



## Patient Self-Management Program for Diabetes *A Case Study on PSM Solutions Success*

### Background

The Patient Self-Management Program (PSMP) for Diabetes was the APhA Foundation's first demonstration project for diabetes, designed to establish a new healthcare delivery program at five pilot sites over the span of a year. Following the success of the Asheville Project and other collaborative care programs involving pharmacists, the APhA Foundation rose to the challenge of developing a model that could be replicated and scaled up in diverse community and payer settings. With the support of a grant by Aventis Pharmaceuticals, the PSMP for Diabetes was implemented with new components that focused on aligned incentives, collaborative care teams, and a Patient Self-Management Credential (PSMC) for Diabetes.

### Methods

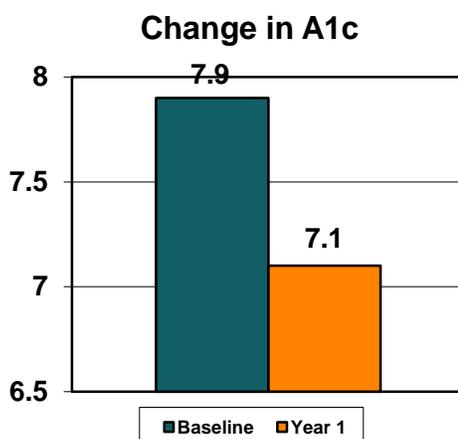
The PSMP for Diabetes was the first project to implement the APhA Foundation's refined process of care model scaled from the Asheville Project. The methods used in the project included new components that focus on aligned incentives, collaborative care that includes pharmacists, and the PSMC for Diabetes. This model has continued to be refined and scaled for use in APhA Foundation's other work on diabetes - Diabetes Ten City Challenge and Project IMPACT: Diabetes.

Patients worked with pharmacists through a structured series of visits that focused on knowledge, skills, and performance. As patients reached certain milestones in self-management of their condition, they were recognized with the PSMC for Diabetes. The credential is critical in patients' successful management of their diabetes and providers' ability to target the care they deliver.

Patients were referred to diabetes education centers for additional education when indicated and to their physician for changes in therapy or resolution of medication therapy problems, identified by the pharmacists.

### Results

Over the initial year of the program, improvements were shown in the clinical indicators of diabetes and standards of care.



#### Clinical Outcomes:

- Mean A1C decreased from 7.9% at initial visit to 7.1%
- Mean LDL-C decreased from 113.4 to 104.5 mg/dL
- Mean systolic blood pressured decreased from 136.2 to 131.4 mm Hg.
- 100% of study participants had their A1C and lipid panels tested
- 94% of patients achieved the HEDIS A1C goal and 78% achieved lipid control of <130 mg/dL
- Influenza vaccination rate increased from 52% to 77%, the eye examination rate increased from 46% to 82%, and the foot examination rate increased from 38% to 80%



HEDIS Indicators	NCQA Accredited Plans	PSMP for Diabetes Sites
A1c Testing	85%	100%
A1c < 9	68%	94%
Lipid Profile	88%	100%
LDL < 130	60%	78%
LDL < 100	31%	49%
Influenza Vaccines	48%	77%
Eye Exams	49%	82%

Patient satisfaction with overall diabetes care improved from 57% of responses in the highest range at baseline to 87% at this level after 6 months, and 95.7% of patients reported being very satisfied or satisfied with the diabetes care provided by their pharmacists.

The PSMC for Diabetes was utilized to scale the model and successes from the Asheville Project to five different employers. The APhA Foundation's refined the structure and process model for collaborative care and provided evidence that the clinical, humanistic and economic outcomes in Asheville could be achieved with multiple employers.

Pharmacists were reimbursed for patient counseling services according to payment schedules negotiated with the employer by the local pharmacy network at each site. Enrolled patients were offered waived copayments for diabetes-related medications and supplies or other incentives determined by the individual employers. Total mean health care costs per patient were \$918, or 10.8%, lower than projections for the initial year of enrollment.

**Conclusion**

Patients who participated in the program had significant improvement in clinical indicators of diabetes management, higher rates of self-management goal setting and achievement, and increased satisfaction with diabetes care, and employers experienced a decline in mean projected total direct medical costs.

The APhA Foundation's research on diabetes has shown that innovative payers can reduce overall health care costs by investing in pharmacists as part of the health care team. The Patient Self-Management Program for Diabetes instituted a multisite community pharmacy care services program for patients with diabetes that resulted in a 10.8% decrease in total mean health care costs per patient for the initial year of enrollment compared to projections.

**Average Annual Cost Per Patient**  
Savings of \$918 Per Patient

