

GIANG VU

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485 East Gray Street
Louisville, KY 40202

Resourceful Assistant Professor brings knowledgeable approach to masters and doctoral students majoring in health data analytics, health management, and policy. Dedicated Health Services Researcher works across several multi-million-dollar projects to improve population health. Motivated Health Data Analyst builds predictive models to reduce adverse health outcomes and disparities in access to preventive care services for vulnerable populations (e.g. low-income, racial minorities, LGBTQ+), especially those with diabetes and dental diseases.

EDUCATION

PhD	University of Louisville, <i>Health Management and Policy</i> Dissertation: “Oral health-related quality of life in US adults with type 2 diabetes” Committee Chair: Dr. Bert B. Little	May 2020
MS	University of Rochester, <i>Health Care Management</i>	August 2016
AS	Georgia State University, <i>Physics</i>	May 2015
DDS	Can Tho University of Medicine and Pharmacy, <i>Dentistry</i>	September 2011

AWARDS

Graduate Dean’s Citations , University of Louisville	May 2020
SPHIS Travel Scholarship for Conferences , University of Louisville	February 2020
HMSS Travel Scholarship for Conferences , University of Louisville	February 2020
Graduate Assistantships , University of Louisville	2016-2020
Merit-based Scholarships , University of Rochester	2015-2016
Highest Honors and Dean’s List , Georgia State University	2013-2015
Merit-based Scholarships , Can Tho University of Medicine and Pharmacy	2005-2011

RESEARCH EXPERIENCE

University of Louisville , Louisville, KY Principal Investigator (60% time) , Dr. Vu’s Dental Research Lab	July 2020 to June 2022
<ul style="list-style-type: none">Project title: Study on Systemic Complications of Oral Diseases among Medicaid Beneficiaries with Type 2 Diabetes in Kentucky	

- Budget: \$456,698
- Sponsor: State University Partnerships (Department of Medicaid Services)

University of Louisville, Louisville, KY July 2020 to June 2022

Co-Investigator (20% time), Dr. Little's Diabetes Research Lab

- Project title: Predictive Analytics for Type 2 Diabetes with Social Determinants of Health in Medicaid Beneficiaries
- Budget: \$860,382
- Sponsor: State University Partnerships (Department of Medicaid Services)

University of Louisville, Louisville, KY July 2020 to June 2022

Co-Investigator (20% time), Dr. Karimi's Health Economics Research Lab

- Project title: The Effect of Market Changes on Kentucky Medicaid: Utilization and Cost Savings for Three Chronic Diseases-Cardiovascular Disease, Cancer, and Type 2 Diabetes
- Budget: \$430,011
- Sponsor: State University Partnerships (Department of Medicaid Services)

University of Louisville, Louisville, KY July 2018 to June 2020

Graduate Research Assistant, Dr. Little's Diabetes Research Lab

- Project title: Study on Type 2 Diabetes among Medicaid Beneficiaries in Kentucky
- Budget: \$431,680
- Sponsor: State University Partnerships (Department of Medicaid Services)

University of Louisville, Louisville, KY August 2016 to June 2018

Graduate Research Assistant

- Primary task: Collected, analyzed, and interpreted health care data using variety of statistical techniques in SPSS, SAS, Stata, and R
- Secondary task: Conducted literature review on diabetes, oral health, osteoporosis, drugs for pregnant women, opioid abuse, and other public health topics
- Sponsor: Department of Health Management and Systems Sciences

TEACHING EXPERIENCE

University of Louisville, Louisville, KY July 2020 to present

Assistant Professor, Health Management and Systems Sciences

- Taught/co-taught 10 health data analytics and data management courses for master's and doctoral students per year
 - PHMS-638 Data Security and Electronic Health Records
 - PHMS-641 Data Mining I
 - PHMS-642 Data Mining II
 - PHMS-644 Biomedical Foundations
 - PHMS-670 Statistical Data Management
 - PHMS-671 Statistical Analysis for Population Health

- Developed teaching materials (e.g., lectures, quizzes, exams, homework) for health data analytics courses, covering the topics below:
 - Linear algebra/matrix calculation
 - Pearson correlation, Spearman correlation
 - ANCOVA/ANOVA
 - Independent t test, paired samples t test
 - Mann-Whitney U Test, Wilcoxon Signed Rank Test
 - Kruskal-Wallis Test, Chi squared test, Fisher's exact test
 - MANCOVA/MANOVA
 - Discriminant analysis
 - Cluster analysis
 - Decision trees (CHAID and CART)
 - Regressions (linear, logistic, Poisson, segmented)
 - Survival analysis (Kaplan-Meier estimator, Cox regression)
 - Propensity score matching
 - Principle factor analysis/exploratory factor analysis
 - Confirmatory factor analysis
 - Path analysis
 - Structural equation modeling
 - Naïve Bayes classifier
 - Neural network
 - Association rules and collaborative filtering
 - Forecasting time series
 - Text mining & natural language processing
 - Data visualization
 - Data management
- Software used in health data analytics courses
 - R
 - SAS
 - Stata
 - SPSS
- Developed and revised 15 syllabi of health data analytics courses to meet CEPH and CAHIIM accreditation standards
- Coordinated grading and labs with a team of 2 teaching assistants/graders

University of Louisville, Louisville, KY

August 2018 to June 2020

Instructor, Health Management and Systems Sciences

- Taught/co-taught, gave guest lectures, and graded assignments/exams for health data analytics and data management courses for master's and doctoral students per year
 - PHMS-641 Data Mining I
 - PHMS-610/710 Health policy analysis
 - PHMS-681 Population Health Quantitative Methods
- Developed teaching materials for courses of Master of Science in Health Data Analytics

PROFESSIONAL EXPERIENCE

ODA Primary Health Care Network, New York, NY July 2015 to July 2016

Dental Assistant

- Implemented digital and manual different types of x-rays: periapical, Cephalometrics, and Panorex
- Educated patients about dental hygiene
- Performed mixing dental materials, taking impression, bleaching tray, and four-hand skills

Southeast Dental, Atlanta, GA December 2011 to June 2015

Dental Office Manager

- Oversaw meetings, conducted performance reviews, and addressed employee concerns
- Processed and reconciled payments, verified insurance benefits, scheduled appointments, collected copayments and scheduled appointments
- Educated patients about dental hygiene
- Took different digital and manual types of x-rays: Periapical, Cephalometrics, Panorex
- Prepared dental materials, took dental impressions, prepared bleaching tray, and four-hand dental chair skills to assist in dental procedures

Nhu Ngoc Denta, Can Tho, Vietnam August 2010 to November 2011

Dentist and Dental Office Manager

- Conducted staff meetings, conducted personnel performance reviews, and addressed employee concerns
- Processed and reconciled insurance payments, verified insurance benefits, scheduled appointments, collected co-payments and scheduled appointments
- Reviewed accounts receivable and payable, ordered office supplies
- Educated patients about dental hygiene and consult dental treatment plans for them
- Performed dental extractions, fillings, denture, crowns, bridges, bleaching, basic oral surgery, and teeth cleaning

PUBLICATIONS

Journal Publications

Vu, G.T., Little, B.B., Esterhay, R.J., Jennings, J.A., Creel, L. and Gettleman, L., 2021. Oral health-related quality of life in US adults with type 2 diabetes. *Journal of Public Health Dentistry*.

Vu, G., Little, B. B., Esterhay, R., Jennings, J., Creel, L., and Gettleman, L. (2021). Links between oral health-related quality of life in US adults and type 2 diabetes: structural equation modeling analysis. *Community Dental Health*.

Little, B.B., Reilly, R., Walsh, B. and **Vu, G.T.**, 2020. Cadmium is associated with type 2 diabetes in a superfund site lead smelter community in Dallas, Texas. *International Journal of Environmental Research and Public Health*, 17(12), p.4558.

Journal Papers Accepted

Vu, G., Little, B. B., Lai, P. C., Cheng, G. “Tooth loss and uncontrolled diabetes among US adults.” *The Journal of the American Dental Association*. (in press).

Journal Papers in Review

Vu, G., Little, B. B., Cheng, G., Lai, P. C., “Association between dental caries and uncontrolled diabetes in US adults.” Submitted to: *Caries Research* in November 2021.

Working Papers in Progress

Vu, G., Little, B. B., Lai, P. C., Cheng, G. “Diabetic retinopathy and tooth loss.”

Vu, G., Little, B. B., Lai, P. C., Cheng, G. “Osteoporosis and tooth loss.”

Vu, G., Little, B. B., Goldsby, M., Yasin, P., Karimi, S., Cheng, G., Lai, P. C., “Association between dental prophylaxis and myocardial infarction in Kentucky Medicaid beneficiaries.”

Vu, G., Little, B. B., Goldsby, M., Yasin, P., Ngo, B., Karimi, S., Cheng, G., Lai, P. C., “Association between dental prophylaxis and pneumonia in Kentucky Medicaid beneficiaries.”

PRESENTATIONS AND POSTERS

National Oral Health Conference

Vu, G., Little, B. B., Esterhay, B., Jennings J., Creel, L., Gettleman, L. Links between oral health-related quality of life in US adults and type 2 diabetes: Structural equation modeling analysis. *The 2021 National Oral Health Conference*. Online. (Presented as a poster).

Vu, G., Little, B. B., Esterhay, B., Jennings J., Creel, L., Gettleman, L. Oral health-related quality of life in US adults with type 2 diabetes. *The 2020 National Oral Health Conference*. San Diego, CA. (Accepted to present as a poster).

Research!Louisville Conference

Vu, G., Harper, D., & Little, B. B. (2019). Fractures of the Hip, Wrist and Spine in Post-Menopausal Women in the NHANES DXA Study. 2018. *Research!Louisville*.

Haldankar, M., **Vu, G.**, Gettleman, L., & Little, B. B. (2018). Oral Health Disparities in LGB Populations. 2018. *Research!Louisville*.

Conference Abstracts Accepted

Vu, G., Little, B. B., Cheng, G., Lai, P. C., “Tooth loss and uncontrolled diabetes among US adults,” Submitted to: *The 2022 National Oral Health Conference*.

Vu, G., Little, B. B., Lai, P. C., Cheng, G., “Diabetes and dental caries in US adults,” Submitted to: *The 2022 National Oral Health Conference*.

Vu, G., Little, B. B., Goldsby, M., Yasin, P., Karimi, S., Lai, P. C., Cheng, G., “Association between dental prophylaxis and myocardial infarction in Kentucky Medicaid beneficiaries,” Submitted to: *The 2022 National Oral Health Conference*.

PROFESSIONAL TRAINING

Dental Public Health Certificate, University of Louisville, 2019

Graduate Teaching Academy Certificate, University of Louisville, 2018

Graduate Publishing Academy Certificate, University of Louisville, 2017

LGBT Health Certificate, University of Louisville, 2017

PROFESSIONAL AFFILIATIONS

American Diabetes Association, 2018-Present

American Association of Public Health Dentistry, 2017-Present

American Public Health Association, 2016-Present

PROFESSIONAL SERVICE

Chapter President

American Association of Public Health Dentistry (AAPHD), Louisville Chapter, 2017-2020

- Founded the association’s University of Louisville Student Chapter
- Fundraised to support for community activities of the chapter
- Organized volunteer activities for community dentistry (dental care for the poor)
- Supported public health research projects for dental students in summer

AAPHD Professional Training Conducted

- Held dental public health seminars for four semesters in the University of Louisville School of Dentistry (paused because of Covid-19)
- Trained 124 dental students (four semesters)
- Discussed dental public health topics suggested by AAPHD
 - Principles in dental public health
 - Oral health literacy
 - Ethics and dental public health
 - Dental public health policy and advocacy
 - Oral health promotion and disease prevention
- Conferred dental public health certificates to dental, dental hygiene, and public health students

PhD Student Representative, 2018-2020

- Represented PhD students of Department of Health Management and Systems Sciences at University of Louisville
- Advocated for PhD student benefits (e.g., travel scholarship, assistantships)
- Provided comments of PhD students for changes in the program's core curriculum

Expert Peer Reviews:

- Cancer Science
- Computer Methods and Programs in Biomedicine

COMMUNITY SERVICE

Louisville Dental Society Free Smiles Clinic

Dental Assistant, Louisville, KY, 2018-Present

Tu An Temple

Vietnamese teacher, Louisville, KY, 2016-Present

COMPUTER SKILLS

Statistical Programming: R, SAS, Stata, SPSS

Applications: SPSS, Microsoft Office 365, Teams, Zoom, Google Hangouts

OTHER

Hobbies: swimming, traveling, and watching sci-fi movies

Citizenship: US citizen