

## Ryan Richard Ruff, PhD, MPH

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CONTACT INFORMATION	380 Second Avenue, Suite 300, Office 309 Department of Epidemiology & Health Promotion New York University College of Dentistry	<i>Voice:</i> (212) 998-9663 <i>E-mail:</i> ryan.ruff@nyu.edu <i>Web:</i> www.ryanruff.com
RESEARCH SUMMARY	Epidemiologist and education researcher interested in school-based health systems, the role of oral health on child development, and the implementation of pragmatic clinical trials in schools. I am also the director of the Biostatistics Core, which supports additional collaborations in pediatrics, molecular pathobiology, and oncology.	
EDUCATION	<b>University of Virginia</b> , Charlottesville, VA USA PhD in Research, Statistics, & Evaluation, December 2009 BAMT in Education, May 2005  <b>Cambridge University</b> , Cambridge, UK MPhil in Education Policy, July 2010  <b>Harvard University</b> , Cambridge, MA USA MPH in Epidemiology, May 2017	
HONORS AND AWARDS	2024 Cuspie Award, Scientific Paper of the Year 2022 Fellow of the American College of Epidemiology 2021 Sigma Xi Scientific Honor Society 2021 Fellow of the New York Academy of Medicine 2020 Goddard Junior Faculty Fellowship 2019 One of the top papers published in <i>BMC Oral Health</i> 2018 Delta Omega Honor Society, New York University 2018 NYU Faculty Honoree, New York University 2017 Academy of Distinguished Educators, NYU College of Dentistry 2012 Distinguished Service Award, NYC Department of Health 2008 DuPont Fellow, University of Virginia 2007 Doctoral Fellowship, University of Virginia (2007 and 2006)	
ACADEMIC EXPERIENCE	<b>New York University College of Dentistry</b> , New York, NY Department of Epidemiology & Health Promotion <i>Associate Professor (tenure track)</i> <i>Assistant Professor (tenure track)</i> <i>Research Assistant Professor</i> Director, Biostatistics Core (2017-Present), Director, MS Program in Clinical Research (2017-Present), Head of the Statistics & Data Unit (2015-2017)	<b>2019 - Pres</b> <b>2017 - 2019</b> <b>2014 - 2017</b>

**New York University School of Global Public Health, New York, NY**  
*Associated Professor* **2014 - Pres**  
*Adjunct Associate Professor* **2012 - 2014**

**Uniformed Services University of the Health Sciences**  
*Adjunct Associate Professor* **2022 - Pres**

PROFESSIONAL  
EXPERIENCE

**Ruff Methods Consulting, New York, NY**  
*Principal Consultant* **2023 - Pres**

**Columbia Epidemiology & Population Health Institute, New York, NY**  
*Instructor* **2012 - 2021**

**New York City Department of Health, New York, NY**  
*Director, Research & Evaluation Unit* **2011 - 2014**

**New York City Department of Education, New York, NY**  
*Director of Research & Evaluation* **2010 - 2011**

RESEARCH  
EXPERIENCE

**Funded Research - As Principal Investigator**

- 2024 - 2026 Supplementary award, Patient-Centered Outcomes Research Institute (parent award #PCS160936724). "Optimizing school-based oral health programs that use silver diamine fluoride." \$394,472
- 2018 - 2026 PCS160936724, Patient-Centered Outcomes Research Institute, "Comparative effectiveness of school-based caries prevention for children: A cluster randomized pragmatic clinical trial." \$13,052,988 (MPI)
- 2023 - 2024 JSI22-1529, JSI Research & Training Institute and NH Department of Health & Human Services, "Sustainability of a school-based caries prevention program." \$249,022
- 2023 - 2023 C38355GG, New York State Department of Health School-Based Dental Home Program (SBDHP), "CariedAway: A sustainable model for school-based dental programs in New York City." \$50,000.
- 2020 - 2022 R56 DE028933, National Institute of Dental and Craniofacial Research, "The role of the oral microbiome in disparities in dental caries and responsiveness to caries prevention." \$517,296
- 2019 - 2020 RA633, New York University Mega Grant Support Initiative, "The role of the oral microbiome in disparities in dental caries and responsiveness to caries prevention: A pilot study." \$15,000
- 2017 - 2024 R01 MD011526, National Institute on Minority Health and Health Disparities, "Statewide implementation and evaluation of a rural caries prevention program." \$3,617,644 (MPI)

2016 - 2018 R03 DE025289, National Institute of Dental and Craniofacial Research, "Analysis of longitudinal data from a school-based caries prevention program." \$317,000

**As co-investigator or other role**

2024 - 2028 Solventum (3M), "Clinical evaluation of injectable 3M Filtek supreme flowable composites for class IV cavities and veneers." \$TBD (Allen & Hirata, PIs)

2024 - 2028 R01 NS102722, National Institute of Neurological Disorders and Stroke, "Endosomal platforms for signaling pain" \$3,062,710 (Bunnett & Schmidt, PIs)

2024 - 2026 R01 DE031319, National Institute of Dental and Craniofacial Research, "A multi-center prospective cohort study of malignant transformation risk in oral epithelial dysplasia and cancer recurrence risk in oral squamous cell carcinoma" \$3,699,333 (McDevitt, PI)

2024 - 2026 RM1 DE033491, National Institute of Dental and Craniofacial Research, "Endosomal mechanisms signaling oral cancer pain" \$4,820,611 (Schmidt & Bunnett, PIs)

2024 - 2026 R01 CA231396, National Cancer Institute, "TRPV1 nociceptors in oral carcinogenesis and pain" \$3,101,649 (Albertson & Schmidt, PIs)

2024 - 2025 UG3 NS128148 (sub-award), National Institute of Neurological Disorders and Stroke, "Peripherally-restricted non-addictive cannabinoids for cancer pain treatment" \$301,369 (Spigelman, PI)

2024 - 2025 R01 DE029694, National Institute for Dental and Craniofacial Research, "Intra-tumor co-delivery of DNA and RNA to relieve cancer pain" \$2,905,693 (Schmidt & Yamano, PIs)

2024 - 2025 W81XWH-22-1, Department of Defense, "Receptors in endosomes mediate chronic pain associated with trauma and stress: Non-opioid targets for pain" \$936,199 (Schmidt, PI)

2024 - 2025 R01 CA228525, National Cancer Institute, "Artemin overexpression in oral cancer pain and carcinogenesis" \$2,567,300 (Albertson, PI)

2024 - 2025 R01 DE029951, National Institute for Dental and Craniofacial Research, "Targeting endosomal receptors for treatment of chronic pain". \$3,385,528 (Bunnett & Schmidt, PIs)

2024 - 2024 R01 DE026806 (NCE), National Institute of Dental and Craniofacial Research, "Protease PAR TRPV4 Axis and Oral Cancer Pain" \$3,917,007 (Schmidt & Bunnett, PIs)

2024 - 2024 R03 DE030996, National Institute of Dental and Craniofacial Research, "TRPA1 regulation of oral cancer nociception" \$317,000 (Bhattacharya, PI)

2022 - 2023 JSI22-1529, US Department of Health & Human Services, "Situation analysis, planning, and proposal for a statewide school-based cavity prevention program" \$50,000 (Niederman, PI)

- 2015 - 2016 R01 DE018729, National Institute of Dental and Craniofacial Research, "Quality of life in children with cleft." \$3,231,498 (Broder, PI)
- 2014 - 2015 U24 MD006964, National Institute on Minority Health and Health Disparities, "Effectiveness and improvement of rural, school-based, caries prevention programs." \$7,100,000 (Niederman, PI)
- 2013 - 2014 NYU Community and Translational Science Institute, "Understanding obesity among public housing residents in NYC: A community-based geospatial project." \$35,000 (Duncan, PI)
- 2013 - 2014 RWJF71637, Robert Wood Johnson Foundation, "Assessing the impact of food restrictions under the Supplemental Nutrition Assistance Program on food choice by families." \$170,000 (Chen Zhen, PI)

**Other research funding**

- 2018 New Hampshire Women, Infants, and Children Pay for Prevention Program. Served as epidemiologist/biostatistician for program evaluation and reporting (\$9,125)
- 2017 New York City Department of Health and Mental Hygiene. Subject-matter expert regarding oral health data registry and survey system development (\$40,000)

**Grants submitted or in development**

- Submitted Pragmatic Research to Implement Sustainable Medicine in Schools (PRISMS), National Institute of Dental and Craniofacial Research (PI, R01)
- Submitted Making caries prevention SMART: A personalized approach to school-based oral medicine, National Institute on Minority Health and Health Disparities (PI, R01)
- Submitted School-based dental programs and the effects on academic performance and student attendance, Spencer Foundation (PI, Large Research Grants on Education)
- Submitted Marijuana-induced dysbiosis in experimental gingivitis, National Institute of Dental and Craniofacial Research (Co-I, UG3/UH3)
- Submitted Gut microbiome alterations as a mechanism of immune dysregulation in new onset refractory status epilepticus, National Institute of Dental and Craniofacial Research (Co-I, R01)
- Submitted Defining TRPV4 contribution of Schwann cells to oral cancer pain, National Institute of Dental and Craniofacial Research (Mentor, K23)
- Submitted Developing a predictive model for osteoporosis, National Institute of Dental and Craniofacial Research (MPI, R01)
- Submitted Fibronectin modulation of oral cancer nociception, National Institute of Dental and Craniofacial Research (Co-I, R01)

- In progress Improving upon the design and implementation of school-based caries prevention: A secondary data analysis approach, NIDCR (PI, R03 resubmission, impact score 32)
- In progress Adult transition support for oral health in adolescents with cognitive and intellectual disabilities, NIDCR (PI, UG3/UH3)

## PUBLICATIONS

- [62] **Ruff RR**. Caries incidence in school-based oral health programs. medRxiv. 2024. doi: 10.1101/2024.07.29.24311175.
- [61] Poudel SB, **Ruff RR**, He Z, Dixit M, Yildirim G, Jayarathne H, Manchanayake DH, ..., Yakar S. The impact of inactivation of the GH/IGF axis during aging on healthspan. bioRxiv. 2024.
- [60] Vandewalle KS, Vader V, **Ruff RR**, Kosaraju A. Evaluating the Diagnostic Interrater Reliability between Virtual and In-person Sick-call Examinations at a Military Dental Treatment Facility. medRxiv. 2024.
- [59] Barry Godín TB, Shah R, Hawthorne G, **Ruff RR**. Screening and treatment time in school-based caries prevention: A randomized clinical trial. medRxiv. 2024. doi: 10.1101/2024.07.11.24310306.
- [58] Poudel SB, Chlebek C, **Ruff RR**, Yildirim G, Hu B, He Z, ..., Yakar S. Canagliflozin-induced sex-specific adaptive metabolism in bone. bioRxiv. 2024.
- [57] **Ruff RR**, Niederman R. School-based caries prevention using silver diamine fluoride: A pragmatic randomized trial in low-income rural children. medRxiv. 2024. doi: 10.1101/2024.06.05.24308499.
- [56] **Ruff RR**. Transition probabilities for dental caries in a school-based prevention program. medRxiv. 2024. doi: 10.1101/2024.06.05.24308501.
- [55] Poudel SB, **Ruff RR**, Yildirim G, Miller RA, Harrison DE, Strong RL, Kirsch T, Yakar S. Development of primary osteoarthritis during aging in genetically diverse UM-HET3 mice. Arthritis Research & Therapy. 2024;26(1):118. doi: 10.1186/s13075-024-03349-y.
- [54] **Ruff RR**, Niederman R. A school-based model for minimally invasive dental caries prevention and control: The CariedAway pragmatic randomized trial. Washington, DC: Patient-Centered Outcomes Research Institute (PCORI); 2024.
- [53] **Ruff RR**, Barry-Godin T, Niederman R. Noninferiority of silver diamine fluoride vs sealants for reducing dental caries prevalence and incidence: A randomized clinical trial. JAMA Pediatrics. 2024;178(4):354-361. doi: 10.1001/jamapediatrics.2023.6770.
- [52] **Ruff RR**, Barry-Godin T, Whittemore R, Small TM, Santiago-Galvin N, Sharma P. Unmet dental needs in children following suspension of school-based oral health services due to COVID-19. J School Health. 2024; 94(5):427-432. doi: 10.1002/JOSH.13433.
- [51] Poudel SB, Frikha-Benayed D, **Ruff RR**, Yildirim G, Dixit M, Korstanje R, Robinson L, Miller RA, Harrison DE, Strong JR, Schaffler MB, Yakar S. Targeting mitochondrial dysfunction using methylene blue or mitoquinone to improve skeletal aging. Aging. 2024;16(6):4948-4964. doi: 10.18632/aging.

- [50] Poudel SB, **Ruff RR**, Yildirim G, Dixit M, et al. Excess Growth Hormone Triggers Inflammation-Associated Arthropathy, Subchondral Bone Loss, and Arthralgia. *American Journal of Pathology*. 2023; 193(6):829-842. doi: 10.1016/j.ajpath.2023.02.010.
- [49] Yildiri G, Bergamo ETP, Poudel S, **Ruff RR**, et al. Effects of canagliflozin on skeletal morphology, bone mineral composition, and nano-mechanical properties in UM-HET3 mice. *GeroScience*. 2023; 45(3):1933-1951. doi: 10.1007/s11357-023-00803-8.
- [48] **Ruff RR**, Habib R, Barry-Godin T, Niederman R. School-based caries prevention and the impact on acute and chronic student absenteeism. *Journal of the American Dental Association*. 2023; 154(8):753-759. doi: 10.1016/j.adaj.2023.05.007.
- [47] **Ruff RR**, Barry-Godin T, Niederman R. Effect of silver diamine fluoride on caries arrest and prevention: the CariedAway school-based randomized clinical trial. *JAMA Netw Open*. 2023; 6(2). doi: 10.1001/jamanetworkopen.2022.55458.
- [46] **Ruff RR**, Barry-Godin T, Niederman R. The effectiveness of medical nurses in treating children with silver diamine fluoride in a school-based caries prevention program. *Community Dentistry & Oral Epidemiology*. 2023;52(4):398-405. doi: 10.1111/CDOE.12925.
- [45] Dixit M, Louis LD, Basta-Lkjakic J, ... **Ruff RR**, Schaffler MB, Yakar S. Lifelong excess in GH elicits sexual dimorphic effects on skeletal morphology and bone mechanical properties. *J Bone Miner Res*. 2022; 37(11). doi: 10.1002/jbmr.4699.
- [44] Choi M, Ibrahim F, **Ruff RR**, Giugliano T. Digital Analysis of the Dimensional Change Of an Irreversible Hydrocolloid Impression Material (Alginate) with Varying Storage Times. *Primary Dental Journal*. 2022; 11(4). doi: 10.1177/20501684221133417.
- [43] Ellis AW, Kosaraju A, **Ruff RR**, Miller CB, Francis JM, Vandewalle KS. Dental erosion as an indicator for gastroesophageal reflux disease. *General Dentistry*. 2022; 70(6):46-51.
- [42] **Ruff RR**, Barry-Godin T, Murray T, Niederman R. Silver diamine fluoride, atraumatic restorations, and oral health-related quality of life in children aged 5-13 years: Results from the Caried-Away school-based cluster randomized trial, *BMC Oral Health*. 2022; 22(125). doi: 10.1101/2021.04.19.21255478.
- [41] **Ruff RR**, Monse B, Duijster D, Naliponguit E, Benzian H. School-based strategies to prevent tooth decay in a high-risk child population in the Philippines: Results of a longitudinal cohort study. *Community Dentistry and Oral Epidemiology*. 2022;51(2):219-227. doi: 10.1111/cdoe.12729.
- [40] **Ruff RR**, Whittemore R, Grocheki M, Bateson J, Barry-Godin T. Silver diamine fluoride and oral-health related quality of life: A network meta-analysis. *PLoS One*. 2022; 17(2). doi: 10.1371/journal.pone.0261627
- [39] **Ruff RR**. From Jomtien to Dakar: A quality assessment of Malawian Education for All policy, 1990-2010. *EdArXiv*. 2022. doi: 10.35542/osf.io/y5xfk.
- [38] **Ruff RR**, Sierra MA, Xu F, Crystal Y, Saxena D. Predicting treatment nonresponse in Hispanic/Latino children receiving silver diamine fluoride for caries arrest: A pilot study using machine learning. *Frontiers in Oral Health*. 2021; 2:695759. doi: 10.3389/froh.2021.695759.
- [37] Paul B, Sierra MA, Xu F, Crystal Y, Li X, Saxena D, **Ruff RR**. Microbial population shift and metabolic characterization of silver diamine fluoride treatment failure on dental caries. *PLoS One*. 2021; 16(3). doi: 10.1371/journal.pone.0242396.

- [36] Aldosari MA, Bukhari OM, **Ruff RR**, Palmisano JN, Nguyen H, Douglass CW, Niederman R, Starr JR. Comprehensive, school-based preventive dentistry: program details and students' unmet dental needs. *Journal of School Health*. 2021; 91(9). doi: 10.1111/josh.13063
- [35] Starr JR, **Ruff RR**, Palmisano J, Goodson JM, Niederman R. Longitudinal caries prevalence in a comprehensive, multi-component, school-based prevention program. *Journal of the American Dental Association*. 2021;152(3). doi: 10.1016/j.adaj.2020.12.005
- [34] **Ruff RR**, Saxena D, Niederman R. School-based caries prevention and longitudinal trends in untreated decay: An updated analysis with Markov chains. *BMC Research Notes*. 2020;13(1). doi: 10.1186/s13104-020-4886-8.
- [33] **Ruff RR**. Street-level research in public health nutrition: A cross-sectional study of dietary behavior in New York City. *SAGE Research Methods Cases: Medicine & Health*. 2020. doi: 10.4135/9781529709698.
- [32] Khouly I, Pardinias-Lopez S, **Ruff RR**, Strauss FJ. Efficacy of growth factors for the treatment of peri-implant diseases: A systematic review and meta-analysis. *Clinical Oral Investigations*. 2020. 24(7):2141-2161. doi: 10.1007/s00784-020-03240-5
- [31] Qi L, Pushalkar S, Kamer A, Corby P, Mota R, Paul B, Guo Y, **Ruff RR**, Alekseyenko A, Li X, Saxena D. The influences of bioinformatics tools and reference databases in analyzing human saliva microbial community. *Genes*. 2020;11(878). doi: 10.3390/genes11080878.
- [30] Yang C, Crystal Y, **Ruff RR**, Niederman R. Quality appraisal of child oral health-related quality of life measures: A scoping review. *JDR Clinical & Translational Research*. 2020;5(2). doi: 10.1177/2380084419855636.
- [29] Huang S, **Ruff RR**, Niederman R. An economic evaluation of a comprehensive school-based caries prevention program. *JDR Clinical & Translational Research*. 2019;4(4):378-387. doi: 10.1177/2380084419837587.
- [28] **Ruff RR**. State-level autonomy in the era of accountability: A comparative analysis of Virginia and Nebraska education policy through No Child Left Behind. *Education Policy Analysis Archives*. 2019;27(6):1-31. doi: 10.14507/epaa.27.4013.
- [27] **Ruff RR**, Senthil S, Susser S, Tsutsui A. Oral health, academic performance, and school absenteeism in children and adolescents: A systematic review and meta-analysis. *J Am Dent Assoc*. 2019;150(2):111-121. doi: 10.1016/j.adaj.2018.09.023.
- [26] **Ruff RR**, Niederman R. Silver diamine fluoride versus therapeutic sealants for the arrest and prevention of dental caries in low-income minority children: Study protocol for a cluster randomized controlled trial. *Trials*. 2018;19(1):523. doi: 10.1186/s13063-018-2891-1.
- [25] **Ruff RR**. Total observed caries experience: Assessing the effectiveness of community-based caries prevention. *Journal of Public Health Dentistry*. 2018;78(4):287-290. doi: 10.1111/jphd.12284.
- [24] **Ruff RR**, Niederman R. School-based caries prevention, tooth decay, and the community environment. *JDR Clinical & Translational Research*. 2018;3(2):180-187. doi: 10.1177/2380084417750612.
- [23] **Ruff RR**, Niederman R. Comparative effectiveness of school-based caries prevention: A prospective cohort study. *BMC Oral Health*. 2018;18(1):53. doi: 10.1186/s12903-018-0514-6.
- [22] **Ruff RR**, Crerand CE, Sischo L, et al. Surgical care for school-aged youth with cleft: Re-

sults from a multicenter, prospective observational study. *The Cleft Palate-Craniofacial Journal*. 2018;55(8):1166-1174. doi: 10.1177/1055665618765776.

[21] **Ruff RR**, Niederman R. Comparative effectiveness of treatments to prevent dental caries given to rural children in school-based settings: Protocol for a cluster randomized controlled trial. *BMJ Open*. 2018;8(4). doi: 10.1136/bmjopen-2018-022646.

[20] **Ruff RR**, Sischo L, Chinn CH, Broder HL. Development and validation of the Child Oral Health Impact Profile - Preschool version. *Community Dental Health*. 2017;34(3):176-182. doi: 10.1922/CDH\_4110Ruff07.

[19] Huang SS, **Ruff RR\***, Niederman R. The benefit of early preventive dental care for children. *JAMA Pediatrics*. 2017;171(9):918. doi:10.1001/jamapediatrics.2017.2066.

[18] Broder HL, Crerand CE, **Ruff RR**, Peshansky A, Sarwer DB, Sischo L. Challenges in conducting multicenter, multidisciplinary, longitudinal studies in children with chronic conditions. *Community Dentistry and Oral Epidemiology*. 2017;45(4):1-6. doi: 10.1111/cdoe.12293.

[17] Rajendra A, Veitz-Keenan A, Oliveira BH, **Ruff RR**, Wong MCM, Innes NPT, Radford J, Seifo N, Niederman R. Topical silver diamine fluoride for managing dental caries in children and adults (Protocol). *Cochran Database of Systematic Reviews*. 2017;7. doi: 10.1002/14651858.CD012718.

[16] **Ruff RR**, Sischo L, Broder HL. Minimally important difference of the Child Oral Health Impact Profile for children with orofacial anomalies. *Health and Quality of Life Outcomes*. 2016;14(140). doi: 10.1186/s12955-016-0544-1.

[15] **Ruff RR**, Broder H, Sischo L. Resiliency and socioemotional functioning in youth receiving surgery for orofacial anomalies. *Community Dentistry and Oral Epidemiology*. 2016;44(4):371-80. doi: 10.1111/cdoe.12222.

[14] **Ruff RR**. The impacts of retention, expenditures, and class size on primary school completion in Sub-Saharan Africa: A cross-national analysis. *International Journal of Education Policy and Leadership*. 2016;11(8).

[13] **Ruff RR**, Ng J, Jean-Louis G, Elbel B, Chaix B, Duncan DT. Neighborhood stigma is associated with poor sleep health in a pilot study of low-income housing residents in New York City. *Behavioral Medicine*. 2016;44(1). doi: 10.1080/08964289.2016.1203754.

[12] Duncan DT, **Ruff RR**, Chaix C, Regan SD, et al. Perceived spatial stigma, body mass index, and blood pressure: A GPS study among low-income housing residents in New York City. *Geospatial Health*. 2016;11(2). doi: 10.4081/gh.2016.399

[11] **Ruff RR**. Sugar-sweetened beverage consumption is linked to global adult mortality through diabetes mellitus and adiposity-related diseases including cardiovascular disease and cancer. *Evidence Based Medicine*. 2015;20(6):223-4. doi: 10.1136/ebmed-2015-110267.

[10] **Ruff RR**, Zhen C. Estimating the effects of a calorie-based sugar-sweetened beverage tax on weight and obesity in New York City adults using dynamic loss models. *Annals of Epidemiology*. 2015;25(5):350-357. doi: 10.1016/j.annepidem.2014.12.008.

[9] **Ruff RR**, Adjoian T, Akhund A. Small convenience stores and the local food environment: An analysis of resident shopping behavior using multilevel modeling. *American Journal of Health Promotion*. 2015;30(3):172-180. doi: 10.4278/ajph.140326-QUAN-121.

- [8] Yi SS, **Ruff RR**, Jung M, Waddell EN. Racial/ethnic residential segregation, neighborhood poverty and urinary biomarkers of diet in New York City adults. *Social Science and Medicine*. 2014;122:122-129. doi: 10.1016/j.socscimed.2014.10.030.
- [7] Duncan DT, Regan SD, Shelley D, Day K, **Ruff RR**, Al-Bayan M, Elbel B. Using Global Positioning System (GPS) methods to study the spatial contexts of obesity and hypertension risk among low-income housing residents in New York City: A feasibility study. *Geospatial Health*. 2014;9(1):57-70.
- [6] Miller-Archie SA, Jordan HT, **Ruff RR**, Chamany S, Cone JE, Brackbill RM, et al. Post-traumatic stress disorder and new-onset diabetes among adult survivors of the World Trade Center disaster. *Preventive Medicine*. 2014;66:34-38. doi: 10.1016/j.ypmed.2014.05.016
- [5] Zhen C, Brissette I, **Ruff RR**. By ounce or by calorie: The differential effects of alternative sugar-sweetened beverage tax strategies. *American Journal of Agricultural Economics*. 2014;96(4):1070-1083. doi: 10.1093/ajae/aau052.
- [4] Day K, Loh R, **Ruff RR**, Rosenblum R, Fischer S, Lee K. Does bus rapid transit promote walking? An examination of New York City's Select Bus Service. *Journal of Physical Activity and Health*. 2014;11(8):1512-1516. doi: 10.1123/jpah.2012-0382.
- [3] **Ruff RR**, Akhund A, Adjoian T, Kansagra SM. Calorie intake, sugar-sweetened beverage consumption, and obesity among New York City Adults: Findings from a 2013 population study using dietary recalls. *Journal of Community Health*. 2014;39(6):1117-1123. doi: 10.1007/s10900-014-9865-3.
- [2] **Ruff RR**, Rosenblum R, Fischer S, Meghani H, Adamic J, Lee KK. Associations between building design, point-of-decision stair prompts, and stair use in urban worksites. *Preventive Medicine*. 2013;60:60-64. doi: 10.1016/j.ypmed.2013.12.006.
- [1] **Ruff RR**. School counselor and school psychologist perceptions of accountability policy: Lessons from Virginia. *The Qualitative Report*. 2011;16(5):1270-1290.

#### INVITED TALKS

- Oct 2024 “Utilization of nurses for school-based caries prevention and control”. Invited speaker for the 2nd Annual Lecture Circus, University of Pennsylvania Levy Dental Medicine Library.
- Oct 2023 “The promise of engagement for school-based oral health”. Invited speaker for the 2023 Annual Meeting of the Patient-Centered Outcomes Research Institute, session “Practicalities of Conducting Meaningful Engagement: A Menu of Tips and Resources from Experience”. Washington, DC.
- Jun 2023 “School-based strategies to prevent dental caries in high-risk populations”. Invited speaker for the 29th Congress of the International Association of Paediatric Dentistry, session “Joining forces in prevention: Global initiatives for caries preventive programs”. Maastricht, the Netherlands.
- May 2023 Findings and implications from our 2023 paper in *JAMA Network Open* were presented by invitation to the Medicaid/Medicare/CHIP Services Dental Association (MSDA) Annual Symposium, Clinical Perspectives and Evidence Update session (team invitation). Washington, DC.

Sep 2022 “Research and development in school-based health”. Invited lecture given to the Medicine Grand Rounds speaker series, Vanderbilt University Medical Center, Division of Epidemiology. Nashville, TN, USA.

Jun 2021 “Applications of machine learning in oral health: predicting treatment nonresponse in children receiving nonsurgical caries treatment”. Invited speaker for the 9th International Conference on Methodological Issues in Oral Health Research, New York, USA

Oct 2017 “Assessing additional options for school-based caries prevention: Improving determinants of child development”. Invited speaker for the 11th IADR World Congress on Preventive Dentistry, New Delhi, India

ORAL  
PRESENTATIONS  
AND SYMPOSIA

Jun 2023 CariedAway: One solution for a global disease. Oral presentation given at the 2023 National School-Based Health Care Conference, Washington, D.C., USA

Jun 2023 Essential oral healthcare in a school context. Oral presentation given by invitation at the 2023 International Association for Dental Research (invited presentation, senior author), Bogotá, Colombia

Nov 2022 Building Sustainable, Effective School-Based Oral Health Programs. Oral Symposium. Three abstracts accepted as senior author, one as first author titled “School-based caries prevention with minimally invasive treatments: Results from phase one of the CariedAway cluster randomized pragmatic trial”. Presented at the 2022 American Public Health Association Meeting, Boston, USA

Sep 2020 Silver diamine fluoride for school-based caries prevention. Oral presentation accepted at the PED-IADR Congress, Marseille, France (Conference cancelled due to COVID-19)

Sep 2019 Measuring responsiveness to preventative treatments for dental caries: Towards a predictive model using machine learning. Oral presentation given at the CED-IADR Oral Health Research Congress, Madrid, Spain

May 2018 Research to optimize school-based caries prevention. Oral presentation given at the 8th International Conference on Methodological Issues in Oral Health Research, Hong Kong

INTERNAL TALKS

Oct 2024 Pragmatic Research to Implement Sustainable Medicine in Schools (PRISMS): The CariedAway Project. New York University School of Global Public Health, Department of Epidemiology Seminar Series. New York, USA.

Dec 2023 Adaptive interventions in support of personalized medicine. New York University Faculty Development Program, New York, USA.

Jun 2018 Applications of virtual reality in training oral and maxillofacial surgery techniques. NYU Academy of Distinguished Educators Teaching and Learning seminar, New York, USA

SELECTED  
ABSTRACTS

- July 2021 Silver diamine fluoride, dental caries, and quality of life in low-income minority children: Results from the CariedAway school-based cluster randomized trial. IADR/AADR General Session
- Apr 2018 Development and validation of the Child Oral Health Impact Profile Preschool Version. 75th Meeting of the American Cleft Palate Craniofacial Association
- Apr 2017 Analysis of school-based caries prevention programs. New York University Faculty Research Symposium, New York, USA
- Mar 2017 CariedAway: Outcomes of school-based caries prevention. 95th General Session of the IADR, California, USA
- Mar 2017 SDF for Caries Prevention in Primary Teeth: A systematic review. 95th General Session of the IADR, California, USA
- Feb 2015 Spatial stigma and drug use among low-income housing residents in NYC. New York City Epidemiology Forum, New York, NY
- Sep 2014 Estimating the effects of sugar-sweetened beverage taxes on weight and obesity in NYC. American College of Epidemiology annual meeting, Maryland, USA
- Mar 2014 An analysis of the bodega food environment in New York City. 24th Annual Art and Science of Health Promotion Conference, Denver, CO
- Feb 2014 Dietary sources of sugar and drink-specific calorie intake in New York City Adults. New York City Epidemiology Forum, New York, NY
- Aug 2013 By ounce or by calorie: The different effects of alternative sugar-sweetened beverage tax strategies (with C. Zhen). 2013 meeting of the Agricultural and Applied Economics Association, Washington, DC
- Jun 2013 Segregation, neighborhood poverty, and diet: Findings from a population-based survey of NYC adults (with S. Yi). 46th meeting of the Society for Epidemiologic Research, Boston, MA

PRESS & MEDIA  
COVERAGE

**Local and National**

*The Washington Post, Newsweek, Dentistry Today, Daily Mail, Semafor, Decisions in Dentistry, Dr. Bicuspid, Dentistry IQ, The New York Post, Brooklyn Eagle, HealthDay, AAAS Newswire, Dimensions of Dental Hygiene, Interesting Engineering, US News & World Report, Drugs.com, SF Weekly, Princeton Daily Clarion, Parents Magazine.* Television coverage in News 1, News 12 New York, NBC Boston, NBC Connecticut, Spectrum 1 (research site visit), NBC Right Now.

**Global**

*Dental News (Pakistan), Bite Magazine (Australia), Asharq Al-Awsat (Egypt), Manchester Times (England)*

**Interviews**

News 1 New York, ADHA Official Podcast, Broadcast Retirement Network

POLICY AND  
CLINICAL  
GUIDELINES

Our research has been used to inform local, national, and international policies for caries prevention, referenced by the Association of State & Territorial Dental Directors, the United States Preventive

Services Taskforce, the Office of Public Health of Garfield, Colorado, and the National Guidelines for Use of Fluorides in Brazil.

TRADEMARKS &  
INTELLECTUAL  
PROPERTY

**Trademarks**

CariedAway, Secondary Innovator

PRISMS, Primary Innovator

TEACHING &  
EDUCATIONAL  
ACTIVITIES

**Courses Taught**

Epidemiology (MS), 1 semester

Scientific Writing (MS), 1 semester

Epidemiology of Dental Caries (DDS, “Diagnosis and Treatment of Oral Disease” course), 4 semesters

Biostatistics for Public Health (MPH/PhD/DDS), 12 semesters

Data Management using SAS I (MS), 3 semesters

Data Management using SAS II (MS), 3 semesters

Clinical Research Practicum I (MS), 3 semesters

Clinical Research Practicum II (MS), 3 semesters

Biostatistics I (MPH/PhD), 2 semesters

Biostatistics II (MPH/PhD), 2 semesters

Propensity Score Matching (Post-graduate), 6 summer sessions

Methods of Causal Inference (Post-graduate), 2 summer sessions

Survey Research (Post-graduate, co-taught), 1 summer sessions

Qualitative Data Analysis (PhD), 1 semester

SERVICE &  
COMMITTEE  
ACTIVITIES

**New York University**

2024 Community-Engaged Scholarship Task Force

2023-Pres Strategies to Reduce Inequality Research Working Group

2021-Pres University Graduate Program Committee

Spring 2018 College faculty representative, NYU Faculty Urban Research Day

2014-2016 Teaching fellow, Center for the Promotion of Research Involving Innovative Statistical Methodology (PRIISM)

**College**

2024-2026 Curriculum Committee

2019-2023 Faculty Council

2017-2023 NYU Academy of Distinguished Educators

2018-2022 Curriculum Committee

2016-Pres Director, MS Program in Clinical Research

2016-Pres Director, Biostatistics Core

2016-Pres Graduate Council on Ethics and Professionalism  
 2016-2019 Council on Humanitarianism and Culture Change  
 2017-2018 Summer D1 Research Experience  
 2014-2015 Teaching and Learning Club  
 2014-2015 Statistics Unit Head, College of Dentistry and School of Nursing  
 2014-2016 Technology Enhanced Learning Committee (NYU SGPH)

### **Department**

Fall 2022 Chair, Faculty Search Committee (tenure track)  
 Fall 2022 Chair, Faculty Search Committee (research track)  
 2020-Pres Director, Research & Analysis in School Health (RASH) Lab  
 Fall 2021 Faculty Search Committee  
 2019-2020 Planning Committee, 2020 Methodology in Oral Health Research Conference  
 Spring 2017 Faculty Search Committee  
 2015-2016 Chair, Curriculum Committee, MS Program in Clinical Research  
 2015-2016 Admissions Committee  
 2014-2015 Curriculum Committee

### **Other**

2011-2014 Surveillance and Epidemiology Unit, NYC Incident Command System  
 2010-2011 Member, NYC Department of Education Institutional Review Board

### **Community & Professional Service**

2024 Virginia MCH-IOHI Alliance Member. Content expert in public health surveillance, analysis, and evaluation; sponsored by the Virginia Health Catalyst.  
 2024 Delphi Panelist for the ChatGPT, Generative Artificial Intelligence, and Natural Large Language Models for Accountable Reporting and Use (CANGARU) Project.  
 2024 Reviewer, Health Research Board of Ireland (HRB). Content expert for dental public health interventions and child development.  
 2023 World Workshop of Oral Medicine IX (WWOM). Project Consultant for Group 5: Predoctoral Oral Medicine Curriculum.  
 2023 Oral Health Disparities and Inequities (OHDI) Research Think Tank participant, National Institute of Dental and Craniofacial Research. Summary results published online at <https://www.nidcr.nih.gov/grants-funding/grant-programs/health-disparities-research-program/think-tank>  
 2022 Study Section, National Institute of Dental and Craniofacial Research. Review panel for Oral Health Data Analysis and Statistical Methodology Development and Analyses of Existing Genomics Data applications.

- 2022 Study Section, National Institute of Dental and Craniofacial Research. Special Grants Review Committee (DSR).
- 2021 Study Section, National Institutes of Health. Oral, Dental, and Craniofacial Sciences (ODCS). Musculoskeletal, Oral, and Skin Sciences IRG.
- 2017 Grant Reviewer, Oral Disease and Dental Health Review Committee, California Tobacco-Related Research Program (TRDRP). Content expert for oral disease epidemiology and biostatistics.
- 2014 Consulting, Fiji National University, for the 2014 Fijian Oral Health Survey. Sampling procedures, data management and analysis, and reporting for government release.

REVIEWING &  
EDITORIAL

**Reviewer**

JAMA Network Open, American Journal of Preventive Medicine, PLOS One, BMJ Open, Preventive Medicine, JDR Clinical and Translational Research, BMC Oral Health, Journal of Public Health Dentistry, Community Dentistry & Oral Epidemiology, Evidence-Based Medicine, BMC Public Health, BMJ Public Health, Journal of Clinical Periodontology, Journal of the American Dental Association, Medicine, International Dental Journal, Clinical Implant Dentistry and Related Research, Pediatrics, Journal of Evidence-Based Dental Practice, International Journal of Paediatric Dentistry, Education Policy Analysis Archives, Journal of American College Health, British Dental Journal, JADA Foundational Science

**Editorial**

JDR Clinical & Translational Research (Scientific Advisory Board, 2021-Present)  
Medicine (Academic Editor, 2016-2019)

MENTORING AND  
ADVISING

**Thesis or capstone supervisor**

Data crosswalk for electronic health record software used in school-based caries prevention (Kristen He, Columbia University Department of Biostatistics Capstone - 2024)

Analyzing the impact of prevention on new dental caries over time in schoolchildren with preexisting untreated decay: The Forsyth Study (Kajal Desai, MPH thesis - 2019)

The comparative performance and appropriateness of caries indices for use in oral epidemiology research: a prospective cohort example (Dhawani Shah, MPH thesis - 2019)

Intermittent fasting and oral health (Jillian Bateson, Furman University Undergraduate Capstone Project, 2019)

Factors related to periodontitis prevalence and dental care utilization in US Hispanic women with changes in progesterone and estrogen levels (Ifrah Choudhary, MPH thesis - 2017)

Periodontitis and the risk of psoriasis in the US population using the National Health and Nutrition Examination Survey, 2009-2012 (Zhen Li, Master of Science capstone in Clinical Research - 2016)

Public health interventions for obesity in New York City (M. Seamans, H RTP Internship, NYC Department of Health and Mental Hygiene, 2013).

MEMBERSHIP IN  
PROFESSIONAL  
ORGANIZATIONS

- American College of Epidemiology (Fellow)
- American Statistical Association, Statistics in Epidemiology Section

- American Educational Research Association
- American Public Health Association
- New York Academy of Medicine (Fellow)
- New York Academy of Sciences
- Cochrane Collaboration
- Previously the Society for Epidemiologic Research, the International Association for Dental Research, the American Dental Education Association, and the Royal Society of Public Health

SOFTWARE

- Statistical Packages: R, Stata, LISREL, AMOS, BUGS; SAS (rusty), SPSS.
- Applications: EpiMouth (built in R Shiny), L<sup>A</sup>T<sub>E</sub>X, R-Markdown, REDCap, N<sup>o</sup>Vivo, EndNote, JMP, common Windows database, spreadsheet, and presentation software