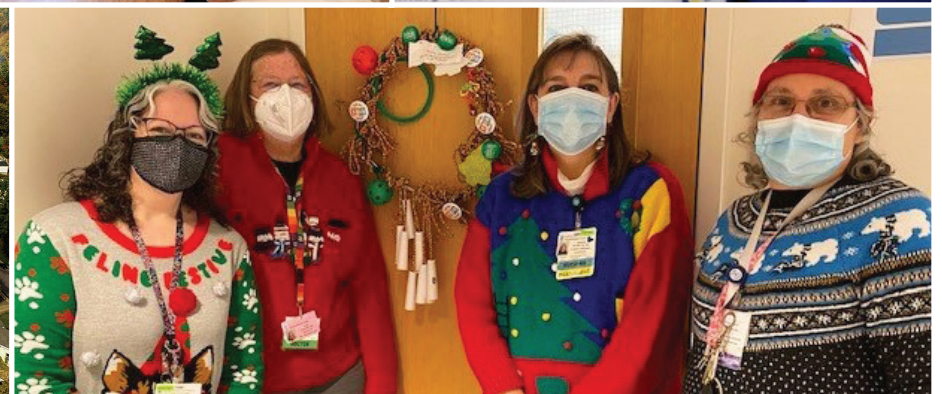


THE BASSETT RESEARCH INSTITUTE (BRI)

2021 YEAR IN REVIEW Clinical and rural community health research, program evaluation and education



The Bassett Research Institute Mission

“The Bassett Research Institute conducts research to understand and improve the health and well-being of individuals and rural populations. We develop strategies to improve health care delivery, prevent illness and manage chronic disease in support of the Bassett Healthcare Network’s mission.”

Website: <https://www.bassett.org/research-institute>
Email: research.institute@bassett.org

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A NOTE FROM OUR DIRECTOR



I am pleased to present you with the **BRI 2021 Year in Review**. While 2021 seemed a bit less frantic than 2020, the COVID-19 pandemic continued to wreak havoc nationwide and in our region. Indeed, the COVID-19 caseload in December 2021 was similar to that of April 2020 thanks to the magnified infectivity of the Omicron variant. While the introduction of COVID-19 vaccines at the end of 2020 and in 2021 partially stemmed the tide of the pandemic in the summer of 2021, the fall and winter witnessed a resurgence that is almost bringing health care workers, public health scientists and researchers to their knees.

Ever the opportunists, our research scientists recognized an important research question in this pandemic resurgence that we could help answer. We decided to conduct a follow-up study to our 2020 Bassett Healthcare Network Employee COVID-19 Antibody Study published in 2020. In 2021, Drs. Brunner and Freilich led the effort of comparing the long-term immunogenicity and effectiveness among three vaccines: BNT162b2 (Pfizer-BioNTech), mRNA-1273 (Moderna), and JNJ-78436735 (Johnson & Johnson). This was only possible with the help of 653 Bassett employees who had their blood drawn, our clinical research nurses who drew and processed these samples, and the Bassett laboratory staff who ran the antibody titers. With our analytic wheels still churning, study results are steadily percolating to the surface. We will submit this research for publication in 2022.

Dr. Maeve O'Neill joined the BRI in July 2021 as a Research Scientist and Attending Psychiatrist to work on our nascent Stress Health research initiative. Dr. O'Neill is a graduate of the Columbia Bassett Medical School. She went on to complete a psychiatry residency at the MGH/McLean Hospital, followed by a public psychiatry fellowship at Columbia University. She has won several teaching awards during her training. She is passionate about structural competency, a framework for understanding and addressing social determinants of health that largely draws from anthropology and sociology (she holds a BA in International Affairs and Anthropology so she is up to the challenge of this multidisciplinary approach). She is also quite engaged in systems level thinking about mental health. With the BRI, she is currently completing a comprehensive stress/mental health needs assessment for Bassett catchment area. The purpose of this assessment is to provide the foundation for the design of a population based mental health services system to address unmet mental health needs in our rural area. Dr. Henry Weil, as Chief Academic Officer for the Bassett Network, and chief architect of the Stress Health Initiative, and I are working closely with Dr. O'Neill as she tackles the challenges of addressing mental health in our rural area.

In November, Bassett Healthcare Network and the Masonic Medical Research Institute (MMRI) in Utica, NY formalized our research collaboration in the advancement of health research. The MMRI is led by Maria Kontaridis, PhD who has been doing cutting edge basic science research there for many years. Dr. Daniel Katz recently spent time at the MMRI labs and is quite enthusiastic about continuing his lipid research there.

We have also employed two new clinical research nurses, Martina King and Reccia McKenzie. Please join me in welcoming them to our Center for Clinical Research (CCR). Finally, the CCR is fully staffed, so bring on those clinical research projects!

NYCAMH/NEC continues to be amazing in terms of its productivity in occupational injury prevention for farmers, fishermen and foresters. I encourage you to look at their 2021 Year in Review and visit their new website to appreciate the breadth and depth of their work.

Thanks to everyone who has contributed to the success of the Bassett Research Institute. What can we do for you?

Anne Gadomski MD, MPH
BRI Director, anne.gadomski@bassett.org, x3066

BRI AND THE COVID-19 RESPONSE

Several members of the BRI staff assisted with the Bassett Healthcare Network COVID-19 response throughout 2021.

Carleen Henderson (right), an integral member of the Incident Command Team, spent countless hours screening patients and visitors at hospital entrances, as well as assisting at numerous vaccination clinics.



The Clinical Research Nurses helped cover the Coronavirus Triage Line.

Martina King, RN, spent many hours at the hospital entrance screening patients and providing guidance to our community members.



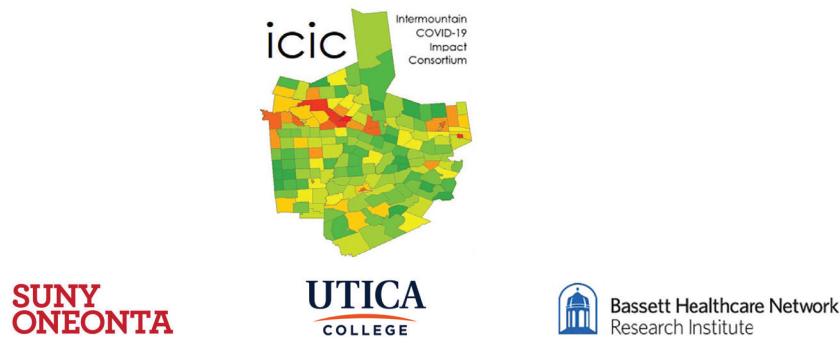
Susan Ackerman, RN at an on-farm vaccine clinic in April 2021.

Jen Victory and Kristin Pullyblank, both registered nurses, volunteered to work as vaccinators at many of the Network sponsored clinics throughout early 2021.

NYCAMH/NEC delivered hundreds of COVID-19 (and flu) vaccines to farm workers. Check out the NYCAMH/NEC Year in Review for more information on the outreach services they provided this year.

The BRI also conducted a research project on the antibody response durability of the FDA-approved SARS-CoV-2 vaccines. The primary aim of the study was to compare immunogenicity, as measured by spike protein antibodies, before and after COVID-19 vaccination. The study groups included Bassett employees who were fully vaccinated with BNT162b2 (Pfizer-BioNTech), mRNA-1273 (Moderna), and JNJ-78436735 (Johnson & Johnson). *See page 40 for more information.*

INTERMOUNTAIN COVID-19 IMPACT CONSORTIUM (ICIC)



The Intermountain COVID-19 Impact Consortium (ICIC) is a consortium of five research organizations west of the Hudson Valley region. ICIC includes the Bassett Research Institute; Center for Rural Vitality, SUNY Cobleskill; Data Science Program, Utica College; and PLACES Institute, SUNY Oneonta. The region under study, including Chenango, Delaware, Fulton, Herkimer, Madison, Montgomery, Oneida, Otsego and Schoharie counties, is depicted in the graphic above. Alex Thomas, PhD, a sociologist and demographer at SUNY Oneonta, leads the ICIC and presented survey results at BRI research grand rounds in April 2021 and January 2022.

ICIC's primary goal is to understand the COVID-19 pandemic as it affects the totality of the regional population, tying together disparate sources of information in order to provide a "big picture" of how the event unfolded. ICIC has conducted several survey waves of various demographic groups across the region, including social, economic, and medical systems, to gather quantitative and qualitative data describing the impact of this pandemic.

ICIC has explored in depth the underlying causes of COVID-19 vaccine hesitancy among college students, specifically, the complex relationships between political ideology, news media consumption, gender, and vaccine hesitancy. This is the focus of a manuscript, currently under review, entitled "COVID-19 Vaccine Hesitancy and Political Ideation among College Students: The Influence of Differential Media Choice." BRI staff co-authored this paper with researchers from SUNY Oneonta. The analysis revealed that conservative political ideology does not directly lead to COVID-19 vaccine hesitancy, but it does encourage the consumption of right-wing news, which promotes fear and hesitation about the vaccines. These findings underscore the major threat that misinformation and disinformation have on public health, as well as the role that news sources play in health promotion.

ICIC has also documented that within the context of the pandemic outbreak among college students, the most robust predictor of reduced psychological distress was individual social capital. These results were published in October 2021. (Fulkerson G, Thomas AR, McCarthy M, Seale E, Han S, Kemmerer K, Zians J. Social capital as mediating factor on COVID-19 induced psychological distress: The case of college students living through an outbreak. *J Community Psychol.* 2021 Oct 12. doi: 10.1002/jcop.22731).

In 2022, ICIC will continue to analyze survey data to understand the local impact of the pandemic. There are two other articles currently under review and several more currently in development. Reports on the preliminary findings of ICIC surveys can be found at <https://suny.oneonta.edu/places-institute/publications>.

STRESS HEALTH INITIATIVE

The BRI is embarking on an innovative mental health research path, called **Stress Health**, with the goal of improving access, quality, equity and value of mental health services in our rural area. The goal of this initiative is to reduce rural mental health disparities, improve rural mental health care services, and better understand the role of social determinants of health as they apply to mental health. The activities subsumed under Stress Health include mental health promotion and disease prevention, applied prevention science and implementation science approaches for increasing access to mental health services, and clinical trials of novel agents including psychedelics for individuals with treatment resistant serious mental illness. Dr. Henry Weil, as Chief Academic Officer for the Bassett Network, is the chief architect of the Stress Health Initiative, as well as an Optimal Rural Care review.

Stress Health aims to create, deploy and study implementation of a system of mental health services in our rural location. The BRI has worked in collaboration with the NYS Psychiatric Institute at Columbia with Milton Wainberg, MD to envision what this system may entail.

In preparation for launching the Stress Health initiative, Dr. Maeve O'Neill is conducting a comprehensive stress/mental health needs assessment for Bassett catchment area. The purpose of this assessment is to provide the foundation for the design of a population based mental health services system to address unmet mental health needs in our rural area. Drs. Weil and Gadomski are working closely with Dr. O'Neill as she tackles the challenges of addressing mental health in our rural area.

Stress Health will also include studies of 3,4-methylenedioxy-methamphetamine (MDMA) for the treatment of psychiatric disorders (<https://www.drugabuse.gov/publications/drugfacts/mdma-ecstasy>). Dr. Michael Mithoefer has joined the Stress Health Initiative part time to plan for further clinical trials of novel agents, such as psychedelics, in the treatment of mental illness.



Dr. Mithoefer has pioneered much of this work in national and international multisite trials. He has recently published the results of a phase 3 RCT that found MDMA-assisted therapy to be highly efficacious and safe in individuals with severe PTSD. (Mitchell JM, Bogenschutz M, Lilienstein A, Harrison C, Kleiman S, Parker-Guilbert K, Ot'abora G M, Garas W, Paleos C, Gorman I, Nicholas C, Mithoefer M, et al. MDMA-assisted therapy for severe PTSD: A randomized, double-blind, placebo-controlled phase 3 study. *Nat Med.* 2021 Jun;27(6):1025-1033. doi: 10.1038/s41591-021-01336-3).

Dr. Mithoefer is Senior Medical Director for Medical Affairs, Training and Supervision at MAPS Public Benefit Corporation (MAPS PBC). As described on their website, "MAPS Public Benefit Corporation (MAPS PBC) catalyzes healing and well-being through psychedelic drug development, therapist training programs, and sales of prescription psychedelics prioritizing public benefit above profit. Founded in 2014, MAPS PBC is a wholly-owned subsidiary of the Multidisciplinary Association for Psychedelic Studies (MAPS) a 501(c)(3) nonprofit" (<https://mapspublicbenefit.com/our-mission/>).

INSTITUTIONAL REVIEW BOARD (IRB)/ OFFICE OF SPONSORED PROGRAMS (OSP)



Who We Are

Chair, IRB: David Strogatz, PhD

Vice-Chair, IRB: Wendy Brunner, PhD

Program Manager, IRB: Heidi Johnson, CIP

Coordinator Dept. Operations, IRB: Christen Young, BS

Administrative Director: Stephen Clark, BS

Business Manager: Melinda Hasbrouck, MBA

The **Institutional Review Board** is comprised of twelve voting members and twelve alternate members of varying backgrounds, in addition to the Chair and Vice-Chair of the Board. The Board is charged with providing a complete review of research activities commonly conducted by investigators within the network. The Board meets at least once per month on the first Tuesday of every month. It is responsible for conducting an initial review process, a continuing review process and for maintaining a record of all IRB activities, in accordance with the HHS regulation for the Protection of Human Subjects as defined by the Code of Federal Regulations (45 CFR 46 and 21 CFR 50, 56).

At the end of 2021, there were 108 active protocols approved for research activities within the network. During 2021, thirteen new protocols were approved; six were clinical trials and seven were based on non-experimental study designs to analyze existing datasets or use qualitative or quantitative methods for collection and analysis of primary data. Sixteen protocols were completed and terminated in the course of 2021. During 2021, the IRB Office continued to serve as the single IRB of record for the Bassett-led multi-site study of sleep deprivation and health in the commercial fishing industry, which involves co-investigators from collaborating institutions in Virginia, Oregon and Alaska. The IRB Office has also established standing agreements and protocols to engage the service of external IRBs when Bassett investigators are collaborators in multi-site industry-sponsored or NIH-funded clinical trials; current partnerships include the National Cancer Institute's Central Institutional Review Board (CIRB), Advarra, WCG IRB, University of Rochester Research Subjects Review Board, and University of Florida IRB.

Other activities of the Board during the past year included:

- Responding to a request of IRB approval for a humanitarian use device application
- Monitoring and reviewing the local occurrence of adverse events (0 during the 12 month period) and protocol deviations (5 during the 12 month period)
- Reviewing numerous protocol amendments and modifications proposed to ongoing research studies (122 during the 12 month period)

Two hundred and ninety seven administrative reviews were performed in 2021.

THE RESEARCH OFFICE OF SPONSORED PROGRAMS (OSP)



Administrative Director
Stephen Clark, BS



Business Manager
Melinda Hasbrouck, MBA

The **Research Office of Sponsored Programs (OSP)** supports the submission of all research grant applications and assists as requested with non-research applications for the organization. The Research OSP provides support and guidance to Research Principal Investigators for all phases of post award management, including management of contracts and sub-awards, quarterly and annual reporting and grant close out. The Research OSP monitors and maintains all state and federal grant submission and tracking platforms and assures that the organization remains in compliance with all state and federal regulations as they pertain to grant supported programs.

OSP GRANT APPLICATIONS SUBMITTED IN 2021 (In Order Of Submission)

Granting Agency	Application Title	Principal Investigator/ Project Director
NIOSH/USCG	Development, Testing, and Deployment of Simulation-based Stability Training Tools for Commercial Fishing Vessels	Ge Zhongfu, American Bureau of Shipping (ABS) (Julie Sorensen-Sub)
NIOSH/USCG	Agent based modeling of viral spread aboard a fishing vessel	Leigh McCue-Weil, George Mason University (Julie Sorensen-Sub)
University of Rochester CTSI (Sub-Award)	Engaging Rural Residents in Mental Health and Suicide Prevention Research	Pam Tinc (Co-I; PI Kim VanOrden at URMIC)
NIH	Mechanisms to improve social connectedness and health among older rural adults with chronic conditions	Wendy Brunner
New York State Division of Homeland Security and Emergency Services (DHSES)	Bassett Medical Center Closed Circuit TV Installation	Harold Southworth
Substance Abuse and Mental Health Services Administration (SAMHSA)	Medication Assisted Treatment and Recovery Support Services (MATRESS)	James Anderson

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OSP GRANT APPLICATIONS SUBMITTED IN 2021 (In Order Of Submission)

Granting Agency	Application Title	Principal Investigator/ Project Director
NIH (Columbia University Sub-Award)	TRANSFORM-NY: An Innovative Multi-Level Model to Decrease Disparities in Mental Health and Substance Use Disorders in Disadvantaged Urban and Rural Communities	Anne Gadomski
NIH	Cornell University Sub-Award: School-Based Health Centers – An approach to address health disparities among rural youth	Wendy Brunner
Utilities Programs	Bassett Medical Center Telemedicine Expansion Project	Henry Knoop/Scott Cohen
HRSA	Bassett Healthcare Network Little Falls Hospital Vaccine Confidence Project	Jim Vielkind
HRSA	Bassett Healthcare Network Bassett Medical Center Vaccine Confidence Project	Carolyn Lewis
DOL Hazard Abatement Board	2021-2022 OSHT&E	Julie Sorensen
NIHCM Foundation	Defining the digital divide: Implications for improving access to care	Wendy Brunner
USDA	Bassett Medical Center's COVID-19 Recovery Project	Scott Cohen
NIH	A Novel Intervention to Increase Enrollment and Retention in a Rural Diabetes Self-Management Program	David Strogatz/Kristin Pullyblank
NIH	Cornell University Sub-Award: School-Based Health Centers – An approach to address health disparities among rural youth	Wendy Brunner

CENTER FOR RURAL COMMUNITY HEALTH

Director: Wendy Brunner, PhD Email: Wendy.Brunner@Bassett.org



The **Center for Rural Community Health** was established in 2011 to work with academic partners, state and local public health organizations, and Bassett Healthcare Network caregivers and practitioners to understand the health challenges affecting people in Bassett's catchment area and to design and test community-based strategies to address these challenges. In seeking to enrich health access and opportunities for individuals, the Center was also charged with evaluating community health and social service resources as well as schools and local businesses to see what infrastructure already exists and can be built upon in collaboration with the Center. Major projects of the Center in 2021 reflect its ongoing commitment to these goals, with programs that notably span the full age range.

Who We Are

Director Emeritus: David Strogatz, PhD **Director:** Wendy Brunner, PhD

Senior Health Educator: Lynae Wyckoff, MS

Community Health Research Nurse: Kristin Pullyblank, MS, RN

Rural Health Education Network Supervisor: Aletha Sprague, BA

Community Health Services Educator: Carleen Henderson

Research Coordinator: Andrew Johnson, BS

Research Assistants: Amanda Fink, BS, Jennifer Flynn, MS, Caitlin Liberati, MA, Pamela McCabe, BS

KEY 2021 PROJECTS

- I. RHENSOM
- II. Living Well
- III. LongROAD
- IV. Strong Hearts, Healthy Communities
- V. Telehealth
- VI. School-Based Health Centers
- VII. Research Collaborations and Workforce Development

CENTER FOR RURAL COMMUNITY HEALTH



I. RHENSOM Lead: Aletha Sprague/Lynae Wyckoff Email: Lynae.Wyckoff@Bassett.org

Rural communities continue to have poor health outcomes due to low wages, lack of affordable and reliable housing and transportation, and low health literacy. Through collaboration with community organizations, county health departments, healthcare systems, and with funding from New York State Department of Health, the **Rural Health Education Network of Schoharie, Otsego and Montgomery Counties (RHENSOM)** serves the needs of communities through innovative, Prevention Agenda recommended, evidence-based programming and interventions. Key areas of work focused on improving nutrition education, empowering caregivers and individuals to manage their chronic conditions and improve health literacy, supporting catchment area's Prevention Agenda activities.

Highlights from 2021:

Nutrition Education

Subcontracted with Cornell Cooperative Extension of Schoharie and Otsego Counties to fund a nutrition educator for the three county catchment area, an identified needed resource. The nutrition educator held over 38 educational events utilizing curriculum based on resources from Cornell University Division of Nutritional Sciences. The program provided interactive, supportive classes that focus on the how and why to eating well.



Kimberly Ferstler, CCE Nutrition Educator prepares "Healthy Corn Dip" at Unadilla Library

Chronic Disease Prevention and Management

Provided staff and financial support to lead the region's National Diabetes Prevention Program.

Continued support of the Living Well program, focusing on strengthening community-clinical collaborations and implementation of the evidence-based self-management programs.

NYS Prevention Agenda Activities

Provided funding in support of the hospitals, local health departments, and community-based organizations Prevention Agenda activities. https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/



CENTER FOR RURAL COMMUNITY HEALTH

II. Living Well LEAD: Lynae Wyckoff Email: Lynae.Wyckoff@bassett.org

Living Well is Bassett’s branded version of the suite of evidence-based self-management workshops originally developed by the Stanford University Patient Education Center and now licensed through the Self-Management Resource Center.

Using a hub-and-spoke clinical-community collaborative model, Living Well works with partnering organizations throughout the region to deliver self-management workshops to all adult community members within the Bassett service area.

The six-week small group workshops led by trained peer leaders are currently offered on Zoom, asynchronously online, and via mailed toolkit with or without telephone support. The workshops are designed to increase one’s self-efficacy in managing chronic conditions. Currently, Living Well offers the Chronic Disease Self-Management Program, the Diabetes Self-Management Program, the Chronic Pain Self-Management Program and Living Well with and After Cancer. In addition, Living Well delivers the National Diabetes Prevention Program to any qualifying adult. Find out more about all our programs at <https://www.bassett.org/services/chronic-condition-care>.

With the pandemic still raging in 2021, 188 participants still completed a self-management workshop series.

The Living Well program serves as a living laboratory enabling our team to investigate the impact of self-management on health and wellness outcomes in this rural region.



The Living Well Team

How is Living Well supported?

The Living Well team has braided together multiple funding sources over the past five years in order to support the program. In addition to two federal HRSA grants, The Mohawk Valley Population Improvement Program, the NYS Office for the Aging, Leatherstocking Collaborative Health Partners, Excellus, and the Rural Health Education Network of Schoharie, Otsego and Montgomery Counties have been instrumental in supporting and sustaining this robust program. In addition, the Bassett Research Institute provides critical funding for evaluation and research efforts surrounding the implementation of the Living Well program.

CENTER FOR RURAL COMMUNITY HEALTH



II. Living Well LEAD: Lynae Wyckoff Email: Lynae.Wyckoff@bassett.org

2021 Completers by Self-Management Program Type

Delivery Mode	Chronic Pain	Diabetes	Chronic Disease	With & After Cancer
Zoom	36	29	10	4
Mailed Toolkit with Phone Support	21	17	2	
Mailed Toolkit	13	27	17	
BCBH			12	

Analysis and Dissemination of Findings in 2021

Ongoing Living Well Research Projects in 2021

Data collection and analysis for a qualitative study investigating the barriers and benefits to participating in diabetes self-management education wrapped up in 2021. Findings will be submitted for publication in 2022.

Analysis of outcomes from the 2018-2019 Chronic Pain Self-Management Program is underway.

Analysis of characteristics of those enrolling in the novel remote modes of the Living Well program wrapped up in 2021. Results will be submitted for publication in 2022.

Final report produced on the 2020 Chronic Obstructive Pulmonary Disease (COPD)/Asthma pilot study in which pulmonary and chronic disease self-management education was offered to individuals with COPD and/or asthma. Promising results from this pilot study suggest enrolling additional participants to further evaluate the impact of the program on cost savings and quality of life. In the future when in-person workshops are allowed and pandemic conditions subside, it will be possible to conduct spirometry, which will add another measure that can be assessed before and after the program to assess impact on patient outcomes.

“I liked knowing that there were other people experiencing the same thing as me on a daily basis, and looked forward to the group zoom meetings every week. I was sad when it ended, but did get email addresses. I felt I mattered and my contributions to the group mattered. I felt supported by everyone and felt that I wanted to support others. I liked that the level of participation was mine to decide, and felt I got more out of the group most when I did participate. The ladies leading the group were fabulous keeping all of us on point. They were supportive, encouraging, and very caring!”

– CPSMP Zoom 2021 participant

CENTER FOR RURAL COMMUNITY HEALTH



II. Living Well LEAD: Lynae Wyckoff Email: Lynae.Wyckoff@bassett.org

Based on observations from the COPD/Asthma pilot, we conducted a separate research study to assess differences in treatment patterns among COPD patients by payer. A manuscript based on this work was submitted for publication in 2021. An abstract submitted by Dr. Nadir Siddiqui to the American Thoracic Society has been accepted for presentation at the ATS 2022 annual meeting.

- *Prescribing Patterns for Long-Acting Inhaled Bronchodilators Among Patients with Chronic Obstructive Pulmonary Disease in a Rural Hospital Network*
Wendy Brunner, Nadir Siddiqui, Melissa Scribani, Nicole Krupa, Erik Riesenfeld

Presentations and Manuscripts

Our team presented two abstracts at the American Public Health Association meeting in Denver in October, 2021:

- *Loneliness among rural self-management education program enrollees during the COVID-19 pandemic*
- *Understanding NDDP Participant Perspectives on Factors Affecting Behavior Change*

The following manuscripts were submitted for publication in 2021 and are under review

- *Recruitment and Engagement in Disease Self-Management Programs: Special Concerns for Rural Residents Reporting Depression and/or Anxiety*
Kristin Pullyblank, Wendy Brunner, Melissa Scribani, Nicole Krupa, Marcia Ory, and Matthew Lee Smith
- *Implementation of Evidence-Based Disease Self-Management Programs in a Rural Region: Leveraging and Linking Community and Healthcare System Assets*
Kristin Pullyblank, Wendy Brunner, Lynae Wyckoff, Nicole Krupa, Melissa Scribani, and David Strogatz
- *Loneliness among rural self-management education program enrollees during the COVID-19 pandemic*
Wendy Brunner, Kristin Pullyblank, Melissa Scribani, Nicole Krupa

The following manuscript was accepted in 2021 and is in press at *Diabetes Spectrum*

- *Evaluation of Implementing the Diabetes Self-Management Program in a Rural Population*
Kristin Pullyblank, Melissa Scribani, Lynae Wyckoff, Nicole Krupa, Jennifer Flynn, Carleen Henderson and David Strogatz

III. LongROAD

Who We Are

Senior Research Scientist: David Strogatz, PhD

Research Coordinator: Andrew Johnson, BS **Research Coordinator:** Caitlin Liberati, MA

Research Assistant: Pamela McCabe, BS

The **Longitudinal Research on Aging Drivers (LongROAD)** Study is a multi-site cohort study of factors that predict the ability of older adults to continue driving safely (and factors that preserve quality of life when older adults reduce or discontinue driving). The LongROAD Study is funded by the American Automobile Association Foundation for Traffic Safety and enrolled 2,990 65-79 year old adult drivers between August 2015 and March 2017 at five sites (Cooperstown NY, Baltimore MD, Denver CO, Ann Arbor MI, San Diego CA). The study's lead institution for data management is the Mailman School of Public Health of Columbia University, and other participating institutions besides the Bassett Research Institute are Johns Hopkins University, the University of Colorado, the University of Michigan Transportation Research Institute and the University of California at San Diego.

Each of the five sites enrolled approximately 600 study participants from local primary care or specialty clinics and conducts full or limited follow-up assessments in alternating years. Information collected includes detailed measurements of physical and cognitive functioning, health conditions and medications, the condition and safety features of participants' vehicles, and driving-related behaviors. Data sources include in-person interviews and examinations, medical and motor vehicle department records, and GPS measurements of driving patterns from devices installed in each participant's primary vehicle or from an app installed on the participant's mobile phone. With the support of primary care providers, we recruited Bassett study participants from the primary care health centers in Cherry Valley, Cobleskill and Cooperstown and completed baseline assessments in March 2017.

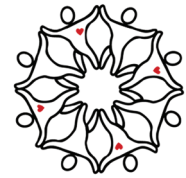
III. LongROAD

The first peer-reviewed publication about the LongROAD Study appeared in 2017 in the journal *Injury Epidemiology* and the first symposium on the study was held in July 2017 at the World Congress of the International Association of Gerontology and Geriatrics in San Francisco, CA. During 2021, four manuscripts with findings from the LongROAD Study were published in the *Journal of Applied Gerontology*, *American Journal of Preventive Medicine*, and *Geriatrics* on the following topics:

- How hearing impairment may lead to driving reductions
- Using falls risk screening questions to predict future occurrence of falls (which has subsequent effects on continuing to drive)
- The relationship of potentially inappropriate medication use by older adults to unsafe driving (represented by frequency of hard braking events)
- Whether monitoring real-world driving patterns predicts the onset of mild cognitive impairment and dementia

Cooperstown was included as a LongROAD study site in order to provide comparison of the characteristics and driving experience for older adults from rural and urban environments. Results published in the *Journal of Rural Health* in 2020 showed that rural drivers assigned greater importance to driving and predicted greater impact that driving cessation would have on their lives. Ongoing analyses are assessing whether the predictors of driving behaviors and outcomes differ for the rural and urban participants in the LongROAD Study. Dr. Strogatz and investigators from other sites of the LongROAD Study have also begun collaborating with researchers from Urban Design 4 Health on opportunities to augment the LongROAD dataset with information about the census tract of study participants such as traffic density, neighborhood walkability and proximity to public transportation and destinations such as parks, supermarkets and pharmacies. The inclusion of these measures in analyses of LongROAD data are likely to increase our understanding of older adults' behaviors and decisions about driving.

CENTER FOR RURAL COMMUNITY HEALTH



STRONG HEARTS
HEALTHY COMMUNITIES

IV. Strong Hearts, Healthy Communities LEAD and Principal Investigator: David Strogatz, PhD

The Bassett Research Institute collaborated with Cornell University in conducting **Strong Hearts, Healthy Communities (SHHC)**, a study to test community-based strategies for reducing risk of cardiovascular disease in rural areas of the United States. The intervention was designed for sedentary and overweight or obese women aged 40 or older, who attend exercise and nutrition classes twice a week for 24 weeks. The classes used experiential learning principles and included aerobic exercise, progressive strength training and healthy eating practices. In addition, participants developed and carried out a community engagement project to positively affect cardiovascular health in their community. The initial phase of SHHC was a community-randomized trial beginning in 2015 and 2016 in 16 medically underserved rural towns (12 in Montana, 4 in New York) with 194 participants enrolled. Compared to women in the control communities, women in the intervention communities experienced statistically significant improvement in the primary outcome, weight loss, at the end of the 24 week study period. The primary results from the initial phase of SHHC were published in *Obesity* in 2018. Additional manuscripts on results from the initial phase were published in 2019 and 2020; they describe cost effectiveness of the intervention (*BMC Health Services Research*) and its effects on diet and physical activity (*International Journal of Behavioral Nutrition and Physical Activity*) as well as functional fitness (*Journal of Rural Health*).

A second phase of SHHC was conducted between March 2017 and June 2018, using lessons learned from the first phase to enhance the intervention protocol and modify the study design. In this phase the community-randomized trial was conducted exclusively in upstate New York at 14 sites in 11 medically underserved rural towns (nine in the Bassett region), with a total enrollment of 182 women. Analyses of the American Heart Association's Simple 7 score (a composite measure of cardiovascular risk) at baseline and 6 month follow-up indicated no change in the control group (randomly assigned to delayed intervention) but a statistically significant improvement for women receiving the intervention. The Simple 7 components showing the greatest improvement were BMI, physical activity and healthy diet score. These findings were presented at the 2019 annual meeting of the American Heart Association Council on Epidemiology and Prevention and were published in the *American Journal of Preventive Medicine* in 2020.

Analyses of SHHC data continued during 2021 and led to a publication in *Translational Behavioral Medicine* on specific changes in diet and physical activity that produced weight loss during the first phase of SHHC. Manuscripts submitted for publication during 2021 provide more detail about the impact of the second phase of SHHC:

- The effects on additional cardiovascular risk factors, functional fitness and behaviors/attitudes related to diet and physical activity
- Age-specific analyses to show if the benefits of SHHC were similar for women 60 years of age and older compared to younger women
- Was SHHC associated with increased support from family and friends for healthy eating and physical activity
- Did the program modifications introduced in the second phase of SHHC lead to greater impact on health-related outcomes and behaviors than what was observed from the first phase



V. Telehealth Research Lead: Kristin Pullyblank Email: Kristin.Pullyblank@bassett.org

Defining the Digital Divide: Implications for Improving Access to Care

Based on 2020 Living Well data indicating our participant profile shifted when we shifted to remote delivery modes, Dr. Brunner and Kristin Pullyblank applied for and received funding from the National Institute for Health Care Management to investigate the digital divide and the implications to accessing care. (<https://nihcm.org/grants/research-grants>)

Telehealth is a revolutionary tool that breaks down barriers to health care access, particularly in rural areas where there are provider shortages, long driving distances, weather challenges and limited public transportation options. Recent literature suggests that telehealth's applicability may be limited for certain vulnerable populations including those who live in rural, medically underserved communities. In addition to lack of broadband as a barrier to telehealth use, there are other important contextual factors that influence a person's ability or preference to engage with telehealth technologies. It is unclear whether this inability or preference leads to a disparity in access to care.

Guided by the digital health equity framework, this study has three objectives: 1) Compare the characteristics of telehealth users versus non-telehealth users among adult patients in a rural healthcare network, with a focus on barriers to telehealth utilization besides broadband access. 2) Examine how the profile of telehealth users has shifted since the start of the COVID-19 pandemic. 3) Determine if and how engagement with the healthcare system differs for telehealth users compared with non-telehealth users, using 'time to appointment' and 'no-show rates' as indicators of engagement. Using a mixed-methods approach, the research team will synthesize their findings from three sources: a regional telehealth survey, electronic health records and key informant interviews with patients, schedulers, healthcare providers and others to more thoroughly understand the complexities and consequences associated with telehealth inequity in a rural population. Findings are likely to impact processes and practices at the regional level, as well as influence regional and state policy.

What's Next?

We will be conducting bivariate and multivariate analyses of the survey data in order to better describe who is and who is not able or willing to utilize various telehealth technologies. Using data from the electronic health record, we will assess whether engagement in the healthcare system differs between those who use telehealth and those who do not. These analyses will be further informed by qualitative key informant interviews. Our findings could potentially influence local, regional and state-level policies regarding access to care and telehealth services.

Preliminary Findings from the Telehealth Survey

500 surveys sent randomly to individuals in the Bassett Healthcare Network, 206 responses (41.2%).

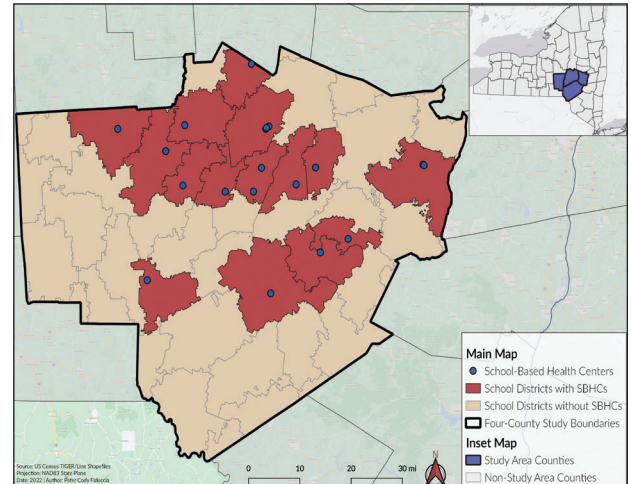
- Median age 63 (range 18-92)
- 22.4% rate their health as fair or poor
- 19.4% do not use the internet and an additional 7.3% require help to use the internet
- 23.3% do not have a computer at home
- 46.8% have never used Zoom or other videoconference platform (prior to the pandemic 62.7% had never used such a platform)
- Prior to COVID, only 5.9% had used Telehealth; at the time of the survey, 40.9% had used telehealth, although 44% of these individuals conducted their telehealth appointment via a regular telephone

VI. School-Based Health Center (SBHC) Research

Lead: Wendy Brunner Email: Wendy.Brunner@bassett.org

SBHCs provide access to comprehensive health care to students in the schools they serve. BRI has been collaborating with researchers at Cornell University to conduct research on Bassett's network of SBHCs, including studying the impact of SBHCs on the health of students and their communities.

In 2021, we worked with Cornell on two NIH grant applications related to School-Based Health Centers. We also coauthored a manuscript, titled "School-Based Health Centers and Rural Community Health," submitted for a special issue on Children, Schools and Community Development of the journal *Community Development: The Journal of the Community Development Society*. A key finding from our work so far is that students in districts with SBHCs have more frequent office visits and less frequent emergency department visits than students in districts without SBHCs.



Locations of Bassett's School-Based Health Centers



CENTER FOR RURAL COMMUNITY HEALTH

VII. Research Collaborations and Workforce Development

Research Collaborations

★ **Health Promotion Research Center, University of Washington (Lesley Steinman)**

The Living Well team is contributing to the national effort to evaluate remote delivery modes of health promotion interventions.

★ **University of California, San Francisco (Dr. Veronica Yank)**
Contributing to the NIH funded Rural Caregivers of People with Dementia project, an online asynchronous self-management program for caregivers

★ **Texas A&M Center for Population Health and Aging (Drs. Marcia Ory and Matthew Lee Smith)**

This collaboration produced an NIH NIA R01 application, titled "Mechanisms to improve social connectedness and health among older rural adults with chronic conditions." While not discussed by reviewers, the team is considering revising the application for 2022. We also submitted a manuscript to *Preventive Medicine Reports*, titled "Recruitment and Engagement in Disease Self-Management Programs: Special Concerns for Rural Residents Reporting Depression and/or Anxiety."

★ **University of Rochester**

Wilmot Cancer Center, University of Rochester (Drs. Paula Cupertino and Charles Kamen)

Collaborating to expand Living Well with and After Cancer to the Rochester region

Yoga for Cancer Survivors: Working with investigators from the Wilmot Cancer Center at the University of Rochester, the BRC is recruiting cancer survivors and their caregiving partners for a 4 week virtual yoga intervention designed to improve sleep quality.

Community Cancer Action Council: The University of Rochester Cancer Center, Wilmot Cancer Institute, serves a large rural area, including Bassett Healthcare Network's service region. Wilmot's 27 county catchment area is not currently covered by a National Cancer Institute designated cancer center. To bring resources associated with this designation to our region, CRCH is supporting Wilmot in pursuit of this designation. Lynae Wyckoff is serving as the Rural Outreach Co-chair to identify and support projects that address community needs in order to lessen cancer burden across all populations.

Building Research Collaborations: Dr. Brunner was invited by Dr. Mary Carey, Director, Clinical Nursing Research Center, University of Rochester Medical Center, to coauthor a chapter on research collaboration for a social and behavioral sciences textbook on building research programs. This book will be published in 2022.

★ **Psychology Department, Binghamton University (Dr. Emily Zale)**

Kristin Pullyblank and Dr. Strogatz collaborated on an NIH R21 grant submission, titled "A Novel Intervention to Increase Enrollment and Retention in a Rural Diabetes Self-Management Program."

★ **University of California, San Diego; University of Colorado, Denver; University of Michigan Transportation Research Institute; John Hopkins University; Columbia University**

These are the collaborating LongROAD study sites.

★ **National Clinical Care Commission**

The report Dr. Strogatz co-authored as part of the National Clinical Care Commission was highlighted in *Health Affairs*, in an article titled *An All-Of-Government Approach To Diabetes: The National Clinical Care Commission's Report To Congress*. "The NCCC's report to Congress and HHS is the first on this topic in nearly 50 years. Its guiding socioecological framework—and the recommendations that flowed from it—represents a substantive shift in how the federal government can address the diabetes epidemic." <https://www.healthaffairs.org/doi/10.1377/forefront.20220111.855646>



Strengthened Existing Partnerships and Developed New Collaborations in 2021

CENTER FOR RURAL COMMUNITY HEALTH

VII. Research Collaborations and Workforce Development

Workforce Development

Student Interns

Olivia Solomon

Graduate student, School of Public Health, University at Albany

Drafted a white paper, "The Center for Rural Community Health and the Living Well Program: Benefiting patients, clinicians, and the Network through integrated clinical-community services" summarizing the history of the Living Well program, its benefits and successes and strategies for the future. She also assisted in development of the telehealth survey.

Gabriella Jantzen

Biology major, Goshen College

Conducted a review of literature on research related to the health of volunteer firefighters.

Capacity Building

Amanda Fink and Wendy Brunner

Explored and learned about QGIS mapping software to create maps for the Living Well program

Kristin Pullyblank and Lynae Wyckoff

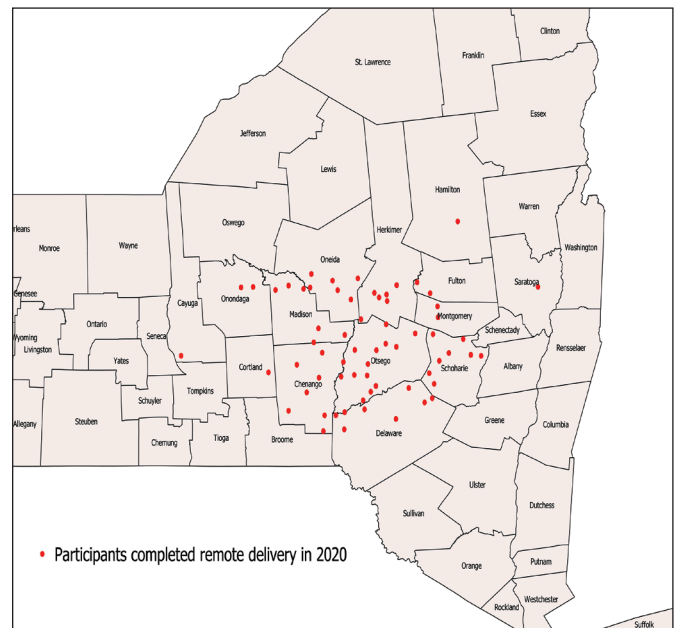
Completed Virtual Self-Management Master Trainer requirements as well as Thriving and Surviving

Jennifer Flynn

Completed National Diabetes Prevention Program Lifestyle Coach Training

Carleen Henderson and Lynae Wyckoff

Completed ongoing Lifestyle Coach Training



Living Well Program Participants



CENTER FOR POPULATION HEALTH



Aletha Sprague



Amanda (Mandy) Roome

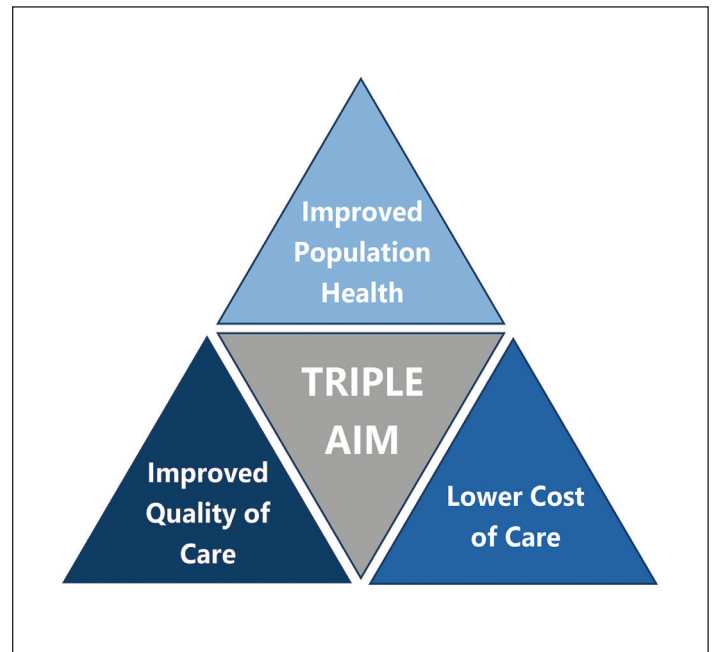
Who We Are

Principal Investigator: John May, MD

PHIP Supervisor: Aletha Sprague, BA

Tick-borne disease Investigator: Amanda Roome, PHD

The **Center for Population Health** promotes the Triple Aim—better care for individuals, better population health and lower health care costs. In 2021, the center focused on data and visualization with technical assistance for Bassett Medical Center Catchment Area’s Behavioral Health Needs Assessment and Otsego County’s Youth Risk Behavior Survey. Additionally, Dr. Roome conducted research and community outreach on tick-borne diseases.



Data and Visualization

Behavioral Health Needs Assessments

The Center for Population Health provided technical assistance to Dr. O’Neill for Bassett Medical Center Catchment Area’s Behavioral Health Needs Assessment. The center provided public sources of data to Drs. Weil, O’Neill and Gadomski in development of the Stress Health initiative. Aletha Sprague reviewed initial findings of the needs assessment and provided additional resources as well as possible interventions.



Youth Risk Behavior Survey (YRBS)

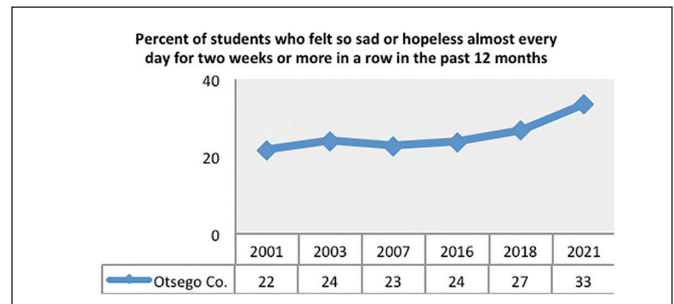
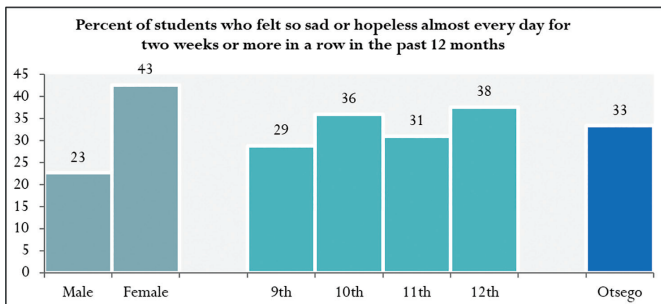
Under the auspices of the Otsego County System of Care, Otsego County schools agreed to administer the YRBS to high school students in spring 2021. BRI administered Vermont’s modified version of the Centers for Disease Control and Prevention’s (CDC) “Youth Risk Behavior Survey” due to its inclusion of protective factors that are normally omitted from the CDC version. Otsego County high school students, grades 9-12, in eight school districts and students attending an all-day ONC BOCES program received links to complete an online survey in REDCap. The survey was administered by schools May 10 - June 11, 2021 during the COVID-19 pandemic. BRI received 993 responses—45 were omitted, because either the surveys were completely blank or the student answered only a handful of questions—leaving a total of 948 responses. The BRI Center for Biostatistics analyzed and summarized the data.

Due to the Center for Population Health’s experience over the last six years collecting and visualizing Youth Risk Behavior Survey (YRBS) data for stakeholders within the Mohawk Valley Population Health Improvement Program grant, the center wrote the report for Otsego County’s 2021 YRBS. The number of schools that participated in 2021 was a lower compared to prior years. In 2018, twelve school districts and students attending an all-day ONC BOCES program participated in the survey with a total of 1,427 responses. In 2021, eight school districts and student attending the all-day ONCC BOCES program participated in the survey with a total of 948 responses.

The CDC’s YRBS tracks behaviors that contribute to the leading causes of mortality and morbidity in youth: unintentional injuries and violence, sexual behaviors, alcohol and other drug use, tobacco use, dietary behaviors, physical activity, obesity, and asthma. Community based organizations and health departments can use the survey results to help measure how many youth practice health risk behaviors and to create or increase programs to help reduce these behaviors. District comparisons were not offered, as it is not possible to accurately compare each district to another. The center presented the data during two separate meetings: Otsego County System of Care’s Team Meeting and LEAF, Inc’s Alcohol and Other Drug Task Force Meeting.

Highlights from the 2021 YRBS include worrisome trends in mental health and body weight, and good news regarding substance abuse, as displayed below.

Highlights from the 2021 Otsego County YRBS



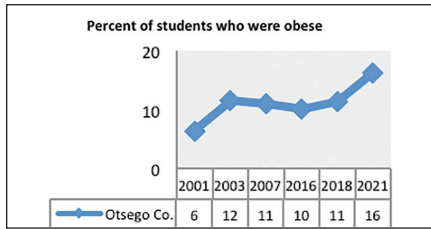
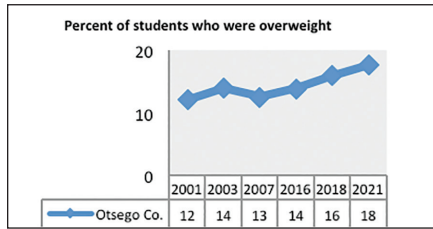
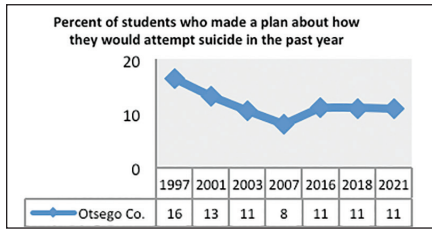


CENTER FOR POPULATION HEALTH

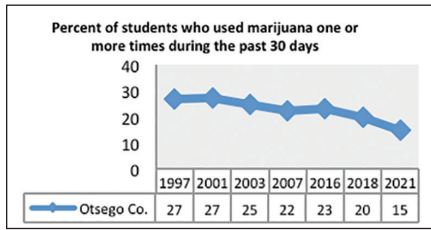
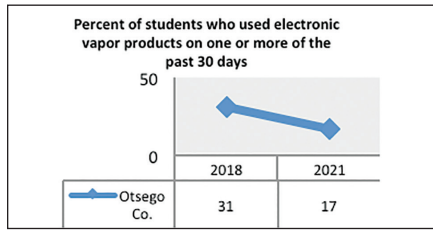
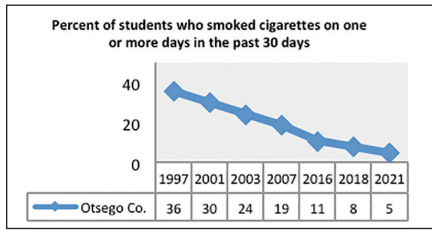
In the past 12 months, 33% of high school students who completed the survey felt so sad or hopeless almost every day for at least two weeks or more in a row that they stopped doing some usual activities.

The stress of the COVID-19 pandemic was the result of school closures, suspension of extracurricular activities and increased social isolation of high school students. For example, 39% of students reported not participating in afterschool activities such as sports, band, drama, or clubs run by their school or community groups in an average week. Social isolation and pandemic related anxiety would be expected to increase anxiety, depression and suicidality among vulnerable adolescents. However, survey results did not indicate an increase in high school students with suicide plans, rather this rate has remained stable at 11% since 2016.

An increasingly recognized consequence of pandemic restrictions on school attendance and extracurricular activities is weight gain. Based on the 2000 CDC growth charts, 18% of students are overweight and 16% of students are obese. Overweight is defined as \geq 85th percentile but $<$ 95th percentile for body mass index, based on sex- and age-specific reference data. Obesity is defined as \geq 95th percentile for body mass index, based on sex- and age-specific reference data.

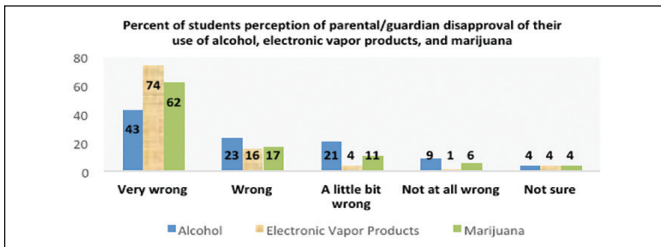


The survey yielded good news as well. The downward trend in current cigarette use has continued. Only 5% of students reported smoking cigarettes at least once during the past 30 days. This trend was accompanied by a decrease in vaping as well, however 17% of students used electronic vapor products on one or more of the past 30 days and 15% of students used marijuana at least one time during the past 30 days.



These trends are reinforced by students' perceptions of how parents would regard these activities.

Students reported that their parents/guardians would think it was wrong or very wrong for them to use electronic vapor products (90%), use marijuana (79%) or drink alcohol (66%).





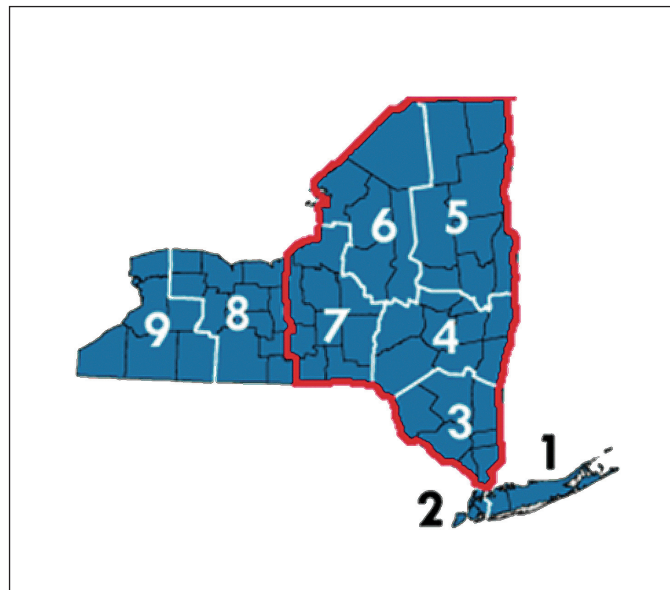
Tick-borne Disease Research and Community Outreach

Research

The Center for Population Health researches the occupational risk of tick-borne disease exposure.

In November 2020, the center began working with foresters, firefighters and healthcare workers in New York Department of Environmental Conservation (DEC) regions 3 through 7 (see Figure 1) to determine the seroprevalence of four common tick-borne pathogens: Lyme disease, anaplasmosis, babesiosis and ehrlichiosis, and assess risk through a questionnaire.

This study was funded by the EDT Resident Research Program (see EDT Section) and found that foresters had a seroprevalence rate of tick-borne disease nearly double that of firefighters or healthcare workers (see table below). Dr. Roome published these results in early 2022 as a Research Article in *Health Science Reports*, titled "Tick Magnets: The occupational risk of tick-borne disease exposure in forestry workers in New York." Larger scale intervention and prevention studies tailored to these specific occupations are planned to stem from this data.



New York State DEC regions. The study region is highlighted in red.



Number and percentage of study sample testing positive for antibodies to Lyme, Anaplasma, Ehrlichia, Babesia or any Tick-Borne Disease (TBD)

Tick-Borne Disease (TBD)	Forestry (FOR) (n=104)	Firefighter/ First Responder (FF) (n=101)	Indoor/ Healthcare (HCW) (n=49)	Overall p value	Pairwise comparison p values		
					FOR vs. FF	FOR vs. HCW	FF vs. HCW
Lyme (%)	3 (2.9)	1 (1.0)	1(2.0) ^a	0.8435	0.6216	0.999	0.999
Anaplasma (%)	9 (8.7)	7 (6.9)	0 (0.0)	0.1192	0.6605	0.0578	0.0965
Ehrlichia (%)	1 (1.0)	1 (1.0)	0 (0.0)	0.999	0.6605	0.999	0.999
Babesia (%)	3 (2.9)	0 (0.0)	2 (4.1) ^b	0.1434	0.2466	0.6555	0.1067
Lyme, Anaplasma, Ehrlichia (%)	12 ^c (11.5)	8 (7.9)	1 (2.0)	0.136	0.3828	0.063	0.2723
Any TBD	15 (14.4) ^c	8 (7.9) ^d	3 (6.1)	0.176	0.140	0.137	0.999

a Female participant with no known tick exposure risk identified

b Both male participants with recreational exposures noted

c Co-infection in one participant; Lyme and Anaplasma

d Co-infection in one participant; Anaplasma and Ehrlichia

Northeast Center for Occupational Health and Safety in Agriculture, Forestry and Fishing

Dr. Roome has also submitted a research proposal that aims to mitigate the risk of tick encounters and tick-borne disease exposure in agricultural workers in Vermont. This project involves a randomized control trial of ThermoCell Tick Control Tubes on dairy and livestock farms. This project was included in the Northeast Center application submitted for NIOSH funding in January 2022.

Community Outreach

Throughout 2021, the tick-borne disease research team participated in outreach education to raise awareness and dispel myths of ticks and tick-borne diseases. Dr. Roome held a lecture with the New York State Master Teacher Program, discussing the danger of tick-borne diseases and how to avoid tick bites with teachers across New York State.

CENTER FOR CLINICAL RESEARCH (CCR)

Who We Are

Medical Director: Daniel Freilich, MD

Clinical Research Nursing Supervisor: Jennifer Victory, RN, CCRC

Clinical Research Nurses: Catherine Gilmore, RN, CCRC; Melissa Huckabone, RN; Martina King, RN, Reccia McKenzie, RN

Clinical Research Coordinator: Peggy Cross



The CCR team gathering for our daily Zoom staff check in.

Top Row L to R: Martina King, RN; Catherine Gilmore, RN, CCRC; Reccia McKenzie, RN

Bottom Row L to R: Melissa Huckabone, RN; Jennifer Victory, RN, CCRC; Peggy Cross

While most of our work on campus has resumed, we have kept the routine of doing a daily Zoom team check in. It allows us to gather every day, check in with each other regardless if team members are in the building or working remotely.

Staffing Transitions – In 2021 we:

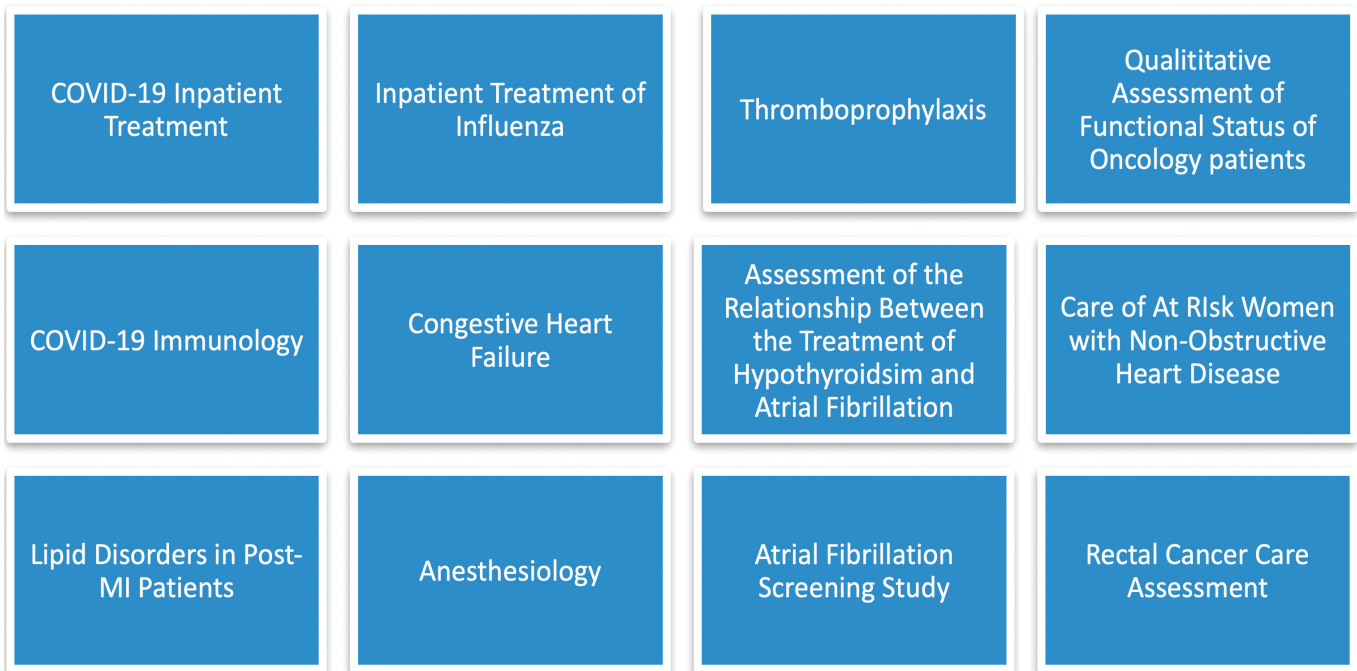
- Said good-bye to Clinical Research Nurse, Anna Schworm, RN
- Welcomed Martina King, RN and Reccia McKenzie, RN as new Clinical Research Nurses
- Congratulations to Peggy Cross on her promotion from Clinical Research Office Assistant to Clinical Research Coordinator

– Our Work –



CENTER FOR CLINICAL RESEARCH (CCR)

– Areas of Research in 2021 –



On average, the CCR managed 16 clinical research studies per month in 2021, involving attending clinicians, fellows, and residents. The CCR was also involved in the publication of 3 manuscripts. The COVID-19 pandemic continued to offer many unexpected challenges and opportunities in the world of clinical research at Bassett. For example, we were able to develop a new collaborative relationship with investigators at Johns Hopkins for a project looking at inpatient treatments for COVID-19, pooling data from several small, independent clinical trials across the country. We also had new providers join existing projects to support our research goals and/or participate as Principal Investigators for their own projects for the first time.

CCR staff provided assistance and support for projects being carried out by other researchers in the Research Institute and NYCAMH, including the Tick-Borne Diseases in NY Forestry Workers Study (Amanda Roome, PhD) and the Bassett Employee COVID-19 Antibody Study (Wendy Brunner, PhD).

CENTER FOR BIOSTATISTICS



Who We Are

Director: Paul Jenkins, PhD

Junior Research Investigator/Statistician:
Melissa Scribani, MPH

Research Informatics Analyst: Nicole Krupa, BS

The **Bassett Research Institute Center for Biostatistics (CFB)** provides study design assistance and data analysis in support of the overall mission of the Bassett Research Institute. The CFB collaborates with all divisions of the Bassett Research Institute, as well as various other departments of Bassett Healthcare Network. The center is directed by Paul Jenkins, PhD. Dr. Jenkins completed his doctorate in statistics in 1993. The staff of the center consists of a junior research investigator/statistician (Melissa Scribani, MPH) and research informatics analyst (Nicole Krupa, BS).

Services provided by the CFB include writing methods and analysis sections of grant proposals, comprehensive data management, statistical analysis, interpretation of study results, database building, assistance with developing experimental designs, manuscript writing and review, drafting tables and graphic materials for poster and podium presentations, as well as mentorship of students ranging from bachelors through doctoral levels. CFB also provides statistical and survey support to the Bassett Medical Center and Bassett Healthcare Network. During 2021, center staff provided study design consultation and data analysis plans for several sub-sections of the Northeast Center (NEC) for Occupational Health and Safety in Agriculture, Forestry and Fishing NIOSH grant proposal.

Databases and Software: The center maintains more than 30 large databases (as of 2021) relating primarily to research in obesity, diabetes, heart disease, health behaviors, and orthopedics. Center staff also conduct analyses on large national databases including the CDC's National Health Examination Survey (NHANES), the National Trauma Data Bank (NTDB), the Statewide Planning and Research Cooperative System data (SPARCS), the NYS Office of Alcoholism and Substance Abuse Services (OASAS), among others. Ms. Krupa serves as the Bassett Research Institute's expert in data needs involving the Bassett Healthcare Network electronic medical record system (EPIC). All members of the Center for Biostatistics are proficient in Statistical Analysis Software (SAS) as well as a variety of survey/data collection platforms and database programs, including REDCap. Staff also supported electronic data collection for several continuing BRI studies as well as new studies. Online survey platforms were created for installments of the Youth Risk Behavior Survey (YRBS) in Otsego County high schools, and for surveys of school climate, which were administered to parents, school staff, and middle/high school students throughout Otsego County.

Clinical research: This year, CFB staff also supported projects undertaken by the Bassett Cardiology Fellowship program, including analyzing a cohort of subjects with high triglyceride levels for cardiac events as well as EMR-based comparative analyses of that same cohort. In addition, CFB staff collaborated with a group of senior medical staff surgeons and surgical residents to analyze vascular injuries from the National Trauma Data Bank. The Center for Biostatistics has also provided statistical analysis for a number of manuscripts focused on outcomes from rural self-management education delivered by the Living Well team within BRI. Center staff assisted with study design, data collection, data management, and data analysis for a network-wide follow-up study comparing immune response to COVID-19 vaccines among Bassett Healthcare Network employees. This study compared post-vaccine antibody levels across three commercially available vaccines against COVID-19. Assistance continued in data analysis of a multi-site randomized clinical trial of COVID-19 treatment modalities, and a manuscript summarizing the findings is currently under review.

CENTER FOR BIOSTATISTICS

Publication: Biostatistics staff contributed to 13 peer-reviewed manuscripts, published in journals of occupational health, primary care, health systems, orthopedic/sports medicine, substance abuse, community health, environmental health and clinical medicine. The CFB staff contributed to several abstracts presented at national and international meetings hosted virtually and in-person during 2021. These included the International Society for Agricultural Safety and Health (ISASH) conference, the American College of Surgeons NY State Committee on Trauma meeting, the American Public Health Association (APHA) annual meeting, and the Vascular Society annual meeting.



Pet Study: Because the biostatistics staff is fond of companion animals and children, they have created a home for the Pet Study. This is a NICHD funded R21 (PI Anne Gadomski) that examines the longitudinal relationship between pet ownership and child and adolescent mental health. In a prior RO3 cross-sectional study completed eight years ago, Dr. Gadomski and her study team recruited 643 children from Bassett's primary care clinics. Results showed that children, ages 4 to 11 years, with pet dogs had lower anxiety scores (for separation and social anxiety) than children without pet dogs. The R21 is a follow-up study of these children to ascertain whether pet dog or cat exposure during childhood prevents the evolution of subthreshold mental health problems into full-fledged MH disorders in adolescence. This study started during the COVID-19 pandemic, which has complicated subject follow-up.

Aim 1 of this study includes a retrospective cohort study design that combines our prior study database with EPIC electronic medical record (EMR) data to create a patient-level analytic database. This database includes common childhood MH diagnoses (anxiety, depression, ADHD) occurring from the time of enrollment in the prior study to the present. The biostatistics team used survival analysis to compare time to common MH diagnoses, anxiety disorder and MH diagnosis associated with a psychotropic prescription between subjects with versus without pets. Of the 571 youth available for EMR review, the mean age was 14 years (range 11-19), 53% were male, and 56% had a pet dog at baseline. During the mean 7.8 year follow-up period, 85 youths were diagnosed with anxiety (52%), 61 with ADHD (37%), 15 with depression (9%) and 4 with combined MH diagnoses (2%). Having a pet dog at baseline was associated with lower risk of developing any MH diagnosis (HR = 0.74, p=.04) but not for anxiety or any MH diagnosis associated with a psychotropic prescription.

Follow-up data collection concluded at the end of October 2021. A total of 241 subjects (42%) completed follow-up interviews documenting their experiences with pets over the nearly eight-year follow-up period, including time intervals that each pet was in the home and levels of attachment to each pet (measured using an indicator called the Companion Animal Bonding Scale, or CABS). Also collected were questionnaires on parent and child mental health (depression and anxiety symptoms) and household characteristics.

Among those reached for follow-up, parent-reported cumulative exposure to pet dogs was protective against occurrence of any MH diagnosis (HR = 0.70, p=.028). Cumulative exposure to the most attached pet (dog or cat) was protective against occurrence of any MH diagnosis (HR = 0.58, p=.0032), and anxiety diagnosis (HR = 0.53, p =.002). We conclude that exposure to pet dogs in childhood is inversely related to the prevalence of teen MH disorders, an effect that is accentuated by the youth's cumulative exposure to a highly attached pet dog or cat. These results will be included in a manuscript to be submitted for publication in 2022.

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)



Who We Are

Lead: Anne Gadowski, MD, MPH

Junior Research Investigator/Statistician:
Melissa Scribani, MPH

Senior Evaluation Coordinator: Nancy Tallman, BS

Research Assistant: Melinda Robinson, BA

The **Center for Evaluating Rural Interventions (CERI)** conducts internal evaluations as well as external evaluations commissioned under contract varying in scope from small BRI-specific projects, to multi-county New York State-funded projects, to federally-funded multi-institutional grants (NEC/NYCAMH, Otsego County System of Care). CERI provides services including refining evaluation question(s), partnering in program planning, creating systems that incorporate measurement and real-time reporting, and assisting stakeholders in understanding data and writing evaluation sections for grants. CERI uses a variety of evaluation techniques including logic models, timelines, focus groups, social network analysis, cost analysis, surveys and data visualization to conduct our evaluations and present findings to stakeholders.

Program evaluations can be about developing an intervention, assessing its implementation, measuring the impact or outcome(s) of a policy or program, or providing accountability and oversight. When you want to know if a program, intervention or special project works in real world settings, call an evaluator. Stakeholders use evaluation findings to inform decisions about whether to continue, expand, or end a program. Funders use evaluation results to decide whether to continue funding future programs.

CERI takes a developmental, or formative, approach to program evaluation. CERI uses brief feedback reports to allow multiple stakeholders to track progress and make adjustments as implementation proceeds. That approach equates to maintaining an active role in program development and implementation by working closely with program directors and staff to understand what the objectives of the program are, how the program is being implemented, whether the program is doing what it is supposed to be doing, and what results are being generated by the program. Perhaps most importantly, evaluation seeks to know: *can the results be attributed to the program?* CERI is exploring how contribution analysis or implementation science may be useful in answering that question.

THE CENTER FOR EVALUATING RURAL INTERVENTIONS PROGRAMS:

- I. Otsego County Systems of Care
- II. Northeast Center (NEC) for Occupational Health and Safety in Agriculture, Forestry and Fishing
- III. Gender Wellness Center
- IV. Workforce Resilience

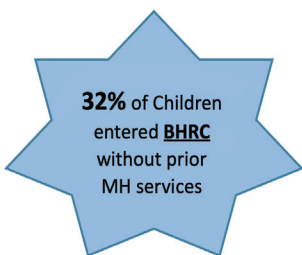
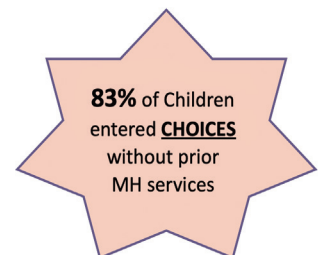
CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)



I. Otsego County Systems of Care (SOC)

In 2021, **CERI has continued to evaluate the Otsego County System of Care (SOC)** program, funded in September 2018 by the Substance Abuse and Mental Health Services Administration (SAMHSA). Marion Mossman, and the newly appointed Otsego County Mental Health Department Director, Jeannette Pavlus are leading this four-year federal grant. The goal of this SOC is to work with early intervention and schools to improve the management of serious emotional disorders, serious mental illness and substance abuse disorders among children and youth ages 0-21 years of age. The SOC has created clinical linkage through increasing early identification of youth at risk of developing and/or experiencing serious emotional or mental health problems or substance abuse, facilitating linkage to services for families, and implementing evidence-based practices. As the SOC evaluation team, CERI tracks service level data and program performance indicators of infrastructure, development, prevention and mental health promotion, and provides feedback to SOC partners. CERI conducts data management and analysis to measure outcomes of children served by the SOC as well as to evaluate the SOC’s social network.

For children from birth to age 5, the SOC developed the **CHOICES (Collaborative Hub Of Integrated Community Empowerment Services)** program. In collaboration with the Early Intervention Program, the Family Resource Network, Inc. (FRN), a member of Families Together New York, leads Otsego County’s SOC expansion and enhancements for birth – age 5 children and families with a special need. In the third year of the grant (2021), 12 children were identified and referred to CHOICES, 12 children were enrolled in the CHOICES program, and 83% of these children had never received mental health services before.



For youth ages 6 to 21, the SOC created the **BHRC (Behavioral Health Resource Center)**. For program sustainability, BHRC Clinicians work from Rehabilitation Support Services (RSS), located in Oneonta, in order to expand community-based treatment, outreach and engagement. The BHRC is evolving into a hub for educators, health and service providers, families and students to access an array of resources that will include assessment, treatment, family support, peer services, prevention, early intervention, training, education, juvenile justice support, social services, and crisis services. In 2021, 262 youth ages 6-21 were identified and referred to BHRC, 176 youth were enrolled in BHRC, and 32% of these youth had never received mental health services before.

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)



I. Otsego County Systems of Care (SOC)

'What's Great in Our State' award: In May 2021, the Otsego County System of Care (SOC) received high accolades from New York State Office of Mental Health for its work improving young people's access to mental health services with the help of the BRI. New York's 'What's Great in Our State' awards coincide with Children's Mental Health Awareness Week each May and recognize people and organizations making significant strides in the field of children's mental health. Otsego County's SOC received the System of Care Award for their community engagement serving youth ages 0 to 21.

"Bassett has provided our work with an evaluative component that is driving the system forward," says Marion Mossman, Otsego County SOC's Project Director. "They assist our SOC by evaluating our services, identifying potential barriers, and introduce new evidence-based practices. This is quality, experienced work with a team of highly qualified professionals. Our providers simply wouldn't have access to this sort of expertise without them. It's phenomenal."

Mossman went on to explain that "Dr. Gadomski has experience working with babies born with opioid addiction issues. That allowed her to make a compelling, data-backed case for SAMHSA to recognize neonatal abstinence syndrome (NAS) as a formal diagnosis. It was reviewed on the national level and approved. That's huge! Our NAS numbers in Otsego County are modest, but there are programs all over the country that are now getting the funding they need to serve children and families in that category."

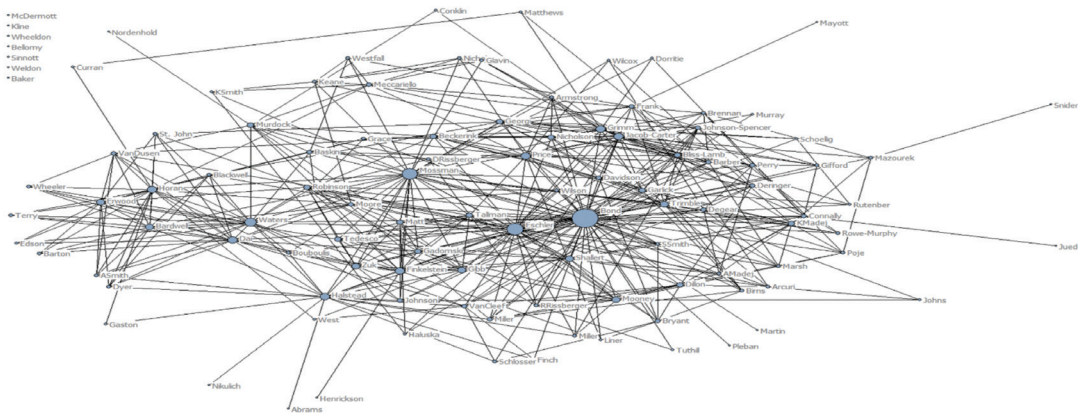
A network is only as good as its ability to share information. One of BRI's contributions has been social network analysis (SNA) of the paths of communication. "We use surveys to find the connections between partners within the network, then create a sociogram," explains Dr. Anne Gadomski, BRI's director. "It's a connected-dots style visual representation of the entire system of care. It allows you to see who is well-connected and who is on the margins."

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

I. Otsego County Systems of Care (SOC)



CHOICES Sociogram 2020



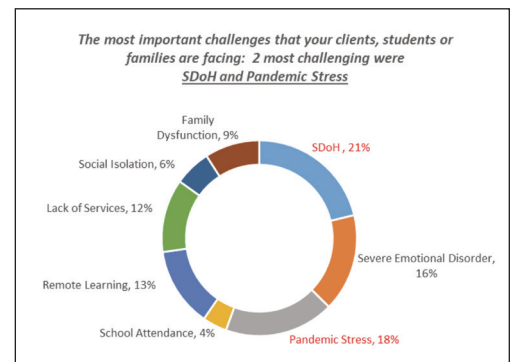
Although the resources Bassett contributes are unique, Mossman believes spirit of service beneath it all is common throughout the Otsego County System of Care.

“A system of care enhances services by breaking down the silos that normally separate our work from one another. Bassett’s willingness to contribute the Research Institute’s expertise is one example of how partners can come together to provide better care, and treatment for our children and families. All of our partners have demonstrated outstanding leadership and commitment to accomplish our goals. In other parts of the country, school districts are often reluctant to welcome community-based mental health services. That’s not the case here. Otsego County schools have embraced the partnership and we have developed a shared commitment in care for our youth! Otsego County is a special place to live.”

Pandemic challenges: Due to the COVID-19 pandemic, all schools rotated through in-person/hybrid/virtual learning throughout 2021. While the SOC BHRC clinical team continued to provide services virtually, lack of broadband access, and in some cases, computer equipment, continues to make it difficult for SOC staff to reliably connect with enrolled youth. Professional trainings were continuously cancelled due to restrictions on in-person meetings and/or lack of sufficient space. Teachers found it nearly impossible to participate in online educational offerings, though some did persevere.

In June 2021, SOC partners completed another SNA survey that included a question where they were asked what challenges they face in providing services.

The figure (right) depicts their responses. Social Determinants of Health (SDoH) that include finances, childcare, transportation, etc., and pandemic stress were the top two challenges identified. This feedback was provided to SOC partners to inform their service planning.



CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)



I. Otsego County Systems of Care (SOC)



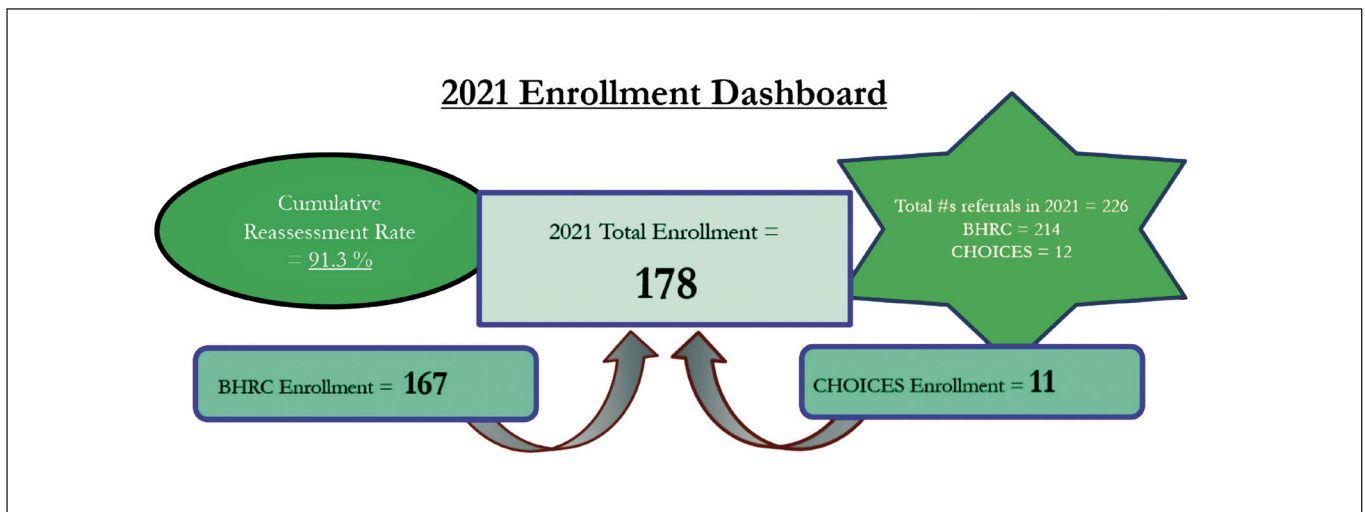
Partnerships: In 2021, the SOC continued to expand its partnerships by adding three formal MOU’s (Memorandum of Understanding). FRN continued to provide strong leadership through skilled Family Peer Advocates and Youth Peer Advocates, Nurturing Parenting classes and Teen Scene Activities. The Catskill Regional Teacher Center (CRTC) continues to work with schools to foster the addition of Kognito training for staff and families. After dog handlers received COVID-19 vaccines, #PAWSforSOC began to return to schools in November 2021. SOC/BHRC partnered with DSS for the new state regulation called “Families First Prevention Services Act,” using CANS to assist DSS with placement assessment.

Data collection: CERI continues to collect all required data pertaining to enrolled youth, such as the NOMs (National Outcomes Measures) that translates into the following dashboards, i.e. CMHS performance report and the SOC enrollment dashboard.

CMHS Performance Report

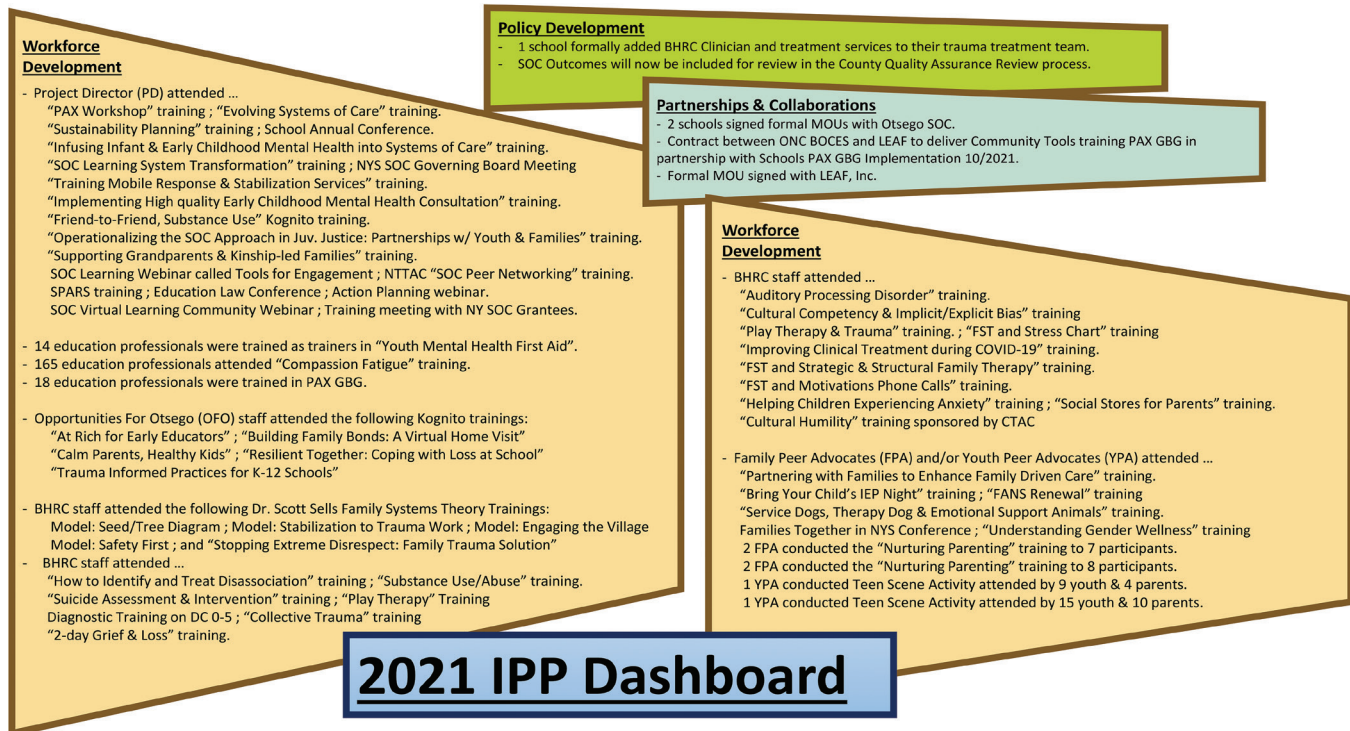
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Program	Cohort	Grant ID	Grant Org Info	GPO	Grantee has set Services goals for FFY 2021 & all future years ^{2,3}	Grantee has served at least 70% of Services goal for FFY 2021 ^{2,4,5}	Grantee reassessment rate is at least 60.0% in 2021 ^{2,6,11}	Grantee has set IPP goals for FFY 2021 & all future years ^{2,3}	Grantee has entered results for all required indicators in each quarter for FFY 2021 (to Date) ^{2,7,8,9}	Grantee has achieved at least 70% of IPP goals for FFY 2021 ^{2,5,8,10}
SOCXS-C	SOCXS-4	SM80149	Otsego County Department of Mental Health - NY 09/30/2018-09/29/2022	Emily Lichvar	Yes	Yes Achieved: 159% Goal: 125	Yes 92%	Yes	Yes	Yes 1,912%



CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

I. Otsego County Systems of Care (SOC)



IPP Indicators: CERI also enables the SOC to maintain a dashboard of indicators of infrastructure, development, prevention and mental health promotion, collectively referred to as IPP Indicators including:

- # of policy changes completed as a result of the grant
- # of organizations or communities implementing mental health-related training as a result of the grant
- # of youth/family members/peers who provide mental health-related services as a result of the grant
- # of agencies/organizations that entered into formal written inter/intra-organizational agreements (e.g., MOUs/ MOAs) to improve mental health-related practices/activities as a result of the grant
- # of individuals contacted through program outreach efforts
- # of individuals referred to mental health or related services
- # of individuals receiving mental health or related services after referral

All evaluation results are shared monthly with the ever-growing SOC Team, and quarterly with the SOC Advisory Board. Enrollment, reassessment and discharge data are shared with the BHRC and CHOICES teams at the monthly SPOA (Single Point Of Access) meeting where clinicians and advocates regularly discuss and re-evaluate the services being provided to enrolled youth. Plans for 2022 include submitting another SOC grant application in the spring to expand the SOC services currently being offered in Otsego County.

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

II. Northeast Center (NEC) for Occupational Health and Safety in Agriculture, Forestry and Fishing



The **Northeast Center for Occupational Health and Safety (NEC)** for Agriculture, Fishing and Forestry, is an education, research, and injury prevention center funded by the National Institute for Occupational Safety and Health (NIOSH). NEC aims to reduce occupational injuries in agriculture, forestry, and commercial fishing (AFF) sectors in the Northeastern US, from Maine through West Virginia. NEC has been awarded funding in five-year cycles, with the most recent cycle starting in September 2016. (Go to <https://necenter.org/> or read their 2021 Year in Review for more information).

For the past 5 years, the **NEC Planning and Evaluation (P&E)** core led by CERI utilized a combination of evaluation approaches to create a comprehensive picture and story of the impact of NEC activities on AFF outcomes in the Northeast (NE) region. These approaches include utilization focused techniques (logic models, theory of change, etc.), community-based participatory methods (surveys, Photovoice for needs assessment), realist techniques (use of existing data, cost analysis, etc.), and developmental evaluation (conceptual framework, responding to emerging needs, etc.).

In 2021, CERI continued to collect quarterly data from the NEC scientific projects in order to track project progress and documented intermediate outcomes as well as success stories. Every quarter, CERI surveys all PIs to track and report results for timeline adherence, outputs and impacts. These reports are then disseminated to all NEC project PIs, NEC administration and the NEC Scientific Advisory Panel. In addition, CERI also meets monthly with NEC staff in order to increase attention to performance targets, namely publications, but also tracking project success stories, presentations, and awards. Solutions to timeline delays and recruitment issues are discussed at these P&E meetings. This is how NEC improves or modifies program designs, addresses barriers, assures accountability and allows for mid-course corrections by the PI or with assistance from CERI. Quarterly reports also highlight NEC's professional relationships that enable translation from research into practice.

In 2021, CERI analyzed its annual NEC social network analyses (SNA) for the past 10 years. By trending SNA from year to year, CERI has followed the evolution of the NEC network, which can be considered one measure of the NEC's social capital with the AgFF community at large. CERI's annual online surveys were returned with excellent response rates (81-93%). These SNA surveys not only assessed key communication and collaborations among NEC network partners but also included questions to identify emerging issues in AFF. Annual installments of the SNA (2011–2020) showed an expansion of the network with a 30% increase in membership from baseline, as well as an increase in total relational ties (any type of contact). SNA measures also indicated significant increases in co-publication, cross-sector and transdisciplinary ties. (Ref: Scribani MB, Tinc PJ, Scott EE, Sorensen JA, Tallman NH, Gadomski AM. Evaluating the evolution of social networks: A ten-year longitudinal analysis of an agricultural, fishing and forestry occupational health research center. *Int J Environ Res Public Health*. 2021;18(24):12889. doi:10.3390/ijerph182412889).

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

III. Gender Wellness Center (GWC)



The **Gender Wellness Center (GWC)** is a nationally recognized, rural-based interdisciplinary center that offers medical, mental health, and surgical care to transgender individuals of all religions, ages, sexual orientations, and ethnicities. They also offer advocacy, research, and training. The mission of the GWC is to bring trans-affirming health care from the margins to the mainstream by offering transgender health care from within a primary care practice. The GWC's gender-affirming services are embedded within the Susquehanna Family Practice at Fox Care, and as such, it is a unique model for delivering transgender health care. Dr. Carolyn Wolf-Gould leads medical services, Susan Turrell, PhD leads mental health services, and Dr. Elizabeth Lax leads surgical services. From September 1, 2016 – October 31, 2019, GWC was funded by the Robert Wood Johnson Foundation (RWJF) Clinical Scholars Program to establish a Center of Excellence (COE) for Transgender Health.

In September 2021, Dr. Carolyn Wolf-Gould published a book chapter about the challenges faced by transgender patients and their clinicians in rural communities. The peer-reviewed piece, entitled "From Margins to Mainstream: Creating a Rural-Based Center of Excellence in Transgender Health for Upstate, New York," distills hard-earned insights from her and her teams' experience working with RWJF to create the Fox Care COE for Transgender Health. Her chapter describes the GWC's approach to create a rural-based COE in transgender health, including her team's strategic plan and their evaluation of its success.



For the past five years, CERI has worked closely with the GWC to build a pediatric registry in order to answer several research questions generated by GWC clinicians. At the time registry enrollment ended on October 25, 2019, 186 youth ages 8 to 21 years had been enrolled. This registry is updated regularly and maintained by CERI. In 2021, GWC staff collected Quality of Life (QOL) data from 106 of these registry participants while they were attending follow-up visits, for a completed two-year follow-up rate of 57%. The objectives of this study are to 1) quantify health-related QOL among transgender and gender expansive (TG/GE) youth enrolled in the GWC registry using validated instruments, and 2) compare the health-related QOL of these youth receiving care at the GWC to standardized population statistics. In August 2021, Jane O'Bryan, MPH (MD Candidate, Class of 2024, Frank H. Netter MD School of Medicine at Quinnipiac University) presented unadjusted preliminary results of this 2-year follow-up study at the BRI Research Grand Rounds. Comparing baseline to 2-year follow-up scores for GWC TG/GE youth ages 8-17, the only statistically significant improvement was for the Behavior subscale for which respondents are asked to rate their behaviors relative to peers of the same age. When QOL scores of GWC TG/GE youth ages 8-17 were compared to 2015-2016 U.S. standards both at baseline and follow-up, TG/GE youth had poorer QOL overall in nearly all categories. The only exception was the physical subscale of the role/social limitations (difficulties in performing schoolwork and engaging in social activities due to physical health problems). For older youth ages 18-25, there were marginal increases and decreases in the scores from baseline to follow-up, but none of the changes were statistically significant.

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

III. Gender Wellness Center (GWC)



The Human Rights Campaign has designated 2021 as the worst year in recent history for LGBTQ State Legislative attacks. An unprecedented number of states have enacted anti-LGBTQ measures into law, including bills prohibiting transgender athletes participating in sports, religious refusal bills, anti-LGBTQ education bills and anti-gender affirming medical care bills. Previously, the Trump-Pence administration systematically rolled back protections and rights of trans people including banning transgender service members from the military, rescinding Title IX guidance related to schools' obligations to protect LGBTQ+ students and launching the "Division of Conscience and Religion Freedom" to enable discrimination against LGBTQ+ people, women and other groups. Taking these trends into account as well as the stress of the pandemic and other important covariates is challenging, however CERI will complete its analysis of the longitudinal QOL data in 2022.

Columbia Bassett medical student Matthew Adan (MD/MS Candidate, Class of 2022) presented a qualitative study of transgender elders at the virtual 2020 WPATH conference. This study was subsequently published in *Transgender Health* in 2021. (Adan M, Scribani M, Tallman N, Wolf-Gould C, Campo-Engelstein L, Gadomski A. Worry and wisdom: A qualitative study of transgender elders' perspectives on aging. *Transgend Health*. 2021;6(6):332-342. doi:10.1089/trgh.2020.0098).

ORIGINAL ARTICLE

Worry and Wisdom: A Qualitative Study of Transgender Elders' Perspectives on Aging

Matthew Adan,^{1,*} Melissa Scribani,² Nancy Tallman,² Christopher Wolf-Gould,³
Lisa Campo-Engelstein,⁴ and Anne Gadomski²

Abstract

Purpose: While lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ) elders face a multitude of barriers to healthy aging, little is known about needs and concerns specific to transgender elders, except that they face many self-perceived challenges to healthy aging, which exist at the individual, community, and institutional levels. To further understand these needs, we explored the perspectives of transgender individuals aged 65 and older on health care, expectations of aging, concerns for the future, and advice for young transgender people.

Methods: We performed 19 semistructured interviews with individuals who identify as transgender elders, 10 transgender women and 9 transgender men. Interviews were transcribed and coded by three investigators to generate salient themes via thematic analysis.

Results: We identified 7 major themes that exemplify the concerns and experiences of this sample of the aging transgender community: fear of mistreatment in elder care, isolation and loneliness exacerbated by transgender identity, increased vulnerability to financial stressors, perceived lack of agency, health care system and provider inclusivity, giving back to one's community, and embracing self-truth as a path to fulfillment.

Conclusion: While some of these concerns, such as fear of mistreatment, are common among elders, the concerns of transgender elders are heightened due to stigma compounded by being both transgender and elderly. Health care providers, nursing home staff, and social workers must be sensitized to these needs and fears to provide appropriate, affirming, and respectful care and support to transgender elders.

Keywords: health care inclusivity; healthy aging; transgender elders; transgender health

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

IV. Workforce Resilience

Bassett is committed to the “well-being of every caregiver and practitioner” as a core value. The persistence of the COVID-19 pandemic and its implications continue to severely exacerbate underlying stressors in healthcare. CERI, the Center for Biostatistics, the Bassett Healthcare Administration, the Department of Medical Education, and the Office of Medical Information and Innovation continue to work collaboratively to promote a healthy workforce by combatting the problem of burnout.

During 2021, the **Workforce Resilience** team (Dr. Caroline Gomez-Di Cesare, Tom Hohensee, Melissa Scribani, and research intern Theresa Chung), expanded and improved a clinician peer support network with the assistance of two grants from the NYS Health Foundation for Preventing Clinician Burnout in Central New York. The peer support network started as a collaboration of five Central New York organizations (Bassett Healthcare Network, Upstate Medical University, Mohawk Valley Health System, Auburn Hospital and Oneida Health) and now includes the New York chapter of the American Nurses Association (ANA-NY). The program is able to provide confidential and near anonymous peer support while addressing stigma in receiving support. The program makes peer support available to the ~12,000 physicians, advanced practice clinicians, residents, behavioral health clinicians, and respiratory therapists who work within the collaborative, and to every nurse in New York State. Referrals to the program are steadily growing. The program is developing strategies to reach out proactively to clinicians in high stress situations.

Analyses of anonymous patient data help inform CPSP-CNY activities and are being analyzed for CPSP effect on patient care. As part of the CPSP-CNY program, the BRI is also administering periodic well-being surveys to clinicians at participating organizations to evaluate the program, to evaluate clinician well-being, and to provide actionable data for organizations to utilize in developing additional strategies for well-being. The Workforce Resilience Team utilizes this data to inform joint strategic efforts to improve clinician wellbeing through workflow improvements. This included a collaboration with the American Medical Association through the Practice Transformation Initiative.

The CPSP-CNY program includes CME and CNE credited offerings to address the stigmas surrounding self-care and to empower clinicians towards wellbeing. In April 2021, the CPSP – CNY program welcomed Peter Sagal (NPR Host of *Wait, Wait, Don't Tell Me*) to discuss his own journey with help-seeking and mental health, and his experience caring in medical care. “Wait, Wait, Please Ask Me” is available for clinicians to view asynchronously for credit. We also welcomed Dr. Jo Shapiro, an internationally acclaimed expert regarding clinician well-being and patient safety in September 2021, for a discussion of psychological safety in the workplace. “Establishing Psychological Safety in the Workplace: Key Driver of Patient Safety and Clinician Wellbeing” is also being made available for asynchronous viewing.

In October 2021, Bassett Healthcare was one of 44 organizations nationwide who received the AMA Joy In Medicine recognition. The CPSP-CNY program, the clinician surveys, and the Practice Transformation Initiative were key features of that recognition.

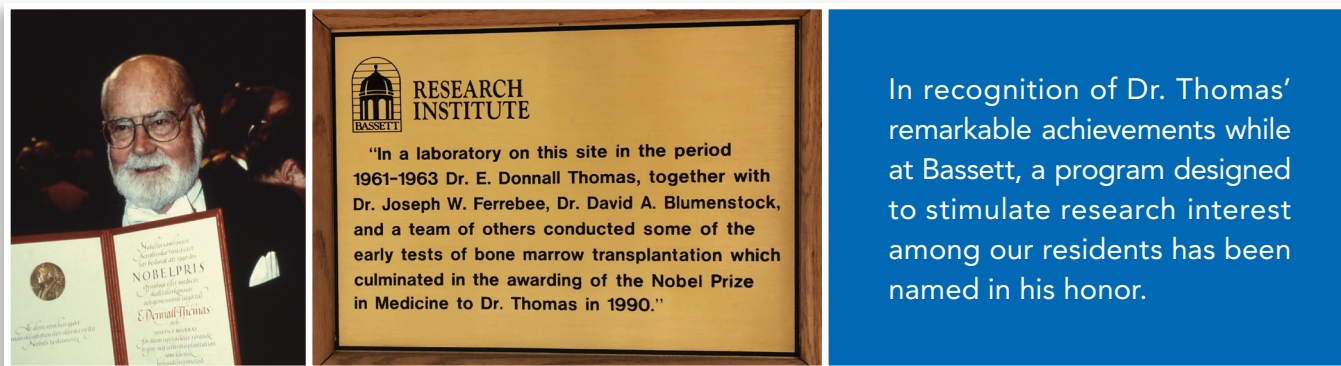
In 2022, the Workforce Resilience team will continue to assess and deploy interventions to improve clinician well-being. We anticipate expanding CPSP-CNY group peer support services as well as the Practice Transformation program.



Dr. Caroline Gomez-Di Cesare receiving the AMA Joy in Medicine award, on behalf of the Bassett Healthcare Network.

E. DONNALL THOMAS (EDT) RESIDENT RESEARCH COMMITTEE REPORT FOR 2021

Chairperson: Anne Gadomski, MD, MPH



There was one new EDT funded study in 2021. Due to the pandemic, the EDT Resident Research Poster Session and Research Week presentation was cancelled in April 2021. In May 2021, Dr. Gadomski provided an update regarding the EDT Resident Research Program to the steering committee for the Medical Education Endowment Fund that funds this program. Below is a summary of active projects in 2021, with plans for 2022.

**Comparing COVID-19 immunogenicity of Pfizer vs Moderna vaccines: Anshini Shah MD, Emily Lasher, Daniel Freilich MD, Anne Gadomski MD, MPH, Jennifer Victory, RN, Amanda Fink
Principal Investigator: Wendy Brunner, PhD**

Approved 2021 – recruitment closed, manuscript submitted.

The primary aim of this study was to compare immunogenicity, as measured by spike protein antibodies (primary outcome), before and after COVID-19 vaccination. The study groups included Bassett employees who were fully vaccinated with either Johnson & Johnson, Pfizer or Moderna vaccine. Unvaccinated and boosted participants were also included. This immunogenicity study was considered by the IRB to be an add-on to last year's COVID-19 antibody study (COVID-19 Antibodies in Bassett Health Personnel IRB#1597947). The original study was approved on April 29, 2020. An amendment was submitted to the IRB covering this follow-up study and it was approved on August 3, 2021. A manuscript has been submitted for publication and is currently under review.

**COVID MED trial (Comparison of therapeutics for hospitalized patients infected with SARS-CoV-2 in a pragmatic adaptive randomized clinical trial during the COVID-19 pandemic): Nancy Bethuel MD, Yuri Choi MD, Farah Deshmukh MD, Azkia Khan MD
Principal Investigator: Daniel Freilich, MD**

Approved 2020 – Closed 2021.

COVID MED is an investigator-initiated clinical trial assessing the safety and efficacy of several medications as potential treatments for COVID-19 among hospitalized patients. The EDT internal source of funding enabled rapid response in setting up this clinical trial for COVID-19 inpatients at BMC and AO Fox Hospital. A manuscript has been submitted in 2021 and is under review in 2022.

E. DONNALL THOMAS (EDT) RESIDENT RESEARCH COMMITTEE REPORT FOR 2021

Chairperson: Anne Gadomski, MD, MPH

COMBO trial (combination therapy with Baloxavir and Oseltamavir for hospitalized patients with influenza):
Nancy Bethuel MD, Yuri Choi MD, Farah Deshmukh MD, Azkia Khan MD
Principal Investigator: Daniel Freilich, MD

Approved 2020 – currently recruiting.

The COMBO trial, the influenza combination therapy trial, was designed and IRB approved by resident investigators led and mentored by Dr. Freilich. The COMBO trial received approval of about \$310,000 from Genentech to do sophisticated and costly virology studies for the revised protocol. Therefore, this EDT pilot funding has leveraged external funding. Patient recruitment is currently underway in the ED, however no inpatients have been eligible to date.

Tick-borne Disease seroprevalence: Sugam Ghoul MD, Daniel Yodsuwan MD, Daniel Freilich, MD
Principal Investigator: Amanda Roome PhD

Approved 2020 – Closed 2021.

The purpose of this study is to determine the seroprevalence of four tick-borne diseases among foresters working in New York State. A revision of this protocol added a comparison group of volunteer firefighters attending a health screening clinic at NYCAMH, and a group of indoor health care workers. This pilot data was collected in preparation for planned doxycycline prophylaxis trial or personal protective equipment intervention in high-risk occupations. Recruitment and data collection and analysis is complete. This tick-borne illness serology study was submitted for publication in 2021 and was accepted by *Health Science Reports* in January 2022.

Lovenox Study: Anukrati Shukla, MBBS, Lintha Shah, MBBS
Principal Investigator: Anush Patel, MD, FACP

Approved 2019 – currently recruiting.

This study entitled, “Impact of patient weight on anti-factor Xa levels in non-surgical inpatients using standard enoxaparin dosing for thromboprophylaxis” was approved by the EDT Committee in June 2019. The project was designed as a prospective cohort study, enrolling up to 100 patients who are admitted to inpatient general medicine service and receive the standard dosing of enoxaparin. In 2021, 42 inpatients completed the study.

ICU Liberation: Ethan Talbot MD, Jimmy Wang MD, Kristin Baker MD, Muhammad Daniyal MD, Nadir Siddiqui MD
Principal Investigator: Erik Riesenfeld, MD

Approved 2017 – recruitment closed, abstract presented.

Dr. Talbot’s project, “ICU Liberation: Does Enhanced Patient Mobilization Improve Outcomes?” was approved for funding October 5, 2017. After IRB approval, ten accelerometers were purchased to measure change in mobilization of ICU patients. The research team began using the devices November 30, 2017 to measure baseline mobilization for approximately five months, then ICU staff training occurred and post-intervention data were collected. At the EDT Resident Research Poster Session on April 29, 2019, Dr. Talbot presented a poster entitled, “ICU Liberation: Planning, Hurdles, and Implementation” that received 2nd place in the judging. Dr. Nadir Siddiqui presented an abstract titled “Use of Accelerometers to Measure Movement in a Rural ICU Early Mobilization Program” at the American Thoracic Society (ATS) May 2020 meeting held remotely. The abstract appeared in *Am J Respir Crit Care Med* 2020; 201:A 5507. A manuscript is being drafted that will address the following primary outcomes: Did the project increase mobilization? Did it improve patient outcomes? And was it cost effective? Creating data tables from chart review data has proven to be more difficult than anticipated and needs to be completed in order to submit a manuscript for publication.

COLUMBIA-BASSETT MEDICAL SCHOOL STUDENT RESEARCH



COLUMBIA-BASSETT PROGRAM

All listed activities are for the period January 1, 2021 through December 31, 2021

NARRATIVE SUMMARY HIGHLIGHTS FOR 2021

This year our research program published six papers, made two presentations, and received one new grant. We also submitted one paper that is still under review. We published a paper in *BMC Public Health* demonstrating that adverse childhood experiences and female gender are synergistic risks for depression and anxiety in US adults. This paper included three Columbia-Bassett students from the class of 2023. A second paper, published in *Diabetic Medicine*, was first authored by Kathryn Nagel, who was a member of the Columbia-Bassett class of 2017. A third paper, published in *Academic Pediatrics*, was part of a series of papers showing the association between childhood family connection (the perception of safe, stable, and nurturing relationships at home) and flourishing across levels of childhood adversity. The previous two papers in this series were published in *Health Affairs* (2019) and *JAMA Network Open* (2020). A fourth paper, published in *Early Childhood Research Quarterly*, showed that among Head Start staff, more frequent daily spiritual experiences were associated with a lower risk of depression across a range of exposures to adverse childhood experiences. The fifth paper was published in *JAMA Pediatrics* using data collected this spring in an online survey of 265 early childhood education (ECE) professionals. This research was supported by a new grant from First Up (formerly the Delaware Valley Association for the Education of Young Children), a non-profit organization that supports ECE professionals. We have one additional paper under review, which utilized the data from this new survey of ECE professionals. The sixth published paper included two Columbia-Bassett students from the class of 2024, who assisted us during the summer of 2021, and it was also the basis for our annual research grand rounds presentation (via Zoom) at the Bassett Research Institute. Finally, we made a national presentation (via Zoom) to the Mental Health Workgroup of the Head Start National Training and Technical Assistance Centers.

GRANT SUPPORT

Title: An evaluation of a professional learning series for early childhood educators about trauma

Source: First Up (210001)

Role: Principal Investigator

Goals: To conduct an implementation evaluation of a three-class learning series for early childhood education professionals about developmental trauma

Period of support: 1/01/2021 – 12/31/2021

Total costs: \$25,000

COLUMBIA-BASSETT MEDICAL SCHOOL STUDENT RESEARCH



COLUMBIA-BASSETT PROGRAM

PEER-REVIEWED PUBLICATIONS

[LINK TO MYBIBLIOGRAPHY AT NCBI]

[LINK TO GOOGLE SCHOLAR CITATIONS]

* denotes role as senior author

† denotes student mentee (master's or doctoral student, post-doctoral fellow, medical student or resident)

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2. Nagel KE†, Dearth-Wesley T, Herman AN, Smith HG†, **Whitaker RC**.* Diabetes distress and glycaemic control in young adults with type 1 diabetes: Associations by use of insulin pumps and continuous glucose monitors. *Diabet Med*. 2021;38:e14660. doi:10.1111/dme.14660
3. **Whitaker RC**, Herman AN, Dearth-Wesley T. Death from COVID-19 as context for early childhood education. *JAMA Pediatr*. 2021;175(11):1176-1178. doi:10.1001/jamapediatrics.2021.2348.
4. **Whitaker RC**, Dearth-Wesley T, Herman AN. The association of daily spiritual experiences with depression among Head Start staff. *Early Child Res Q*. 2021;56:65-77. doi:10.1016/j.ecresq.2021.03.001
5. **Whitaker RC**, Dearth-Wesley T, Herman AN. Childhood family connection and adult flourishing: associations across levels of childhood adversity. *Acad Pediatr*. 2021;21(8):1380–1387. doi:10.1016/j.acap.2021.03.002
6. **Whitaker RC**, Dearth-Wesley T, Herman AN, van Wingerden ASN†, Winn DW†. The association between family connection and flourishing among adolescents in 26 countries. *Pediatrics*. 2021; In Press.

COLUMBIA-BASSETT MEDICAL SCHOOL STUDENT RESEARCH



COLUMBIA-BASSETT PROGRAM

REPORTS

1. Herman AN, Dearth-Wesley T, **Whitaker RC**.* "Final Report: An Evaluation of a Professional Learning Series for Early Childhood Educators about Trauma." Report submitted to First Up. Columbia-Bassett Research Program, Cooperstown, NY, November 2021.
2. Herman AN, Dearth-Wesley T, **Whitaker RC**.* "Implementation Evaluation of First Up's Spring 2021 Foundation Series: Attendance Summary Report." Report submitted to First Up. Columbia-Bassett Research Program, Cooperstown, NY, July 2021.
3. Herman AN, Dearth-Wesley T, **Whitaker RC**.* "Implementation Evaluation of First Up's Spring 2021 Trauma Foundation Series: Baseline Characteristics of Registered Participants." Report submitted to First Up. Columbia-Bassett Research Program, Cooperstown, NY, April 2021.

PRESENTATIONS

INVITED LECTURES (presented by Robert C. Whitaker, MD, MPH)

1. The Head Start workforce: From trauma in childhood to flourishing with adversity at work in adulthood. Office of Head Start. Mental Health Workgroup of the Head Start National Training and Technical Assistance Centers (via conference call), July 15, 2021 (with Allison N. Herman, MEd, MPH and Tracy Dearth-Wesley, PhD, MPH).
2. An international study of family connection and flourishing in adolescents. Research Grand Rounds. Bassett Research Institute, Cooperstown, NY, September 21, 2021 (with Tracy Dearth-Wesley, PhD, MPH and Allison N. Herman, MEd, MPH).

MEDICAL STUDENT RESEARCH MENTORSHIP

- | | |
|-------------|---|
| Summer 2021 | Anne-Sophie van Wingerden, Columbia-Bassett Program, [An international study of family connection and flourishing in youth] |
| Summer 2021 | Delaine Winn, Columbia-Bassett Program, [An international study of family connection and flourishing in youth] |

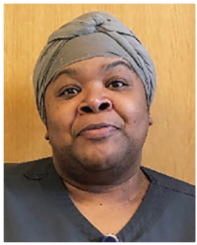
NEW STAFF 2021



Dr. Maeve O'Neill joined BRI in July 2021 as a Research Scientist and Attending Psychiatrist, Bassett Medical Center, Cooperstown, NY.



Emily Lasher joined BRI in June 2021 as a Research Assistant.



Martina King joined the Center for Clinical Research (CCR) in July 2021 as a Clinical Research Nurse.



Reccia McKenzie joined the Center for Clinical Research (CCR) in November 2021 as a Clinical Research Nurse.

DEPARTURES 2021



Anna Schworm
Clinical Research Nurse



Aletha Sprague
PHIP Supervisor



Thomas Hohensee retired from Bassett in December after 33+ years.

Thank you Anna, Aletha, and Tom for all your contributions to BRI.

PUBLICATIONS

1. Kim-Wang SY, **Scribani MB**, Whiteside MB, DeFrate LE, Lassiter TE, Wittstein JR. Distribution of bone contusion patterns in acute noncontact anterior cruciate ligament–torn knees. *Am J Sports Med*. 2021;49(2):404-409. doi:10.1177/0363546520981569
2. **Tinc PJ, Sorensen JA, Goodspeed MM, Jenkins PL**. Do Cialdini’s “principles of influence” motivate safe practices on farms? *J Agromedicine*. 2021:1-12. doi:10.1080/1059924X.2021.1950591
3. Lo BK, Graham ML, Folta SC, **Strogatz D**, Parry SA, Seguin-Fowler RA. Physical activity and healthy eating behavior changes among rural women: an exploratory mediation analysis of a randomized multilevel intervention trial. *Transl Behav Med*. Oct 23 2021;11(10):1839-1848. doi:10.1093/tbm/ibaa138
4. Vivoda JM, Molnar LJ, Eby DW, Bogard SE, Zakrajsek JS, Kostyniuk LP, St. Louis RM, Zanier N, LeBlanc D, Smith J, Yung R, Nyquist L, DiGuseppi C, Li G, **Strogatz D**. The influence of hearing impairment on driving avoidance among a large cohort of older drivers. *J Appl Gerontol*. Dec 2021;40(12):1768-1777. doi:10.1177/0733464821999223
5. Geller S, Levy S, Hyman O, **Jenkins PL**, Abu-Abeid S, Goldzweig G. Preoperative body-related emotional distress and culture as predictors of outcomes of bariatric surgery. *Eat Weight Disord*. Oct 2021;26(7):2361-2369. doi:10.1007/s40519-020-01085-1
6. **Scott E, Hirabayashi L, Graham J, Krupa N, Jenkins P**. Using hospitalization data for injury surveillance in agriculture, forestry and fishing: a crosswalk between ICD10CM external cause of injury coding and The Occupational Injury and Illness Classification System. *Inj Epidemiol*. Feb 15 2021;8(1):6. doi:10.1186/s40621-021-00300-6
7. ***Bethuel NW, Bravin E, **Krupa N, Jenkins P, Scribani M, Gadomski A**. Bone marrow biopsy and aspiration: a departmental financial comparison in a rural hospital. *BMC Res Notes*. Mar 4 2021;14(1):84. doi:10.1186/s13104-021-05491-1
8. Xue Y, Chihuri S, Andrews HF, Betz ME, DiGuseppi C, Eby DW, Hill LL, Jones V, Mielenz TJ, Molnar LJ, **Strogatz D**, Lang BH, Kelley-Baker T, Li G. Potentially inappropriate medication use and hard braking events in older drivers. *Geriatrics (Basel)*. Feb 20 2021;6(1). doi:10.3390/geriatrics6010020
9. *Adan M, **Scribani M, Tallman N**, Wolf-Gould C, Campo-Engelstein L, **Gadomski A**. Worry and wisdom: A qualitative study of transgender elders’ perspectives on aging. *Transgend Health*. 2021;6(6):332-342. doi:10.1089/trgh.2020.0098
10. ***Bethuel NW, Wasson K, **Scribani M, Krupa N, Jenkins P, May JJ**. Respiratory disease in migrant farmworkers. *J Occup Environ Med*. Aug 1 2021;63(8):708-712. doi:10.1097/jom.0000000000002234
11. Anderson JB, Martin SA, **Gadomski A, Krupa N**, Mullin D, Cahill A, **Jenkins P**. Project ECHO and primary care buprenorphine treatment for opioid use disorder: Implementation and clinical outcomes. *Subst Abus*. 2021:1-9. doi:10.1080/08897077.2021.1931633
12. Kanoth S, Mielenz TJ, Eby DW, Molnar LJ, Jia H, Li G, **Strogatz D**. Adapted stopping elderly accidents, deaths, and injuries questions for falls risk screening: Predictive ability in older drivers. *Am J of Prev Med*. 2021;61(1):105-114. doi:10.1016/j.amepre.2021.02.013
13. ***Panjawatnanan P, Charoenkwan P, Tantiworawit A, **Strogatz D**, Perry KE, Tuntiwechapikul W. Telomere shortening correlates with disease severity in hemoglobin H disease patients. *Blood Cells Mol Dis*. Jul 1 2021;89:102563. doi:10.1016/j.bcmd.2021.102563

PUBLICATIONS

14. Di X, Shi R, DiGuseppi C, Eby DW, Hill LL, Mielenz TJ, Molnar LJ, **Strogatz D**, Andrews HF, Goldberg TE, Lang BH, Kim M, Li G. Using naturalistic driving data to predict mild cognitive impairment and dementia: Preliminary findings from the longitudinal research on aging drivers (LongROAD) study. *Geriatrics*. 2021;6(2):45. doi:10.3390/geriatrics6020045
15. **Whitaker RC**, Dearth-Wesley T, Herman AN. The association of daily spiritual experiences with depression among Head Start staff. *Early Childhood Res Q*. 2021;56:65-77. doi:10.1016/j.ecresq.2021.03.001
16. **Whitaker RC**, Dearth-Wesley T, Herman AN. Childhood family connection and adult flourishing: Associations across levels of childhood adversity. *Acad Pediatr*. Nov-Dec 2021;21(8):1380-1387. doi:10.1016/j.acap.2021.03.002
17. **Whitaker RC**, Herman AN, Dearth-Wesley T. Death From COVID-19 as context for early childhood education. *JAMA Pediatr*. 2021;175(11):1176-1178. doi:10.1001/jamapediatrics.2021.2348
18. Zoltick D, **Scribani MB**, **Krupa N**, Kern M, Vaccaro E, Jenkins P. Healthy lifestyle counseling by healthcare practitioners: A time to event analysis. *J Prim Care Community Health*. Jan-Dec 2021;12. doi:10.1177/21501327211024427
19. **Sorensen JA**, **Weil R**, **Echard J**, **Tinc PJ**, **Hirabayashi L**, **Roome A**, Lally E, **Jenkins PJ**. Evaluation of the lifejackets for lobstermen program: A social marketing initiative to increase lifejacket use in the Northeast lobster fishing industry. *Saf Sci*. 2021;142:e105354-e105354.
20. Gorucu S, Fetzer L. Agricultural safety and health learning methods for agricultural workforces. *J Agric Saf Health*. 2021;27(2):77-85. doi:10.13031/jash.14355
21. **Scott EE**, **Dalton DB**. Agricultural fatalities in New York State from 2009-2018: Trends from the past decade gathered from media reports. *J Agromed*. Apr 3 2021;26(2):132-139. doi:10.1080/1059924X.2020.1720883
22. **Pullyblank K**, **Scribani M**, **Wyckoff L**, **Krupa N**, **Flynn J**, **Henderson C**, **Strogatz D**. Evaluation of implementation of the Diabetes Self-management Program in a rural population. *Diabetes Spectr*. 2021; 35(1): 1-7. doi:10.2337/ds21-0002
23. Fulmer S, Jain S, Kriebel D. Commercial fishing as an occupational determinant of opioid overdoses and deaths of despair in two Massachusetts fishing ports, 2000-2014. *New Solut*. Nov 2021;31(3):252-258. doi:10.1177/10482911211023476
24. **Scott E**, **Hirabayashi L**, Levenstein A, **Krupa N**, **Jenkins P**. The development of a machine learning algorithm to identify occupational injuries in agriculture using pre-hospital care reports. *Health Inf Sci Syst*. Jul 29 2021;9(1):31. doi:10.1007/s13755-021-00161-9
25. Weichelt B, **Scott E**, Burke R, et al. What about the rest of them? Fatal injuries related to production agriculture not captured by the Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI). *J Agromed*. 2021:1-6. doi:10.1080/1059924X.2021.1956663
26. *Nagel KE, Dearth-Wesley T, Herman AN, Smith HG, **Whitaker RC**. Diabetes distress and glycaemic control in young adults with type 1 diabetes: Associations by use of insulin pumps and continuous glucose monitors. *Diabet Med*. 2021;38(11):e14660. doi:10.1111/dme.14660
27. **Tinc PJ**, **Sorensen JA**, **Jenkins PL**, Kelsey T. Cost analysis of a PTO driveline shielding program: Are effective programs cost-effective? *J Agric Saf Health*. Oct 21 2021;27(4):205-214. doi:10.13031/jash.14575
28. **Scott E**, **Hirabayashi L**, **Graham J**, **Krupa N**, **Jenkins P**. Not quite out of the woods: Overall health and chronic disease risk factors among Maine logging workers. *J Occup Environ Med*. Oct 5 2021; doi:10.1097/jom.0000000000002403

PUBLICATIONS

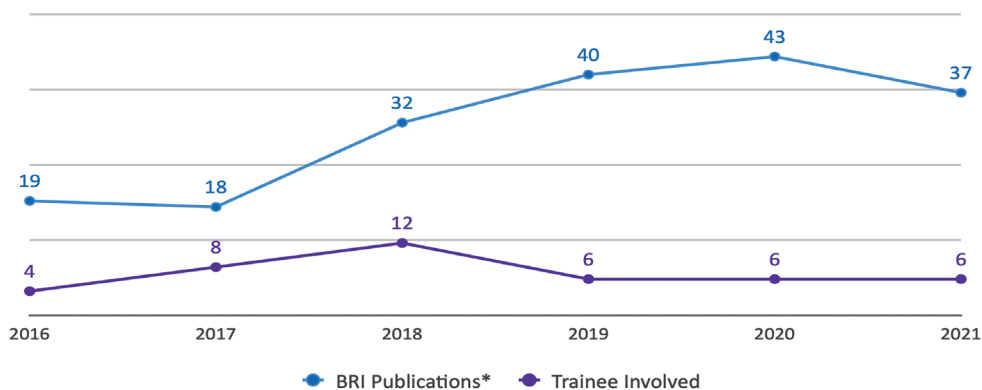
29. **Whitaker RC**, Dearth-Wesley T, Herman AN, Block AE, *Holderness MH, *Waring NA, Oakes JM. The interaction of adverse childhood experiences and gender as risk factors for depression and anxiety disorders in US adults: A cross-sectional study. *BMC Public Health*. Nov 12 2021;21(1):2078. doi:10.1186/s12889-021-12058-z
30. Lynch L, Mielenz TJ, Li G, Eby DW, Molnar LJ, Betz ME, DiGuseppi C, Hill LL, Jones V, **Strogatz D**, et al. Rate of social isolation by geographic location among older adults: AAA LongROAD study. Brief Research Report. *Front Public Health*. Dec 10 2021;9(2003) doi:10.3389/fpubh.2021.791683
31. **Sorensen JA**, Kincl L, **Weil R**, Dzigan J, Christel D. Fisheries governance and associated health implications: Current perspectives from us commercial fishermen. *Mar. Policy*, 2021; In Press.
32. White E, Levine J, Moeser A, **Sorensen J**. The direct and indirect effects of a global pandemic on US fishers and seafood workers. *medRxiv*. Nov 16 2021. doi:10.1101/2021.11.16.21266427
33. Vivoda JM, Molnar LJ, Eby DW, DiGuseppi C, Jones V, Li G, **Strogatz D**, Yung R, Nyquist L, Smith J, Zakrajsek J, St. Louis R, Zanier N. All are not created equal: Assessing initial driving self-regulation behaviors among older adults. *J Transp Health*. Dec 10 2021;24:101310. doi:10.1016/j.jth.2021.101310
34. **Scribani MB**, **Tinc PJ**, **Scott EE**, **Sorensen JA**, **Tallman NH**, **Gadomski AM**. Evaluating the evolution of social networks: A ten-year longitudinal analysis of an agricultural, fishing and forestry occupational health research center. *Int J Environ Res Public Health*. 2021;18(24):12889. doi:10.3390/ijerph182412889
35. **Whitaker RC**, Dearth-Wesley T, Herman AN, van Wingerden ASN*, Winn DW.* Family connection and flourishing among adolescents in 26 countries. *Pediatrics*. 2021; In Press.
36. **Graham J**, **Scott E**, **Tinc P**, **Hirabayashi L**. The modern gut-hammer: Understanding the eating habits of loggers through Photovoice. *Appetite*. Dec 23, 2021:105882. doi:10.1016/j.appet.2021.105882
37. Gorucu S, Pate ML, Fetzer L, Brown S. Farmers' perceptions of grain bin entry hazards. *J Agric Saf Health*. 2021. In Press. doi: 10.13031/jash.14662

*Medical student author

**Resident funded by EDT Resident Research Program

***Resident

BRI Peer-Reviewed Publication Trend (2016-2021)



*Includes NYCAMH/NEC

Trainees include medical students, residents, post-graduate (PhD) students, and college summer interns

RESEARCH GRAND ROUNDS

	Participants Viewed-Zoom
<p>January 19, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “High versus Higher – and Other Scientific Mysteries”</p> <p>Presenter: Paul Jenkins, PhD – Director, Bassett Research Institute, Center for Biostatistics (CFB)</p>	44
<p>February 16, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Advancements in Occupational Injury Surveillance: Making the Haystack Smaller to Find the Needle”</p> <p>Presenter: Erika Scott, PhD – Deputy Director, Bassett Research Institute, New York Center for Agricultural Medicine and Health (NYCAMH) Northeast Center for Occupational Health and Safety in AFF (NEC)</p>	48
<p>March 16, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Entering Uncharted Waters: Sleep Deprivation Research in U.S. Commercial Fisheries”</p> <p>Presenter: Julie Sorensen, PhD – Director, Bassett Research Institute New York Center for Agricultural Medicine and Health (NYCAMH) Northeast Center for Occupational Health and Safety in AFF (NEC)</p>	44
<p>April 20, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Studying the Relationship between Behavior and the Pandemic”</p> <p>Presenters: Drs. Jim Zians, Sallie Han, Alex Thomas SUNY Oneonta</p>	60
<p>May 18, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “ACEi/ARB Medications for Treatment of COVID-19”</p> <p>Presenter: Daniel Freilich, MD Research Scientist, Bassett Research Institute</p>	42
<p>June 15, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Tick Magnet: The Occupational Risk of Tick-Borne Disease Exposure in NY Forestry Workers”</p> <p>Presenter: Amanda Roome, PhD Research Scientist, Bassett Research Institute</p>	56

RESEARCH GRAND ROUNDS

Participants
Viewed-Zoom

<p>July 20, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Is Childhood Pet Dog Exposure Protective for Teen Mental Health?”</p> <p>Presenter: Anne Gadomski, MD, MPH Director, Bassett Research Institute</p>	59
<p>August 17, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Health-Related Quality of Life Among Transgender and Gender Expansive Youth: Preliminary Results of a 2-Year Longitudinal Study”</p> <p>Presenter: Jane O’Bryan Frank H. Netter MD School of Medicine at Quinnipiac University; Yale University School of Medicine Department of Obstetrics, Gynecology & Reproductive Sciences</p>	56
<p>September 21, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “An International Study of Family Connection and Flourishing in Adolescents”</p> <p>Presenter: Robert C. Whitaker, MD, MPH Director of Research and Research Education Columbia-Bassett</p>	49
<p>October 19, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Depression, Anxiety and Loneliness among Living Well Program: Highlights from Living Well Research”</p> <p>Presenter: Wendy Brunner, PhD Director of the Bassett Research Institute Center for Rural Community Health</p>	55
<p>November 16, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Using Media Advocacy to Build Tension for Change and Advance Public Health”</p> <p>Presenter: Pamela Tinc, PhD, Research Scientist The New York Center for Agricultural Medicine and Health/ Northeast Center for Occupational Health and Safety in Agriculture, Forestry and Fishing (NYCAMH/NEC)</p>	33
<p>December 21, 2021 - 12:00 noon – 1:00 pm</p> <p>Title: “Excitable Dynamics of the Sleeping Brain”</p> <p>Presenter: Daniel Levenstein, MS, PhD Postdoctoral Researcher at McGill University</p>	35

NATIONAL PRESENTATIONS

1. **Sorensen J.** NY nudging dairy safety project: Reengineering best management safety practices on NY dairies. Oral presentation at: The Virtual 2021 North American Agricultural Safety Summit; March 22-24, 2021.
2. **Scott E,** Beacom M, Lincoln J, Riden H. COVID-19 stakeholder needs - farming, forestry, fishing. Oral presentation at: NIOSH Ag Center Director's Meeting Panel Discussion Series; April 20, 2021.
3. **Scott E,** Gorucu S, Weichelt B, Nour M. Injury surveillance and coding: What are the implications for safety programming? Oral presentation at: Professional Development Series, ISASH; April 28, 2021.
4. **Gadomski A, Scribani M, Krupa N, Jenkins P,** Wissow LS. Is childhood pet dog exposure protective for teen mental health? Highlighted e-Poster with Live Q&A at: Pediatric Academic Society Annual Meeting; May 3, 2021.
5. **Sorensen, J.** Entering uncharted waters: Sleep deprivation research in U.S. commercial fisheries. Oral presentation at: The 2021 NIOSH NORA Sector Council Meeting; May 26, 2021.
6. **Meyerhoff, A.** Nudging New York dairies towards farm safety: A creative approach. Video recording PPT for the 2021 ISASH virtual conference; June 2021.
7. **Sorensen, J.** The NEC sleep deprivation in commercial fisheries research project: An overview. Oral presentation at: AK Commercial Fisheries Office; June 9, 2021.
8. **Gadomski A, Scribani M, Krupa N, Jenkins P,** Wissow LS. Pet dog exposure during childhood and teen mental health. e-Poster with Live Q&A at: 2021 International Society for Anthrozoology (ISAZ) Conference; June 23, 2021.
9. **Sorensen, J.** Applying what we know about how people think (or don't think) to improve farm safety. Oral presentation at: ISASH Keynote Presentation; June 24, 2021.
10. **Scott E,** Rautiainen R, Harrington M. Understanding injury and illness disparities to achieve health equity. Oral presentation at: State of the Science Meeting 2021: Pathways to Health Equity in Agriculture, Fisheries and Forestry; Southeastern Coastal Center for Agricultural Safety and Health; September 9, 2021.
11. **Scott E, Hirabayashi L, Graham J.** Shift work, fatigue & cardiovascular risk factors among Maine's logging workforce. Oral presentation at: COFE-FORMEC Conference; September 27, 2021.
12. **Scott E, Hirabayashi L, Graham J.** The impact of COVID-19 on the Northeast and Appalachian logging industry. Oral presentation at: COFE-FORMEC Conference; September 28, 2021.
13. **Sorensen J.** Lifejackets for lobstermen program. Oral presentation to the National Transportation Safety Board; October 14, 2021.
14. **Brunner W, Pullyblank K.** Loneliness among rural self-management education program enrollees during the COVID-19 pandemic. Oral presentation at: American Public Health Association Annual Meeting; October 24-27, 2021; Denver, CO.
15. **Pullyblank K.** Understanding NDDP participant perspectives on factors affecting behavior change. Oral presentation at: American Public Health Association Annual Meeting; October 24-27, 2021; Denver, CO.
16. **Hirabayashi L, Scott E, Graham J, Krupa N, Jenkins P.** The impact of COVID-19 on the social connectedness of Maine loggers. Oral presentation at: American Public Health Association Annual Meeting; October 25, 2021; Denver, CO.
17. Vivoda JM, Molnar LJ, Eby DW, DiGuseppi C, Li G, **Strogatz D.** Comparing nighttime to rush hour avoidance as initial driving self-regulation behaviors. Oral presentation at: Annual Scientific Meeting of the Gerontological Society of America; November 13, 2021.
18. **Sorensen J.** Injury prevention in America's most dangerous industries. Online seminar at George Mason University: Building the Societal Engineer; November 22, 2021.
19. Martin M, Dare T, Langham R, Braunack-Mayer A, Eley D, **Strogatz D.** Experiences and perspectives of IRB chairs from Australia, New Zealand and the United States. Panel discussion at: National Human Research Ethics Conference; December 3, 2021; Brisbane, Queensland, Australia.
20. **Roome A,** Gouli S, Yodsuwan R, **Victory J, Collins C, Jenkins P, Scribani M, Krupa N, Freilich D, Gadomski A.** Tick Magnets: The occupational risk of tick-borne disease exposure in forestry workers. Oral presentation at: Ex4OSH Conference; December 10, 2021.

MEDIA COVERAGE

1. New York State Association for Rural Health Facebook page. NYSARH Member of the Week: Rural Health Education Network of Schoharie, Otsego, and Montgomery Counties (RHENSOM). March 5, 2021. <https://www.facebook.com/NYSARH/>
2. Carrabba J. OSHA Injury Reporting April 2021. *NEDPA Newsletter*. April 2021.
3. Meyerhoff A. OSHA Severe Injury Reporting Infographic. *NEDPA Newsletter*. April 2021.
4. Meyerhoff A. NY State Agricultural Society Recognizes Salvador Saenz with 2021 Farm Safety Award. *Country Folks, Grassroots, Morning Ag Clips*. April 2021.
5. Weil R. How to be a Survivor: Technology, Training and Tips from the Pros. *National Fisherman Webinar*. April 2021.
6. Backus A. Lifejackets for Lobstermen Recognition. *Commercial Fisheries News*. May 2021.
7. Weil R, Sorensen J, Echards, J, Eckert, R. Safety at Sea Takes a Leap Forward: Lifejacket Vans. *NE Ag Safety and Health Coalition - Spring Meeting, PPT*. May 2021.
8. Weil R et al. Lifejackets for Lobstermen. *Life Jacket Association, CDC Blog*. May 2021.
9. Weil R, Eckert R, Echard J. Commercial Fishing PFD Research and Training: An International Overview. *Life Jacket Association Annual Conference*. May 2021.
10. Bassett Research Institute Launches 'The Caregiver Project' in Cooperation with UC San Francisco to Support People Taking Care of Loved Ones with Memory Loss. *BassettWorks*. May 4, 2021.
11. New York State Recognizes Central New York System of Care for its Dedication to Children's Mental Health. *Urban CNY News*. May 5, 2021. <https://www.urbancny.com/new-york-state-recognizes-central-new-york-system-of-care-for-its-dedication-to-childrens-mental-health/>
12. Anna Meyerhoff of NYCAMH Receives Safety and Health Award. *BassettWorks*. May 19, 2021.
13. Join a Special Living Well Webinar for Employees this Thursday, June 17: "Better Choices, Better Health." *BassettWorks*. June 14, 2021.
14. Alaska Fishermen Join Sleep Deprivation Study. *Alaska PublicRadio*. July 2, 2021.
15. A Scary Story About Sleep Deprivation. *AMSEA*. July 6, 2021.
16. Bassett Healthcare Network's NYCAMH Pioneering Local Efforts to Deliver COVID-19 Vaccines to Farmworkers. *BassettWorks*. July 6, 2021.
17. Bassett Travels to Farmers for COVID Vaccinations. *Country Folks*. July 8, 2021.
18. NYCAMH Providing FREE Skin Cancer Checks at Empire Farm Days. *Morning Ag Clips*. July 21, 2021.
19. Living Well: Taking Control of Your Chronic Condition. *BassettWorks*. July 21, 2021.
20. NYCAMH's Meyerhoff Honored with Safety Award. *NEDPA Newsletter*. July 22, 2021.
21. Bassett Research Institute Helps Otsego County System of Care Achieve Excellence. *BassettWorks*. July 23, 2021.
22. NYCAMH Providing FREE Skin Cancer Checks at Empire Farm Days. *Country Folks*. July 27, 2021.
23. Bassett Travels to Farmers for COVID Vaccinations. *Cooperstown Crier*. July 28, 2021.
24. Scott E, Hirabayashi L. Let's Talk about Health and Safety. *Northern Logger and Timber Processor*. Podcast. July 31, 2021.
25. Carrabba J. Horizontal Silo Feedout Safety Protocols. *Dairy World Magazine*. August 2021.
26. John May Farm Safety Grant. *Rural Futures*, a publication of NYS Legislative Commission on Rural Resources. August 2021.
27. NEC Recruiting Fishermen for Sleep Deprivation Project. *Commercial Fisheries News*. August 2021.
28. Online Tool for Reducing the Spread of COVID-19 in Farmworker Housing. *AgriSafeNetwork*. August 18, 2021.
29. Herramienta en línea para reducir la propagación del COVID-19 en las viviendas de los trabajadores. *AgriSafeNetwork*. August 26, 2021.
30. Scott E. Weathering COVID-19: PA Logger' Experience. *Pennsylvania Sustainable Forestry Initiative*. Summer 2021.
31. Donoghue, K. Project ECHO and the Opioid Epidemic: Helping Increase Access to Treatment. *University of New Mexico*. October 7, 2021. <https://unmhealth.org/stories/2021/10/project-echo-opioid-treatment.html>
32. Driscoll ME. Penn Yan Farmer and Volunteer Firefighter Earns Annual Farm Safety "Hero award." *Morning Ag Clips, Finger Lake Times*. October 12, 2021.
33. Bassett Healthcare Network's Efforts to Combat Clinician Burnout Recognized by the American Medical Association. *BassettWorks*. October 12, 2021.
34. Graham J, Scott E, Tinc P, Hirabayashi L. The Modern Gut-Hammer: Understanding the eating habits of loggers through Photovoice. *Appetite*. October 2021.
35. Carrabba, J. Respiratory Hazards of Welding. *NEDPA Newsletter*. November 2021.
36. Bassett Healthcare Network and Masonic Medical Research Institute Collaborate to Improve Health. *BassettWorks*. November 1, 2021.
37. Dr. Carolyn Wolf-Gould of FoxCare Center's Gender Wellness Center Offers Insights into Rural Transgender Care in New Publication. *BassettWorks*. November 3, 2021.
38. Wolf C, Stup R, Karszes J. Effects of NY Overtime Laws on Agricultural Production Costs and Competitiveness ; A Report to the New York Department of Agriculture and Markets. November 19, 2021. Charles H. Dyson School of Applied Economics, Management College of Agricultural & Life Sciences & Department of Animal Science Cornell University. *The authors also acknowledge and appreciate data summaries from Farm Credit East, and data collection assistance from Caroline Potter, Barry Putnam, Mary Kate McKenzie, Elizabeth Higgins, Mark Wiltberger, Pauline Boyer, Kaitlyn Lutz, Paula Ospina, Anna Meyerhoff, Cristina Silvia Hansen Ruiz, and Dahlia Sheehan-Yassin.*
39. Sheehan-Yassin D. Learn the Basics of Chainsaw Use and Safety. *Morning Ag Clips*. November 14, 2021.
40. Meyerhoff A. COVID-19 Vaccine Booster Shots / Dosis de refuerzo de la vacuna contra COVID-19. November 15, 2021. Infographic shared with farmers on location and other Ag trainers. Posted on the NEC and NYCAMH websites and Facebook.
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