



EXECUTIVE SUMMARY



Virginia Diabetes Primary Prevention Project

PROJECT OVERVIEW

The Diabetes Primary Prevention (DPP) Project was a partnership between the Centers for Disease Control and Prevention (CDC) Division of Diabetes Translation, the Chronic Disease Directors Association (CDD), and six state grant-recipient health departments – in Kansas, Massachusetts, Michigan, Minnesota, North Carolina, and Virginia.

The overarching goal of this project was to determine effective ways to develop successful state-level programs for preventing type 2 diabetes among people with prediabetes¹ or those at high risk. Each of the six grant-recipient states assembled teams of individuals with expertise and experience relevant to this goal. These teams collaborated to accomplish the two key elements of the DPP project providing recommendations in response to questions articulated by the funders (see sidebar), and evaluating the collaborative process used to arrive at these recommendations.


In Virginia, a DPP Task Team was the core group that completed these tasks, working together from April to September 2004. This group – which was composed of prevention partners both inside and outside the Virginia Department of Health (VDH) – operated as a multidisciplinary “think tank” that was charged with suggesting innovative, empirically sound responses to the DPP questions. Five focus groups also provided input. Participants in these groups were clinicians, health insurance company representatives, high-risk individuals, professionals who work with or on behalf of children and youth, and members of VDH senior leadership.

The pages that follow provide background information for this project, additional information about the project’s execution, and an overview of the key outcomes, recommendations, conclusions, and next steps.

DPP Grant Questions

- What are appropriate DPP objectives for health departments?
- Who are the key partners inside and outside the health department, and what should be their roles?
- What are new opportunities for influencing high-risk people to make needed lifestyle changes?
- What policy changes are needed?
- What strategies will encourage partners within the health department to collaborate?
- What are effective processes for ensuring collaboration?
- What are strategies for health departments to build community partnerships?
- What resources are needed for DPP?
- What are the data collection needs?
- What are expected benchmarks for and outcomes of DPP initiatives?

¹ Glucose levels that, although not meeting criteria for diabetes, are nevertheless too high to be considered normal. Defined as fasting plasma glucose (FPG) levels of 100-125 mg/dl (5.6-6.9 mmol/l) or 2-h postload glucose 140-199 mg/dl (7.8-11.1 mmol/l). Source: Diabetes Care. 2004 Jan;27 Suppl 1:S5-S10.



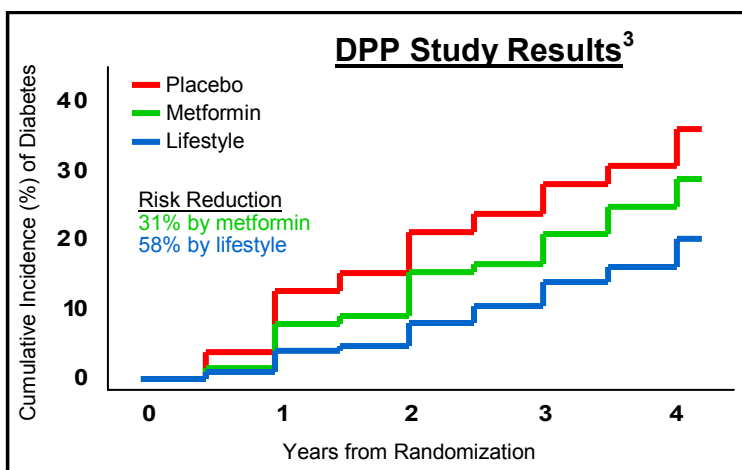
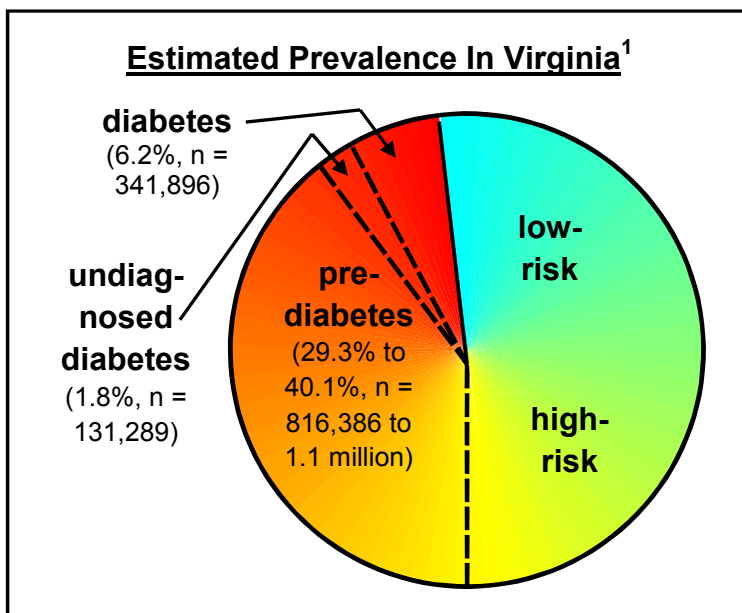
BACKGROUND

Prevalence of type 2 diabetes. Now the sixth leading cause of death in America, diabetes is responsible for over 200,000 deaths each year. The number of U.S. adults with diagnosed diabetes has increased 61% since 1991 and is projected to more than double by 2050. In addition to the millions of Americans with diabetes, an estimated 41 million U.S. adults aged 40-74 have prediabetes – that is, their blood sugar level is elevated but is not high enough to be classified as diabetes.² Statistics in Virginia parallel those at the national level (see graph).

Science of prevention. Before people develop type 2 diabetes, they almost always have prediabetes. Scientific evidence indicates the progression from prediabetes to diabetes can be prevented or delayed. In 2001, results from a landmark clinical trial, the U.S. Diabetes Prevention Program (DPP), demonstrated that sustained lifestyle changes that included modest weight loss and physical activity reduced the incidence of diabetes by 58% (see graph).

Similar risk factors. Some of the key risk factors for type 2 diabetes include overweight/obesity, physical inactivity, high blood pressure, and abnormal lipids (HDL/triglycerides). Note the overlap between these and the risk factors for other chronic diseases such as cardiovascular disease, arthritis, and certain cancers. The same kinds of lifestyle changes that were found effective in the DPP Study are recommended for the prevention of other chronic diseases.

Need for collaboration. The CDC is increasingly concerned about using a “silos” approach to chronic disease prevention, in which projects with similar goals are funded separately and work independently from one another. Many view this as an inefficient process in which efforts are being duplicated and resources are not being effectively shared and utilized.



¹ Diabetes in Virginia: 6.2% of adults age 18+, n = 341,896 (Source: Virginia BRFSS, 2002). Undiagnosed diabetes in Virginia: 1.8% of population, n = 131,289 (Source: NHANES, 2003 & CDC National Estimates on Diabetes, 2003; Center for Health Statistics – VA Population Estimates, 2002). Pre-diabetes in Virginia (**100-126 mg/dl IFG**): 29.3% to 40.1% of adults ages 40-74, n = 816,386 to 1.1 million (Source: Synthetic estimates based on 2002 U.S. Population Estimates, CDC National Estimates on Diabetes, VA Population Estimates, 2002, NHANES, 2003).

² CDC, *National Diabetes Fact Sheet, United States, 2003*.

³ The DPP Research Group, NEJM 346:393-403, 2002. Placebo: n=1082. Metformin: n=1073, p<0.001 vs. Placebo. Lifestyle: n=1079, p<0.001 vs. Metformin, p<0.001 vs. Placebo.

PROJECT EXECUTION

Sept 2003: Hired project consultants. Kicked-off project coordination with funders and other grant recipient states.

Oct 2003: Began Task Team selection process.

Jan 2004: Began Task Team recruiting process.

Mar 2004: Held orientation for Task Team recruits.

April-Sept 2004: Held five full-day Task Team meetings to plan the group's work, discuss recommendations, dialogue about collaboration, and provide feedback on the team's collaborative process.

Aug 2004: Focus groups were conducted.

June-Oct 2004: Recommendations from the Task Team and focus groups were sorted, analyzed, and compared.

Nov 2004: Final report was submitted to funders.

The timeline at left outlines the main steps in the Virginia DPP Project.

The DPP Task Team was central to the project. Members of this team included VDH staff from state and local offices across Virginia, and other stakeholders with an interest in the prevention of diabetes or its modifiable risk factors. (See back page for a list of Task Team participants.) Task Team working sessions were structured to allow creative dialogue among these partners, many of whom don't typically have opportunities to interact with one another.

RECOMMENDATIONS & OUTCOMES

Recommendations. In response to the grant questions, a comprehensive report was generated that compiled and compared the recommendations of the Task Team and five focus groups. A summary of main areas discussed and key recommendations within those areas is provided below. A complete report of responses and recommendations from the project is available from VDH.

Partners, Roles, and Collaboration – The importance of collaboration both within and beyond VDH was stressed, as was the need for good leadership for collaborative efforts.

- **Leadership and support.** VDH should, at both state and local levels, provide leadership, support, and coordination for partners working on diabetes prevention efforts in Virginia. This requires resources and buy-in from senior leaders in the health department.
- **Collaboration in VDH.** Fostering collaboration among key partners within VDH should be a high priority. A dedicated process is needed for systematic collaboration to occur, beginning with a thorough assessment of barriers to collaboration and a plan for how to address them.
- **Broad collaboration.** Relevant partners who promote risk reduction related to diabetes prevention should be identified and included – including “priority” partners currently working on diabetes prevention, as well as new and nontraditional partners. When working collaboratively, role and goal clarification are critical, as is attention to creating buy-in among partners.

Needed Resources and Data – Adequate, appropriate, and wisely-invested resources were emphasized as essential for the prevention of diabetes and other chronic diseases.

- **Better Surveillance.** Invest in and improve surveillance systems to allow: (1) A more complete picture of the extent of risk factors / behaviors in Virginia that lead to type 2 diabetes and other chronic diseases. (2) Measurement of prevention outcomes. (3) Cost-benefit analyses that demonstrate the value of prevention efforts.
- **Investments.** Virginia, at the state and local levels, must invest in preventing diabetes and other chronic diseases through funding, staff, data, research and training. Federal funding alone will not reduce the impact and cost of diabetes and other chronic diseases in Virginia.



Approaches to Prevention – Many specific recommendations were made regarding the “who,” “where,” and “how” of prevention. Key themes among the recommendations are listed below.

- **Targeted groups (“who”).** Two complementary strategies underlie the recommendations: (1) Translate the DPP Study findings by targeting high-risk and pre-diabetes populations. (2) Use approaches that target the whole person regardless of current risk, with an emphasis on beginning prevention at an early age.
- **Intervention sites (“where”).** Top priorities for where to target interventions included: communities with high-risk populations, schools, workplaces, and the health care setting.
- **Prevention strategies (“how”).** Top strategies for influencing target audiences include:
 - Communicate two key messages: (1) Type 2 diabetes *can be prevented* among populations with pre-diabetes. (2) Healthy behaviors can prevent or delay many chronic diseases if consistently embraced and integrated into our lives and society.
 - Use effective messages that are tailored to the audience – e.g., culturally and linguistically appropriate, appropriate for people with disabilities, and relevant to degree of readiness for change.
 - Increase access to prevention information, support, facilities, and services.
 - Create incentives for healthy behaviors, and for businesses, insurers, healthcare providers, and other prevention partners to support these behaviors.
 - Address gaps in health policies relating to prevention of chronic diseases.

DPP Project process outcomes. Project evaluation results indicated that participation in the DPP Project increased knowledge and motivation regarding diabetes prevention and collaboration, helped participants build collaborative relationships, and provided opportunities for the initiation of other collaborative projects.

NEXT STEPS

Recommendations from the Virginia DPP Project are being combined with those from the other states and examined by CDD/CDC for implications for national planning and policy. Further, CDD plans to prepare a position paper on collaborating across programmatic boundaries, and a manuscript about the DPP Project and its results will be submitted to a peer-reviewed journal. In Virginia, VDH is examining the project recommendations to determine its most critical next steps toward diabetes primary prevention and collaboration for the prevention of chronic diseases.

Thanks go to the following individuals who contributed to the completion of the DPP Project in Virginia: **DPP Task Team:** Virginia Department of Health: Cindi Beadle, Joanne Boise, Sue Cantrell, Joan Corder-Mabe, Ann Forburger, India Foy, Stephanie Mayes Gruss, Rod Hyner, Mary Johnson, Pamela Lane, Charlene Learner, Charles Lee, Heather Miller, Barbara Mueller, Anna Pratt, Ramona Dawn Schaeffer, Donna Seward, Shawna Shields, Sue Whittaker. American Diabetes Association: Crystal Jackson. American Heart Association: Cathleen Smith Grzesiek. Boat People SOS: Pharia Le. Department of Medical Assistance Services: Deborah Harris. McGuire Diabetes Health Center: Evan Sisson. Prospect Empowering Center: Rev. Walter Johnson. CJW Diabetes Care Center: Amy Solaja. Ukrops: Tim Robertson. University of Virginia: Terry Saunders. VCU Health System: Pat Selig. Virginia Primary Care Association: Neal Graham. **Task Team Selection:** Kim Crawford, Ann Forburger, India Foy, Jim Martin, Barbara Mueller, Ramona Dawn Schaeffer. **Project Consultants:** Kim Crawford, Elaine Kiziah. **Virginia DPCP Director:** Ann Forburger. Thanks also to the members of the anonymous DPP Project focus groups, the DPP Project staff and consultants at the CDD and CDC, and the DPP Project staff of the other grant-recipient states.

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