

WHAT'S NEW AT THE YALE-GRIFFIN PREVENTION RESEARCH CENTER?

Updates on PRC Projects

- Application of the Program Impact Pathways Evaluation Framework to the PRC Core Research Project: Virtual Diabetes Prevention Program
- Barriers & Facilitators of COVID-19 Vaccine Confidence & Access
- Pilot Project: Evidence-Based Public Health Train-the-Trainer Model

Journal Club on June 30

Recently Funded Project

- Community-Based, Family-Centered Approach to Detecting and Managing Early Postpartum Hypertension

Project Findings

- Effects of Consuming Eggs in the Context of Plant-Based Diets

Grant Proposal

- Effects of Including Eggs in a Heart-Healthy Dietary Pattern

Article Review

- Applying an Antiracism Lens to Implementation Science Research

Other News & Announcements

Our PRC is a member of the CDC's [Prevention Research Centers](https://www.cdc.gov/preventionresearchcenters/) Program. For more information about our PRC, please visit our website at <https://yalegriffinprc.griffinhealth.org>.

MESSAGE FROM OUR LEADERSHIP TEAM

PRC Principal Investigator:
Rafael Pérez-Escamilla, PhD

PRC Co-Directors:
Kathleen O'Connor Duffany, PhD, MEd
Beth Comerford, MS

Incorporating Equity, Inclusion and Antiracism in Public Health Research

Communities of color across the United States are disproportionately impacted by a myriad of socio-economic challenges - individual, systemic and institutional - that are often rooted in racism. In 2021, the CDC declared systemic racism a fundamental driver of health inequity and as such, a serious public health threat. States, cities, towns, municipalities and other organizations across the nation – including CT and New Haven – have also declared racism a public health crisis – thereby committing themselves and their resources to address the impact of race on quality of life, health, and healthcare.

Health equity is when everyone has an opportunity to be as healthy as possible. We know that the social determinants of health – where we live, work, and play – have a profound influence on health. Achieving health equity will take the collaboration of many sectors of our communities working together to address barriers – such as poverty, poor housing, unsafe environments, and lack of access to good jobs, quality education, and high-quality health care – that lead to poor health outcomes.

What are WE doing? We consider this a journey as we, as individuals and as an organization, grow in our understanding of the ways in which racism is embedded in our culture, affecting so many people in so many ways, and how we contribute our part to ensure equity and inclusion in the work that we do. We're supporting learning at the individual level by identifying and supporting participation in workshops and trainings. *(Continued on page 7)*

CORE RESEARCH PROJECT

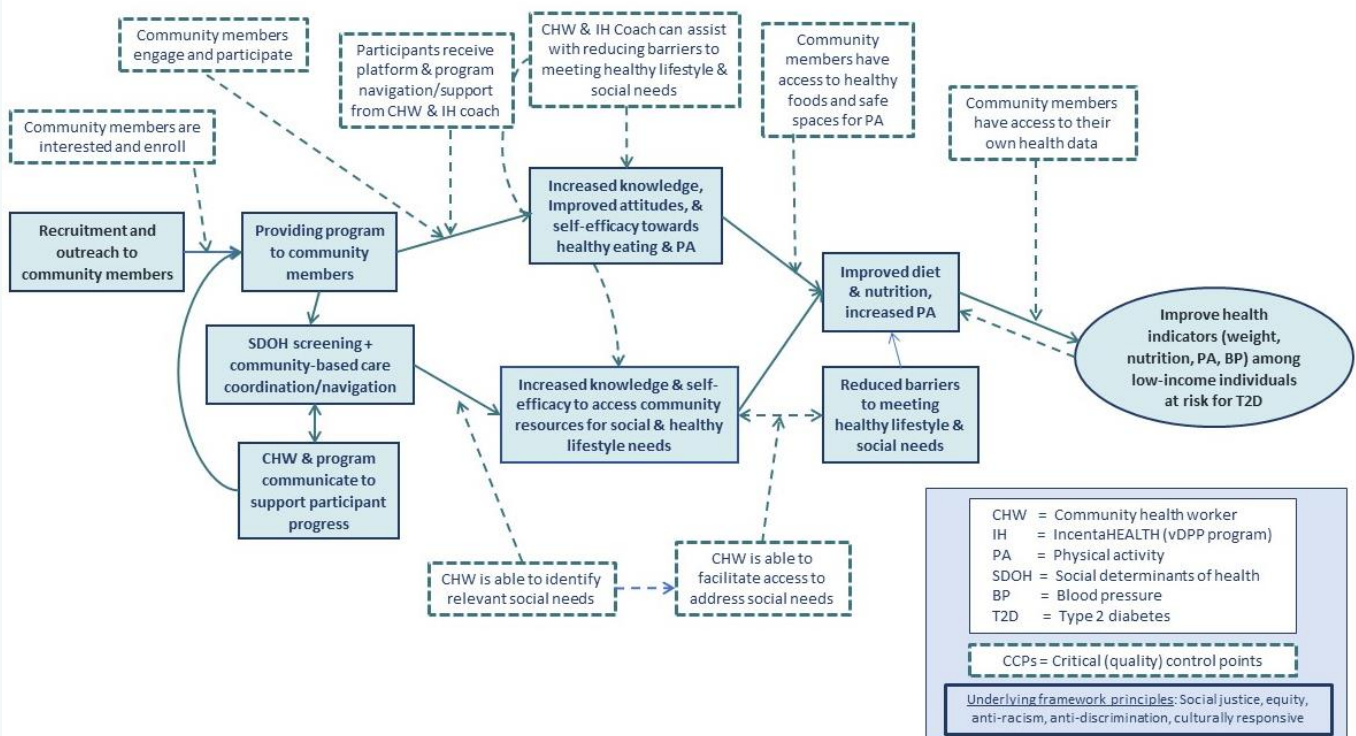
The Application of the Program Impact Pathways (PIP) Evaluation Framework to the Yale-Griffin PRC's Core Research Study

The PRC's 5-year core research project, [*Improving Health in Low Income Communities: Virtual Delivery of a Diabetes Prevention Program \(vDPP\) Facilitated by Community Care Coordination*](#), is assessing the feasibility and health impacts of a virtually-delivered Diabetes Prevention Program (vDPP) facilitated by community health workers (CHWs) to address various social determinants of health (SDOH) that could serve as barriers to program participation.

The study team is utilizing the Program Impact Pathways (PIP) framework as part of the process evaluation of the study intervention. This theory-driven, analytical framework allows the research team to assess and measure implementation processes, including determining the critical quality control points, program delivery bottlenecks, and program outputs.¹ Mapping out a PIP diagram facilitates the appraisal of causal connections that exist between intervention activities, outcomes, and impacts. The process of a PIP analysis is a collective one, involving all members of the research team, and is a process that is reiterated regularly.

Below is the latest version of the PIP diagram that has been developed for the vDPP research study. The research team looks forward to continuing the program evaluation work to further improve the effectiveness of and impact of the vDPP combined with CHW facilitation on study participants.

PIP Framework for the vDPP Study (Current Version as of May 2022)



¹ Pérez-Escamilla, R., Segura-Pérez, S., & Damio, G. (2014). Applying the Program Impact Pathways (PIP) Evaluation Framework to School-based Healthy Lifestyles Programs: Workshop Evaluation Manual. Food and Nutrition Bulletin, 35(3_suppl2), S97-S107. <https://doi.org/10.1177/15648265140353S202>

OTHER PRC PROJECTS

Understanding Barriers and Facilitators of COVID-19 Vaccine Confidence and Access among Black and Latinx Communities in Connecticut

In April 2021, CDC funded all 26 [Prevention Research Centers \(PRCs\)](#) to create the PRC Vaccine Confidence Network (PRC VCN), focused on increasing vaccine confidence and uptake. Our own PRC's efforts are focusing on New Haven and the Lower Naugatuck Valley, especially among Black/African-American and Hispanic/Latinx residents.

In collaboration with community partners, we conducted listening sessions and surveys with community residents and vaccine providers to understand their beliefs, perceptions, and perceived risks/benefits influencing vaccine confidence and to identify key barriers and facilitators to vaccine uptake. In each of the two communities, we then hosted a meeting with community agencies, health centers, and health departments working on COVID-19 prevention to discuss current activities, noted gaps and barriers. The Program Impact Pathways (PIP) framework was used in these meetings to identify strategies to address noted gaps and barriers in COVID-19 confidence and uptake in each of the two communities.

Findings from the community listening sessions, surveys, and PIP sessions informed the development of the following strategies:

- **Messaging toolkit:** To address input from our partners in the Lower Naugatuck Valley, a messaging campaign was developed using behavior change theories (Health Belief Model, Transtheoretical Model, and Diffusion of Innovation Theory) and evidence-based strategies (appropriate message frames, emotional appeals, and trusted messengers) to appeal to parents and guardians of children 5 to 11 years and youth 12-17 years. The messages emphasized the vaccine's rigorous testing, the millions who already received it, and its benefits (including protection for children, family, and loved ones; a reduced risk of spreading the virus if infected; and a return to pre-pandemic life).

The toolkit was disseminated to community partners in December, and then in February to include vaccine booster messaging.

Interviews and analyses took place in April/May to understand our partners' use of the toolkit and improve/refine the dissemination plan.

- **Outreach worker training curriculum:** In New Haven, our partners identified a need for a universal training with shared, standardized information, messages, and tools to avoid causing confusion with mixed messages. A team from the PRC and Community Alliance for Research & Engagement led the development of a training curriculum with modules on COVID-19, flu, health communications, and outreach worker strategies. Thus far, the training has been delivered to nine Vaccine Equity Fellows and 25 community outreach workers and coordinators.
- **Vaccine clinic and outreach collaboration tool:** Additionally, our COVID-19 partners identified a need for additional coordination of vaccination/mobile clinics and community outreach activities to address saturation in some neighborhoods and gaps and isolation in others. We developed a collaboration tool to gather and analyze clinical outreach data. This information is used to promote strategic planning/coordination across partnerships, with the aim of an equitable distribution and allocation of resources, especially among New Haven's six high-priority neighborhoods.



OTHER CURRENT PROJECTS

Pilot Project: Evidence-Based Public Health Train-the-Trainer Model

When planning public health programs, having evidence of their effectiveness can make all the difference between their success or failure.



Evidence can be used to provide a rationale for choosing or changing a course of action, or to justify the allocation of funding and other resources. Without evidence, planning decisions based on anecdotal or insufficient information can result in pitfalls, wasted resources, or negative side effects.

Evidence-based public health (EBPH) practice applies scientific reasoning, including data and behavioral science theory and program planning models to develop, implement, and evaluate effective programs and policies.



Examples of EBPH research include examining whether a controlled intervention delivered to a specific population can lead to expected outcomes, and measuring the extent to which an intervention succeeds in achieving its expected outcomes under “real world” circumstances.

In partnership with the National Association of Chronic Disease Directors, Ross Brownson, PhD and colleagues at the Washington University in St. Louis PRC are conducting a pilot project to improve EBPH decision making at the state and local levels by building the capacity of Prevention Research Centers (PRCs) to provide EBPH leadership and training.

This project uses a train-the-trainer model and provides a curriculum to better equip PRCs to collaborate with state health departments and public health training centers to strengthen EBPH decision-making skills among public health practitioners.



Dr. Brownson's team taught their EBPH course to future trainers associated with three PRCs (the Yale-Griffin PRC and the PRCs at the Colorado

School of Public Health and the University of Alabama at Birmingham). They established a PRC advisory group to examine the best ways to replicate and disseminate this course.

The three PRCs are replicating the course in partnership with health departments and public health training centers in their respective states. In CT, PRC Co-Director Kathleen O'Connor Duffany, PhD, MEd is facilitating the 10-module training course with Maurine Crouch, MPH, CHES, Program Manager in the Office of Public Health Practice at the Yale School of Public Health. Debbie Humphries, also from the Y-G PRC, is an instructor.

With strong engagement, a waitlist, and positive evaluation results, we hope to provide the training on a regular basis to give interested local and state health department employees the opportunity to enhance EBPH decision-making, connect a network of practitioners doing so, and link the PRC and our NEPHTC more closely with health departments to provide technical assistance as needed.

Journal Club

Wednesday, June 30 from 10:00 to 11:00 am

Article for discussion: Little M, Rosa E, Heasley C, et al. Promoting Healthy Food Access and Nutrition in Primary Care: A Systematic Scoping Review of Food Prescription Programs.



A free full text version of the Journal Club article is available [here](#). For questions, or to receive a Zoom meeting invitation, contact Rocky Ayettey at rockiy.ayettey@yalegriffinprc.org.

NOTE: See below for another article of potential interest that we won't have the time to discuss on June 30:

Bryce R, Wolfson Bryce JA, Cohen Bryce A, et al. A Pilot Randomized Controlled Trial of a Fruit and Vegetable Prescription Program at a Federally Qualified Health Center in Low Income Uncontrolled Diabetics.

You can access this article [here](#).

RECENTLY-FUNDED PROJECT

Community-Based, Family-Centered, Trauma-Informed Approach to Timely Detection and Management of Early Postpartum Hypertension



In March, the Yale School of Public Health and the Yale School of Medicine received a \$20.4 million funding award from the Patient-Centered Outcomes Research Institute (PCORI) for a 5-year multi-state study to improve health outcomes for high-risk postpartum women experiencing health inequities.

Each year in the U.S., 700 women die from pregnancy-related complications, yet 60% of these deaths could be prevented. According to the CDC, Black women are more likely to die during pregnancy or childbirth than any other demographic. In addition, poor blood pressure control during pregnancy and postpartum is a major cause of maternal morbidity, particularly among Black women. Social determinants of health (SDOH) such as poverty, lower education, lack of a partner, racism, stress, and lack of access to health care contribute to their risk of morbidity and mortality.

This project will examine the impact of two community-based healthcare delivery models focusing on early detection and control of postpartum hypertension and social and mental health factors known to impact maternal outcomes.

Both models will combine standard of care with home blood pressure monitoring and treatment, 6 weekly virtual visits with a healthcare provider, and screening/referral for SDOH and anxiety/depression. One model will be further enhanced by engaging community doulas or community health workers trained in a strength-based trauma approach. The primary goal is to improve clinical outcomes, including mental health outcomes, by increasing awareness, detection, and timely care of postpartum hypertension, mental health, and cardiovascular complications.

Yale-Griffin PRC PI, Rafael Pérez-Escamilla, PhD, Professor of Public Health in Social and Behavioral Sciences and Heather Lipkind, MD, Associate Professor of Obstetrics, Gynecology, and Reproductive Sciences will serve as the lead investigators on this project. Natasha Ray, MS, Director of New Haven Healthy Start, will serve as the project's senior community engagement leader. A team of Yale researchers, including PRC Co-Director Kathleen O'Connor Duffany, PhD, will collaborate with Yale New Haven Hospital, community partners, and two regional hospitals (John R. Oishei Children's Hospital of Buffalo, N.Y. and UMass Memorial Medical Center in Worcester, MA).

While the Yale-Griffin PRC is not a direct recipient of this funding, the PRC will play a role in intervention evaluation, advising on community engaged approaches, and overseeing students' public health practice projects linked to this study.

PROJECT FINDINGS

EFFECTS OF CONSUMING EGGS

IN THE CONTEXT OF PLANT-BASED DIETS ON ENDOTHELIAL FUNCTION AND CARDIO-METABOLIC FACTORS IN ADULTS AT RISK FOR DIABETES

PURPOSE OF THIS STUDY

People at risk for type 2 diabetes have a higher risk of cardiovascular disease. They're often advised to follow plant-based diets to reduce these risks. However, exclusively plant-based diets can be low in certain nutrients. This study compared the effects of a plant-based diet versus one combined with eggs. Eggs have high-quality protein and other nutrients that can be low in plant-based diets. Eggs are also high in cholesterol, but research shows that cholesterol in foods might be less likely to raise blood cholesterol than previously thought.

WHAT TOOK PLACE

35 ADULTS at risk for type 2 diabetes followed 2 versions of a plant-based diet in randomly assigned order for 6 weeks each

Plant-based only **VS.** Plant-based plus 2 eggs per day

WHAT WE MEASURED



- Endothelial function (how well blood flows through vessels)
- Blood pressure • Cholesterol
- Triglycerides • Glucose
- Insulin sensitivity • Weight
- Body mass index • Percent body fat
- Waist circumference
- Diet quality



WHAT WE FOUND

- In these adults, adding 2 eggs daily to a plant-based diet resulted in:
- No adverse effects on cardiovascular risk measures or blood glucose control
 - Higher intake of 2 nutrients (selenium and choline)
 - A small increase in % body fat
 - No increase in body weight

BASED ON THE RESULTS OF THIS STUDY:

Eggs could **potentially enhance** the quality of plant-based diets consumed by adults at risk for type 2 diabetes **without increasing** their cardiovascular disease risk or their blood glucose. A larger study is needed to confirm our findings.

Funding provided by: [The American Egg Board/Egg Nutrition Center](#)

Study findings published in: [The Journal of Nutrition](#), December 2021

For more information: Contact Valentine Njike, MD, MPH, email Valentine.Njike@yalegriffinprc.org.

Equity, Inclusion and Antiracism

(continued from page 1) These have included *Owch! That Stereotype Hurts* offered by the Equity and Inclusion Center; *The Groundwater Approach – A Racial Equity Institute Workshop* offered by the Valley Community Foundation; and the *21-Day Racial Equity Habit Building Challenge* offered by Food Solutions New England Sustainability Institute.

For our first Book Club, we selected *Caste* by Isabel Wilkerson. For our Journal Club, we selected *Application of an Anti-racism Lens in the Field of Implementation Science: Recommendations for Reframing Implementation Research with a Focus on Justice and Racial Equity* (see review of this article on page 8), to help guide integration of equity, inclusion and antiracism in our work.

At the national level, Beth Comerford and Kathleen O'Connor Duffany participate in the PRC Network anti-racism working group formed in 2020 to collectively address systemic

racism, both internally and externally. Group members have identified 6 main areas of focus: anti-racism and PRC culture; anti-racism and community; evaluating anti-racism research; SIPS and anti-racism; defining anti-racism; and creating an anti-racism repository to house our work. The working group will provide resources and tools, including workshops to raise awareness and provide training and networking to build community and accountability among the PRCs.

We are also partnering with Wholesome Wave to develop a fidelity, equity, and dignity (FED) framework for developing person-centered produce prescription programming as well as tools to reflect on their internal equity work as an organization.

As a PRC and as individuals, we are committed to focusing of equity, inclusion, and anti-racism in our work. We welcome you to join us on our journey.

GRANT PROPOSAL

Effects of Daily Inclusion of Eggs in a Heart-Healthy Dietary Pattern on Endothelial Function, Cardio-Metabolic Risk Factors and Diet Quality

In January, we submitted a letter of intent (LOI) to the American Egg Board/Egg Nutrition Center to propose a follow-up study to our recently-completed plant-based diet study. The proposed study is designed to assess the effects of eating eggs in the context of the Dietary Approach to Stop Hypertension (DASH) diet. The DASH diet features vegetables, fruits, low-fat dairy products, whole grains, fish, and poultry. It is recommended by the American Heart Association and [tied for first place](#) in U.S. News & World Report's Best Heart-Healthy Diets.

The DASH diet does include eggs, but limits intake of egg yolks to 4 per week due to their cholesterol content. However, recent studies lack sufficient evidence of the impact of dietary cholesterol on blood cholesterol levels and cardiovascular disease (CVD) risk.

Eggs are rich in vitamins, minerals and protein. They're also satiating and could help people to regulate their calorie intake.



Based on our LOI, we were invited to submit a full proposal in March. We plan to examine the impact of eating 2 eggs per day as part of the DASH diet on health measures and diet quality in 45 overweight adults with high blood cholesterol. They will follow 2 variations of the DASH diet (including or excluding eggs) for 8 weeks each. We'll compare the effects of both dietary variations on measures of cardiometabolic risk and on diet quality.

ARTICLE REVIEW:

Applying an Antiracism Lens to Implementation Science Research

Sofia I. Morales, MPH, CPH



Implementation Science (IS) is a fairly new field of study that promotes the translation of research in evidence-based practices to improve the quality and effectiveness of healthcare services.^{1,2} Although IS shares much of the rigor of clinical research, its focus typically extends beyond the individual or patient level to also consider the community, organizational, and policy levels of healthcare.² As such, this field is well-poised to consider the impacts of systems on health outcomes.

However, in a [recently-published article](#), Rachel Shelton et al.³ contend that the core methods and frameworks commonly applied in IS have lacked the flexibility to explore beyond traditional boundaries of the healthcare system to work across other convergent systems such as housing, schooling, and employment. The authors explain how in the past, IS has often fallen short in overtly and explicitly considering equity, social justice, and the role of structural racism in shaping health outcomes and the inequitable delivery of evidence-based practices and programs.

Shelton and colleagues illustrate how applying an anti-racism approach to IS can help enhance its contributions to health promotion and health equity research. They explain the role/impact of racism as a fundamental driver of racial health inequities, outline gaps in and opportunities for applying IS to address structural racism, and then offer actionable guidance for achieving this aim.

The authors advise researchers to apply an antiracism lens to the following core elements of IS: (1) engaging stakeholders; (2) establishing conceptual frameworks and models; (3) developing, selecting, and/or adapting evidence-based interventions; (4) considering evaluation approaches; and (5) selecting implementation strategies. Their specific recommendations for applying an antiracism lens are compiled in a useful [table](#) that provides historical context, considerations, and key questions for reflection.

Their article ends on a hopeful note, with information about active efforts currently underway at the National Institutes of Health (NIH), and funding opportunities to examine the role of structural racism on health. Similarly, the Centers for Disease Control and Prevention (CDC) has vocalized a commitment to address racism as an obstacle to health equity.³ Although extensive work remains for the IS field to truly incorporate antiracism practices in the IS field, we're starting to move the needle in the right direction.

References

1. Bauer, M. S., Damschroder, L., Hagedorn, H., Smith, J., & Kilbourne, A. M. (2015). An introduction to implementation science for the non-specialist. *BMC psychology*, 3(1), 32.
2. Bauer, M. S., & Kirchner, J. (2020). Implementation science: What is it and why should I care?. *Psychiatry Research*, 283, 112376.
3. Shelton, R. C., Adsul, P., Oh, A., Moise, N., & Griffith, D. M. (2021). Application of an antiracism lens in the field of implementation science (IS): Recommendations for reframing implementation research with a focus on justice and racial equity. *Implementation Research and Practice*. <https://doi.org/10.1177/26334895211049482>
4. Centers for Disease Control and Prevention (CDC). (2021, November 24). Racism and Health. Minority Health and Health Equity. Retrieved April 6, 2022, from <https://www.cdc.gov/healthequity/racism-disparities/index.html>

OTHER NEWS AND ANNOUNCEMENTS

Welcome!

YALE-GRIFFIN PRC STAFF



Allison Beaulieu, MPH joined the PRC and CARE teams in November as the PRC COVID-19 Supplement Program Manager, Research & Evaluation. She has prior experience in managing and implementing teen pregnancy prevention programs and managing a telephone support program to improve maternal and child health outcomes.



Becky Ryan, BA, RVT joined the PRC team in November as the sonographer for our cardiovascular research projects.

COMMUNITY HEALTH WORKERS (CHWs) – vDPP PROJECT

- **Haydee Hernandez** of Project Access New Haven serves as our New Haven-based CHW.
- **Maria Orta** of Griffin Hospital's Department of Community Outreach and Population Health serves as our Valley-based CHW.

MEDICAL RESIDENTS, PUBLIC HEALTH INTERNS, AND VOLUNTEERS

- **Arion Mete, BS**, an MPH candidate in Chronic Disease Epidemiology at the Yale School of Public Health, is assisting on the Naugatuck Valley's Community Health Improvement Project and on projects for Griffin Hospital's Department of Community Outreach and Population Health.
- **Summaya Multany, MBBS**, is volunteering on various projects including assisting with recruitment efforts for our vDPP project and with dietary analyses for other studies.
- **Selva Lakshmi Rathinavelu, MBBS**, a Preventive Medicine Resident at Griffin Hospital, is assisting with recruitment efforts for our vDPP project.
- **Noelle Serino, BA**, an MPH candidate in Social & Behavioral Sciences at the Yale School of Public Health, is coordinating administrative efforts related to the PRC's Community Advisory Group.
- Congratulations to **Jessica Ainooson** and **Beatriz Duran-Becerra**, who worked on our COVID-19 vaccine supplement project, on receiving their MPH degrees from the Yale School of Public Health.

Goodbye to....

Karen Spargo, retired Director of the Naugatuck Valley Health District, who served as Co-Chair of our PRC Community Committee, and most recently served on the national PRC Community Committee. We wish Karen and her husband all the best in their move to MA and next chapter in their lives!

LET'S STAY IN TOUCH

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

This **Newsflash** is a product of a Health Promotion and Disease Prevention Research Center supported by Cooperative Agreement Number 5 U48DP006380 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors, and do not necessarily represent the official views of the Centers for Disease Control and Prevention of the Department of Health and Human Services.

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