

Changes in the National Diabetes Prevention Program Present Opportunities for Registered Dietitian Nutritionists to Reduce the Prevalence of Diabetes

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THE DIAGNOSIS OF TYPE 2 DIABETES MELLITUS IS often preceded by prediabetes, a stage during which blood glucose levels are greater than normal but not yet high enough to be diagnostic of diabetes.¹ About 84 million people in the United States have prediabetes; a number equivalent to approximately one in three adults.¹ Without intervention, an unknown, but likely significant proportion of these people will develop type 2 diabetes. However, the progression from prediabetes to type 2 diabetes is not inevitable and can be interrupted with diabetes prevention programs (DPPs) comprising low-cost, structured lifestyle change interventions including improved eating habits and increased physical activity.² Participation in one DPP has reduced the incidence of type 2 diabetes by almost 60%.²

In a landmark foray into disease prevention, the Centers for Medicare and Medicaid Services (CMS) will, beginning in 2018, cover the costs of DPPs for eligible Medicare beneficiaries.³ Expanding coverage for diabetes prevention complements the medical nutrition therapy (MNT) benefit for type 1 and type 2 diabetes, which the CMS and other insurers have offered since 2002.⁴ Although registered dietitian nutritionists (RDNs) have been an important part of DPPs since their inception, expanding coverage of DPPs for Medicare recipients presents further opportunities for patients to access RDN services.² Therefore, RDNs—whether or not they are certified as diabetes educators—who work in public health, wellness, diabetes care, weight management, and clinical nutrition management can extend their chronic disease prevention activities to a previously underserved

population, helping to reduce a major threat to public health.

THE NATIONAL DIABETES PREVENTION PROGRAM

The Centers for Disease Control and Prevention developed the National Diabetes Prevention Program (National DPP), including detailed curricula, outcomes measures, and position descriptions.⁵ The National DPP is based on the results of studies that depended heavily on registered dietitians to develop and implement a program comprising frequent contact and ongoing, individualized intervention to achieve predetermined goals.⁶ In 2001, masters-prepared dietitians in Finland delivered lifestyle programs that resulted in a 58% reduction in new-onset type 2 diabetes among patients with prediabetes.^{7,8} In the United States, dietitians, hired as health coaches in 27 centers, delivered similar lifestyle change programs and obtained almost identical results, again reducing the percentage of persons whose prediabetes converted to diabetes by 58% relative to placebo in comparison with a 31% relative reduction in diabetes with the drug of choice, metformin.² A recent meta-analysis suggests that RDNs are more consistent than other professionals in assisting patients to achieve the goals of the DPP.⁹ In an ongoing study, investigators have found a 34% reduction in diabetes 10 years after persons with prediabetes completed a DPP, whereas the incidence of diabetes was reduced by 18% among those who took metformin during the same period.¹⁰ The American Medical Association and the National Young Men's Christian Association (YMCA) have used the evidence-based National DPP to successfully extend diabetes prevention efforts among physician practices and in the community.¹¹

These year-long DPPs consist of 16 weekly sessions delivered over 6 months, followed by six monthly sessions delivered over another 6 months.¹² Five of the first 16 sessions cover healthy eating topics, and the remaining 11 sessions cover activity and other lifestyle changes.¹² The program standards for the National DPP specify the topics for the first 6 months of the program, but during the second 6 months, the instructor may select from a list that includes six healthy eating topics and nine other topics to tailor program content to the needs and interests of the participants.¹² Thus the minimum amount of time spent on healthy eating may be 20% of the sessions. If the maximum number of healthy eating topics is selected during the second half of the

program, as much as 50% of the curriculum content would address food and nutrient intake.

Full or preliminary recognition by the Centers for Disease Control and Prevention Diabetes Prevention Recognition Program is a condition that must be met for a DPP to qualify to receive reimbursement from the CMS.¹² One program recognition requirement is that weight change and activity outcomes be reported after the first 12 months of operation and annually thereafter. The most recent available data suggest that about 150 DPPs were fully recognized by March 31, 2016.¹³ However, more than 1,500 programs were in operation and working to meet Diabetes Prevention Recognition Program requirements.¹³ With changes to reimbursement, growth in this number will doubtless be reported as newer data become available to the general public. Many DPPs are housed in physician practices.¹³ Others are in YMCA facilities, for-profit weight-loss programs, government or community agencies, or health care institutions; and some are offered by RDNs, nurses, or others in private practice.¹³

ECONOMIC JUSTIFICATION FOR DPPs

Recent data suggest that diabetes is the most expensive disease in the United States, costing the American people in excess of \$245 billion in 2013.¹⁴ However, an inexpensive, year-term DPP, costing on average between \$400 and \$500 per participant, may interrupt the progression of prediabetes to diabetes.¹⁵ An economic analysis has indicated that an average annual, per-person savings of \$2,671 resulted for each year that prediabetes did not advance to diabetes.¹⁵ The Office of the Actuary has provided similar cost estimates in its analysis and concluded that the benefit of the National DPP is sufficient to warrant CMS coverage.¹⁶

WHAT ARE THE OPPORTUNITIES?

Screening

Those at risk for prediabetes include all persons with a family history of diabetes, adults affected by overweight or obesity, adults with a sedentary lifestyle, men and women who are middle-aged or older, and women who have given birth to a baby weighing in excess of 9 lb.¹⁷ Given the pervasiveness of several of these risk factors, the prevalence of prediabetes is not surprising. It is surprising that as many as 90% of people affected by prediabetes are unaware of their diagnosis.¹ The American Medical Association has developed materials to be used for screening people for prediabetes and to facilitate referrals.¹⁷ These materials were tested in the field and revised and are available online free of charge.¹⁷ Community and public health RDNs can use these materials to raise awareness of prediabetes, screen patients, and facilitate referral to a DPP among high-risk populations. RDNs can develop and supervise prediabetes screening programs, then communicate with physicians to facilitate laboratory testing and patient referrals to DPPs. Although a physician referral is not necessary for patients to participate in DPPs, RDNs who communicate the results of screening and need for referral to physicians take advantage of an opportunity to collaborate in providing care rather than appearing to compete for patients.¹⁸

MNT and Healthy Eating Education

There is good evidence that MNT provided by an RDN is successful in deterring the progression of prediabetes to diabetes.¹⁹ Because most health coaches in trials supporting the National DPP were dietitians, many DPPs currently employ RDNs to deliver the diabetes prevention curriculum and monitor participants' progress.^{2,8} Dietitians in these trials provided individualized MNT; however, the Centers for Disease Control and Prevention does not require professional credentials for lifestyle coaches to participate in the National DPP.²⁰ Published standards for National DPP lifestyle coaches merely require training in the National DPP curriculum.²⁰ Perhaps this is because the healthy eating information in the National DPP is altogether different from MNT.^{12,21} The nutrition topics in the National DPP consist of general healthy eating information and may be delivered by health care providers who are not RDNs in some states, depending on how licensure laws are written and interpreted.¹⁸ Because a physician referral is required to provide MNT, and no physician referral is required for National DPP participants, health coaches working in DPPs, whether they are RDNs or not, will need to carefully adhere to general, healthy eating information of the type in the DPP curriculum and avoid providing MNT unless consulted to do so.

Program Coordination

A DPP coordinator may oversee programs, schedule activities, manage resources, and measure and improve outcomes. Program coordinators, like lifestyle coaches, are not required to have a professional credential but are required to have health coach training.²⁰ Many RDNs providing direct patient and client care have earned certificates of training in health coaching and routinely apply coaching techniques when they provide nutrition education and counseling. There are also many RDNs already working in acute care and public health who are skilled in managing nutrition, heart failure, diabetes, stroke, or cancer programs in accordance with federal, state, and private accreditation standards. RDNs who interface with administrators may wish to advocate coordination of DPPs by RDNs experienced in program administration who have health coaching training.

Consultation

Many persons affected by prediabetes will have other health or nutrition problems, such as hypertension or renal disease that respond to MNT.^{22,23} In some states, licensure laws specify that MNT, including an individualized diet prescription intended to treat a specific nutrition problem identified during a nutrition assessment, must be delivered by a licensed dietitian or nutritionist on physician referral.²⁴ Thus, RDNs may wish to establish consultation and referral relationships with physicians who refer large numbers of patients to DPPs. In addition to providing MNT for individual clients, RDNs may serve as consultants who train DPP educators in healthy eating and scope-of-practice regulations, while facilitating access to safe, current nutrition information that can serve as a foundation for this large group of patients, some of whom who may need MNT. Dietitian consultants may also provide local review and approval of the DPP healthy eating curriculum, review annual program outcome

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