

# Jacob Haapala, MPH

8170 33<sup>rd</sup> Ave S, Bloomington, MN 55425  
Jacob.L.Haapala@healthpartners.com

**Last updated:** March 31, 2023

## EDUCATION

**MPH – Epidemiology, Biostatistics minor; 2018**

University of Minnesota, Minneapolis, MN

**BA – Physiology, Philosophy minor; 2008**

University of Minnesota, Minneapolis, MN

## PROFESSIONAL EXPERIENCE

2023–present Senior Biostatistician, HealthPartners Research Institute, Minneapolis, MN  
2019–2023 Biostatistician, HealthPartners Research Institute, Minneapolis, MN  
2018–2019 Researcher 4, Division of Epidemiology and Community Health, University of Minnesota, Minneapolis, MN  
2015–2018 Research Professional 3, Division of Epidemiology and Community Health, University of Minnesota, Minneapolis, MN  
2010–2015 Community Program Specialist, Division of Epidemiology and Community Health, University of Minnesota, Minneapolis, MN  
2010 Census Enumerator, U.S. Department of Commerce, Census Bureau, Minneapolis, MN  
2008–2009 Data Management Specialist - Minnesota Heart Study, Division of Epidemiology and Community Health, University of Minnesota, Minneapolis, MN  
2007–2008 Research Assistant - Minnesota Heart Study, Division of Epidemiology and Community Health, University of Minnesota, Minneapolis, MN

## PUBLICATIONS

Watts CR, **Haapala JL**. Cervical Total Disc Replacement and Anterior Cervical Discectomy and Fusion: Comparison of 30-Day Population Comorbidities and Perioperative Complications Using 6 Years of American College of Surgeons National Surgical Quality Improvement Program Participant Use File Data. *World neurosurgery*. 2023;170:e79-e114. doi:10.1016/j.wneu.2022.10.072

Rossom RC, Crain AL, O'Connor PJ, Wright E, Haller IV, Hooker SA, Sperl-Hillen JM, Olson A, Romagnoli K, Solberg L, Dehmer SP, Haapala JL, et al. Design of a pragmatic clinical trial to improve screening and treatment for opioid use disorder in primary care. *Contemporary clinical trials*. 2023;124:107012. doi:10.1016/j.cct.2022.107012

Morris EE, Miller NC, **Haapala JL**, Georgieff MK, Ramel SE. Preterm infant body composition, working memory, and temperament. *Infant Behav Dev*. 2023;70:101808. doi:10.1016/j.infbeh.2022.101808

Kunin-Batson AS, Crain AL, Gunnar MR, Kelly AS, Kharbanda EO, **Haapala JL**, et al. Household Income, Cortisol, and Obesity During Early Childhood: A Prospective Longitudinal Study. *J Pediatr*. 2023;252:76-82. doi:10.1016/j.jpeds.2022.09.007

Vazquez Benitez G, **Haapala JL**, et al. COVID-19 vaccine safety in early pregnancy, a comparison of differing design and analytic approaches for near-real time surveillance. *American Journal of Epidemiology* [in press]. 2022.

Ziegenfuss JY, Dinh JM, McCann P, Katz AS, JaKa MM, **Haapala JL**, et al. Behaviors, Beliefs, and Recommendations to Optimize Promotion of Safe Fish Consumption Before and During Pregnancy: A Physician Survey. *J Prim Care Community Health*. 2022;13:21501319221126980. doi:10.1177/21501319221126980

Saman DM, Allen CI, Freitag LA, Harry ML, Sperl-Hillen JM, Ziegenfuss JY, **Haapala JL**, et al. Clinician perceptions of a clinical decision support system to reduce cardiovascular risk among prediabetes patients in a predominantly rural healthcare system. *BMC Med Inform Decis Mak*. 2022;22(1):301. doi:10.1186/s12911-022-02032-z

- Heisel T, Johnson AJ, Gonias S, Dillon A, Skalla E, **Haapala JL**, et al. Bacterial, fungal, and interkingdom microbiome features of exclusively breastfeeding dyads are associated with infant age, antibiotic exposure, and birth mode. *Front Microbiol.* 2022;13:1050574. doi:10.3389/fmicb.2022.1050574
- Gunnar MR, **Haapala JL**, French SA, Sherwood NE, Seburg EM, Crain AL, et al. Race/ethnicity and age associations with hair cortisol concentrations among children studied longitudinally from early through middle childhood. *Psychoneuroendocrinology.* 2022;144:105892. doi:10.1016/j.psyneuen.2022.105892
- DeSilva MB, **Haapala JL**, Vazquez-Benitez G, Daley MF, Nordin JD, Klein NP, et al. Association of the COVID-19 Pandemic With Routine Childhood Vaccination Rates and Proportion Up to Date With Vaccinations Across 8 US Health Systems in the Vaccine Safety Datalink. *JAMA pediatrics.* 2022;176(1):68-77. doi:10.1001/jamapediatrics.2021.4251
- DeSilva M, **Haapala JL**, Vazquez-Benitez G, Vesco KK, Daley MF, Getahun D, et al. Evaluation of Acute Adverse Events after Covid-19 Vaccination during Pregnancy. *N Engl J Med.* 2022;387(2):187-189. doi:10.1056/NEJMc2205276
- Nagel EM, Kummer L, Jacobs DR, Jr., Foster L, Duncan K, Johnson K, Harnack L, **Haapala JL**, et al. Human Milk Glucose, Leptin, and Insulin Predict Cessation of Full Breastfeeding and Initiation of Formula Use. *Breastfeed Med.* 2021;16(12):978-986. doi:10.1089/bfm.2021.0131
- Kharbanda EO, **Haapala JL**, DeSilva M, Vazquez-Benitez G, Vesco KK, Naleway AL, et al. Spontaneous Abortion Following COVID-19 Vaccination During Pregnancy. *Jama.* 2021;326(16):1629-1631. doi:10.1001/jama.2021.15494
- Hickey MK, Miller NC, **Haapala JL**, Demerath EW, Pfister KM, Georgieff MK, et al. Infants exposed to antibiotics after birth have altered recognition memory responses at one month of age. *Pediatr Res.* 2021;89(6):1500-1507. doi:10.1038/s41390-020-01117-7
- Gonzalez Villamizar JD, **Haapala JL**, Scheurer JM, Rao R, Ramel SE. Relationships between Early Nutrition, Illness, and Later Outcomes among Infants Born Preterm with Hyperglycemia. *J Pediatr.* 2020;223:29-33.e22. doi:10.1016/j.jpeds.2020.04.038
- Tahir MJ, **Haapala JL**, Foster LP, Duncan KM, Teague AM, Kharbanda EO, et al. Higher Maternal Diet Quality during Pregnancy and Lactation Is Associated with Lower Infant Weight-For-Length, Body Fat Percent, and Fat Mass in Early Postnatal Life. *Nutrients.* 2019;11(3). doi:10.3390/nu11030632
- Tahir MJ, **Haapala JL**, Foster LP, Duncan KM, Teague AM, Kharbanda EO, et al. Association of Full Breastfeeding Duration with Postpartum Weight Retention in a Cohort of Predominantly Breastfeeding Women. *Nutrients.* 2019;11(4). doi:10.3390/nu11040938
- Sadr Dadres G, Whitaker KM, **Haapala JL**, Foster L, Smith KD, Teague AM, et al. Relationship of Maternal Weight Status Before, During, and After Pregnancy with Breast Milk Hormone Concentrations. *Obesity (Silver Spring, Md).* 2019;27(4):621-628. doi:10.1002/oby.22409
- Ingolfsland EC, **Haapala JL**, Buckley LA, Demarath EW, Guiang SF, Ramel SE. Late Growth and Changes in Body Composition Influence Odds of Developing Retinopathy of Prematurity among Preterm Infants. *Nutrients.* 2019;12(1). doi:10.3390/nu12010078
- Whitaker KM, Marino RC, **Haapala JL**, et al. Associations of Maternal Weight Status Before, During, and After Pregnancy with Inflammatory Markers in Breast Milk. *Obesity (Silver Spring).* 2018;26(10):1659-1660. doi:10.1002/oby.22278
- Heerman WJ, JaKa MM, Berge JM, Trapl ES, Sommer EC, Samuels LR, Jackson N, **Haapala JL**, et al. The dose of behavioral interventions to prevent and treat childhood obesity: a systematic review and meta-regression. *Int J Behav Nutr Phys Act.* 2017;14(1):157. Published 2017 Nov 15. doi:10.1186/s12966-017-0615-7
- JaKa MM, **Haapala JL**, Trapl ES, et al. Reporting of treatment fidelity in behavioural paediatric obesity intervention trials: a systematic review. *Obes Rev.* 2016;17(12):1287-1300. doi:10.1111/obr.12464

French SA, Sherwood NE, JaKa MM, **Haapala JL**, et al. Physical changes in the home environment to reduce television viewing and sugar-sweetened beverage consumption among 5-to 12-year-old children: a randomized pilot study. *Pediatr Obes.* 2016;11(5).

JaKa MM, **Haapala JL**, Wolfson J, et al. Describing the relationship between occupational and non-occupational physical activity using objective measurement. *Prev Med Rep.* 2015;2(Supplement C):213–217.

### **ONGOING RESEARCH SUPPORT**

#### **Evaluation of COVID-19 Vaccine Safety in Pregnancy and Fetal Death in the Vaccine Safety Datalink (Kharbanda/Lipkind)**

Source: CDC/ 200-2012-53526

Role: Statistician

09/20/2020-09/19/2023

The purpose of this task order is to develop a protocol, coordinate, and lead a study within the Vaccine Safety Datalink (VSD) to evaluate and monitor the risk of pregnancy loss following COVID-19 vaccine in pregnant women during the first two years of the COVID-19 vaccination program. This project will examine fetal loss due to spontaneous abortion (less than 20 weeks gestation) and stillbirth (greater than 20 weeks gestation).

#### **COVID-19 Vaccine Safety Evaluation in Pregnant Women and their Infants (Kharbanda)**

Source: CDC/ 200-2012-53526

Role: Statistician

09/20/2020-09/19/2025

The purpose of this task order is to develop protocols, coordinate, and lead studies in order to evaluate the risk of pregnancy, birth and infant outcomes following COVID-19 vaccine in pregnant women during the first two years of the COVID-19 vaccination program. The study will examine a variety of acute maternal outcomes, pregnancy complications, birth outcomes, and adverse infant outcomes.

#### **A Technology-Driven Intervention to Improve Identification and Management of Chronic Kidney Disease and Primary Care (Sperl-Hillen)**

Source: NIDDK/R18DK118463

Role: Statistician

09/01/2018-07/31/2022

The overall goal of this project is to improve the quality of care provided to patients with chronic kidney disease (CKD). It will accomplish this through the development and implementation of a web-based point-of-care clinical decision support system integrated with EHR in primary care settings.

#### **cTDR and ACDF: A Comparison of Comorbidities of Perioperative Complications Using 5 Years of ACS NSQIP Data (Watts)**

Source: Medtronic, Inc.

Role: Statistician

11/01/2020-10/31/2022

For this study we will conduct a detailed comparison of demographic data between patient populations having undergone one- and two-level cTDR or ACDF from 2014 through 2019 as well as matched (age, sex, and comorbid condition matched) cohorts will be used to determine the 30 day morbidity and mortality of the two populations (cTDR and ACDF).

#### **Opioid Use Disorder Clinical Decision Support (COMPUTE 2.0) – Interim (Bart)**

Source: NIH/UG1DA040316

Role: Statistician

06/01/2018-02/28/2022

The objective of this project is to implement the opioid use disorder-clinical decision support (OUD-CDS) in a large multi-site rigorous randomized controlled trial to evaluate its impact on practice process measures and patient outcomes. We will also prepare for scalability by evaluating facilitators and barriers to implementation and determining the costs of implementation and maintenance to a care system. Additionally, we will assess the long-term cost effectiveness of this OUD-CDS approach from a population perspective.

#### **VSD Infrastructure Task Order (Kharbanda)**

Source: CDC/ 200-2012-53526

Role: Statistician

09/28/2017-09/27/2022

The purpose of this task order is to continue the infrastructure activities for the VSD so that scientifically rigorous and efficient monitoring of vaccine safety can continue to be conducted. As a VSD site, HealthPartners will continue to contribute to the three main infrastructure components: administrative tasks, data management, and vaccine safety assessments.

### **A Team-Based and Technology Driven Adherence Intervention to Improve Chronic Disease Outcomes (Sperl-Hillen)**

Source: NHLBI/ R01HL136937

Role: Statistician

02/15/2018-01/31/2023

Poor adherence to medications for chronic diseases is common, but providers often fail to identify patients with adherence issues and/or lack adequate time to address them. New strategies are needed to provide nonadherent patients the support they need to make fully informed choices about their medications and understand the impact of adherence on clinical outcomes. In this project, we implement and evaluate a team-based, informatics-driven intervention that integrates primary care clinical decision support with active outreach from pharmacists.

### **Early Environmental Stressors and Emerging Cardiometabolic Risk (Kharbanda)**

Source: NICHD/ R01HD090059

Role: Statistician

08/01/2017-04/30/2022

This study will elucidate the pathways through which environmental stressors impact emerging cardiometabolic risk and identify protective factors that mitigate this relationship and improve children's health outcomes. Results will aid the prevention science field by identifying key intervention targets to prevent the development of cardiovascular and metabolic diseases for children living in stressful environments.

### **Pragmatic Trial Comparing Telehealth Care and Clinic-based Care for Uncontrolled High Blood Pressure (Hyperlink-3) (Margolis)**

Source: PCORI

Role: Statistician

07/01/2016-06/30/2022

The study is designed to respond to PCORI's Improving Healthcare Systems Program by 1) comparing two alternative health care service-delivery designs for improving hypertension care outcomes and 2) including innovative technology. It is a cluster-randomized comparative effectiveness trial in 20 primary care clinics.

### **Completed Research Support (within the last three years)**

#### **Maternal Obesity, Breast Milk Composition, and Infant Growth (Demerath)**

Source: NICHD/R01HD080444

Role: Statistician

07/10/2014-05/31/2019

The proposed research will provide information on optimal "windows for intervention" to enhance the benefits of breast-feeding for obese mothers and their offspring.

#### **Fish Consumption Dissemination Project (McCann)**

Source: Environmental Protection Agency/00E0116

Role: Statistician

09/01/2016-08/31/2020

Health Partners, in partnership with Minnesota Department of Health, is developing new materials to encourage the consumption of safe fish among women of child-bearing age and their children.

#### **Reducing CV Risk in Prediabetes Patients Using EHR-Based Decision Support (Desai)**

Source: NHLBI/R01HL128614

Role: Statistician

07/15/2015-06/30/2020

In this project, we will adapt, implement, and evaluate a proven electronic health record-linked, web-based clinical decision support system to identify patients with prediabetes and provide prioritized treatment recommendations to patients and providers in a rural health system. The results of the project will provide a template for implementation of more efficient and effective rural healthcare and have the potential to substantially and sustainably improve prediabetes quality of care and clinical outcomes of millions of rural Americans.

#### **A Randomized Clinical Trial to Reduce Cardiovascular Risk in Adults with SMI (Rossom)**

Source: NIMH/U19MH092201

Role: Statistician

08/01/2014-08/24/2021

This project tests the ability of an electronic medical record-based CDS system to help primary care providers identify, provide more appropriate care for, and control CV risk factors for patients with serious mental illness.