



IMPACTing Access And Outcomes Of Underserved Patients With Diabetes

Through Clinical Pharmacy Services Integration At A Federally Qualified Health Center

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Objectives

- Expand models of care to patients in need
- Identify and support disproportionate share populations to improve key indicators of diabetes care

Background & Setting

Partnerships:

- **Variety Care:** Federally Qualified Health Center (FQHC) serving nearly 40,000 patients at 13 locations in Oklahoma in 2012, providing health care for insured and uninsured individuals who have limited access to health care services
- **OU College of Pharmacy:** delivers training of professional students and residents via clinical faculty and affiliated sites
- **340-B Pharmacy:** Jim's Community Pharmacy (contracted) 2003-2013; Variety Care Pharmacy (in-house) Oct 2013-present

Background:

- Clinical Pharmacy Services (CPS) initiated at Variety Care December 2009
- Diabetes management and education provided by 3 OU pharmacy faculty during 7 half-days of clinic per week
- A bilingual medical assistant is assigned to clinical pharmacy for scheduling logistics, clinical support, and translation services as needed
- 340B pharmacy allows subsidized pricing of medications to help overcome financial barriers
- Variety Care is learning site for pharmacy students and pharmacy residents

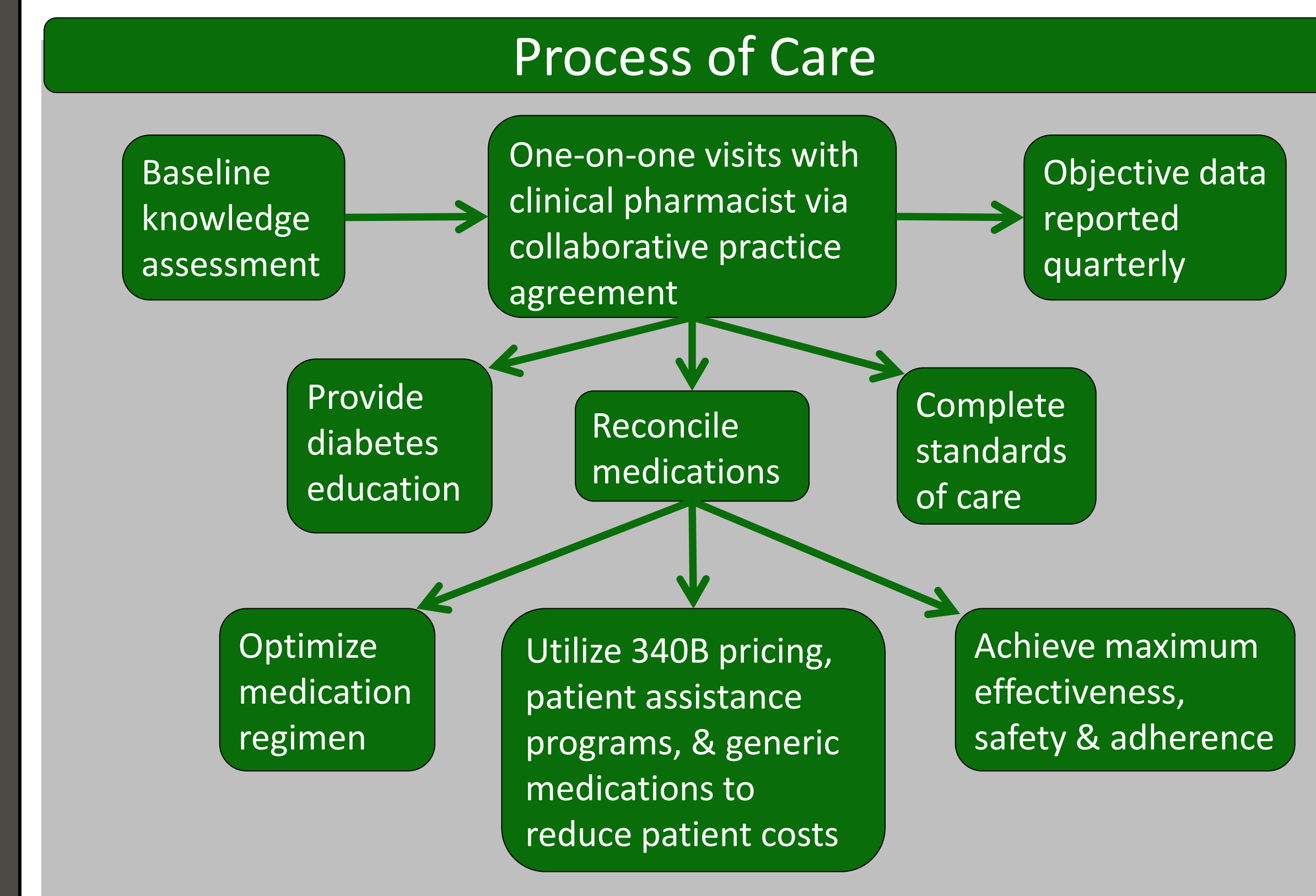
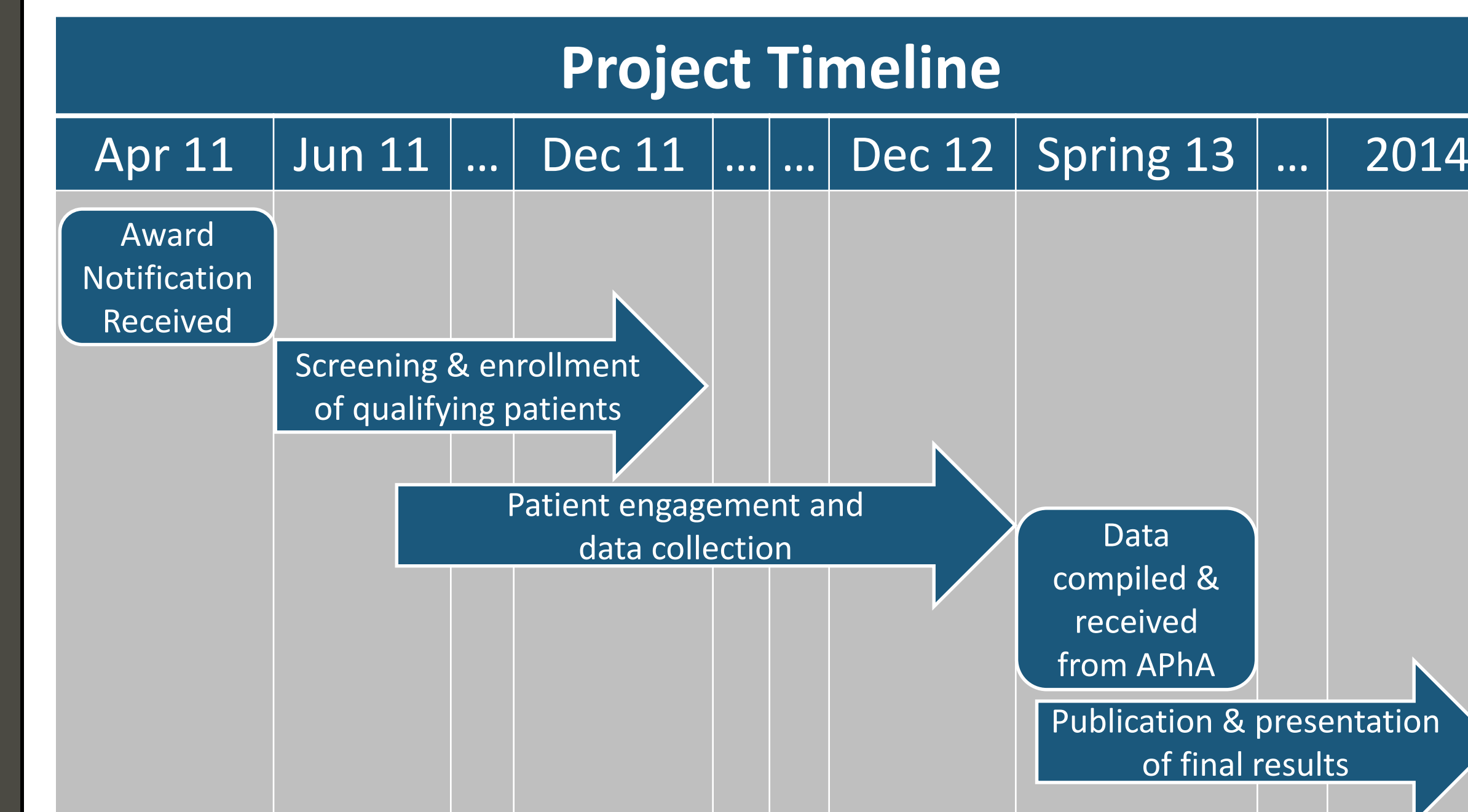
Methods

Inclusion criteria:

- ≥ 18 years of age
- diagnosis of diabetes, with A1C ≥ 7%
- baseline labs (fasting lipid panel and A1C) collected within 90 days of enrollment
- 86 patients met enrollment criteria

End of study evaluable criteria:

- ≥ 2 pharmacist visits at least 90 days apart
- Repeat A1C collected > 90 days after enrollment (end of study period emphasized)
- 76 patients met evaluable criteria



Grant Fund Utilization

Enhancement and expansion of current services:

- point-of-care laboratory A1C and fasting lipids
- subsidized cost of labs for qualifying patients
- diabetes disease-state and food models
- pillboxes/insulated medication bags to improve adherence



Baseline Characteristics

Baseline demographics for evaluable population (n=76)

Variable	Value (SD) ^a
Age	49.6 (9.3)
Sex	
Female - 44	57.9%
Male - 32	42.1%
Ethnicity	
Hispanic - 45	59.2%
Caucasian - 23	30.3%
African American - 8	10.5%
Body mass index	34.8 (8.5)
Hemoglobin A1C (%)	10.2 (1.9)
LDL cholesterol (mg/dL)	103.1 (38.6)
Systolic blood pressure (mmHg)	126.8 (15.8)
Diastolic blood pressure (mmHg)	76.2 (10.3)
Number of medical problems	4.8 (2.4)
Number of medications	6.7 (2.9)
Insurance source	
None = 58	76.3%
Medicaid = 6	7.9%
Medicare = 8	10.5%
Private = 4	5.3%

SD = standard deviation
^aContinuous variables are expressed as mean values

Results

- 572 total visits completed between 6/1/2011 and 1/31/2013

	Baseline	Final	Change	P value
A1C	10.2	8.3	-1.9	0.000
BMI	34.8	35.1	0.4	0.036
Systolic BP	126.8	129.1	2.3	0.115
Diastolic BP	76.2	78.5	2.3	0.033
LDL-C	103.1	98.3	-4.8	0.143
HDL-C	41.7	41.9	0.2	0.434
Triglycerides	345.5	289.8	-55.7	0.144
Total Cholesterol	203.1	188.4	-14.7	0.023

Conclusions

- Diabetes is both a high risk and high cost disease
- Language, cultural, health literacy, and financial barriers pose unique challenges to patient care
- Clinical pharmacy services help address barriers and improve health outcomes
- Health care systems should not underestimate the importance of medication ACCESS

About Project IMPACT: Diabetes

- Variety Care was one of 25 communities selected for an American Pharmacists Association (APhA) Foundation **Project IMPACT: Diabetes, IMProving America's Communities Together** grant, in partnership with the Bristol-Myers Squibb Foundation as part of their national *Together on Diabetes* initiative
- Visit www.aphafoundation.org for more details