JEAN M KERVER, PhD, MSc, RD

Home: 1446 Woods and Waters Trl Office: 1105 Sixth Street Traverse City, MI 49696 Traverse City, MI 49684 Tel: 231-392-8227 Tel: 517-281-8569 (cell) E-mail: jkerver@epi.msu.edu **EDUCATION AND TRAINING** 1985-1990 BS Dietetics, Michigan State University, East Lansing, MI RD Dietetic Internship, Rush-Presbyterian-St. Luke's Medical Center, 1991-1993 Chicago, IL 1991-1993 MS Clinical Nutrition, Rush University, Chicago, IL Thesis: Urinary Lactose in Postpartum Women Expressing Breast Milk 1998-2003 PhD Human Nutrition, Michigan State University, East Lansing, MI Dissertation: Eating Patterns associated with Risk Factors for Cardiovascular Disease in U.S. Adults 2006-2007 Post- Perinatal Epidemiology (NIH NICHD T32 HD046377) Department of Doc Epidemiology, Michigan State University, East Lansing, MI 2006-2010 MSc Epidemiology, Michigan State University, East Lansing, MI Thesis: Dietary Correlates of the Insulin-like Growth Factor System in Adolescent Girls: Results from the Dietary Intervention Study in Children Randomized Clinical Trials Involving Behavioral Interventions (NIH 2010 Office of Behavioral and Social Sciences Research, Summer Institute), Warrenton, VA **FACULTY APPOINTMENTS** 2012-2014 Assistant Professor and Extension Specialist (Fixed-Term), College of Human Medicine, Department of Epidemiology and Biostatistics, Michigan State University, East Lansing, MI 2015-Assistant Professor (Fixed-Term), College of Human Medicine, Department of Epidemiology and Biostatistics, Michigan State University, East Lansing, MI 2016-Adjunct Assistant Professor (Fixed-Term), College of Human Medicine, Department of Pediatrics and Human Development, Michigan State University, East Lansing, MI OTHER PROFESSIONAL EXPERIENCE 1991 Research Assistant, Nutrition Research Dept., Kellogg Co., Battle Creek, MI Nutrition Specialist (Clinical and Research Dietitian), Diabetes Research and 1993-1998 Training Center, Department of Medicine, University of Chicago, Chicago, IL Graduate Student and Research Assistant, Department of Food Science and 1998-2003 Human Nutrition, Michigan State University, East Lansing, MI

2004-2009	Instructor (Part-time), Department of Food Science and Human Nutrition, Michigan State University, East Lansing, MI
2007-2012	Study Coordinator, Michigan Alliance for the National Children's Study, Department of Epidemiology, Michigan State University, East Lansing, MI

PROFESSIONAL MEMBERSHIPS

1989-	Academy of Nutrition and Dietetics (formerly American Dietetic Association)
	Research Practice Group (2001-)
	Diabetes Care and Education Practice Group (1993-1998)
	Sports and Cardiovascular Nutrition Practice Group (1995-1998)
	Vegetarian Nutrition Practice Group (1993-1998)
1993-1998	American Diabetes Association
1993-1998	American Association of Diabetes Educators
1996-2001	Certified Diabetes Educator (CDE)
1999-	American Society for Nutrition
	Nutrition Education Research Interest Section, Graduate Student Rep., (2002)
	Nutritional Epidemiology Research Interest Section (2018-)
	Maternal, Perinatal and Pediatric Nutrition, Research Interest Section (2019-)
2007-	Society for Pediatric and Perinatal Epidemiologic Research
2012-	Society for Epidemiologic Research

HONORS

1986-1990	Invited member of the Honors College, Michigan State University (MSU)
1989-1990	Invited member of Omicron Nu Honor Society, MSU
1998	Graduate School Fellowship, MSU
2000	Beth and Holly Fryer Scholarship, College of Human Ecology, MSU
2001	ECOLAB scholarship, American Dietetic Association Foundation
2000, 2002	Dissertation Fellowship, College of Human Ecology, MSU
2005	Published Paper Award, Research Practice Group, American Dietetic
	Association, Co-author award for Am J Clin Nutr. 2003 Jun;77(6):1426-33.
2010	Selected Fellow, Summer Institute on Randomized Clinical Trials Involving
	Behavioral Interventions, sponsored by the NIH Office of Behavioral and Social
	Sciences Research
2016	Journal of Human Lactation Editorial Review Board Choice, Research Article of
	the Year for JHI 2015:31(1):129-137

RESEARCH SUPPORT

ACTIVE

1. USDA Brophy-Herb (PI) 4/15-4/20 Effectiveness of Differing Levels of Support for Family Mealtimes on Obesity

Prevention among Head Start Preschoolers

We are implementing a multiphase optimization strategy trial (MOST) to test a range of supports for healthy eating among Head Start families in Jackson, MI. Interventions range from the most intensive (home meal delivery) to the least intensive (nutrition education).

Role: Co-Investigator

2. NIH-NICHD, UG3 Now Phased to UH3 OD023285 **Kerver** & Paneth (co-Pls) 9/16-8/23

Prenatal Exposures and Child Health Outcomes: A Statewide Study

This project, joint with four other Michigan partners, is part of the national ECHO program to support studies of possible environmental causes of adverse pregnancy and perinatal outcomes, obesity, asthma and neurodevelopmental disorders. We are creating a statewide study in Michigan, adding to our extant pregnancy cohorts. Women are interviewed in pregnancy and blood, urine and placenta are being archived. We will later assess the child's health and development in relation to factors assessed during pregnancy.

Role: Co-Investigator for UG3 Phase, Now Co-Principal Investigator for UH3 Phase

3. Michigan Health Endowment Fund Kerver (PI)

Food as Medicine for Older Adults with Chronic Health Conditions

7/18-6/20

The overarching goal of this project is to build a sustainable model for optimizing food access and nutritional status of older adults in the northwest region of Michigan's lower peninsula by providing nutritional services after hospital discharge and enhanced transfer of care to community-based programs. Our goal addresses two of the issues of critical need identified by the Health Fund Board—Nutrition & Healthy Lifestyles and Healthy Aging—and aligns with both of the Fund's cross-cutting goals by strengthening workforce capacity and building a cost-effective model for nutritional care coordination.

Role: Principal Investigator

4. DHHS-SAMHSA (Subst. Abuse & Mental Health Services Admin) Kramer (PD) 9/18–9/21 *Community Opioid and Recovery Expansion (CORE)*

Our goal is to build long-term recovery opportunities and improve health outcomes for individuals with Opioid Use Disorder by expanding access to Medication Assisted Treatment that includes care coordination with behavioral health, community, and Peer Recovery services. This is a public service grant (not research) but I plan to leverage this project to answer research questions related to treatment of opioid use disorder in pregnancy and later child health outcomes.

Role: Evaluation Director

5. MSU CHARM Pilot Grant

Liu (PI) 6/19-5/20

Role of Genetic and Epigenetic Regulation of PUFA Metabolism Pathways in Placental Inflammation and Newborn Health

This is a grant from the Offices of Vice Presidents for Research from three universities (Michigan State University, the University of Michigan and Wayne State University) within the Child Health Advances from Research with Mothers Coalition (CHARM). The goal of this pilot study is to test the hypothesis that genetic and epigenetic regulation of the polyunsaturated fatty acid (PUFA) metabolism in the placenta leads to inter-individual differences in the susceptibility to placental inflammation and consequently child health perturbations. We will test this hypothesis using data and specimens from the ARCH and MARCH pregnancy cohorts.

Role: Co-Investigator

6. NIH-NIAID, P01 Renewal (P01Al089473) Johnson & Ownby (co-Pl's) 9/19-3/24 *Microbiota and Allergic Asthma Precision Prevention (MAAP2)*

The microbial community colonizing a newborn baby's GI tract is very important for the ongoing development of that community, which has a strong impact on the optimal development of the baby's immune system, leading to better child and adult health and specifically the prevention of allergy and allergic asthma. This collection of projects will identify relationships between factors influencing a mother's gastrointestinal and vaginal microbes during pregnancy, and how these factors and the mother's microbes affect her newborn's gastrointestinal microbial community and immune system development from birth through the first years of life in both human and mouse studies. We believe that taken

together these advances in understanding will lay the foundation for a strategy for the primary prevention of allergies and asthma.

Role: Co-Investigator

7. NIH-NINR, R21 Ling (PI) 9/19-8/21

Using Facebook in a family-centered healthy lifestyle intervention: Feasibility Trial The purpose of this cluster randomized controlled trial is to determine the preliminary efficacy of an intergenerational intervention on preschoolers' proximal behavioral and distal anthropometric outcomes among Head Start caregiver-preschooler dyads. The research stands to make a significant public health impact to reduce overweight and obesity among underserved Head Start preschoolers, with high potential for intervention scalability among a high-risk population of concern to nursing leaders and practitioners.

Role: Co-Investigator

8. Michigan Health Endowment Fund (Ling/Kerver/Robbins, Co-Pls) 1/20–12/21 Happy Family, Healthy Kids: An Intergenerational Program to Promote Heathy Eating Habits The major goal of this project is to compare the effects of the "Happy Family, Healthy Kids" healthy eating program in reducing emotional eating and improving healthy eating behaviors between urban and rural low-income Head Start families.

Role: Co-Principal Investigator

9. NIH-NHLBI, R61/R33

Robbins (PI) 9/19-8/20 (Phase 1)

Guys/Girls Opt for Activities for Life (GOAL) Trial

The purpose of this five-year group randomized trial (unit of assignment: school) is to evaluate the efficacy of the *GOAL* intervention in reducing % body fat and cardiovascular disease risk factors among underserved adolescent boys and girls in 5th–6th grades. The research stands to make a significant public health impact to reduce overweight and obesity among underserved adolescents, with high potential for intervention scalability.

Role: Co-Investigator

COMPLETED

1. NIH-NICHD, R21 (1R21HD085138-01)* Kerver (PI) 4/16-3/19

Breastfeeding Support and Weight Management for Black Women: A Dual

Intervention

This is a feasibility trial designed to assess a combined breastfeeding support and online weight management intervention to be implemented in Detroit, MI. The intervention is designed to encourage breastfeeding in African-American women and, at the same time, reduce postpartum weight retention, a major contributor to midlife obesity in this population.

*This application was scored at the first percentile by NIH study section.

Role: Principal Investigator

2. Michigan State University, Start-up Funds Kerver (PI) 1/15-12/19 Diet Intervention in Pregnancy & Maternal, Infant Gut Microbiome: RCT Feasibility Pilot This project is designed to assess feasibility of implementing a diet intervention in pregnancy and obtaining maternal blood, urine, and fecal samples pre- and post-diet intervention and infant stool samples. Emerging research shows that the gut microbiome is affected by diet and the maternal microbiome may influence the establishment of the infant microbiome during a critical window of time that may influences the development of asthma or other health consequences.

Role: Principal Investigator

3. NIH-NIEHS CHEAR P&F Kerver (PI) 3/18-3/19
Laboratory Analysis for Diet Intervention in Pregnancy

This was a competitive zero dollar proposal that allowed us to ship our biospecimens (maternal blood and urine) from the Diet Intervention in Pregnancy study described immediately above to two NIH-funded Children's Health Exposure Analysis Resource (CHEAR) laboratories for analysis of carotenoids and metabolomics, respectively.

Role: Principal Investigator

4. NIH, NICHD, R03 (HD073275-01A1) Mudd transitioned to Pivarnik (PIs) 9/14-9/17 *Maternal Physical Activity, Lipid Levels and Birth Weight*

The objective of this project is to determine relations among objectively measured physical activity and lipids in each trimester of pregnancy and to evaluate associations of both factors with birth weight.

Role: Co-Investigator

National Institute of Food and Agriculture, USDA Kerver (PI) 10/14-9/16
 Multilevel Approach to Health Promotion in the Worksite

The main objective for this project was to encourage healthy behaviors among the Shiawassee County school district employees (n=1,600). It was called a multilevel approach because activities took place both at the district level (wellness committees) and the employee level (online wellness program). The overarching goal was to change the school environment so that school district employees serve as healthy role models for children and their families.

Role: Principal Investigator

6. Michigan State University (RAIND competition) Kerver, Paneth (co-Pls) 1/14-1/16 Perinatal Risk For Cognitive Disorders: Iodine Deficiency and Maternal Obesity Using a large cohort of pregnancies, in whom urine and blood specimens have been archived, this project assesses iodine nutriture and thyroid status in pregnancy more completely than has yet been done in a US pregnant population, and link to cognitive and behavioral functioning in early childhood. We will also be able to assess relationships between maternal obesity or excess pregnancy weight gain and neurodevelopmental and behavioral outcomes in offspring, and the potential role of other prenatal factors on cognitive and behavioral outcomes in children. The pilot data collected will serve a basis for further mechanistically-focused studies.

Role: Principal Investigator

7. WK Kellogg Foundation Olson transitioned to Benton (PIs) 4/12-9/15

Breastfeeding Support for Low-Income Mothers

The goal of this study is to determine the feasibility of a new model of peer counseling breastfeeding support for low-income mothers, integrated with county WIC, Extension education, and university support.

Role: Co-Investigator

8. HHSN267200700034C, HHSN275200800007C Paneth (PI) 9/07-9/14

Michigan Alliance for the National Children's Study (MANCS)

Five Michigan counties were included in the sampling frame for the National Children's Study, thus aiming to contribute 5,000 participants for this study of 100,000 children from before birth to age 21. A consortium of Michigan institutions (Michigan State University, the University of Michigan, Wayne State University, the Henry Ford Health System and the Michigan Department of Community Health) worked together on this project, with the study office at MSU.

Role: Study Coordinator/Project Director

9. HHSN267200700034C
Paneth (Study Center PI); Forman (Project PI); **Kerver (Location PI)** 9/10-9/12

Evaluation of Ulnar Length Measurement for use in the National Children's Study Within a multi-center study but separately from the National Children's Study work described above, we tested the accuracy and reliability of ulnar length measurement in 226 healthy infants and children aged <6 y (across 8 study centers n=1,479 children). Our purpose was to assess accuracy and reliability of ulnar measurement to investigate its potential use as a surrogate measure of recumbent length and height in physically impaired or non-ambulatory children.

Role: Location Principal Investigator

<u>UNFUNDED</u>

1. USDA Weatherspoon (PI) Submitted 4/13

PE-Nut Plus: Preventing Childhood Obesity from North to South

stigma surrounding public benefit programs for low-income families.

This was an unfunded cluster randomized trial (unit of assignment was school) designed to assess effects of implementing a curriculum with information and activities about physical education (PE) and nutrition (NUT) on the prevention of obesity in elementary school children in Michigan and Florida.

Role: Co-Investigator

2. National Institute of Food and Agriculture, USDA Kerver (PI) Submitted 7/13 *Multilevel Approach to Health Promotion in the Worksite*

This unfunded proposal was resubmitted and subsequently funded (see above under completed research support.

Role: Principal Investigator

3. NIH Bresnahan (PI) Submitted 2/14 Responses to Nutritional Stigma as a Transactional Process in the Innercity This was an unfunded proposal designed to use theory-driven communication strategies to reduce

Role: Co-Investigator

4. MSU (Strategic Partnership Competition) Paneth (PI) Submitted 2/14 Investigating the Prenatal Origins of Human Disease

This unfunded proposal was for planning a pregnancy cohort based on a probability sample of Michigan births. We later were successful in obtaining funding for this project from the Michigan Health Endowment Fund and then the NIH ECHO program.

Role: Co-Investigator

5. NIH-NICHD R01 Kerver (PI) Submitted 2/14 Breastfeeding Support and Weight Management for Black Women: A Dual

Intervention This unfunded R01 proposal was resubmitted as an R21 and funded after another resubmission (see above under completed research support).

Role: Principal Investigator

6. BCBS Weatherspoon (PI) Submitted 6/14

Healthy Kids, Healthy Families: A Collaborative Approach to Address Childhood Obesity This unfunded proposal was to support the pediatric collaboration between the MSU pediatric clinic and the farmers market in Flint MI.

Role: Co-Investigator

7. USDA (1st Resubmission) Weatherspoon (PI) Submitted 6/14 **PE-Nut Plus: Preventing Childhood Obesity from North to South**

This was an unfunded cluster randomized trial (unit of assignment was school) designed to

assess effects of implementing a curriculum with information and activities about physical education (PE) and nutrition (NUT) on the prevention of obesity in elementary school children in Michigan and Florida.

Role: Co-Investigator

8. NIH-NICHD R21 Kerver (PI) Submitted 10/14

Breastfeeding Support and Weight Management for Black Women: A Dual Intervention This unfunded proposal was resubmitted and funded (see above under completed research support).

Role: Principal Investigator

9. USDA (2rd Resubmission)

Weatherspoon (PI) Submitted 4/15

PE-Nut Plus: Preventing Childhood Obesity from North to South

This was an unfunded cluster randomized trial (unit of assignment was school) designed to assess effects of implementing a curriculum with information and activities about physical education (PE) and nutrition (NUT) on the prevention of obesity in elementary school children in Michigan and Florida.

Role: Co-Investigator

10. HRSA Kerver (PI) Submitted 11/15

Breastfeeding Support and Weight Management for Rural Women: A Dual Intervention

The unfunded proposal was for a trial designed to assess a combined breastfeeding support and online weight management intervention to be implemented in the northwest region of Michigan's Lower Peninsula. The project was designed to be similar to the NIH funded R21 project in Detroit so that we could generalize to both rural and urban populations.

Role: Principal Investigator

11. HRSA (1st Resubmission)

Kerver (PI) Submitted 8/16

Breastfeeding Support and Weight Management for Rural Women: A Dual Intervention

The unfunded proposal was for a trial designed to assess a combined breastfeeding support and online weight management intervention to be implemented in the northwest region of Michigan's Lower Peninsula. This was a resubmission of the project described immediately above.

Role: Principal Investigator

12. USDA (3rd Resubmission)

Weatherspoon (PI) Submitted 8/16

PE-Nut Plus: Preventing Childhood Obesity from North to South

This was an unfunded cluster randomized trial (unit of assignment was school) designed to assess effects of implementing a curriculum with information and activities about physical education (PE) and nutrition (NUT) on the prevention of obesity in elementary school children in Michigan and Florida.

Role: Co-Investigator

13. Diversity Supplement for NIH-NICHD (1R21HD085138-01) **Kerver (PI)** Submitted 10/16 **Breastfeeding Support and Weight Management for Black Women: A Dual Intervention**

This was an unfunded diversity supplement proposal to support Dr. Gwendolyn Norman at Wayne State University.

Role: Principal Investigator

14. US DOD Paneth (PI) Submitted 10/16

Exploring the Antenatal Origins of Autism Symptomology

This unfunded project was designed to support follow-up of children from the ARCH pregnancy cohort for cognitive and behavioral assessments.

Role: Co-Investigator

15. HRSA (2nd Resubmission)

Kerver (PI) Submitted 11/17

Breastfeeding Support and Weight Management for Rural Women: A Dual Intervention The unfunded proposal was for a trial designed to assess a combined breastfeeding support and online weight management intervention to be implemented in the northwest region of Michigan's Lower Peninsula. This was the second resubmission of the project described above.

Role: Principal Investigator

16. NIH-NINR, R21

Ling (PI) Submitted 10/17

Using Facebook in a family-centered healthy lifestyle intervention: Feasibility Trial This unfunded proposal was resubmitted and subsequently funded (see above under active research support.

Role: Co-Investigator

17. NIH-NHLBI, R61/R33

Robbins (PI) Submitted 2/18

Guys/Girls Opt for Activities for Life (GOAL) Trial

This unfunded proposal was resubmitted and subsequently funded (see above under active research support.

Role: Co-Investigator

18. NIH R21 Khan (PI) Submitted 10/18

App-based Intervention to Improve Pap Adherence in Sleep Apnea Via Care Circles This was an unfunded proposal designed to develop and test the feasibility of an app that would help patients with sleep apnea navigate the health care system better.

Role: Co-Investigator

19. NIH-NIDA R34 Kerver (PI) Submitted 3/19

Prenatal Stressors & Child Brain Development in Rural & Urban Settings: Leveraging Infrastructure from a Probability Based ECHO Pregnancy Cohort

This unfunded proposal was intended to address substance abuse, especially opioid use. The proposed research would have addressed the impact of opioid and other substance use during pregnancy on infant brain development in both rural and urban Michigan populations.

Role: Principal Investigator

20. Michigan Health Endowment Fund

Sneed (PI) Submitted 4/19

FLINT BASED: Food as Medicine for Older Adults with Chronic Health Conditions
This unfunded proposal was designed to strengthen workforce capacity and building a costeffective model for nutritional care coordination among Flint primary care providers serving
older adult residents of Flint, MI.

Role: Co-Investigator

PEER-REVIEWED PUBLICATIONS

Web of Science Citation Check	9/9/19
Sum of the Times Cited	804
Average Citations Per Item	35
h-index	12

*indicates graduate student

1. Murtaugh MA, *Kerver J, and Tangney CC. Urinary lactose excretion increases with

- estimated milk production. J Pediatr Gastroenterol Nutr. 1996;23(5):631-4. (Cited 1 time)
- 2. McNabb WL, Quinn MT, **Kerver J**, Cook S, and Karrison T. The PATHWAYS church-based weight loss program for urban African-American women at risk for diabetes. Diabetes Care. 1997;20(10):1518-23. **(Cited 141 times)**
- 3. Song WO and *Kerver JM. Nutritional contributions of eggs to American diets. J Am Coll Nutr. 2000;19(5S):556S-562S. (Cited 90 times)
- 4. Yang EJ, Chung HK, Kim WY, *Kerver JM, and Song WO. Carbohydrate intake is associated with diet quality and risk factors for cardiovascular disease in U.S. adults: NHANES III. J Am Coll Nutr. 2003;22(1):71-9. (Cited 40 times)
- 5. Yang EJ, *Kerver JM, Park YK, Kayitsinga J, Allison DB, Song WO. Carbohydrate intake and biomarkers of glycemic control among U.S. adults: NHANES III. Am J Clin Nutr. 2003;77(6):1426-33. (Cited 29 times)
- 6. *Kerver JM, Yang EJ, Bianchi L, and Song WO. Dietary patterns associated with risk factors for cardiovascular disease in healthy US adults. Am J Clin Nutr. 2003;78(6):1103-10. (Cited 161 times)
- 7. Yang EJ, *Kerver JM, and Song WO. Dietary patterns of Korean Americans described by factor analysis. J Am Coll Nutr. 2005;24(2):115-21. (Cited 33 times)
- 8. *Kerver JM, Yang EJ, Obayashi S, Bianchi L, and Song WO. Meal and snack patterns are associated with dietary intake of energy and nutrients in U.S. adults. J Am Diet Assoc. 2006;106(1):46-53. (Cited 152 times)
- 9. Song WO, Chun OK, *Kerver JM, Cho SC, Chung CE, and Chung S. Ready-to-eat breakfast cereal consumption enhances milk and calcium intake in the US population. J Am Diet Assoc. 2006;106(11):1783-1789. (Cited 60 times)
- 10. **Kerver JM**, Gardiner JC, Dorgan JF, Rosen CJ and Velie EM. Dietary correlates of the insulin-like growth factor system in adolescent girls: results from the Dietary Intervention Study in Children (DISC). Am J Clin Nutr. 2010;91(3):643-50. **(Cited 12 times)**
- 11. **Kerver JM**, Elliott MR, Norman GS, Sokol RJ, Keating DP, Copeland GE, Johnson CC, Cislo KK, Alcser KH, Kruger-Ndiaye S, Pennell BE, Mehta S, Joseph CLM, and Paneth N. Pregnancy recruitment for population research: the National Children's Study vanguard experience in Wayne County, Michigan. Paediatric and Perinatal Epidemiology. 2013;27(3):303-11. **(Cited 6 times)**
- 12. Forman MR, Zhu Y, Hernandez LM, Himes JH, Dong Y, Danish RK, James KE, Caulfield LE, Kerver JM, Arab L, Voss P, Hale DE, Kanafani N, and Hirschfeld S. Arm span and ulnar length are reliable and accurate estimates of recumbent length and height in a multiethnic population of infants and children under 6. Journal of Nutrition. 2014;144(9):1480-1487. (Cited 13 times)
- 13. Mehta SH, **Kerver JM**, Sokol RJ, Keating DP, Paneth N. The Association between maternal obesity and neurodevelopmental outcomes of offspring. Journal of Pediatrics. 2014;165(5): 891-896. **(Cited 20 times)**

- 14. *Rozga MR, **Kerver JM**, Olson BH. Prioritization of resources for participants in a peer counseling breastfeeding support program. Journal of Human Lactation. 2015;31(1):111-119. (Cited 3 times)
- 15. *Rozga MR, **Kerver JM**, Olson BH. Self-reported reasons for breastfeeding cessation among low-income women enrolled in a peer counseling breastfeeding support program. Journal of Human Lactation. 2015;31(1):129–137. **(Cited 15 times)**
- 16. *Rozga MR, **Kerver JM**, Olson BH. Impact of peer counselling breast-feeding support programme protocols on any and exclusive breast-feeding discontinuation in low-income women. Public Health Nutrition. 2015;18(3):453-463. **(Cited 8 times)**
- 17. *Rozga MR, Benton P, **Kerver JM**, Olson BH. An Integrated Model of Breastfeeding Peer Counseling Support is Feasible and Associated with Improved Exclusive Breastfeeding. Maternal and Child Health Journal. 2016; 20(12), 2589-2598. **(Cited 1 time)**
- Brophy-Herb, H, Horodynski, M, Contreras, D, Kerver, J, Kaciroti, N, Stein, M, Lee, H, Motz, B, Hebert, S, Prine, E, Gardiner, C, VanEgeren, L, & Lumeng, J. Effectiveness of Differing Levels of Support for Family Mealtimes on Obesity Prevention among Head Start Preschoolers: The Simply Dinner Study. BMC Public Health. 2017 Feb 10;17(1):184. doi: 10.1186/s12889-017-4074-5. (Cited 2 times)
- 19. *Slawinski B, Talge N, Ingersoll B, Smith A, *Glazier A, **Kerver J**, Paneth N, and Racicot K. Maternal CMV seropositivity and autism symptoms in children. American Journal of Reproductive Immunology. 2018;79(5):e12840. doi: 10.1111/aji.12840 (**Cited 3 times**)
- *Wisnieski L, Holzman H, Kerver JM, Todem D and Margeirson-Zilko C. Breastfeeding and Risk of Metabolic Syndrome in Children and Adolescents: A Systematic Review. Journal of Human Lactation. J Hum Lact. 2018 Aug;34(3):515-525. doi: 10.1177/0890334417737038. (Cited 4 times)
- 21. Robbins LB, Ling J, Clevenger K, Voskuil VR, Wasilevich E, **Kerver JM**, Kaciroti N, Pfeiffer KA. A School- and Home-Based Intervention to Improve Adolescents' Physical Activity and Healthy Eating: A Pilot Study. J Sch Nurs. 2018 Aug 1:1059840518791290. doi: 10.1177/1059840518791290.
- 22. Ling, J, Robbins, L B, Zhang, N, **Kerver, JM**, Lyons, H, Wieber, N, & Zhang, M. Using Facebook in a healthy lifestyle intervention: feasibility and preliminary efficacy. Western Journal of Nursing Research. 2018;40(12):1818-1842. doi:10.1177/0193945918756870. (Cited 4 times)
- 23. Zhu Y, Hernandez LM, Dong Y, Himes JH, Caulfield LE, **Kerver JM**, Arab L, Voss P, Hirschfeld S, Forman MR. Weight estimation among multi-racial/ethnic infants and children aged 0-5·9 years in the USA: simple tools for a critical measure. Public Health Nutr. 2019;22(1):147-156. doi: 10.1017/S1368980018002549. **(Cited 7 times)**
- 24. *Saxe-Custack A, **Kerver JM**, Mphwanthe G, Weatherspoon L. Participant experiences in a paraprofessional-led weight management program for children and families. SAGE Open Med. 2019 Jul 12: 7:2050212119863920. doi: 10.1177/205312119863920. eCollection 2019.
- 25. *Earnesty D, Hourani M, **Kerver JM**, Weatherspoon L. Dietary Guidelines are Not Met by In-Home Child Care Providers in Low Income Areas. J Nutr Educ and Behav. 2019 Sep 3. pii: S1499-4046(19)30960-1. doi: 10.1016/j.jneb.2019.08.001. [Epub ahead of print]

PROFESSIONAL MEETING PRESENTATIONS AND ABSTRACTS

- 1. *Kerver J, Murtaugh MA, Tangney CC, and Storm H. (1994, April). Urinary lactose in postpartum women expressing breastmilk. Experimental Biology '94, Anaheim, CA
- 2. McNabb WL, Quinn MT, *Kerver J, Cook S, and Karrison T (1996, June). A church-based weight loss program for African-American women at risk for NIDDM. American Diabetes Association 56th Annual Scientific Sessions, San Francisco, CA
- 3. Song WO, *Park YK, ***Kerver J**, Bianchi L, Schweitzer C. (1999, April). Serum carotenoid concentration as a biomarker for beta-carotene supplement use in U.S. adults. Experimental Biology '99, Washington DC. The FASEB Journal 13:676.8, 1999
- 4. *Kerver JM, Bianchi LJ, McNamara DJ, and Song WO. (2000, April). The nutritional contributions of eggs to the American diet in the 90's. Experimental Biology '00, San Diego, CA
- 5. *Kerver JM, Bianchi LJ, McNamara DJ, and Song WO. (2000, October). Frequent egg consumption is not related to elevated serum cholesterol in the U.S. population. The American Dietetic Association's Food and Nutrition Conference and Exhibition, Denver, CO
- 6. *Jager KA, Carolan MT, **Kerver JM**, Weatherspoon LJ, and Song WO. (2000, November). Ecological factors associated with U.S. youth at risk for type 2 diabetes. The National Council on Family Relation's 62nd Annual Conference, Minneapolis, MN
- 7. Weatherspoon LJ, *Kerver JM, Carolan MT, *Jager KA, and Song WO. Glycated hemoglobin concentration associated with risk factors for type 2 diabetes in U.S. children and adolescents. Diabetes 2001;50(S2):A482.
- 8. Yang EJ, Kayitsinga J, *Kerver JM, *Park YK, *Obayashi S, Allison D, and Song WO. (2002, April). Biomarkers of glycemic function related to carbohydrate intake in U.S. adults. Experimental Biology '02, New Orleans, LA
- 9. *Kerver JM, Yang EJ, *Obayashi S, and Song WO. (2002, April). Eating frequency in association with dietary intake and serum lipids in the US: NHANES III. Experimental Biology '02, New Orleans, LA
- 10. *Kerver JM, Yang EJ, *Meier ER, Bianchi L, Song WO. (2003, April). Dietary patterns associated with risk factors for cardiovascular disease in healthy U.S. adults. Experimental Biology '03, San Diego, CA
- 11. *Kerver JM, Chun OK, Song WO. (2004, April). Serum homocysteine concentration in relation to egg consumption and B-vitamin status in U.S. adults. Experimental Biology '04, Washington DC
- 12. Chun OK, Chung S, *Kerver JM, *Obayashi S, Song WO. (2005, April). Estimated dietary intakes of flavonoids in the US population. Experimental Biology '05, San Diego, CA
- 13. **Kerver JM**, Holzman CB, Xue F, Rahbar MH. (2007, June). Associations between fish consumption and preterm delivery in the POUCH cohort. Society for Pediatric and Perinatal Epidemiologic Research 2007 Annual Meeting, Boston, MA

- 14. Paneth N, Ziegler K, Elliott M, Sokol R, Norman G, Kruger-Ndiaye S, Alcser K, **Kerver J** and the Michigan Alliance for the National Children's Study Executive Committee (2011, Aug). Success of Provider-Based Recruitment for the NCS in Wayne County, MI. Poster (46-A) Presented at the National Children's Study Research Day 2011, Bethesda, MD.
- 15. Paneth N, Ziegler K, **Kerver J**, Brovont A and the Michigan Alliance for the National Children's Study Executive Committee (2011, Aug). Organizing Five Institutions to Perform One Complex Study: the MANCS Experience. Poster (46-B) Presented at the National Children's Study Research Day 2011, Bethesda, MD.
- 16. Michigan Alliance for the National Children's Study Community Engagement Core and Executive Committee (2011, Aug). Wayne County Launch in Michigan: Media Impact From the Event. Poster (46-C) Presented at the National Children's Study Research Day 2011, Bethesda, MD).
- 17. Michigan Alliance for the National Children's Study (2011, Aug). SurveyTrak: An Integrated Suite of Sample Management Modules. Poster (46-D) Presented at the National Children's Study Research Day 2011, Bethesda, MD.
- Mudd LM, Battista RA, Kerver JM. (2012, April) Physical Activity and Lipid Levels during Pregnancy: Results for 1999-2006 NHANES data. American College of Sports Medicine, 2012, San Francisco, CA. Medicine and Science in Sports and Exercise; 44S2:340 (May 2012)
- 19. **Kerver JM**, Holzman CB, Tan Y, Shroff MR, Evans RW. (2012, April) Maternal Serum Antioxidant Vitamins and Pregnancy Outcomes. Experimental Biology '12, San Diego, CA. The FASEB Journal 26 (April, 2012)
- 20. **Kerver JM** and Mudd LM (2012, June) Racial/Ethnic differences in serum antioxidant vitamins during pregnancy: Results from 1999-2006 NHANES data. Society for Pediatric and Perinatal Epidemiologic Research 2012 Annual Meeting, Minneapolis, MN
- 21. Kazmirzack LM and **Kerver J**. (2013, Oct) Associations among domains of maternal physical activity and lipid levels during pregnancy. Journal of Women's Health 22(10)892 (2013).
- 22. *Haggerty DK, **Kerver JM**, and Mehta SH. (2014, Mar) Feasibility of recruiting pregnant African-American women for web-based interventions. 2014 Michigan Epidemiology Conference, East Lansing, MI.
- 23. *Rozga MR, **Kerver JM**, and Olson BH. (2014, April) Determinants of Exclusive Breastfeeding Cessation in a Peer Counseling Breastfeeding Support Program for Lowincome Women. Experimental Biology '14, San Diego, CA
- 24. *Shukr G, *Haggerty DK, **Kerver JM**, and Mudd L. (2014, June) Acculturation and Lifestyle: a pilot study of low income, pregnant Arab American women in Metro Detroit. Society for Pediatric and Perinatal Epidemiologic Research 2014 Annual Meeting, Seattle, WA
- 25. **Kerver JM**, Mehta SH, Sokol RJ, Biery HL, Talge N, Ingersoll B, Berger N, Keating DP, Elliott M, Pearce E and Paneth N. (2015, May) Building infrastructure to study perinatal risk factors for child development: Archive for Research on Child Health (ARCH), a Michigan pregnancy cohort. Presented at the DOCTRID IV Conference on Intellectual Disability and Autism, Queens University, Belfast, Northern Ireland. M1022.
- 26. *Stannard AB, Mudd LM, Pivarnik JM, Kerver JM, and Weatherspoon L. (2017, May)

- Factors Associated with Household and Job Physical Activity in Low-Income Pregnant Women: Ecological Perspective. American College of Sports Medicine ACSM Annual Meeting 2017, Denver, CO.
- 27. *Seaton T, Mehta S, Luo Z, Paneth N, and **Kerver JM**. (2017, June) Pregnancy-related weight and offspring BMI at 3-6 years in the ARCH cohort, Lansing MI. Society for Pediatric and Perinatal Epidemiologic Research 2017 Annual Meeting, Seattle, WA
- 28. **Kerver JM**, Pearce E, *Ma T, *Zdanukiewicz M, and Paneth N. (2017, June) Urinary Iodine Nutrition in Pregnancy in a US Population. Society for Pediatric and Perinatal Epidemiologic Research 2017 Annual Meeting, Seattle, WA
- 29. *Taglione V, *Lwin P, *Chapman P, Terhune J, **Kerver J**, and Wendling A. (2017, Nov) Identifying Access to Maternity and Prenatal Care in Rural Michigan. North American Primary Care Research Group 2017 Annual Meeting, Montreal, Quebec
- 30. *Louis-Gray K, *Forton S, and **Kerver J**. (2019, April) Maternal smoking, polysubstance use, and delivery outcomes in a rural pregnancy cohort. 2019 Annual Michigan Rural Health Conference, Mt. Pleasant, MI
- 31. **Kerver JM**, Gryc JM, Shanahan M, *Louis KR, Gardiner JC, and Comstock SS. (2019, June) Feasibility of a Diet Intervention Trial during Pregnancy in a Rural Population: The PEAPOD Pilot Study. American Society for Nutrition 2019 Annual Nutrition Meeting, Baltimore, MD
- 32. Comstock SS, Sugino KY, Vevang KR, Peterson LA, Koratkar R, Gross MD, and **Kerver JM**. (2019, June) Dietary and Plasma Carotenoids are Positively Associated with Alpha Diversity in the Fecal Microbiota of Pregnant Women: the PEAPOD Pilot Study. American Society for Nutrition 2019 Annual Nutrition Meeting, Baltimore, MD
- 33. **Kerver JM**, *Shipp GM, Norman GS, Brogan-Hartlieb K, Gardiner JC, Barone CJ, Ondersma SJ, Paneth N, Sokol RJ, and Alexander GL. (2019, June) Feasibility of a Dual Intervention to Support Breastfeeding and Weight Management in Urban African American Women. Society for Pediatric and Perinatal Epidemiologic Research 2019 Annual Meeting, Minneapolis, MN
- 34. **Kerver JM**, *Haggerty D, Talge N, *Slawinski B, Ingersoll B, Keating D, Racicot K, and PanethN. (2019, June) Biomarkers of pregnancy iron status and child behavioral outcomes at age 4-6 y. Society for Pediatric and Perinatal Epidemiologic Research 2019 Annual Meeting, Minneapolis, MN
- 35. Elliott M, *Ma T, Thompson T, Krueger A, Norman G, Barone C, Copeland G, Welch R, Leissou E, Ridenour T, **Kerver J**, and Paneth N. (2019, June) Obtaining a prenatal care clinic-based probability sample of Michigan births: the CHARM study. Society for Pediatric and Perinatal Epidemiologic Research 2019 Annual Meeting, Minneapolis, MN

ACCEPTED FOR PRESENTATION

Brophy-Herb H, **Kerver JM (Presenting Author)**, Lumeng JC. (2019, Oct) Effectiveness Of Supports For Family Mealtimes On Obesity Prevention Among Head Start Preschoolers: Descriptives from a Confirming Phase Initial Cohort. 3rd Cook and Health Conference, Lisbon Portugal.

*Shipp GM, Weatherspoon LJ, Comstock SS, Norman GS, Alexander GL, **Kerver JM.** (2019, Oct) Breastfeeding Self-Efficacy of African American Women in Late Pregnancy as a Predictor

of Breastfeeding Intensity at 6 Weeks Postpartum. 2019 Food and Nutrition Conference and Expo October, Philadelphia, PA

*Shipp GM, Weatherspoon LG, Comstock SS, Norman GS, Alexander GL, **Kerver JM.** (2019, Nov) Breastfeeding Self-Efficacy of African American Women at 6 Weeks Postpartum as a Predictor of Breastfeeding Intensity at 6 and 20 Weeks Postpartum. American Public Health Association 2019 Annual Meeting, November, Philadelphia, PA

Chosen for the "Greg Alexander Outstanding Student Abstracts" Oral Presentation

OTHER PROFESSIONAL COMMUNICATIONS

Book Chapters

- Kerver JM, Park YK, and Song WO. The Role of Eggs in American Diets: Health Implications and Benefits. In: Watson RR, ed. Eggs and Health Promotion. Ames, IA: Iowa State Press, 2002:18-29. (Cited 4 times)
- 2. Mudd LM and **Kerver JM**. Pregnancy and Postpartum. In: Bushman B, ed. American College of Sports Medicine's Complete Guide to Fitness and Health—2nd Edition. Champaign, IL: Human Kinetics, 2017: Chapter 19, pages 369-384.

Letters to the Editor

1. Murtaugh M, Tangney CC, and **Kerver J**. Is there a relationship between urinary lactose excretion and lactation performance? J Am Diet Assoc. 1998 Mar;98(3):264.

Study Modules

 Rozga MR, Kerver JM, Olson BH. Independent study module for lactation consultants: Selfreported reasons for breastfeeding cessation among low-income women enrolled in a peer counseling breastfeeding support program. Journal of Human Lactation. 2015;31(1):189– 190.

INVITED PRESENTATIONS SINCE 2016

- Food as Prevention: The Fascinating Case of Folic Acid and the Call to Avoid Complacency CHOICES: The conference that celebrates food, health, & collaboration (Mar 11, 2016) Dearborn, MI
- Lifelong Consequences of Early Nutrition MSU Rx (Sept 23, 2016)
 Wharton Center, East Lansing, MI
- Nutrition: The Foundation for Lifelong Health
 Great Start Collaborative/MSU Community Partnership Lecture Series (Sept 27, 2016)
 Hirko and Kerver, co-presenters
 Cowell Family Cancer Center, Traverse City, MI
- Guest Lecture, Assessing Effects of Early Nutrition University of Michigan, NUTR 688 (Nov 16, 2016) Ann Arbor. MI

 Nutrition and Brain Development Pediatric Grand Rounds (Aug 22, 2017) Helen DeVos Children's Hospital, Grand Rapids, MI

Diet and the Gut Microbiome: Local Research
 Culinary Medicine Conference, Great Lakes Culinary Institute (Sept 24, 2017)
 Northwestern Michigan College, Traverse City, MI

- 7. Diet and the Gut Microbiome: Does Pregnancy Nutrition Matter?
 CHOICES: The conference that celebrates food, health, & collaboration (Mar 15, 2018)
 Dearborn, MI
- 8. ECHO in MI (Environmental Influences on Child Health, a program supported by NIH) Pre-IMAC educational session, Infant Mortality Advisory Committee (Nov 9, 2017) East Lansing, MI
- Population Health: The Big Picture of Physical Health with Mental Illness Michigan Clubhouse Conference (July 2018) Traverse City, MI
- Integrating Wellness Standards into Clubhouse Culture to Improve Physical Health of Persons with Mental Illness USA Clubhouse Conference (Oct 2018) Bethesda, MD
- 11. World Population Health in Terms of Physical Health of People with Mental Illness European Clubhouse Conference (Nov 2018) Denmark, presented via zoom connection
- MSU—Munson Community Based Research Initiatives
 Munson Healthcare Friday Medical Conference (March 2019)
 Hirko and Kerver, co-presenters
 Traverse City, MI
- Local Research Update
 American Association of University Women, Traverse City Chapter (Sept 2019)
 Hirko and Kerver, co-presenters
 Traverse City, MI

TEACHING AND ADVISING

1995-1998 **Dietetic Internship Preceptor**

University of Chicago Medical Center, Chicago, IL

Dietetic Interns from Rush-Presbyterian-St. Luke's Medical Center and the

University of Illinois at Chicago, Chicago, IL

Topics: Outpatient Counseling; Diabetes Management; Community Research

1999-2003 **Teaching Assistant**

Dept. of Food Science and Human Nutrition, Michigan State University

Course: Basic Nutritional Counseling (HNF 379) spring, 1999

<u>Course</u>: Medical Nutrition Therapy (MNT) (HNF 466), 86 students, spring, 2003 <u>Course</u>: MNT Outcomes Documentation (HNF 467), 70 students, spring, 2003

2004-2009 **Instructor**

Dept. of Food Science and Human Nutrition, Michigan State University

<u>Course</u>: Introduction to Human Nutrition (HNF 150), 440 students, fall 2004; 983 students in two sections, fall 2005

<u>Course</u>: Medical Nutrition Therapy (MNT) (HNF 466), 88 students, spring, 2005 <u>Course</u>: MNT Outcomes Documentation (HNF 467), 56 students, spring, 2005 <u>Course</u>: MNT Outcomes Documentation—Nutrition Counseling Focus (HNF

467), Developed and taught as a hybrid course (mostly online with 4 in-person sessions), 139 students, spring 2009

2000- Guest Lecturer

Department of Nutrition, Case Western Reserve Univ., Cleveland, OH

<u>Course</u>: Investigative Methods in Nutrition (NTRN 561), 16-20 students, every fall, 2003--2005

Lecture Topic: Epidemiological Nutrition Research: Using National Surveys

Dept. of Food Science and Human Nutrition, Michigan State University

Course: Community Nutrition (HNF 375), 110 students, spring, 2000

Lecture Topic: National Nutrition Surveys

Course: Medical Nutr Therapy (HNF 471), ~70 students, every fall, 2009-2013

Lecture Topic: Top Ten Tips for Nutrition Counseling

Course: Human Nutr & Chronic Dis (HNF 840), ~20 students, fall, 2009, 2011

Lecture Topic: Fetal Nutrition and Chronic Disease

Dept. of Epidemiology and Biostatistics, Michigan State University

Course: Disease in Society (EPI 390), ~300 students, spring, 2014, 2015

Lecture Topic: Vitamins and Minerals

Course: Perinatal Epidemiology (EPI 816), ~10 students, spring, 2015

Lecture Topic: Pregnancy Nutrition and Child Brain Development

Course: Epidemiology of Cardiovascular Disease (EPI 815), ~12 students, spring

2017

Lecture Topic: Perspectives on Nutritional Epidemiology: A View from Pregnancy

2015- Assistant Professor, College of Human Medicine, Michigan State University <u>Course</u>: Medical Student Legacy Course, Critical Appraisal/Analytic Medicine (CAAM), 12 3rd medical students/year (co-taught with Dr. David Klee, 2015-18)

<u>Course</u>: Medical Student Shared Discovery Curriculum (HM 651, HM 652, and HM 653), Advanced Skills and Knowledge (ASK), Rationality Section (co-taught with Dr. Kelly Hirko, 2019-)

<u>Course</u>: Medical Student Research Electives (HM 691): Kathleen Louis (spring Intersession 2017), Kortney Bower (winter Intersession 2018)

<u>Course</u>: Epidemiology Graduate Student Independent Studies (EPI 890), Daniel Dutkiewicz (Summer 2018), Emily Werner (spring 2019)

PhD Dissertation Committee Service

Department of Epidemiology and Biostatistics, Michigan State University

- Mallory Doan Davis (Major Advisor Nigel Paneth) Completed fall 2017
- Diana Haggerty (Major Advisor Nigel Paneth) Committee formed spring 2015
- Daniel Dutkiewicz (Major Advisor Lixin Zhang) Committee formed fall 2018

Department of Food Science and Human Nutrition, Michigan State University

- Mary Rozga (Major Advisor Beth Olson), PhD, Completed Aug 2014
- Amy Saxe-Custack (Major Advisor Lorraine Weatherspoon) Completed Aug 2016
- Dawn Earnesty (Major Advisor Lorraine Weatherspoon) Completed May 2019
- Gayle Shipp (Co-Advisors Jean Kerver and Lorraine Weatherspoon) Committee formed spring 2016

College of Nursing, Michigan State University

Grace Williams (Major Advisor Lorraine Robbins) Committee formed spring 2017

Department of Kinesiology, Michigan State University

- Alicja Stannard (Major Advisor Lanay Mudd) Completed May 2016
- Emily Werner (Major Advisor James Pivarnik) Committee formed spring 2019

Interdisciplinary Health Sciences Program, Western Michigan University

Diana Hassan (Major Advisor Amy Curtis) Completed Dec 2015

MSc Thesis Committees

Department of Epidemiology and Biostatistics, Michigan State University

- Lynette Biery (Major Advisor Nigel Paneth) MSc, Completed Dec 2013
- Daniel Dutkiewicz (Major Advisor Lixin Zhang) MSc, Completed May 2016
- Taylor Seaton (Major Advisor Jean Kerver), Completed May 2017

PROFESSIONAL SERVICE

- 2011- Expert reviewer for competitive awards at the state level from national funding for the Supplemental Nutrition Assistance Program Education (SNAP-Ed), Michigan Nutrition Network at the Michigan Fitness Foundation. I am the sole standing expert reviewer for this award of over \$15M annually (others rotate on and off the committee)
- 2012-2014 **Director of Nutrition Scholarship, Michigan State University Extension**Provided leadership for a statewide workforce (> 100 staff) of cooperative extension educators to ensure translation of scholarly nutrition information into applied nutrition programs
- 2015-2018 Infant Mortality Executive Committee, At-Large Member
 Served a three-year term as the At-Large member of an eight-member group
 whose charge was to manage the Infant Mortality Reduction Work Plan for the
 state of Michigan Department of Health & Human Services, Division of Family,
 Maternal, and Child Health, Population Health and Community Services
- 2016-2018 **Evaluation Director (in-kind)**, Prescription for Health funded by Michigan DHHS, Michigan Health & Wellness 4X4 Plan and granted to Munson Medical Center (grant renewed three years in a row)
- 2016-2018 **Evaluation Director (in-kind)**, Expanding the Healthy Futures Program, funded by the Michigan Health Endowment Fund and granted to Munson Medical Center

Ad-Hoc Reviewer

Journals: American Journal of Epidemiology, American Journal of Obstetrics and Gynecology,

American Journal of Preventive Medicine, Antioxidants, BMC Pregnancy and Childbirth, BMC Public Health, British Journal of Nutrition, Environmental Research, International Journal of Behavioral Nutrition and Physical Activity, International Journal of Developmental Neuroscience, Journal of the Academy of Nutrition and Dietetics (formerly Journal of the American Dietetic Association), Journal of the American Medical Association, Journal of Human Lactation, Journal of Human Nutrition and Dietetics, Journal of Nutrition Health and Aging, Journal of Pediatric Endocrinology and Metabolism, Nutrients, Nutrition Research, Paediatric and Perinatal Epidemiology, Pediatrics, PLOS ONE, Public Health Nutrition