

THE BASSETT RESEARCH INSTITUTE (BRI)

2020 YEAR IN REVIEW

"We do clinical and rural community health research, program evaluation and education"



Warrior Wellness Week
Hosted by the Health Advisory Council
Be sure to tag us with #WaltonEvolving
May 25-May 29

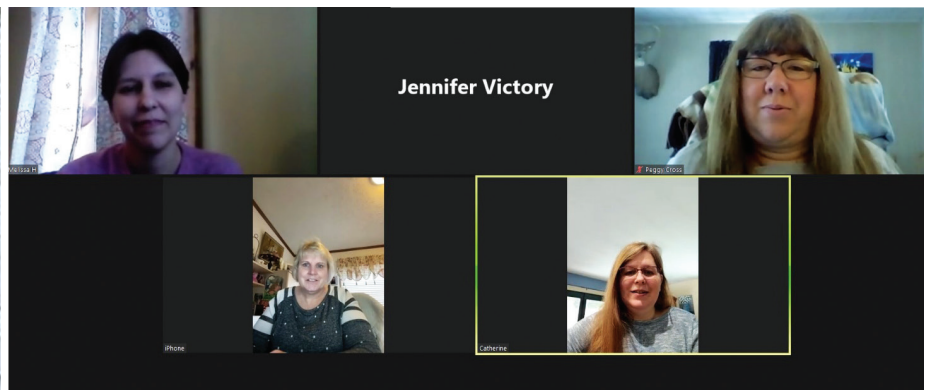
Milk Mustache Monday
Help support our dairy farmers & your health by posing a photo of your milk "or smoothie" mustache!

Turn Off Technology Tuesday
Set aside your tv, phone, and computer today to give your eyes "and brain" a break. Try playing cards, board games or reading a book!

Walking Wednesday
Get outside for a walk or hike. Show us something you found on our beautiful earth!

Thoughtful Thursday
Share with us something you did for someone else today or how you paid it forward!

Fear Factor Friday
Try a new food or create a drag recipe! Check out our "Warrior's Whipping Up Dinner" video featuring guest chef Jessica Backus Foster, SUNY Delhi Associate Professor of Culinary Arts. She will be making a Fritada with a fun fear factor twist!



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."

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A NOTE FROM OUR DIRECTOR



I am pleased to present you with the **BRI 2020 Year in Review**. 2020 was a year fraught with challenges attributable to the COVID-19 pandemic, health care disparities and national civil unrest. The BRI successfully adapted to these challenges, while shouldering PPE needs for the network, launching clinical trials and learning to work remotely. As all of our scientific project presentations and grand rounds went virtual, we learned how to make these remote interactions as effective as possible. This report summarizes our approach to this challenging year and details our shift to delivering services using Zoom, like our *Living Well* Program.

Dr. Dan Freilich joined our Center for Clinical Research in 2020 enabling the BRI to expand its research capacity. Dr. Freilich, a hospitalist, infectious disease and clinical trial specialist, has spearheaded several important studies in 2020. These are described in the BRI COVID-19 response section of this report. That section also includes a description of BRI re-deployments made to assist in the COVID-19 response. The other major COVID-19 related achievement this year was Bassett Healthcare Network's Employee COVID-19 Antibody Study. Bassett employee COVID-19 antibody levels (SARS-CoV-2 IgG) results were measured and exposures ascertained network wide, with a high level of employee participation. Remarkably the results of this study were published within a few months of the study's completion.

Dr. Caroline Gomez DiCesare started *The Clinician Peer Support Program – Central New York* (CPSP-CNY, previously known as the Multi-Institutional Peer Support Program (MIPS-CNY)). This program is funded by the NYS Health Foundation. This collaborative well-being initiative developed a proactive peer support outreach geared toward clinician well-being and improving patient care. It involves several health systems in central NY. This program is particularly germane given the stress and threat of burnout the pandemic is causing amongst health care professionals.

In response to nationwide health disparities as well as civil unrest, Dr. Gomez-DiCesare also helped organize the Schwartz Center Rounds on 6/11/20 titled "Implicit Bias, Racism and Disparities". Subsequently, the BRI organized the Diversity, Equity and Inclusion (DEI) survey for all Bassett Network staff. A REDcap survey link was distributed via email to all employees and 23.6% (1,250 responses/5300 employees) responded.

NYCAMH/NEC continues to be amazing in terms of its productivity applied to a broad range of research in occupational injury prevention for farmers, fishermen and foresters. I encourage you to look at their **2020 Year in Review** to appreciate yet another impressive example of team science and multidisciplinary collaboration.

Starting in December 2020, we welcomed Dr. Henry Weil in his new position as Chief Academic Officer for the Bassett Network and look forward to working with him on themes that unify medical education and clinical research.

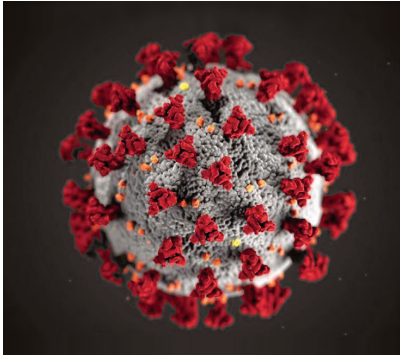
The pandemic appears to have driven scientists to spend more time writing and preparing manuscripts given the constraints on in-person data collection. During 2020, there was a significant increase in both COVID-19 and non-COVID-19 related scientific journal submissions.¹ During this time of an unprecedented increase in manuscript submissions for peer review, together with NYCAMH/NEC, BRI produced 45 publications by the end of 2020. With pride, we display these publications as well as our media coverage on a clothesline on the bulletin board on the fourth floor of building 6.

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

¹ Alkhouri, N.B., Mutka, M.C., Stefanak, M.P. et al. The impact of COVID-19 on manuscript submissions to Pediatric Research. *Pediatr Res* (2020). <https://doi.org/10.1038/s41390-020-01220-9>.

Kaplan LJ, Bleck TP, Buchman TG, Dellinger RP, et.al. Pandemic-Related Submissions: The Challenge of Discerning Signal Amidst Noise. *Crit Care Med*. 2020 Aug; 48(8):1099-1102. doi:10.1097/CCM.0000000000004477. PMID: 32697478; PMCID: PMC7365586.

THE BRI COVID-19 RESPONSE



Starting in March 2020 when the COVID-19 pandemic hit New York, the BRI, including NYCAMH/NEC, responded to the challenges of the pandemic in several ways: clinical research, surveys, education, publication, outreach, health care worker fit testing, and redeployment of research staff to work in other areas of the Bassett Medical Center. Here are a few examples of these responses.

COVID MED trial: In response to the COVID-19 pandemic, the BRI launched the 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). This IRB approved pragmatic adaptive trial compares outcome in COVID-19 patients treated with lopinavir/ritonavir, hydroxychloroquine, losartan, and placebo. The Center for Biostatistics established a Data Safety Monitoring Board (DSMB) for this trial. Dr. Dan Freilich (study PI) was interviewed by local media as well as a reporter from *Nature*, an international scientific journal, about this trial. The Center for Clinical Research (CCR) has been fully deployed in the design, implementation and conduct of the COVID MED clinical trial that continues to enroll patients in 2021 (see *E. Donnell Thomas (EDT) Resident Research section for more details*).

SARS-CoV-2 Bassett Healthcare Network employee seroprevalence study: At the request of Bassett leadership, the BRI launched a COVID-19 seroprevalence study of Bassett employees. Wendy Brunner, PhD spearheaded this network wide effort along with many BRI staff. A manuscript summarizing the results was published soon after the data collection was completed. [Brunner W, Hirabayashi L, Krupa N, Scribani M, Jenkins P, Clark S, May J, Gadomski A. SARS-CoV-2 IgG Results Among Healthcare Workers in a Rural Upstate New York Hospital System [published online ahead of print, 2020 Oct 26. *Infect Control Hosp Epidemiol*. 2020;1-9. doi:10.1017/ice.2020.1296.] Dr. Brunner also presented this study at American Public Health Association 2020 Virtual Annual Meeting on 10/26/20. Her presentation was titled “SARS-CoV-2 IgG responses among healthcare workers in a rural upstate New York hospital system.” On 12/15/20, Dr. Brunner presented a Research Grand Rounds on “Results from the Bassett Healthcare Network Employee COVID-19 Antibody Study”.

SARS-CoV-2 specific immune responses in hospitalized Persons Under Investigation (PUIs) with negative nasopharyngeal PCR swabs (The COVID-19 PUI Reality Check (CPRC) Study), and SARS-CoV-2 specific Immune Responses in hospitalized and non-hospitalized COVID-19 Patients with positive nasopharyngeal PCR swabs (The Immune Responses in COVID-19 Patients (IRCP) Study: Dr. Dan Freilich is the PI for these studies. Hospitalized Persons Under Investigation (PUI) for COVID-19 with negative nasopharyngeal (NP) swab PCR assays for SARS-CoV-2 are typically released from negative pressure rooms, Personal Protective Equipment (PPE) use is ceased by healthcare workers, and alternative diagnoses are sought. However, some NP PCR swab negative PUIs may have COVID-19 after all (false negative swabs) and thereby endanger hospital personnel. This study compares SARS-CoV-2 immune responses in high pretest probability swab negative hospitalized PUI patients vs. low pretest probability swab negative hospitalized

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THE BRI COVID-19 RESPONSE

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APS (Asymptomatic Persons being Screened) patients to try to understand the appropriateness and safety of clinical decisions made in these patient populations based on swab results. In July 2020, the IRCP arm was added to assess the immunologic responses of inpatients with known positive PCR for COVID-19. To date, 33 inpatients are enrolled (19 CRPC and 18 IRCP). This study continues in 2021.

Modeling the COVID-19 pandemic: In April 2020, the BRI attempted to apply several different modeling techniques to predict COVID-19 case load, hospitalizations and use of ventilation for COVID-19 patients hospitalized at the BMC. However we were unsuccessful in applying these models in this region due to small sample sizes, the lack of estimates about the degree of social distancing occurring in the region and other missing data. On 5/19/20, Dr. Gadomski presented these models at a Research Grand Rounds on “Modeling COVID-19 Pandemic Effects on Health Care Resources”.

Impact of the pandemic on Agriculture, Fishing and Forestry (AFF) Workers: NEC collaborated with other AFF Centers in measuring the impact of the pandemic on agriculture, migrant farm workers and regional farms. NEC conducted a Farmworker Needs Assessment survey to measure the impact and possible needs of farmworkers in the Northeast. This farmworker survey, originally designed by UC Davis staff has been adapted for the NE region. Many of these essential workers are also considered vulnerable workers due to issues relating to language barriers, access to healthcare and economic instability. The survey captured information on infection control measures implemented on farms, access to healthcare, training and social determinants of health measures. An additional survey was also launched to capture responses from extension personnel on COVID-19 impacts in several Northeastern states. Results will be used to plan outreach related to COVID19. The NEC surveillance team partnered with the NIOSH researchers to encourage state COVID case reporting to include AFF industry and occupation variables. Pandemic impacts in the logging community will also be assessed with a survey disseminated to six Northeastern states with an established logging industry; at last count nearly 500 responses have been collected. Lastly, the impact of the pandemic on commercial fishing was summarized in an article published by Dr. Julie Sorensen in a special edition of the Journal of Agromedicine [Sorensen, J, Echard J, Weil R. (2020). From Bad to Worse: The Impact of COVID-19 on Commercial Fisheries Workers. *Journal of Agromedicine*. <https://doi.org/10.1080/1059924X.2020.1815617>].

Fit-testing: In response to the COVID-19 pandemic, NYCAMH assisted the BHN Employee Health in fit testing network health care personnel for personal protective equipment (PPE). NYCAMH staff tested approximately 1,500 employees across the network for N95, elastomeric half-face, and powered air purifying respirators. NYCAMH also created several videos, “how to don and doff your N95”, how to clean and decontaminate half-face respirators (see NYCAMH/NEC website) and NYCAMH’s Industrial Hygienist worked extensively with Incident Command to look at ways to redesign workflows, protocols and ventilation systems to maximize infection control.

AFF Outreach: The NYCAMH outreach team quickly pivoted to providing virtual farm safety trainings, and virtual farm safety walk-throughs. NYCAMH worked with the DEC to table Worker Protection Standard requirements so that farmers would not be fined for regulations they could not comply with given respirator shortages and NYCAMH’s inability to fit-test farmers due to state worksite restrictions (<https://www.nycamh.org/news.php?id=806>). Dr. Erika Scott created a great infographic with information about the increased risk

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THE BRI COVID-19 RESPONSE

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of COVID related to several comorbidities that are elevated in the farm community (<https://www.nycamh.org/news.php?id=827>). NYCAMH/NEC worked with CDC and other AFF centers to draft interim guidance for production agriculture for COVID -19, and provided COVID-19 resources to the AFF community through NEC (<https://www.necenter.org/covid-19/>) and NYCAMH (<https://www.nycamh.org/covid-19/>). Dr. Hyman also shared information with hundreds of Agricultural stakeholders across the county on the types of COVID-19 testing available to essential workers and the specific information they provide in an online Agrisafe Webinar.

Media Coverage:

- Dr. Dan Freilich was cited by a reporter from Nature Magazine about the COVID MED trial, in an article titled "Safety fears over hyped drug hydroxychloroquine spark global confusion", Apr 5, 2020.
- The Cooperstown Crier Newspaper Market: Utica, NY (171), "Bassett tests drugs to fight virus", Apr 16 2020 10:19AM ET
- Binghamton Press Sun Bulletin Newspaper Market: Binghamton, NY (161), "From trials to tests, how some NY hospitals step up against COVID-19", Apr 17 2020 11:05AM ET. Also in Anderson Independent-Mail Newspaper Market: Greenville-Spartanburg, SC-Asheville, NC-Anderson ,SC; The Ithaca Journal Newspaper Market: Binghamton, NY; and the Star Gazette Newspaper Market: Elmira, NY.
- Erika Scott, PhD, Deputy Director, NYCAMH/NEC was featured in article "Potential COVID-19 Risk Factors for Farmers", in NY Farm Bureau Grassroots newspaper, May 2020 (p. 2). <https://www.nyfb.org/news/grassroots-newspaper>.
- NYCAMH Christina Hall, Farm Safety Educator, wrote article Cloth Face Coverings vs. Respirators: What's the difference and when should we use them? Article in *Focus on Farming*, May 6, 2020,p 5.
- NYCAMH Current News & Events, Jim Carrabba, Agricultural Safety Specialist, wrote article Tractors and Machinery Operated by Multiple Users: How to Clean and Disinfect during COVID-19, May 1, 2020 (p. 1-5). <https://www.nycamh.org/covid-19>
- NYCAMH Current News & Events, Jim Carrabba, Agricultural Safety Specialist, wrote article Safely Transporting Workers during the COVID-19 Pandemic, May 8, 2020 (p. 1-5). <https://www.nycamh.org/covid-19>
- NYCAMH Rebecca Meininger, ROPS hotline coordinator, featured in article "Farm Safety During COVID-19", in NYS Legislative Commission on Rural Resources, Spring 2020 Issue, that covered The National Rollover Protective Structures (ROPS) Rebate Program. <https://www.ROPSr4u.org>
- Educators from NYCAMH and NEC were featured in as article titled "Free Virtual Trainings Available for Workers on COVID-19 and Farm Health and Safety" in Topics in Focus on Farming, April 22, 2020 (p. 3). <https://www.nycamh.org/programs-and-services/farm-safety-trainings.php>

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



Who We Are

Chair, IRB: David Strogatz, PhD

Program Manager, IRB: Heidi Johnson, CIP

Coordinator Dept. Operations, IRB: Christen Young, BS

Administrative Director: Stephen Clark

Business Manager: Melinda Hasbrouck, MBA

The **Institutional Review Board** is comprised of eleven voting members and eleven 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 2020 there were 111 active protocols approved for research activities within the network. During 2020 twenty-one new protocols were approved – 10 were clinical trials and 11 were based on non-experimental study designs to analyze existing datasets or use qualitative or qualitative methods for collection and analysis of primary data. Twenty-one protocols were completed and terminated in the course of 2020. During 2020 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 (NCI) Central Institutional Review Board (CIRB), Advarra and Western IRB (WIRB).

In 2018 the IRB Office adopted the IRBNet suite of tools, accessible via the National Research Network, bringing electronic protocol management, on-line submissions and many other important research oversight features to the Bassett Healthcare Network research community. Another significant transition during 2018 was the change in training and certification for ethical conduct of research. The NIH Protecting Human Research Participants training course was no longer available after September 26, 2018 and was replaced by the online Human Subjects Research courses of the Collaborative Institutional Training Initiative (CITI) Program. The transition period was successful and occasional modification of forms and protocols has continued during 2020 with the support of IRBNet.

THE RESEARCH OFFICE OF SPONSORED PROGRAMS



Administrative Director
Stephen Clark, BS



Business Manager
Melinda Hasbrouck, MBA



Coordinator
Caitlin Liberati

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.

Caitlin Liberati provided support for Research Administration helping to administer the electronic time and attendance systems for the Research Institute. Caitlin also provided strategic support to The Center for Rural Community Health devoting effort to the Long Road Study as well as the Otsego County Systems of Care grant.

The following is a list of grant applications submitted for 2020.

OSP GRANT APPLICATIONS SUBMITTED IN 2020 (In Order Of Submission)

Granting Agency	Application Title	Principal Investigator
NYS Hazard Abatement Board and Department of Labor Division of Employment and Workforce Solutions	The New York Center for Agricultural Medicine and Health: Health and Safety Training	Julie Sorensen
NYS Department of Health	CHSC Capital Region	Tom Hohensee/Aletha Sprague
National Institute of Health (NIH)	Working to Explore Social connectedness and Health Among the Rural Elderly (WE SHARE)	Wendy Brunner
University of Rochester Medical Center Clinical and Translational Science Institute (UR CTSI)	Development of a Rural Volunteer Firefighter Research Collaborative	Wendy Brunner
NIH – National Heart, Lung, and Blood Institute (NHLBI)	Learn More Breathe Better	Wendy Brunner
HRSA – Utilities Programs	Distance Learning and Telemedicine Grants	William LeCates
NIH – Centers for Disease Control and Prevention	Rural Response to an Emerging Infectious Disease Threat: Prevention and Control Mobilizing Existing Networks	Julie Sorensen
Health Resources and Services Administration (HRSA)	Living Well to Reduce the Risk of Diabetes	Wendy Brunner

CENTER FOR RURAL COMMUNITY HEALTH



The **Center for Rural Community Health** was established in 2011 to work with academic partners, state and local public health resources and Bassett health professionals across the region to better understand the serious health challenges affecting the 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 to look to surrounding 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 2020 reflect its ongoing commitment to these goals, with programs that notably span the full age range.

Who We Are

Senior Research Scientist: David Strogatz, PhD

Research Scientist: Wendy Brunner, PhD

Health Promotion Disease Prevention Specialist: Thomas Hohensee, MA

Senior Health Educator: Lynae Wyckoff, MS

Community Health Research Nurse:
Kristin Pullyblank, MS, RN

Supervisor Rural Health Education Network:
Aletha Sprague, BA

Health Educator Community Health Services:
Carleen Henderson
Alexis Bloomfield, MS

Research Coordinator: Andrew Johnson, BS

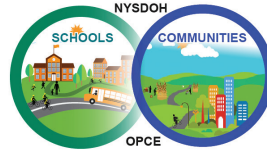
Research Assistants:
Jennifer Flynn, MS
Pamela McCabe, B

CENTER FOR RURAL COMMUNITY HEALTH PROGRAMS:

- I. Creating Healthy Schools and Communities (CHSC)
- II. RHENSOM
- III. Living Well
- IV. LongROAD
- V. Strong Hearts, Healthy Communities



Creating Healthy Schools and Communities



I. Creating Healthy Schools and Communities (CHSC) LEAD: Thomas Hohensee, MA

This year marked the completion of a five year grant from the New York State Department of Health that funded 25 **Creating Healthy Schools and Communities (CHSC)** grantees from cities, towns, and rural communities across the state. The initiative also funded an Obesity Prevention Center of Excellence, which provided training and technical assistance to grantees and their school and community partners throughout the grant period. CHSC grantees were charged with increasing opportunities for physical activity and improving access to and availability of nutritious food through improvements to policy and practice and food systems in 80 high need school districts and the 245 communities served by those school districts. The estimated reach of the CHSC initiative was 4.6 million New Yorkers.

Our regional work was conducted in partnership with the grant's lead agency, the SUNY Cobleskill Research Foundation with a goal to implement multi-component evidence-based policies, place-based strategies, and promising practices to increase demand for and access to healthy, affordable foods and opportunities for daily physical activity in five regional school districts and surrounding communities.

School strategies included revision and implementation of district **local wellness policies** to improve the school environment, establishing **Comprehensive School Physical Activity Programs (CSPAP)** and improving access to healthy, affordable foods by increasing school districts' ability to meet federal **Healthy, Hunger-Free Kids Act of 2010 nutrition standards** for foods sold outside of school meals.

Community strategies included increasing access to **healthy, affordable foods** in communities, increasing adoption and use of **food standards and procurement policies that increase healthy foods** in community sites and settings and adopting and implementing Complete Streets policies, plans, and practices to increase access to **opportunities to walk, bike, and roll**.

Grant funding continued to provide technical assistance, training and resources to wellness teams in promoting school and community wellness. School teams found creative ways to keep wellness a priority through creative programming during the COVID-19 pandemic. This year grant funds supported school wellness policy promotions, attendance at the NYS Association for Health, Physical Education, Recreation and Dance conference for physical educators and provided supplies and equipment to support grant objectives, including hallway sensory paths, school garden supplies and equipment for Physical Education.



II. Rural Health Education Network of Schoharie, Otsego and Montgomery Counties (RHENSOM) Lead: Aletha Sprague, BA



Aletha Sprague, BA

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, 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, and educating youth to be more engaged in their health. COVID-19 caused some of the programs to pause and others continued virtually.

Highlights from 2020:

Nutrition Education

- Subcontracted with Cornell Cooperative Extension to fund an additional nutrition educator for the region, an identified needed resource. This additional educator held over 30 educational events.

Prevent and Manage Chronic Conditions

- 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

Youth Engagement

- Provided staff support for the UpClose Cardiac Surgery Program in collaboration with the Bassett Medical Center's Department of Surgery. This program educates middle school students on the importance of establishing heart-healthy behaviors early in life. 357 middle school students from seven schools attended in person prior to the COVID-19 pandemic.



III. Living Well LEAD: Lynae Wyckoff, MS



Lynae Wyckoff, MS

Background:

The **Living Well** program began in 2016 when Bassett Medical Center received a three-year Quality Improvement grant (August 1, 2016 – July 31, 2019) from the Health Resources and Services Administration (HRSA). This grant enabled our staff to implement the evidence-based Diabetes Self-Management Program (DSMP) and Chronic Disease Self-Management Program (CDSMP) developed by the Stanford Patient Education Research Center, now known as the Self-Management Resource Center (SMRC). These programs were offered at eight clinic sites and provided a framework for quality Improvement (QI). In support of the Bassett Research Institute's mission to

improve health care delivery and manage chronic conditions, the Center for Rural Community Health (CRCH), collaborated with health center operations to oversee participant recruitment and implementation and evaluation of the Living Well Program. Positive initial findings for measures of process and short-term outcomes led to additional funding, program expansion and an extension of HRSA QI funding through January 2020 to provide additional data for evaluation.

The Mohawk Valley Population Improvement Program (MVPHIP), the NYS Office for the Aging, the Leatherstocking Collaborative Health Partners, and Excellus have been instrumental in supporting peer leader trainings, workshop materials, and additional staff time to expand the Living Well Program outside of the HRSA-designated rural communities and primary care clinic sites. In addition, the CRCH received a three-year HRSA Rural Health Care Services Outreach Program award (June 1, 2018 – April 30, 2021) to add the Chronic Pain Self-Management Program (CPSMP) to the Living Well Program.

Each 7-week program is facilitated by two trained peer leaders who have a chronic condition or have a close connection to someone who does. Peer leaders convene small groups of 8-16 participants once a week for 2.5 hours in a community setting. Peer leaders are recruited by and/or are staff of collaborating regional rural health networks, including RHENSOM, local county Offices for the Aging, and affiliate hospitals. The Living Well Program offerings and partnerships also support each affiliate hospital's NYSDOH Community Service Plan and IRS Community Benefit requirement (Section 501(c)(3) of the Internal Revenue Code).



Figure 1: Carleen Henderson, Health Educator delivering Living Well with Chronic Conditions mailed toolkit with phone support



III. Living Well LEAD: Lynae Wyckoff, MS

Preliminary Findings:

Statistically significant improvements in diabetes distress and diabetes self-management were seen post-program for individuals with diabetes who completed the DSMP. In addition, individuals with a baseline A1c greater than 8 experienced a consistent, though non-significant decline in A1c over time. Reduced levels of diabetes distress were also associated with a decrease in A1c level. These findings were presented at the American Public Health Association's 2020 Annual Conference (held virtually).

Evaluation of the Diabetes Self-Management Program in a Rural, Medically Underserved Population

Kristin Pullyblank, David Strogatz, Lynae Wyckoff, Nicole Krupa, Melissa Scribani, Paul Jenkins, Carleen Henderson, Jenny Flynn, Alexis Bloomfield

Changes in Diabetes Distress and A1c Levels Following Completion of the Diabetes Self-Management Program

David Strogatz, Kristin Pullyblank, Lynae Wyckoff, Nicole Krupa, Melissa Scribani, Paul Jenkins, Carleen Henderson, Jenny Flynn, Alexis Bloomfield

In addition, one manuscript has been submitted to *Diabetes Spectrum*.

Evaluation of the Diabetes Self-Management Program in a Rural Population

Kristin Pullyblank, MS, David Strogatz, PhD, Melissa Scribani, MPH, Nicole Krupa, BS, Lynae Wyckoff, MS, Jennifer Flynn, MS, Carleen Henderson

2020 Updates:

When the pandemic hit in March 2020, Living Well began to implement remote offerings of the program. With expert guidance provided by SMRC, the team invested significant energy and resources into re-imagining Living Well so that workshop offerings could still reach individuals meaningfully and safely. Currently, Living Well offers four remote delivery modes for its programs: the traditional program offered through Zoom; an asynchronous internet-based program offered through Canary Health's Better Choices Better Health platform; a self-directed mailed toolkit; and the mailed toolkit along with a weekly hour-long small group conference call. Data collection and analysis is ongoing to assess effectiveness of these novel delivery modes in a rural area.



Figure 3: Living Well Diabetes Prevention Zoom Session



Figure 2: Jenny Flynn, Health Educator co-leads Living Well with Chronic Pain by Zoom

In addition, despite the pandemic, Living Well has expanded to offer the National Diabetes Prevention Program and in October, Bassett Medical Center became a **fully recognized** provider of the NDPP through the CDC. The year-long NDPP is being offered remotely through Zoom.



III. Living Well LEAD: Lynae Wyckoff, MS

In 2020, CRCH continued collaboration on a project to pilot-test a community-based self-management education program for adults with COPD and/or asthma. This program includes one-on-one meetings with a respiratory therapist, pulmonary function testing, and group education for COPD and asthma. This is followed by the 6-week CDSMP workshop and closes with a second one-on-one session with the respiratory therapist. In response to the pandemic, in-person sessions were converted to Zoom or telephone. Results from the pilot will be analyzed and reported in 2021.

Inclusive of pilot studies, 140 participants completed a disease self-management program in 2020.

Delivery Mode	Completers by Self-Management Program Type		
	Chronic Pain	Diabetes	Chronic Disease
Zoom	22	21	6
Mailed Toolkit with Phone Support	17	19	22
Mailed Toolkit	3	18	12

In addition, Dr. Brunner and Kristin Pullyblank submitted an NINR R01 application in March to investigate the relationship between CDSMP, health outcomes and social connectedness. In June, Dr. Strogatz and Kristin Pullyblank submitted an NINR R21 to investigate motivation and retention in DSMP. Both applications will be revised and resubmitted in 2021. In addition, the team submitted a HRSA RO application to support NDPP throughout the region.

The team has also been working on two qualitative studies. The first is examining the knowledge, attitudes and behaviors of NDPP participants so that the intervention can be adapted to better serve the needs of our rural population. Themes that emerged were: the impact of support, intentionality of action, and fragility of success. The team intends on completing the analysis and submitting the manuscript in 2021. The second study examines the benefits and barriers of the DSMP as well as diabetes education offered through the nurse educators at Bassett. This study will also be completed in 2021.

Goals for the year ahead include continuing to contribute to BRI's mission of understanding and improving the health and well-being of individuals and rural populations – particularly in this time of the pandemic – through publications and presentations; organizing and conducting secondary studies and analyses; sustaining the self-management programs; and expanding the evidence-based Living Well offerings.



III. Living Well LEAD: Lynae Wyckoff, MS

New Collaborations in 2020

Due to our success with implementing the CDSME programs in a rural region through Living Well, Bassett has partnered with institutions across the country. Highlights include the following:

Rural Caregivers Project: The CRCH is partnering with the University of California, San Francisco to recruit rural caregivers of individuals with dementia for a 6-week remote intervention designed to reduce caregiver burden. For more information, visit caregiverproject.ucsf.edu

Yoga for Cancer Survivors: Working with investigators from the Wilmot Cancer Center at the University of Rochester, the BRI is recruiting cancer survivors and their caregiving partners for a 4 week virtual yoga intervention designed to improve sleep quality. For more information, contact Kristin Pullyblank at Kristin.pullyblank@bassett.org or 607-547-6711.

Rural CDSME programs: Drs. Marcia Ory and Matthew Smith from Texas A&M University are collaborating with Dr. Strogatz, Dr. Brunner and Kristin Pullyblank on several initiatives. In addition to co-authoring a manuscript examining national and regional trends in completion rates of the self-management programs, the group will be submitting an R01 application in 2021 investigating the impact of social connectedness on health outcomes.

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.

Additionally, we are continuing our collaboration with Cornell University on a study of the impact on School-Based Health Centers on access to health care and the well-being of rural communities.



IV. The Longitudinal Research on Aging Drivers (LongROAD) Study

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; 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 the 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.

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 2020 8 manuscripts with findings from the LongROAD Study were published on topics such as:

- how levels of frailty are related to driving reduction and cessation
- social support as a moderator of the association between reduced driving and diminished life satisfaction
- use of rehabilitation services to maintain the ability to drive safely
- levels of opioid use and their relationship to driving outcomes
- how the presence of in-vehicle technology affects driving self-regulation

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. Dr. Strogatz also addressed the implications of findings from the LongROAD Study for how the Bassett Healthcare Network can support the health of its aging rural population in an invited presentation made with Ronette Wiley, the Executive Vice President and Chief Operating Officer of the Bassett Medical Center. This joint presentation was entitled "*The Long and Winding Country Road: Getting Age-Friendlier in Upstate New York*" and was delivered at the annual Rural Health Care Leadership Conference of the American Hospital Association in Phoenix, AZ in February 2020. Ongoing analyses will assess differences in the predictors of driving behaviors and outcomes for the rural and urban participants in the LongROAD Study.

The LongROAD study is funded by the American Automobile Association Foundation for Traffic Safety

Who We Are

Senior Research Scientist: David Strogatz, PhD

Research Coordinator: Andrew Johnson, BS

Research Coordinator: Ida Baker, MA

Research Assistant: Pamela McCabe, BS



STRONG HEARTS
HEALTHY COMMUNITIES

V. 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 accepted for publication 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. Ongoing analyses of data and preparation of presentations and manuscripts are focusing on the mechanisms that led to behavior change and whether the intervention had influences on friends and family members of the study participants.



CENTER FOR POPULATION HEALTH



Aletha Sprague



Amanda (Mandy)
Roome

Who We Are

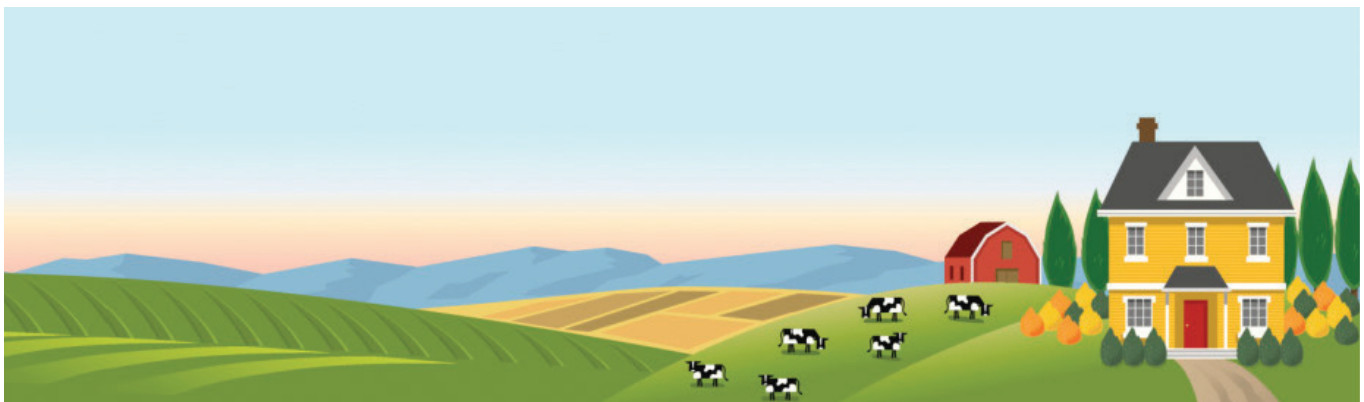
Principal Investigator: John May, MD

PHIP Supervisor: Aletha Sprague, BA

Community Health Data Analyst: Bonita Gibb, BS

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. The center’s New York State Department of Health grant program Mohawk Valley Population Health Improvement Program (MVPHIP) convened a board and workgroups to address health priorities affecting the entire region (Fulton, Herkimer, Montgomery, Otsego, and Schoharie counties). The board and workgroups utilized evidence-based strategies outlined in the New York State Department of Health’s Prevention Agenda, which aims to promote health and reduce health disparities. Some of the grant activities were suspended as funding for the program paused during the COVID-19 pandemic. In addition to continuing some grant activities, program staff assisted on COVID-19 research projects: Farmworker COVID-19 Impact Study, Bassett Healthcare Network’s Employee COVID-19 Antibody Study and tick-borne disease studies.





CENTER FOR POPULATION HEALTH

MVPHIP Regional Priorities

MVPHIP staff worked on three regional priorities. These priorities addressed social determinants of health and aim to build environments that promote positive healthy life choices, thereby encouraging individuals to become key players in their own health. Social determinants are the conditions in which people are born, grow, live, work, and age. They include factors like income, education, employment, social support networks, the physical environment, health behaviors, as well as, access to health care. The regional priorities included behavioral health, obesity and opioids.

Behavioral Health

MVPHIP provided cultural and linguistic competence as well as marketing technical assistance to Otsego County for their Substance Abuse and Mental Health Services Administration (SAMHSA) System of Care grant. The System of Care grant focuses on providing wrap-around emotional, mental, and educational supports for children and their families in a variety of settings. MVPHIP staff created individualized school directories with specific resources located in each district. Otsego County's Health Disparity Impact Statement identified broadband access as a health disparity, which was amplified during the pandemic. MVPHIP actively sought guidance from schools to learn how to support their online delivery.

Obesity

The MVPHIP attended the New York State Department of Health's monthly workgroup focused on strengthening the food system through system-based approach, "Connecting the Dots: Food Security and Community Wealth Building". The workgroup provided training and tools to assist with identifying and mapping out the local food system. Community coalitions, and health and human service groups may utilize these tools once the public emergency crisis concludes.

Opioids

The workgroup identified a need for connecting with individuals who have been administered Narcan but refused transportation to the hospital for further treatment. The workgroup developed a post-Narcan community resource kit that contained local recovery and detox resources, as well as, information on what to expect post-Narcan withdrawal as an outcome of the identified need. MVPHIP staff had the kits reviewed by individuals in recovery and local prevention task forces. During the pause of funding, MVPHIP distributed the kits to Oneonta Police Department and Cooperstown EMS.



CENTER FOR POPULATION HEALTH

Data and Visualization

Mohawk Valley Population Health Improvement Program utilized primary collection and secondary data sources to identify health needs and disparities, to assist with priority selection, and to track changes over time.

Community Health Needs Assessments

MVPHIP provided technical assistance for the 2019-2021 Community Health Needs Assessments and continued to be a resource for the local health departments and hospitals as they execute their plans. The Community Health Needs Assessment provides the hospital, local county health department and stakeholders with data and key informant survey responses so that they may identify, prioritize and address health care challenges facing their communities. Utilizing the New York State's Prevention Agenda 2019-2024 action plans, the hospitals, local county health department, and stakeholders can select interventions, which target those identified needs. Each hospital and health department posts their plans to their websites.

Primary Data Collection: Youth Risk Behavior Survey

The MVPHIP board and stakeholders reviewed existing data to determine any regional primary data collection needs. County level Youth Risk Behavior Survey (YRBS) data was a recognized need. The CDC collects state level YRBS data allowing for comparisons to the state indicators. The 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. The MVPHIP collected data in Otsego, Herkimer, Schoharie, and Fulton counties.

Tick-borne Disease Research and Community Outreach

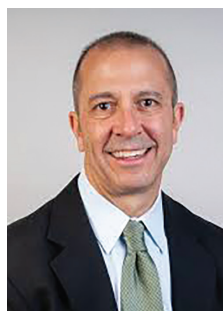
Research

The Center for Population Health has been researching the occupational risk of tick-borne disease exposure. In November 2020, the center began working with foresters and firefighters in New York to determine the seroprevalence of four common tick-borne pathogens: Lyme disease, anaplasmosis, babesiosis and ehrlichiosis, and assess risk through a questionnaire. This study funded by the EDT Resident Research Program (see EDT Section) will continue through the fall of 2021. Larger scale intervention and prevention studies tailored to these specific occupations are planned to stem from this data.

Community Outreach

Throughout 2020, the tick-borne disease research team has been participating in outreach education to raise awareness and dispel myths of ticks and tick-borne diseases. Dr. Mandy Roome has given an education/awareness lecture for the Bassett community, participated in an interview with 'Lyme Ninja Radio', conducted a 'pub science' talk with WSKG and the greater Binghamton Community, and given an awareness talk to the Northeast Agricultural Safety and Health Coalition.

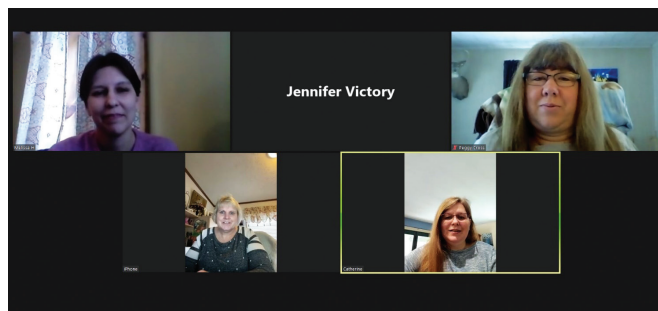
CENTER FOR CLINICAL RESEARCH (CCR)



Daniel Freilich, MD



Jennifer Victory, RN, Clinical Research Nurse Supervisor, hosting our daily Zoom staff check in.



Melissa Huckabone, RN, Anna Schworm, RN, Catherine Gilmore, RN, Peggy Cross, Research Assistant

Who We Are

Medical Director: Daniel Freilich, MD

Clinical Research Nursing Supervisor: Jennifer Victory, RN, CCRC

Clinical Research Nurses: Catherine Gilmore, RN, CCRC; Anna Schworm, RN; Melissa Huckabone, RN

Research Assistant: Peggy Cross

Staffing Transitions – In 2020 we:

- Welcomed Melissa Huckabone, RN in January as Clinical Research Nurse
- Welcomed Dr. Freilich in February as our new Medical Director and Principal Investigator

Our Work



CENTER FOR CLINICAL RESEARCH (CCR)

Areas of Research in 2020

COVID-19 Inpatient Treatment	Rheumatology	Thromboprophylaxis	Qualitative Assessment of Functional Status of Oncology patients
COVID-19 Immunology	Rare Disease Treatment	ICU Care	Cardiology: CHF & Care of At Risk Women with Non-Obstructive Heart Disease
Orthopedic Surgery	Anesthesiology	Spine Surgery	Cancer Care Assessment

The COVID pandemic was a huge disrupter to our usual ways of working. We learned how to do things in ways we never imagined:

- Remote working and workstations
- ZOOM daily huddles
- Video study visits

Many of these new skills and adaptations are things that will stay in our repertoire and have advance our capabilities exponentially. We are grateful that our Center was able to adapt, carry on in the face of great challenges, and be able to continue to make significant contributions to the Bassett Mission.

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, Ph.D. 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 the bachelors through doctoral levels. CFB also provides statistical and survey support to the Bassett Medical Center and Bassett Healthcare Network.

The center maintains more than 30 large databases (as of 2020) 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 requests 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.

During 2020, center staff supported the transition of numerous studies throughout the Research Institute to electronic data collection and other alternate data gathering methods to adapt to changing needs as a result of the COVID-19 pandemic. Center staff assisted with study design, data collection, data management, and data analysis for a network-wide study assessing COVID-19 antibody seropositivity among Bassett Healthcare Network employees. This work was published in October 2020 in the journal Infection Control & Hospital Epidemiology. Assistance was also provided in the design of a multi-site randomized clinical trial of COVID-19 treatment modalities, including establishment of a Data Safety Monitoring Board (DSMB) for this trial.

CENTER FOR BIOSTATISTICS

In 2020, at the request of network leadership, the CFB also implemented a Diversity, Equity and Inclusion (DEI) Survey for the Bassett Healthcare Network. The CFB created an electronic REDcap survey link that was emailed to about 5,300 employees, of which 1,248 responded (23.5% employee response rate). Results will be used to plan DEI training in 2021.

Biostatistics staff contributed to 13 peer-reviewed manuscripts, published in journals of occupational health, quality of life, implementation science, health services research, primary care, orthopedic/sports medicine, and clinical medicine. The CFB staff contributed to several abstracts presented at national and international meetings hosted on virtual platforms during 2020. 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 World Professional Association for Transgender Health (WPATH) conference.



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 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 that has complicated subject follow-up. Nevertheless to date, 120 subjects have completed follow-up, and recruitment is continuing into 2021. Anticipating the likely impact of the COVID-19 pandemic, we added a COVID-19 related question "How has the Covid-19 pandemic affected your family?" to the parent interview. To date, of 106 open ended responses, 21 responses included specific reference to the pet(s) at home, but only 12% of those responses allude to the interaction between the teen and pet. Those comments suggest that pets offset some of the negative effects of social isolation and not being able to attend school in person.

Aim 1 of this study includes a retrospective cohort study design that combines our prior study database with Epic data to create a patient-level analytic database. This database includes common 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. Preliminary results suggest that having a pet dog at baseline was protective against time to anxiety diagnosis (HR = 0.657, $p=.0483$, 95% CI 0.433-0.997) and had a near protective effect against any MH diagnosis (HR = 0.745, $p=.065$, 95% CI 0.545-1.018), but not for MH diagnosis associated with a psychotropic prescription (HR = 0.863, $p=.477$, 95% CI 0.576-1.249). Abstracts have been submitted to national meetings occurring in 2021.



CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

LEAD: Anne Gadowski, MD, MPH
Melissa Scribani, MPH,
Nancy Tallman, Melinda Robinson

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 Agriculture, Fishing and Forestry
- III. Gender Wellness Center
- IV. Workforce Resilience

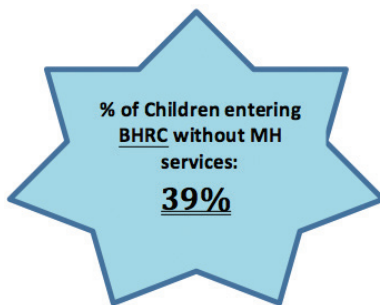
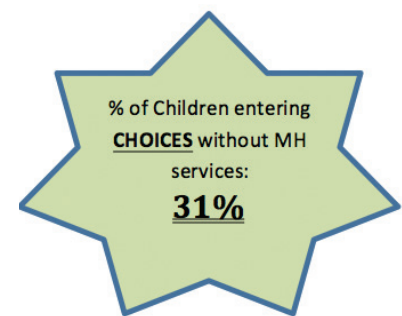
CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

I. Otsego County Systems of Care (SOC)



CERI has been evaluating the **Otsego County Systems of Care (SOC)** grant funded In September 2018 by the Substance Abuse and Mental Health Services Administration (SAMHSA). The goal of this four year federal grant, led by Susan Matt and Marion Mossman of the Otsego County Mental Health Department, is to develop a system of care for preventing and treating youth mental health problems and supporting their families. The goals of the SOC include creating clinical linkage through increasing early identification of youth at risk of developing and/or experiencing serious emotional or mental problems or substance abuse, facilitating linkage to services for families, and implementing Evidence-Based Practices. CERI conducts data collection, entry, and analysis to monitor outcomes of children served by the SOC as well as to evaluate the SOC social network.

The SOC serves children from birth to age 5 years through a collaborative hub of integrated community empowerment services (CHOICES) program. In collaboration with the Early Intervention Program, the Family Resource Network, Inc. (FRN), a member of Families Together New York, leads the Otsego County's SOC expansion and enhancements for birth – age 5 children and families with a special need. In the second year of the grant (2020), 17 children were identified by CHOICES, 16 children were enrolled in the CHOICES program, and 31% of these children had NEVER received mental health services before.



Youth ages 6 to 21 years are served through the Behavioral Health Resource Center (BHRC) that was originally located at the Otsego Northern Catskill Board of Cooperative Educational Services (ONC BOCES) in Milford. On 9/1/2020, BHRC transitioned from ONC BOCES to Rehabilitation Support Services (RSS), located in Oneonta, in order to expand community-based treatment, outreach and engagement and establish a sustainable model of care.

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 the second year of the grant (2020), 274 youth ages 6 through 21 were identified by BHRC, 105 youth were enrolled in BHRC, and 39% of these youth had NEVER received mental health services before.

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

I. Otsego County Systems of Care (SOC)



Pandemic challenges: In 2020, the COVID-19 pandemic presented the SOC with significant challenges. On 3/13/2020, the NYS Governor closed all schools so schools had to rapidly transition to remote learning. In September 2020, there was a surge in Covid-19 cases in Otsego County that again forced all schools to function via remote learning. While the SOC BHRC clinical team continued to provide services virtually, lack of broad-band access and in some cases, computer equipment, made it difficult for SOC staff to reliably connect with the enrolled youth. Training in evidence based practices such as dialectical behavioral therapy (DBT) for counselors, nurses, clinicians and social workers in some cases was cancelled due to restrictions on in-person meetings. Teachers, struggling to master remote learning, found it hard to participate in online educational offerings.

Partnerships: Despite pandemic challenges, the SOC expanded its partnerships, as evidenced by 16 out of 19 formal MOU's (Memorandum of Understanding) signed. FRN continued to provide strong leadership through a skilled staff of Family Peer Advocates and Youth Peer Advocates. Ongoing individual family peer support as well as Nurturing Parenting classes, offered virtually due to the pandemic, have provided consistent support to struggling families. Youth Peer Advocates have provided virtual activities through the Teen Scene program as well as individual peer support in conjunction with the BHRC clinicians. FRN has collaborated with DSS to support parents/families involved with Social Services Prevention and Child Protective Services. The Catskill Regional Teacher Center partnered with the BHRC to offer a support group for educators to help them manage pandemic-related stress, trauma and youth engagement concerns.



CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

I. Otsego County Systems of Care (SOC)



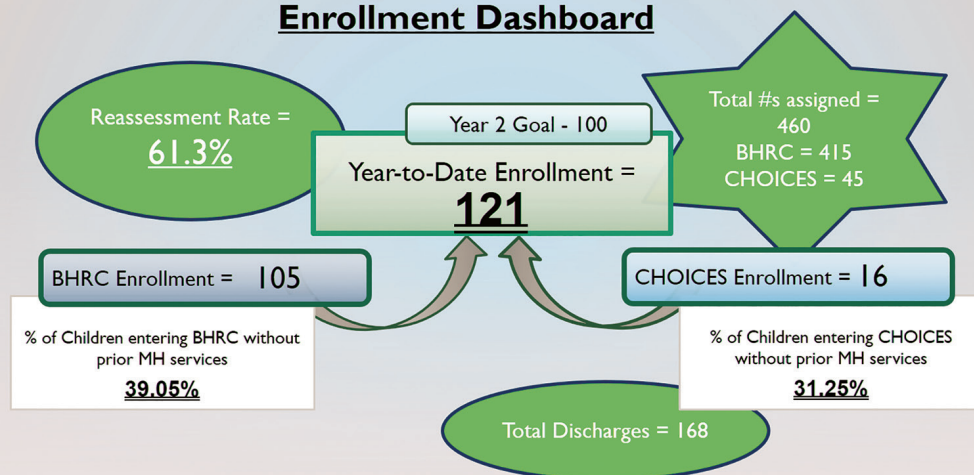
Data collection: CERI collects all required data pertaining to enrolled youth, such as the NOMs (National Outcomes Measures) that translates into the following dashboards, i.e. CMHS performance report and the SOC enrollment dashboard.

CMHS Performance Report (TPR)

07:31 Tuesday, January 12, 2021

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 ^{2,6,12}	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}	Grantee has entered budget information for FFY 2021 and all future years ^{3,11}
SOCXS-C	SOCXS-4	SM80149	Otsego County Department of Mental Health - NY 09/30/2018-09/29/2022	Emily Lichvar	Yes	Yes Achieved: 179% Prorated Goal: 35	Yes 77%	Yes	Yes	Yes 1,538%	Yes

Enrollment Dashboard



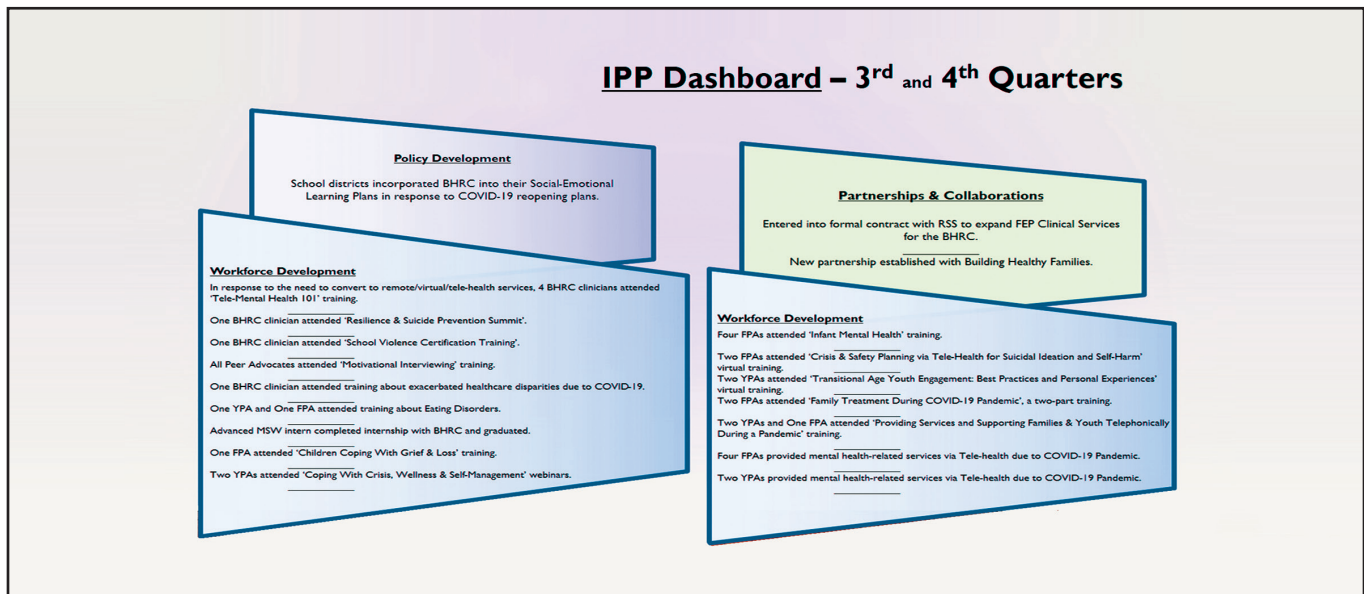
CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)



I. Otsego County Systems of Care (SOC)

IPP Indicators: CERI also enables 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 with the SOC team and SOC Advisory Board. Enrollment, reassessments and discharges data are shared bi-weekly with the BHRC team, thereby enabling regular discussions and re-evaluation of the services being provided to enrolled youth. The SOC team meetings (now combined BHRC and CHOICES) are held monthly to review these data, utilization trends, NOMS outcomes and IPP indicators. Easy access to these data enable the SOC to stay focus on their performance metrics.

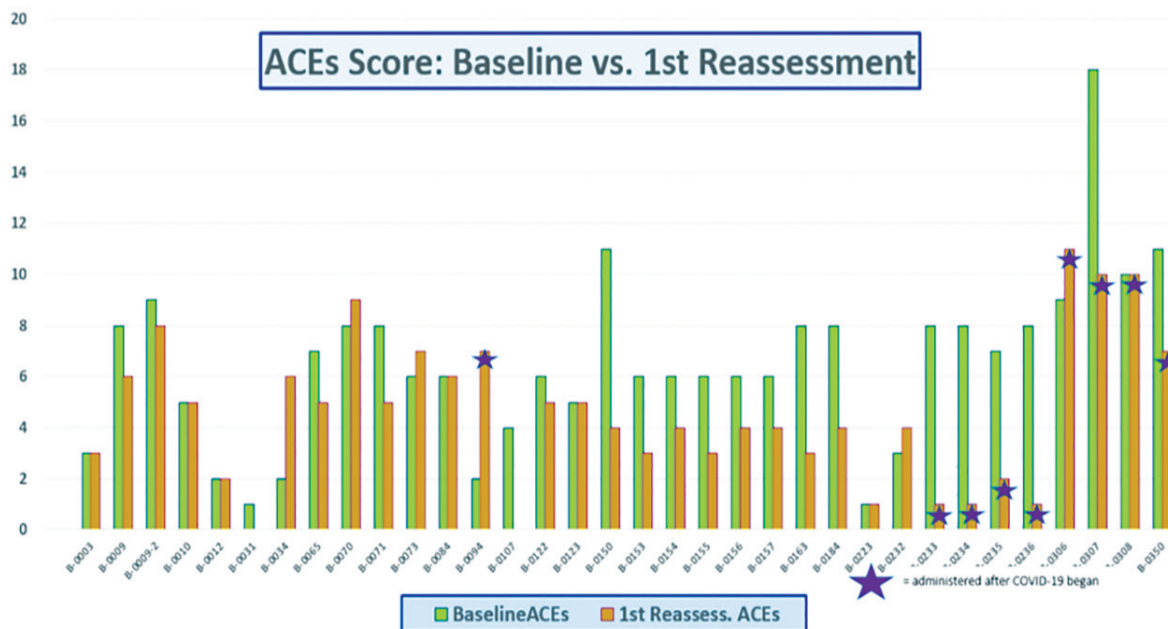
Logic Modeling: CERI is monitoring the implementation of the SOC as it relates to its logic model (not shown). This logic model is regularly reviewed and updated as needed at SOC team meetings.

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

I. Otsego County Systems of Care (SOC)



Adverse childhood experiences (ACE): As part of an enrolled youths' assessment, parents are asked to complete a rating of the child's adverse childhood experiences (ACE) that leads to a composite score. This is part of the NYS Office of Mental Health Child and Adolescent Needs and Strengths (CANS). The items included in the CANS ACE score include 18 items scored as 0 (none) or 1 (present): Sexual Abuse, Physical Abuse, Emotional Abuse/Neglect, Neglect, Witness to Abuse of Another Child, Medical Trauma, Domestic Violence, Community Violence, Exploitation, School Violence, Natural or Manmade Disasters, Criminal Activity, Parental Incarceration, Disruptions in Caregiving/Attachment, Death of a Loved One, Substance Exposure, Sexual Orientation/Gender Identity or Expression, Bullied. This rating is done at baseline and every six months during participation in the SOC. The following graph shows changes in ACE scores among 34 children receiving SOC services in the first two years of the grant. The average baseline ACE score in 2020 was 6.5, and at re-assessment was 4.5, suggesting improvement over six months.

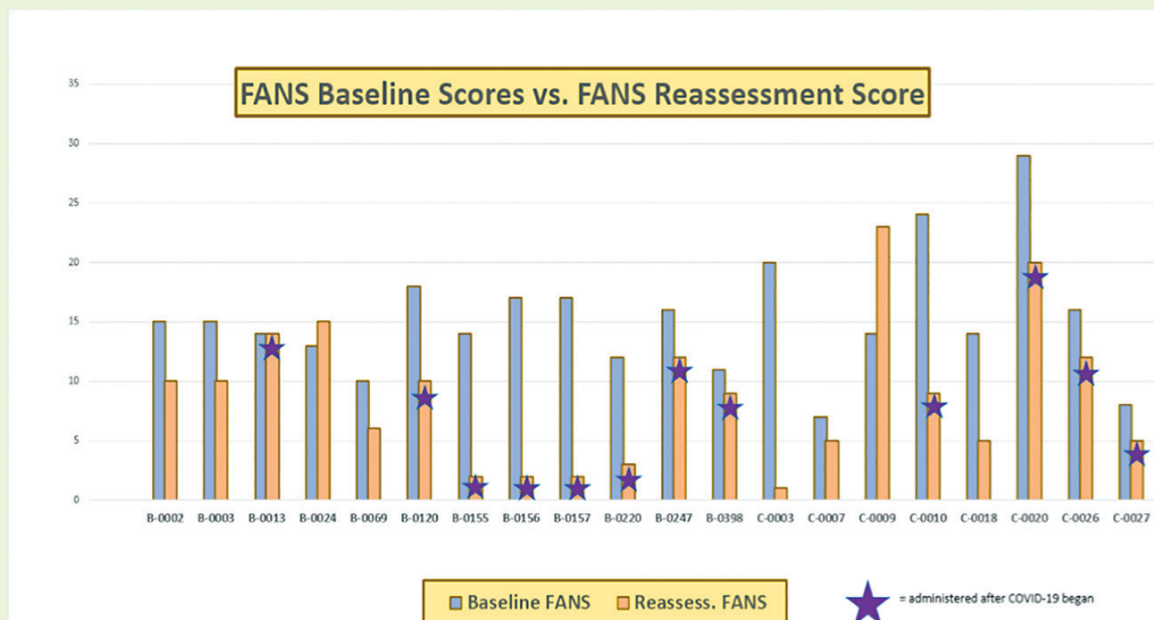


CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)



I. Otsego County Systems of Care (SOC)

Family Assessment of Needs & Strengths (FANS): FANS has 19 questions that focus on the caregiver's assessment of the entire family. It includes 4 level scored items such as caregiver's knowledge of service options, self-efficacy, stress, as well as caregiver satisfaction with youth's educational arrangement, current services being provided, and social support. The average FANS score at baseline was 15.2, and at re-assessment the score dropped to 8.75, suggesting improvement over six months.



What do these scores imply about the effectiveness of the SOC? A probable confounder in the interpretation of these scores is the stress of the pandemic. It could be that pandemic related stress (anxiety, job related, school, economic, social isolation) has increased scores at baseline however the number of children enrolled during the pandemic is relatively small (see purple stars above). Regression to the mean could explain reduced scores at the six month re-assessment. Another limitation in these data are the small number of re-assessments available at this time. Once the number of six month re-assessments increase over time, and the pandemic wanes, contribution analysis may assist us in attributing improvements in ACE and FANS scores to the SOC services.

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

II. Northeast Center (NEC) for Agriculture, Fishing and Forestry



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. (See the *NYCAMH/NEC website* or their *2020 Year in Review*).

In 2020, 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.

One notable participatory research method called Photovoice was used by the *Maine Logger Health and Safety Study*. The research team wanted to learn more about how the long days at remote work sites affected workers' ability to eat healthy food. They used Photovoice to better understand loggers' experiences with making healthy choices. Photovoice combines photographs taken by the study participant with discussion and comments about how the photo addresses a particular topic. For this project, loggers were asked: "What do you typically eat on a work day and where do you get your food?" The loggers were asked to email or text at least one photo of their meals each week with a description. After six weeks, each logger was interviewed to get feedback on the Photovoice process and thoughts about their own eating habits.



"This is what happens when I go to the local Irving station for diesel at lunch time. Bad food choices!"

In response to the COVID-19 pandemic, CERI worked closely with the NEC and other NIOSH funded AFF centers to assess the impact of COVID-19 on farmworker populations. Survey results will be used to inform policymakers, medical institutions and agricultural stakeholders on how to better assist this essential workforce in future.

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

II. Northeast Center (NEC) for Agriculture, Fishing and Forestry



Improving methods for traumatic injury surveillance in agriculture, forestry and fishing

Overall Goal

With this project, we aim to develop and maintain a robust surveillance program that identifies AgFF-related incidents in existing public health data sets using machine learning. This will yield fewer records that individuals have to review by hand, thus making the process radically more efficient.

Synopsis

Collecting data on injuries and fatalities in AgFF sectors is an extremely important step in protecting the health and safety of workers. With this information we can help AgFF businesses and workers identify the hazards that most frequently lead to death, injury or illness so that they can invest their limited time and money wisely in prevention efforts. At the Northeast Center, we track work-related injuries and incidents in farming, commercial fishing and logging, which allows us to identify fatality, injury and illness trends, emerging issues, develop solutions and ideally measure how interventions or prevention efforts work. In previous years, finding those data has meant sifting through hundreds of thousands of health records, 99% of which have nothing to do with AgFF industries. Historically, this has been done by individuals who manually review records—case by case.

Fortunately, the Northeast Center has been developing a method for using machine learning to identify and track AgFF-related incidents in electronic health records, such as pre-hospital care reports and hospital data. Researchers were able to use a “gold-standard” dataset, consisting of approximately 50,000 manually reviewed records, to develop the supervised machine learning algorithm. This method will vastly increase the efficiency and speed of reviewing health records, thereby reducing the cost of surveillance and offering more up-to-date information on injury trends.

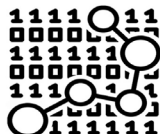
By using machine learning methods, the Northeast Center has been able to reduce the number of records requiring manual review by 60%, as compared to previous methods.

Next Steps

In the coming year we will be testing other machine learning models, optimizing for expansion across states and in newer years of data. For more detailed information on this method, visit www.necenter.org



Tagged Data



Training the Computer



Building the Model



Predicting Records for
Visual Inspection

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

III. Gender Wellness Center (GWC)



The **Gender Wellness Center (GWC)**, led by Dr. Carolyn Wolf-Gould, is a gender-affirming service embedded within the Susquehanna Family Practice at Fox Care. As such it is a unique model for delivering transgender health care. From 9/1/16-10/31/19, GWC was funded by the Robert Wood Johnson Foundation (RWJF) Clinical Scholars Program to establish a Center of Excellence (COE) for Transgender Health. CERI 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 10/25/19, 186 youth ages 8 to 21 years were enrolled in the registry. This registry is updated regularly and maintained by CERI. Registry analysis has led to several abstract presentations at national and international conferences. In 2020, a Columbia-Bassett medical student (Kim Leon) and a current Quinnipiac medical student (Jane O'Bryan) co-first authored a paper that described a high prevalence of non-suicidal self-injury among transgender youth. (Leon K, O'Bryan J, Wolf-Gould C, Wolf-Gould C, Turell S, Gadomski A. Prevalence and Risk Factors for non-surgical self-injury in transgender and gender expansive youth at a rural gender wellness clinic. Transgender Health. Published online September 2, 2020. doi:10.1089/trgh.2020.0031). In 2020, CERI will continue to analyze the pediatric patient registry and collect longitudinal quality of life data from study participants.

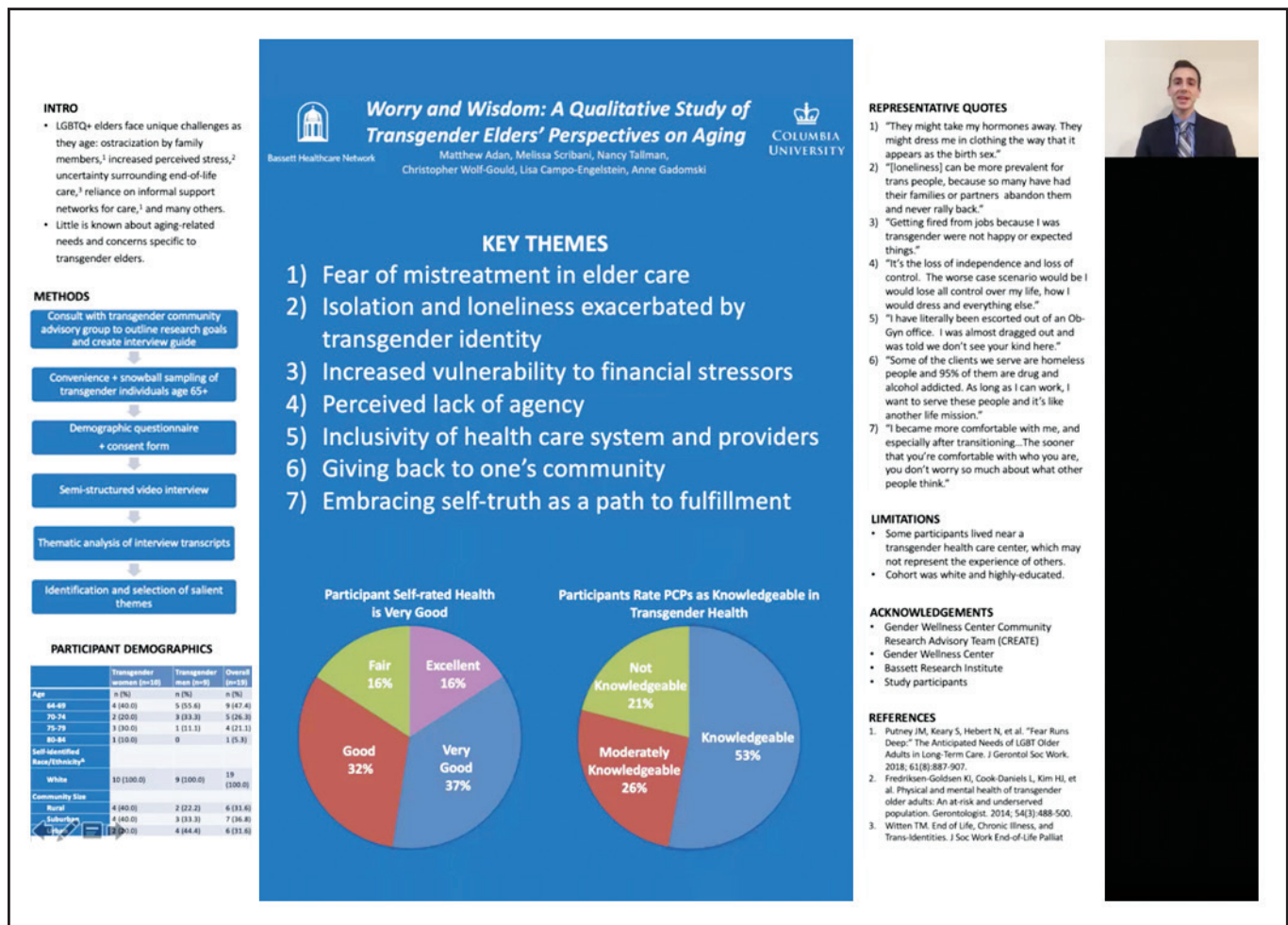
Using an implementation science framework called the Consolidated Framework for Implementation Research (CFIR), our team evaluated the implementation process for the creation of the GWC as a rural-based COE for Transgender Health. Dr. Pamela Tinc used implementation science to systemically review the barriers and facilitators that the GWC experienced in its transition towards a COE. This involved analysis of CFIR constructs obtained by staff survey midway and at the end of the RWJF grant. Results showed that much of the implementation process revolved around developing infrastructure, increasing organizational capacity and resolving conflicts between the inner and outer settings of the GWC. As a result, GWC was better integrated into the overall rural health network. Dr. Tinc published the results of this study in 2020 (Tinc PJ, Wolf-Gould C, Wolf-Gould C, Gadomski A. Longitudinal Use of the Consolidated Framework for Implementation Research to Evaluate the Creation of a Rural Center of Excellence in Transgender Health. Int J Environ Res Public Health. 2020;17(23):9047.)

CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

III. Gender Wellness Center (GWC)



Lastly, CB medical Student Matthew Adan (MD/MS Candidate, Class of 2022) presented a qualitative study of transgender elders at the virtual 2020 WPATH conference. (Matthew Adan, Melissa Scribani, Nancy Tallman, Christopher Wolf-Gould, Lisa Campo-Engelstein, Anne Gadomski. Worry and Wisdom: A Qualitative Study of Transgender Elders' Perspectives on Aging. World Professional Association for Transgender Health Scientific Symposium. Virtual conference. November 6-10, 2020.) His poster appears below. This study will be published in Transgender Health in 2021.



CENTER FOR EVALUATING RURAL INTERVENTIONS (CERI)

IV. Workforce Resilience



Tom Hohensee and
Dr. Caroline Gomez-Di Cesare

One of Bassett's core values includes the commitment to the "well-being of every caregiver and practitioner," as maintaining and retaining a healthy healthcare workforce is of paramount importance in addressing the care of our patients and populations. Indeed, the COVID-19 pandemic elevated stressors in healthcare to unprecedented levels with corresponding increases in rates of clinician burnout. CERI, in collaboration with the Center for Biostatistics, the Bassett Healthcare administration and the Department of Medical Education, continues to assess and address the problems of burnout in healthcare and promote a healthy healthcare workforce.

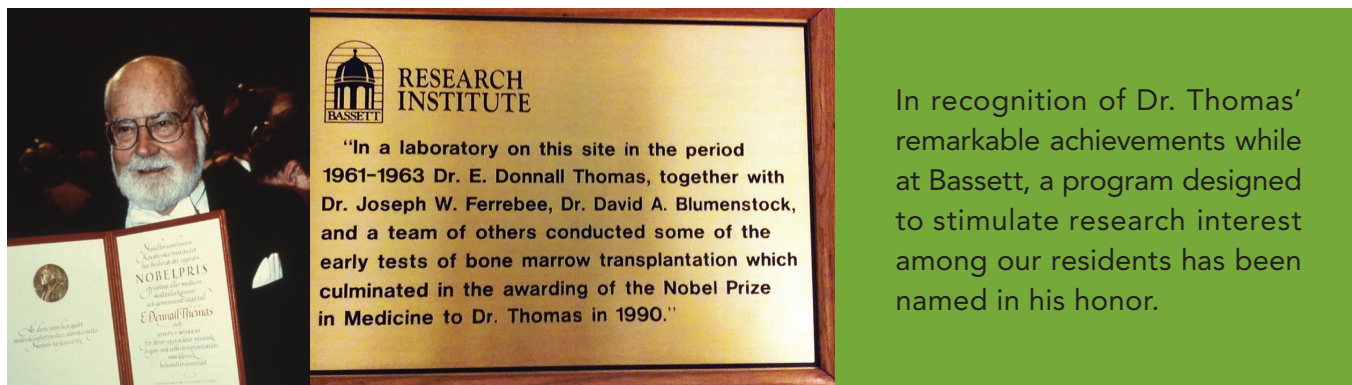
During 2020, the Workforce Resilience team (Dr. Caroline Gomez-Di Cesare and Tom Hohensee), designed and implemented a peer support network for clinicians with assistance of two grants from the NYS Health Foundation for "Preventing Clinician Burnout in Central New York". By developing a network of five Central New York organizations (Bassett Healthcare Network, Upstate Medical University, Mohawk Valley Health System, Auburn Hospital and Oneida Health), the program is able to provide confidential peer support while addressing stigma in receiving support. Under the direction of Dr. Gomez-Di Cesare, the "Clinician Peer Support Program of Central New York" (CPSP-CNY) now exists to make peer support available to approximately 12,000 physicians, nurses, advanced practice clinicians, residents, behavioral health clinicians and respiratory therapists. This is the first such peer support program in the United States. Given the crises generated by the COVID-19 pandemic, the program expanded the training to the Medical Society of the State of New York for other physicians around the state. We are working with the American Nurses Association – New York to do the same for NYS nurses. The program also includes educational offerings to address the stigmas surrounding self-care and to empower clinicians towards wellbeing.

As part of the CPSP-CNY program, the BRI is administering periodic well-being surveys to clinicians at each participating organization to evaluate the program and the effect on well-being, including assessments of clinician engagement, psychological safety and the impact of COVID-19. Aggregated actionable data will be made available to each participating organization through a dashboard. Separate analyses of anonymous patient data will assess the effect of these interventions on patient care.

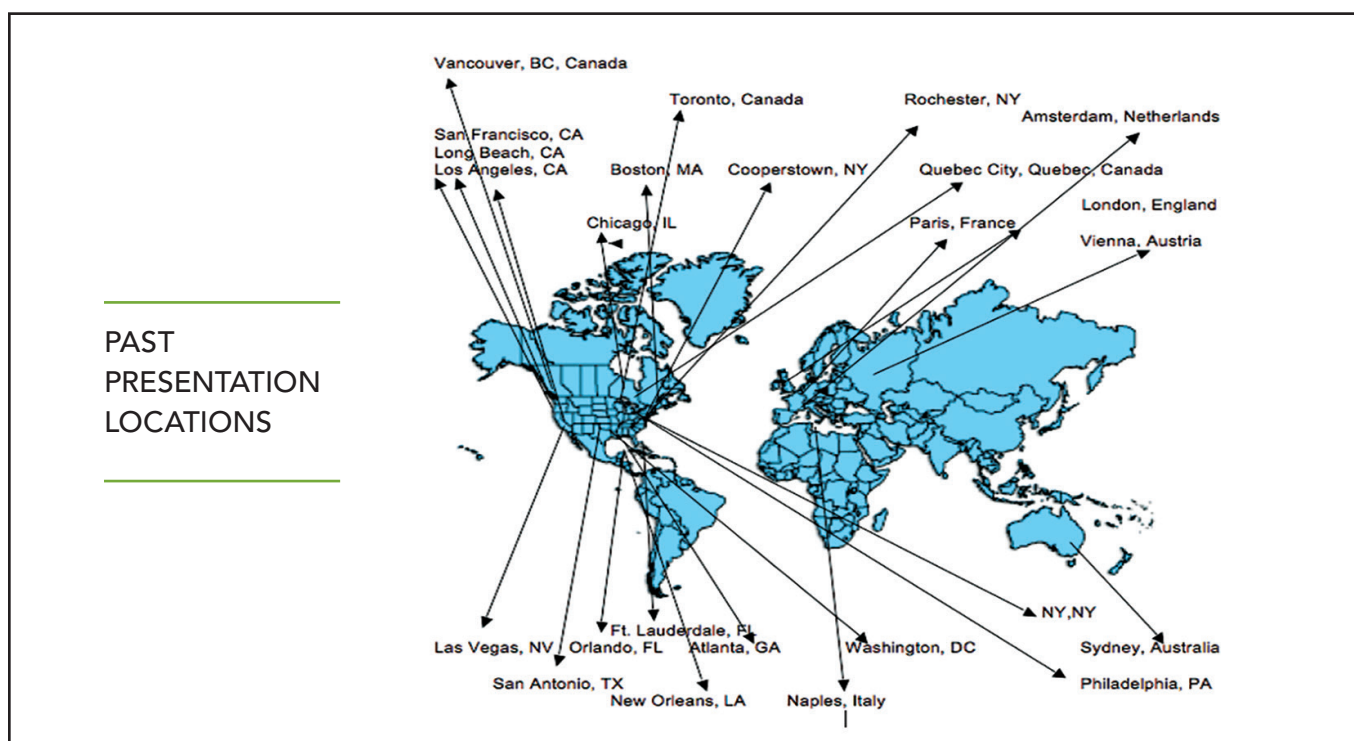
In 2021, the Workforce Resilience team program will assess strategies to expand CPSP-CNY as a more proactive intervention in times of clinician distress. In collaboration with the American Medical Association, a portion of the CPSP-CNY data will inform practice redesign efforts at the organizational level geared toward decreasing clinician stressors and improving well-being.

E. DONNALL THOMAS (EDT) RESIDENT RESEARCH COMMITTEE REPORT FOR 2020

Chairperson: Anne Gadomski, MD, MPH



There were three new EDT funded studies in 2020, one study with ongoing enrollment, and several projects in analysis and finishing up. Due to the pandemic, the EDT Resident Research Poster Session and Research Week were canceled in April 2020. In May 2020, 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. Here is a summary of active projects in 2020, with plans for 2021.



E. DONNALL THOMAS (EDT) RESIDENT RESEARCH COMMITTEE REPORT FOR 2020

Chairperson: Anne Gadomski, MD, MPH

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

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. Other sites were sought for this trial that is registered on clinicaltrials.gov. The COVID MED hydroxychloroquine arm (only 4 patients including placebo) was discontinued following study results published from the Randomised Evaluation of COVid-19 therapy (RECOVERY) Trial on 5 June 2020 showing that hydroxychloroquine was ineffective. The study arm for Lopinavir-Ritonavir (an antiretroviral medication commonly used to treat HIV) was also discontinued due to demonstrated lack of efficacy. COVID MED trial is ongoing with one study arm for Losartan, an angiotensin II receptor blocker (ARB), and continues to very slowly accrue pts to losartan vs. placebo arms (to date, 11 inpatients). Most exclusions are that the inpatients are already on an Angiotensin-Converting Enzyme Inhibitors (ACE) or ARB; and/or the strict early treatment requirement of < 7 days since COVID-19 positive swab.

As a result of this study, Dr. Freilich was funded starting in 2020 to participate in a Johns Hopkins University (JHU) pooled analysis with six other institutions. Therefore this EDT pilot funding has led to external funding from and academic partnership with JHU. Having completed data harmonization and intellectual property/legal agreements, data from the seven institutions including the BMC are currently being uploaded; data analysis and reporting/publication is expected in early 2021. The JHU funding is also for concept project development of and publication of a 'future pandemic plan' with a multicenter contingency protocol. COVID MED researchers are exploring conducting a similar pooled analysis of ACE/ARB in hospitalized COVID patients to leverage the HC pooling study process already created.

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

The COMBO trial, the influenza combination therapy trial, was designed and IRB approved by resident investigators led and mentored by Dr. Freilich. However, given that the influenza season ended before any inpatients could be enrolled in 2020, this trial has not enrolled any patients. Due to the mitigation strategies used to control COVID-19, flu cases in 2020 appear to have been suppressed. A revised/updated protocol amended after release of unpublished data from a similar trial (FLAGSTONE) is IRB approved and ready to go later in 2021 if an expected late (spring) flu season surge occurs despite the current flattening of flu cases due to COVID-19 social distancing. The trial will likely continue through the next flu season. This trial will start enrollment when inpatients with influenza are admitted.

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 already leveraged external funding. The plan in 2021 is to proceed with the small dose optimization trial (60 pts in total) in preparation for a larger trial studying monotherapy vs. combination therapy with or without corticosteroids. Genentech is considering whether in principle to offer funding for this trial called COMBO AC before further protocol and project development occurs.

E. DONNALL THOMAS (EDT) RESIDENT RESEARCH COMMITTEE REPORT FOR 2020

Chairperson: Anne Gadowski, MD, MPH

Tick-borne Disease seroprevalence: Sugam Ghouli MD, Daniel Yodsuwan MD

Principal Investigator: Amanda Roome PhD

Approved 2020

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. This tick-borne illness serology study is currently enrolling. Specimens are being analyzed by the Mayo Clinic. Study participants receive the results of testing and enrollment will continue in 2021. This pilot data is being collected in preparation for planned doxycycline prophylaxis trial or personal protective equipment intervention in high risk occupations.

Lovenox Study: Haisam Abid, MD, and Anukrati Shukla, MD

Principal Investigator: Anush Patel, MD, FACP

Approved 2019

Dr. Abid's proposal 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 is 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. To date, 32 inpatients have been enrolled.

ICU Liberation: Ethan Talbot MD, Jimmy Wang MD, Kristin Baker MD, Muhammad Daniyal MD, Nadir Siddiqui MD

Principal Investigator: Erik Riesenfeld, MD

Approved 2017

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. Barbara Petersen and Craig Gecewicz, the clinical nurse champions, attended the early mobilization course at Johns Hopkins University in order to plan the implementation of the intervention in the Bassett ICU. The team began using the devices November 30, 2017 to measure baseline mobilization. Data was collected from this baseline group 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. Due to COVID-19 pandemic, the meeting was held remotely. The abstract appeared in *Am J Respir Crit Care Med* 2020; 201:A 5507 and the ATS poster appears on the next page. 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?

E. DONNALL THOMAS (EDT) RESIDENT RESEARCH COMMITTEE REPORT FOR 2020

Chairperson: Anne Gadomski, MD, MPH



Use of Accelerometers to Measure Movement in a Rural ICU Early Mobilization Program

Nadir Siddiqui, MB,BS; Ethan Talbot, MD; Kristin Baker, MD; Jimmy Wang, MD; Bishoy Elieebaway, MD; Barbara A. Petersen, RN BSN, CCRN; Nicole Krupa; Paul Jenkins; Erik Riesenfeld, MD
Mary Imogene Bassett Hospital, Cooperstown, NY, United States



Introduction

Early mobilization in the ICU may improve functional outcome and decrease the length of stay (1). Researches have shown that an early mobilization program coupled with organizational efforts to implement the ABCDEF bundle can increase the rate of ICU patient mobilization and decrease ICU length of stay (2). Accelerometer use in medical research has increased as a means to objectively assess physical activity (3). Previous research at our institution has utilized accelerometers to assess fall risks in commercial fishing (4). In this study, our primary outcome variable was mobilization measured in part by the use of accelerometers to quantify patient motion. A hospital mobilization program was developed by nurse champions trained in Early Mobilization in Critical Care at Johns Hopkins, where they learned a multidisciplinary approach to foster mobilization of critically ill patients. In order to change the culture in our ICU and implement practice and development, Lean Six Sigma techniques were utilized.

Methods and Materials

In this prospective cohort, we enacted a pre- and post-intervention design for approximately 12 months each in a rural, mixed, surgical, and medical ICU in patients requiring mechanical ventilation. A multifaceted program was developed to foster an ICU culture of early mobility. Educational sessions were led by nurse champions to promote safe, nurse-driven early mobilization and several strategies were used to increase nurse-driven early mobilization. The main aspect of our protocol are listed in the table below:

Staff present	Safety screen	Mobilization
-Nurse -Physical Therapist -Respiratory Therapist	-Vital stimulation response -FiO2 < 0.5 -PEEP < 10 on ICU -No increase in vasopressors in two prior hours -No evidence of myocardial infarction -No evidence of life threatening arrhythmia -No ongoing hemorrhage -No intracranial pressure elevation -No seizures	-Sedation vacation unless asked by the intensivist or clinically unstable -Active range of motion in bed and sitting position in bed -Out of bed to chair -Including standing -Ambulation

Accelerometers (Micro Motionlogger, AMI, Ardley, NY) were attached to the patient's wrists to detect patient movement recorded from approximately 8 AM to 5 PM. The accelerometers captured two types of activity data:

- Proportional Integration Mode (PIM): the amount of activity during one minute intervals
- Zero Crossings Mode (ZCM): the intensity of patient movements. These measures of activity were then correlated with both hospital and ICU length of stay. Since the accelerometer data were highly skewed, tests for differences between the two cohorts were conducted using the Wilcoxon rank-sum test.

Results

There were 83 subjects in the pre-intervention group and 97 in the post-intervention group. Table 1a shows mean ICU and hospital length of stay in both groups. The mean PIM score was not statistically significant between the pre- and post intervention group (as shown in table 1b). There was a significant positive correlation between length of stay and max ZCM values in both the pre- and post-cohorts, and in the post-intervention for PIM Max (table 1c).



Clinical Study Participant

Length of stay	Pre Intervention (n=83)			Post Intervention (n=97)			p-value
	Mean	Minimum	Maximum	Mean	Minimum	Maximum	
Hospital Days	14.49	1	60	16.32	1	87	0.6219
ICU Days	8.43	1	58	9.87	1	80	0.0643

Table 1a. Hospital and ICU Length of Stay

	Pre-Intervention			Post Intervention			P-value
	Mean	Min	Max	Mean	Min	Max	
Mean PIM	176.3466	82.3289	854.0838	205.6246	97.8464	1426.98	0.1967
Mean ZCM	48.8345	6.6722	244.8039	67.8468	6.934972	332.8021	0.7082
Max PIM	242.8666	82.3289	104.45	287.2777	97.8464	1719.38	0.4246
Max ZCM	98.2465	6.6722	244.8039	143.2465	6.934972	348.5568	0.0487
N of time with non-zero values (percentage)	0.694039	0.00018	0.879088	0.66468	0.0001	0.879088	0.5454

Table 1b. Mean and Maximum PIM and ZCM scores

	Pre Intervention (n=83)		Post Intervention (n=97)			
	Hospital Days	ICU Days	Hospital Days	ICU Days		
	Correlation: pre-int	Correlation: pre-int	Correlation: pre-int	Correlation: pre-int		
PIM_max	0.00289	0.0045	0.0040	0.0046	0.0045	0.0046
ZCM_max	0.00289	0.0045	0.0040	0.0046	0.0045	0.0046

Table 1c. Length of stay correlation with PIM and ZCM

Conclusions

Accelerometers were used to assess movement in a rural ICU early mobilization program and a correlation between length of stay and movement was noted. This may indicate increased movement occurs with longer ICU stays in this center. Patient acclimation with ventilation may increase staff and patient participation in sedation reduction and mobilization activities.

Contact

Nadir Siddiqui
Internal Medicine, PGY-2
nadsiddiqui@bassett.org
(607) 416-8721

Mary Imogene Bassett Hospital
1 Atwell Rd.
Cooperstown, NY 13326

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Disclosure:

This work was supported by a grant from The E. Donnell Thomas Resident Research Program, Bassett Research Institute, Cooperstown, NY

E. DONNALL THOMAS (EDT) RESIDENT RESEARCH COMMITTEE REPORT FOR 2020

Chairperson: Anne Gadomski, MD, MPH

Youth Baseball Injury Study: Andrew Powers, MD, Sarah Smith MD

Principal Investigator: Eric Mooney, MD

Approved 2017

Dr. Power's project entitled "Injury Etiology, Prevalence and Sequelae Among Elite Youth Baseball Players," was approved May 25, 2017. Molly Mooney, a summer student research assistant, along with the nurses from the BRI's Center for Clinical Research enrolled subjects from the Emergency Department during the summer of 2017. Over 50 participants were enrolled at the conclusion of the baseball season in Cooperstown. Follow-up calls to the players were completed and the data has been analyzed. Dr. Powers presented his poster with the same title as his project at the EDT Poster Session held at Bassett Medical Center in Cooperstown, NY, April 29, 2019. Dr. Powers submitted two abstracts presented at the Upstate Trauma Conference. The eposter below was presented at the annual meeting of Pediatric Research in Sports Medicine (PRISM) conference in 2020. <https://www.prismsports.org/UserFiles/file/eposters/2020/21-epidemiology-powers.pdf>



From the Birthplace of Baseball;
Acute Injuries and Incidence at an Elite Youth Baseball Tournament
Andrew Powers, Sarah Smith, Jennifer Victory, Molly Mooney, Eric Mooney
Bassett Medical Center, Cooperstown NY

Introduction

Youth baseball is a popular activity. Chronic and overuse injuries are well studied but there is little recent research about acute injuries. We interviewed players incurring a baseball related injury presenting to the ED from a local youth baseball camp capturing approximately 240,000 player-hours of exposure.

Background

Bassett Medical Center is uniquely situated to capture the acute injuries of a large and popular elite youth baseball camp. It is the sole geographically appropriate center for emergency medical care and general and specialty surgical care.

Methods

Local youth baseball campers that presented to our emergency department with acute baseball related injuries were included in this study. The camp required that campers not turn 13 prior to May 1, 2017. Participations were identified by ED personnel upon registration and research team personnel assisted participants and their guardian with completion of consent and a questionnaire. Basic demographics and information regarding mechanism of injury were collected with the questionnaire including position played at time of injury (batter, baserunner, defensive position). A follow up survey was collected three months after the event to evaluate sequelae. The charts, imaging, questionnaires and three month follow up were reviewed and evaluated.

Results

There were 5,395 games played during the youth baseball camp season. This is approximately 240,000 player-hours of exposure. There were 52 participants in the study. Five injured players declined to participate. Average age was 12.6 years and participants were predominantly male.

Hand and Wrist Injuries

- 12 presentations
- 2 fractures of the wrist
- 5 fractures of the hand
- 4 phalanx fractures were caused while sliding into a base.
- Incidence of approximately 0.93 hand fractures per 1000 games played

Head and Face Injuries

- 8 presentations
- 4 lacerations requiring repair
- 1 nasal fracture
- 1 frontal sinus fracture with brain contusion and possible subdural hemorrhage resulted in transfer to a higher level of care and a 3 day hospitalization. He was placed on a concussion protocol.

Elbow and Forearm Injuries

- 5 presentations
- 3 fractures
- 1 laceration requiring repair

Follow Up Data

- 28 participants completed the follow up questionnaire
- 9 pursued further treatment, primarily from orthopedic surgeons
- 16 reported that their injury prevented return to organized sports with an average of 23 days missed

Conclusion

Our unique location provides an opportunity to investigate a large and well defined population of athletes.

Our data showed injury patterns in the upper extremity and head and face. We demonstrated a known injury pattern that is documented in higher levels of the sport, namely hand fractures in the setting of sliding into base (1,2). There was one injury requiring ICU level care. Just over 30% of injuries prevented return to organized sports. Significant injuries remain rare.

Our injury rate of 0.22 injuries per 1000 player hours is consistent with prior reported injury rates in youth baseball suggesting stability in the incidence of acute baseball injuries (3).

Limitations

Our research population of an elite youth baseball tournament may not be generalizable to a broader youth baseball population. There were 5 refusals to participate. There is an unknown number of injuries that were not identified. Only 28 of 52 participants completed follow up.

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E. DONNALL THOMAS (EDT) RESIDENT RESEARCH COMMITTEE REPORT FOR 2020

Chairperson: Anne Gadomski, MD, MPH

Karn Wijarnpreecha, MBBS

Principal Investigator: Pascale Raymond, MD

Approved 2016

Dr. Wijarnpreecha's project entitled, "Predictors of Mortality in Chronic Liver Disease" was approved November 10, 2016. The data produced from this project has given Dr. Wijarnpreecha the opportunity to develop several abstracts, poster presentations, and journal articles, and has received International attention. As a result of this research project, Dr. Wijarnpreecha received a full International Liver Congress (ILC) travel award as a Young Investigator to give an oral presentation of his abstract at the largest hepatic conference in Europe. Dr. Wijarnpreecha's abstract: Wijarnpreecha K, Raymond P, Scribani M. Smoking and metabolic syndrome components are independent predictors of mortality in patients with chronic liver disease in the United States, was presented at the International Liver Congress in the Netherlands April 19-23, 2017. In addition, his paper entitled, Noninvasive fibrosis markers and chronic kidney disease among adults with nonalcoholic fatty liver in USA was published in the *European Journal of Gastroenterology and Hepatology* using data from this research.

In 2018, Dr. Wijarnpreecha was awarded Young Investigator bursary, granted by the EASL Organizing Committee as the presenter of the abstract "Associations between Sarcopenia and Nonalcoholic Fatty Liver Disease and Advanced Fibrosis in the United States." The International Liver Congress™ was held in Paris, France, April 11-15, 2018. This same poster won the E. Donnall Thomas Resident Research Award for Outstanding Research at the poster session on May 1, 2018 at the Bassett Medical Center, Cooperstown, NY. It was accepted for presentation at Digestive Diseases Week (DDW) held at the Walter E. Washington Convention Center, Washington DC, June 2-5, 2018. In addition, Dr. Wijarnpreecha was awarded a travel fund from the United European Gastroenterology (UEG) group to give an oral presentation entitled, "Sarcopenia and NAFLD." UEG Week was held in Vienna, Austria, October 20-23, 2018. Dr. Wijarnpreecha was unable to attend, however Pascale Raymond, MD, Attending Gastroenterologist at Bassett Medical Center and Principal Investigator on this study, was able to present in Dr. Wijarnpreecha's place. Dr. Raymond received the award for "Best Abstract Oral Presentation" at the Vienna Meeting. This remarkably productive study closed in 2020.

Dr. Wijarnpreecha published two papers in 2019 and two in 2020 as a result of this EDT funded study:

Wijarnpreecha K, Kim D, Raymond P, Scribani M, Ahmed A. Associations between sarcopenia and nonalcoholic fatty liver disease and advanced fibrosis in the USA. 2019, *European Journal of Gastroenterology & Hepatology*. Wolters Kluwer Health, Inc doi:10.1097/MEG.0000000000001397.

Wijarnpreecha K, Scribani M, Kim D, Kim WR. The interaction of nonalcoholic fatty liver disease and smoking on mortality among adults in the United States. *Liver Int* 2019, Vol 39 issue 7 pp 1202-1206. doi:10.1111/liv.14058.

Wijarnpreecha K, Scribani M, Raymond P, et al. PNPLA3 gene polymorphism and overall and cardiovascular mortality in the United States. *J Gastroenterol Hepatol*. Published online March 27, 2020. doi:10.1111/jgh.15045.

Wijarnpreecha K, Scribani M, Raymond P, Harnois DM, Keaveny AP, Ahmed A, Kim D. PNPLA3 Gene Polymorphism and Liver- and Extrahepatic Cancer-Related Mortality in the United States. *Clin Gastroenterol Hepatol*. 2020 Apr 29:S1542-3565(20)30603-0. doi:10.1016/j.cgh.2020.04.058.

COLUMBIA-BASSETT MEDICAL SCHOOL STUDENT RESEARCH



COLUMBIA UNIVERSITY
College of Physicians and Surgeons



Bassett Healthcare Network
Bassett Medical Center

COLUMBIA-BASSETT PROGRAM

All listed activities are for the period January 1, 2020 through December 31, 2020

NARRATIVE SUMMARY HIGHLIGHTS FOR 2020

Our research program began disseminating work on the life-course development of flourishing with adversity — our major thematic focus moving forward. In 2020, we had two papers published, and we submitted three papers now under peer review. Kathryn E. Nagel, MD, Columbia-Bassett class of 2017, was the lead author on a paper published in *Pediatric Diabetes*. This paper described the main findings of her senior scholarly project, which she conducted as a medical student. The data for this project were collected by members of our research program through an online cross-sectional survey, called T1 Flourish, which was completed in 2017 by 423 young adults (19-31 years) with type 1 diabetes receiving outpatient care at the Naomi Berrie Diabetes Center at the Columbia University Irving Medical Center. Dr. Nagel is completing her residency in medicine-pediatrics at Yale University and has accepted a fellowship position in 2021 in endocrinology at the Massachusetts General Hospital. Our second published paper this year was in *JAMA Network Open* and also involved these T1Flourish survey data. On both of these published papers, Hannah G. Smith, now a third-year medical student at State University of New York Upstate Medical University College of Medicine, also served as a co-author. Hannah worked with us on the T1Flourish data collection after she obtained her master's degree at Columbia and before she began medical school. Three Columbia-Bassett students from the class of 2023 assisted us during the summer of 2020, and the project we worked on together was submitted for publication and presented at the Bassett Research Institute Grand Rounds in October 2020.

PEER-REVIEWED PUBLICATIONS

* denotes role as senior author

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

- 108 Nagel KE†, Dearth-Wesley T, Herman AN, Smith HG†, Gandica RG, Golden LH, Weil HFC, **Whitaker RC***. The association between dispositional mindfulness and glycemic control in type 1 diabetes during early adulthood: differences by age and adverse childhood experiences. *Pediatr Diabetes*. 2020;21(4):681-691. doi:10.1111/pedi.13000
- 107 **Whitaker RC**, Dearth-Wesley T, Herman AN, Nagel KE†, Smith HG†, Weil HFC. Association of childhood family connection with flourishing in young adulthood among those with type 1 diabetes. *JAMA Netw Open*. 2020;3(3):e200427. doi:10.1001/jamanetworkopen.2020.0427.

Robert C. Whitaker, MD, MPH

COLUMBIA-BASSETT MEDICAL SCHOOL STUDENT RESEARCH



COLUMBIA-BASSETT PROGRAM

ARTICLES UNDER REVIEW

1. **Whitaker RC**, Dearth-Wesley T, Herman AN. The association of daily spiritual experiences with depression among Head Start staff.
2. **Whitaker RC**, Dearth-Wesley T, Herman AN. Childhood family connection and adult flourishing in the US: associations across levels of childhood adversity.
3. **Whitaker RC**, Dearth-Wesley T, Herman AN, Block AE†, Holderness MH†, Waring NA†, Oakes JM. The interaction of adverse childhood experiences and gender-sex as risk factors for depression and anxiety disorders in US adults.

PRESENTATIONS

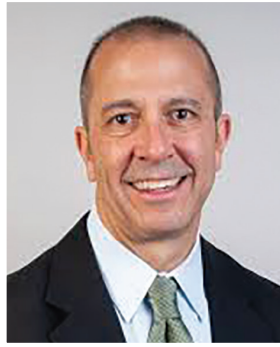
INVITED LECTURES (presented by Robert C. Whitaker, MD, MPH)

1. Evaluation of the *Enhancing Trauma Awareness* professional development course. Mental Health Workgroup of the Head Start National Training and Technical Assistance Centers (via conference call), March 9, 2020 (with Allison N. Herman, MEd, MPH and Tracy Dearth-Wesley, PhD, MPH).
2. Depression and anxiety disorders in US adults: the interaction of gender and childhood trauma as risk factors. Research Grand Rounds. Bassett Research Institute, Cooperstown, NY, October 20, 2020 (with Tracy Dearth-Wesley, PhD, MPH and Allison N. Herman, MEd, MPH).

MEDICAL STUDENT RESEARCH MENTORSHIP

Summer 2020	Amy Block, Columbia-Bassett Program, [The interaction of adverse childhood experiences and gender-sex as risk factors for mental health and substance use disorders in US adults]
Summer 2020	Mary Howard Holderness, Columbia-Bassett Program, [The interaction of adverse childhood experiences and gender-sex as risk factors for mental health and substance use disorders in US adults]
Summer 2020	Nicholas Waring, Columbia-Bassett Program, [The interaction of adverse childhood experiences and gender-sex as risk factors for mental health and substance use disorders in US adults]

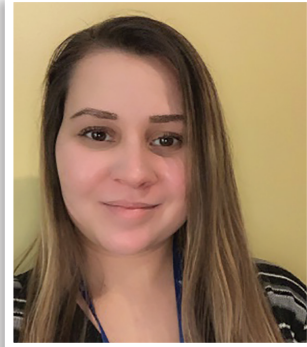
NEW STAFF 2020



Daniel Freilich, MD
Hospitalist and Principal Investigator
joined April, 2020.



Melissa Huckabone, RN
joined the Center for Clinical Research (CCR)
on January 13, 2020 as a Research Assistant I.



Amanda Fink
joined the BRI Research Institute team on
January 8, 2020 as a Research Assistant.



BRI PUBLICATIONS FOR 2020

45 Publications

1. Ng LS, Guralnik JM, Man C, DiGuseppi C, **Strogatz D**, Eby DW, Ryan LH, Molnar LJ, Betz ME, Hill L, Li G, Crowe CL, Mielenz TJ. Association of Physical Function with Driving Space and Crashes Among Older Adults. *Gerontologist* 2020; 60(1):69-79. doi:10.1093/geront/gny178.
2. **Scott E, Hirabayashi L**, Jones N, **Krupa N, Jenkins P**. Characteristics of Agriculture Related Motor Vehicle Crashes in Rural New York State. *J Agromedicine*. 2020;25(2):173-178. [published online May 30, 2019]. doi:10.1080/1059924X.2019.1623143.
3. Talwar A, Hill LL, DiGuseppi C, **Strogatz D**, et al. Patterns of Self-Reported Driving While Intoxicated Among Older Adults. *J Appl Gerontol*. 2020;39(9):944-953. doi:10.1177/0733464819854005.
4. Jones VC, Johnson RM, Borkoski C, **Strogatz D**, et al. Social Support Moderates the Negative Association Between Reduced Driving and Life Satisfaction in Older Adults. *J Appl Gerontol*. 2020;39(11):1258-1262. [published online November 6, 2019] doi:10.1177/0733464819884266 .
5. Hill LL, Andrews H, Li G, DiGuseppi CG, Betz ME, **Strogatz D**, Pepa P, Eby D, Merle D, Kelley-Baker T, Jones V, Pitts S. Medication Use and Driving Patterns in Older Drivers: Preliminary Findings from the LongROAD Study. *Injury Epidemiology* 2020; Aug 3;7(1):38. doi:10.1186/s40621-020-00265-y.
6. **Hirabayashi L, Scott E, Jenkins P, Krupa N**. Occupational Injury Surveillance Methods Using Free Text Data and Machine Learning: Creating a Gold Standard Data Set. *SAGE Research Methods Cases*. London: 2020. doi:10.4135/9781529720488.
7. *Leon K, *O'Bryan J, Wolf-Gould C, Wolf-Gould C, Turell S, **Gadomski A**. Prevalence and Risk Factors for non-surgical self-injury in transgender and gender expansive youth at a rural gender wellness clinic. *Transgender Health*. [published online September 2, 2020.] doi:10.1089/trgh.2020.0031.
8. **May J**, Arcury T. Occupational Injury and Illness in Farmworkers in the Eastern United States. In: *Latinx Farmworkers in the Eastern United States--Health, Safety, and Justice*. 2nd ed. Springer, Cham; 2020. https://doi.org/10.1007/978-3-030-36643-8_3.
9. **Pullyblank K, Strogatz D**, Folta SC, et al. Effects of the Strong Hearts, Healthy Communities Intervention on Functional Fitness of Rural Women. *J Rural Health*. 2020;36(1):104-110. doi:10.1111/jrh.12361.
10. **Strogatz D**, Mielenz TJ, **Johnson AK**, et al. Importance of Driving and Potential Impact of Driving Cessation for Rural and Urban Older Adults. *J Rural Health*. 2020;36(1):88-93. doi:10.1111/jrh.12369 .
11. **Tinc PJ, Sorensen JA**. Stakeholders Team up for Action in New York Dairy (STAND): A Collaborative Action-Planning Workshop to Combat Toxic Stress among New York Dairy Farmers. *J Agromedicine*. 2020;25(1):122-125. doi:10.1080/1059924X.2019.1659202 .
12. **Tinc PJ, Jenkins P, Sorensen JA**, Weinehall L, **Gadomski A**, Lindvall K. Key factors for successful implementation of the National Rollover Protection Structure Rebate Program: A correlation analysis using the consolidated framework for implementation research. *Scand J Work Environ Health*. 2020;46(1):85-95. doi:10.5271/sjweh.3844.
13. House SA, **Gadomski AM**, Ralston SL. Evaluating the Placebo Status of Nebulized Normal Saline in Patients With Acute Viral Bronchiolitis: A Systematic Review and Meta-analysis. *JAMA Pediatr*. [published online January 6, 2020.] doi:10.1001/jamapediatrics.2019.5195

BRI PUBLICATIONS FOR 2020

45 Publications

14. **Scott EE, Dalton DB.** Agricultural Fatalities in New York State from 2009-2018: Trends from the past Decade Gathered from Media Reports. *J Agromedicine*. 2020;1-8. [published online January 29, 2020].doi:10.1080/1059924X.2020.1720883 .
15. Wickman JR, Lau BC, **Scribani MB**, Wittstein JR. Single Assessment Numeric Evaluation (SANE) correlates with American Shoulder and Elbow Surgeons score and Western Ontario Rotator Cuff index in patients undergoing arthroscopic rotator cuff repair. *J Shoulder Elbow Surg*. 2020;29(2):363-369. doi:10.1016/j.jse.2019.07.013 .
16. Geller S, Levy S, Hyman O, **Jenkins PL**, Abu-Abeid S, Goldzweig G. Body Image, Emotional Eating and Psychological Distress among Bariatric Surgery Candidates in Israel and the United States. *Nutrients*. 2020;12(2). doi:10.3390/nu12020490.
17. Masterson EE, Moreland BL, **Strogatz DS**, Kasper JD, Mielenz TJ. Utilization of driving and other transportation rehabilitation in the National Health and Aging Trends Study. *Disabil Health J*. 2020;13(3):100911 [published online February 19,2020]. doi:10.1016/j.dhjo.2020.100911.
18. **Burrington CM, Hohensee TE, Tallman N, Gadomski AM.** A pilot study of an online produce market combined with a fruit and vegetable prescription program for rural families. *Prev Med Rep*. 2020;17:101035. doi:10.1016/j.pmedr.2019.101035.
19. Herman AN, **Whitaker RC.** Reconciling mixed messages from mixed methods: A randomized trial of a professional development course to increase trauma-informed care. *Child Abuse Negl*. 2020;101:104349. doi:10.1016/j.chiabu.2019.104349.
20. **Gadomski A**, Anderson J, *Chung YK, **Krupa N, Jenkins P.** Full agonist opioid prescribing by primary care clinicians after buprenorphine training. *Subst Abus*. 2020;1-7. [published online March 9, 2020]. doi:10.1080/08897077.2020.1736709.
21. Crowe CL, Kanno S, Andrews H, **Strogatz D**, et al. Associations of Frailty Status with Low-Mileage Driving and Driving Cessation in a Cohort of Older Drivers. *Geriatrics (Basel)*. 2020;5(1). doi:10.3390/geriatrics5010019.
22. ****Wijarnpreecha K, Scribani M**, Raymond P, et al. PNPLA3 gene polymorphism and overall and cardiovascular mortality in the United States. *J Gastroenterol Hepatol*. [published online March 27, 2020]. doi:10.1111/jgh.15045.
23. **Tinc PJ, Sorensen JA**, Lindvall K. Stakeholder Experiences Implementing a National ROPS Rebate Program: A Grounded Theory Situational Analysis. *SAGE Open*. 2020;10(2):2158244020932515. doi:10.1177/2158244020932515.
24. Svancara AM, Villavicencio L, Kelley-Baker T, **Strogatz D**, et al. The Relationship between in-Vehicle Technologies and Self-Regulation among Older Drivers. *Geriatrics (Basel)*. 2020;5(2):23. [published 2020 Apr 16]. doi:10.3390/geriatrics5020023.
25. ****Wijarnpreecha K, Scribani M**, Raymond P, et al. PNPLA3 Gene Polymorphism and Liver- and Extrahepatic Cancer-Related Mortality in the United States. *Clin Gastroenterol Hepatol*. [Published online April 29, 2020.] doi:10.1016/j.cgh.2020.04.058
26. *O'Bryan J, **Scribani M**, *Leon K, **Tallman N, Gadomski A.** Health-related quality of life among transgender and gender expansive youth at a rural gender wellness clinic. *Quality of Life Research*. 2020;29(6):1597-1607. doi:10.1007/s11136-020-02430-8 .

BRI PUBLICATIONS FOR 2020

45 Publications

27. Lo BK, Graham ML, Eldridge G, **Strogatz D**, et al. Ripple Effects of a Community-Based Randomized Trial for Rural Women: Strong Hearts, Healthy Communities. *Obesity (Silver Spring)*. 2020;28(7):1224-1234. doi:10.1002/oby.22817.
28. Seguin-Fowler RA, **Strogatz D**, Graham ML, **Pullyblank K**, et al. The Strong Hearts, Healthy Communities Program 2.0: An RCT Examining Effects on Simple 7. *Am J Prev Med*. 2020;59(1):32-40. doi:10.1016/j.amepre.2020.01.027.
29. Mielenz TJ, Kanno S, Jia H, **Pullyblank K**, **Sorensen J**, **Strogatz D**, et al. Evaluating a two-level versus three-level fall risk screening algorithm for predicting falls among older adults. *Front Public Health*. 2020;8. doi:10.3389/fpubh.2020.00373.
30. **Tinc PJ**, **Goodspeed MM**, **Sorensen JA**. Understanding Trends in PTO Shielding Using Kelman's Processes of Change *J Agromedicine*. 2020;1-6. [published online ahead of print, 2020 Jul 22]. doi:10.1080/1059924X.2020.1795030.
31. **Scott E**, **Hirabayashi L**, **Graham J**, **Franck K**, **Krupa N**, **Jenkins P**. Health and safety in the Maine woods: Assemblage and baseline characteristics of a longitudinal cohort of logging workers. *Am J Ind Med*. 2020;10.1002/ajim.23165.[published online ahead of print,2020 Jul 29]. doi:10.1002/ajim.23165.
32. Mielenz TJ, Tracy M, Jia H, Durbin LL, Allegrante JP, Arniella G, **Sorensen JA**. Creation of the Person-Centered Wellness Home in Older Adults [published correction appears in *Innov Aging*. 2020 Mar 18;4(1):igaa005]. *Innovation in Aging*. 2020;4(2):igz055. [published 2020 Jan 22.] doi:10.1093/geroni/igz055.
33. **Sorensen J**, **Echard J**, **Weil R**. From Bad to Worse: The Impact of COVID-19 on Commercial Fisheries Workers. *J Agromedicine*.2020;1-4. [published online 2020 Sep 12]. doi:10.1080/1059924X.2020.1815617.
34. Li M, DeRosa KL, Mann H, Spathis R, **Roome A**, Castellanos D, Gowen K, de Smet TS, **Echard J**, Casey K, Shamoon-Pour M, Garruto RM, Lum K. Recent kuru-induced female gene flow disrupted the coevolution of genes and languages in the Papua New Guinea Highlands. *American Journal of Physical Anthropology*. 2020 28 Feb; 172: 87-98.
35. Therrien AS, Buffa G, **Roome AB**, Standard E, Pomer A, Obed J, Taleo G, Tarivonda L, Chan CW, Kaneko A, Olszowy KM, Dancause KN. Relationships between mental health and diet during pregnancy and birth outcomes in a lower-middle income country: "Healthy mothers, healthy communities" study in Vanuatu. *American Journal of Human Biology*, 2020;e23500. [published online 2020 Sep 11]. doi:10.1002/ajhb.23500.
36. Cunningham TR, **Tinc PJ**, Guerin RJ, Schulte PA. Translation Research in Occupational Health and Safety Settings: Common Ground and Future Directions. *J Safety Res*. 2020; 74:161-167. doi:10.1016/j.jsr.2020.06.015.
37. **Driscoll M**, **Dalton D**, **Jenkins P**, **Tinc P**, Murphy D, Douphrate D, Lundqvist P, Pate M, Lindahl C, **Meyerhoff A**, **Scott E**, **Carrabba J**, Hagevoort R, **Sorensen J**. A Scoping Review of Safety and Health Interventions in the High-Risk Dairy Industry: Gaps in Evidence Point to Future Directions in Research. *J Agromedicine*. 2020;1-13. [published online 2020 Nov 14] doi:10.1080/1059924X.2020.1837703.
38. **Brunner W**, **Hirabayashi L**, **Krupa N**, **Scribani M**, **Jenkins P**, **Clark S**, **May J**, **Gadomski A**. Severe acute respiratory coronavirus virus 2 (SARS-CoV-2) IgG results among healthcare workers in a rural upstate New York hospital system. *Infect Control Hosp Epidemiol*. 2020;1-4. [published online 2020 Oct 26]. doi:10.1017/ice.2020.1296.
39. #Smucker L, **Victory J**, **Scribani M**, Ocegüera L, Monzon R. Rural context, single institution prospective outcomes after enhanced recovery colorectal surgery protocol implementation. *BMC Health Serv Res*. 2020;20(1):1120. doi:10.1186/s12913-020-05971-3.

BRI PUBLICATIONS FOR 2020

45 Publications

40. **Tinc PJ**, Wolf-Gould C, Wolf-Gould C, **Gadomski A**. Longitudinal Use of the Consolidated Framework for Implementation Research to Evaluate the Creation of a Rural Center of Excellence in Transgender Health. *Int J Environ Res Public Health*. 2020;17(23):9047. [published 2020 Dec 4]. doi:10.3390/ijerph17239047.
41. Weichert, B., **Scott E**, et al., JA:2021-40. What about the Rest of Them? Their Lives Mattered Too: Fatal Agricultural Injuries Not Captured by BLS/CFOI. *Journal of Agromedicine*. 2020;25(3): p. 263-263.
42. *Nagel KE, Dearth-Wesley T, Herman AN, Smith HG†, Gandica RG, Golden LH, Weil HFC, **Whitaker RC**. The association between dispositional mindfulness and glycemic control in type 1 diabetes during early adulthood: differences by age and adverse childhood experiences. *Pediatr Diabetes*. 2020;21(4):681-691. doi:10.1111/pedi.13000.
43. **Whitaker RC**, Dearth-Wesley T, Herman AN, *Nagel KE, *Smith HG, Weil HFC. Association of childhood family connection with flourishing in young adulthood among those with type 1 diabetes. *JAMA Netw Open*. 2020;3(3):e200427. doi:10.1001/jamanetworkopen.2020.0427.
44. Betz ME, Hyde H, DiGuseppi C, Platts-Mills TF, Hoppe J, **Strogatz D**, Andrews HF, Mielenz TJ, Hill LL, Jones V, Molnar LJ, Eby DW, Li G. Self-reported Opioid Use and Driving Outcomes among Older Adults: Findings from the AAA LongROAD Study. *The Journal of the American Board of Family Medicine* 2020; 33:521-528.
45. Therrien AS, Buffa G, **Roome AB**, Standard E, Pomer A, Obed J, Taleo G, Tarivonda L, Chan CW, Kaneko A, Olszowy KM, Dancause KN. Relationships between Prenatal Distress and Infant Body Mass Index in the First Year of Life in a Lower-Middle Income Country. *International Journal of Environmental Research and Public Health*. 2020;17(7351): doi:10.3390/ijerph17197351

*Medical Student author

**Resident funded by EDT Resident Research Program

Surgery resident author

**BRI Peer-reviewed Research Publication Trend
2016 -2020**



*Resident case reports, quality improvement-related reports or lay press are not included
BRI includes NEC/NYCAMH
Trainees include medical students, residents, post-graduate (PhD) students, college summer interns

2020 RESEARCH GRAND ROUNDS

	Participants Viewed-Zoom
<ul style="list-style-type: none"> January 21, 2020, 12:00 noon – 1:00 pm, Clark Education Auditorium Title: Time Dependent Covariates and Recurrent Event Models in Survival Analysis. Presenter: Paul Jenkins, PhD – Director, The Bassett Research Institute, Center for Biostatistics (CFB). 	2
<ul style="list-style-type: none"> February 11, 2020, 12:00 noon – 1:00 pm, Clark Education Auditorium Title: Med Talk: Exploring the Ups and Downs of RCTs in Community-based interventions. Presenter: Julie Sorensen, PhD – Director, The Bassett Research Institute, New York Center For Agricultural Medicine and Health (NYCAMH). 	1
<ul style="list-style-type: none"> March 17, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19 Title: Why is everyone so ticked off? Ticks and Tick-borne Diseases in Upstate New York. Presenter: Amanda Roome, PhD, The Bassett Research Institute New York Center For Agricultural Medicine and Health (NYCAMH). 	97
<ul style="list-style-type: none"> April 21, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19 Title: Tales from the Maine Woods: Initial Results from a Longitudinal Cohort Study of Logging Workers Presenter: Erika Scott, PhD, The Bassett Research Institute, New York Center for Agricultural Medicine and Health (NYCAMH) Northeast Center for Occupational Health and Safety in AFF (NEC) 	123
<ul style="list-style-type: none"> May 19, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19 Title: Modeling COVID-19 Pandemic Effects on Health Care Resources Presenter: Anne Gadomski, MD, MPH, Director Research Institute Bassett Research Institute 	173
<ul style="list-style-type: none"> June 16, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19 Title: A Review of Basic Concepts in Clinical Testing Presenter: Paul Jenkins, PhD, Director, Center for Biostatistics, Bassett Research Institute 	85
<ul style="list-style-type: none"> July 21, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19 Title: Diseases Without Borders: COVID-19 and the Anthropology of Infectious Disease Presenter: Amanda Roome, PhD, The Bassett Research Institute New York Center for Agricultural Medicine and Health (NYCAMH) 	77
<ul style="list-style-type: none"> Aug. 18, 2020, 12:00 noon – 1:00 pm, webinar Title: Introducing the Social Determinants of Health in Rural Communities Toolkit Webinar link: https://www.ruralhealthinfo.org/webinars/sdoh-toolkit?utm_source=racupdate&utm_medium=email&utm_campaign=update080520 	n/a

2020 RESEARCH GRAND ROUNDS

Participants Viewed-Zoom

- **Sept. 15, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19** **75**

Title: The Diabetes Self-Management Program:
What Happened, What's Next

Presenter: David Strogatz, PhD
Research Scientist
Center for Rural Community Health Bassett Research Institute
- **Oct. 20, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19** **81**

Title: Depression and Anxiety Disorders in US Adults: the Interaction of Gender
and Childhood Adversity as Risk Factors

Presenter: Robert C. Whitaker, MD. MPH
Director of Research and Research Education
Columbia-Bassett
- **Nov. 17, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19** **43**

Title: Causes and Effects: Using Contribution Analysis to Demonstrate the Impact
and Synergy of Public Health Research

Presenter: Pamela Tinc, PhD, Junior Research Investigator
The New York Center for Agricultural Medicine and Health/
Northeast Center for Occupational Health and Safety in Agriculture,
Forestry and Fishing (NYCAMH/ NEC)
- **Nov. 18, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19** **50**

Title: Results from the Bassett Healthcare Network Employee COVID-19 Antibody Study
CME presentation, Cobleskill Regional Hospital

Presenter: Wendy Brunner, PhD
Research Scientist
Bassett Research Institute
- **Dec. 15, 2020, 12:00 noon – 1:00 pm, virtual zoom due to COVID-19** **56**

Title: Results from the Bassett Healthcare Network Employee COVID-19 Antibody Study

Presenter: Wendy Brunner, PhD
Research Scientist
Bassett Research Institute

BRI NATIONAL PRESENTATIONS IN 2020

1. **Strogatz D, Wyckoff L.** Quality Improvement in Rural Primary Health Care. Rural Partnership Development Meeting, Rockville, MD, January 2020.
2. **Wyckoff L,** Dostal J, Sellers J, **Strogatz D.** Implementation of the Chronic Pain Self-Management Program in Rural Communities of Upstate New York. Rural Partnership Development Meeting, Rockville, MD, January 2020.
3. **Julie Sorensen, PhD.** Social Marketing: Looking beyond the Sound and Fury of Social Media. NIOSH Extramural Communication Community of Practice Meeting Webinar Series with over 50 occupational health and safety professionals from across the U.S. in attendance. January 29, 2020.
4. **Strogatz D,** Wiley R. The Long and Winding Country Road: Getting Age-Friendlier in Upstate New York. Annual Rural Health Care Leadership Conference of the American Hospital Association, Phoenix, AZ, February 2020.
5. **Amanda Roome, PhD.** Ecological Risk of Tick-Borne Pathogens. Radio interview, Lyme Ninja Radio. May 28, 2020. <https://open.spotify.com/episode/2pCLqeyOGvmt4keQDIOfB1?si=qOoxu1PSQbC21-zTuQBvRQ>
6. **Amanda Roome, PhD.** Ticks in Our Town: What Every Northeasterner Needs to Know. "Pub Sci Talk" with WSKG. June 9, 2020. <https://www.youtube.com/watch?v=CNXmvTMcvzM&feature=youtu.be>
7. **Amanda Roome, PhD.** The Ticking Time Bomb: Tick-Borne Disease Risk For Agricultural Workers. Northeast Agricultural Safety and Health Coalition presentation. June 9, 2020. https://psu.zoom.us/rec/share/49Bul6j71GBOU43o0l6AVfMdAaDhaaa80SMc8_ALmRI2RystNgSTftMC-OH2nfYB
8. **Erika Scott, PhD.** The Utility of Existing Administrative Databases for Agricultural Injury Surveillance. Scientific Seminar (virtual), Marshfield Clinic Research Institute, National Farm Medicine Center, Marshfield, Wisconsin. June 10, 2020.
9. **Erika Scott, PhD.** Through Application of Machine Learning with Electronic Health Records. International Society for Agricultural Safety and Health (ISASH) Virtual Conference 2020. July 2020. (Presented with Liane Hirabayashi).
10. **Erika Scott, PhD.** Total Worker Health for Maine Loggers: Research Findings from Active Surveillance. International Society for Agricultural Safety and Health (ISASH) Virtual Conference 2020. July 2020. (Presented with Liane Hirabayashi).
11. Pettigrew SM, Bobb J, Pan W, **Strogatz D,** Bell E, Berky A, Feingold BJ. Trace Element Exposures and Blood Pressure along the Interoceanic Highway, Madre de Dios, Peru. 32nd Annual Conference of the International Society for Environmental Epidemiology, August 2020.
12. **Jenkins P, Pullyblank K, Strogatz D, Wyckoff L, Krupa N, Scribani M, Henderson C, Flynn J, Bloomfield A.** Evaluation of the Diabetes Self-Management Program in a Rural, Medically Underserved Population. Annual Meeting of the American Public Health Association, October 2020.

BRI NATIONAL PRESENTATIONS IN 2020

13. **Strogatz D, Pullyblank K, Wyckoff L, Scribani M, Krupa N, Jenkins P, Henderson C, Flynn J, Bloomfield A.** Changes in Diabetes Distress Predict Changes in A1c Levels After Completion of the Diabetes Self-Management Program. Annual Meeting of the American Public Health Association, October 2020.
14. **Wendy Brunner, PhD.** Sars-CoV-2 IgG responses among healthcare workers in a rural upstate New York hospital system. Poster presented at American Public Health Association 2020 Virtual Annual Meeting. October 26, 2020.
15. Vivoda JM, Molnar LJ, Eby DW, Bogard S, Zakrajsek JS, Kostyniuk LP, St. Louis RM, Zanier N, LeBlanc D, Smith J, Yung R, Nyquist L, DiGuseppi C, Li G, **Strogatz D.** Exploring How Hearing, Vision and Cognition Affect Older Adults' Driving Exposure Patterns. Annual Scientific Meeting of the Gerontological Society of America, November 2020.
16. Mielenz TJ, Kanno S, Jia H, **Pullyblank K, Sorensen J,** Estabrooks P, Stevens JA, **Strogatz D.** The Quick-STEADI Algorithm for Fall Risk Screening: A Two-Level versus Three-Level for Fall Risk. Annual Scientific Meeting of the Gerontological Society of America, November 2020.
17. **Matthew Adan,** Columbia-Bassett Medical Student. A Qualitative Study of Transgender Elders' Perspectives on Aging: Visibility is a Double-Edged Sword, poster presentation at the World Professional Association for Transgender Health (WPATH) 26th Scientific Symposium, held virtually, November 6–10, 2020.
18. **Julie Sorensen, PhD.** Injury Prevention in America's Most Dangerous Industries. Online seminar: Building the Societal Engineer, George Mason University. November 11, 2020.
19. Daniel Mullin, James Anderson, Stephen Martin, **Anne Gadomski, Nicole Krupa, Paul Jenkins PhD.** Amber Cahill. Using Project ECHO to increase primary care use of buprenorphine for opioid use disorder. Oral Presentation. North American Primary Care Research Group (NAPCRG) Virtual Annual Meeting, November 20-24, 2020.
20. **Julie Sorensen, PhD.** Four Fridays with Farm Viability. Behavioral Nudging. New York Farm Viability Institute Annual Meeting. December 4, 2020.
21. **Anne Gadomski MD, MPH;** James B. Anderson PhD; Daniel Mullin PsyD MPH; Stephen A. Martin MD EdM; **Nicole Krupa; Paul Jenkins PhD.** A multifaceted implementation strategy improves primary care opioid use disorder treatment and patient treatment retention in a rural health network, poster presentation at the Virtual Academy Health Dissemination & Implementation Conference, December 15-17, 2020.





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