

Can Liu, MD PhD

I am a transdisciplinary epidemiologist. I focus on health of vulnerable populations, with a special emphasis on life-course and inter-generational transmission of health.

PERSONAL DETAILS

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PROFESSIONAL EXPERIENCE

Researcher 02/2021–Present
Department of Public Health Sciences, Stockholm University

Postdoc 11/2019–01/2021
Neonatal and Developmental Medicine, Department of Pediatrics, Stanford School of Medicine

Postdoc 10/2017–10/2019
Unit of Clinical Epidemiology, Department of Medicine, Karolinska Institutet
Centre for Health Equity Studies, Department of Public Health, Stockholm University

EDUCATION

Ph.D. Medicine 6/2013–9/2017
Karolinska Institutet
Main Supervisor: Prof. Anders Hjern
Co-supervisors: Prof. Sven Cnattingius and Prof. Viveca Östberg
Thesis : [Psychosocial factors and preterm birth: national register-based studies](#)
Dissertation date: 2017.September.1

M.Sc. Population Health 9/2010–6/2012
Centre for Health Equity Studies, Karolinska Institutet/Stockholm University
Thesis: From family socioeconomic status to elementary school performance: the role of poor birth condition

B.Med. Medicine 9/2003–6/2008
Shanghai Medical College, Fudan University, China
Thesis: Ethyl pyruvate protects against hypoxic-ischemic brain injury in neonatal Sprague Dawley rat model

PUBLICATION IN PEER-REVIEWED JOURNALS

1. Jackisch J, Liu C. Taking a life course approach to healthy ageing and multimorbidity: defining risk factors is not the end, we can do more. *Lancet Healthy Longev.* 2024 Jan;5(1):e8-e9. doi: 10.1016/S2666-7568(23)00242-8.

2. Axelsson Fisk S, Petersen JA, Rostila M, **Liu C**, Juárez SP. Social inequalities in the risk of giving birth to a small for gestational age child in Sweden 2010–16: a cross-sectional study adopting an intersectional approach. *Eur J Public Health*. 2024 Feb 5;34(1):22-28. doi: 10.1093/eurpub/ckad184.
3. **Liu C**, Grotta A, Hiyoshi A, Berg L, Wall-Wieler E, Martikainen P, Kawachi I, Rostila M. Parental death and initiation of antidepressant treatment in surviving children and youth: a national register-based matched cohort study. *eClinicalMedicine*. 2023 June 1. doi: 10.1016/j.eclinm.2023.102032.
4. Li BJ, Almquist YB, **Liu C**, Berg L. Disentangling the multigenerational transmissions of socioeconomic disadvantages and mental health problems by gender and across lineages: Findings from the Stockholm Birth Cohort Multigenerational Study. *SSM-Population Health*. 2023 June 1. doi: 10.1016/j.ssmph.2023.101357.
5. Grotta A, **Liu C**, Hiyoshi A, Berg L, Kawachi I, Saarela J, Rostila M. Suicide around anniversaries of a parent's death: a case-crossover study using Swedish National Registers. *JAMA network open*. 2023 Apr 3;6(4):e236951. doi:10.1001/jamanetworkopen.2023.6951
6. Brismar Wendel S, **Liu C**, Stephansson O. The association between episiotomy or OASIS at vacuum extraction in nulliparous women and subsequent prelabor cesarean delivery: A nationwide observational study. *Acta Obstet Gynecol Scand*. 2023 Jan 24. doi: 10.1111/aogs.14513.
7. **Liu C**, Grotta A, Hiyoshi A, Berg L, Rostila M. School outcomes among children following death of a parent. *JAMA Network Open*. 2022 Apr 1;5(4):e223842. doi: 10.1001/jamanetworkopen.2022.3842.
8. **Liu C**, Snowden J, Rossin- Slater M, Torche F, DiTosto DJ, Carmichael S. Impact of Medicaid Expansion on Interpregnancy Interval. *Women's Health Issues*. doi: 10.1016/j.whi.2021.12.004.
9. Carmichael S, Abrams A, El Ayadi A, Lee HC, **Liu C**, Lyell DJ, Lyndon A, Main E, Mujahid M, Tian L, Snowden J. Ways Forward in Preventing Severe Maternal Morbidity and Maternal Health Inequities: Conceptual Frameworks, Definitions, and Data, from a Population Health Perspective. *Womens Health Issues*. *Women's Health Issues*. doi: 10.1016/j.whi.2021.11.006.
10. Bane S, Carmichael SL, Snowden J, **Liu C**, Lyndon A, Wall-Wieler E. Does Severe Maternal Morbidity impact the probability of subsequent birth? A population-based study of women in California from 1997-2012. *Ann Epidemiol*. 2021 Dec;64:8-14.
11. **Liu C**, Butwick AJ, Sand A, Wikström AK, Snowden JM, Stephansson O. The association between postpartum hemorrhage and postpartum depression: A Swedish national register-based study. *Plos One*. 2021 Aug 11;16(8):e0255938.
12. DiTosto JD, **Liu C**, Wall-Wieler E, Gibbs RS, Girsan AI, El-Sayed YY, Butwick AJ, Carmichael SL. Risk factors for postpartum readmission among women after having a stillbirth. *Am J Obstet Gynecol MFM*. 2021 Jul;3(4):100345.
13. **Liu C**, Snowden JM, Lyell DJ, Wall-Wieler E, Abrams B, Kan P, Stephansson O, Lyndon A, Carmichael SL. Interpregnancy interval and subsequent severe maternal morbidity: A population-based study from California over 16 years. *American Journal of Epidemiology*. 2021 Jun 1;190(6):1034-1046.
14. Butwick AJ, **Liu C**, Guo N, Main E, Bentley J, Mayo J, Shaw G, Stephansson O. Association of Gestational Age with Postpartum Hemorrhage: An International Cohort Study. *Anesthesiology*. 2021 Jun 1;134(6):874-886.

15. Lindblad Wollmann C, Hart K, **Liu C**, Ahlberg M, Caughey A, Stephansson O, Snowden J. Predicting vaginal birth after cesarean using machine learning models and a population-based cohort in Sweden. *Acta Obstet Gynecol Scand*. 2021 Mar;100(3):513-520.
16. Juárez S, Urquia M, Mussino E, **Liu C**, Qiao Y, Hjern A. Healthy migrant effect or artifact? The impact of the method of estimation of gestational age on birth outcome disparities between migrants and native Swedes. *Plos One*. 2021 Feb 22;16(2):e0247138.
17. **Liu C**, Wall-Wieler E, Urquia M, Carmichael SL, Stephansson O. Severe maternal morbidity among migrants with insecure residency status in Sweden 2000-2014. *Journal of Migration and Health*. 1.100006
18. **Liu C**, Långström N, Ekéus C, Frisell T, Cnattingius S, Hjern A. Paternal violent criminality and preterm birth: a Swedish national cohort study. *BMC Pregnancy Childbirth*. 2020.20(1):307
19. Wall-Wieler E, Robakis TK, Cesta CE, Masarwa R, Lyell DJ, **Liu C**, Platt RW, Carmichael SL. Antidepressant Use around Conception, Prepregnancy Depression, and Risk of Ectopic Pregnancy. *Can J Psychiatry*. 65(12):845-853
20. Harron K, Verfuerden M, Ibiebele I, **Liu C**, Kopp A, Guttman A, Ford J, van der Meulen J, Hjern A, Gilbert R. Preterm birth, unplanned hospital contact and mortality in infants born to teenage mothers in five countries. *Paediatr Perinat Epidemiol*. 2020. 34(6):645-654.
21. Lindblad Wollmann C, **Liu C**, Saltvedt S, Elvander C, Ahlberg M, Stephansson O. Risk of negative birth experience in trial of labor after cesarean delivery: A population-based cohort study. *PLoS One*. 2020.15(3):e0229304.
22. **Liu C**, Ahlberg M, Hjern A, Stephansson O. Perinatal health of refugee and asylum-seeking women in Sweden 2014-17: a register-based cohort study. *Eur J Public Health*. 2019.29(6):1048-1055
23. Schollin Ask L, **Liu C**, Gauffin K, Hjern A. The rotavirus vaccine effect on socioeconomic differentials of health care utilisation due to gastroenteritis in small children in Sweden. *Int J Environ Res Public Health*. 2019.16(7):1095
24. **Liu C**, Vinnerljung B, Östberg V, Gauffin K, Juárez S, Cnattingius S, Hjern A. Out-of-Home Care and Subsequent Preterm Delivery: An Intergenerational Cohort Study. *Pediatrics*. 2018.142(2)
25. Wall-Wieler E, Carmichael SL, Urquia M, **Liu C**, Hjern A. Severe maternal morbidity and postpartum mental health-related outcomes in Sweden: a population-based matched-cohort study. *Arch Womens Ment Health*. 2018.22(4):519-526
26. Wall-Wieler E, Vinnerljung B, **Liu C**, Roos LL, Hjern A. Avoidable mortality among parents whose children were placed in care in Sweden: a population-based study. *Journal of Epidemiology and Community Health*. 2018.72(12):1091-1098
27. Wall-Wieler E, Almquist YB, **Liu C**, Vinnerljung B, Hjern A. Intergenerational transmission of out-of-home care in Sweden: A population-based cohort study. *Child Abuse Negl*. 2018.83:42-51
28. Wall-Wieler E, Bolton J, **Liu C**, Wilcox H, Roos L, Hjern A. Intergenerational Involvement in Out-of-Home Care and Death by Suicide in Sweden: A Population-based Cohort Study. *Journal of Affective Disorders*. 2018.238:506-12

29. Liu C, Cnattingius S, Bergström M, Östberg V, Hjern A. Prenatal parental depression and preterm birth: a national cohort study. *BJOG: An International Journal of Obstetrics and Gynaecology*. 2016.123(12):1973-82 **In the top 5% of all research outputs scored by Altmetric**
30. Urquia ML, Qiao Y, Ray JG, Liu C, Hjern A. Birth Outcomes of Foreign-Born, Native-Born, and Mixed Couples in Sweden. *Paediatric and perinatal epidemiology*. 2015.29(2):123-30
31. Liu C, Urquia M, Cnattingius S, Hjern A. Migration and preterm birth in war refugees: a Swedish cohort study. *Eur J Epidemiol*. 2014.29(2):141-3
32. Shen H, Hu X, Liu C, Wang S, Zhang W, Gao H, et al. Ethyl pyruvate protects against hypoxic-ischemic brain injury via anti-cell death and anti-inflammatory mechanisms. *Neurobiology of disease*. 2010.37(3):711-22

BOOK CHAPTER

- Liu C, Signore AP, Cao G, Chen J. Apoptosis-Inducing Factor Translocation to Nuclei After Transient Global Ischemia. *Acute Neuronal Injury*: Springer; 2010. p. 131-44

CONFERENCE PRESENTATIONS

- Liu C, Hiyoshi A, Namatovu F, Rostila M, Grotta A (2023) Birth outcomes of parents with disability in Sweden, a national register-based study. The 16th Nordic Network on Disability Research Conference, Reykjavik
- Liu C, Ahlberg M, Hjern A, Stephansson O (2019) Perinatal health of refugee and asylum-seeking women in Sweden 2014-17: a register-based cohort study. (Oral) 32nd Annual Meeting of the Society for Pediatric and Perinatal Epidemiologic Research (SPER), Minneapolis
- Liu C, Sand A, Snowden J, Butwick A, Wikström AK, Stephansson O (2018) No Increased Risk of Postpartum Depression after Severe Postpartum Hemorrhage. (Poster) 31st Annual Meeting of the Society for Pediatric and Perinatal Epidemiologic Research (SPER), Baltimore
- Liu C, Långström N, Ekéus C, Frisell T, Cnattingius S, Hjern A (2016) Paternal violent criminality and preterm birth: a Swedish national cohort study. (Oral) 9th European Public Health Conference, Vienna
- Liu C, Urquia M, Cnattingius S, Hjern A (2014) Migration and preterm birth in war refugees: a Swedish cohort study. (Oral) 5th European Conference on Migrant and Ethnic Minority Health, Granada

TEACHING

- Co-Supervision of master thesis of Julia Deegan DiTosto (2020) at Stanford University
- Co-Supervision of master thesis of Daniel Tuttle (2015) and Sha Di (2017) at Stockholm University
- Lecturing in biannual course **Methodology II** at Centre for Health Equity Studies (2017)
- Tutoring in **Methods in Practice** for master students at Centre for Health Equity Studies (2015-18)

HONORS AND AWARDS

- Heinz Berendes Travel Award by The Society for Pediatric and Perinatal Epidemiologic Research (2019)
- Hirschs Travel fund for Surgeons awarded by Karolinska Institutet (2016)
- Travel fund for doctoral students awarded by Karolinska Institutet (2015)