EDITORIAL AND COMMENT

Engaging with Communities to Reduce Diabetes Development

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The prevalence of overweight and obesity in adults and children in the United States continues to increase, leading to an increased risk of developing type 2 diabetes.[1] As more adults develop diabetes and its complications, multiple stakeholders, including providers, payers, policymakers, community organizations and others, have begun collaborating to reduce diabetes development. One area that has begun to gain traction between providers and payers is to link patients at higher risk of developing diabetes with evidence-based behavioral weight loss interventions such as the Diabetes Prevention Program (DPP). The Centers for Medicare and Medicaid Services (CMS) estimated that Medicare will have spent $42 billion more in 2016 for fee-for-service Medicare beneficiaries with diabetes than for those without diabetes.[2] Motivated largely by estimated cost savings for DPP enrollees, Medicare expects to cover this lifestyle intervention starting in January 2018, and other payers are likely to broaden their coverage as well. The national YMCA is leading a charge to provide DPPs across the United States, and health care institutions themselves have begun delivering DPPs. These efforts will enhance access to these programs for many communities. The national focus on value-based payment reforms such as the CMS Alternative Payment Models,[3] which incentivize reductions in total cost of care while improving quality, should also encourage health systems to engage in diabetes prevention efforts. Given this context, the time is right to understand how primary care providers (PCPs) can assist in reducing the risk of developing diabetes across a diverse spectrum of patients.

In this issue of *JGIM*, Tseng and colleagues[4] focus on describing PCPs' knowledge, attitudes and beliefs related to prediabetes diagnosis and management. The term "prediabetes" refers to patients with elevated blood sugars who do not meet the criteria for diabetes. A diagnosis of prediabetes could be given to anyone with impaired glucose tolerance (blood sugar level of 140–199 mg/dL after a 2-h oral glucose tolerance test), impaired fasting glucose (fasting blood sugar between 100 and 125 mg/dL), or hemoglobin A1c of 5.7–6.4. Tseng and colleagues describe survey results from 140 PCPs across 40 clinics associated with one large academic institution in 2015. In terms of knowledge, PCPs correctly identified 8 of 11 diabetes risk factors. Most PCPs (about 80%) did not correctly identify prediabetes diagnostic criteria or correctly identify minimum weight loss recommendations of 5-7% of body weight for adults with prediabetes, as recommended by the American Diabetes Association. While almost all PCPs reported counseling on diet and physical activity for adults with prediabetes as an initial management approach, few reported referring patients to a behavioral weight loss program (12%) or recommending metformin (29%) as initial management. The majority of PCPs reported the following barriers to lifestyle modification: patient motivation, patient physical limitations, lack of behavioral weight loss programs, and lack of time for counseling by PCPs. Barriers to metformin use generally focused on the PCP's perceptions of a patient's dislike of medications and poor perceived patient adherence.

While this report describes PCP knowledge and management within clinics tied to one academic health center in the U.S., several pertinent issues were not evaluated within the scope of the survey. First, this article does not address PCPs' perceptions of the benefits versus harms in diagnosing a patient with prediabetes. The potential benefit starting in 2018 will be the ability to refer a patient to a covered behavioral weight loss program such as the DPP for Medicare beneficiaries. Potential harms might include increased use of metformin, which may not be the ideal initial choice (compared with lifestyle modification), due to medication side effects or the effect of added pill burden on quality of life. In addition, patients with a diagnosis of prediabetes may have increased anxiety regarding progression to diabetes, which may never occur. In a meta-analysis of 70 prospective studies, more than half of patients identified with prediabetes had not developed diabetes after 10 years.[5]

Second, the authors describe several perceived barriers to PCP referral to evidence-based behavioral weight loss programs, including patient motivation, provider lack of counseling time and patient access to programs. PCPs' knowledge about insurance coverage by different payers was not identified in the survey as a potential barrier; however, differences in coverage across payers makes it more challenging for a provider to know when they can refer an individual patient, especially for disadvantaged patients, where cost may be a substantial barrier. Furthermore, PCPs currently have few linkages between clinics and evidence-based community programs, making these kinds of referrals more difficult.[6] In this

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instance, we use the term "linkage" to mean that a clinic has partnered with and plans to refer patients to a community program. Results from early clinic linkages with community programs for self-management or DPP generally show low program uptake of 10% or less.[7] This is due in part to low to moderate referral rates, and in part to low engagement or uptake by referred patients. Higher uptake, ranging from 30 to 50%, is more likely when a clinic can increase rates of referral, and also when a person (either from within or outside the health care system) reaches out to referred patients to directly engage and enroll them in the program.[8–10]

There are additional challenges to linking clinics with community programs. For instance, sharing of protected health information (PHI) with a community organization that is not covered by the Health Insurance Portability and Accountability Act (HIPAA) requires signed informed consent by the patient. This has a significant impact on workflow within the clinic, and is a substantial barrier to referral to community organizations. Since the YMCA is now a HIPAA-covered entity, this clinic-to-community referral will be much easier once an appropriate business associates agreement is established between the health care system and the YMCA. However, if another community organization decides to offer DPP, they may face these legal issues when establishing clinic-to-community linkages or referrals. Beyond the legal issues of sharing information to enhance uptake by participants, providers would ideally like to know if a referred patient has engaged with the program, and with what frequency, to better encourage program completion. With the recent funding of the CMS Accountable Health Communities program, in which Medicare beneficiaries will be screened for social service needs and referred to community resources to address them, pilots of relevant links are being created across the country.

Third, one might consider whether PCPs should be engaged in preventing diabetes in ways other than diagnosis and referral to evidence-based behavioral weight loss programs. The authors did not survey PCPs regarding this perspective or regarding interventions related to health system–community partnerships that go beyond referrals to specific programs. Given the increased incentives for quality metrics via accountable care organizations and other value-based payment reforms,[3] PCPs have started joining regional health improvement collaboratives that work together with public health, policymakers, health systems, payers, community residents and community organizations to improve population health. These collaboratives have the benefit of working in multiple arenas, thus having a larger impact on population health. Collaboratives can work together on policy such as Healthy Corner Store certification and coverage of DPP or other evidence-based health programming; media encouraging healthy eating and active living; the built environment such as reduction in fast food and introduction of low-cost healthy food options; and programming to meet community resident needs, such as leadership development of community residents. PCPs perform multiple tasks in these health collaboratives: 1) advocating for policies which benefit patients; 2) providing health content for advertising to promote healthy living; 3) improving access to high-quality care, including referrals to evidence-based community programs; and 4) assisting in the evaluation of new programs. Health collaboratives in our Northeast Ohio region, such as Better Health Partnership and Health Improvement Partnership-Cuyahoga, which are appearing with increasing frequency, can accelerate improvements in diabetes prevention[11] and would strongly benefit from PCP involvement.

In summary, regardless of whether a provider believes in labeling patients with a diagnosis of prediabetes, PCPs will need to diagnose prediabetes in overweight or obese adults whom they plan to refer to a covered behavioral weight loss program to address healthy eating and active living. PCPs could contribute substantially to developing effective and efficient bidirectional feedback between clinics and community-based programs. Beyond individual referrals, which often have low to moderate uptake, PCPs and health systems should also strongly consider becoming involved in regional health improvement collaboratives, developing synergistic approaches to reduce the rates of diabetes within the communities we serve.

Conflict of Interest: *Drs. Bolen and Cebul both work part-time for a non-profit regional health improvement collaborative in Northeast, Ohio. We have no other conflicts of interest.*

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