

Curriculum Vitae

Gregory C. Chang, MPH

chang.1582@osu.edu | Columbus, OH | 614-736-1251

PROFESSIONAL SUMMARY

PhD Candidate in Epidemiology with extensive experience analyzing large real-world health datasets using R, SQL, and advanced statistical methods. Skilled in converting unstructured environmental exposure data into high-quality analytic datasets and building reproducible pipelines for observational and HEOR studies. Background spans infectious disease and oncology research, integrating molecular and population-level data to generate actionable evidence on treatment patterns and patient outcomes.

EDUCATION

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| The Ohio State University – PhD, Epidemiology, GPA 3.90. | Expected May 2026 |
| <i>Dissertation: Structural and spatial factors associated with HIV viral load suppression and drug resistance in East Africa: evidence from population-based surveys</i> | |
| Columbia University Mailman School of Public Health – MPH, Epidemiology. | 2018 |
| Case Western Reserve University – BA, Biology & Anthropology | 2016 |

Key Skills:

Technical & Data Science: *R (Advanced), Python (GenAI/LLM integration, APIs, OCR), SQL/Snowflake, SAS, ArcGIS Pro/QGIS*

Methodologies: *Real-World Evidence (RWE), HEOR, Propensity Score Matching, Matched Case-Control Study Design, Claims Data Analysis, Complex Survey Design.*

PROFESSIONAL EXPERIENCE

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| Analysis Group – Health Economics and Outcomes Research | Jun. 2025 – Aug. 2025 |
| <i>Associate Intern, New York, NY</i> | |

- Used R and SQL to analyze large real-world datasets (Komodo Health) and clinical trial data, building reproducible pipelines to define oncology treatment patterns and healthcare utilization for market access and regulatory projects.
- Programmed feasibility analyses and data collection tools for chart review studies, improving sample ascertainment and reducing reliance on external vendors.
- Conducted AI/LLM-assisted targeted literature reviews on inflammatory bowel disease therapies to synthesize evidence on effectiveness, safety, and real-world outcomes for pharmacoepidemiologic and HEOR strategies.
- Led retrospective cohort analyses in relapsed/refractory multiple myeloma, implementing time-to-event and safety analyses to evaluate real-world effectiveness of newly approved bispecific antibodies.
- Performed pharmacovigilance-oriented analyses (adverse events, time to discontinuation, PFS, OS) and delivered client-ready results via R Markdown reports, collaborating closely with statisticians and clinical experts to refine specifications and QA outputs.

OSUCCC – James, Center for Cancer Health Equity

Aug. 2023 – Dec. 2024

Susan G. Komen Training to Eliminate Disparities (TREND) Trainee, Columbus, OH

- Analyzed population-based data to quantify mammography screening adherence among racial/ethnic minority women before, during, and after the COVID-19 pandemic, contributing to abstracts and manuscripts on breast cancer disparities.
- Applied multivariable and geospatial methods to assess socioeconomic and neighborhood-level determinants of screening, creating analytic datasets and visualizations to inform cancer equity initiatives.

Nationwide Children's Hospital Center for Injury Research and Policy

May 2022 – Jan. 2024

Project Manager, R01, Columbus, OH

- Managed NIH-funded study testing mobile technology interventions to reduce distracted driving among young adults.
- Supervised a 6-member multidisciplinary team, streamlined communication using REDCap and Microsoft Teams.

Centers for Disease Control and Prevention – PHI/CDC Global Health Fellowship

Aug. 2018 – Jan. 2022

Epidemiologist, Division of Global HIV & TB, Atlanta, GA

- Supported national HIV surveys (PHIA) in Kenya, Nigeria, Lesotho, Uganda, and Zimbabwe; analyzed complex survey data to validate indicators for final reports.
- Collaborated with Ministries of Health and international partners to implement surveys of 25,000+ participants, using QGIS to optimize deployment plans.

Centers for Disease Control and Prevention COVID-19 Task Force

Jun. 2020 – Mar. 2021

Analyst, SARS-CoV-2 Reinfection and Vaccine Breakthrough Unit, Atlanta, GA

- Managed clinician-reported SARS-CoV-2 reinfection investigation, developing REDCap system and specimen handling SOPs.
- Data manager for vaccine breakthrough investigations; built REDCap system for national reporting of cases.

ICAP Mailman School of Public Health, Columbia University

May 2017 – May 2018

Research Intern/Analyst, Population-based HIV Impact Assessment (PHIA), Yaoundé, Cameroon

- Supported implementation of a national HIV survey by providing real-time technical assistance to 30 field teams, troubleshooting data collection software (Open Data Kit), and ensuring smooth IT operations.
- Cleaned and validated household, biomarker, and behavioral data, and developed SOPs for data management to strengthen survey data quality and reporting.

Case Western Reserve University

Jan. 2015 – May 2016

Research Assistant, Center for Global Health and Disease, Cleveland, OH

- Conducted molecular research on Schistosomiasis, a neglected tropical disease affecting ~240M people annually.
- Performed RT-PCR, yeast cultures, RNA sequencing, schistosome parasite, and DNA extraction.

ARTICLES AND PUBLICATIONS

1. **Chang, Gregory C.**, Bingham, Trista, et al. (2025) Undetectable HIV-1 viral load among virally suppressed people living with HIV: implications for Undetectable equals Untransmittable (U=U) in resource-limited settings using dried spot testing. *JAIDS Journal of Acquired Immune Deficiency Syndromes*. DOI: 10.1097/QAI.00000000000003745
2. **Chang, Gregory C.**, Ramesh, B., Liebhard, B., Borrasca, W. E., Loux, T., Horan, J., & Turner, A. N. (2024) Census tract-level social vulnerability and gonorrhea rates in central Ohio: results from the STD Surveillance Network, 2020-2021. *Sexually Transmitted Diseases*. DOI: 10.1097/OLQ.0000000000002062
3. Zhang, F., Benedetti, M., **Chang, Gregory C.**, Evans, A., Pan, Y., Shoots-Reinhard, B., & Zhu, M. (2024) Demographic characteristics and trends of cell phone use while driving citations in selected states in the United States, 2010–2020. *Traffic Injury Prevention*, 1–7. DOI: 10.1080/15389588.2024.2351605
4. Alexander Evans, Marco H. Benedetti, **Chang, Gregory C.**, et al. (2024) A comparison of licensed driver counts from the Federal Highway Administration and driver licensing agencies in 11 states, *Traffic Injury Prevention*, 25:2, 133-137, DOI: 10.1080/15389588.2023.2278412
5. Ewing, A. P., **Chang, Gregory C.**, et al. (2023) Lifestyle Related Cancer Risk and Protective Behaviors Vary among a Convenient Sample of Physically Active, Young-to-Middle-Aged Adults 18-49. *International journal of environmental research and public health*, 20(13), 6305. DOI: 10.3390/ijerph20136305
6. **Chang, Gregory C.**, West, C. A., et al. (2022) Hazardous alcohol use and HIV indicators in six African countries: results from the Population-based HIV Impact Assessments, 2015-2017. *Journal of the International AIDS Society*, 25(11), e26029. DOI: 10.1002/jia2.26029
7. Achia, T., Cervantes, I. F., Stupp, P., Musingila, P., Muthusi, J., Waruru, A., Schmitz, M., Bronson, M., **Chang, Gregory C.**, et al. (2022) Methods for conducting trends analysis: roadmap for comparing outcomes from three national HIV Population-based household surveys in Kenya (2007, 2012, and 2018). *BMC Public Health*, 22(1), 1337. DOI: 10.1186/s12889-022-13633-8
8. West, CA., **Chang, Gregory C.**, et al. (2021) Unawareness of HIV Infection Among Men Aged 15-59 Years in 13 Sub-Saharan African Countries: Findings from the Population-Based HIV Impact Assessments, 2015-2019. *JAIDS* AUG 1;87(Suppl 1): S97-S106. DOI: 10.1097/QAI.0000000000002708
9. COVID-19 Vaccine Breakthrough Infections Reported to CDC — United States, January 1–April 30, 2021. (2021) *MMWR Morb Mortal Wkly Rep*. DOI: 10.15585/mmwr.mm7021e3
10. Lee JT, Hesse EM, Paulin HN, Datta D, Katz LS, Talwar A, **Chang, Gregory C.**, et al. (2021) Clinical and Laboratory Findings in Patients with Potential Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Reinfection, May-July 2020. *Clin Infect Dis*. 73(12):2217-2225. DOI: 10.1093/cid/ciab148
11. Zheng L., Jones C., Ejigu G., George N., Geller A., **Chang, Gregory C.**, et al. (2021) Countries with delayed COVID-19 introduction – characteristics, drivers, gaps, and opportunities. *Global Health* 17, 28. 10.1186/s12992-021-00678-4

CONFERENCE PRESENTATIONS

1. **Chang, Gregory C**, Fisher, JL, Paskett, ED. Disparities in mammography screening adherence throughout phases of the COVID-19 Pandemic: Results from the 2018, 2020, and 2022 Behavioral Risk Factor Surveillance System. 17th AACR Conference on The Science of Cancer Health Disparities In Racial/Ethnic Minorities And The Medically Underserved, Los Angeles, CA, September 2024
2. **Chang, Gregory C**, Ramesh, B., Liebhard, B., Turner, AN. Census tract-level social vulnerability and gonorrhea in Ohio: results from the STD Surveillance Network 2020-2021. The International Society for Sexually Transmitted Diseases Research, Chicago, IL, July 2023.
3. **Chang, Gregory C.**, O’Connell C., et al. The association between alcoholic substance abuse on key HIV outcomes: Results from six population-based HIV impact assessments completed in sub-Saharan Africa. 14th INTEREST 2020 on HIV Treatment, Pathogenesis, and Prevention, Windhoek, Namibia. **Oral abstract.** November 2020.
4. **Chang, Gregory C.**, Bingham T., et al. “Can Undetectable equals Untransmittable (U=U)” be applied in resource-limited settings: Results of the Population-based HIV Impact Assessment surveys in eleven African countries, 2015-2018. Poster (**1082**) presented at the Conference on Retroviruses and Opportunistic Infections (CROI) 2020, Boston, Massachusetts, March 2020. [CROI 2020 Abstracts](#)

PUBLIC HEALTH AND TECHNICAL REPORTS

1. **Ohio Commission on Minority Health.** (2025, May 16). *Medical Expert Panel on Preventable Cancers: White Paper – Achieving equity and eliminating preventable cancer disparities within racial and ethnic populations* (Vol. 3). Ohio Commission on Minority Health. [Minority Health White Paper](#)
2. **Zimbabwe Population-based HIV Impact Assessment 2020 Final Report.** Harare, Zimbabwe. Provided technical assistance in interview and tablet training, monitored field practice before survey implementation, and data analysis for the survey final report. [ZIMPHIA Final Report](#)
3. **National AIDS and STI Control Programme (NASCOP), KENPHIA 2018 Final Report.** Nairobi, Kenya. Provided technical assistance to survey implementation, return of viral load results evaluation, and data analysis for the survey final report. [KENPHIA Final Report](#)
4. **Nigeria HIV/AIDS Indicator Survey 2018 Final Report.** Abuja, Nigeria. Provided technical assistance in field deployment planning using Geographical Information System (GIS) software. [NAIIS Final Report](#)

LEADERSHIP AND SERVICE

The Ohio State University – James Cancer Hospital

Jan. 2022 – Present

Board Member, James Next-Generation Ambassadors (Survivorship Committee)

- Provide leadership on survivorship initiatives, connecting adolescent and young adult (AYA) survivors with resources and supporting AYA cancer research and fundraising efforts.

PROFESSIONAL SERVICE

Ad hoc peer reviewer for manuscripts submitted to:

2025 - *Advances in Drug and Alcohol Research; American Journal of STD; BMC Infectious Diseases
BMC Public Health*