**A Resolution Proposed for The Board of Aldermen & Alderwomen
City of Derby, CT**

<u>Regarding</u>

*PROSPER: A Collaboration Between the City and Health Professionals to Equitably Reduce the Burden of Brain and Heart Disease*

Prepared on Behalf of The PROSPER team by:
Walter N. Kernan, MD
Emeritus Professor of Medicine
Yale School of Medicine
August 29, 2023

Index

| Item | Page |
|------|------|
| Executive Summary of PROSPER | 2 |
| PROSPER Team Roster | 2 |
| PROSPER abstract | 3 |
| Resolution | 4 |

# Executive Summary

Brain and heart disease are the leading causes of death and disability in the US. Both can be prevented by controlling eight risk factors. High blood pressure is the most important, but others include physical inactivity, cigarette smoking, excess weight, poor diet quality, and high cholesterol. Effective methods are available to control each of these risk factors in everyone who has them, but these methods are not reaching those who need them most. Because unmanaged cardiovascular risk disproportionately affects persons who are socioeconomically stressed, it is an important driver of health inequity. PROSPER was initiated by physicians at Yale School of Medicine who are deeply committed to preventing brain and heart disease by doubling down on efforts to help more adults in every community control their risk factors. PROSPER will combine the expertise of civic leaders, community residents, medical scientists, public health officials, technology experts, business leaders, and marketing executives to design a modern, public-facing program that can reach every possible resident living in a defined area to help them know and control their risk factors. PROSPER will first focus on hypertension. Later, it will expand to other risks like inactivity and cigarette smoking. If successful, we estimate that PROSPER could reduce health inequity and prevent up to 80% of cases of heart attack, stroke, and dementia.

We now seek support from the Derby Board of Aldermen & Alderwomen to proceed with the PROSPER project in the City of Derby. Derby would serve as the vanguard city for PROSPER, helping to develop the PROSPER program for future testing and dissemination to other cities and towns. PROSPER would benefit the health of Derby residents while making it a model for the state and nation.

| PROSPER Team* as of 8/24/2023 | | | | |
|---|---|---|---|---|
| **Member** | **Affiliation** | | **Member** | **Affiliation** |
| Carissa Caserta, MPH | NVHD | | Walt Mayhew | City of Derby |
| Sharon Closius | VCF | | David Morgan | TEAM, Inc. |
| Beth Comerford, MS | Yale-Griffin PRC | | Monica Oris, RN | Griffin Health |
| Richard Dziekan | City of Derby | | Bill Purcell | GV Chamber of C. |
| Adam de Havenon, MD | Yale Neurology | | Roger Salway | City of Derby |
| Rachel Forman, MD | Yale Neurology | | Daniel Sarpong, PhD | Yale Health Equity |
| Walter Kernan, MD | Yale Medicine | | Richa Sharma, MD | Yale Neurology |
| Dana Lee | Medical Student | | Kevin Sheth, MD | Yale Neurology |
| Yuan Lu, ScD | Yale Biostatistics | | Erica Spatz, MD | Yale Cardiology |
| *All persons listed have learned about the PROSPER project and expressed support. Each is a potential member of the management board that will be assembled to finalize the details of the project and oversee its implementation and growth. | | | | |

# PROSPER Abstract

## *A Collaboration Between the City of Derby and Health Professionals to Equitably Reduce the Burden of Brain and Heart Disease*

**Purpose:** We seek to collaborate with communities to reduce the burden of brain and heart disease by improving the control of risk factors. We will start with the most common risk factor, high blood pressure. At the current first phase of project, we seek to collaborate with leaders and residents of one community or city to refine a risk factor improvement strategy that can be adopted by other communities across the US.

**Background:** Cardiovascular disease (CVD) affects arteries that supply blood to the brain, heart, skeletal muscle, and other organs. It is the leading cause of heart attack, stroke and death in the US and an important cause of dementia. CVD disproportionately affects persons who are socioeconomically marginalized. Because CVD is a major driver of death, disability, and health inequality, prevention is a public health priority.

CVD is almost entirely preventable by addressing eight risk factors: high blood pressure, poor-quality diet, physical inactivity, nicotine use, poor sleep quality, excess weight, high cholesterol, and diabetes. Preventive care, however, is not reaching all people at risk. This gap between what can be done and what is done is called the prevention gap. As an example, 50 million US adults have hypertension, but only 25 million (50%) are controlled. Most adults do not have a healthy diet, 40% are overweight or obese, 25% are physically inactive, and 12% smoke cigarettes.

Efforts to close the prevention gap have focused on patients in healthcare organizations. While these efforts have met with some success, they do not reach large numbers of people who do not regularly see a primary care provider or do not have health insurance. Because most risk factor for CVD do not cause symptoms, furthermore, patients are often unaware or unconcerned until it is too late.

**Our Proposed Strategy:** To improve CVD prevention, we propose a multi-component strategy that combines public health and clinical services to overcome community-level and individual-level barriers to risk factor detection and control. We will seek to change the health of entire geopolitical populations (e.g., cities) not just persons who already see a medical provider. To achieve our purpose, we will collaborate with community organizations, civic leaders, residents, and public health leaders to design risk factor detection and control strategies that meet local needs, conditions, and community preferences. We and our partners will consider resources that have emerged from research on behavior change, chronic disease care, social network theory, health technology, and community engagement. We will work alongside, but not within, local healthcare organizations. We will start with hypertension, the most common risk factor for CVD.

**Funding:** We have received seed funds from the McCance Center for Brain Health at Harvard and the Yale Center for Brain and Mind Health. We will seek further funding from other government and private foundations to cover costs for the project.

**Why Derby:** We believe Derby, CT would be an ideal vanguard city for a community-clinic collaboration in hypertension because of its population size and diversity. Derby has about 12,300 citizens; 20% are 65 years of age or older, 30% are people of color, and 30% are low income. This population size is small enough that an effective multicomponent strategy could be developed and applied at a reasonable start-up cost. However, it is also large enough to be an adequate test of the strategy. Extrapolating from US national data, we estimate that the prevalence of hypertension is 40% among Derby residents 50-64 years of age and 60% among residents over age 65 years of age. Another advantage of Derby for this collaboration is that it is situated near two medical centers, Griffin Health, and Yale-New Haven Health. Both have outpatient clinics that can potentially provide the infrastructure for the clinical aspect of this initiative.

**Summary:** We propose to partner with Derby leaders to create a strategy for high blood pressure detection and control that will be adopted across the US, and which can be expanded to incorporate other risk factors.

**Resolution No.** _____

**Resolution Expressing Support for A Collaboration Between the City of Derby and a Consortium of City Residents, Local Non-Profit Human Services Organizations, Businesses, and Researchers from Yale School of Medicine for the Purpose of Equitably Preventing Brain and Heart Disease.**

WHEREAS, the City of Derby desires to collaborate with health care providers, health researchers, non-profit health care organizations, human services agencies, regional health departments, and other civic organizations to reduce the burden of brain and heart disease among its residents and promote health equity.

NOW, THEREFORE, BE IT RESOLVED by the City Board of Aldermen and Alderwomen of the City of Derby, Connecticut as follows:

1. That the proposal by the PROSPER team, led by researchers from Yale School of Medicine and in collaboration with the Yale-Griffin Prevention Center, to initiate a collaboration between the city of Derby and health professionals (plus other local business, civic, health and human services entities) to equitably reduce the burden of brain and heart disease is hereby approved.
2. That Richard Dziekan, the Mayor for the City of Derby, or his successor and his staff are authorized to assist and advise the PROSPER team to assure the project evolves in the best interest of the city and its residents so long as the assistance and advice does not place any cost or administrative burden on the city.
3. That the PROSPER team or its leadership/advisory committee of Derby leaders, civic leaders, health officials, and residents may, at the discretion of the mayor, hold committee meetings in facilities owned by the city, including City Hall. These meetings, however, may not be scheduled or conducted to interfere with regular city business.
4. That Dr. Walter Kernan or his successor as leader of the PROSPER team, shall submit to the Board of Aldermen and Alderwomen, a progress report no less than once a year.

Passed and Adopted by the Board of Aldermen and Alderwomen on this _____ day of _____ 2023.

CITY OF Derby

By: _____ [name of chair of Board of Aldermen and Alderwomen)

ATTEST:_____

By: _____ [name]

Its City Clerk