




MIKE DOLAN FLISS

UNC / DPH Public Health Epidemiologist
Experienced local / state public health
informatics & epidemiology collaborator.

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Experienced public health epidemiologist & informatician on impactful local, state, national projects.
Background in data science, program evaluation, data visualization, equity, social work, & management.

Technical: Epidemiology, causal inference, statistics, data analysis, data science, machine learning, spatial analysis, data visualization / grammar of graphics, website building, prediction, classification, cluster detection, database design, workflow automation & reporting, text mining, EHR implementation, KPIs.

Familiar w/ over a dozen statistical languages & programming tools:

Expert: R (RStudio Certified Trainer), QGIS, Tableau.
Proficient: SQL, SAS, HT/XML, CSS, ArcGIS, JavaScript, LaTeX, VBA.
Novice: Python, D3, Orange, WEKA, Data Miner, Perl.

Management: Program evaluation. Group facilitation. Budgeting & accounting. Supervision & volunteer management. Project/task management. Anti-oppression organizations. Public speaking.

EDUCATION

PhD	Epidemiology: University of North Carolina	2019
MPS	Biomedical and Health Informatics: University of North Carolina	2018
MSW	Community, Management & Policy Social Work: University of North Carolina	2009
	Certificate in Nonprofit Executive Leadership: University of North Carolina	2009
	Certificate in Nonprofit Management: Duke University	2009
	Certificate in Nonprofit Leadership & Diversity Training: Public Allies, Durham, NC	2004
BS/BA	Computer Science & Philosophy (Dual): Duke University. Minor: Religion	2003

MISSION

To support state and local health departments to collect, integrate, analyze, and visualize health indicators to drive surveillance, programs, and policy interventions for healthier communities and reduced disparities.

- My tools to do this are strategic, practice-focused research projects; informatics infrastructure improvements; and community collaborations.
- These activities move dollars to public health focus areas; increase citizen and decision-maker public health data fluency; reduce racial-ethnic, rural-urban, and socio-economic position disparities; drive high quality interventions; and ultimately, create healthier, longer lived, happier communities.

PROFESSIONAL EXPERIENCE

UNC Injury Prevention Research Center (IPRC) , Raleigh, NC	2018-present
Research scientist. Projects including child maltreatment, multi-state data sharing, death by law enforcement, rapid overdose surveillance, space-time clustering, data linkage, public health informatics.	
NC Division of Public Health / Injury Epidemiology Unit , Raleigh, NC	2015-present
Informatics / data viz consulting on multiple projects in unit. Building dashboards, designing automation, ad-hoc mapping and analysis projects. Overdose epidemic, alcohol outlet density, violent death.	
Orange County Health Department , Hillsborough, NC	2012-2015
<i>Public Health Informatics Manager</i> : Integrate & analyze multiple internal (clinic) and partner (i.e., hospitals, schools, vital records) data-sources to track and improve county population health outcomes. Community health assessments, billing QA/QI, poverty indices, EMRs, data dashboards.	
Consulting , Chapel Hill, NC	2006-2012
<i>Self-employed: epidemiology & informatics consulting for public health / nonprofit / social justice groups.</i> <i>Examples</i> : Research with national tobacco control & NC foster care nonprofits; Built social work eldercare database for SAS; websites for environmental initiatives & NC Pride LGBT festival.	
Stone Circles , Mebane, NC	2008-2010
Created individual donor plan; built program and donor databases; strengthened volunteer program.	
North Carolina School of Science and Math , Durham, NC	2005-2007
Directed service requirement, coordinated 30,000 hours of service. Set hall community activity record.	
H & R Block , Hillsborough, NC	2005
Professionally prepared tax returns; gave free public seminars on low-income tax basics.	
Durham Nativity School , Durham, NC	2003-2004
Coordinated 1,000+ service hours. Taught history of sexism, religions on anger; gender/race pay-gap.	
Family Services Camp Kindred Lead Counselor , Burlington, NJ	2003-2004
Supervised 4 counselors at summer foster-care system camp; facilitated activities, staff schedules.	
Hogares del Valle, Inc. , Albuquerque, NM	2002
Facilitated youth groups at residential treatment center; full-time internship awarded by Duke.	
Duke University Engineering Teaching Assistant	2001-2002
Evaluated novel internet technologies (Adobe Flash) and designed course assignments.	
Lockheed Martin, Inc. , Moorestown, NJ	1998-2000
Created advanced database w/ automated report generation, Pearl CGI; US gov't Secret clearance.	

MEMBERSHIPS

Council of State and Territorial Epidemiologists (CSTE)
National Academy of Social Workers (NASW)

American Public Health Association (APHA)

TEACHING ACTIVITIES

UNC EPID 799C: R for Epidemiologists

Lead Instructor

Public Health epidemiology in R. Material [made free online](#), nationwide use (Fall 2016 to present).

PEER-REVIEWED PUBLICATIONS

- **Fliss MD**, Chung EO, Carey A, Alexander BK. People Experiencing Homelessness in NC have Increased Mortality, Including High Overdose, Violence, Injury, and Chronic Disease Death Rates. *North Carolina Medical Journal*. 2022;83(5):390-391. doi:[10.18043/ncm.83.5.390](https://doi.org/10.18043/ncm.83.5.390)
- Fix J, Redding EM, **Fliss MD**, Harmon KJ, Schiro SE, Waller AE. Database selection matters: A case study in child restraint use and injury patterns using North Carolina motor vehicle traffic crash report and trauma registry data. *Traffic Injury Prevention*. 2022;23(6):339-345. doi:[10.1080/15389588.2022.2069242](https://doi.org/10.1080/15389588.2022.2069242)
- Silverstein RG, McClurg AB, Moore KJ, **Fliss MD**, Louie M. Patient characteristics associated with access to minimally invasive gynecologic surgery: Changes during the COVID-19 pandemic. *Journal of Minimally Invasive Gynecology*. Published online June 2022:S1553465022002540. doi:[10.1016/j.jmig.2022.06.016](https://doi.org/10.1016/j.jmig.2022.06.016)
- LeMasters K, Cox ME, **Fliss M**, Seibert J, Brown C, Proescholdbell S. Mental health emergency department visits: An exploration of case definitions in North Carolina. *The American Journal of Emergency Medicine*. 2022;57:103-106. doi:[10.1016/j.ajem.2022.04.053](https://doi.org/10.1016/j.ajem.2022.04.053)
- Austin AE, Bona VD, Cox ME, Proescholdbell S, **Fliss MD**, Naumann RB. Prenatal Use of Medication for Opioid Use Disorder and Other Prescription Opioids in Cases of Neonatal Opioid Withdrawal Syndrome: North Carolina Medicaid, 2016–2018. *Am J Public Health*. 2021;111(9):1682-1685. doi:[10.2105/AJPH.2021.306374](https://doi.org/10.2105/AJPH.2021.306374)
- Combs KG, **Fliss MD**, Knuth KB, Cox ME, Trangenstein PJ. The Societal Cost of Excessive Drinking in North Carolina, 2017. *North Carolina Medical Journal*. 2022;83(3):214-220. doi:[10.18043/ncm.83.3.214](https://doi.org/10.18043/ncm.83.3.214)
- Quist AJL, Holcomb DA, **Fliss MD**, Delamater PL, Richardson DB, Engel LS. Exposure to industrial hog operations and gastrointestinal illness in North Carolina, USA. *Science of The Total Environment*. 2022;830:154823. doi:[10.1016/j.scitotenv.2022.154823](https://doi.org/10.1016/j.scitotenv.2022.154823)
- **Fliss MD**, Baumgartner FR, Delamater P, Marshall SW, Poole C, Robinson W. Public health critical race praxis at the intersection of traffic stops and injury epidemiology. *Injury Epidemiology*. 2022;9(9):9. doi:<https://doi.org/10.1186/s40621-022-00375-9>
- Fix J, Redding EM, **Fliss MD**, et al. Restraint use and severe injury patterns among pediatric passengers in motor vehicle crashes: Exploring the utility of linked health data and implications of database selection. *Traffic Injury Prevention*. Published online November 30, 2021:1-2. doi:[10.1080/15389588.2021.1983393](https://doi.org/10.1080/15389588.2021.1983393)
- **Fliss MD**, Mesnick JB, Esser MB. *Measuring Alcohol Outlet Density, A Toolkit for State and Local Surveillance*. Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2021. <https://www.cdc.gov/alcohol/pdfs/CDC-Alcohol-Outlet-Density-Surveillance-Toolkit.pdf>
- Quist AJL, **Fliss MD**, Wade TJ, Delamater PL, Richardson DB, Engel LS. Hurricane flooding and acute gastrointestinal illness in North Carolina. *Science of The Total Environment*. Published online October 2021:151108. doi:[10.1016/j.scitotenv.2021.151108](https://doi.org/10.1016/j.scitotenv.2021.151108)
- **Fliss MD**, Cox ME, Dorris SW, Austin AE. Timely Overdose Death Reporting Is Challenging but We Must Do Better. *American Journal of Public Health*. 2021;111(7):3. doi:<https://doi.org/10.2105/AJPH.2021.306332>
- Harmon KJ, **Fliss MD**, Marshall SW, Peticolas K, Proescholdbell SK, Waller AE. The impact of the COVID-19 pandemic on the utilization of emergency department services for the treatment of injuries. *The American Journal of Emergency Medicine*. 2021;47:187-191. doi:[10.1016/j.ajem.2021.04.019](https://doi.org/10.1016/j.ajem.2021.04.019)
- **Fliss MD**, Baumgartner F, Delamater P, Marshall S, Poole C, Robinson W. Re-prioritizing traffic stops to reduce motor vehicle crash outcomes and racial disparities. *Inj Epidemiol*. 2020;7(1):3. doi:[10.1186/s40621-019-0227-6](https://doi.org/10.1186/s40621-019-0227-6)
- Albertson EM, Chen R, Matheson A, Ursua MG, **Fliss MD**, Farquhar S. Effect of public housing redevelopment on reported and perceived crime in a Seattle neighborhood. *Crime Prevention and Community Safety*. Published online 2020:1-18. doi:<https://doi.org/10.1057/s41300-020-00096-5>

- **Fliss MD**, Gartner DR, McClure ES, Ward JB, Rennie S. Public health, private names: ethical considerations of branding schools of public health in the United States. *Critical Public Health*. March 2020:1-7. doi:[10.1080/09581596.2020.1736270](https://doi.org/10.1080/09581596.2020.1736270)
- Ward JB, Gartner DR, Keyes KM, **Fliss MD**, McClure ES, Robinson WR. How do we assess a racial disparity in health? Distribution, interaction, and interpretation in epidemiological studies. *Annals of Epidemiology*. 2019;29:1-7. doi:[10.1016/j.annepidem.2018.09.007](https://doi.org/10.1016/j.annepidem.2018.09.007)
- Young A, **Fliss MD**, Ising A. Improving Local Non-Communicable Disease Surveillance within a Changing Data Environment. *Online Journal of Public Health Informatics*. 2015;7(1). doi:[10.5210/ojphi.v7i1.5845](https://doi.org/10.5210/ojphi.v7i1.5845)
- Shanahan ME, **Fliss MD**, Proescholdbell SK. Child Maltreatment Surveillance Improvement Opportunities: A Wake County, North Carolina Pilot Project. *North Carolina Medical Journal*. 2018;79(2):88-93. doi:[10.18043/ncm.79.2.88](https://doi.org/10.18043/ncm.79.2.88)

WORK IN PROGRESS

- Residential-based rates underestimate racial disparities in police traffic stops. (Target: AJPH)
- Practical similarities & differences of 5 measures of alcohol outlet density. (Target: MMWR)
- Travel between sites for Emergency Department care – implications for data sharing through the National Syndromic Surveillance program. (Target: CDC MMWR)
- Community vs. violent death reporting system differences in death by legal intervention. (Target: AJPH)
- Emergency department utilization of child maltreatment codes. (Target: NC Medical Journal)

OTHER INTELLECTUAL PRODUCTS, PUBLIC HEALTH PRACTICE, & SERVICE

- **Public Health Dashboards & Situational Awareness:** Lead developer and co-designer of multiple NC Department of Health & Human Services data dashboards, including the [NC Opioid Action Plan](#), [Alcohol & Public Health](#), and [NC Opioid Settlement](#) dashboards, totaling over 100,000 views to date.
- **CDC Alcohol Outlet Density Measurement Toolkit.** Lead author for code, screenshot, and planning [CDC toolkit](#) for teams to measure alcohol outlet density. Provided national training assistance. 2-year contract awarded from CSTE.
- **Epidemiology for Environmental Justice.** Provided analysis, coordinated & co-authored scholarship, public comments, and amicus briefs on air quality monitoring in rural NC, environmental public health assessment tools, and permitting rules. Analyses used in conflict mediation and Title VI legal proceedings. (e.g., [Yucatan](#), [Earth Justice](#), [air quality public comment](#), [DEQ tool public comment](#).)
- **Homelessness & Health.** Lead PI for project linking NC homeless shelter records to death records to assess increased risk of all-cause and overdose specific death among homeless population. Serves on nonprofit board of [NC Coalition to End Homelessness](#).
- **Community organizing around racial disparities in policing.** Reports available online and in news media ([ABC11 May 2021](#), [white paper](#) / [amicus brief](#) support for [NC supreme court case](#)).
- **Data linkage lead for NC Crash Injury Surveillance System**, linking crash data to ED visits and deaths. Co-authored [recommendations](#) for state crash data system (NC CRIS). Reports [available online](#).
- **Associate Editor** [CDC Preventing Chronic Disease](#) journal. 2022-2025 term.

AWARDS

- **Jess Kraus Award:** Best Injury Epidemiology paper, 2020. Racial disparities in traffic stops paper, [blog post](#).
- **CDC Epi Scholar, 2018.** Competitive, CDC-awarded placement at Seattle King County Health Department.
- **Delta Omega** Honorary Public Health Society. 10% of annual public health graduates.

CONFERENCE & INVITED PRESENTATIONS

Traffic Records Forum: Building the NC Motor Vehicle Crash Public Dashboard	2021
Safe States: Motor vehicle crash dashboards for decision-making (Co-Author)	2021
Safe States: Data & Disparities in Injury & Violence Prevention Podcast featured guest	2021
CCISP Symposium: Traffic stops, traffic crashes, and disparities	2021
APHA: Case definitions for mental health ED visits in North Carolina, 2019 (Co-Author)	2021
APHA: Improving identification of firearm injury intent in North Carolina (Co-Author)	2021
APHA: Hurricanes, hog operations, and acute gastrointestinal illness in NC (Co-Author)	2021
CSTE: NC Opioid Action Plan 2.0: Metrics & Actions	2021
CSTE: Alcohol Outlet Density: Introducing a CDC practical toolkit for measurement	2021
CSTE: Alcohol Outlet Density: Comparing multiple indicators across five states	2021
CSTE: Linking Motor Vehicle Crash Data to 3 Datasets	2021
CSTE: Geocoding NC Injury Deaths (Co-Author)	2021
CSTE: Alternative Boundaries to Understand Violent Death Burden (Co-Author)	2021
CSTE: Overdose Location and Underutilized Data Sources and Variables (Co-Author)	2021
CSTE: NC Emergency Department Mental Health Visits 2018 (Co-Author)	2021
Mailman Injury Unit: Public Health Injury & Policing	2021
Traffic Records Forum: NC Motor Vehicle Crash Linkages	2020
Safe States: NC's Evolving Opioid Dashboard: Telling stories with data	2020
TREC: Racial Disparities in Traffic Enforcement	2020
CSTE: NC Alcohol Outlet Density Disparities & Dashboards	2019
NC Opioid Summit: From data to local action using dashboards	2019
CSTE: Automation of Overdose Surveillance Reporting in North Carolina (Co-Author)	2018
CSTE: Comparing Death by Legal Intervention in VDRS and Community Data (Co-Author)	2018
State Health Director's Conference: Local Public Health Informatics	2015
NACCHO webinar: Local Initiatives to Address Social Determinants of Health	2015
NC DHHS Epidemiology & Evaluation Team: Modern Informatics Tools	2014

Abbreviations: CSTE = Council of State & Territorial Epidemiologists; TREC=Transportation Research and Education Center at Portland State University; Mailman Injury Unit: Seminar Series at Colombia University; CCISP = Center for Injury Science and Prevention Symposium