Stanford



Rebecca M. Gardner

Ph.D. Student in Epidemiology and Clinical Research, admitted Autumn 2022

Bio

BIO

My research interests are in maternal nutrition and well-being, with a current focus on hyperemesis gravidarum (HG)—severe nausea and vomiting during pregnancy that often causes significant maternal undernutrition and poor antepartum and postpartum mental health, and is the leading cause of hospitalization in early pregnancy. I study HG from several angles: the environmental exposures that may exacerbate it, including ambient air pollution and wildfire smoke, and whether these contribute to HG-related hospitalization; and its downstream consequences for both mothers and children, including hypertensive disorders of pregnancy such as preeclampsia, preterm birth, and neurodevelopmental conditions in childhood such as autism. More broadly, I am interested in hypertensive disorders of pregnancy, preterm birth, and gestational diabetes, and their subsequent effects on offspring. Methodologically, I am drawn to applying causal inference methods traditionally used in economics to questions in public health.

Before starting a PhD, I was a biostatistician in the Quantitative Sciences Unit at Stanford for four years where I co-authored over thirty publications, collaborating with clinicians on various domains including developmental behavioral pediatrics, reproductive endocrinology & infertility, oncology, and clinical trials. I completed my MS in Statistics at Brigham Young University in 2016, where I collaborated with cardiologists to develop a new approach to diagnose rheumatic heart disease in pediatric patients in Samoa for my Master's thesis.

Publications

PUBLICATIONS

- **Hyperemesis gravidarum and adverse pregnancy outcomes: a population-based cohort study of 2.5 million births in California.** *American journal of epidemiology*
  Gardner, R. M., Mayo, J. A., Winn, V. D., Shaw, G. M., Simard, J. F.
  2026
- **Prevalence of and Risk Factors for Postpartum Anxiety in a U.S. Cohort With Commercial Insurance.** *Obstetrics and gynecology*
  Smith, M., Koons, N. J., Callihan, P., Guo, N., Simard, J. F., Gardner, R. M., Carvalho, B., Bateman, B. T., Leonard, S. A., Sultan, P.
  2026
- **Trends in prevalence and treatment of antepartum and postpartum depression in the United States: Data from the national health and nutrition examination survey (NHANES) 2007 to 2018.** *PloS one*
  Gardner, R. M., Sultan, P., Bernert, R. A., Simard, J. F.
  2025; 20 (4): e0322536
- **Behavioral health support for health care workers during COVID-19: An observational study of a remote mindfulness intervention** *JOURNAL OF WORKPLACE BEHAVIORAL HEALTH*
  Juarez-Reyes, M., Less, J., Gardner, R. M., Dahlen, A., Blacker, A.

2024

- **Measuring quality-of-care in treatment of young children with attention-deficit/hyperactivity disorder using pre-trained language models.** *Journal of the American Medical Informatics Association : JAMIA*
  Pillai, M., Posada, J., Gardner, R. M., Hernandez-Boussard, T., Bannett, Y.
  2024

- **Anxiety and Depression Treatment in Primary Care Pediatrics.** *Pediatrics*
  Lester, T. R., Herrmann, J. E., Bannett, Y., Gardner, R. M., Feldman, H. M., Huffman, L. C.
  2023

- **Detection of Speech-Language Delay in the Primary Care Setting: An Electronic Health Record Investigation.** *Journal of developmental and behavioral pediatrics : JDBP*
  Frelinger, C., Gardner, R. M., Huffman, L. C., Whitgob, E. E., Feldman, H. M., Bannett, Y.
  2023; 44 (3): e196-e203

- **Elevated body mass index in modified natural cycle frozen euploid embryo transfers is not associated with live birth rate.** *Journal of assisted reproduction and genetics*
  Beshar, I., Milki, A. A., Gardner, R. M., Zhang, W. Y., Johal, J. K., Bavan, B.
  2023

- **Pregnancy and neonatal outcomes of letrozole versus natural cycle frozen embryo transfer of autologous euploid blastocyst.** *Journal of assisted reproduction and genetics*
  Zhang, W. Y., Gardner, R. M., Johal, J. K., Beshar, I. E., Bavan, B., Milki, A. A., Lathi, R. B., Aghajanova, L.
  2023

- **Digital Antibiotic Allergy Decision Support Tool Improves Management of Beta Lactam Allergies.** *The journal of allergy and clinical immunology. In practice*
  Dunham, T. B., Gardner, R. M., Lippner, E. A., Fasani, D. E., Moir, E., Halpern-Felsher, B., Sundaram, V., Liu, A. Y.
  2023

- **Primary Care Pediatricians Prescribing Selective Serotonin Reuptake Inhibitors for Children with Anxiety and Depression**
  Lester, T., Herrmann, J., Bannett, Y., Gardner, R., Feldman, H., Huffman, L.
  LIPPINCOTT WILLIAMS & WILKINS.2023: E149

- **The development of a mobile app-focused deduplication strategy for the Apple Heart Study that informs recommendations for future digital trials.** *Stat (International Statistical Institute)*
  Garcia, A., Lee, J., Balasubramanian, V., Gardner, R., Gummidipundi, S. E., Hung, G., Ferris, T., Cheung, L., Desai, S., Granger, C. B., Hills, M. T., Kowey, P., Nag, et al
  2022; 11 (1): e470

- **The Effect of Human Growth Hormone on Endometrial Growth in Controlled Ovarian Hyperstimulation Cycles.** *Journal of personalized medicine*
  Bavan, B., Gardner, R. M., Zhang, W. Y., Aghajanova, L.
  2022; 12 (12)

- **Trends in Utilization of Magnetic Resonance Imaging for Stroke Patients With Cardiac Rhythm Devices.** *The Neurohospitalist*
  Culbertson, C. J., Perino, A. C., Gardner, R. M., Balasubramanian, V., Vora, N.
  2022; 12 (4): 624-631

- **Continuity of Care in Primary Care for Young Children with Chronic Conditions.** *Academic pediatrics*
  Bannett, Y., Gardner, R. M., Huffman, L. C., Feldman, H. M., Sanders, L. M.
  2022

- **Trends in Utilization of Magnetic Resonance Imaging for Stroke Patients With Cardiac Rhythm Devices** *NEUROHOSPITALIST*
  Culbertson, C. J., Perino, A. C., Gardner, R. M., Balasubramanian, V., Vora, N.
  2022

- **Lessons learned in the Apple Heart Study and implications for the data management of future digital clinical trials.** *Journal of biopharmaceutical statistics*
  Garcia, A., Balasubramanian, V., Lee, J., Gardner, R., Gummidipundi, S., Hung, G., Ferris, T., Cheung, L., Granger, C., Kowey, P., Rumsfeld, J., Russo, A., Hills, et al

2022: 1-15

- **Small Intestinal Bacterial Overgrowth in Children: Clinical Features and Treatment Response.** *JPGN reports*
  Peinado Fabregat, M. I., Gardner, R. M., Hassan, M. A., Kapphahn, K., Yeh, A. M.
  2022; 3 (2): e185

- **The impact of euploid blastocyst morphology and maternal age on pregnancy and neonatal outcomes in natural cycle frozen embryo transfers.** *Journal of assisted reproduction and genetics*
  Zhang, W. Y., Johal, J. K., Gardner, R. M., Bavan, B., Milki, A. A.
  2022

- **Behavioral Treatment Recommendation for Preschoolers with ADHD Symptoms: How Are Primary Care Pediatricians Doing?**
  Bannett, Y., Gardner, R. M., Posada, J. D., Huffman, L. C., Feldman, H. M.
  LIPPINCOTT WILLIAMS & WILKINS.2022: E123-E124

- **Medication Management of Anxiety and Depression by Primary Care Pediatrics Providers: A Retrospective Electronic Health Record Study.** *Frontiers in pediatrics*
  Lester, T. R., Bannett, Y., Gardner, R. M., Feldman, H. M., Huffman, L. C.
  2022; 10: 794722

- **Chemotherapy Plus Immunotherapy Versus Chemotherapy Plus Bevacizumab Versus Chemotherapy Alone in EGFR-Mutant NSCLC After Progression on Osimertinib.** *Clinical lung cancer*
  White, M. N., Piper-Vallillo, A. J., Gardner, R. M., Cunanan, K., Neal, J. W., Das, M., Padda, S. K., Ramchandran, K., Chen, T. T., Sequist, L. V., Piotrowska, Z., Wakelee, H. A.
  2021

- **Impact of Tumor Suppressor Gene Co-Mutations on Differential Response to EGFR TKI Therapy in EGFR L858R and Exon 19 Deletion Lung Cancer.** *Clinical lung cancer*
  Hellyer, J. A., White, M. N., Gardner, R. M., Cunanan, K., Padda, S. K., Das, M., Ramchandran, K., Neal, J. W., Wakelee, H. A.
  2021

- **Rate of Pediatrician Recommendations for Behavioral Treatment for Preschoolers With Attention-Deficit/Hyperactivity Disorder Diagnosis or Related Symptoms.** *JAMA pediatrics*
  Bannett, Y., Gardner, R. M., Posada, J., Huffman, L. C., Feldman, H. M.
  2021

- **A Text-Based Intervention to Promote Literacy: An RCT.** *Pediatrics*
  Chamberlain, L. J., Bruce, J., De La Cruz, M., Huffman, L., Steinberg, J. R., Bruguera, R., Peterson, J. W., Gardner, R. M., He, Z., Ordaz, Y., Connelly, E., Loeb, S.
  2021

- **The impact of estradiol on pregnancy outcomes in letrozole-stimulated frozen embryo transfer cycles.** *F&S reports*
  Zhang, W. Y., Gardner, R. M., Kapphahn, K. I., Ramachandran, M. K., Murugappan, G., Aghajanova, L., Lathi, R. B.
  2021; 2 (3): 320-326

- **Pregnancy success rates for lesbian women undergoing intrauterine insemination.** *F&S reports*
  Johal, J. K., Gardner, R. M., Vaughn, S. J., Jaswa, E. G., Hedlin, H., Aghajanova, L.
  2021; 2 (3): 275-281

- **Development and Validation of a Risk Prediction Tool for Second Primary Lung Cancer.** *Journal of the National Cancer Institute*
  Choi, E., Sanyal, N., Ding, V. Y., Gardner, R. M., Aredo, J. V., Lee, J., Wu, J. T., Hickey, T. P., Barrett, B., Riley, T. L., Wilkens, L. R., Leung, A. N., Le Marchand, et al
  2021

- **Trends in Utilization of Magnetic Resonance Imaging for Stroke Patients With Cardiac Rhythm Devices.**
  Culbertson, C. J., Perino, A. C., Gardner, R. M., Balasubramanian, V., Vora, N.
  LIPPINCOTT WILLIAMS & WILKINS.2021

- **Online Antibiotic Allergy Decision Support Tool Improves Management of Beta Lactam Allergies**
  Dunham, T., Fasani, D., Lippner, E., Moir, E., Halpern-Felsher, B., Gardner, R., Sundaram, V., Liu, A.
  MOSBY-ELSEVIER.2021: AB7

- **Diagnosis of Language Delay in the Primary Care Setting: An Electronic Health Record Investigation**
  Frelinger, C., Gardner, R. M., Huffman, L., Whitgob, E., Feldman, H. M., Bannett, Y.
  LIPPINCOTT WILLIAMS & WILKINS.2021: S1-S2
- **Shared Decision Making in Neurosurgery Clinic Visits: General Descriptions and a Randomized Controlled Trial**
  Hubner, L. M., Gardner, R. M., Huffman, L. C.
  LIPPINCOTT WILLIAMS & WILKINS.2021: S6
- **Continuity of Care by Primary Care Provider in Young Children with Autism**
  Bannett, Y., Gardner, R. M., Feldman, H. M., Huffman, L. C.
  LIPPINCOTT WILLIAMS & WILKINS.2021: S2
- **Diagnosis of Language Delay in the Primary Care Setting: An Electronic Health Record Investigation**
  Frelinger, C., Gardner, R. M., Huffman, L., Whitgob, E., Feldman, H. M., Bannett, Y.
  LIPPINCOTT WILLIAMS & WILKINS.2021: S1-S2
- **Shared Decision Making in Neurosurgery Clinic Visits: General Descriptions and a Randomized Controlled Trial**
  Hubner, L. M., Gardner, R. M., Huffman, L. C.
  LIPPINCOTT WILLIAMS & WILKINS.2021: S6
- **Continuity of Care by Primary Care Provider in Young Children with Autism**
  Bannett, Y., Gardner, R. M., Feldman, H. M., Huffman, L. C.
  LIPPINCOTT WILLIAMS & WILKINS.2021: S2
- **Tobacco Smoking and Risk of Second Primary Lung Cancer.** *Journal of thoracic oncology : official publication of the International Association for the Study of Lung Cancer*
  Aredo, J. V., Luo, S. J., Gardner, R. M., Sanyal, N. n., Choi, E. n., Hickey, T. P., Riley, T. L., Huang, W. Y., Kurian, A. W., Leung, A. N., Wilkens, L. R., Robbins, H. A., Riboli, et al
  2021
- **Arrhythmias Other Than Atrial Fibrillation in Those With an Irregular Pulse Detected With a Smartwatch: Findings From the Apple Heart Study.** *Circulation. Arrhythmia and electrophysiology*
  Perino, A. C., Gummidipundi, S. E., Lee, J., Hedlin, H., Garcia, A., Ferris, T., Balasubramanian, V., Gardner, R. M., Cheung, L., Hung, G., Granger, C. B., Kowey, P., Rumsfeld, et al
  2021: CIRCEP121010063
- **The impact of timing modified natural cycle frozen embryo transfer based on spontaneous luteinizing hormone surge.** *Journal of assisted reproduction and genetics*
  Johal, J. K., Bavan, B., Zhang, W., Gardner, R. M., Lathi, R. B., Milki, A. A.
  2020
- **Is smoking a risk factor for second primary lung cancer**
  Aredo, J., Luo, S. J., Gardner, R., Hickey, T. P., Riley, T. L., Wilkens, L. R., Le Marchand, L., Amos, C., Hung, R. J., Johansson, M., Cheng, I., Wakelee, H. A., Han, et al
  AMER ASSOC CANCER RESEARCH.2020
- **Comparative Seasonal Respiratory Virus Epidemic Timing in Utah** *VIRUSES-BASEL*
  Callahan, Z. Y., Smith, T. K., Ingersoll, C., Gardner, R., Korgenski, E., Sloan, C. D.
  2020; 12 (3)
- **Prevalence of Bone Metastases in Neuroendocrine Neoplasms by 68Ga DOTATATE PET Scan**
  Shaheen, S., Gardner, R., Sundaram, V., Hornbacker, K., Moradi, F., Wu, J., Kunz, P.
  LIPPINCOTT WILLIAMS & WILKINS.2020: 486
- **Attention-Deficit/Hyperactivity Disorder in 2- to 5-Year-Olds: A Primary Care Network Experience.** *Academic pediatrics*
  Bannett, Y. n., Feldman, H. M., Gardner, R. M., Blaha, O. n., Huffman, L. C.
  2020
- **Impact of dual-eligible status on survival in Medicare patients with lung cancer.**
  Ragavan, M., Gardner, R., Cunanan, K., Sundaram, V., Wakelee, H. A., Han, S. S.

AMER SOC CLINICAL ONCOLOGY.2019

- **Large-Scale Assessment of a Smartwatch to Identify Atrial Fibrillation.** *The New England journal of medicine*

  Perez, M. V., Mahaffey, K. W., Hedlin, H., Rumsfeld, J. S., Garcia, A., Ferris, T., Balasubramanian, V., Russo, A. M., Rajmane, A., Cheung, L., Hung, G., Lee, J., Kowey, et al

  2019; 381 (20): 1909–17

- **A rapid echocardiographic screening protocol for rheumatic heart disease in Samoa: a high prevalence of advanced disease** *CARDIOLOGY IN THE YOUNG*

  Allen, M., Allen, J., Naseri, T., Gardner, R., Tolley, D., Allen, L.

  2017; 27 (8): 1599–1605