

# CURRICULUM VITÆ

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## Summary

- Over 10 years of experience in research design, data management, statistical analysis, results report, manuscript preparation and publication, and graphic visualization.
- Fluent in SAS and R languages, plus in Stata, SPSS, Epidata, Endnote, PASS, Revman, Linux (Biowulf).
- Proficient in the theory and techniques of Biostatistics and Epidemiology, including generalized linear models (logistic regression, Poisson regression, survival analysis), linear mixed model, nonparametric methods, machine learning, causality inference, validity and reliability analysis, statistical simulation, etc. (please see my eBook and RPubS for detail <https://danielbook.netlify.app/>, [https://rpubs.com/Daniel\\_He](https://rpubs.com/Daniel_He))

## Work Experience

- Senior biostatistician, acting director, 2019.2-present,

TPG / Glotech, Contractor for the: Division of Population Health Research, Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health (NIH), Bethesda, MD

- Participated in writing the proposal (Request for Quote) to apply the funding from NIH.
- Working on some important projects at NICHD, like Fetal Growth Study, Fetal 3D ultrasound.
- Completed statistical analyses for scientists at NICHD.
- Prepared delicate results, tables, and figures to publish scientific articles.
- Be responsible for data management and double-checked the reliability and validity of the data.
- Shared data to other researchers outside according to their requirements.
- Compiled statistical programs and shared them with other researchers outside.
- Provided parameters to website developers to build a tool to estimate fetal growth.
- Answered the questions from research team members.
- Calculated and simulated sample sizes and power for new research.

- Assistant Professor, 2012.8-2018.10,

Epidemiology and Biostatistics Branch, School of Public Health, Capital Medical University, Beijing

- Performed statistical analysis; established and validated risk prediction models; developed risk assessment tools
- Interpreted results and presented findings in peer-reviewed journals as well as oral presentations.
- Applied principles of Evidence-Based Medicine to recommend possible solutions with stakeholders to improve human health.
- Created a database for quantitative and qualitative analysis.
- Planned, developed, administered, and interpreted in several population studies, including case control study, cohort study and clinical trial.
- Directed in writing a grant proposal funded by NSFC and other organizations.

## Education

Epidemiology and Biostatistics (Ph.D.)	07/2012
Tsinghua University (Peking Union Medical College) (#26, 2022 Best Global Universities Rankings)	Beijing, China
Epidemiology and Biostatistics (Master)	07/2009

#### Certificates

- **SAS Certified Base Programmer for SAS 9:** *Read and create data files; Manipulate and transform data; Combine SAS data sets; Create basic detail and summary reports.*
- **SAS Certified Advanced Programmer for SAS 9:** *Writing and interpreting SAS SQL code; Creating and using the SAS MACRO facility.*
- **SAS Certified Clinical Trials Programmer Using SAS 9:** *Accessing, managing and transforming clinical trials data; Statistical procedures and macro programming; Reporting clinical trials results; Validating clinical trial data reporting.*
- Medical Practitioner's Qualification Certificate - Public Health (China)
- College Teacher's Qualification Certificate (China)

#### Selected Projects

- Prediction model for successful vaginal birth after cesarean delivery -Natural Science Foundation of China (81402689) (01 Jan. 2015–31 Dec. 2017) - **(PI)**
- A Case-Control Study of Cesarean Section and Children with Type 1 Diabetes - Clinical Research Foundation- Capital Medical University (13JL85), (2013-2015)- **(PI)**
- Cohort study of chronic non-communicable diseases in the Beijing-Tianjin-Hebei Region -National Key Research and Development Program— Precision Medicine Research (2016YFC0900603) (July 2016–Dec. 2020)- (participant).

#### Selected Publications and Posters

- [1] Grantz KL, Lee W, Chen Z, Hinkle S, Mack L, Sanz Cortes M, Goncalves LF, Espinoza J, Gore-Langton R, Sherman S, **He D**, Zhang C, Grewal J. The NICHD Fetal 3D Study: A Pregnancy Cohort Study of Fetal Body Composition and Volumes. In press, American Journal of Epidemiology.
- [2] Grantz KL, Hinkle SN, **He D**, et al. A new method for customized fetal growth reference percentiles. PLoS One. 2023;18(3):e0282791.
- [3] Vafai Y, Yeung E, Roy A,,, **He D**, et al. The association between first-trimester omega-3 fatty acid supplementation and fetal growth trajectories. Am J Obstet Gynecol. Feb 2023;228(2):224 e221-224 e216.
- [4] Grantz KL, Grewal J, Kim S, et al. Unified standard for fetal growth velocity: the Eunice Kennedy Shriver National Institute of Child Health and Human Development Fetal Growth Studies. Am J Obstet Gynecol. Dec 2022;227(6):916-922 e911.
- [5] Mitro SD, Peddada S, Gleason JL,,, **He D**, et al. Longitudinal Changes in Physical Activity during Pregnancy: National Institute of Child Health and Human Development Fetal Growth Studies. Med Sci Sports Exerc. Sep 1 2022;54(9):1466-1475.
- [6] Grantz KL, Grewal J, Kim S,,, **He D**, et al. Unified standard for fetal growth: the Eunice Kennedy Shriver National Institute of Child Health and Human Development Fetal Growth Studies. Am J Obstet Gynecol. Apr 2022;226(4):576-587 e572.
- [7] Grantz KL, Grewal J, Kim S, Grobman WA, Newman RB, Owen J, Sciscione A, Skupski D, Chien EK, Wing DA, Wapner RJ, Ranzini AC, Nageotte MP, Craigo S, Hinkle SN, D'Alton ME, **He D**, Tekola-Ayele F, Hediger ME, Buck Louis GM, Zhang C, Albert PS. Unified Standard for Fetal Growth: the NICHD Fetal Growth Studies. American Journal of Obstetrics and Gynecology. 2021; S0002-9378(21)02644-2.
- [8] Melissa M Amyx, Rajeshwari Sundaram, Germaine M Buck Louis, Nicole M Gerlanc, Alaina M Bever, Kurunthachalam Kannan, Morgan Robinson, Melissa M Smarr, **He D**, Fasil Tekola-Ayele, Cuilin Zhang,

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- Katherine L Grantz. Association between early gestation passive smoke exposure and neonatal size among self-reported non-smoking women by race/ethnicity: A cohort study. *PLoS One*. 2021; 16 (11): e0256676.
- [9] Grantz KL, Lee, W, Mack L, Sanz Cortes M, Goncalves LF, Espinoza J, Newman RB, Grobman WA, Wapner R, Fuchs K, D'Alton ME, Skupski D, Owen J, Sciscione A, Wing DA, Nageotte MP, Ranzini AC, Chien EK, Craigo S, Sherman S, Gore-Langton RE, **He D**, Hinkle S, Zhang C, Grewal J, Chen Z. Multiethnic Growth Standards for Fetal Body Composition and Organ Volumes Derived from 3D Ultrasonography. The Annual Pregnancy Meeting, Society for Maternal-Fetal Medicine, National Harbor, MD, February, 2024. (Poster)
- [10] Wagner KA & Grantz KL, on behalf of the NICHD Fetal 3D Study and NICHD Fetal Growth Studies. Three-dimensional fetal body composition and organ volume growth patterns in hypertensive disorders of pregnancy. Poster presentation (accepted), Society for Maternal-Fetal Medicine Annual Pregnancy Meeting, National Harbor, MD, February 10-14, 2024. (Poster)
- [11] Wagner KA, Chen Z, Hinkle S, Gleason JL, Lee W, Grobman W, Newman R, Owen J, Skupski DW, **He D**, Gore-Langton RE, Sherman S, Zhang C, Grewal J, Grantz KL. Association between gestational weight gain and three-dimensional fetal body composition in the NICHD Fetal 3D Study. Poster presentation (accepted), Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting, Portland, OR, June 12-13, 2023. (Poster)
- [12] Grantz KL, Hinkle S, Lee W, Chen Z, Mack L, Sanz Cortes M, Goncalves L, Espinoza J, Gore-Langton R, Sherman S, **He D**, Zhang C, Grewal J. Fetal Body Composition and Volumes Study. The Annual Pregnancy Meeting, Society for Maternal-Fetal Medicine, San Francisco, CA, February 2023. (Poster)
- [13] Wagner KA, Chen Z, Hinkle S, Gleason JL, Lee W, Grobman W, Newman R, Owen J, Skupski DW, **He D**, Gore-Langton RE, Sherman S, Zhang C, Grewal J, Grantz KL. Association between gestational weight gain and three-dimensional fetal organ volumes in the NICHD Fetal 3D Study. Poster presentation (accepted), Society for Epidemiologic Research Annual Meeting, Portland, OR, June 13-16, 2023. (Poster)
- [14] Mitro SD, Peddada S, Gleason JL, **He D**, Whitcomb B, Russo L, Grewal J, Zhang C, Yisihak SF, Hinkle SN, Owen J, Buck Louis GM, Newman R, Grobman W, Sciscione AC, Ranzini A, Craigo S, Chien E, Skupski D, Wing D, Grantz KL. Longitudinal changes in five domains of physical activity across gestation: the NICHD Fetal Growth Studies—Singletons. Society for Epidemiologic Research Annual Meeting, San Diego, CA, (virtual) June 2021. (Poster)
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- [15] Zhu H, **He D**, Liang N, Lai A, Zeng J, Yu H. High serum triglyceride levels in the early first trimester of pregnancy are associated with gestational diabetes mellitus: A prospective cohort study. *J Diabetes Investig*, 2020, 11(6): 1635-1642.
- [16] Wu S, **He D**, Zhang W. Intrapartum interventions that affect maternal and neonatal outcomes for vaginal birth after cesarean section. *J Int Med Res*, 2020, 48(2):300060519882808.
- [17] Li H, **He D**, Zheng D, Amsalu E, Wang A, Tao L, Guo J, Li X, Wang W, Guo X. Metabolically healthy obese phenotype and risk of cardiovascular disease: Results from the China Health and Retirement Longitudinal Study. *Arch Gerontol Geriatr*, 2019; 82: 1-7.
- [18] Cai X, Xia L, Pan Y, **He D**, Zhu H, Wei T, He Y. Differential role of insulin resistance and  $\beta$ -cell function in the development of prediabetes and diabetes in middle-aged and elderly Chinese population. *Diabetol Metab Syndr*. 2019; 11:24.
- [19] Liang N, Zhu H, Cai X, Le Z, Wang H, **He D**, Xiao R, Yu H. The high maternal TG level at early trimester was associated with the increased risk of LGA newborn in non-obesity pregnant women. *Lipids Health Dis*. 2018, 26; 17(1): 294.
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- [20] **He D**, Li H, Wu S, Lu Y, Li J, He Y, Zhang C, Zheng Z, Zhang W. High normal blood pressure increases risks of developing adverse pregnancy outcomes. *ONCOTARGET*. 2018; 9:1205–1215.
- [21] **He D**, Wu S, Zhao H, Zheng Z, Zhang W. High normal blood pressure in early pregnancy also contribute to early onset preeclampsia and severe preeclampsia. *CLIN EXP HYPERTENS*. 2018;40(6):539–546.
- [22] Wu SW, **He D**, Zhang WY. Labor Onset, Oxytocin Use, and Epidural Anesthesia for Vaginal Birth after Cesarean Section and Associated Effects on Maternal and Neonatal Outcomes in a Tertiary Hospital in China: A Retrospective Study. *Chin Med J (Engl)*. 2018;131(8):933– 938.
- [23] Cao H, Wang J, Li Y, Li D, Guo J, Hu Y, Meng K, **He D**, Liu B, Liu Z, Qi H, Zhang L. Trend analysis of mortality rates and causes of death in children under 5 years old in Beijing, China from 1992 to 2015 and forecast of mortality into the future: an entire population-based epidemiological study. *BMJ OPEN*. 2017; 7: e15941.
- [24] Zhu HY, Liu S, **He D**, Zhou WH, Li TC, Li Y. Serum luteinizing hormone level on the third day after ovarian stimulation in GnRH agonist short protocol is predictive of outcome in poor responders but not in normal responders. *GYNECOL ENDOCRINOL*. 2017; 33: 57– 61.
- [25] **He D**, Wu S, Zhao H, Qiu H, Fu Y, Li X, He Y. Association between particulate matter 2.5 and diabetes mellitus: A meta-analysis of cohort studies. *J Diabetes Investig*. 2017; 8: 687– 696.
- [26] Wang C, Niu W, Chen H, Shi N, **He D**, Zhang M, Ge L, Tian Z, Qi M, Chen T, Tang X. Nicotine suppresses apoptosis by regulating  $\alpha 7$ nAChR/Prx1 axis in oral precancerous lesions. *ONCOTARGET*. 2017; 8: 75065– 75075.
- [27] Zhang H, Qian J, Zhao H, Wang J, Zhu H, Zhou Y, Wang J, Guo J, Gehendra M, Qiu H, Sun Z, **He D (corresponding author)**. A study of the association between atmospheric particulate matter and blood pressure in the population. *Blood Press*. 2016; 25: 169– 176.
- [28] Tang W, Zhuang X, Zhao H, Pang C, He Y, Liu F, Jiang H, **He D (corresponding author)**. HIV/AIDs-related stigma among medical students in Beijing, China. *INT J CLIN EXP MED*. 2016; 9: 8743– 8748.
- [29] Sebastian A, Alzain MA, Asweto CO, Song H, Cui L, Yu X, Ge S, Dong H, Rao P, Wang H, Fang H, Gao Q, Zhang J, **He D**, Guo X, Song M, Wang Y, Wang W. Glycan Biomarkers for Rheumatoid Arthritis and Its Remission Status in Han Chinese Patients. *OMICS*. 2016; 20: 343– 351.
- [30] Zhang K, Lu Y, Zhao H, Guo J, Gehendra M, Qiu H, Wu S, **He D (corresponding author)**. Association between atmospheric particulate matter and adverse pregnancy outcomes in the population. *INT J CLIN EXP MED*. 2016; 9:20594–20604.
- [31] Yu Y, Wang J, Kang R, Dong J, Zhang Y, Liu F, Yan Y, Zhu R, Xia L, Peng X, Zhang L, **He D**, Gaisano HY, Chen Z, He Y. Association of KCNB1 polymorphisms with lipid metabolisms and insulin resistance: a case-control design of population-based cross-sectional study in Chinese Han population. *LIPIDS HEALTH DIS*. 2015; 14:112.
- [32] Zhang X, Zhao H, Zhang J, Han D, Zheng Y, Guo X, **He D**, Guo J, Wang Y. Gene environment interaction of GALNT2 and APOE gene with hypertension in the Chinese Han Population. *Biomed Mater Eng*. 2015;26 Suppl 1: S1977–S1983.
- [33] Liu F, Wei WQ, Cormier RT, Zhang ST, Qiao YL, Li XQ, Zhu ST, Zhai YC, Peng XX, Yan YX, Wu LJ, **He D**, He Y. Association of single nucleotide polymorphisms in the prostaglandin-endoperoxide synthase 2 (PTGS2) and phospholipase A (2) group IIA (PLA2G2A) genes with susceptibility to esophageal squamous cell carcinoma. *Asian Pac J Cancer Prev*. 2014;15: 1797–1802.
- [34] Ji N, Zhou Y, Zhang Y, **He D**, Pang C, Xi M, Cheng Y. Medical abortion service in rural areas of Henan Province, China: a provider survey. *J Obstet Gynaecol Res*. 2013; 39(3): 672– 9.
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- [35] **He D**, Zhang Y, Ji N, Zhou Y, Mao Q, Cheng Y. A cross-sectional study of contraceptive use among married women living in rural China. *Int J Gynaecol Obstet*. 2012; 118:129-132.
- [36] **He D**, Zhou Y, Ji N, Wu S, Wang Z, Decat P, Moyer E, Minkauskiene M, Pang C, Cheng Y. Study on sexual and reproductive health behaviors of unmarried female migrants in China. *J Obstet Gynaecol Res*. 2012; 38: 632-638.
- [37] **He D**, Cheng YM, Wu SZ, Decat P, Wang ZJ, Minkauskiene M, Moyer E. Promoting contraceptive use more effectively among unmarried male migrants in construction sites in China: a pilot intervention trial. *Asia Pac J Public Health*. 2012; 24: 806-815.
- [38] Zhou Y, Ji N, Pang C, **He D**, Hou L, Cheng Y. Risk factors associated with cesarean section in a Chinese rural population: a cross sectional study. *J Reprod Med*. 2012; 57(9-10): 441- 5.

#### Books and Book Chapters

- **He Dian**. My Little Handbook in R (eBook, in progress). <https://danielbook.netlify.app/>
- **He Dian** (Associate Chief Editor). Chinese Statistics Dictionary of Biomedical Statistics-Field Survey. Beijing: China Statistics Press. 2020.
- **He Dian** (Contributor). Biostatistics: The Tutorial of Computer Operation. Beijing: Science Press. 2016.
- **He Dian** (Associate Chief Editor). Application of Investigation and analysis techniques in public health: Methods of epidemiology in field survey. Beijing: People's Medical Publishing House. 2014.
- **He Dian** (Contributor). Evidence based medicine: The basic contents and methods of evidence evaluation. Beijing: Higher Education Press. 2016. (English version)

#### Undergraduate students' mentor

- A study on association between gestational weight gain and pregnancy outcomes among the overweight or obese pregnant women, 2017
- Air pollution increases the number of daily online consults for respiratory system disease, 2016
- Related factors and risk assessment of vaginal birth after cesarean delivery, 2015

#### Societies and Reviewers

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| <ul style="list-style-type: none"> <li>• Scientific Societies:</li> </ul> <p>International Biostatistics Society</p> <p>Chinese Association of Clinical Epidemiology ( - 2019)</p> <p>The Asian Association for the Study of Diabetes ( -2019)</p> | <ul style="list-style-type: none"> <li>• Peer Reviewers of journals:</li> </ul> <p><i>Oncotarget</i> (2016-2019)</p> <p><i>Medicine</i> (2015- 2019)</p> <p><i>Psychology, Health &amp; Medicine</i> (2015- 2019)</p> <p><i>Journal of Chinese General Practice (Chinese, 2015- 2019);</i></p> <p><i>Journal of Medical Research (Chinese, 2014- 2019);</i></p> |
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