# eHealth-Assisted Lay Health Coaching for Diabetes Self Management Support

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Background

This project developed and tested the feasibility and reach of integrating a telephone-based lay health coach with an eHealth intervention for diabetes self management support in a Patient-Centered Medical Home practice in New Jersey. Lay health coaching has been shown to improve diabetes self management behaviors, glycemic control, and quality of life for people living with type 2 diabetes (T2D). BlueStar Diabetes™ (BSD) is an FDA-cleared mobile prescription therapy that provides real-time patient coaching and support using algorithms driven by clinical/behavioral insights. In two clinical trials, BSD reduced A1c by 2 points. Integrating these two forms of patient support can accentuate the strengths of health coaches while making their work more efficient.
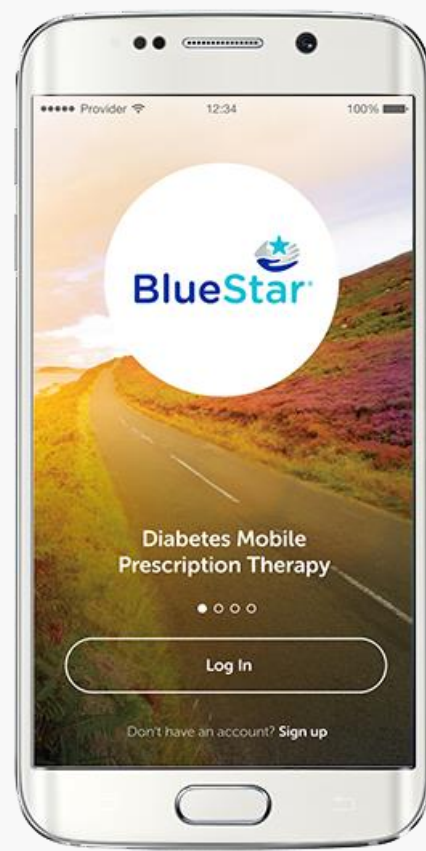
Methods

Two health coaches provided bi-weekly telephone-based coaching for assistance in daily self management, emotional support, and linkage to clinical and community resources. Patients used BSD on their phone or computer for day-to-day diabetes self management support. The health coaches were community-based nonprofessionals that received 16 hours of initial training and periodic follow-up trainings. A nurse care coordinator provided clinical backup to the coaches and collaborated with providers when needed.

Eligibility criteria: T2D, 40-70 years of age, at least one HbA1c value ≥ 7.5 % in prior 12 months, able to reach and write in English, regular access to a web-enabled device such as a smartphone or a computer.

Timeframe: Implemented September 2015 to April 2016 (6 months).

Quantitative evaluation: Single group, pre-post, using coach contact notes, post survey, clinical data, and app usage data.

Qualitative evaluation: Structured interviews with 12 patients, 5 program staff, and 2 health coaches.

References

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Key Findings

Integrated health coach and eHealth is feasible and well accepted by patients and clinical team

70% patients sustained engagement with program

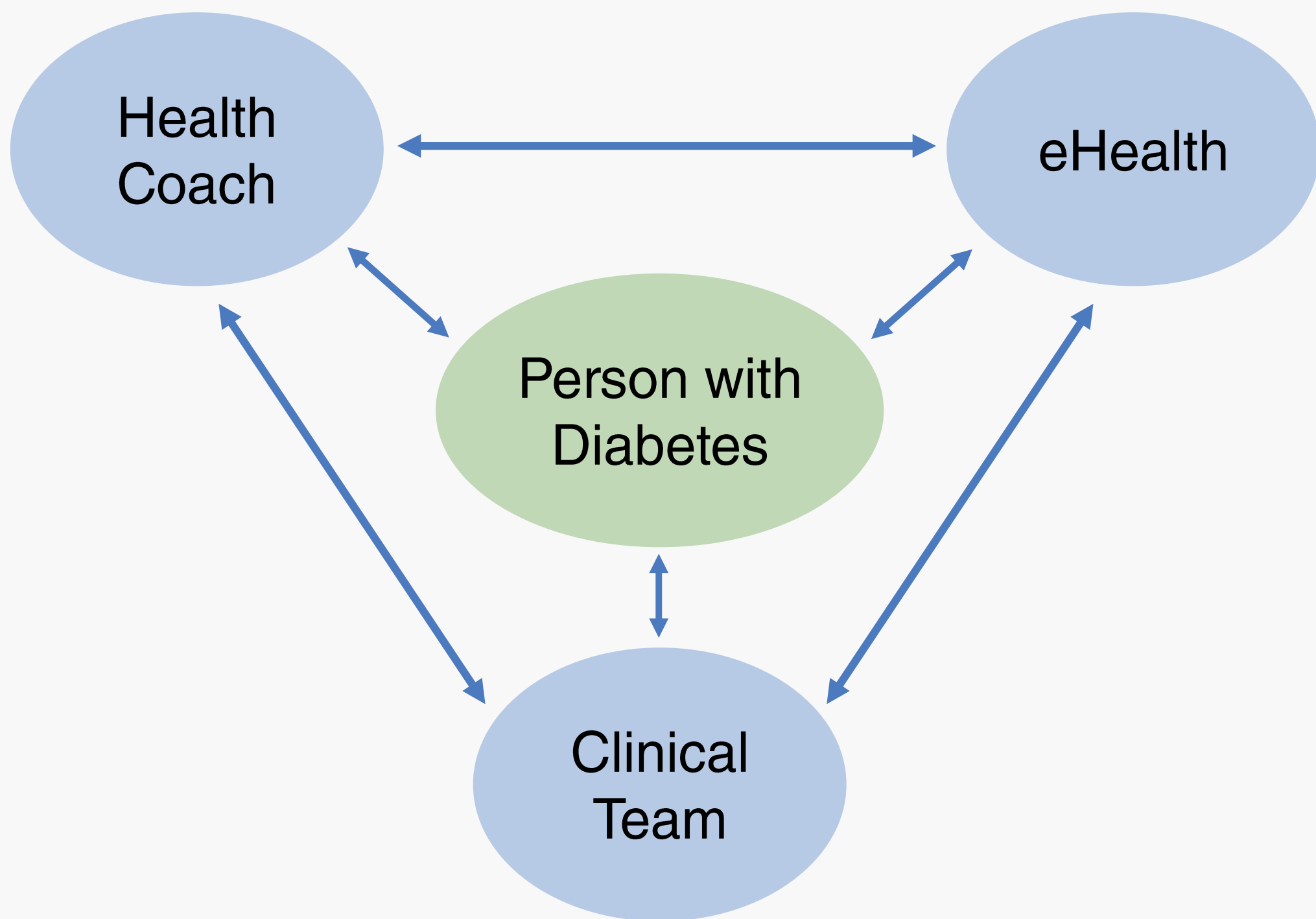**78% patients sent provider BSD SMART Visit report**

89 contacted → 43 patients enrolled
Demographics: Age = 57, 53% male
Average 7 coaching contacts over 6 months

Engagement with BSD
86% enrolled patients used BSD
Average 6.5 entries / patient / week
Total of 37 SMART Visit Reports sent to clinic
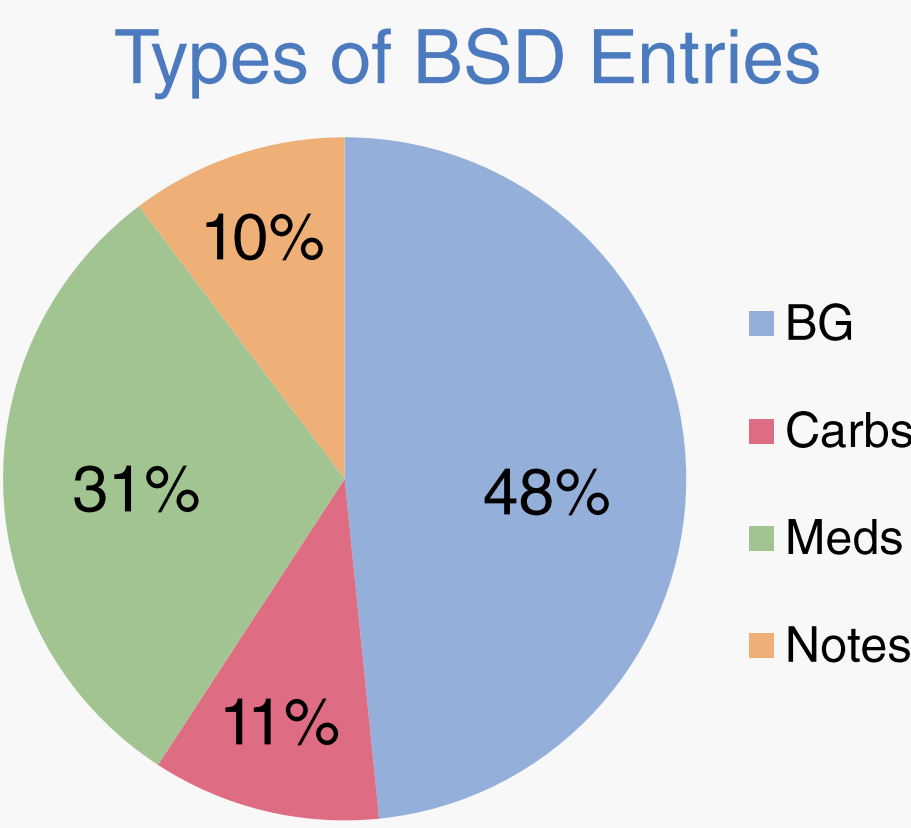
Preliminary analyses: Average reduction of 1.7 points from baseline A1c of 9.7% among active participants in health coaching

Types of BSD Entries

- BG — 48%
- Carbs — 11%
- Meds — 31%
- Notes — 10%

Person, Health Coach, eHealth and Clinical Team Integration

Health Coach — eHealth — Person with Diabetes — Clinical Team

Four Key Functions of Lay Health Coaching and BlueStar

Key Functions	Lay Health Coaching	BlueStar Diabetes
Assistance in Daily Management	Detailed problem-solving; model of adequate management	Make entries for BG, medications, carbs, notes and receive real-time guidance, reminders, and trends based on their medication regimen; patients say "it keeps me accountable"
Social & Emotional Support	Supportive relationship; help address urgent emotional needs; healthy coping, stress management	Monitoring and alerts – "It has my back" –protection and comfort; general messages encouraging, reassuring
Linkage to Clinical Care & Community Resources	Live reminders and attention to psychosocial barriers to care; overcome logistic barriers to care; knowledge of community	Monitoring provides automated, specific reminders for care; ability to share analyzed data with health care team as needed
Ongoing Support	Available on demand; re-intensification of contact prn	Supports daily self-management decision making as long as needed; reimbursement is contingent on continued use

Lessons Learned

Program Acceptability
- Respondents all said the health coaching was useful regardless of how long they had been living with diabetes
- Most respondents would highly recommend this program to a family member or a friend
- Middle-aged and rising risk populations appeared to be the ideal demographic for this program

Enhancing Patient-Centered Self Management
- **Patient-centered – BSD always available, patient-driven**
- Health coach is particularly good at helping individuals overcome barriers, the app provides guidance and feedback
- Most respondents could articulate at least one behavioral change they made as a result of being in the program
- All respondents said the support provided by health coaches was very different from support received from medical professionals
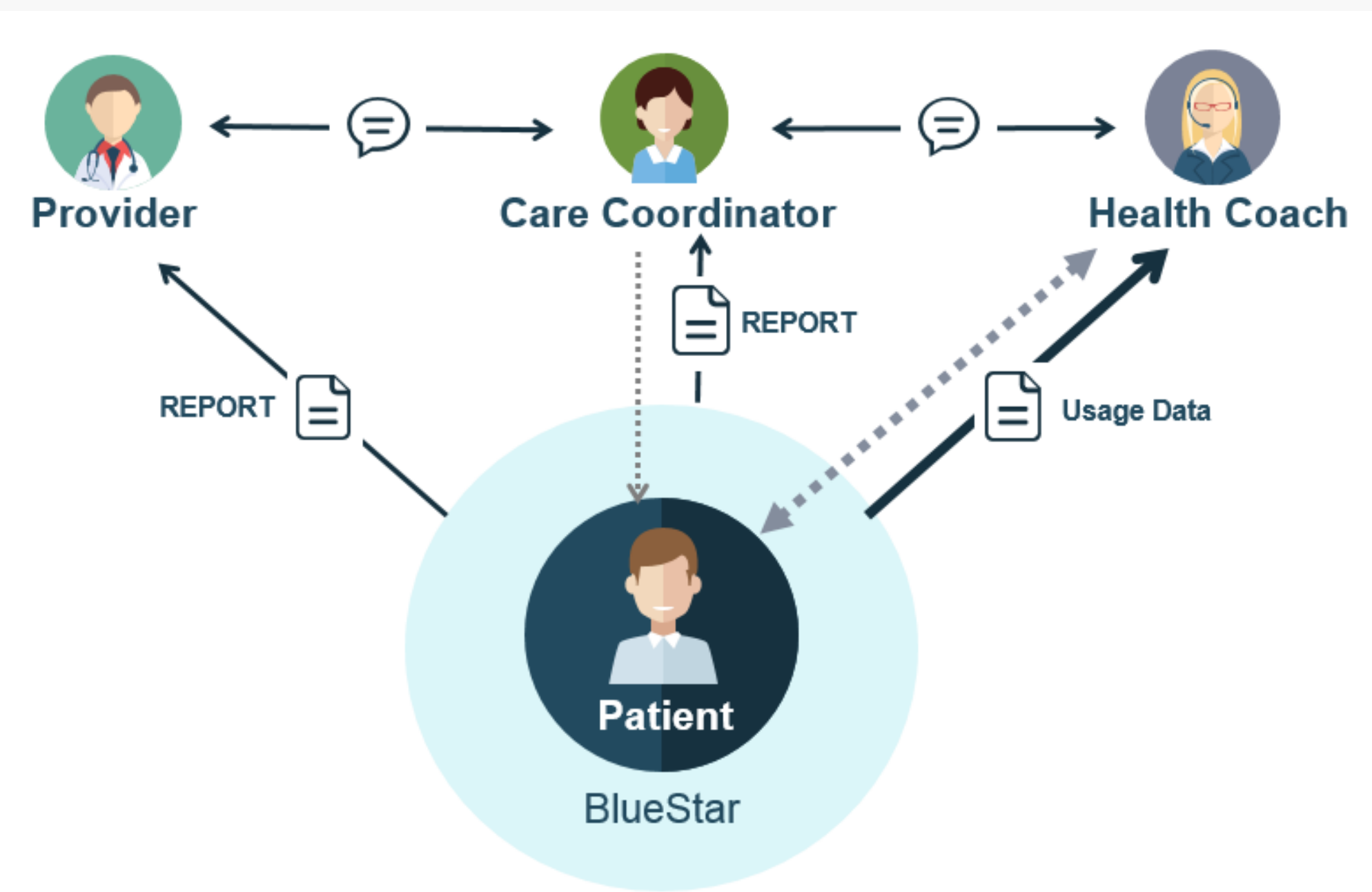
How this Model Enhances Lay Health Coaching
- More efficient and higher quality DSMS informed by BSD data
  - BSD data prompted more focused conversations between coach and patient
- Extends support to the right people at the right time with the right method (teachable moments)
- Facilitates outreach to greater number of patients than coaching alone
  - Half-time lay health coaches comfortably managed 15-20 patients each with assistance from BSD and indicated capacity to manage double that caseload
- Scalable to reach populations
- Disseminable through enhanced primary care practices

How this Model Enhances Quality of Care
- Care coordinators successfully used health coach insights to deliver timely, appropriate follow up and diabetes education
- Rich data from coaches and BSD improved quality of care from the clinic
  - Patient-generated data (SMART Visit Report) facilitated patient-provider communication
  - BSD data prompted development of diabetes care protocol for hypoglycemia coaching

Information Flow

Provider — Care Coordinator — Health Coach — REPORT — Usage Data — REPORT — Patient — BlueStar

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