# **Zeping Yang**

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#### EDUCATIONAL BACKGROUND

# Peking University Health Science Center (PUHSC), Beijing, China

Sep.2018-Jun.2023

- Bachelor of Medicine in Preventive Medicine.
- Core courses: Epidemiology, Environmental Health, Maternal and Child Health, Child and Adolescent Health, Social Medicine, Public Health Leadership, Public Health Communication, etc.

# Department of Epidemiology & Biostatistics, PUHSC, Beijing, China

Sep.2023-Present

- Master of Science in Epidemiology and Health Statistics.
- Core courses: Reproductive and Perinatal Epidemiology, Genetic Epidemiology, Spatial Epidemiology, Application of R Packages in Clinical Epidemiology, Medical Research with Public Data, Management and Analysis of Medical Big Data, etc.

#### **PUBLICATIONS**

#### **First Author Papers**

- 1. **Yang, Z.**, Huang, N., Zhuang, Z., Jin, M., Zhang, Z., Song, Y., Cui, H., Zhang, S., Huang, T., Liu, X., & Li, N\*. Earlier age at menopause, plasma metabolome, and risk of premature mortality: A cohort study in the UK Biobank. Science Advanced. **2024**. (**submitted**)
- 2. Cui, H. #, Yang, Z. #, Zhang, Y., Lü, J., Hao, Y., & Yu, C \*. Age-period-cohort model analysis on trends of morbidity and mortality of esophageal cancer in China from 1990 to 2019. Chinese Journal of Prevention and Control of Chronic Diseases. 2023, 31(4), 241-245. doi:10.16386/j.cjpccd.issn.1004-6194.2023.04.001 (in Chinese).
- 3. **Yang, Z.**, Li N., et al. Early-life risk factors, accelerated biological aging and the late-life risk of CKM syndrome: A prospective cohort study in the UK Biobank. (In preparation)
- 4. **Yang, Z.**, Li N., et al. Associations of earlier age at menopause, polysocial risk score, and lifestyle with the risk of depression and anxiety: A prospective cohort study. (In preparation)

#### Co-authored papers

- 1. Liu, X., Liu, X., Huang, N., Yang, Z., Zhang, Z., Zhuang, Z., Jin, M., Li, N. \*, & Huang, T. Women's reproductive risk and genetic predisposition in type 2 diabetes: A prospective cohort study. Diabetes research and clinical practice. 2024, 208, 111121. doi:10.1016/j.diabres.2024.111121 (IF = 6.1)
- 2. Liu, X., Liu, X., Yang, Z., Li, Z., Zhang, L., Zhang, Y., Liu, J., Ye, R., & Li, N\*. The Association of Infant Birth Sizes and Anemia under Five Years Old: A Population-Based Prospective Cohort Study in China. Nutrients. 2024, 16(12), 1796. doi:10.3390/nu16121796 (IF = 4.8)
- 3. Cui, H., Shen, S., Chen, L., Fan, Z., Wen, Q., Xing, Y., Wang, Z., Zhang, J., Chen, J., La, B., Fang, Y., Yang, Z., Yang, S., Yan, X., Pei, S., Li, T., Cui, X., Jia, Z. \*, & Cao, W. Global epidemiology of severe fever with thrombocytopenia syndrome virus in human and animals: a systematic review and meta-analysis. The Lancet regional health. Western Pacific. 2024, 48, 101133. doi:10.1016/j.lanwpc.2024.101133 (IF = 7.6)
- 4. Zhang, Z., Liu, X., Huang, N., Jin, M., Zhuang, Z., Yang, Z., Liu, X., Huang, T., & Li, N\*. Joint association and interaction of birth weight and lifestyle with hypertension: A cohort study in UK Biobank. Journal of clinical hypertension (Greenwich, Conn.). 2024, 26(5), 483-490. doi:10.1111/jch.14792 (IF = 2.7)
- 5. Jin, M., Yang, Z., Zhang, Z., Luo, Z., Huang, N., Huang, T., Liu, X., & Li, N. Association of Premature Menopause and CKM Syndrome: Impacts of Biological Aging and Polysocial Risk. Jama Network Open. 2024 (submitted).
- 6. Zhang, S., Lodder, P., Yang, F., Huang, N., Yang, Z., Feng, X., & Guo, J. Social determinants of health and depressive symptoms in 142,600 older adults: A multi-cohort study. Bulletin of the World Health Organization. 2024 (Under review).

[# equal contribution; \* corresponding author]

# RESEARCH EXPERIENCE

# Data Analysis of Pregnancy Nutrition Intervention Project (PNIP) in Hebei, China

Jul.2024-Present

Research Assistant; Advisor: Prof. Rongwei Ye, Institute of Reproductive and Child Health, PUHSC

- Analyzed data from the Pregnancy Nutrition Intervention Project (N = 18,775), a randomized controlled trial (2006-2009) in five counties in Hebei, conducted by the Institute of Reproductive and Child Health, Peking University, in collaboration with the U.S. Centers for Disease Control and Prevention (CDC).
- Investigated the association of air pollution exposure and normalized difference vegetation index (NDVI) with the incidence of postpartum hemorrhage.
- > Developed skills in data management, statistical analysis (R, Stata, ArcGIS, Python, SPSS), and team management.

#### **UK Biobank Public Database Data Mining (Beijing Natural Science Foundation)**

Aug.2023-Present

Group Leader; Advisor: Prof. Nan Li, Institute of Reproductive and Child Health, PUHSC

- Led the entire research process using the UK Biobank (N = 502,000), including conducting the literature review, performing data analysis, drafting the manuscript, and responding to editorial and peer review comments for revisions.
- Used machine learning method to analyze 167 metabolites in plasma, identifying a distinct metabolomic signature related to age at menopause, which mediates the association between earlier age at menopause and premature mortality. Contributed to a first-author paper named *Earlier age at menopause*, plasma metabolome, and risk of premature mortality: A cohort study in the UK Biobank, currently under review at PLOS Medicine.
- Conducted in-depth data mining and analysis within the UK Biobank dataset, uncovering key associations between early-life risk factors, accelerated biological aging, and the late-life risk of CKM syndrome, as well as exploring how earlier age at menopause, polysocial risk score, and lifestyle behaviors interact to influence the risk of depression and anxiety.

#### Web Data Mining for Analysis of Third-Party Medical Testing Institutions in China

Jun.2022-Apr 2023

Group Leader; Advisor: Prof. Wen Feng, Department of Health Policy and Management, PUHSC

- Led a group in data collection and analysis for a study on the current status and personnel needs of third-party medical testing institutions in China, culminating in a comprehensive final report.
- Developed skills in team management, web scraping with Python, statistical analysis and visualization using R, and research report writing.

# Global Burden of Disease (GBD) Data Mining for Esophageal Cancer Trends in China

Oct.2021-May.2022

Group Leader; Advisor: Prof. Canqing Yu, Department of Epidemiology & Biostatistics, PUHSC

- Leveraging esophageal cancer data from the GBD database, conducted data analysis using an age-period-cohort approach and contributed to writing and publishing the research findings as an article.
- ➤ Gained skills in teamwork, mining public databases, data analysis using R software, applying age-period-cohort models, and academic writing.

#### Social Medicine Course Project: a Qualitative Study

Sep.2020-Jan.2021

Group Leader; Advisor: Prof. Hui Yin, Department of Global Health, PUHSC

- Led the entire process of a qualitative research study on sources and mechanisms of peer pressure among Peking University undergraduates, including overseeing data collection, data analysis, and drafting the report and publication.
- Developed skills in brainstorming research topics, team management, qualitative data collection and management, and qualitative analysis using NVivo software.

#### INTERNSHIP

# Beijing Chaoyang District Center for Diseases Prevention and Control (CDC)

Sep.2022-Nov.2022

- Assisted in the Disinfection and Vector Control Department, conducting field inspections with the supervising officer to assess public health standard compliance in various public places.
- Led the epidemiological investigation team during a COVID-19 resurgence, coordinating team members in collecting and compiling contact tracing information via phone calls.

#### **Beijing Haidian Hospital**

Feb.2021-Jan.2022

- Learned clinical theory in internal medicine, surgery, and pediatrics, practiced basic clinical skills, such as cardio-pulmonary resuscitation and electrocardiography, and participated in case discussions.
- Completed internship rotations across Internal Medicine, Surgery, Obstetrics and Gynecology, Pediatrics, Community Health Center, and Infectious Disease Research Institute.
- Assisted with electrocardiogram examinations, surgical skin suturing, and ward rounds with the attending physician, etc.

# EXTRACURRICULAR ACTIVITIES

# Global Health Governance Training Program, Mahidol University & Thai Ministry of Public Health

Aug.2023-Sep.2023

Core Member

- > Communicated with professors and students from Mahidol University, and discussed topics such as tobacco control, maternal and child health, and air pollution.
- Engaged with officials and experts from the Ministry of Public Health of Thailand, exchanged ideas and discussed topics about innovative health financing, disease surveillance, and traditional medicine practices.

#### Preventive Medicine Undergraduate Class, PUHSC

Mar.2022-Jul.2023

Class Monitor, Class Committee

Managed daily class affairs and organized class activities to enhance student engagement and cohesion.

# The Student Branch of Peking University Red Cross Society, PKU

Sep.2022-Sep.2023

President

Oversaw daily operations, led promotional and designed initiatives to enhance the society's visibility and engagement.

#### SELECTED HONORS AND AWARDS

Silver Award, 8th China International "Internet+" Innovation and Entrepreneurship Competition

Jun.2023 May.2021

The First Prize, 29th "Challenge Cup" Peking University Interdisciplinary Group
The First Prize, 28th "Challenge Cup" Peking University Interdisciplinary Group

May.2020

# PROFESSIONAL SKILLS

- **Computer skills**: R, Stata, SPSS, Python, C, EpiData, PASS, ArcGIS, ENVI, IDL, Linux Command, Word, Excel, PowerPoint, Adobe Photoshop, Adobe Illustrator, Adobe Premiere Pro.
- **Language skills**: Chinese (Native), English (Fluent).
- ► Hobbies: Programming, Language learning, Table Tennis, Badminton, Tennis, Basketball, Swimming.