



## Warren J. Strauss, ScM

*President*

### QUICK FACTS

- ✓ 27+ years of experience in the public health sector, with an expertise in application of statistics and mathematical modeling
- ✓ Serves as the incoming President of Karna, LLC

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**“ I enjoy leading and growing talented teams focused on improving health outcomes through research and technical services, while creating a challenging, engaging, and fun work. ”**

Warren Strauss serves as the President of Karna, LLC, with primary responsibility for managing and growing the business. He has nearly 30 years of experience in the application of statistical and mathematical models for problems relating to the fields of public health, healthcare, pediatric health, environmental exposure, and toxicology. He received his Sc.M. degree in biostatistics from the Johns Hopkins School of Hygiene and Public Health, where he developed methods for analyzing longitudinal data with nested clusters (data observed from sibling children living in the same household over time). His scientific work has involved conducting research in experimental design, regression analysis for correlated data, generalized linear models, and multivariate statistical methods. A particular focus of his research has been related to the design and analysis of data of longitudinal studies related to pediatric environmental health outcomes with a particular focus on those that affect minority populations disproportionately, including childhood lead poisoning, childhood exposure to pesticides, youth access and utilization of tobacco, monitoring of hazardous air pollutants, childhood obesity, and healthcare quality. He has published several manuscripts examining statistical methodology and health disparities.

Warren is an expert in developing new and innovative statistical design and analysis methodologies for healthcare and public health studies. Prior to joining Karna, he had a 24-year career at Battelle Memorial Institute, where he served as the Business Line Manager for the company’s work portfolio in Healthcare and Analytics while leading a team of approximately 150 technical staff engaged in statistical, healthcare and public health-related research, and delivering approximately \$30M in client-sponsored research activities per year.

Warren also served briefly as the Vice President for Product Analytics at Root Insurance (a technology start-up company in the auto insurance industry), and as the Senior Vice President for Research and Innovation at Ventech Solutions – designing, managing and coordinating large research programs that are the focus of Ventech’s internal investments for growth.

Warren received his Bachelors of Science in Statistics and Biometry from Cornell University, College of Agriculture and Life Sciences.

He enjoys leading and growing talented teams focused on improving health outcomes through research and technical services. He believes in being mission-focused while creating a challenging, engaging, and fun work environment where people can reach their goals inside and outside of the workplace.

## EXPERTISE

- Biostatistics
- Public Health
- Longitudinal Data Analysis
- Environmental Health
- Pediatric Health Program Evaluation
- Epidemiologic Methods
- Health Disparities
- Maternal and Child Health
- Public Health Informatics
- Statistics
- Study Design

## PUBLICATION HIGHLIGHTS & INSIGHTS

- **Chronic Conditions**
  - ***Childhood Obesity (Could also be listed under Maternal/Child Health)***
    - Strauss WJ, Nagaraja J, Landgraf AJ, Arteaga SS, Fawcett SB, Ritchie LD, John LV, Gregoriou M, Frongillo EA, Loria CM, Weber SA, Collie-Akers VL, McIver KL, Schultz J, Sagatov RDF, Leifer ES, Webb K and Pate RR, The longitudinal relationship between community programmes and policies to prevent childhood obesity and BMI in children: the Healthy Communities Study, *Pediatric Obesity*, 13, S1, (82-92), (2018).
    - Strauss, WJ, Sroka CJ, Frongillo EA, Arteaga SS, Loria CM, Leifer ES, Wu CO, Patrick H, Fishbein HA, John LV. Statistical Design Features of the Healthy Communities Study. *Am J Prev Med*. 2015;49(4): 624–630.
    - Ritchie LD, Woodward-Lopez G, Au LE, Loria CM, Collie-Akers V, Wilson DK, Frongillo EA, Strauss WJ, Landgraf AJ, Nagaraja J, Sagatov RDF, Nicastro HL, Nebeling LC and Webb KL, Associations of community programs and policies with children's dietary intakes: the Healthy Communities Study, *Pediatric Obesity*, 13, S1, (14-26), (2018).
    - Sagatov RDF, John LV, Gregoriou M, Arteaga SS, Weber S, Payn B, Strauss WJ, Weinstein N, and Collie-Akers V, Recruitment outcomes, challenges and lessons learned: the Healthy Communities Study, *Pediatric Obesity*, 13, S1, (27-35), (2018).
    - Woodward-Lopez G, Gosliner W, Au LE, Kao J, Webb KL, Sagatov RDF, Strauss WJ, Landgraf AJ, Nagaraja J, Wilson DK, Nicastro HL, Nebeling LC, Schultz JA and Ritchie LD, Community characteristics modify the relationship between obesity prevention efforts and dietary intake in children: the Healthy Communities Study, *Pediatric Obesity*, 13, S1, (46-55), (2018).
    - Pate RR, Frongillo EA, McIver KL, Colabianchi N, Wilson DK, Collie-Akers VL, Schultz JA, Reis J, Madsen K, Woodward-Lopez G, Berrigan D, Landgraf AJ, Nagaraja J and Strauss WJ,

Associations between community programmes and policies and children's physical activity: the Healthy Communities Study, *Pediatric Obesity*, 13, S1, (72-81), (2018).

- Schultz JA, Collie-Akers VL, Fawcett SB, Strauss WJ, Nagaraja J, Landgraf AJ, McIver KL, Weber SA, Arteaga SS, Nebeling LC and Rauzon SM, Association between community characteristics and implementation of community programmes and policies addressing childhood obesity: the Healthy Communities Study, *Pediatric Obesity*, 13, S1, (93-102), (2018).
- Webb KL, Hewawitharana SC, Au LE, Collie-Akers V, Strauss WJ, Landgraf AJ, Nagaraja J, Wilson DK, Sagatov RDF, Kao J, Loria CM, Fawcett SB and Ritchie LD, Objectives of community policies and programs associated with more healthful dietary intakes among children: findings from the Healthy Communities Study, *Pediatric Obesity*, 13, S1, (103-112), (2018).
- Frongillo EA, Fawcett SB, Ritchie LD, Arteaga S, Loria CM, Pate RR, John LV, Strauss WJ, Gregoriou M, Collie-Akers VL, Schultz JA, Landgraf AJ, Nagaraja J. Community policies and programs to prevent obesity and child adiposity. *American Journal of Preventive Medicine* 53:576-583, 2017.
- Arteaga SS, Loria CM, Crawford PB, Fawcett SB, Fishbein HA, Gregoriou M, John LV, Kelley M, Pate RR, Ritchie LD, Strauss WJ. The Healthy Communities Study: its rationale, aims, and approach. *Am J Prev Med*. 2015;49(4): 615–623.
- John LV, Gregoriou M, Pate RR, Fawcett SB, Crawford PB, Strauss WJ, Frongillo EA, Ritchie LD, Loria CM, Kelley M, Fishbein HA, Arteaga SS. Operational implementation of the Healthy Communities Study: how communities shape children's health. *Am J Prev Med*. 2015;49(4):631–635.
- **Cardiovascular Disease (Also listed under Environmental Health/Exposure to Particulate Matter)**
  - Calder CA, Holloman CH, Bortnick SM, Strauss WJ, and Morara M. Relating ambient particulate matter concentration levels to mortality using an exposure simulator. *Journal of the American Statistical Association* 2008;103(481):137–148.
  - Holloman CH, Bortnick SM, Morara M, Strauss WJ, and Calder CH. A Bayesian hierarchical approach for relating PM2.5 exposure to cardiovascular mortality in North Carolina. *Environmental Health Perspectives* Sep 2004;112(13):1282–1288. PMID: 15345340. [PubMed – indexed for MEDLINE, free article]
- **Environmental Health**
  - **Pesticide Exposures**
    - Cressie, N., Morara, M., Buxton, B., McMillan, N., Strauss, W. and Wilson, N. (2013), A Bayesian multivariate analysis of children's exposure to pesticides. *Environmetrics*, 24: 357–366. doi:10.1002/env.2220.
    - Wilson NK, Strauss WJ, Iroz-Elardo N, and Chuang JC. Exposures of preschool children to chlorpyrifos, diazinon, pentachlorophenol, and 2,4-dichlorophenoxyacetic acid over 3 years from 2003 to 2005: A longitudinal model. *J Expo Sci Environ Epidemiol* Sep 2010;20(6):546–558. PMID: 19724304. <http://www.ncbi.nlm.nih.gov/pubmed/19724304>.
  - **Childhood Lead Poisoning**
    - Gaitens JM, Dixon SL, Jacobs DE, Nagaraja J, Strauss W, Wilson JW, and Ashley PJ. Exposure of U.S. children to residential dust lead, 1999–2004: I. Housing and demographic factors. *Environ Health Perspect* Mar 2009;117(3):461–467 PMID: 19337523 [PubMed – indexed for MEDLINE, free article] doi:10.1289/ehp.11917.
    - Dixon SL, Gaitens JM, Jacobs DE, Strauss W, Nagaraja J, Pivetz T, Wilson JW, and Ashley PJ. Exposure of U.S. children to residential dust lead, 1999–2004: II. The contribution of lead-contaminated dust to children's blood lead levels. *Environ Health Perspect* Mar 2009;117(3):468–474. PMID 19337524 [PubMed – indexed for MEDLINE, free article]

doi:10.1289/ehp.11918.

- Wilson J, Pivetz T, Ashley P, Jacobs D, Strauss W, Menkedick J, Dixon S, Tsai HC, Brown V, Friedman W, Galke W, and Clark S. Evaluation of HUD-funded lead hazard control treatments at 6 years post-intervention. *Environmental Research* Oct 2006;102(2):237–248. PMID: 16740256 [PubMed – indexed for MEDLINE].
- Strauss WJ, Pivetz T, Ashley P, Menkedick J, Slone E, and Cameron S. Evaluation of lead hazard control treatments in four Massachusetts communities through analysis of blood-lead surveillance data. *Environmental Research* Oct 2005;99(2):214–223
- Strauss WJ, Carroll RJ, Bortnick SM, Menkedick JR, and Schultz BD. Combining datasets to predict the effects of regulation of environmental lead exposure in housing stock. *Biometrics* Mar 2001;57(1):203–210. PMID: 11252599 [PubMed – indexed for MEDLINE]
- Farrell KP, Brophy MC, Chisolm JJ, Rohde CA, and Strauss WJ. Soil lead abatement and children’s blood-lead levels in an urban setting. *American Journal of Public Health* Dec 1998;88(12):1837–1839. PMID: 9842383 [PubMed – indexed for MEDLINE, free article]
- **Exposure to Air Toxics and Particulate Matter**
  - Calder CA, Holloman CH, Bortnick SM, Strauss WJ, and Morara M. Relating ambient particulate matter concentration levels to mortality using an exposure simulator. *Journal of the American Statistical Association* 2008;103(481):137–148.
  - Holloman CH, Bortnick SM, Morara M, Strauss WJ, and Calder CH. A Bayesian hierarchical approach for relating PM2.5 exposure to cardiovascular mortality in North Carolina. *Environmental Health Perspectives* Sep 2004;112(13):1282–1288. PMID: 15345340. [PubMed – indexed for MEDLINE, free article]
- **Health Equity and Social Determinants of Health (Also listed under Childhood Obesity)**
  - Strauss WJ, Nagaraja J, Landgraf AJ, Arteaga SS, Fawcett SB, Ritchie LD, John LV, Gregoriou M, Frongillo EA, Loria CM, Weber SA, Collie-Akers VL, McIver KL, Schultz J, Sagatov RDF, Leifer ES, Webb K and Pate RR, The longitudinal relationship between community programmes and policies to prevent childhood obesity and BMI in children: the Healthy Communities Study, *Pediatric Obesity*, 13, S1, (82-92), (2018).
- **Substance Abuse/Tobacco Control**
  - **Tobacco Control**
    - Schmitt C, Malarcher A, Clark P, Bombard P, Strauss W, and Stillman F. Community guide recommendations and state-level tobacco control programmes, 1999–2004. *Tobacco Control* 2007;16:318–324.
    - Siegel M, Mowery PD, Pechacek TP, Strauss WJ, Schooley MW, Merritt RK, Novotny TE, Giovino GA, and Eriksen MP. Trends in adult cigarette smoking in California compared with the rest of the United States, 1978–1994. *American Journal of Public Health* March Mar 2000;90(3):372–379. PMID: 10705854 [PubMed – indexed for MEDLINE, free article]
    - Caraballo RS, Giovino GA, Pechacek TF, Mowery PD, Richter PA, Strauss WJ, Sharp DJ, Eriksen MP, Pirkle JL, and Maurer KR. Racial and ethnic differences in serum cotinine levels of cigarette smokers: Third National Health and Nutrition Examination Survey, 1988–1991. *JAMA* Jul 1998;280(2):135–139. PMID: 9669785 [PubMed – indexed for MEDLINE, free article]
- **Maternal and Child Health**
  - **National Children’s Study**
    - Strauss W, Ryan L, Morara M, Iroz-Elardo N, Davis M, Cupp M, Nishioka MG, Quackenboss J, Galke W, Özkaynak H, and Scheidt P. Improving cost-effectiveness of epidemiological studies via designed missingness strategies. *Statistics in Medicine, Special Issue Paper* Jun 2010;29(13):1377–1387. PMID 20527011. doi: 10.1002/sim.3892.

- Morara M, Ryan L, Houseman A, and Strauss W. Optimal design for epidemiological studies subject to designed missingness. *Lifetime Data Analysis* Dec 2007;13(4):583–605. PMID: 18080755 [PubMed – indexed for MEDLINE]