

# Finding Answers

Disparities Research for Change



PORTFOLIO

Real World Examples



In 2003, a groundbreaking Institute of Medicine Report – **“Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare”** – concluded that racial and ethnic minorities often receive lower quality medical care than Whites.

While the existence of racial and ethnic disparities had been well documented for years, little was known at the time about how to address and resolve them. In response, the Robert Wood Johnson Foundation (RWJF) launched Finding Answers: Disparities Research for Change in 2005. Specifically, the program focused on reducing disparities in the quality of care of cardiovascular disease, diabetes and depression; diseases for which the evidence of racial and ethnic disparities is strong and the recommended standards of care are clear.

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We knew based on the research that African Americans, Latinos, and American Indians disproportionately get lower quality care. With Finding Answers, we wanted to focus on solutions – not on research that would just confirm that disparities existed.

– Debra Joy Perez  
former assistant vice president for research and  
evaluation at Robert Wood Johnson Foundation





Headquartered at the University of Chicago and led by Dr. Marshall Chin, the national initiative had three main goals:

- Find promising solutions to reduce disparities
- Create an evidence-based, practical framework to help health care providers design their own interventions to reduce disparities
- Encourage the spread of best practices

Through Finding Answers, we have worked to move the field beyond documenting disparities to building the knowledge to take action, and to also create a culture that prioritizes reducing disparities as an integral part of efforts to improve quality of care, not something done on the side.

—Marshall Chin, Director of Finding Answers

Finding Answers funded the evaluation of 33 interventions across the nation to reduce disparities in cardiovascular disease, diabetes, and depression in a variety of healthcare settings.

The evaluation of the interventions described in this PDF allowed the Finding Answers team to learn what makes disparities reduction efforts succeed, and what makes them struggle. These findings, along with the program's 11 systematic reviews, informed the

foundational [\*Roadmap to Reduce Disparities\*](#), a six-step framework that can help health care organizations link quality with equity. This framework offers structured, concrete tools – while offering flexibility and adaptability for diverse health care organizations, patient populations, and communities. Additionally, through a partnership with Aligning Forces for Quality, the Roadmap has been tried and tested on select health care practices across the nation, and further refined.

**The emerging themes and lessons learned from these efforts are distilled into the Roadmap's six steps:**

- |                                       |   |                                     |
|---------------------------------------|---|-------------------------------------|
| <b>1</b>   Linking quality and equity | <b>2</b>   Creating a culture of equity | <b>3</b>   Diagnosing the disparity |
| <b>4</b>   Designing the activity     | <b>5</b>   Securing buy-in              | <b>6</b>   Implementing change      |

[www.solvingdisparities.org](http://www.solvingdisparities.org)

This portfolio is a collection of innovative Finding Answers partner projects across the country that designed and implemented interventions to reduce quality of care disparities in cardiovascular disease, diabetes, and depression. It can be used in conjunction with other tools and resources on the program [website](#) by offering health care organizations that want to improve equity a place to start, options to consider, and ideas about where and how to intervene. The following are some highlights of the projects described in this document.

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### **Duke University Medical Center**

Developed a telephone-based nurse care management program that was shown to improve medication adherence for African-American patients with diabetes in rural areas. The intervention has since been adopted statewide by the North Carolina Medicaid Agency and expanded to include additional conditions. Duke's study was [published](#) in the *American Heart Journal*.

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### **Harvard Vanguard Medical Associates**

Demonstrated that cultural competency training paired with provider performance report cards was insufficient to reduce disparities, but sufficient to raise provider awareness of disparities, as [published in the \*Annals of Internal Medicine\*](#). Vanguard Associates then combined cultural competency training and the race-stratified performance reports with other interventions designed to help patients manage their diabetes. This is an example of how the knowledge of what did not work was used to guide a new round of work in an organization.

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### **Denver Health and Hospitals Foundation**

Implemented a remote telephone therapy intervention that provided Hispanic and Latino patients with depression assessment, support, and counseling over the phone. The intervention improved depression outcomes and has been expanded throughout the Denver Health system. A short [video](#) was made on this successful program.

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### **Baylor College of Medicine**

Implemented a system of financial incentives for providers to follow recommended hypertension care guidelines, an intervention that was investigated at 12 hospital-based Veterans Affairs outpatient clinics in 11 different states. Physicians who were provided a financial incentive experienced a 6.3 percent increase in the number of patients who achieved blood pressure control (or received appropriate clinical response to uncontrolled blood pressure) compared to physicians who were not offered financial incentive.



**The solutions to reducing health disparities are as multifaceted as the causes.** Health care organizations must tailor their solutions according to their patient population, equity goals, practice structure, and capacity for change. Therefore, the projects in this document utilized varying combinations of strategies, levels, and modes in their efforts to reduce disparities. For clarity and ease of use, we've organized these real-world examples based on program strategy, level of intervention, and mode of delivery.

Our [Intervention Builder](#) helps health care organizations categorize and plan equity-focused quality improvement programs. Use it to create the fundamentals of a disparity intervention by combining various target audiences and intervention strategies.

**Strategy** is the approach or tactic the project employs.

- DELIVERING EDUCATION AND TRAINING
- ENGAGING THE COMMUNITY
- ENHANCING LANGUAGE AND LITERACY SERVICES
- INCREASING ACCESS TO TESTING AND SCREENING
- PROVIDING FINANCIAL INCENTIVES
- PROVIDING PSYCHOLOGICAL SUPPORT
- PROVIDING REMINDERS AND FEEDBACK
- RESTRUCTURING THE CARE TEAM

**Level** is the primary target of the project.

- PATIENT
- PROVIDER
- MICROSYSTEM
- ORGANIZATION
- COMMUNITY
- POLICY

**Mode** is the channel used to deliver the intervention to its intended target.

- IN-PERSON
- INFORMATION TECHNOLOGY
- INTERNET
- MULTIMEDIA
- PRINT
- TELECOMMUNICATION

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The program office did a really nice job of trying to synthesize and tell a cohesive story across all of the funded projects- pulling out the emergent themes and putting forth an overarching principle or framework that others could use going forward.

– Romana Hasnain-Wynia  
Finding Answers national advisory committee member  
Patient Centered Outcomes Research Institute

# Cultural Competency Training and Disparities Report Cards



HARVARD VANGUARD MEDICAL ASSOCIATES | EASTERN MASSACHUSETTS  
HEALTH CARE SYSTEM  
AFRICAN AMERICANS

## DISPARITIES GOAL

Increase awareness of racial and ethnic disparities among providers and improve patient-provider relationships



## PROJECT

**Providers receive cultural competency training and monthly race-stratified performance reports.**

Over the course of 12 months, primary care physicians, nurse practitioners and physician assistants are given tools and training regarding racial disparities in health care. Participating clinicians attend lunchtime lectures that focus on racial disparities in the quality of diabetes care within the Harvard Vanguard health system as well as disparities by primary care teams. Sample race-stratified performance reports are presented for review and comment. Clinician feedback is utilized to revise the reports. Clinicians also attend a one-day (for physicians) or two-day (for nurse practitioners and physician assistants) cultural competency training, which includes lectures, discussions, introspective exercises and community tours.

Following the training, clinicians receive monthly race-stratified diabetes performance feedback reports, which include patient clinical data, information about patient experience and information about organization of care; and receive monthly informational sheets on delivering culturally tailored diabetes care.

## RATIONALE

The Chronic Care Model suggests that health care outcomes are linked to patient-provider interactions. Improving these interactions may lead to better health outcomes for minority patients. Positive working relationships are particularly important in diabetes care, where successful treatment is dependent upon establishment of a partnership between the patient and the clinical team.

Raising awareness among providers about racial and ethnic disparities in care is a first step, especially among those who are not aware that such disparities may exist in their own practices.

Cultural competency training may lead to better clinician-patient relationships by helping clinicians better understand social and cultural factors that influence health behaviors affecting disease management and patient outcomes.

Performance feedback can stimulate local quality improvement activities. Giving providers feedback about racial disparities in their own practices may heighten awareness among individual clinicians, prompting efforts to improve health care for minority patients.

## SUMMARY RESULTS

Offering cultural competence training, lunchtime lectures, and monthly race-stratified performance feedback reports successfully increased clinician awareness of disparities in their own patient panels (82% vs 59% controls). Clinicians in the intervention group were significantly less likely to report that cultural competency (17% vs 34% controls) and awareness of disparities (11% vs 33% controls) were effective strategies to reduce disparities. Though valuable, increasing clinician awareness alone was not sufficient to improve HbA1c, cholesterol, and blood pressure in patients with diabetes.

## STRATEGY

- DELIVERING EDUCATION AND TRAINING
- PROVIDING REMINDERS AND FEEDBACK

## LEVEL

- PROVIDER

## MODE

- PRINT
- IN-PERSON



# Customizing Health Messages Based on Cultural Understanding of Disease

02

DIABETES



CHOCTAW NATION HEALTH SERVICES AUTHORITY | SOUTHEASTERN OKLAHOMA  
RURAL PRIMARY CARE CLINIC  
AMERICAN INDIANS



## DISPARITIES GOAL

Improve provider-patient communication and diabetes self-management

## PROJECT

**Community Health Educators make a series of eight, hour-long home visits over the course of nine months.**

To prepare for the visits, Community Health Educators receive 12 hours of interactive, workshop-based training on semi-structured interviewing techniques to help better elicit a patient's personal and cultural understanding of diabetes—his or her beliefs about diabetes, its development and progression, treatment, preferred lifestyle changes and relationships with health care providers.

The intervention takes place in a culturally traditional area of the Choctaw Nation in the homes of tribal members with diabetes who are also patients at a clinic managed by the Choctaw Nation Health Services Authority.

## RATIONALE

Cultural beliefs may shape a patient's understanding of diabetes in ways that conflict with the predominant medical model and therefore create a barrier to effective self-management and treatment. By tapping into a tribal value known as “anumpuli”—a true dialogue or give-and-take conversation—the approach of the Community Health Educators creates an opportunity for open communication. Learning the patient's personal and cultural understanding of diabetes, and how it compares to the traditional medical model, allows the Community Health Educators to tailor their advice and education accordingly.

## SUMMARY RESULTS

Culturally-trained Community Health Educators' eight, 1-hour home visits to American Indians over the course of nine months increased patient confidence in the ability to perform diabetes self-care. However, the intervention did not decrease weight or HbA1c levels.

## STRATEGY

- DELIVERING EDUCATION AND TRAINING
- RESTRUCTURING THE CARE TEAM

## LEVEL

- PATIENT
- PROVIDER
- MICROSYSTEM

## MODE

- IN-PERSON

## Patient Financial Incentives and Culturally Tailored Outreach



WELLPOINT | CALIFORNIA, NEW YORK, OHIO AND VIRGINIA  
HEALTH BENEFITS COMPANY  
AFRICAN AMERICANS, LATINOS

### DISPARITIES GOAL

Increase patient activation and empowerment



### PROJECT

**Monetary incentives are directed at patients and coupled with culturally tailored outreach and education materials.**

The incentives are based on improving HbA1c levels, and the schedule of incentives will incorporate several factors. Those factors include: frequent monitoring of HbA1c, payments for achieving small, manageable milestones in reducing HbA1c, larger payments for larger reductions in HbA1c, larger required reductions in HbA1c levels for subjects with higher baseline levels, and larger required reductions in the long term versus the short term.

The culturally tailored outreach and education materials include DVDs, fast food and cooking guides, a fotonovela, a depression awareness guide, and webinars. Two rounds of postcard reminders are sent to members to encourage use of the materials.

The outreach materials were developed collaboratively with Latino and African American members of WellPoint's health plans in order to be culturally relevant. WellPoint employed qualitative participatory research techniques to determine members' knowledge of diabetes and how they get this information, resulting in clear guidelines for cultural themes to be addressed in a health education program that is effective despite inter- and intra-cultural differences.

### RATIONALE

This intervention aims to improve glycemic control in patients with poorly controlled diabetes through a variety of mechanisms.

Monetary incentives are intended to provide extrinsic motivation for patients to take the steps required to improve control of their diabetes. The schedule of incentives, based on principles from behavioral economics, attempts to motivate patients in a variety of ways. In particular the incentive system was developed to motivate patients who are making slow progress and prevent them from becoming discouraged; reward greater effort and success in achieving glycemic control; and promote eventual achievement of good glycemic control.

The culturally tailored outreach is intended to influence the context in which patients make decisions that affect glycemic control, thereby potentially amplifying the effect of the monetary incentives, and to provide the intrinsic motivation, information and support members need to sustain glycemic control after the incentives are withdrawn.

### SUMMARY RESULTS

Financial incentives of \$60, \$90, or \$125 were mailed to patients at four and eight months for achieving specific HbA1c reduction targets, which are based on patients' baseline HbA1c levels. These financial incentives, combined with culturally tailored outreach and educational materials, did not improve HbA1c levels, medication adherence, patient activation, or diabetes self-management behaviors relating to diet, exercise, and home monitoring of blood sugar.

**I think a very critical step is having the data, but the next thing is really linking that to existing quality improvement initiatives. Health equity does not stand on its own in a silo.**

– Grace Ting  
WellPoint

### STRATEGY

- DELIVERING EDUCATION AND TRAINING
- PROVIDING REMINDERS AND FEEDBACK
- PROVIDING FINANCIAL INCENTIVES

### LEVEL

- PATIENT
- ORGANIZATION

### MODE

- PRINT
- INTERNET
- MULTIMEDIA

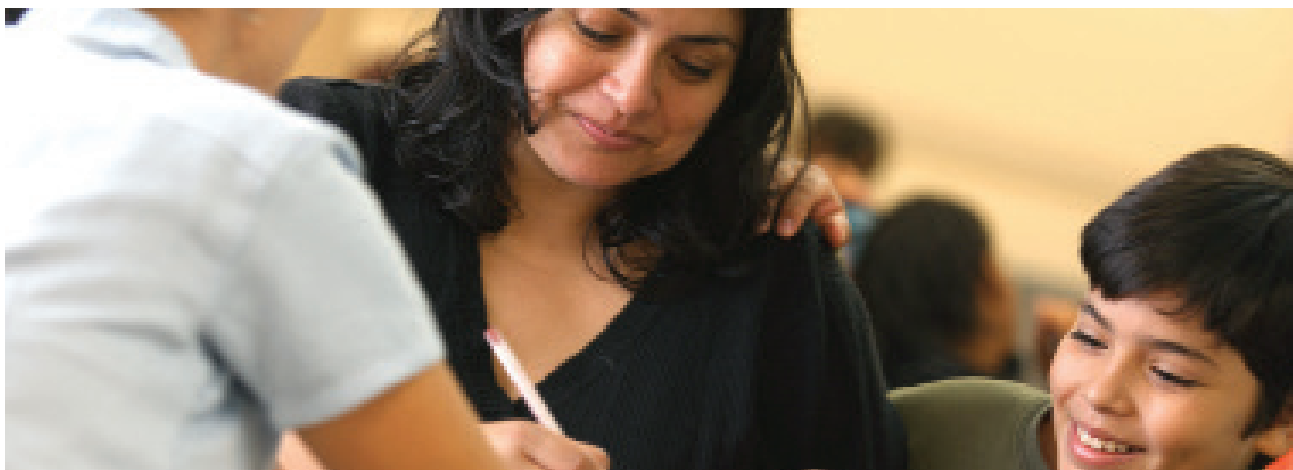
# Pay-for-Performance Programs to Improve Care

04

DIABETES



HUDSON HEALTH PLAN | HUDSON VALLEY AREA, NEW YORK  
MEDICAID-FOCUSED, NOT-FOR-PROFIT MANAGED CARE PLAN  
UNDERSERVED MINORITIES



**DISPARITIES GOAL**  
Improve both process and intermediate outcome measures of diabetes quality of care

## PROJECT

**Health plan reaches out to enrollees and provides bonus payments to participating primary care providers for high-quality, patient-centered care.**

Hudson sends members with diabetes a letter reminding them of the importance of an annual flu shot and enumerating the other key components of their diabetes care. Sometimes the letters are customized to indicate the particular services needed by the patient. A gift card is offered to members who complete a visit with their primary care physician.

Practices can earn up to \$300 per patient annually for complying with care standards. There are several individual screenings (e.g., blood pressure, HbA1c, LDL cholesterol) and immunizations (e.g., pneumococcal and influenza) which have payments attached to them. Reaching certain health outcome levels, as well as achieving relative improvements are also incentivized. Provider payments and performance reports are delivered by Provider Relations representatives during an annual meeting where overall outcomes and opportunities for improvement are discussed.

## RATIONALE

Pay-for-performance programs can improve outcomes for racial and ethnic minority patients, provided that they are designed to reward patient-centered care rather than population-wide results. Programs relying exclusively on population-wide outcome measures may encourage providers to avoid less adherent or sicker patients, exacerbating disparities or leaving them unchanged. The incentive amount is based on an estimate of provider effort needed, available resources, and prior studies investigating the magnitude of incentive needed to engage provider interest.

By encouraging the regular monitoring and testing of diabetic patients, this pay-for-performance program hopes to improve overall health and quality of care. Medium and long-term savings in emergency care and inpatient costs may be realized, while near-term costs of care and medications may increase. It is possible that any long-term benefits will accrue once patients are no longer members of the plan.

## SUMMARY RESULTS

Providing a \$10 financial incentive to patients for completing a primary care visit, and up to \$300 per patient to primary care providers for complying with care standards, did not improve patient HbA1c levels and diabetes-related healthcare utilization (LDL testing, Hb1Ac testing, diabetes-related care).

## STRATEGY

- PROVIDING FINANCIAL INCENTIVES
- PROVIDING REMINDERS AND FEEDBACK

## LEVEL

- PATIENT
- PROVIDER

## MODE

- IN-PERSON
- PRINT



## Personalized Diabetes Education and Coaching



UNIVERSITY OF CALIFORNIA-IRVINE | ORANGE COUNTY  
UNIVERSITY-AFFILIATED OUTPATIENT CLINICS  
MEXICAN AND VIETNAMESE-AMERICANS

### DISPARITIES GOAL

Improve patient-provider communication and encourage patients to actively engage in their care



### PROJECT

**Community-based diabetes coaches are incorporated into the care team.**

Diabetes coaches, who themselves have type 2 diabetes, are recruited directly from the local community and trained to work one-on-one with patients who are identified using an existing electronic diabetes registry. The coaches share language and socio-demographic characteristics with the patients and have the ability to serve as “cultural brokers” for what may otherwise be a hard-to-reach population within the clinics.

The coach-patient interaction occurs 20 minutes before regularly scheduled medical appointments, in a private area of the doctor's office. During that encounter, the diabetes coach addresses self-efficacy, social and cultural barriers to care, lifestyle changes and medication adherence. Using the patient's personal medical information, obtained directly from the patient and the medical record, the coach tailors the meeting to his or her individual needs. After a patient's visit with the doctor, coaches debrief patients and help them understand their treatment plan. Coaches also follow up with phone calls two weeks after the first doctor's visit, and one week prior to subsequent visits, which usually occur every three months.

### RATIONALE

Communication barriers between patients with limited English proficiency and their providers can lead to higher complication rates and poor health outcomes for patients, especially for those who must manage chronic disease. Effective patient-provider communication may result in better health outcomes and help reduce health disparities.

Through culturally appropriate, personalized education, coaches can help patients build information-seeking and communication skills that can improve patient-provider communication. The fact that the coaches have type 2 diabetes, are from the same communities, and speak the same languages as the patients they coach creates a peer relationship that may help the patients be more open to the information offered in the coaching session.

The intervention's potential for success also relies on the timing of the coaching. The coaching that occurs immediately before the patient's visit with the doctor may encourage better doctor-patient communication inside the doctor's office.

### SUMMARY RESULTS

The introduction of community-based diabetes coaches into care teams for Latino patients did not significantly decrease their HbA1c levels. The effect of the intervention on Vietnamese patients could not be assessed due to insufficient enrollment.

**Patients were able to share things [with their CHW] such as ‘I’m having problems with sexual dysfunction because of my diabetes’ that they feel uncomfortable sharing with their doctor. Then the coach encourages them to talk to their doctor about that. There is a lot of satisfaction. The patients are more satisfied that they have the peer coach that is kind of walking along with them. The doctors are more satisfied because they find that it makes their visits more efficient.**

– Quyen Ngo-Metzger  
University of California-Irvine

### STRATEGY

- RESTRUCTURING THE CARE TEAM
- PROVIDING REMINDERS AND FEEDBACK
- DELIVERING EDUCATION AND TRAINING

### LEVEL

- MICROSYSTEM
- ORGANIZATION
- PROVIDER
- PATIENT

### MODE

- IN-PERSON
- TELECOMMUNICATION



# Real-Time Tele-Monitoring of Glucose Levels

06

DIABETES



MOBILE COUNTY HEALTH DEPARTMENT | MOBILE COUNTY, ALABAMA  
FEDERALLY QUALIFIED HEALTH CENTER  
AFRICAN AMERICANS



**DISPARITIES GOAL**  
Improve glycemic control

## PROJECT

**Patients' glucose levels are monitored remotely.**

During a routine clinic visit, the provider prescribes a regimen of self-monitoring of blood glucose levels and determines a range of acceptable glucose values. The nurse coordinator then meets with the patient to show them how to use the glucometer and transmit glucose measurements through an interactive voice-response telephone system. Written instructions are provided, along with the phone number to contact the automated system, information on how to contact the nurse coordinator for any issues related to the program, and the dates of scheduled return visits. Before the visit ends, the nurse coordinator ensures that the patient has access to glucose monitoring supplies and diabetic medicines.

Glucose measurements are monitored through an automated system that generates email alerts to the nurse coordinator if values outside of acceptable range are transmitted. Once the nurse receives an alert, the value is evaluated and the patient is contacted and offered nursing advice. When a patient exhibits a sustained pattern of aberrant glucose values, the nurse discusses the situation with the patient's provider and acts according to the provider's recommendations.

## RATIONALE

Obtaining glycemic control is important to diabetes care and effective care regimens require both pharmacological treatment and patient self-management. Along with ongoing diet and exercise modifications, the self-monitoring of blood glucose is an essential part of diabetes self-management.

Advances in information technology have given rise to innovative interventions that facilitate the real-time transmission of glucose levels from patients at home to providers. Providers can give immediate feedback to patients when glucose levels are outside prescribed parameters, potentially preventing acute complications that might require emergency care (e.g., severe hyper- or hypoglycemia). Such distant interactions may be especially valuable in the provision of care to disadvantaged populations in settings where both lack of transportation and visit costs deter indigent patients from seeking face-to-face health care. Additionally, providers will have access to better information during the office visit, including their patient's longitudinal, date- and time-stamped glucose reading history.

## SUMMARY RESULTS

Tele-monitoring glucose levels resulted in an average improvement in Hb1Ac levels by 1.95 absolute percentage points, which was comparable to the improvement of 2.06 percentage points seen in patients who monitored glucose levels using a paper-and-pencil log. Both of these interventions resulted in statistically significant improvement in HbA1c levels compared to controls, which experienced an improvement of .95 percentage points. Among the 73% of tele-monitoring intervention patients who completed the study, a majority reported that tele-monitoring glucose levels was not a burden and that logging glucose data helped them to take care of their diabetes.

## STRATEGY

- RESTRUCTURING THE CARE TEAM
- PROVIDING REMINDERS AND FEEDBACK
- INCREASING ACCESS TO TESTING AND SCREENING

## LEVEL

- PATIENT
- PROVIDER
- MICROSYSTEM

## MODE

- IN-PERSON
- PRINT
- TELECOMMUNICATION
- INTERNET

## Redesigning Care Delivery in Fee-for-Service Practices



EAST CAROLINA HEALTH/BERTIE ALL-COUNTY HEALTH SERVICES |  
EASTERN NORTH CAROLINA  
RURAL PRIMARY CARE PRACTICES  
AFRICAN AMERICANS

### DISPARITIES GOAL

Enrich primary care visits and restructure physician and staff roles to improve clinical outcomes



### PROJECT

**Redesign the way diabetes care is delivered in a rural primary care practice.**

Based on the Chronic Care Model, primary care practices are redesigned to include a “circuit rider” staffing method, in which a certified diabetes educator nurse, a dietitian and a certified diabetes educator pharmacist rotate to clinics and partner with providers during patient visits as care managers. In this way, patients receive their education and behavior-centered coaching by a trained non-physician. In addition to staffing changes, an electronic health record disease registry system with physician decision support reminders is created.

At the point-of-care, patients receive: four-part American Diabetes Association education materials, self-management support, culturally relevant educational tools, and community-based follow-up and support services.

This project is a collaborative effort involving: small rural hospitals, rural community health center practices, a regional medical school, and a pharmacy school program at a historically Black university.

### RATIONALE

This intervention is directed at multiple components of the health care system including patients, providers, and the care team structure. Multi-component interventions have been shown to improve chronic disease outcomes for minority patients.

The circuit rider method of delivering skilled diabetes care is uniquely suited for medically underserved rural communities and those with disparate outcomes because it allows multiple practices to share the high costs and recruitment challenges of providing access to skilled diabetes care clinicians. It maximizes the efficiency of such a staff member because single clinic locations may not have a sufficient diabetic population to support a full-time staff member. Finally, circuit rider methodology requires scheduling provider and coaching visits on the same day (when the care manager is available). Clustering patients with a similar diagnosis together, this encourages staff to prepare diabetes-specific educational tools and decision-making protocols.

### SUMMARY RESULTS

Certified diabetes educators (nurses and pharmacists) and a dietitian rotated among rural clinics to partner with providers. This intervention is a financially viable means to bring specialists into clinics that would normally not be able to afford such services. Intervention patients experienced statistically significant decreases in HbA1c levels (0.72 absolute percentage point decrease vs 0.29 percentage point decrease for the control). Providers reported that the intervention increased visit quality for patients.

### STRATEGY

- DELIVERING EDUCATION AND TRAINING
- PROVIDING REMINDERS AND FEEDBACK
- RESTRUCTURING THE CARE TEAM
- ENGAGING THE COMMUNITY

### LEVEL

- PATIENT
- MICROSYSTEM
- COMMUNITY
- ORGANIZATION

### MODE

- INFORMATION TECHNOLOGY
- PRINT
- IN-PERSON

# Using Community Health Workers to Reduce Disparities

08

DIABETES



MASSACHUSETTS LEAGUE OF COMMUNITY HEALTH CENTERS | MASSACHUSETTS  
URBAN, SUBURBAN AND RURAL COMMUNITY HEALTH CENTERS  
UNDERSERVED MINORITIES



**DISPARITIES GOAL**  
Improve patient self-management and goal setting

## PROJECT

**A community health worker, formally trained in diabetes management, is added to the health care team.**

Project leaders in partnership with the Central Massachusetts Area Health Education Center adapted a nationally-recognized community health worker training program to include information on how to assist patients in their efforts to manage diabetes and improve glycemic control. Each community health worker receives 45 hours of classroom and field-based training and is assigned to care for patients with diabetes at his or her community health center. In addition to the initial training, periodic in-service conference calls are held and three additional training workshops are offered.

Patients meet with the community health worker for 30 minutes before each scheduled appointment or speak with them in advance by phone. The primary objective of each meeting is to help the patient develop a self-management goal. During each meeting an encounter form is completed to help guide the discussion and document what topics were addressed.

## RATIONALE

Community health workers can serve as valuable bridges between the treatment regimen medical professionals prescribe and the day-to-day realities of patients' lives. Recruited directly from the patient populations they serve community health workers often share similar ethnic and cultural backgrounds, language, traditions, and perspectives. Additionally, they have more time to spend with patients than primary care providers and can help patients navigate the complex health care system.

Often training programs for community health workers are brief and lack comprehensiveness. Formal training gives graduates of the program the knowledge and skills to improve patient outcomes and provides advancement opportunities for existing staff members interested in case management positions.

Keeping in mind the cultural, linguistic and health literacy diversity of the trainees, the improved training curriculum focuses on building skills related to service coordination, interpersonal and organizational relations, communication and interviewing, advocacy, leadership, and cultural awareness. A more general introduction to several health topics was replaced with sessions on the Chronic Care Model, managing chronic disease, and diabetes management.

## SUMMARY RESULTS

Adding a community health worker, formally trained in diabetes management, to the care team failed to improve clinical outcomes. However, it did result in a significant increase in likelihood of recording a self-management goal (82% vs 17% for controls), and an increase in the number of days within the last week that patients have checked their feet (3.7 pre vs 4.8 post-intervention).

**They [CHWs] have been very effective, because it is that simpatico sort of relationship that they can develop with the patients. And they speak the same language... I don't mean literally because they speak Spanish or Portuguese, but they speak it in a way that's culturally and ethnically grounded, that the professional, medical team often can't.**

– Joan Pernice  
Massachusetts League of  
Community Health Centers

## STRATEGY

- RESTRUCTURING THE CARE TEAM
- DELIVERING EDUCATION AND TRAINING

## LEVEL

- MICROSYSTEM
- PROVIDER
- PATIENT

## MODE

- IN-PERSON
- TELECOMMUNICATION



## Communicating Risk Information Using Technology



INDIANA UNIVERSITY SCHOOL OF MEDICINE | INDIANAPOLIS  
PRIMARY CARE CLINICS  
SPANISH-SPEAKING LATINOS

**DISPARITIES GOAL**  
Reduce cardiovascular  
disease risk factors



### PROJECT

**Patients received an individualized multimedia presentation on cardiovascular disease risk factors.**

Patients with type 2 diabetes view an individually tailored multimedia presentation designed for a low-literacy, Spanish-speaking audience. The presentation informs patients about their own cardiovascular disease risk and facilitates dialogue between patients and providers regarding possible strategies to reduce cardiovascular disease risk. Patients view the initial presentation, consisting of six segments and lasting approximately 12-13 minutes, on a tablet computer, in the waiting room prior to their office visit. The initial presentation includes information about the patient's 10-year risk of death or heart attack. It also presents their most recent HbA1c, blood pressure, cholesterol and smoking status information, compared to targets.

Additional segments of the initial presentation include illustrations and descriptions of a heart attack, a testimonial from a recovering heart attack patient, a review of options for reducing risk, and a brief coaching session. Presentations at subsequent visits address specific cardiovascular disease risk factors.

### RATIONALE

Though cardiovascular disease is the leading cause of death in Latino patients with type 2 diabetes, risk factors for the disease are under-treated. This intervention provides an efficient means of communicating individualized health risk information to patients in an environment where health care providers often lack the time to properly inform patients themselves, or have difficulty communicating across a language barrier.

Additionally, the tablet multimedia presentation uses graphics and testimonials to make the health information messages more accessible to patients with low health literacy, and has been tailored to reflect Spanish-speaking Latino cultural beliefs and norms. More effectively communicating these risk factors, and the behaviors necessary to address them has the potential to improve medication adherence, clinical outcomes, patient and physician satisfaction, and health-related quality of life.

### SUMMARY RESULTS

Individualized multimedia presentations on cardiovascular disease risk factors (hypertension, hyperlipidemia, diabetes, and heart attack) shown to diabetic Hispanic patients in clinic increased in frequency and ease of discussion about cardiovascular risk factors between patients and their providers. Patients spoke to their providers statistically sooner regarding their risk of heart attack (hazard ratio 1:82; 90% vs 50% controls by first visit) and high blood pressure (hazard ratio: 1.95) but not high cholesterol. This intervention also significantly improved the number of risk discussions per year for cholesterol (3.9 vs 2.1 controls), heart attack (3.8 vs 2.0 controls), and hypertension (3.7 vs 1.4 controls) but not for diabetes. Ultimately, the intervention did not result in any changes in medication or dosage for any of the risk factors, and there were no significant improvements in patients' Hb1Ac, systolic blood pressure or LDL cholesterol levels.

### STRATEGY

- DELIVERING EDUCATION AND TRAINING
- PROVIDING REMINDERS AND FEEDBACK
- RESTRUCTURING THE CARE TEAM

### LEVEL

- PATIENT
- MICROSYSTEM

### MODE

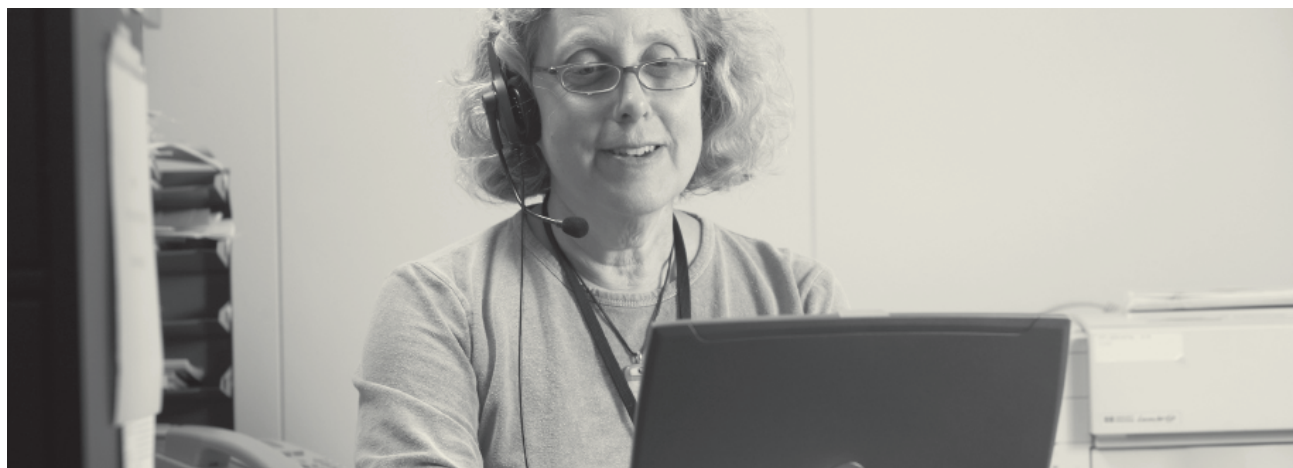
- MULTIMEDIA
- INFORMATION TECHNOLOGY
- PRINT



# Nurse Telephone-Based Cardiovascular Disease Risk Management System



DUKE UNIVERSITY MEDICAL CENTER | DURHAM, NORTH CAROLINA  
COMMUNITY-BASED PRIMARY CARE CLINICS  
AFRICAN AMERICANS



## PROJECT

**Patients received monthly calls from nurses to discuss their disease risk management.**

In this study, nurses call patients each month for a year to discuss the patients' cardiovascular disease risk management. The conversations contain both standard and tailored components. The nurses' discussions focus on teaching the dangers of poor cardiovascular disease control, presenting risk factors clearly and credibly, and enforcing the saliency of the hazard. At each call, topics for discussion are chosen based on an assessment of the patient's knowledge and stage of behavior change. Nurses then contact providers at three, six, and nine months to provide patient updates and to facilitate medication management. All nurses receive training in community health, cultural sensitivity and motivational interviewing. The intervention takes place in community-based primary care clinics affiliated with an academic medical center.

## RATIONALE

Patients' inability to achieve accepted targets of chronic disease control likely arises from a complex interaction of treatment non-adherence and providers' lack of treatment intensification (clinical inertia). This intervention targets both patients and providers and addresses multiple chronic conditions contributing to cardiovascular disease risk.

A multi-behavior, comprehensive approach is proposed because no one factor has been shown to consistently improve cardiovascular disease outcomes. The intervention is tailored to the needs of vulnerable, high-risk patients and uses existing clinical infrastructure, including nurses. It builds rapport between patients and nurses, which has the potential to improve continuity of care. More frequent contact with patients allows physicians to make decisions about changing medications, ordering additional tests or scheduling additional clinic appointments depending on the patient's situation.

## SUMMARY RESULTS

African American patients receive monthly, individually tailored calls from nurses to discuss cardiovascular disease risk management. The intervention significantly increased patient self-reported medication adherence by 22% (vs 2% increase in control), and significantly decreased Hb1Ac values by .25 absolute percentage points (vs 0.04 percentage point increase in control).

**Fundamentally, at the end of the day, it's about how you motivate somebody to initiate a behavior, and how you sustain that behavior and make it a habit...Our patients are struggling with a lot of issues, and they can't [always] come into a clinic. So a telephonic intervention that helps them with their diet and exercise and medication adherence is something that they deemed very helpful.**

– Hayden Bosworth  
Duke University Medical Center

## DISPARITIES GOAL

Reduce cardiovascular disease risk factors

## STRATEGY

- DELIVERING EDUCATION AND TRAINING
- PROVIDING PSYCHOLOGICAL SUPPORT
- RESTRUCTURING THE CARE TEAM

## LEVEL

- PATIENT
- PROVIDER
- MICROSYSTEM

## MODE

- TELECOMMUNICATION

## Patient Care Management and Rewards Program



AARON E. HENRY COMMUNITY HEALTH SERVICES CENTER | MISSISSIPPI DELTA  
RURAL, NONPROFIT PRIMARY HEALTH CARE ORGANIZATION  
AFRICAN AMERICANS

### DISPARITIES GOAL

Improve patient  
education and self-  
management



### PROJECT

**Patients receive cash incentives  
for positive health behaviors and  
health outcomes.**

Nurses lead a comprehensive care management program which includes a cash incentive program for uninsured patients suffering from either hypertension or diabetes. The patient-centered program focuses on education and self-management. Patients who show positive health outcomes (weight management, aerobic activity and medication adherence) receive financial incentives. Financial rewards up to \$408 are distributed on a quarterly basis for one year.

To promote the maintenance of healthy behaviors, 40 percent of the total reward earned is withheld from the patient until the program is completed.

### RATIONALE

A care management program that includes patient-focused incentives has the potential to improve standards of clinical care, while also reducing health care costs. This program incorporates health coaching, care support service delivery and direct financial incentives. Cash incentives for uninsured patients have the potential to promote wellness behaviors and a healthy lifestyle, which in turn may improve clinical outcomes and reduce overall health care costs. Uninsured patients may be particularly responsive to this type of reward system, due to the economic challenges they face.

Furthermore, large financial incentives may be more motivating than small ones. In addition to the financial incentives, patient education information and self-management tools are provided to encourage healthy lifestyle changes such as medication adherence, weight loss and increased physical activity.

### SUMMARY RESULTS

Offering patient financial incentives in a clinic with a strong care management program failed to improve the incentivized clinical outcomes of weight loss, medication adherence, or physical activity.

### STRATEGY

- PROVIDING FINANCIAL INCENTIVES
- DELIVERING EDUCATION AND TRAINING
- RESTRUCTURING THE CARE TEAM
- PROVIDING REMINDERS AND FEEDBACK

### LEVEL

- PATIENT
- MICROSYSTEM

### MODE

- IN-PERSON
- PRINT

# Point of Care Automated Medication Delivery System

12

DIABETES AND CARDIOVASCULAR  
DISEASE RISK FACTORS



UNIVERSITY OF MIAMI | SOUTH FLORIDA  
PRIMARY CARE CLINICS  
AFRICAN AMERICANS, LATINOS



**DISPARITIES GOAL**  
Increase medication adherence

## PROJECT

**Patients receive diabetes medication at their doctor's office, utilizing an automated medication delivery system.**

An automated medication-delivery system allows physicians to fulfill prescriptions for diabetes, blood pressure or cholesterol medicines at the time of the clinic visit. Based on prescriptions entered into electronic medical records, a controlled-access storage cabinet in the clinic office automatically dispenses pre-packaged medications, which are delivered to the patient during their appointment. A four-step quality control protocol, including color-coded labels, ensures that the correct patient receives the proper medication. Containers are labeled with the patient's name, and patients are provided with a printed summary of the prescription, including instructions and a picture of the pills themselves. The summary can be provided in English or Spanish.

## RATIONALE

Medication adherence is a key component in diabetes management, but many patients fall short of adherence targets. This point of care medication delivery system helps overcome various barriers to obtaining medications and maintaining medication adherence. These barriers include difficulties in the patient's environment such as transportation to the pharmacy, neighborhood safety, or time constraints. By changing the place where a patient receives his medication (from pharmacy to clinic), this intervention restructures the way a patient receives care.

The medication delivery system links the clinical encounter to the medication-filling process, which has the potential to make adherence issues a central part of the physician-patient interaction. Physicians may gain a deeper understanding of the challenges of the prescribed regimen, and patient barriers to adherence. Patients, in turn, may be able to learn more about the regimen and discuss concerns about the medication during the clinic visit itself. The link between the automated medication-delivery system and the patient's electronic medical record gives physicians better information about that patient's adherence.

## SUMMARY RESULTS

An automated medication-delivery system did not significantly improve patient outcome measures (LDL cholesterol, HbA1c, and blood pressure) but did significantly increase the proportion of patients with access to medication. The Medication Possession Ratio (access to medication at least 80% of the time) increased 15% for diabetes, 26% for cholesterol, and 32% for blood pressure medications. Continuous medication possession over time increased by 21% for diabetes, 28% for cholesterol, and 21% for blood pressure medications.

**For these seniors who are on so many medications, a trip to the pharmacy may happen once a week. The program really gives patients their independence because they are no longer relying on their nephew, niece, daughter, or their granddaughter to take them to the pharmacy. Or they normally have to take a number of busses. They feel like they're not as much of a burden on their family and it gives them a lot of independence.**

– Jessica Chen  
University of Miami

## STRATEGY

- RESTRUCTURING THE CARE TEAM
- PROVIDING REMINDERS AND FEEDBACK

## LEVEL

- ORGANIZATION

## MODE

- INFORMATION TECHNOLOGY
- PRINT

## Remote Video Interpreting Services



SUTTER HEALTH | CALIFORNIA

OUTPATIENT CLINICS

PATIENTS WITH LIMITED ENGLISH PROFICIENCY

### DISPARITIES GOAL

Improve treatment adherence



### PROJECT

**Patients with limited English proficiency receive interpretation services via a two-way remote video link.**

Language interpretation services are offered via remote video technology that uses existing laptops and clinic intranet to connect providers and patients with an interpreting center. Instead of using in-person or external telephone-based interpreter services, patients see and are seen by interpreters via a two-way audio and video link.

Staff and providers receive cultural competency training and learn how to use the new video interpretation system. Physicians submit a request for interpretation services via an online form, and an interpreter connects to the clinic through a webcam on a computer in the exam room. The remote video link utilizes existing clinic computer hardware, and does not require costly or dedicated-use videoconferencing equipment.

Three California Pacific Medical Center primary care practices in partnership with Sutter Health will participate.

### RATIONALE

Inadequate interpretation services have been shown to decrease the likelihood that patients will be able to follow doctors' orders, which creates an indirect hidden cost in health services. Additionally, the use of traditional telephone interpretation methods has limitations, including the inability for the interpreter to see the patient when giving instructions or to get a full assessment of the patient's body language. Using a video-based system reduces the chance that interpretation services will be perceived as removed and cold by both the patients and providers. The transition to remote video interpreting has the potential to improve patient flow, reduce interpreter wait time, improve the documentation and tracking of interpreter services, and improve interpreter protocols. As interpretation services are improved, both patient-provider communication and satisfaction may be improved, potentially leading to greater adherence to treatment, and better health outcomes.

### SUMMARY RESULTS

Patients and providers were provided with remote video interpretation (RVI) or in-person interpretation (IPI) delivered by interpreters from either Sutter Health System call center or an external vendor. When using an in-system interpreter, the average per-appointment cost of RVI (\$44.50) was significantly lower than IPI (\$49.50). Furthermore, using an in-system interpreter was significantly cheaper than using an external interpreter for both RVI (\$89.00) and IPI (\$81.20). Participants receiving RVI reported satisfaction with the service, which increased patient understanding of medications and created awareness of interpretation needs. However, providing RVI did not improve HbA1c, LDL, blood pressure or medication adherence.

**When we think of what happens when communication breaks down between a patient and a doctor, it leads to a lot of disparities. The number one disparity is quality of care. So these patients [who receive care in a language other than their preferred language] are not getting the highest quality of care when they don't understand half or more than half of what their doctor is saying to them.**

– Maria Moreno  
Sutter Health

### STRATEGY

- DELIVERING EDUCATION AND TRAINING
- ENHANCING LANGUAGE AND LITERACY SERVICES

### LEVEL

- PROVIDER
- PATIENT
- ORGANIZATION

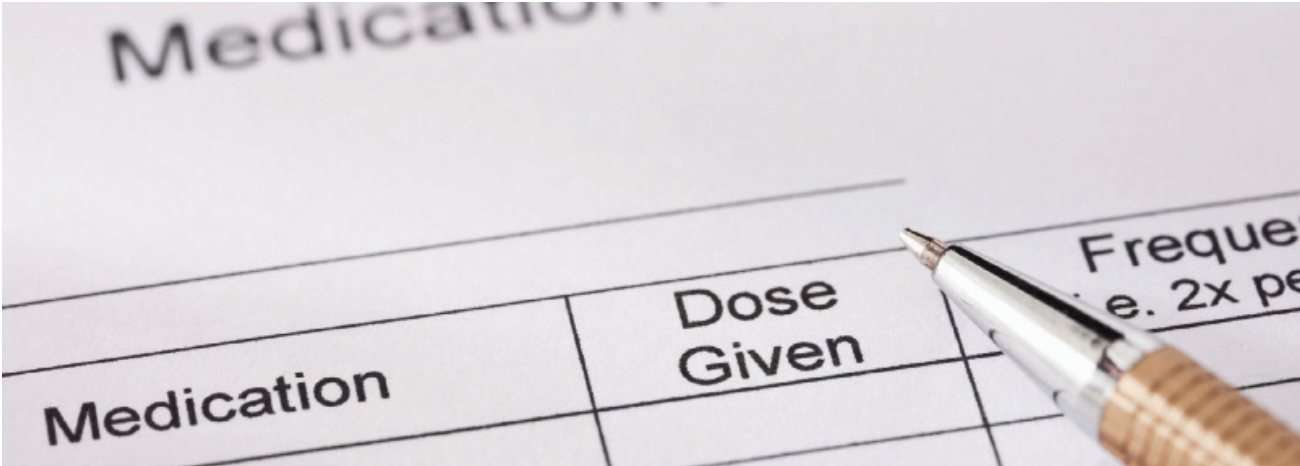
### MODE

- MULTIMEDIA
- INFORMATION TECHNOLOGY
- INTERNET





WESTSIDE HEALTH SERVICES | ROCHESTER, NEW YORK  
FEDERALLY QUALIFIED HEALTH CENTER  
UNDERSERVED MINORITIES



**DISPARITIES GOAL**  
Improve quality of care  
and overcome clinical  
inertia

**PROJECT**  
**Patients visit a clinician peer  
of their regular primary care  
physician.**

Patients are scheduled to come in for a peer review office visit—a structured, 30-minute office visit conducted by a clinician peer of the patient’s primary care provider. During the visit, the clinician peer’s goals are to focus only on control of diabetes, systolic blood pressure and LDL cholesterol, and to improve overall cardiovascular and diabetes care. New or acute health issues are referred to another visit. The peer clinician reviews all current medications, assesses barriers to taking medications as prescribed, and provides information about generic medication options. He or she may also intensify treatment, as appropriate, using guidelines attached to the patients’ medical chart. At the end of the visit, the peer clinician creates a written summary of action items, goals and medication changes to be placed in the chart, handed to the patient and also given to the primary care physician. The intervention includes a follow-up visit with the patient’s primary care provider six weeks to three months later.

**RATIONALE**

During 15-minute office visits, competing health issues can make it difficult for clinicians to focus on achieving target goals for diabetes and cardiovascular disease care. In addition, clinicians’ decisions about care are sometimes subject to unconscious bias and a phenomenon known as clinical inertia—the failure to intensify therapy for a given patient, even when clinically appropriate.

Peer review office visits can address these limitations by bringing in a second clinician to review the care given for chronic conditions, ensure it is evidence-based, and intensify treatment as needed. Peer review office visits are likely to be embraced by clinicians because they can replace the task of conducting cumbersome after-hours chart audits with a billable office visit.

**SUMMARY RESULTS**

Concurrent peer review (CPR), which are billable office visits with a clinician peer of their usual primary care provider, significantly improved the number of referrals for diabetic patients to dental (61.9% vs 19.4% controls), ophthalmic (59.6% vs 22.6% controls), and podiatric care (65.6% vs 10% controls). Peer review visits also significantly improved the percentages of patients who set a self-management goal (81.0% vs 13.0% in controls) and received immunizations for pneumonia (58.9% vs 23.4% in controls) and Dtap/Td vaccination (51.7% vs 17.5% controls). The visits significantly increased the percentage of patients receiving therapy intensification for hypertension (53.2% vs 25.6% in controls), hyperlipidemia (38.2% vs 15.9% in controls), and diabetes (56.7% vs 28.4% in controls). While there was no significant effect on HbA1c or LDL-C cholesterol levels, there was a significant decrease in systolic blood pressure (136.3 vs 139.0 mm Hg in controls)

- STRATEGY**
- DELIVERING EDUCATION AND TRAINING
  - RESTRUCTURING THE CARE TEAM
  - PROVIDING REMINDERS AND FEEDBACK

- LEVEL**
- PATIENT
  - PROVIDER
  - MICROSYSTEM

- MODE**
- INFORMATION TECHNOLOGY
  - IN-PERSON
  - PRINT

## At-Home Blood Pressure Monitoring



FUND FOR PUBLIC HEALTH IN NEW YORK | SOUTHWEST BROOKLYN, BRONX, HARLEM  
PRIMARY CARE HEALTH NETWORKS  
AFRICAN AMERICANS, LATINOS

### DISPARITIES GOAL

Overcome physician clinical inertia and improve patient self-management



### PROJECT

**Patients transmit blood pressure readings using at-home monitors.**

Patients discuss their blood pressure goal, monitoring regimen and action plan with their doctor and receive a blood pressure monitor for use at home. Patients are asked to transmit their readings once a month for nine months, and receive monthly reminders to transmit their data. The blood pressure monitors transmit the readings via modem and phone line to a secure database. The blood pressure readings are also recorded by patients on a tracking card and brought to follow-up visits with their provider. This allows physicians to get a more complete picture of their patient's health and potentially influence treatment decisions. The intervention is being implemented in three clinic networks.

### RATIONALE

Self-monitoring of blood pressure has shown to be an effective tool for improving hypertension control. This project addresses both patient-and provider-level mechanisms that may lead to reductions in blood pressure and improved hypertension control.

Self-monitoring by patients may allow physicians to titrate medications more accurately, and it may encourage patients to more actively participate in their own health care. Home blood pressure readings have the potential to prompt physicians to advance care by monitoring blood pressure more frequently and therefore having more information to make clinical decisions. This may help overcome 'clinical inertia,' in which doctors fail to intensify treatment for patients who need it. At-home blood pressure monitoring may make an asymptomatic condition feel more "real" for patients, stimulating healthy behavior changes.

### SUMMARY RESULTS

Patients were asked to self-monitor their blood pressure daily and transmit results monthly to their providers. After 10 months, the percentage of patients in the intervention group with improved systolic blood pressure was comparable to the percentage in controls (38.9% vs 39.1%). This is a feasible intervention.

### STRATEGY

- INCREASING ACCESS TO TESTING AND SCREENING
- PROVIDING REMINDERS AND FEEDBACK

### LEVEL

- PATIENT
- PROVIDER

### MODE

- TELECOMMUNICATION
- INFORMATION TECHNOLOGY
- PRINT

# Automatic Reminders to Intensify Therapy

16

HYPERTENSION



BRIGHAM AND WOMEN'S HOSPITAL | BOSTON  
PRIMARY CARE CLINICS  
AFRICAN AMERICANS, LATINOS



**DISPARITIES GOAL**  
Appropriately intensify  
hypertension treatment

## PROJECT

**Doctors receive automatic reminders to intensify therapy for patients with uncontrolled hypertension.**

A computerized decision support system automatically reminds physicians to intensify therapy when a patient has uncontrolled hypertension. The messages are delivered via electronic medical records to physicians whenever they access the record of a patient who meets inclusion criteria. If the patient's most recent blood pressure reading indicates poor control, the patient's electronic health record displays a message that is automatically sent to the provider suggesting they intensify anti-hypertensive therapy. The reminders consist of suggestions to increase dosage, add, or change medications to treat hypertension.

A network of 14 primary care clinics that are part of Brigham and Women's Hospital are participating. Brigham and Women's Hospital utilizes an integrated longitudinal electronic medical record system that tracks patient information, including outpatient prescriptions.

## RATIONALE

Providers may take a more or less aggressive approach to hypertension management depending on a patient's race or ethnicity, resulting in greater rates of uncontrolled blood pressure for minority patients. This intervention aims to help providers improve the quality of care for all patients by providing automatic notifications to intensify therapy for uncontrolled hypertension. Computer-based reminders have been shown to be effective in improving processes of care, but this study has the potential to demonstrate improved clinical outcomes. By prompting the appropriate intensification of therapy, this study may help overcome clinical inertia and reduce racial and ethnic disparities in hypertension treatment. The cost-effectiveness evaluation may show improvement in clinical outcomes that also show savings in overall health care costs, which could encourage similar interventions elsewhere.

## SUMMARY RESULTS

Using automated EMR reminders to prompt providers to intensify therapy for patients with poorly controlled hypertension did not increase rates of treatment intensification, but did lower blood pressure in the intervention group by 3.8 mm Hg more than the control group. However, significant racial/ethnic disparities persisted. Among patients with poorly controlled blood pressure, Non-Hispanic Whites had their blood pressure medications intensified 69.5% of the time, compared to 56.8% of the time for Hispanics. Additionally, Hispanics experienced a 4.3 mm Hg smaller decline in mean systolic pressure than non-Hispanics did.

## STRATEGY

- PROVIDING REMINDERS AND FEEDBACK

## LEVEL

- PROVIDER

## MODE

- INFORMATION TECHNOLOGY

## Clinical Screening of Patients' Health Literacy



MOREHOUSE SCHOOL OF MEDICINE | ATLANTA, GEORGIA  
COMPREHENSIVE ACADEMIC HEALTH CARE CLINICS  
AFRICAN AMERICANS

### DISPARITIES GOAL

Improve patient-provider communication



### PROJECT

**Patients complete a health literacy screening and physicians are trained to adjust their communication based on the results.**

In the waiting room prior to their doctor visits, patients complete the Newest Vital Sign, a six-question screening tool which was developed as part of the Pfizer Clear Health Communication Initiative. Intake staff, nurses, and research assistants then enter the patients' scores in their electronic medical records for the physician to see.

Physicians are trained to be particularly careful in their communication with patients with a health literacy score of lower than four, which indicates that they may have limited or low health literacy. Physician training utilizes the Health Literacy Educational Kit developed by the American Medical Association (AMA) Foundation which contains a documentary and instructional video, an in-depth manual for clinicians, the AMA Council on Scientific Affairs report on health literacy, literacy fact sheets, and materials for community presentations. Provider training includes familiarization with the screening tool and patient-provider role-playing exercises. Physicians are also given the option to complete the AMA Health Literacy Educational Kit as a self-study.

### RATIONALE

Studies show that patients with low health literacy may be less adherent and less able to participate in their own disease management, resulting in poorer outcomes and health disparities. Patient adherence to prescribed treatment is crucial in managing chronic diseases such as hypertension. However, low health literacy is not simply a patient problem.

The implications for quality are shared by the provider and health care system in partnership with the patient. Communication is multi-directional, with the complexity of health care placing a greater burden on the clinician to ensure understanding. However, despite best efforts, clinicians are not always able to accurately assess literacy abilities of their patients and ensure their comprehension of the information provided.

By providing communications training and access to health literacy scores, physicians will be empowered to communicate with patients at an appropriate health literacy level, improving the encounter, quality of care and health outcomes.

### SUMMARY RESULTS

Screening patients for health literacy and training providers to respond to the results did not significantly affect blood pressure. Of the study participants, 37% screened positive for possible limited health literacy. Patients also responded well to the health literacy screening, with 99% reporting feeling no shame and 97% recommending its continued use.

### STRATEGY

- DELIVERING EDUCATION AND TRAINING
- ENHANCING LANGUAGE AND LITERACY SERVICES

### LEVEL

- PROVIDER
- PATIENT

### MODE

- PRINT
- MULTIMEDIA
- IN-PERSON



# Culturally-Adapted, Telephone-Based System to Promote Physical Activity

18

HYPERTENSION



BOSTON MEDICAL CENTER | BOSTON  
URBAN SAFETY NET PROVIDER  
AFRICAN AMERICANS



## DISPARITIES GOAL

Increase physical activity

### PROJECT

**Patients received weekly telephone calls from an automated health monitoring and counseling system.**

An automated, interactive behavior-change program is delivered to patients by telephone, which individually tailors health messages based on a range of individual and cultural variables, functioning as an at-home monitor, educator and conduit of messaging designed to reinforce or change health-related behaviors. Patients receive one call per week for 12 weeks that lasts about 10 minutes. Patients are asked about their levels of physical activity. Based on their responses, the system provides feedback, assistance in developing goals for healthy behaviors, and a physical activity 'prescription' for the upcoming week. The system also explores the benefits of and possible barriers to regular physical activity. The telephone system delivers messages that are specifically tailored to the patient's cultural background and most closely aligned with the patient's own personal values.

### RATIONALE

Moderate physical activity can play an important role in reducing blood pressure. Even though the health benefits of regular physical activity have been well-established, many Americans do not engage in leisure-time physical activities. Interactive, computer-based telephone systems can help encourage healthy behaviors: they are flexible, easy to use, and have a relatively low cost to implement. These telephone systems can be accessed by patients at any time, and from any location. An automated telephone system may be particularly helpful for patients who experience obstacles to participating in face-to-face behavior-change programs. The culturally adapted intervention being investigated by this study has the potential to be even more helpful: 'culture neutral' interventions intended for a general audience often have poorer outcomes than those that are specifically adapted to the cultural background of patients.

### SUMMARY RESULTS

Weekly telephone calls from an automated health monitoring and counseling system did not lower blood pressure among hypertensive patients. However, participants reported a significant increase in moderate-or-greater physical activity (MOD+PA). At 3 months, patients in the intervention group were significantly more likely than the control group to meet national recommendations (>\_30 minutes per week of MOD+PA at least 5 days per week), as measured by both the 2009 Behavior Risk Factor Surveillance System (OR 3.09) and the 7-Day Physical Activity Recall surveys (OR 2.30).

### STRATEGY

- PROVIDING PSYCHOLOGICAL SUPPORT
- DELIVERING EDUCATION AND TRAINING
- PROVIDING REMINDERS AND FEEDBACK

### LEVEL

- PATIENT

### MODE

- TELECOMMUNICATION

## Patient-Directed Financial Incentives



CIGNA HEALTHCARE | MID-ATLANTIC  
HEALTH SERVICES COMPANY  
AFRICAN AMERICANS, LATINOS, ASIANS

### DISPARITIES GOAL

Motivate patients to visit their doctor



### PROJECT

**Patients are offered financial incentives to make an appointment with their doctor.**

Patients are sent a letter with hypertension education materials, a wallet-size blood pressure health record, and an offer to receive a \$15 gift card if they visit their doctor within the next two months.

A second mailing goes to patients who have not scheduled an appointment within four months of the first mailing. Participating physicians receive a letter introducing the initiative and its goals, educational materials on plain language communication with patients, and a copy of the materials being sent to their patients. The prepaid debit cards are mailed to patients as soon as a claim for the doctor visit is received by the health plan.

### RATIONALE

Insured, low-income minority populations may be motivated to visit their physician and improve their hypertension self-management through financial incentives. These incentives may be effective even if the amount is relatively small, especially if the incentives offset barriers to care such as the costs of transportation and childcare. By motivating patients to see their physician, this study may improve both short- and long-term health outcomes. Encouraging patients to make an appointment with their doctor and providing education materials can potentially help convince a patient that he or she has an active and important role in his or her own health. This increased motivation may improve health outcomes by increasing disease self-management behaviors, treatment adherence, and physician-patient communication.

### SUMMARY RESULTS

Patient-directed financial incentives paired with educational materials significantly increased the percentage of patients who had a primary care visit at 3 months after implementation (33.8% vs 31.1% of controls), particularly for patients who had not seen a physician in over a year and for those with moderately high hypertension. However, the incentives plus education were not significantly more effective than patient education alone (33.8% vs 34.0% at 3 months). A significantly greater percentage of patients receiving education only had a physician visit at 6 months (53.5% vs 50.8%) and at 12 months (67.9% vs 64.0%). Despite the increase in visits, this intervention did not improve clinical outcomes.

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**We discovered that we also need to be really attuned to where the individual is within the continuum of treatment and response to treatment. As a result, we need to tailor the initiative and the communication for somebody who's newly diagnosed very differently from someone who is long-standing, poorly controlled [or] somebody who is well-controlled.**

– Katherine Pierce  
CIGNA HealthCare

### STRATEGY

- PROVIDING REMINDERS AND FEEDBACK
- DELIVERING EDUCATION AND TRAINING
- RESTRUCTURING THE CARE TEAM
- PROVIDING FINANCIAL INCENTIVES

### LEVEL

- PATIENT
- PROVIDER
- MICROSYSTEM
- ORGANIZATION

### MODE

- PRINT

# Pay-for-Performance Incentives to Improve Quality

20

HYPERTENSION



BAYLOR COLLEGE OF MEDICINE | ELEVEN SITES NATIONWIDE  
VA MEDICAL CENTERS  
AFRICAN AMERICANS



**DISPARITIES GOAL**  
Improve hypertension treatment and follow-up care

## PROJECT

**Monetary incentives are given to providers and provider teams to follow recommended hypertension care guidelines.**

Health care personnel are eligible to receive a monetary bonus for each patient with hypertension. Half of the bonus is based upon the physician's use of guideline-recommended medications. The other half is based upon the proportion of patients with hypertension achieving blood pressure control or receiving a guideline-recommended response to uncontrolled blood pressure. Bonuses can be paid in two ways; to physicians only or to groups comprised of physicians and non-physician team members.

Group bonus payments are based upon the aggregate performance of physicians in the group. The group can choose to divide the payments equally or use them to purchase health care equipment or supplies to improve quality of care. Physician-only bonuses are received as additions to their normal pay.

Monetary rewards are distributed approximately every four months. Audit and feedback reports summarizing performance over each of five performance periods are provided to participants via a password-protected study website. Feedback reports include data reflecting individual and group scores, earnings for the study period, and total earnings to date, as appropriate.

## RATIONALE

The incentive systems are designed to change physician behavior without causing undesired, unintended consequences (i.e., gaming), setting unrealistic goals, or providing incentives that are too small.

The financial incentive structures are designed to reward a combination of process-of-care measures for which there is evidence that better performance leads to better outcomes (e.g., documentation of prescribing a medication) and the outcome of interest; blood pressure control.

Payment amounts are set so that they are large enough to make a difference and influence physician behavior. They are paid out every four months to make a clear and timely link between the desired behavior and the reward.

## SUMMARY RESULTS

Physician-directed financial incentives showed mixed impact on guideline-appropriate care and clinical outcomes. The proportion of African American patients who either achieved BP control or received a clinically appropriate response to uncontrolled BP was significantly higher by 6.3% in the intervention group than in the control group. However, there was no significant difference in the proportion of African American patients receiving guideline-recommended antihypertensive medications between the intervention and control groups.

## STRATEGY

- PROVIDING FINANCIAL INCENTIVES
- PROVIDING REMINDERS AND FEEDBACK

## LEVEL

- PROVIDER

## MODE

- INTERNET

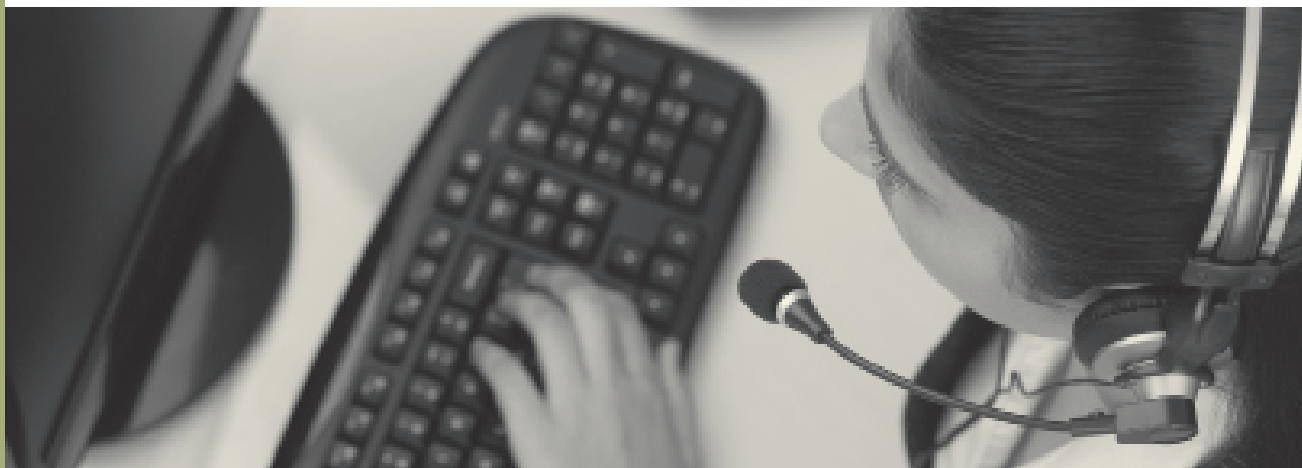
## Peer and Health Educator Support to Improve Health



UNIVERSITY OF PENNSYLVANIA | PHILADELPHIA COUNTY  
UNIVERSITY-AFFILIATED PRIMARY CARE PRACTICES  
AFRICAN AMERICANS

### DISPARITIES GOAL

Improve medication adherence, diet and exercise regimen



### PROJECT

**Patients receive complementary disease management support from a health educator and peer coach.**

This practice-based peer coach and health educator intervention addresses patient cardiovascular disease risk with five monthly contacts; three calls by a peer coach alternating with two clinic visits with a health educator.

The peer coach serves as a role model who provides convenient phone support about the patient's self-reported barriers while the health educator offers face-to-face information tailored to the patient's blood pressure, lipids and other cardiovascular disease risk factors. The peer coach and health educator focus on medication adherence, exercise and diet by addressing attitudes, social norms and perceived behavioral control. The health educator and peer coach concurrently monitor patient progress as part of a team-based care model.

Patients also receive American Heart Association brochures and community resources about hypertension and diet that were developed for African American patients with low literacy.

### RATIONALE

Care from a primary care physician alone may not always meet the broad range of patient needs. Team-based care as part of a patient-centered medical home model has been conceptualized to offer comprehensive care that is accessible, family-centered, continuous, coordinated, compassionate and culturally competent. Adding a trained peer coach and health educator to the care team may help address the barriers to a healthy lifestyle and medication adherence that patients may experience. Several decades of research have shown that peers can be trained to deliver credible, effective messages about health behaviors because they are viewed as successful despite having similar challenges.

### SUMMARY RESULTS

Tailored disease management support through health educators (on site) and peer coaches (on-site, phone calls) significantly improved blood pressure (8.6 mmHg drop vs 0.6 mmHg drop in controls). At follow-up, the intervention significantly decreased patients' 4-year cardiovascular disease risk (-0.6% change in risk vs +0.7% in controls).

### STRATEGY

- DELIVERING EDUCATION AND TRAINING
- RESTRUCTURING THE CARE TEAM

### LEVEL

- PATIENT

### MODE

- IN-PERSON
- TELECOMMUNICATION
- PRINT





COOPER GREEN MERCY HOSPITAL | BIRMINGHAM, ALABAMA  
INNER CITY, SAFETY-NET PROVIDER  
AFRICAN AMERICANS



**DISPARITIES GOAL**  
Improve blood pressure and self-management

## PROJECT

**Patients receive a series of three DVDs that feature peers from the community talking about their own experiences controlling high blood pressure.**

Each DVD has two sections: "Storytelling" and "Learn More." In the Storytelling section, patients share their experiences on topics such as living with hypertension, changing diet and behaviors, following their medication plans, and communicating with physicians. The "Learn More" section features educational segments on understanding blood pressure, avoiding hidden sodium, and getting enough exercise.

To create the DVDs, project leaders selected 14 patients from a series of six focus groups, recorded interviews with them, and chose clips from those interviews to be included in the DVDs.

Patients watch the first DVD at Cooper Green, where they also receive a DVD player, if needed, and instructions on how to use it. They view the next two DVDs in their own homes.

## RATIONALE

Controlling blood pressure is difficult because it requires patients to closely follow their provider's instructions, including taking their medication as prescribed, changing their diet, exercising and keeping their appointments. Sometimes, social and cultural norms and a patient's environment can challenge the physician-recommended treatment and lifestyle changes that can lead to blood pressure control.

By presenting evidence-based, physician-endorsed health information using a peer-to-peer model, This project aims to bridge that gap. Peer-to-peer learning can be invaluable among patient populations that have reason to distrust the medical establishment and may prefer to take health-behavior cues from friends and family. Receiving physician-approved information from peers may help patients make health-related choices in a more culturally relevant and personally meaningful way that informs and inspires positive health-behavior changes.

## SUMMARY RESULTS

Culturally tailored DVDs featuring peers sharing their own experiences with controlling hypertension were successful in significantly reducing patients' systolic blood pressure at a three month follow-up (-17 mmHg vs -7 mmHg in controls).

**Often researchers take the attitude that a population is 'doing stuff wrong, and I am going to go in there and fix it for them.' Our approach is diametrically opposite to that. Using peer spokespeople who have tackled a medical problem, such as high blood pressure, is really a grassroots approach where you find examples of what is going right in a community.**

– Jeroan Allison  
Cooper Green Mercy Hospital

## STRATEGY

- DELIVERING EDUCATION AND TRAINING

## LEVEL

- PATIENT

## MODE

- MULTIMEDIA

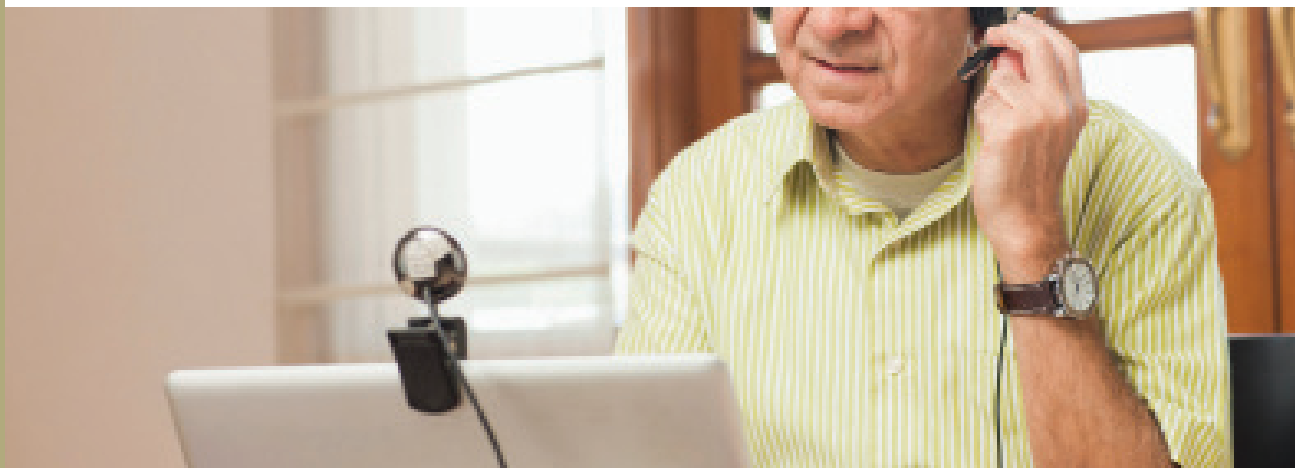
## Culturally Concordant Telemedicine



UNIVERSITY OF ARIZONA | TUCSON  
COMMUNITY HEALTH CENTER  
LATINOS

## DISPARITIES GOAL

Improve depression treatment and patient satisfaction with care



## PROJECT

**Patients receive psychiatric care through real-time video connection.**

Psychiatrists provide treatment for depression through Internet videoconferencing (webcam) to patients at their primary care medical home. The focus is on providing culturally appropriate care from a specialist, even in locations that do not have easy access to those resources. Latino patients who meet diagnostic criteria for depression receive monthly psychiatric care through a webcam link for six months. The psychiatrists providing services are linguistically and culturally competent bilingual Mexican-Americans. The intervention takes place at St. Elizabeth's Health Center in Tucson, Arizona which serves uninsured and underinsured patients.

## RATIONALE

The traditional health care system is typically ill-equipped to deliver adequate specialty care to patients experiencing socioeconomic challenges or to patients with linguistic and cultural backgrounds that differ from the majority.

Population-specific socioeconomic, linguistic and cultural factors require cultural competence and flexibility when providing mental health care. Furthermore, patients requiring specialist care often do not follow up with referrals to off-site mental health services. This project aims to bridge both the cultural gap as well as the physical distance between mental health specialists and Latino patients by providing culturally-appropriate depression care to patients in a familiar health care setting.

## SUMMARY RESULTS

The culturally-adapted depression treatment delivered by psychiatrists via webcam was well received by Latino patients and received high patient buy-in as the result of the high degree of linguistic and cultural congruence in care. This intervention led to improvements in depression severity, functional ability, and quality of life that are at least equivalent and potentially superior to improvements achieved by usual treatment delivered by primary care providers. This is a feasible intervention.

## STRATEGY

- DELIVERING EDUCATION AND TRAINING
- PROVIDING PSYCHOLOGICAL SUPPORT

## LEVEL

- PATIENT

## MODE

- INTERNET

# Culturally Focused Depression Screening, Diagnosis and Consultation

24

DEPRESSION



MASSACHUSETTS GENERAL HOSPITAL | BOSTON  
PRIMARY CARE PRACTICES  
LATINOS



**DISPARITIES GOAL**  
Improve recognition and treatment of depression

## PROJECT

**Patients receive culturally focused depression screening, consultation and a depression toolkit. The results of the consultation are communicated to the primary care provider.**

Patients who screen positive for symptoms of depression receive a culturally focused psychiatric consultation by a trained psychologist or psychiatrist. Additionally, a web-based system assists providers in making referrals for the culturally focused consultations, increasing access to the service. Patients diagnosed with depression receive a depression toolkit which includes self-rated depression questionnaires, psycho-educational booklets, worksheets and community resources. Diagnostic and treatment recommendations are communicated to the patient's primary care provider.

Within two weeks of the initial consultation, patients attend a follow-up visit with the consultants. At that time, the consultant reviews the patients' use of the toolkit, including the cognitive-behavioral-based handouts and answers any questions.

## RATIONALE

Ethnic minorities with depression are much more likely to be cared for by primary care physicians than by specialists in mental health. These providers may face difficulty in correctly diagnosing depression in patients from another ethnic background, due to different cues or vocabulary used by patients to describe symptoms, as well as other cultural barriers. The intervention is designed to improve primary care providers' ability to provide appropriate, culturally informed care and patients' knowledge of depression treatment resources.

The consultation will be used to make an accurate diagnosis that accounts for appropriate cultural factors, assess the patient's psychiatric needs in a cultural context and implement a culturally competent intervention. All of these factors have the potential to improve the rates of depression diagnosis and the quality of treatment for Latino patients. This study will also evaluate the feasibility and cost associated with developing a culturally focused psychiatric consultation service.

## SUMMARY RESULTS

Due to implementation challenges and low enrollement rates, it is unknown if culturally-adapted psychiatric consultations and depression toolkits can improve depressive symptoms and increase diagnosis and treatment of depression for Asian and Latino American primary care patients. However, among the 27 Latino American patient interviewees who received the intervention, over 70% said they liked having the service offered in their primary care physicians office; reported their expectations about the program were met; and felt the providers and recommendations were culturally sensitive. Compared to Caucasians, Asian Americans were less likely to agree to be contacted (OR 0.59), while Latino Americans were more likely to agree to be contacted (OR 1.68). Compared to those with a PHQ-2 score of <2, those with a PHQ-2 score of 2 or greater were more likely to agree to be contacted (OR 3.17).

## STRATEGY

- DELIVERING EDUCATION AND TRAINING
- PROVIDING PSYCHOLOGICAL SUPPORT
- INCREASING ACCESS TO TESTING AND SCREENING
- PROVIDING REMINDERS AND FEEDBACK

## LEVEL

- PATIENT
- PROVIDER

## MODE

- IN-PERSON
- PRINT
- INTERNET

# Depression Screening and Treatment for Patients Seeking Care at a Public Emergency Department



UNIVERSITY OF SOUTHERN CALIFORNIA | LOS ANGELES  
PUBLIC EMERGENCY DEPARTMENT  
LATINOS

**DISPARITIES GOAL**  
Improve diagnosis and quality of care for depression



## PROJECT

**Depression screening along with support from a community health worker and social worker**

Latino community health workers screen patients for depression and other mental health challenges while they seek care in the emergency department. Those who screen positive for depression review depression-education materials with the community health worker and are scheduled to meet with a bilingual, bicultural social worker who provides services on-site.

Using depression care guidelines, the social worker offers patients a choice of treatment consisting of eight weeks of problem-solving therapy, antidepressant medication, or both and makes appropriate referrals. Patients also receive information about mental health resources in their community and a letter for their primary care physician to inform them that the patient screened positive for depression.

## RATIONALE

Low-income, minority patients disproportionately utilize the emergency department as a surrogate for primary care and are rarely screened or provided with depression treatment while there. Integrating a motivational, personalized, culturally and linguistically appropriate assessment of substance use and other mental health service needs with active treatment referrals into emergency medical services may significantly improve access to, and participation in, depression treatment.

The involvement of the departments of medicine, psychiatry and emergency medicine in this project provides cross-disciplinary collaboration and insights on how to screen for and improve the delivery of depression treatment in the emergency department. It is hoped that subsequent reduction of the adverse consequences of depression will improve patient outcomes and decrease rates of emergency department overutilization.

## SUMMARY RESULTS

Depression screening during emergency department visits, conducted by community health workers and social workers, successfully increased patient receipt of problem solving therapy, antidepressant medications or both (51% vs 26% in controls). For patients receiving problem solving therapy, those in the intervention group were more likely to have four or more sessions (33% vs 4% controls). However, the intervention did not improve depression outcomes. Implementation challenges may have hindered the overall success of the intervention.

## STRATEGY

- RESTRUCTURING THE CARE TEAM
- PROVIDING REMINDERS AND FEEDBACK
- INCREASING ACCESS TO TESTING AND SCREENING
- PROVIDING PSYCHOLOGICAL SUPPORT
- DELIVERING EDUCATION AND TRAINING

## LEVEL

- MICROSYSTEM
- PROVIDER
- PATIENT

## MODE

- IN-PERSON
- PRINT





UNIVERSITY OF CALIFORNIA-LOS ANGELES | SOUTH LOS ANGELES AND HOLLYWOOD  
UNDERSERVED COMMUNITIES  
AFRICAN AMERICANS, LATINOS



## PROJECT

**A community engagement approach is used to improve depression management skills and adoption of evidence-based depression quality improvement programs.**

This project is based on a community-partnered participatory research design: community partners are considered equal partners with the academic staff members and are involved in every stage of the design and implementation of the intervention. The staff at lead community agencies are involved in grant-writing; identification and recruitment of other agencies, administrators and providers; and organizing and carrying out pre-implementation kick-off activities.

During implementation, community agency representatives participate in bi-weekly planning meetings and the entire leadership team is involved in setting the agenda for subsequent meetings. The project leadership team includes a diverse set of community agencies including mental health agencies, faith-based organizations, social-service agencies and substance-abuse agencies. Project participants include licensed mental health professionals and lay community health workers or agency administrators. Community members are invited to participate and co-lead several committees. Invitation to committees is based on expertise and interest.

## RATIONALE

Many patients with depression do not receive mental health care. Those who do often receive their care through primary care, but primary care clinicians often do not detect depression and many patients do not receive evidence-based treatments.

Delivering evidence-based care for depression is challenging, particularly among the poor and ethnic minorities, due to organizational and financing factors like limited psychotherapy coverage or diversity in third-party management of services; clinical features of depression like social withdrawal; societal factors like social stigma; and clinician factors like limited knowledge or experience.

This community engagement approach hopes to increase agency and provider use of evidence-based depression treatment programs across the network, thereby increasing patient access to appropriate care, satisfaction with services, and health outcomes.

Community engagement promotes organizational and community-member participation and leadership in goal setting, program development, implementation and evaluation by shifting the authority for action to the community. This intervention promotes community commitment and leadership to form a network committed to evidence-based, quality improvement.

## SUMMARY RESULTS

Depression toolkits and provider resources developed using community engagement were significantly more effective than standard resources at improving mental health-related quality of life; increasing physical activity and depression care visits; and reducing risk factors for homelessness, hospitalizations for behavioral health conditions, and medication visits among mental health specialty users. However, there was no improvement in the rate that organizations use standard depression management techniques.

**There's been a long line of research that has looked at depression in underserved communities, particularly communities of color. What we also realized is that many of these patients don't even make it into their primary care clinics. We needed some other type of program to actually reach out to individuals within the community. We wanted to understand how to roll out these really important programs into communities and what would be the best way to do it.**

– Michael Ong  
University of California - Los Angeles

## DISPARITIES GOAL

Actively involve the community in developing a depression care improvement program

## STRATEGY

- DELIVERING EDUCATION AND TRAINING
- ENGAGING THE COMMUNITY
- PROVIDING REMINDERS AND FEEDBACK

## LEVEL

- PATIENT
- PROVIDER
- COMMUNITY

## MODE

- IN-PERSON

# Identifying and Treating Maternal Depression



YALE UNIVERSITY SCHOOL OF MEDICINE | NEW HAVEN, CONNECTICUT  
WELL-CHILD CLINIC  
MINORITY WOMEN WITH CHILDREN

**DISPARITIES GOAL**  
Increase treatment rates  
for maternal depression



## PROJECT

**Women receive screening and treatment for maternal depression in the context of their children's health care.**

Mothers at a pediatric clinic that provides care primarily for minority and high-risk populations are screened for depression during a regularly-scheduled office visit. Following the depression screening, a behavioral health clinician conducts a brief diagnostic interview at the clinic or home of mothers who were found to have symptoms of depression. Patients are invited to participate in six sessions of cognitive behavioral group therapy and case management. The group therapy sessions aim to help mothers develop skills to manage their depressive symptoms, handle life stress and improve their mother-child relationship.

## RATIONALE

Pediatric primary care centers may be an important setting where mothers with depression can be diagnosed and treated: during the first three years of a child's life, families frequently visit pediatricians, who may be the only medical professional to have regular contact with the family.

Cognitive behavioral therapy has been shown to significantly reduce symptoms of depression in low-income mothers and in mothers whose children have behavioral health problems. The brief group therapy provided in this study allows effective short-term treatment for depression to be provided in a primary care setting, allowing mothers to be treated at their pediatrician's office, during their child's check-up. Locating treatment at the pediatrician's office may increase comfort and at times may remove logistical barriers to care.

## SUMMARY RESULTS

Delivering short-term group cognitive behavioral therapy to depressed mothers in the context of their children's health care was successful at decreasing depressive symptoms (-4 points in QIDS scores), but was no more effective than intensive case management alone (-2 points in QIDS scores). Women in the short-term cognitive behavioral therapy intervention groups, but not those in intensive case management, also reported significantly fewer behavioral health problems in their young children after treatment (-5 points on BITSEA score). This is a feasible intervention.

## STRATEGY

- PROVIDING PSYCHOLOGICAL SUPPORT
- INCREASING ACCESS TO TESTING AND SCREENING
- DELIVERING EDUCATION AND TRAINING

## LEVEL

- PATIENT

## MODE

- PRINT
- IN-PERSON

# Incorporating Care Managers to Improve Care

28

DEPRESSION



LANCASTER GENERAL HEALTH | LANCASTER COUNTY, PENNSYLVANIA

FEDERALLY QUALIFIED HEALTH CENTERS AND HOSPITAL-BASED OUTPATIENT PRACTICES

MINORITY WOMEN



## DISPARITIES GOAL

Improve timely diagnosis and continuity of care for perinatal depression

### PROJECT

**Patients at risk of perinatal depression receive the services of a care manager.**

Lancaster General Health trains and incorporates site-specific care managers into established systems of perinatal depression care with the goal of improving depression care for low-income, minority women. Pregnant women with a high risk of depression who receive a diagnosis of a major depressive episode are provided with the services of a trained care manager. The goal of the project is to initiate evidence-based treatment of depression within one month of diagnosis of a major depressive episode. The care managers provide culturally competent and linguistically appropriate support for the patient. They also connect patients with the health care system and serve as coaches, collaborators and negotiators on behalf of patients. Two Federally Qualified Health Centers (FQHCs) and two hospital-based outpatient practices that provide care to Medicaid patients are participating.

### RATIONALE

In addition to the negative effects of perinatal depression on women of all backgrounds and their families, low-income minority women in particular often receive poor-quality depression services and fail to receive culturally and linguistically appropriate services. Care managers are trained to provide important linkages between patients and providers, reinforce care messages, support disease self-management, and help connect patients to community resources.

This intervention aims to improve the timely diagnosis and initiation of treatment for major depression and the continuity of care for depression across the transition of care from pregnancy to postpartum. Care managers provide linguistically and culturally appropriate advocacy, and thus may address barriers to care often observed in racial and ethnic minority patient populations. Adding care managers to the care team to provide patient advocacy, symptom assessment, and feedback to clinicians may result in improvements in the delivery of care and patient outcomes.

### SUMMARY RESULTS

The addition of a care manager did not influence the timely initiation of treatment for women who screened positive for depressive symptoms. However, it was significantly associated with more follow-up visits for depression (95% vs 64% controls).

**I think this project had a positive impact. Now that we're becoming a patient-centered medical home it behooves us to meet together as a team to help with patient care. Care is coming from the provider to the case manager, to the midwives and to the nutritionists. We take a team approach in helping this patient set goals, be consistent, and get better.**

– Makeba Wilson  
Lancaster General Health

### STRATEGY

- DELIVERING EDUCATION AND TRAINING
- ENGAGING THE COMMUNITY
- RESTRUCTURING THE CARE TEAM
- PROVIDING REMINDERS AND FEEDBACK

### LEVEL

- PROVIDER
- COMMUNITY
- MICROSYSTEM
- ORGANIZATION
- PATIENT

### MODE

- IN-PERSON



## Interactive Telephone System to Identify and Treat Depression



THE UNIVERSITY OF TEXAS M.D. ANDERSON CANCER CENTER |  
HOUSTON-HARRIS COUNTY  
ONCOLOGY CLINIC OF A UNIVERSITY AFFILIATED COMMUNITY HOSPITAL  
AFRICAN AMERICANS, LATINOS

### DISPARITIES GOAL

Improve diagnosis  
and management of  
depression



### PROJECT

**Patients receive depression assessment telephone calls from an automated system, which notifies the care team when symptoms reach a designated threshold.**

Cancer patients receive computer-generated calls on a twice-weekly basis for four months. The interactive voice system first identifies a patient, and then presents a series of questions that serve to assess and monitor the patient's depressive symptoms. Patients are asked to report on their levels of sadness, distress, and other cancer-related symptoms, via the touch-tone buttons of their phone. In addition to regularly monitoring patients' depression symptoms, the system also alerts providers when a patient's reported level of distress reaches a designated threshold. When a patient's mood rating reaches the threshold, a notice is forwarded by page or email to the psychiatric advanced-practice nurse, and prompts providers to follow clinical-practice guidelines in response to reported symptoms. In addition, the patient's mood ratings are summarized and placed in a report that is emailed to the psychiatric nurse and attending oncologist prior to the patient's next clinic visit.

### RATIONALE

Cancer patients develop clinical depression at rates far in excess of those in the overall population. Depression is a significant source of impaired physical and social functioning, and may lead those patients to postpone or cease potentially life-saving therapies. However, due to a variety of factors, depression is often under-diagnosed and under-treated in this patient population.

By incorporating an automated and standardized screening and monitoring protocol into existing clinical infrastructure, this intervention aims to increase the identification of depression symptoms in African American and Latino cancer patients, and improve the care they receive.

### SUMMARY RESULTS

Automated, interactive depression assessment telephone calls were successful at predicting the presence of depression in cancer patients and provided psychiatrists and psychiatric nurses with automatic updates on the severity of depressive symptoms in patients. Depression scores improved in the intervention group by an average of 2.18 points in BDI-II scores, but with no significant difference from the control group receiving usual care which decreased 1.98 points. This is a feasible intervention.

### STRATEGY

- INCREASING ACCESS TO TESTING AND SCREENING
- DELIVERING EDUCATION AND TRAINING
- PROVIDING PSYCHOLOGICAL SUPPORT
- RESTRUCTURING THE CARE TEAM

### LEVEL

- PATIENT
- PROVIDER
- MICROSYSTEM

### MODE

- TELECOMMUNICATION
- INFORMATION TECHNOLOGY



# Internet-Based Depression Education for Minority Youth

30

DEPRESSION



UNIVERSITY OF ILLINOIS AT CHICAGO | CHICAGO

FEDERALLY QUALIFIED HEALTH CENTERS, SCHOOL-BASED HEALTH CENTERS AND COMMUNITY CLINICS

AFRICAN AMERICANS, LATINOS



## DISPARITIES GOAL

Prevent depression and reduce depressive episodes

## PROJECT

**Patients receive motivational interviews and an Internet-based depression-prevention training program.**

African American and Latino youth who show high risk for depressive disorders receive a series of in-person motivational interviews, and are enrolled in an Internet-based self-directed training program. This program includes learning and behavior-change strategies to reduce risk factors for depression, and to increase factors that promote resiliency against depressive symptoms. Components of the program are aimed at the adolescent patients as well as their parents. The program includes exercises that the patient can complete online and print out for later review. Patients also receive telephone coaching to encourage them to complete the training program and its suggested behavior changes. Participating sites include Federally Qualified Health Centers (FQHCs), school-based clinics and community-based clinics.

## RATIONALE

Though depression is relatively common and efficacious treatments are available, adolescent patients show low rates of care-seeking, receiving high-quality care, and completing referrals for psychotherapy. As depression has long-term negative health outcomes, prevention of depression may be more cost-effective and less distressing than treatment of a full depressive episode.

This study uses motivational interviewing to engage youth and promote adherence to the Internet-based multimedia component, which targets both adolescents and parents. The prevention program has the potential to reduce both risk factors for a future depressive episode and actual depression incidence, and to enhance resiliency as well as functional outcomes. The training program is tailored to be ethnically and culturally appropriate, and incorporates a variety of learning strategies to improve the acceptance of the information provided. Telephone coaching calls are designed to increase adherence to the prevention training program.

## SUMMARY RESULTS

This culturally-adapted depression intervention for African American and Latino adolescents in urban primary care settings faced major implementation barriers such as adolescents' lack of trust in providers, fear of judgment, and fear of being diagnosed with depression. Adolescents expressed a preference for accessing preventative treatment through social media or apps, rather than in a clinic setting. They also expressed a preference for receiving information regarding preventative programs in school via teachers or counselors, community centers, or social media rather than in a clinic setting from clinicians.

**One of the key elements of the CURB model is the use of narrative learning. We learn complex attitudes and behaviors best when we see them in another - either in a story or a video or through direct observation. The stories have to represent contemporary life experience. We derived the narratives from focus groups, [youth] advisor groups and our own analyses.**

– Benjamin W. Van Voorhees  
University of Illinois - Chicago

## STRATEGY

- PROVIDING PSYCHOLOGICAL SUPPORT
- DELIVERING EDUCATION AND TRAINING
- RESTRUCTURING THE CARE TEAM
- ENGAGING THE COMMUNITY
- PROVIDING REMINDERS AND FEEDBACK

## LEVEL

- PROVIDER
- PATIENT
- COMMUNITY
- MICROSYSTEM

## MODE

- IN-PERSON
- INTERNET
- PRINT

## Over the Phone Depression Counseling



DENVER HEALTH AND HOSPITALS FOUNDATION | DENVER, COLORADO  
FEDERALLY QUALIFIED HEALTH CENTERS  
LATINOS, AFRICAN AMERICANS

### DISPARITIES GOAL

Improve medication adherence and reduce depression symptoms



### PROJECT

**Patients received depression assessment, support and counseling over the phone.**

A six-session, scripted telephone counseling protocol is delivered by mental health clinicians to improve medication adherence and promote behavioral activation in ways that help patients experience reward and pleasure in their lives. Mental health clinicians receive training on how to provide culturally effective care. Additionally, bilingual mental health clinicians and culturally tailored print materials are made available to Spanish-speaking participants. After each call, patients receive a letter summarizing the discussion and a list of “homework” assignments to be completed before the next call. Primary care physicians receive feedback on their patients’ mental health diagnoses and depression severity levels, along with updated disease management recommendations after every other counseling session. Participants are Federally Qualified Health Centers (FQHCs) that are part of Denver Health and Hospitals Foundation, a public safety net health care system.

### RATIONALE

Primary care physicians are increasingly responsible for diagnosing and treating depression, but their management of depression has been less than optimal. Their management is often characterized by low medication adherence and adjustment, low levels of mental health assessment and consultation with mental health specialists, and a lack of evidence-based psychotherapy. These problems are even more pronounced for low-income minority patients.

This study aims to improve the management of depression by providing telephone-based assessment, counseling and monitoring. The intervention is based on a Behavioral Activation approach, a relatively simple intervention that is easy for depressed patients to understand and does not require difficult or complex skills to implement. The telephone-based care management and therapy program has the potential to improve clinical outcomes, while being less costly and easier to establish than collaborative care or practice-based reorganizations. In particular, the telephone-based intervention program may increase adherence to antidepressant medications.

### SUMMARY RESULTS

Depression assessment, support, and counseling delivered by a mental health clinician over the phone was successful in significantly improving depression symptom scores at 12 weeks (10.93 vs 12.63 on PHQ-9) for patients with depression diagnosed by their primary care physician. Patients in the intervention group were also significantly more likely to be in remission (PHQ-9 < 5) at 24 weeks (odds ratio: 2:1). However, this intervention did not affect medication persistence or adherence. In addition, patients with severe baseline depressive symptoms (PHQ-9 > 15) had significantly greater decreases in depressive symptoms at 6, 12, and 24 weeks, regardless of whether they received the intervention or control treatment.

**Denver Health has identified this intervention primarily because of access issues. It is an extremely difficult system to navigate and it's overburdened. We serve a very large number of uninsured that have low access to mental health resources and [who] are primarily treated for their depression in the primary care setting. To be able to offer a service that wouldn't normally exist for these patients, in a way that prevents adding to their access burden, is promising.**

– Rachel Meir  
Denver Health and Hospitals Foundation

### STRATEGY

- PROVIDING PSYCHOLOGICAL SUPPORT
- RESTRUCTURING THE CARE TEAM
- DELIVERING EDUCATION AND TRAINING
- PROVIDING REMINDERS AND FEEDBACK

### LEVEL

- PATIENT
- MICROSYSTEM
- ORGANIZATION
- PROVIDER

### MODE

- TELECOMMUNICATION
- PRINT
- INFORMATION TECHNOLOGY
- IN-PERSON

# Redesigning Clinic Operations to Improve Depression Care

32

DEPRESSION



OLIVE VIEW – UCLA – CHARLES R. DREW UNIVERSITY | LOS ANGELES COUNTY  
COUNTY-RUN PRIMARY CARE CLINICS  
LATINOS, AFRICAN AMERICANS



**DISPARITIES GOAL**  
Increase depression  
detection rates and  
improve care

## PROJECT

**Clinic operations are redesigned to impact depression care.**

This program begins with depression screening for all patients using the Patient Health Questionnaire-2 (PHQ-2) upon arrival for a regularly scheduled visit with their primary care physician.

For patients who screen positive for depression symptoms, the longer PHQ-9 questionnaire is administered. The intervention includes a brief, post-visit counseling session with a nurse—specifically trained to educate patients about managing their depression—who will provide information about mental health resources and support available in the community, address cultural barriers to depression care such as the stigmatization of mental illness, and provide printed materials in the patient's preferred language.

Primary care physicians receive depression care decision-support tools including paper reminders and algorithms for titrating antidepressant medications. A computerized chronic disease registry will assist with patient monitoring and follow-up.

## RATIONALE

This multi-component program is based on the Chronic Care Model. Primary care practices were identified as a promising location for the intervention because psychotherapeutic treatment of depression was being underutilized. Additionally, in these primary care clinics chronic conditions such as diabetes and hypertension were highly prevalent among the patients diagnosed with depression.

Focus groups with primary care providers were held to inform the development of the program. During the focus groups, physicians noted the lack of depression screening, the lack of clear criteria for diagnosis, inadequate awareness that multiple symptoms might be signs of depression, and inadequate awareness of cultural values and beliefs of minority patients relating to depression and depression care (e.g., strong stigmatization and lack of understanding of mental illness). Clinicians acknowledged the high prevalence of depression in their patient population and displayed great interest in having a clinical infrastructure that would assist them in diagnosing and managing patients with depression better.

## SUMMARY RESULTS

Patients were screened for depression at regularly scheduled primary care visits. The intervention of providing a counseling session with a nurse on managing depression to those who screened positive increased the percentage of these patients who sought care for depression (59% vs 19% in controls), but it did not result in a statistically significant different improvement in health outcomes. A comparable percentage of both the intervention (54%) and the control groups (59%) experienced an improvement in depressive symptoms (5+ point reduction in PHQ-9 scores). This is a feasible intervention.

## STRATEGY

- DELIVERING EDUCATION AND TRAINING
- RESTRUCTURING THE CARE TEAM
- PROVIDING REMINDERS AND FEEDBACK
- INCREASING ACCESS TO TESTING AND SCREENING

## LEVEL

- PATIENT
- MICROSYSTEM
- PROVIDER
- ORGANIZATION

## MODE

- IN-PERSON
- PRINT MATERIALS
- INFORMATION TECHNOLOGY

## Telephone-Based Depression Care Management



NEIGHBORHOOD HEALTH PLAN OF RHODE ISLAND | GREATER PROVIDENCE  
NOT-FOR-PROFIT HMO  
LATINO OR SPANISH-SPEAKING PATIENTS

### DISPARITIES GOAL

Improve care management and coordination



### PROJECT

**Patients receive a 12-week telephone-based depression care management program.**

Linguistically and ethnically congruent depression care managers are recruited and hired to deliver this program. The care managers are trained to call patients diagnosed with depression eight times over the course of 12 weeks: once within two weeks of their starting antidepressant medication; weekly for four weeks; and biweekly for the next eight weeks. During each call, the depression care manager assesses depression symptoms; assesses medication use/adherence, side effects and other concerns; discusses the need for a follow-up appointment with the primary care provider; and sets depression treatment goals. Written feedback to the patient's primary care provider is generated at least once per month. The program and patient materials are made available in both English and Spanish.

### RATIONALE

In comparison to non-Latino Whites, Latinos receive less treatment and have poorer treatment outcomes for depression. Telephone-based depression care management, in which a "physician extender" tracks and monitors patients with newly diagnosed depression, is designed to improve depression treatment outcomes in the primary care setting and has shown promise in improving care for a general patient population.

This project incorporates additional features into a general telephone-based depression care management program to address the language and cultural needs of the local Latino population. In the program, Bilingual and Latino depression care managers are employed; the program is available and delivered in Spanish as needed; and cultural norms are incorporated into practice such as offering to talk with other family members, using formal titles, and being warm and personable. Lastly, care managers are able to assist with finding a bicultural, bilingual psychotherapist if desired.

### SUMMARY RESULTS

This telephone-based depression care management program - delivered by linguistically and ethnically concordant care managers - could not be evaluated due to insufficient enrollment. The telephone recruitment method faced major barriers such as the proliferation of local telephone scams, the high cost of cell phone minutes, and the proposal of state legislation targeting undocumented immigrants. In a separate series of focus groups, Latino health plan members expressed a desire for having input over when and often they were called and a preference for being recruited by their provider or written communication instead.

### STRATEGY

- DELIVERING EDUCATION AND TRAINING
- PROVIDING PSYCHOLOGICAL SUPPORT
- PROVIDING REMINDERS AND FEEDBACK
- RESTRUCTURING THE CARE TEAM

### LEVEL

- PATIENT
- MICROSYSTEM

### MODE

- TELECOMMUNICATION
- PRINT



# Future Directions

Finding Answers identified pressing issues for the field to address in future equity and quality projects.

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## Who needs to change?

Historically, disparities researchers have focused on the patient as a target of change; however, it is becoming more evident that providers, care teams, and organizations must shoulder more of this burden to elevate the standard of care delivery.

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## What about understudied minority populations?

More research should be focused on improving systems that serve minority patients and careful investigation is warranted for specific understudied groups such as American Indian and Asian-American subgroups; pediatric and geriatric ethnic subgroups; and lesbian, gay, bisexual and transgender populations. In the past, adult African-American and Latino populations have been the focus of most disparities intervention research.

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## What are the best methods to implement these interventions?

Another important area of study is how to best implement interventions to reduce disparities. A one-size-fits all approach is less effective, and so it is important to think about how best to tailor interventions to specific target populations and organizations.

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## How can health care organizations and communities best integrate their efforts to reduce disparities?

Future research may investigate interventions that engage the community, such as through the use of community health workers. For too long, the community and health care system have remained distinct entities, but exploring the benefits of integrating the two worlds is promising. It is notable that 25 percent of Finding Answers' applicants proposed community health worker interventions, indicating the enthusiasm that many front-line organizations have for such integrative solutions.

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## How do cost and payment relate to equitable care?

As the Affordable Care Act encourages innovation in health care delivery and the marketplace demands value in health care, our healthcare system is primed for research to determine: 1) interventions that are cost-effective and financially feasible, and 2) whether payment schemes can be designed to improve equity and address social drivers of disparities.

# Conclusion

Finding Answers moved the field beyond documenting disparities to building the knowledge to take action. The program conducted 11 systematic literature reviews, funded evaluation of the 33 partner projects described in this portfolio and provided technical assistance to health care organizations around the country. By collaborating with numerous health providers and academic researchers, Finding Answers developed best practices, products, and numerous publications to serve as practical tools and strategies for those working to eliminate disparities in their health care environments. These resources can be found on the program [website](#).

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*Finding Answers* allowed us to identify best practices for reducing disparities by looking systematically at what works and what doesn't work. We were able to create very practical tools for health care organizations committed to increasing equity – such as our Roadmap – a foundational, practical framework for any organization committed to creating a culture of equity.

– Scott Cook  
Finding Answers deputy director

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