

# Laura Beilsmith

Epidemiologist, Washington State Department of Health

Curriculum Vitae  
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## Education

2021	<b>MPH: Epidemiology</b> Saint Louis University <ul style="list-style-type: none"><li>➤ Thesis Title: Time-Series Analysis of Short-Term Air Pollution Exposure Associated with Acute Stroke Mortality</li><li>➤ Thesis Advisors: Zhengmin Qian</li></ul>	St Louis, MO
2020	<b>BS Public Health</b> Saint Louis University <ul style="list-style-type: none"><li>➤ Minor: Sociology</li></ul>	St Louis, MO

## Professional Appointments

2020-2021	<b>Pediatric Infectious Disease COVID-19 Outbreak Clinical Researcher</b> Stephanie Fritz Lab, Washington University <ul style="list-style-type: none"><li>➤ Managed a <b>1,000+ participant REDCap database</b> for COVID-19 contact tracing research and outbreak investigations</li><li>➤ Targeted school-system COVID interviews with administrators, staff, parents, and students at 20+ schools</li><li>➤ Conducted <b>survey validation</b> and improvements for questionnaire efficiency, <b>reducing racial and gender bias</b> in questions while enhancing interview flow</li><li>➤ Prepared manuscripts in the <a href="#">CDC's MMWR</a> and <a href="#">major journals</a></li></ul>	St. Louis, MO
2018-2019	<b>Opioid Epidemic Research Lab</b> Liz Chiarello Lab, Saint Louis University <ul style="list-style-type: none"><li>➤ <b>Coded qualitative interviews</b> with pharmacists, law enforcement, and health-care workers using Atlas.ti</li><li>➤ Analyzed interviews to establish narratives, similarities, and points of contention</li><li>➤ Conducted literature reviews regarding pharmacists and perspectives on medication-assisted treatment for substance use disorders</li></ul>	St. Louis, MO
2017	<b>Pollinator Research Lab</b> Gerardo Camilo Lab, Saint Louis University <ul style="list-style-type: none"><li>➤ Sampled pollinator populations in the St. Louis area to evaluate pollinator biodiversity. <b>I caught native bees!</b></li><li>➤ Identified and cataloged species of pollinators, flowers, and foliage to evaluate factors in pollinator health</li><li>➤ <b>Assessed and forecasted population stability</b> of urban native pollinators and proposed solutions to improve biodiversity</li></ul>	St. Louis, MO
2020-2021	<b>Epidemiologist</b> Cerner Health <ul style="list-style-type: none"><li>➤ Maintained Cerner/Kantar <a href="#">Epi Database</a> through periodic literature review and population statistic analysis.</li><li>➤ For multiple diseases: reviewed medical and epidemiology literature for each of the G20 countries for integration into Epi Database</li><li>➤ <b>Calculated epidemiological metrics and point estimates</b> to update epidemiological databases and forecast metrics to 2050</li><li>➤ Worked with industry clients to answer questions about <b>epidemiological forecasts</b> for licensing decisions and drug discovery.</li></ul>	St. Louis, MO

2021-Present	<b>Epidemiologist</b> Washington State Department of Health <ul style="list-style-type: none"> <li>➤ COVID-19 and Mpox <b>emergency response epidemiologist</b> for the DOH data integration and quality assurance team</li> <li>➤ Developed communicable disease and foodborne coding workflows for <b>surveillance and forecasting</b></li> <li>➤ Developed scripts and visualizations for missing case and contact information, exposure notifications, and <b>breakthrough case identification</b></li> <li>➤ Improved <b>R and SAS script efficiency</b> and scope to provide higher quality data to internal and external collaborators</li> <li>➤ Investigated ways to refine process flows and identify gaps in database queries using <b>SQL</b> and moved scripts to Github</li> <li>➤ Analyzed long-term care facility data from multiple sources and determined best practices for capturing missing or mis-identified case information</li> <li>➤ Collaborated with other COVID-19 response DOH teams as well as external partners such as tribal, state, and federal epidemiologists on pandemic response</li> </ul>	Tacoma, WA (Remote)
2021-2022	<b>Epidemiologist</b> CDC Foundation <ul style="list-style-type: none"> <li>➤ Developed scripts, workflows, and dashboards for case identification, forecasting, and reporting</li> <li>➤ Managed R, SAS, and SQL scripts to optimize contact tracing efficiency and accuracy</li> <li>➤ Collaborated with other COVID-19 response DOH teams to <b>model COVID-19</b> transmission</li> </ul>	Atlanta, GA (Remote)

## Selected Presentations

- Beilsmith, L.** (2023, July). *Missing contact data quality improvement project: improved efficiency and translating SAS code into R*. [Workshop]. Washington State Department of Health Center for Data Science.
- Beilsmith, L.** (2023, June). *Address not found: an integrated, stepwise approach to data quality for COVID-19 case investigation and contact tracing in Washington state*. [Poster presentation]. Council of State and Territorial Epidemiologists (CSTE) Conference.
- Beilsmith, L.** (2021, May). *Short-term Air Pollution and Acute Stroke Mortality in Zhengzhou, China*. [Paper presentation]. Saint Louis University Graduate Symposium.
- Beilsmith, L.** (2018, December). *Depression in American Indian and Alaska Native Populations*. [Poster presentation]. Saint Louis University Department of Sociology & Anthropology Culture and Mental Health Research Poster Symposium.

## Software

- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2022). *DCIPHER MPV* [R package]. Compile weekly Mpox data to share with the CDC through the DCIPHER platform [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2021). *DCIPHER COVID-19* [R package]. [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2021). *StarLIMS* [R package]. [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2023). *Mpox Geocoded Dataset* [R package]. [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2021). *WA Labor & Industry COVID-19 Data Share* [R package]. [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2023). *Mpox Race and Ethnicity Enrichment* [R package]. [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2022). *Long-Term Care Facilities Data Compilation* [R package]. [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2022). *COVID-19 Missing Contact Information Enrichment* [R package]. [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2022). *Mpox Dataset Creation & Cleaning* [R package]. [Internal: Government]
- Beilsmith, L.** [as part of WaDOH Surveillance Team] (2022). *Mpox REDCap to WDRS Pipeline* [R package]. [Internal: Government]

## University Leadership

2018-2020	<b>Sustainability Committee Co-Chair</b> Saint Louis University
2018-2020	<b>President of Green Billiken Environmental Advocacy Student Group</b> Saint Louis University
2016-2020	<b>Principal Saxophone</b> Saint Louis University Symphonic, Pep, and Jazz Ensembles

## Community Leadership

2016-2020	<b>Patient Advocate</b> SSM St. Mary's Hospital
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## Skills

<b>Code Languages</b>	R, SAS, SQL, HTML (Basic), Excel Macros
<b>Infrastructure</b>	Git/Github, RedCap, Atlas.ti
<b>Data Visualization</b>	R, SPSS, Tableau, ArcGIS, PowerBI
<b>Statistical Skills</b>	Linear, Logistic, Multivariate, Cox Modelling, Time-series analysis, Survey Validation

## Society Memberships

Certified in Public Health (CPH): May 2021 , National Board of Public Health Examiners , Council of State and Territorial Epidemiologists (CSTE) , American Public Health Association (APHA)

## In The Media

Eight Graduates Plan for an Uncertain World	2020	<a href="#">Profile</a>
SLU Offsets All Electrical Emissions with Renewable Energy	2019	<a href="#">Univ. Press</a>
SLU Makes EPA's Green List. Accessed	2019	<a href="#">Univ. News</a>
Sustainability at Saint Louis University - YouTube	2019	<a href="#">Video</a>
Blue Bills Go Green for 2019	2019	<a href="#">Univ. Press</a>

## Notes

This CV is reproducible. All the source code behind this CV is available on [my Github repo](#).