"Project IMPACT: Diabetes" Care Model Improves Health Outcomes in Underserved Populations in 25 Communities with a High Incidence of Diabetes

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Chronic disease is responsible for 7 of 10 deaths in the United States and 75% of the nation's $2.2-trillion healthcare bill.[1,2] According to the American Diabetes Association, nearly 26 million Americans have diabetes, and more than 200,000 die of this chronic disease annually. Patients with diabetes are at increased risk for diabetes-related complications, including heart disease, stroke, kidney failure, blindness, and lower-limb amputations.[3]

In 2010, the Bristol-Myers Squibb (BMS) Foundation announced the establishment of Together on Diabetes—a 5-year, $100-million initiative designed to improve the health outcomes of underserved patients with type 2 diabetes in the United States, China, and India.

One of the first 4 organizations in the BMS Foundation's Together on Diabetes, the American Pharmacists Association (APhA) Foundation received a grant from the BMS Foundation to launch "Project IMPACT: Diabetes," to bring quality care to underserved people in 25 US communities with a high incidence of diabetes.

Project IMPACT: Diabetes

The objectives of Project IMPACT: Diabetes are to expand the proven community-based model of care to patients who need it the most in communities across the United States, to improve key indicators of diabetes care in these selected communities, and to strengthen local models of care by establishing community peer-to-peer networking and mentoring relationships.

Organizations selected to participate in Project IMPACT: Diabetes include community and university-affiliated pharmacies, self-insured employers, federally qualified health centers, free health clinics, and others that have the opportunity to leverage unique stakeholders, existing programs, creative ideas, and additional resources to effectively adapt and implement similar models of care. The APhA Foundation also provides communities with tools, resources, guidance, and support to facilitate local success.

The APhA Foundation educates each community about this care model that places the patient with diabetes on the healthcare team, and inserts the pharmacist as a valued health coach. The Foundation also provides training and access to the Patient Self-Management Credential for Diabetes and a clinical data management tool, which are core components of the project.

The clinical data management tool standardized the data set that all 25 communities are collecting throughout the project. The APhA Foundation's Patient Self-Management Credential for diabetes helps pharmacists identify the patient's knowledge strengths and areas for improvement, allowing providers to customize the patient's education and to address the biggest knowledge gaps first. Pharmacists are also able to use each patient's credential level to recognize achievements in diabetes self-management knowledge, skills, and performance.

Through Project IMPACT: Diabetes, more than 2000 underserved patients, including those who are uninsured, underinsured, homeless, and/or living below the poverty line are currently receiving care from community-based interdisciplinary teams that include pharmacists, physicians, diabetes educators, and other healthcare professionals.

The cornerstone of local implementations is one-on-one patient consultations with pharmacists trained in diabetes care who monitor the patients' A_{1c} level, blood pressure, cholesterol, and body mass index, and help patients to manage their disease through appropriate medication use, exercise, nutrition, and other lifestyle changes. Pharmacists collaborate with and refer patients to physicians and other healthcare providers to ensure that patients receive comprehensive care.

In addition, the communities are encouraged to incentivize patients to stay motivated about diabetes self-management. Some incentives include bus passes,

Table Interim Results from 25 Underserved Communities

Clinical indicators (recognized standards for diabetes care)	Participants, N	Mean baseline measure	Mean interim measure	Mean change
A_{1c} (American Diabetes Association goal: <7.0%)	1580	9.0%	8.3%	–0.7%[a]
LDL cholesterol level (NCEP goal: <100 mg/dL)	966	99.5 mg/dL	92.2 mg/dL	–7.3 mg/dL[a]
Systolic blood pressure (JNC VII[b] goal: <130 mm Hg)	1702	131.8 mm Hg	129.9 mm Hg	–1.9 mm Hg[a]
Body mass index (World Health Organization normal: 18.5-24.9 kg/m^2)	1699	35.1 kg/m^2	34.9 kg/m^2	–0.2 kg/m^{2a}
Participant demographics				
Sex				
Women, 58.3%				
Men, 41.7%				
Age (average, 53.8 yrs)				
≥50 yrs, 67.6%				
≥62 yrs, 23.4%				
Ethnicity				
Caucasian, 41.2%				
African American, 24.2%				
Hispanic, 21.3%				
Other, including not specified, 13.4%				

[a]Statistically significant change.
[b]National Institutes of Health Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. December 2003.
A_{1c} indicates glycosylated hemoglobin; JNC VII, The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure; LDL, low-density lipoprotein; NCEP, National Cholesterol Education Program.

food store gift cards, discounted or free healthy lunches at employer worksites, discounted copayments, or simply the ability to continue to have a healthcare provider focus on helping the patient.

Interim Results

Project IMPACT: Diabetes has scaled previous APhA Foundation collaborative care programs for the selected 25 communities. Over a mean duration of 6 months, healthcare teams saw statistically significant improvements in the diabetes-related clinical outcomes of their patients (**Table**), including an overall reduction in A_{1c} levels from 9.0% to 8.3%; a 7.3-mg/dL reduction in low-density lipoprotein cholesterol; and a 1.9-mm Hg reduction in systolic blood pressure.[4] Dramatic improvements were also seen in patients' ability to manage their diabetes, in large part as a result of the adaptability of the care model to fit local needs.

Conclusion

Every patient with diabetes faces challenges, such as adhering to prescribed medications, monitoring blood glucose levels, staying current with vaccines and foot and eye examinations, and maintaining a healthy diet and lifestyle. This initiative shows that all types of patients with diabetes, including the poor and uninsured, by working together with pharmacists and other members of the healthcare team, can be empowered to take the steps they need to understand and manage their diabetes. The interim results of Project IMPACT: Diabetes demonstrate that when patients are supported and empowered to make the lifestyle changes that are necessary to manage a chronic disease such as diabetes, significant improvements are possible. It is an idea whose time has come. ■

Author Disclosure Statement

Mr Bluml is an employee of the APhA Foundation.

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