Once in a while, we read articles that help us make sense of the work that we do, and that give us a sense of belonging to a worthwhile cause. A case in point is a 2021 article by Phillips and colleagues that explains what agile science is, and why it matters so much for public health and the future well-being of the world.

The “agile science” implementation science framework, derived from computer science, seeks to solve real world complex problems by combining scientific rigor with practical decision-making. This approach involves key stakeholders - including those at the grassroots levels - in generating and testing innovative solutions to their problems.

The Yale-Griffin PRC has been, and will continue to be, deeply engaged with “agile science” community-based approaches to reduce inequities in health in the context of racism and discrimination. This Newsflash issue highlights our ongoing “agile science” work, including: our ongoing Core Research Project to prevent diabetes among low-income residents of New Haven and the Naugatuck Valley; our ongoing work with CARE in New Haven to address social determinants of health; our proposed behavioral change intervention to increase uptake of COVID-19 vaccinations among low-income Black and Latinx residents; and our proposed project to reduce hypertension inequities among ethnically diverse patients who are at risk for cardiovascular disease.

In the years to come it is our goal to ensure that our Prevention Research Center continues its efforts in developing and supporting innovative “agile science” approaches in full collaboration with our community partners through research, training, and practice.
CORE RESEARCH PROJECT:
Improving Health in Low Income Communities: Virtual Delivery of a Diabetes Prevention Program Facilitated with Community Care Coordination

Our current 5-year project will assess the feasibility and health impacts of a virtually-delivered Diabetes Prevention Program (vDPP), facilitated by community health workers and hospital-based community nurses, to adults in New Haven, Ansonia, and Derby who have lower incomes and are at risk for type 2 diabetes. You can find an overview of our project in prior issues of our Newsflash and here on our website.

PROGRESS ON OUR FORMATIVE RESEARCH IN YEAR 2

During the fall of 2020, we interviewed 21 residents of New Haven, Derby, or Ansonia who represented our population of focus to identify needs, perceived barriers, and resources that could potentially affect the feasibility and implementation of our intervention. We asked them a range of questions regarding health and health programs, including their first impressions of the virtual Diabetes Prevention Program (vDPP) that we described to them. We also inquired about their access to and use of digital technology.

We are now beginning a pilot study to assess the delivery of the first 4 weeks of the vDPP, combined with care coordination from CHWs/CHNs, to a representative sample of our population of focus. They will be closely followed by our study team for the first 4 weeks of the program and will receive standard platform support for the duration of the program (i.e., after the 4-week pilot, they will have continued access to the vDPP to complete the 1-year program as designed by the platform providers).

We have selected a v-DPP platform developed by incentaHEALTH as the program for use in our study. It will be offered to study participants using the customized title of “Healthy Me: A Lifestyle Program from the Yale-Griffin Prevention Research Center.”

The pilot study will troubleshoot potential barriers and issues prior to the full-scale implementation study. Project staff will assess engagement of participants (with support from technology metrics) and will be in regular contact to document challenges. A focus group will be conducted with participants at the end of the 4-week pilot study to identify strategies for addressing individual, social, community, and policy barriers to implementation. CHWs/HCNs will strategize to address technology, user, and structural barriers. Our initial draft of a Program Impact Pathways (PIP) diagram will be revised based on participant feedback, and will be revised with key stakeholders prior to full implementation. The PIP diagram will also be revised on a 4 to 6 month cycle to incorporate formative feedback.

The results of the pilot study, combined with insights gained from our interviews with key informants and local residents, will help us plan strategies to offer the full-length vDPP and related care coordination during the full-scale implementation phase of our core research project.

For more information, contact PRC Co-Director Beth Comerford at beth.comerford@yalegriffinprc.org or PRC Co-Director Kathleen Duffany at kathleen.oconnorduffany@yale.edu.
Community Alliance for Research and Engagement (CARE)

In partnership with the New Haven community, CARE works in tandem with the PRC to take action against chronic diseases and other challenges that threaten the health of community members. For more information, contact CARE Director Alycia Santilli at santillia1@southernct.edu.

A CARE Steering Committee was instrumental in helping to pass a resolution declaring racism a public health emergency. Three committee members serve on a working group that called a public hearing for New Haven residents to testify about policy priorities and ordinances that the Board of Alders should address.

CARE is also working to encourage equitable breastfeeding in New Haven through: (1) supporting a culturally relevant WIC Peer Counselor to fill gaps in care, especially for mothers of color; (2) conducting focus groups with mothers affected by breastfeeding disparities to determine barriers and facilitators and amplify their voices to inform services; (3) working with the CT Department of Public Health to train clinicians to provide culturally relevant breastfeeding support; and (4) helping to launch a breastfeeding task force that advocates for publicly accessible lactation spaces, supports the recognition of breastfeeding-friendly businesses and medical offices, and provides a platform for community members to voice concerns and calls for action.

CARE Advisory Council member Dr. Marcella Nunez-Smith, a co-chair of President Biden’s Transition COVID-19 advisory board, will also lead a new federal task force dedicated to health equity.

Response of PRCs Across the U.S. to the COVID-19 Pandemic

In the wake of the pandemic, the urgent need for a rapid response to meet urgent social and health needs presented an opportunity for the PRC Network to address issues emerging across the U.S. In April 2020, the Network Steering Committee surveyed 26 currently-funded and 8 previously-funded PRCs about their response to the early phase of the pandemic. The survey asked each PRC to report on its engagement in 9 categories of activities: (1) front-line agency support; (2) food provision; (3) agriculture; (4) health care; (5) employment; (6) mental health; (7) education; (8) community health workers; and (9) community partner support.

Of the 34 PRCs surveyed, 24 (71%) responded. All responding PRCs reported engaging in at least 1 of the 9 categories, with each PRC averaging 5 reported categories of engagement. The Yale-Griffin PRC reported leveraging its partnerships with food pantries and non-profits to maintain food provision to residents of New Haven and the Lower Naugatuck Valley. Other PRCs reported activities such as: designing a drive-through food hub for sales/donations of healthy foods from restaurants, farms, and charitable food programs; creating a comprehensive guide on government protections, worker benefits, and resources related to housing and food security; and assessing the changing needs of mental health providers and their clients due to COVID-19.

Many PRCs mobilized personnel and resources in less than 6 weeks to support the COVID-19 response. This rapid response was due, in part, to leveraging longstanding relationships between PRCs and their community partners. Equally important was the broad expertise of the PRC researchers and staff in developing and adapting interventions, conducting program evaluation and data analyses, and disseminating results of public health research.

The 26 currently-funded PRCs in the PRC Network

Community Alliance for Research and Engagement (CARE)
Patterns of Medical Marijuana Use among Patients Diagnosed with Multiple Sclerosis

Purpose: Despite increased interest in the role of marijuana in treating various medical conditions, questions remain about its benefits in treating symptoms of multiple sclerosis (MS). We surveyed patients of the Multiple Sclerosis Treatment Center (MSTC) at Griffin Hospital who were enrolled in the state’s Medical Marijuana program regarding their use of medical marijuana.

Methods: We designed a survey with questions about their use of medical marijuana, its perceived effects on their symptoms, and any changes in their use of prescription medicines. It also included demographic questions such as age, gender, multiple sclerosis duration, and clinical course. All MSTC patients who were enrolled in the CT Medical Marijuana Program were invited to complete the survey.

Findings: Of the 297 patients eligible to take part in the survey, 115 (39%) responded. The respondents were mainly women, and were more likely to report having relapsing-remitting MS. Most reported having MS symptoms for more than 10 years.

Respondents reported using a variety of forms of medical marijuana. The most common usage was inhaling by smoking or vaping, followed by oral consumption and topical application. The inhaled forms were reported as most helpful in treating symptoms, followed by oral and topical forms.

Self-reported significant improvements in symptoms associated with marijuana use included mood disorder, insomnia, pain, and muscle cramps and spasms. Patients reporting the most benefit tended to have a milder form of MS with less disability.

A few respondents reported that marijuana use led to a worsening of symptoms related to cognition, mood disorders, fatigue, headaches, nausea, insomnia, vertigo, numbness, pain, bowel or bladder issues, vision, balance, or muscle function. In addition, 23% of respondents said it made them feel “high,” and 6% said it impaired their ability to think.

Of the 115 respondents, 45% reported having reduced or discontinued prescription medicines as a result of medical marijuana use. These included opioid and non-opioid pain medications, benzodiazepines, and muscle relaxers.

Conclusion: This survey helps to clarify medicinal marijuana use by a group of persons with MS in an effort to educate patients and physicians. Physicians might be well-advised to familiarize themselves with the potential benefits and risk of medical marijuana use as part of a discussion concerning symptom management with their patients with MS.

Funding: Funding was provided by the CT Department of Public Health’s Biomedical Research Trust Fund and by the Centers for Disease Control and Prevention.

Publication: A summary of our study and our findings will be published in an upcoming issue of Multiple Sclerosis and Related Disorders.

For more information: Contact MSTC Director Joseph B. Guarnaccia, MD at cthealthcarealliance@gmail.com.
Purpose:
We conducted this two-year project (2018-2020) to improve the identification and management of chronic health conditions (CHCs) in K-12 students in three Connecticut public school districts (Ansonia, Derby, and Shelton). CHCs such as obesity, asthma, hearing problems, and behavioral and learning problems are prevalent among school-aged children. We sought to identify and address the greatest perceived needs using evidenced-based strategies.

Activities and Findings:
During Year 1, we conducted the following activities:

1) **We established a working group** of school nurses, teachers, and administrators from these school districts, along with staff from the Naugatuck Valley Health District and Griffin Health.

2) **We conducted needs assessment surveys** with school nurses and school mental health professionals regarding their practices, needs, and resources for managing CHCs.

3) Based on the survey results, the working group identified behavioral/mental health screening as a top priority.

During Year 2, we focused on two key activities:

1) **Mental/behavioral health screening**: The Ansonia Public Schools pilot-tested a screening instrument (17-item version of the Pediatric Symptom Checklist, known as the PCS-17) selected by the working group, and developed a protocol for behavioral health screening among new students. The district implemented the screening at the start of the 2020-2021 academic year, and is committed to expanded use of this screening instrument.

2) **Family resource guide**: In response to a reported need for a centralized information source on available services for families, the working group created a resource guide written in English and Spanish. Each school district can add its logo to personalize the guide. In Ansonia, the resource guide is now distributed to all families at the start of the school year, and is posted on the district’s website. The guide is primarily used by school psychologists, social workers and guidance counselors who work most closely with students and families. It has proven to be a valuable resource, even more so due to challenges faced by families during the pandemic.

Funding:
Project funding was provided by the Valley Community Foundation.

For more information:
Contact PRC Co-Director Beth Comerford by email at beth.comerford@yalegriffinprc.org
**Connecting Behavioral Science to COVID-19 Vaccine Demand (CBS-CVD) Network**

In response to a CDC supplemental funding announcement for COVID vaccine research, the PRC has proposed a study to expand upon COVID-19 outreach and education efforts currently provided by the Community Alliance for Research and Engagement (CARE) in New Haven and by Griffin Hospital in the Lower Naugatuck Valley. COVID-19 vaccination rates are lagging among people of color, despite the fact that Black and Latinx age-adjusted COVID-19 death rates in CT are double those of their White counterparts.

Our proposed study will design and implement behavioral change interventions to increase confidence in, access to, and equitable uptake of COVID-19 vaccinations among low-income Black and Latinx residents of New Haven and Lower Naugatuck Valley communities. We intend to do this by: (1) conducting listening sessions and surveys to better understand the beliefs, perceptions, and perceived risks that influence their confidence in the vaccine; (2) identifying key barriers and facilitators to vaccine access; (3) developing and delivering culturally-appropriate strategies with community partners to increase residents' confidence in the vaccine and address barriers to its delivery; and (4) using feedback loops to continuously improve and refine our outreach and education efforts.

**Reducing Hypertension Inequities through a Combined Digital-Clinical-Community Health Worker Intervention**

The PRC has submitted a proposal to the CDC for a Special Interest Project (SIP) grant to expand upon a hypertension management approach being conducted by CARE, Project Access New Haven, and the Yale Preventive Cardiovascular Health Program to benefit a racially and ethnically diverse set of patients with low incomes who are at risk for cardiovascular disease. These partners currently use a multi-pronged approach that combines digital home blood pressure readings, electronic health records, oversight from physicians and pharmacists, assessments of social determinants of health, and referrals to community health workers (CHWs).

Our proposed project will strengthen our partners’ current approach through an in-depth understanding of structural racism, discrimination, and other potential barriers faced by socio-economically disadvantaged persons of color with hypertension. It will also expand the CHW role and the use of information technology to address these barriers and offer additional patient support.

**Walnuts in the Context of Vegan Diets**

We have sent a letter of intent to the California Walnut Commission for a randomized controlled study to compare the effects of a vegan diet with or without walnuts on cardio-metabolic health measures and diet quality among adults at risk for type 2 diabetes.

**Phototherapy and Human Health**

We have proposed 2 randomized controlled studies to FOS Biomedical, a company that develops light therapy products intended to impact human health. One study is designed to assess daily use of an FOS product in adults at risk for type 2 diabetes on blood glucose control, blood lipids, and sleep quality. The other study is designed to assess daily use of an FOS product in adults with osteoarthritis of the knee on joint pain, joint stiffness, joint function, range of motion, walking time, and inflammatory response.
Should Breastfeeding Mothers Be Vaccinated Against COVID-19?

Thus far, breastfeeding mothers have been excluded from testing the effectiveness and safety of COVID-19 vaccines as part of Phase 3 research trials. This continues a paternalistic tradition of omitting these women from clinical trials to assess medications or vaccines that are as critical for their health and well-being as they are for the rest of the population.

In a recent *Lancet* letter, my collaborators and I explain why, despite endorsement among major health organizations—including the World Health Organization, the American College of Obstetricians and Gynecologists, and the American Society for Maternal-Fetal Medicine—for offering the mRNA COVID-19 vaccines to lactating women, an initial confusion regarding this endorsement because women were simply excluded from the vaccines' trials has led to major misperceptions and the dissemination of fear-mongering disinformation. As a result, mothers have become hesitant to take the vaccine if they want to continue breastfeeding, or have decided to discontinue breastfeeding in order to take the vaccine. The decision to avoid or postpone breastfeeding is not a trivial one, as it can have far-reaching repercussions for the future health and well-being of mothers and infants.

In our letter, we emphasize that in addition to the numerous maternal-child health benefits of breastfeeding:

1. Human milk is not a known vector for severe acute respiratory syndrome coronavirus;
2. If breastfeeding women become COVID-19 positive or are vaccinated, their milk is likely to contain antibodies that could potentially protect the breastfed baby from COVID-19.

Therefore, we strongly endorse making information available on the strong benefit-risk of the decision of taking the vaccine while breastfeeding, so that mothers can make an informed decision in consultation with their health care providers on this matter. Special attention needs to be made on ways to communicate this information in culturally sensitive ways and languages to diverse communities of color.

Connecticut United Ways’ ALICE Report and Virtual Town Hall Series

In September 2020, Connecticut United Ways released its fourth edition of the ALICE Report. It quantifies the financial hardship confronting many low-income working families in urban, suburban and rural communities across the state. The acronym ALICE represents their circumstances of being “Asset Limited, Income Constrained, and Employed.” As of 2020, 38% of CT households had incomes below the threshold needed to pay for basic necessities such as housing, food, child care, health care, technology and transportation. The 2020 report exposes the exacerbation by the COVID-19 pandemic of their longstanding financial challenges, leaving them struggling with furloughs, job losses, and an inability to pay bills and provide for their families.

Since the release of the report, CT United Ways has been hosting a 4-part series of virtual Town Hall Sessions revealing major trends in the report. The first 3 sessions have been recorded and are available for you to view here.

1. **Access to Child Care and Out-of-School Care** (November 19, 2020)
2. **Affordable Housing and Homelessness** (January 19, 2021)
3. **Access to Health Care, Affordability and Equity** (March 25, 2021)

I had the privilege of serving as moderator for Session 3 in March. I invite you to register here to attend the fourth and final virtual Town Hall session (on Workforce Development) from 8:00 to 9:00 a.m. on May 18 (see below).
Welcome to …

Sofia Morales, MPH, CPH, the new Evaluation Manager at CARE, who will support the vDPP work as well as REACH. She comes with extensive experience, having worked at Fair Haven Community Clinic as well as Cornell Scott Hill Health. She also was a Community Research Fellow with CARE’s program in 2019. At the PRC, she will work closely with our CHWs and our vDPP program implementation.

Congratulations to …

Jaime Foster, PhD, RD, PRC Research Scientist, who was recently elected to serve as a State Representative of the 57th House District of East Windsor and Ellington. She is currently a member of the Public Health Committee, the Committee on Children, and the Energy and Technology Committee.

In Memory of …

Nancy Whitely, who passed away in December 2020. Nancy was a retired Vocational Rehabilitator Counselor for the State of CT, and a long-term member of the PRC’s Community Committee and the VITAHLs Working Group. We will miss her kind presence and her thoughtful input and ideas.

A New PRC Community Advisory Group Is Forming This Spring

The PRC is forming a Community Advisory Group (CAG) to complement our Community Committee and Research Teams in guiding the activities of our community-based projects to prevent chronic diseases. CAG members will provide advice and feedback to help us: (1) identify strategies to involve community members; (2) develop communication materials such as flyers and information sheets; (3) conduct outreach to recruit research study participants; (4) develop study materials such as surveys and forms; and (5) interpret and share our findings.

The CAG will include about 5 to 10 residents of New Haven, Ansonia, and Derby. We will consider residents of other Lower Naugatuck Valley communities as well. The time commitment will vary based on the project. Participation will be flexible based on members’ interest and availability. CAG members may expect to commit to no more than 5 hours a month, and will be paid $25 per hour. For more information, contact Sofia Morales, email sofia.morales@yale.edu.

Let’s Stay in Touch

To let us know what you are doing and how our research might assist you in your work, contact Beth Comerford, MS, PRC Co-Director at beth.comerford@yalegriffinprc.org.

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