tennessee Office of Undergraduate Research, \$1,000 Grant, 1 year.
- “Creating a Backyard Buzz”, Chancellor’s Undergraduate Research Scholars, University of Tennessee \$1,000 Grant, 1 year.

## Honors and Awards

- Three Minute Thesis, Finalist (2024)
- University of Tennessee Community Engagement Academy (Fall 2024)
- Summer Undergraduate Research Internship Program (SURIP), \$1,000 Grant, (2021)
- Chancellor’s Undergraduate Research Scholars, \$1,000 Grant (2021)
- Mu Alpha Theta, Honor Society (2019-2022)
- Psychology Departmental Scholarship, \$1,000 each year (2019, 2021)
- First Place, Undergraduate Research Presentation, Tennessee Entomological Society Annual Conference (2019)
- Dean’s List (Multiple Semesters 2018-2021)
- Order of Omega (2020-2022)
- Wendy’s High School Heisman (2017)
- Mirabeau Lamar Award of Excellence (2017)
- United States Girl Scout Gold Award, “Hands on Healing: Utilizing Art Therapy in Children’s Hospitals” (2016)
- Student Leadership Program, Ronald Reagan Presidential Library (2016)

## **Certifications**

### **Certified Health Education Specialist (CHES) - National Commission for Health Education Credentialing, 2024**

- *Certificate Available Upon Request*

### **Certified in Public Health (CPH) - National Board of Public Health Examiners, 2024**

- *Certificate Available Upon Request*

### **Certified Insurance Producer, Life, Health & Accident - State of Tennessee Department of Commerce, 2026**

- *Certificate Number Available Upon Request*

## **Professional Organizations**

- American Public Health Association
- Tennessee Public Health Association
- Rural Health Association of Tennessee
- Young Professionals of Knoxville
- Let Her Speak
- Mental Health America

## **Relevant Skills**

- SAS Proficiency
- SPSS Proficiency
- Claude Certified
- GIS Proficiency
- Board Communication
- Public Speaking
- Grant Writing
- Science Communication
- Copywriting
- Program Development, Management, Evaluation
- Video Creation
- Podcast Hosting
- Analytics: Google Data Studio, Power BI
- Microsoft Office 365 Proficiency
- Canva Proficiency

- Qualtrics Development
- Blue Dragon Root Cause Analysis
- Lean Six Sigma, White Belt Certification
- WordPress Website Development
- SharePoint Transition, Creation, and Development
- Health Communication
- Project Management

### **Professional References**

Mark Bergel

The Bergel Institute | Founder & President | [mark@bergelinstitute.org](mailto:mark@bergelinstitute.org)

Melinda Spooner, PhD

University of Tennessee Institute of Agriculture, Extension | [mspoone3@tennessee.edu](mailto:mspoone3@tennessee.edu)

Soghra Jarvandi, MD, MPH, PhD

University of Tennessee Institute of Agriculture, Extension | [sjarvand@tennessee.edu](mailto:sjarvand@tennessee.edu)

*Additional References Available Upon Request*