

Peer Coaching for Low-Income Patients with Diabetes in Primary Care

Amireh Ghorob, MPH
**Center for Excellence in
Primary Care**
UCSF



Background and Purpose



- More than half of patients with diabetes and hyperlipidemia and two-thirds of patients with hypertension have their conditions poorly controlled.
- Only half of patients take their chronic disease medications as prescribed
- Only one in ten patients follow recommended guidelines for lifestyle changes, such as smoking cessation or healthy eating.

The Need: Self Management Support

- Minority and low income communities bear a disproportionate burden of chronic disease and its complications and are less likely to engage in effective self-management of their conditions.
- Is traditional didactic education effective?
- Self-management support:
 - defined by the Institute of Medicine as the “systematic provision of education and supportive interventions to increase patients' skills and confidence in managing their health conditions”
 - has been shown to improve clinical outcomes.

The Myth of the Lone Physician



- A primary care physician with a panel of 2500 average patients would spend :
 - ▣ 7.4 hours per day to deliver all recommended preventive care (Yarnall et al. Am J Public Health 2003;93:635)
 - ▣ 10.6 hours per day to deliver all recommended chronic care services (Ostbye et al. Annals of Fam Med 2005;3:209) 18 hours a day delivering care

Health Coaching



- Self-management support, also known as health coaching, is designed to “activate” patients, that is, to empower them within the health care setting and in their daily lives.
- Within the health care setting, patient activation is characterized by patients who engage in a participatory relationship with their health care team by voicing their concerns, asking questions, providing information about home monitoring, and collaboratively developing care plans.
- In their daily lives, activated patients are more likely to adhere to treatment plans and engage in lifestyle changes to effectively manage their chronic conditions

Role of Health Coaches

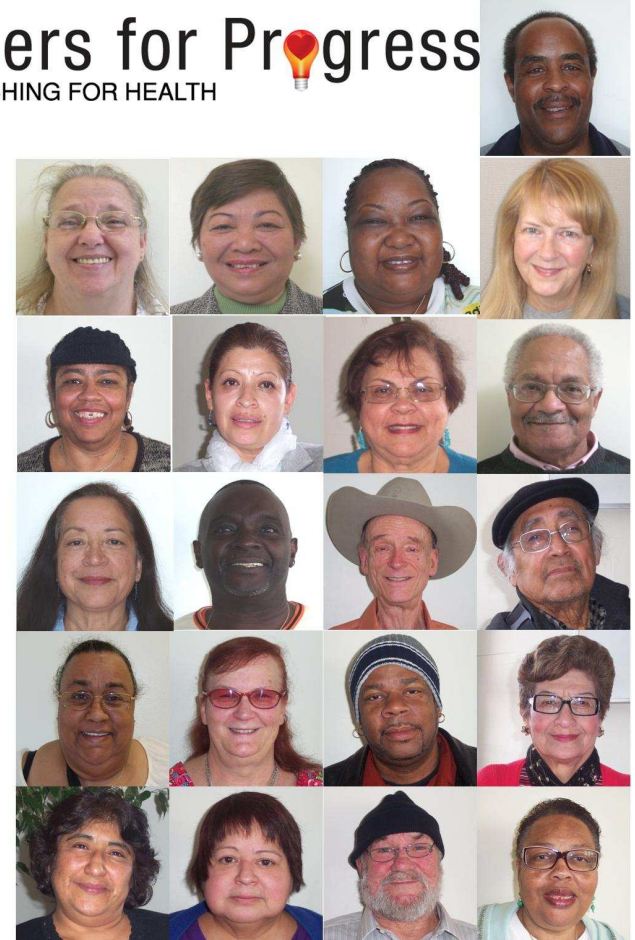


- ❑ Provide relationship-based, longitudinal care to patients with chronic disease, particularly in safety net clinics with limited resources.
- ❑ Can be trained to implement many of the communication and self-management support skills recommended in the literature.
- ❑ Compared to clinicians, health coaches have more time with the patient to:
 - provide education
 - help support patient to clarify goals and make decisions
 - reinforce action plans to carry out decisions

Methods

- Randomized controlled trial - 6 public health clinics in San Francisco.
- 23 patients with a glycosylated hemoglobin (HbA1C) level $< 8.5\%$, who completed a 36-hour health coach training class, acted as peer coaches.
- Patients from the same clinics with HbA1C $> 8.0\%$ randomized to receive health coaching (n=148) or usual care (n=151).

Peers for Progress
COACHING FOR HEALTH



Ghorob A, Vivas M, Devore D, et al. The effectiveness of peer health coaching in improving glycemic control among low-income patients with diabetes: a protocol for a randomized controlled trial. BMC Public Health 2011,11:208.

Health Coach Training

Taking Care of Your Diabetes



1. It is good to be active every day. Walking can help you feel good and control your blood sugar.



2. It is good for you to eat five servings of fruits and vegetables a day.



3. It is good for you to eat less sugar and starch (carbohydrates). This includes sweets, sugary drinks like soda, bread, rice, potatoes, and pasta.



4. Take your medicines as prescribed. If you don't know what medicines to take, ask.



5. Check your feet every day for cuts, bruises, or sores.



6. Know your ABC numbers. A stands for A1c, a measure of your blood sugar. B stands for blood pressure. C stands for cholesterol.



7. Get regular check-ups at your medical office or clinic. Don't wait until you are sick.

Know your Numbers!

Let's talk about knowing your numbers for the **ABCs** of diabetes

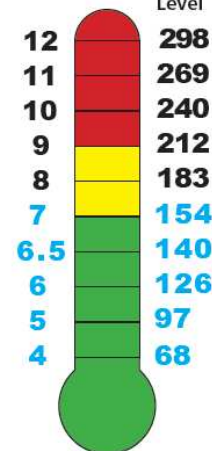
A HbA1c. The HbA1c goal for people with diabetes is:

Less than 7 or 8

Ask your provider about your personal goal.

HbA1c

Average Blood Sugar Level



Original material adapted from the Migrant Clinicians Network
www.migrantclinicians.org

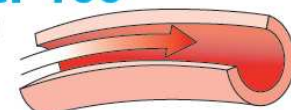
B Blood Pressure. The blood pressure goal is :
130/80 or below



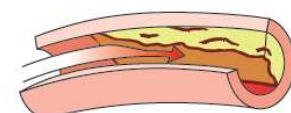
C Cholesterol. The cholesterol goal for LDL cholesterol for people with diabetes is:

Under 100

The LDL goal for everyone else is 130.



Blood flow in normal vessel



Blood flow in blocked vessel

Patient/Coach Matching

Clinic: SouthEast Health Center

Hometown: San Francisco, California

Hobbies:
walking,
swimming,
chess

Favorites

Dish:
Seafood

Movie:
Saturday Night
Fever

Reason for being a peer coach:

Charrisse says: “I want to spread education and awareness about the disease and help others to help themselves be healthier.”

Peers for Progress
COACHING FOR HEALTH



Charrisse

Patients with type 2 diabetes from 6 clinics (n=2813)

HbA1c <8.0% (1658)
No English or Spanish (278)
Provider did not give
permission to contact (72)

Attempted to contact (819)

Unable to contact (297)
Contact, eligibility unknown (87)
No phone (39)
Moved/planning to move (19)
Enrolled in another study (5)
Other (24)

Enrolled and randomized (n=299)

Outcomes



- Primary outcome: difference in change in HbA1C at 6 months
- Secondary outcomes:
 - proportion of patients with a drop in HbA1C of $> 1.0\%$
 - proportion of patients with HbA1C $< 7.5\%$ at 6 months
- Other variables: demographics, duration of diabetes, use of insulin, diagnosis of hypertension or hyperlipidemia, weight and blood pressure.

Data Analysis



- Data were analyzed using a linear mixed model with and without adjustment for differences in baseline variables
- Because the intraclass correlation coefficient for change in HbA1C by clinic was extremely low ($<.01$), clustering by clinic was negligible and clinic site was not retained in the models.

Randomized (n=299)

```
graph TD; A[Randomized n=299] --> B[Health Coaching n=148]; A --> C[Usual care n=151]; B --> D["At 6 months<br/>Dropped out 8<br/>Completed any follow-up 140<br/>Survey 128<br/>HbA1C 122<br/>Weight and BP 122"]; C --> E["At 6 months<br/>Dropped out 16<br/>Completed any follow-up 135<br/>Survey 125<br/>HbA1C 114<br/>Weight and BP 123"];
```

Health Coaching (n=148)

At 6 months

Dropped out (8)
Completed any follow-up (140)
Survey (128)
HbA1C (122)
Weight and BP (122)

Usual care (n=151)

At 6 months

Dropped out (16)
Completed any follow-up (135)
Survey (125)
HbA1C (114)
Weight and BP (123)

Results: Patient/Coach Interaction

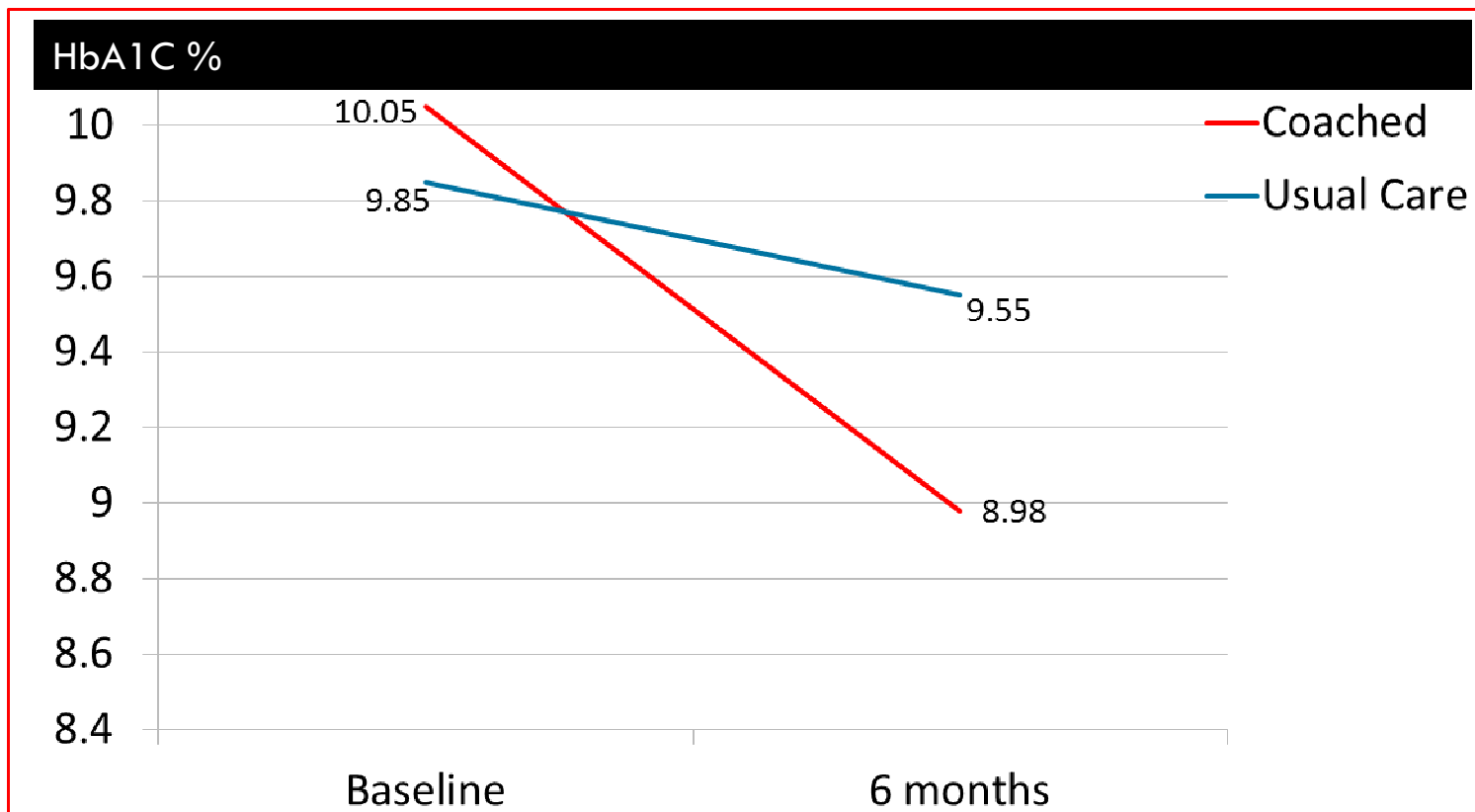
- Coaches worked with a median of 7 patients (mean of 6.1)
- Coached patients had a median number of 5 interactions with their peer health coach, with a range from 0 to 29
- 123 patients (83%) had at least one interaction
- Most interactions were by telephone (76.6%) with the remainder being in-person

Baseline characteristics

Variable	Coaching (n=148)	Usual care (n=151)
Age (mean $\pm$ sd)	56.3 $\pm$ 10.3	54.1 $\pm$ 10.4
Years with diabetes (mean $\pm$ sd)	9.1 $\pm$ 9.1	8.7 $\pm$ 8.8
Female (%)	51.4	53.0
Born outside of United States (%)	47.3	54.0
Income < \$20,000/year (%)	86.5	88.9
Less than high school education (%)	35.6	37.1
Race/Ethnicity		
White non-Hispanic (%)	11.5	10.0
White Hispanic (%)	44.6	48.7
Black/African American (%)	31.8	30.7
Other (%)	12.1	10.6
Smoked in past 30 days (%)	25.7	26.5
Using insulin at baseline (%)	60.1	50.0

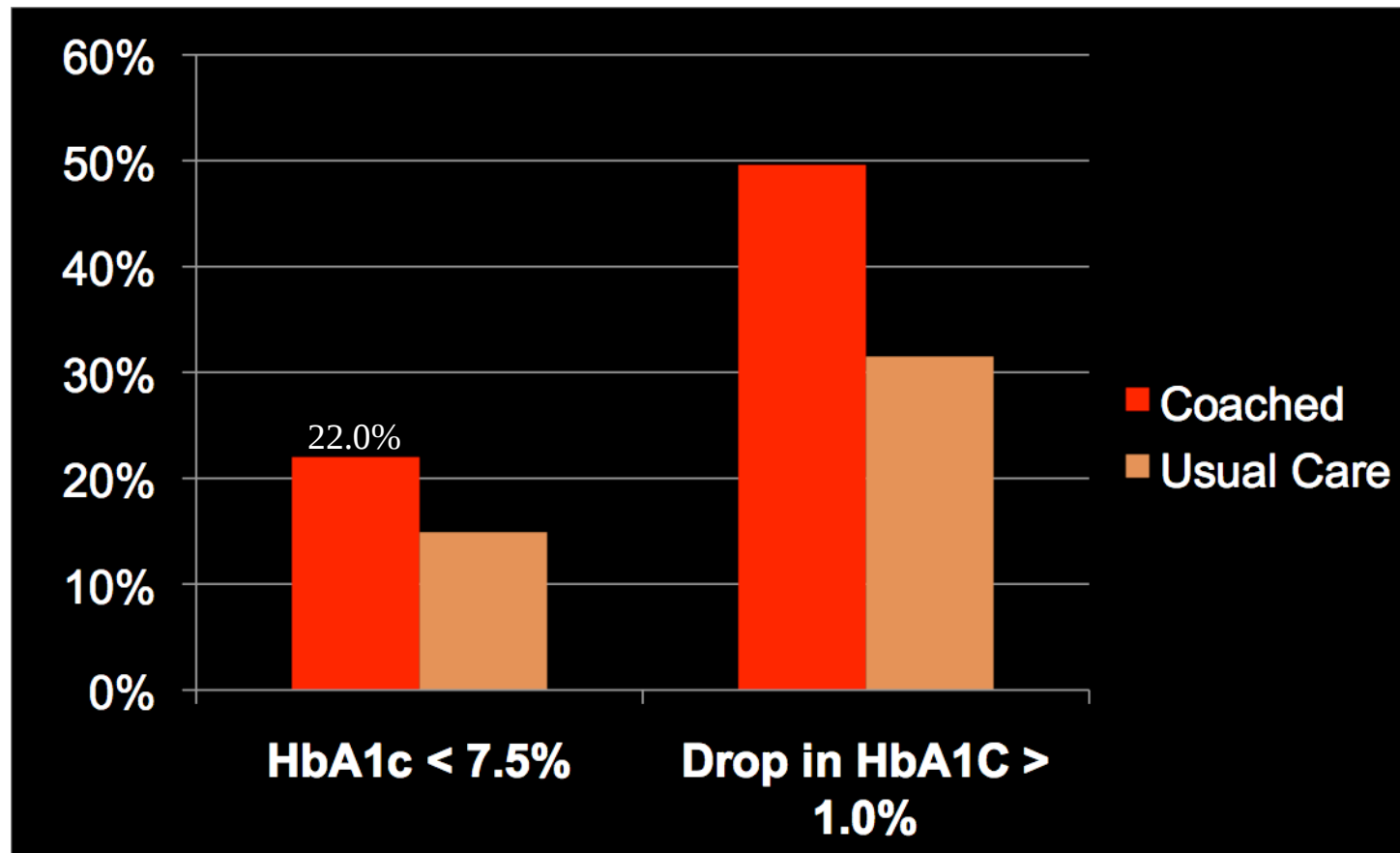
Results

Change in % HbA1c from Baseline to 6 Months in Coached vs. Usual Care Group



+ Adjusted for baseline differences in age, marital status, work status, use of insulin, hypertension and BMI

Results: Drop in A1c by $>1\%$



+ Adjusted for baseline differences in age, marital status, work status, use of insulin, hypertension and BMI

Conclusions



Among low-income, predominately Latino and African-American patients cared for in safety-net clinics, peer coaching resulted in a significant improvement in patients' glycemic control.

Thom DH, Ghorob A, Hessler D, De Vore D, Chen EH, Bodenheimer T. Impact of Peer Health Coaching on Glycemic Control in Low-Income Patients with Diabetes: A Randomized Controlled Trial. Annals of Family Medicine. March 2013;11(2):137-144.

Our team

- **Tom Bodenheimer**
- **Dave Thom**
- **Danielle Hessler**
- **Ellen Chen**
- **David Moskowitz**
- **Elizabeth Rogers,**
- **Russell Yamamoto,**
- **Matthew Goldman**
- **Maria Vivas**
- **Victoria Ngo, Diana DeVore, Marissa Pimental,
Denise DeVore, Viviana Huang-Chen**

The Stars: Our Peer Coaches

