

# I. INTRODUCTION

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The Health Funders Partnership of Orange County (the PARTNERSHP) was formed in 1999 as a collaboration of funders who joined together to address health-related issues in Orange County. This report presents the findings from an external evaluation of Phase I of the Partnership’s first major initiative, “A Systems Approach to Diabetes,” an innovative, three-year program designed to impact diabetes prevention and treatment in Orange County at the systems level.

## BACKGROUND ON THE PARTNERSHIP

As shown in Table 1, the PARTNERSHIP is comprised of 14 funding entities: eight Orange County-based funders, one Los Angeles-based funder that awards grants in Orange County, three county-government health organizations, and two statewide health foundations. Together these 14 organizations contributed approximately \$2.4 million in funding for Phase One of the Diabetes Initiative, and have invested time and other resources to address critical health needs in Orange County, with the statewide funders participating on a matching basis.

**Table 1. PARTNERSHIP Collaborating Partners**

<b>Orange County-based Funders</b>
Healthcare Foundation for Orange County
Irvine Health Foundation
Orange County Community Foundation
Orange County’s United Way
PacifiCare Foundation
Pacific Life Foundation
St Joseph Health System Foundation
Sisters of St. Joseph Healthcare Foundation
<b>Los Angeles County-Based Foundation</b>
UniHealth Foundation
<b>County-Government Health Organizations</b>
Cal-OPTIMA
Children and Families Commission of Orange County
Orange County Health Care Agency
<b>State-wide Health Foundations</b>
The California Wellness Foundation
The California Endowment

In the context of philanthropy in Orange County in 1999, the formation of funder collaboration represented a unique approach to grantmaking. While some collaboration had occurred among funders in Orange County prior to the forming of the PARTNERSHIP, the effort had been on a limited basis, with two or three funders working together on specific projects. The acknowledged engine behind the PARTNERSHIP approach was Dr. Susan Zepeda, President and CEO of the Health Foundation for Orange County, who saw an opportunity for collaborative grantmaking in the findings of the 1999 Orange County Health Needs Assessment. Working collaboratively with Orange County's leading health funders, Dr. Zepeda took the lead in convening a series of educational sessions on the health issues identified as priority concerns for the County. Out of that process grew a consensus to join together as a collaborative that would seek to address a range of health issues but had as its first priority the system of care and prevention of diabetes, with special emphasis on Type II Diabetes. Additional partners were sought to participate, resulting in the current collaboration of the 14 funding organizations.

The PARTNERSHIP is not incorporated, nor does it have a formal Memorandum of Understanding; its governance is structured like a working Board of Directors, with elected officers and functional committees. Participation in PARTNERSHIP governance is not dictated by an organization's level of contribution to the Partnership's pooled resources. Rather, each of the participating funding organizations designates one representative to serve on the Board. Decision-making occurs through consensus.

The Partnership has an elected Chairperson, whose term is for two years. Dr. Susan Zepeda, of the Healthcare Foundation for Orange County served the first term, followed by Edward B. Kacic, President of the Irvine Health Foundation. Currently, C. William (Bill) Wood, President of the PacifiCare Foundation, is at the helm of the PARTNERSHIP.

The full PARTNERSHIP meets quarterly, and various committees (convening, evaluation, marketing, fundraising, and grant selection) work together between quarterly meetings. Meeting summaries are generated for all quarterly meetings and are reviewed and approved at the following meeting. The Executive Committee, composed of the current and past chairpersons, the chair-elect and the treasurer, meets monthly and is empowered to make leadership decisions on behalf of the PARTNERSHIP. The Executive Committee is open to Partnership members, and consultants to the PARTNERSHIP receive their direction from this Committee. . In the course of the first phase of the Diabetes Initiative, when issues arose with two of the four collaborations, it was the Executive Committee that met with the grantees to clarify expectations.

Early on, the participating funding organizations agreed that the Partnership would be more effective with stable staffing support. Ms. Tori O'Neal-McElrath was selected initially to serve as Program Officer on a consulting basis in August 2000. In March 2002, the PARTNERSHIP transitioned its relationship with Ms. O'Neal-McElrath and became a primary client of O'Neal Consulting Services, Inc., as the needs of the

PARTNERSHIP expanded, requiring additional staffing support for its other projects beyond the Diabetes Initiative.

Since its inception, the PARTNERSHIP has successfully provided leadership on a number of projects. The PARTNERSHIP undertook a Learning Series – an educational series that focused on specific topic areas as identified in the Orange County Health Needs Assessment, as well as pressing public policy issues relating to the health care safety net. It endorsed GrantPartners.net, a web-based project that provides a collaborative proposal submission service to streamline grant-seeking and grant-making. The PARTNERSHIP also incubated the “Healthy Smiles for Kids of Orange County” – a project that delivers dental hygiene and oral health services to children of Orange County. Most significantly, the PARTNERSHIP implemented and completed Phase I of its first systems-level Initiative, “A Systems Approach to Diabetes Care.”<sup>1</sup>

### **“A SYSTEMS APPROACH TO DIABETES CARE” -- THE DIABETES INITIATIVE**

The Diabetes Initiative evolved from the gathering of leaders in the health funding community in Orange County around a shared concern for community health. In agreeing to work in collaboration, the PARTNERSHIP sought to leverage its financial resources beyond the scope of support for direct services. Rather, PARTNERSHIP members envisioned the Diabetes Initiative as a mechanism to invest in a complex set of interventions intended to improve access to prevention and care, quality of care, and the responsiveness of the system to Orange County residents in need of diabetes-related assistance. Specifically, the first phase of the Diabetes Initiative used the mechanism of grants to collaborations of agencies to strengthen elements of the system.

Inherent in the “grants to collaborations” approach was the understanding that the creation and support of inter-organizational relationships was as important as the actual delivery of services to individuals. The underlying concept was that by building inter-organizational collaboration, the Initiative had the potential to effect positive change at the systems level – ultimately improving care for all people living with or at-risk of diabetes in Orange County, not only those who were current clients of the funded programs.

This Partnership seeks to fund groups of organizations, which are ready to use comprehensive and collaborative approaches to improve outcomes and quality of life for individuals and families at risk of, or experiencing diabetes, and/or to shape a community supportive of healthy lifestyle choices for persons with diabetes and those at risk.

-- The Partnership’s “A Call for Concept Proposals: A Systems Approach to Diabetes”, 2000.

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**Goal:** To effect systems level change in the care and management of diabetes in Orange County.

**Timeframe:** February 2000 – June 2004

**Collaborations Funded:** 4

**Total Funding Awarded:** \$2.4 million

<sup>1</sup> Please refer to the PARTNERSHIP web site ([www.hfpoc.org](http://www.hfpoc.org)) for additional details about the partner agencies or Partnership history.

In early 2000, the PARTNERSHIP released a “Call for Concept Proposals” with a proposal submission date of September 15, 2000. All applicants were asked to identify a lead agency in its collaboration, whose responsibility would be the fiscal oversight and stewardship of the project. Further, the PARTNERSHIP indicated that it was open to funding collaborations that had not yet formalized their working relationships, but shared a commitment to the undertaking. To support potential grantees, the PARTNERSHIP held an “Interested Parties Conference” in early August 2000.

In January 2001, the PARTNERSHIP awarded grants to four collaborations for a total funding amount of \$2.4 million over the three-years of Phase I of the Initiative. Phase I formally ended on June 30, 2003, although two of the funded collaborations were granted no-cost extensions to complete their program activities.

As funders, the PARTNERSHIP members were keenly aware of the importance of evaluation and sought to integrate it into the design of the Diabetes Initiative, so that a range of outcomes could be measured. Harder+Company Community Research was engaged for a four-year period to serve as the external evaluator of the Initiative. The intention was not only to gather information on the direct program outcomes of the Initiative for diabetes care and prevention, but also to measure the success and effect of both levels of the intentional collaborations – the funded inter-organizational collaborations. This report presents the key findings from that evaluation effort, focusing on the funded collaborations.

## II. ACCOMPLISHMENTS OF THE FOUR FUNDED COLLABORATIONS

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The PARTNERSHIP employed a grant-making strategy to effect change at the systems level of diabetes prevention and care. The PARTNERSHIP deliberately targeted its funding to collaborations of agencies, targeting different populations and elements in the system. Selected competitively through a “Request for Proposal” process, the Partnership initially funded three collaborations:

- Accessing Better Care for Diabetics (ABCD) with St. Joseph Hospital as the lead organization;
- Pediatric Education on Diabetes in Schools (PEDS) with the PADRE Foundation as the lead organization; and
- Somos Amigos Luchando contra la Diabetes (SALUD) with Latino Health Access as the lead organization.

A fourth collaboration, the Vietnamese Diabetes Project (VNDP) with Nhan Hoa Comprehensive Health Care Clinic as the lead organization was folded into the Initiative after PARTNERSHIP consultants were able to broker additional funding. Two members of the PARTNERSHIP jointly funded the VNDP project directly.

Summaries based on each grantee’s cumulative final evaluation report are presented here.

### ACCESSING BETTER CARE FOR DIABETICS (ABCD) COLLABORATION

#### *Background*

The Accessing Better Care for Diabetics (ABCD) collaboration brought together nine Orange County community clinics working in coordination with a lead agency, St. Joseph Hospital.<sup>2</sup> In addition to the nine community clinics (Camino Health Center, Casa de Salud Family Health Clinic, La Amistad Family Health Center, Lestonnac Free Clinic, Puente a la Salud Mobile Community Clinics, Share Our Selves Clinic, St. Jude Mobile Clinic, and the University of California Irvine Family Health Centers in Santa Ana and in Anaheim), the ABCD Collaboration worked with two other collaborative partners: Maternal Outreach Management Systems (MOMS), and California State University Fullerton’s Nursing Department. Throughout the program, the ABCD Collaboration worked closely with its evaluator, Olivia de la Rocha, Ph.D., of Research Support

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<sup>2</sup> Initially, the Collaboration had one additional clinic partner – the Vietnamese Community of Orange County’s Asian Health Clinic – who opted to discontinue its participation. The ABCD Collaboration also formed an Advisory Group to the project, made up of representatives from the collaboration, the Orange County Health Care Agency, and three hospitals (Children’s Hospital of Orange County, Hoag Memorial Presbyterian Hospital, and St. Jude Medical Center). There was an additional change in the partnership with the Coalition of Orange County Community Clinics (COCCC), whose role changed from partner to subcontractor of IT services to the ABCD Collaboration.

Services (RSS). Key findings from Dr. de la Rocha’s evaluation report are presented in this section.

The vision of the ABCD collaborative was to promote optimal long-term self-management of diabetes with the objective of normalizing daily life and delaying and/or arresting the progression of disease. To carry out this vision, three goals were developed:

- Enhance care by providing specialty care to patients receiving basic services;
- Develop supplemental guidelines for diabetes care and management; and
- Create a data system to track patient clinical information.

Five major program activities were identified to pursue the above goals:

- 1) Conduct foot and eye screenings of clinic patients with diabetes;
- 2) Design and implementation of computerized tracking system for diabetes care;
- 3) Develop supplemental treatment guidelines;
- 4) Produce patient and provider pamphlets to address issues of non-prescription medicine in the care of diabetes; and
- 5) Support of MOMS’ efforts with gestational diabetes.

### Foot and Eye Screenings

One of the major accomplishments of the ABCD Collaboration was the provision of foot and eye screenings for patients in the nine community clinics. The foot screenings were conducted in the community clinics as part of the regular care the patient received, with referrals provided for podiatrist care. The Puente a la Salud Vision Mobile Clinic provided the eye screenings by bringing its mobile unit to community clinics.<sup>3</sup> The referral system between the Vision Clinic and other clinics was reportedly very effective and could serve as a model to improve referral processing in other projects.

<sup>3</sup> The screenings conducted using this mobile unit had to be temporarily put on hold when it was destroyed by a fire caused by a wiring problem. However, the mobile unit was replaced before the end of the project, and screenings were able to resume.

### **ABCD COLLABORATION: PROJECT HIGHLIGHTS**

#### **Partners:**

St. Joseph Hospital (lead agency)  
Nine community clinics  
Maternal Outreach Management Systems (MOMS)  
California State University Fullerton’s Nursing Department.

#### **Overview:**

The ABCD Collaboration provided specialized medical services through community clinics, developed standards of care, and a computerized tracking system for patients with diabetes.

#### **Project Accomplishments:**

- Conducted 2,423 diabetes foot and eye screenings at the nine community clinics;
- Implemented a computerized tracking system for diabetes care;
- Developed supplemental treatment guidelines for clinic use;
- Developed and distributed pamphlets for providers and patients on non-prescription medicine and diabetes;
- Contracted with “MOMS” to provide intensive case management to 136 expectant mothers with gestational diabetes, improving medical outcomes for the participating women and their newborns.

By the end of the first phase, 2,423 screenings had been completed, 48% of which were eye screenings and 52% of which were foot screenings. Of the 1,157 eye screenings, 113 individuals (almost 10%) scored in a range suggesting they would benefit from corrective lenses. In addition, 146 or 12.6% of patients screened had exams that indicated suspected disease. Of the 1,266 foot screenings completed, 145 individuals (11.4%) scored in a range requiring Level II exams.

If the need for eyeglasses was identified, the Collaboration sought out additional funding to cover that cost. However, the Collaboration unfortunately did not have the funding to provide for other follow-up care. It is hoped that the screenings acted as an intervention, spurring the patients to follow up on the referrals.

By the end of the program period, a total of 1,180 patients' screening information had been entered into the collaboration's dataset. These patients received specialty care at the 10 collaborating clinics between May 2002 and March 2003. Analysis indicates that on average, the patients were 50 years old, and they had known they were diabetic for about six years. Only 10% of those receiving specialty screenings were receiving insulin, and 45% were taking one or no medication, while 53% were taking more than one medication. Analysis of hemoglobin scores indicate that 27% of the group was considered to have their diabetes under control, while 62% had not yet brought their scores into an acceptable range.

To assess the patients' level of knowledge about diabetes, all eye screening patients were asked to answer five true/false knowledge questions, and they were asked to indicate if they had ever received diabetes education in the past. Findings suggest that many patients had neither a strong grasp of their disease nor of its management.<sup>4</sup>

### *Supplemental Treatment Guidelines*

The ABCD Collaboration also developed a new set of supplemental guidelines specific to the patients served by the community clinics involved in the ABCD Collaboration. These guidelines were defined as:

*The many extra-medical steps clinicians may have to take to actually deliver the standard of care to the members of this population who have many special problems.*

Three sets of findings, described below, laid the foundation for the supplemental guidelines developed by the ABCD Collaboration.

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<sup>4</sup> According to the evaluation report, some of the findings around prior education were counter-intuitive. The Collaboration's evaluator, Olivia de la Rocha, Ph.D., writes: "The results show that those *without education* had an average of 3.6 correct answers while those with education answered only 2.3 questions correctly. This is a statistically significant and surprising difference. These findings suggest two things. First, those with education about their disease appear to know less than those who have not had benefit of education. Second, both groups scored lower than expected and no doubt require new education to bring them back up to speed."

**1. An empirical examination of the system of care in place in the Collaboration clinics at the time.** The collaboration’s approach was three-fold: 1) to compare formal clinic protocols for care with the California Department of Health Services’ Diabetes Prevention and Control Program (DPCP) guidelines; 2) to compare clinic practices as documented in charts with patients’ experiences; and 3) to compare providers’ perceptions of care with patients’ perceptions. Four findings emerged from this comparative study:

- Most local medical care practice was found to adhere closely to DPCP guidelines.
- The two areas where local medical care practice deviated from DPCP guidelines were in specialty care and vaccinations.
- Extra-medical steps were most frequently omitted from a visit, and they were more likely to not be charted when they were done.
- Many (not all) patients were unable to answer questions about laboratory results.

**2. Focus groups with health care providers, health promoters, and patients to identify barriers to services.** From these focus groups, the collaboration identified four major gaps that create barriers to effective service delivery:

- A socio-economic gap in which the patient does not have the resources (money, access, transportation, child care, supplies) to achieve control over the disease;
- An educational gap between patients and providers;
- A psychological means-ends gap where patients do not break through their denial to take ownership of and then manage their disease; and
- A gap between clinic capacity and community need.

**3. A Subcommittee of ABCD Partners was convened to inform the Guidelines.**

Problem-solving sessions with members of the subcommittee yielded four recommendations that were also incorporated into the guidelines:

- 1) Community need must be brought into line with community clinic capacity;
- 2) A new division of labor in the management of diabetic care is needed, such that the medical and extra-medical pieces should be separated (extra medical resources would be nutritionists, exercise specialists, or support group leaders);
- 3) Establish a “community chronic care center” venue –providing much-needed relief to the stretched community clinic system; and
- 4) A Community Diabetes Task Force should be formed to effectively guide these systemic changes.

The Supplemental Guidelines were produced, and to date its recommendations have not been utilized to restructure of system of care and prevention of diabetes in Orange County. They have, however, established an important starting point from which coordination of treatment at the systems level can begin.

### *Computerized Tracking System*

A third effort of the ABCD Collaboration was the implementation of a computerized tracking system designed to guide health providers through the identification of the necessary steps to be accomplished with a patient during a particular visit. The system software provides a computerized template of medical and extra-medical tasks to be completed. The software was programmed to build on and reinforce some of the Supplemental Guidelines developed for the participating clinics.

The system software used for the tracking system is the Camit Pro, Roche Diagnostics' chronic care data management software. By the end of Phase I, the software had been installed in seven of the community clinics: Camino, Casa, La Amistad, Lestonnac, Puente, St. Jude and SOS. At that time, the ABCD Collaboration was finalizing the Visit Prompt Report, and staff in each of the seven clinics had received training on the use of the software. In a completely operational system, a computer screen prompts the provider about the tasks that need to be accomplished at that visit, such as a foot exam.

### *Patient and Provider Educational Pamphlets*

An additional undertaking of the ABCD Collaboration was the production of 20,000 pamphlets to address the issue of alternative therapies in the care of diabetes. One pamphlet, in English, targeted health providers. The second, produced in English, Spanish and Vietnamese, targeted patients. These educational materials were produced under a subcontract with the California State Fullerton, School of Nursing and were disseminated through the community clinics in Orange County.

### *MOMS' Case Management of Expectant Mothers with Gestational Diabetes*

A fifth project activity of the ABCD Collaboration was the case management services provided by Maternal Outreach Management Systems (MOMS). During the course of the Initiative, MOMS provided services to 152 pregnant women with gestational diabetes. Of that number, 136 gave birth, a figure representing 152% of MOMS' goal for the Initiative.<sup>5</sup>

The project saw significant outcomes as a result of the intervention. While 26% of gestational diabetic mothers' babies are normally expected to be admitted to the neonatal intensive care unit, only 2% of MOMS babies were admitted. Further, in contrast to an 8% expected rate of birth anomalies, MOMS babies had only 1%. And, while there is an expected "high" rate of negative outcomes for multiparous mothers, MOMS mothers showed a "low" rate of negative outcomes.

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<sup>5</sup> Figures current through June 2003.

## **PEDIATRIC CARE IN THE SCHOOLS (PEDS) COLLABORATION**

### Background

The Pediatric Education on Diabetes in Schools (PEDS) project joined in collaboration the PADRE Foundation and the Orange County Department of Education. In addition, several other organizations, including Latino Health Access, Children's Hospital of Orange County, and private sector partners were brought in to assist with specific, project-related tasks. Mohammed Forouzesh, Ph.D., of Assessment and Associates, Inc. (AAI), served as the project's evaluator. The data cited in this section were collected and analyzed by AAI staff.

The vision of the PEDS Collaboration was to institutionalize effective diabetes management within the public school setting. To carry out this vision, the partners had two goals:

- Provide county-wide diabetes education to public school nurses; and
- Improve the health status of Orange County's public school-aged students who either have diabetes or are at risk for developing diabetes.

In the course of the first phase of the Diabetes Initiative, these goals were successfully accomplished through six program activities:

- 1) Diabetes education to public school nurses;
- 2) A Train-the-Trainers (TtT) component;
- 3) A public school administrator training;
- 4) The launching of a web site;
- 5) Diabetes screening in the public schools; and
- 6) Leveraging additional funding.

### Diabetes Education to Public School Nurses

A major accomplishment of the PEDS collaboration was to plan for and implement a series of trainings targeting Orange County's public school nurses. The trainings made use of the Pediatric Education on Diabetes in School (PEDS) curriculum developed prior to the Diabetes Initiative by Ms. Mary Zombek of the Orange County Department of Education under contract to the PADRE Foundation.

By the end of the program period, six trainings were conducted at the Orange County Department of Education and at Children’s Hospital of Orange County. Each of the six trainings took place over two days, consisting of a combination of mini-lectures related to various aspects of diabetes care in schools and rotating stations that provided hands-on learning opportunities<sup>6</sup>. Examples of topics covered during the training include: insulin pumps, carbohydrate counting, and laws involving diabetes care in schools. In total, all public school nurses in Orange County, totaling 168 individuals, received training using the PEDS Curriculum.

To assess the effectiveness of the school nurse diabetes training, participants were asked to complete a survey at the beginning of the training (pre-test) and again at the end of the training (post-test). The demographic characteristics collected in the pre-test (n=134) indicated that the majority of nurses trained were Caucasian (84%) and female (98%). As a group, the majority of nurse respondents (97%) indicated having experience with students living with diabetes, with the most common experience being related to glucagons orders (59%), noontime insulin injections (49%), or insulin pumps (41%).

Analysis of the pre- and post-test knowledge questions showed knowledge gains on all 15 of the questions – ranging from a 7% to a 54% increase (pre-test n=83; post-test n=80). Overall, the trainings yielded positive feedback from the nurses. All of them (100%) at the post-test agreed that they would recommend the PEDS training to others, that they planned to use the information they learned, and that they would attend similar programs in the future.

### Train the Trainers Component

To enhance the effect of the nurse training, a Train-the-Trainers (TtT) component was built into the PEDS curriculum. The educational sessions were structured such that the nurses who attended were expected to conduct training with unlicensed assistive personnel (UAPs) in their home districts or schools to improve the management of

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<sup>6</sup> Medical equipment makers and pharmaceutical company representatives staffed some of the rotating tables, broadening the collaboration into the for-profit sector.

## **PEDS COLLABORATION: PROJECT HIGHLIGHTS**

### **Partners:**

PADRE Foundation (lead agency)  
Orange County Department of Education

### **Overview:**

This collaboration focused its efforts on diabetes care in Orange County schools, emphasizing capacity building. Through training and a website, PADRE improved the ability of school personnel to identify the disease and assist students with diabetes at school.

### **Program Accomplishments:**

- Trained 100% of the county’s public school nurses, who then trained 250 unlicensed assistive personnel in their own schools.
- Provided diabetes education to 144 school administrators;
- Screened 5,471 5<sup>th</sup>-8<sup>th</sup> grade students in 8 school districts, resulting in 18% being referred for further screening.
- Launched a web site, resulting in 358,000 hits over a 5-month period (February to June 2003) and which has served as an integral part of the nurse training.
- Leveraged additional funds, which has led to the expansion of the project.

students with diabetes. In the aggregate, 75% of the trained nurses conducted TtT sessions.

The nurses trained at least 250 UAPs. These UAPs worked in 18 school districts in Orange County. Evaluation data are available for 105 of the UAPs, representing seven school districts in Orange County. Demographic characteristics collected at the pre-test indicated that 71% of UAPs identified as White/Caucasian with an additional 20% identifying as Hispanic/Latino. Over 70% of the trained UAPs had job titles of office/health clerks. The majority of UAP respondents (90%) indicated they had experience working with students with diabetes. Of these, 46% had three to eight years of experience working with students with diabetes.

Pre-post surveys of participants revealed an overall improvement in diabetes knowledge. These changes ranged from an increase of 1% to 19%. Statistically significant changes were observed in five of the 17 questions.<sup>7</sup>

In addition, 100% of the UAPs stated that they agreed that the class was useful to them, that they were glad they attended, and that they planned to use the information learned from the class. Ninety-seven percent (97%) also indicated they would recommend the class to others; 94% indicated that they would attend similar programs in the future; and 93% indicated that they planned on applying the information learned in the workshop.

To identify the barriers that prevented the remaining 25% of the trained nurses from implementing the TtT component, the grantees queried those nurses, identifying three primary difficulties: time constraints, the school district not providing health services, and lack of financial resources.

### Public School Administrator Training

To further support the work of the trained nurses within the public school districts, and to nurture a climate for systemic change, the PEDS program provided training to public school administrators. In total, 144 public school administrators were trained in the course of the project (68% were principals, and 32% assistant principals). Slightly less than half (45%) of these administrators completed a post-survey. In the aggregate, 85% of those administrators agreed, at the post-survey, that Type II Diabetes screening of students was important, and 87% indicated support for school screenings to identify students at risk for Type II Diabetes. In addition, 82% of the administrators agreed that the presenter communicated the material effectively.

### Launching of a Program Web Site

The PEDS program also developed a web site, [www.pedsonline.com](http://www.pedsonline.com), in order to provide an additional resource to the trained nurses and to broaden the overall impact of the

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<sup>7</sup> Statistical significance, as used in this report, refers to an analysis that demonstrates that observed differences are highly unlikely to have occurred by chance ( $p=.05$  or less). The statistical tests used to determine significance varied for each project and the characteristics of its data.

educational intervention. The site offers educational tools, descriptions of programs, and updates on the PEDS Manual. From February to June 2003, the website received 358,000 “hits” from visitors, averaging 71,000 per month or 2,850 per day, with the majority of the hits (98%) originating in the United States.

As part of the public school nurse training, the nurses were given access to the web site for additional information. Data gathered through June 3, 2003 indicate that 47% of the nurses reported accessing the site. Of those, 83% reported having no difficulties accessing the resources on the site, and 71% indicated they had found useful information there.

### Student Screenings

During the first and second program years, the PEDS program additionally conducted diabetes screenings in eight public school districts in Orange County. In total, 5,471 students (in grades five to eight) were screened. Of these students, 975 or 18% were found to be at-risk for Type II Diabetes. The parents of the students identified as being at-risk for Type II Diabetes were sent a letter and were advised to follow up on the screening with a visit to the child’s medical home. Project staff reported that many parents who followed up with their doctors were told that their children did not have Type II Diabetes and were sent home. In this way, the lack of prevention services for children at risk of Type II Diabetes was identified as a major gap in the service system in Orange County.

In order to better understand the context within which diabetes fits in these students’ lives, the PEDS evaluation team conducted case studies of a group of 20 at-risk students from one elementary school in Orange County. The findings from these case studies indicate that all 20 youth were at high risk for developing health problems due to their elevated Body Mass Index (BMI). Further, poverty, lack of parental knowledge about diabetes, a (relative) social acceptance of obesity, and cultural habits related to food presented barriers to effective prevention and care of diabetes among school-age (5<sup>th</sup> to 8<sup>th</sup> grade) children.

### Leveraging Funding

The PEDS Collaboration was able to leverage funding received from its PARTNERSHIP grant to secure additional funding. By the end of the program period, the PADRE Foundation had successfully received support for the PEDS project from Life Scan; Accu-Check; Metronic Minimed; Therasense; Kaiser Permanente; California Department of Education; Weingart Foundation; Roche Diagnostic; and Sav-On Drugs.

## **SOMOS AMIGOS LUCHANDO CONTRA LA DIABETES (SALUD) COLLABORATION**

### *Background*

The “Somos Amigos Luchando Contra la Diabetes” (SALUD) project brought together the lead agency, Latino Health Access, with the American Diabetes Association (ADA), and Children’s Hospital of Orange County (CHOC). The collaboration worked closely with the Harder+Company evaluator in designing the initial process and outcome measures. In the second year of the project, Latino Health Access hired an in-house evaluator, Patricia Cantero, Ph.D. Dr. Cantero made some changes in instrumentation and in methodology. The accomplishments summarized in this section were analyzed by Dr. Cantero and presented in her evaluation reports.

The vision of the SALUD Collaboration was to develop community-based mechanisms that would build a system to address the prevention, early detection, treatment, and self-management of Type II Diabetes among Latino youth. To carry out this vision, three parallel goals were developed:

- Raise awareness about diabetes in the Latino community;
- Graduate high-risk youth from diabetes prevention classes, and youth with diabetes from management classes; and
- Host conferences and train advocates to participate in policy-level change.

These goals were addressed through five major program activities:

- 1) Community meetings about diabetes;
- 2) Diabetes prevention classes targeting at-risk youth and their families;
- 3) Diabetes management classes targeting youth with diabetes and their families;
- 4) Community-wide diabetes conferences; and
- 5) Diabetes advocacy classes.

### Community Meetings

The SALUD Collaboration focused its efforts on community-wide outreach, conducting a total of 36 community meetings, directly reaching 840 people. Facilitated by Latino Health Access, the meetings gave educational interventions to all participants about issues related to diabetes in the Latino community.

In order to gauge the impact of the community meetings on participants’ knowledge, participants were asked to complete a pre- and post-survey. Of the 355 surveys collected at 17 of the community meetings, 82% were completed by women. Analysis of the surveys shows higher scores on the knowledge questions on the post-test than on the pre-test, indicating gains in knowledge about diabetes after participating in the meetings.

In addition, the data from the surveys reveal high levels of satisfaction with the meetings overall: 98.3% indicated they were satisfied with the content of the presentation; 97.6% with the quality of the materials; 98.2% with the quality of the presentation; and 98.2% with the instructor's knowledge.

### Diabetes Prevention Classes

A second element of the SALUD Collaboration was the diabetes prevention classes for at-risk youth and their families. In total, 58 series of five prevention classes each were conducted, serving 776 children and youth (age 7-17 years) at-risk of diabetes and their family members. A total of 490 people (63% of the participants) completed the entire series of classes and graduated. Data available on 422 of the graduates show that 218 were children/youth (52%) and 204 were family members (48%). And, as a follow-up to the educational series, 47% (n=231) of the graduates received a home visit.

Descriptive characteristics of the young graduates (n=218) indicate that the most common referrals into the prevention class were: school (36.8%), Latino Health Access (16.7%), a hospital or clinic (12.3%), or family or friend (10.4%). Further, data show that 55% of the participants were female and 45% male; 19% had completed six years of schooling or more; 86.8% indicated they spoke English either well or very well; and 12.5% had no medical home.

The 204 family members graduating from the prevention classes also completed pre-post instruments. As a group, family members had different characteristics: 80% were women ranging in age between 18 and 68 years; 37.6% had less than 6 years of formal schooling; 43.8% indicated speaking "some" English, and 38.1% no English at all; and 27.7% had no medical home.

Analysis of the knowledge questions on the pre- and post-surveys show an overall increase in mean scores. Chi square analyses conducted on scores from the third series of classes indicate that while it was not so for family members, there was a statistically significant increase in knowledge among the targeted group of at-risk youth.

Data analysis also reveals that for a sub-sample of 66 young graduates for whom pre-post and

### **THE SALUD COLLABORATION: PROJECT HIGHLIGHTS**

#### **Partners:**

Latino Health Access (lead agency)  
American Diabetes Association Children's  
Hospital of Orange County

#### **Overview:**

This collaboration conducted outreach, advocacy and education to the Latino community by holding classes and organizing events and conferences.

#### **Project Accomplishments:**

- Reaching 840 people through 36 diabetes-focused community events, with surveys finding significant knowledge gains for those who attended.
- Conducting prevention classes for 776 youth (age 6-17) at risk for diabetes and their families, with 63% of them completing the whole series. Follow up surveys showed behavior changes such as improved eating habits and increased exercise for participants and their families.
- Organizing two community-wide diabetes conferences, with over 1,000 people attending.
- Providing disease management classes for 67 children and youth diagnosed with diabetes and their families with follow-up surveys showing significant gains in disease knowledge and exercise among participants.
- Graduated 69 people the diabetes advocacy classes.

follow-up surveys were available<sup>8</sup>, the mean number of days that participants in the prevention classes reported having exercised in the previous seven days increased from the first class (3.5) to the fifth class (4.6), and again had increased by the follow-up visit (5.0). The pattern was similar in queries about the length of time they exercised, with an increase between the first class (3.5) and the fifth (4.0), and again at follow up (4.3).

The same sub-sample of young graduates was also asked to report how often they had read food labels the preceding week. They were given a 5-point scale with 1 indicating “never” and 5 indicating “always”. Data points to an increase in label reading, with a mean score of 2.1 at the first class, and a post and follow-up mean score of 2.7. Data also show a reduction in frequency of junk food eaten when comparing scores at the first class (5.3) with 3.4 at the fifth class and 3.5 at the follow-up.

Changes in behaviors were also apparent among a sub-sample of family members (n=51) who attended the diabetes prevention classes. There was an increase in reported numbers of days exercised in the past seven days from 2.0 at the pre-test, 3.3 at the post, and 3.9 at the follow-up. The length of time they spent exercising also increased from 2.7 at the pre-test, 3.8 at the post, and 3.7 at the follow-up. Label reading also increased among family members, who went from 2.1 at the pre-test to 2.9 at the post, and up to 3.2 at the follow-up. Consumption of junk food decreased, with a 4.3 score at the pre-test, 2.7 at the post and 2.4 at the follow-up.

Results from the pre/post/follow-up surveys completed by participants reveal 3 key outcomes of the prevention classes: 1) an increase in label-reading; 2) a decrease in eating junk food; and 3) an increase in exercising for at least 30 minutes among clients and family members. SALUD Collaboration’s evaluation report also stated that there had been statistically significant differences in behavioral patterns for both the clients and their accompanying family members.

### Diabetes Management Classes

A third undertaking of the SALUD Collaboration was the diabetes management classes targeting youth already diagnosed as having diabetes and their families. A total of seven series of management classes was conducted, serving 92 individuals. Of those, 87% (n=67) completed the full series of eight classes. Of these graduates, 31 were youth and 36 were family members. For them, a hospital or clinic was the most common source of referral (48%), followed by the Children’s Hospital of Orange County (CHOC, 29.8%).

The demographic characteristics of the youth participants showed that 68% of them were female, 45% with more than 6 years of formal schooling; 83% who spoke English either “well” or “very well”; and 64.5% with CHOC most frequently noted as their medical home. The accompanying family members were predominantly women (80.6%); 41.7% had less than six years of formal schooling; 66.7% spoke “some” or “no English at all”, and 19.4% had no medical homes.

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<sup>8</sup> Data for this analysis was available through April 15, 2004.

Analysis of knowledge measures collected at the first and eighth classes show that clients and their family members scored higher on the post-tests than on the pre-tests, with an average increase of five points at the last class. This indicates that clients and their family members had increased knowledge about aspects of self-management after participation in the classes.

Analysis of the number of days per week that participants reported practicing a healthy diet, eating fruits and vegetables and eating fatty foods indicate statistical differences in behavior among family members, but not for the targeted clients. There was, however, a significant difference in the mean number of days per week spent exercising for both clients and their families. Results from the pre/post surveys completed by the participants indicate significant change in disease knowledge and exercise.

### Diabetes Conferences

Two community-wide diabetes conferences were organized and held during the program period. The first was held in October 2001, and the second in October 2002. In the aggregate, there were over 1,000 participants at the conferences, with 570 registered for the first conference, and 164 for the second. The remaining participants did not register. Two-thirds of the participants who registered at both conferences were women; over half indicated having less than six years of formal education. Knowledge questions asked at the second conference indicate an increase in knowledge along all seven measures. In addition, satisfaction questions asked at the end of the first conference indicate 98% satisfaction with the content of the conference among respondents; 97.5% with the quality of the workshops; and 98% with the knowledge of the presenters. Satisfaction rankings were similar, but slightly lower for the second conference, with 95% indicating satisfaction with the content of the conference; 92% with the quality of the workshops; and 94% with the knowledge of the presenters. Data collected to receive feedback about the conferences showed high levels of satisfaction with the workshops and with the presenters.

### Diabetes Advocacy Classes

The SALUD Collaboration also implemented a series of classes, the purpose of which was to teach individuals with diabetes how to effectively advocate for themselves and others related to the management and prevention of their disease. Ms. Lily Mucarsel of the American Diabetes Association facilitated the advocacy classes, which were conducted in Spanish. The target group was individuals with diabetes and others, such as family members or community members, with an interest in the issue. The series had a lecture format with experiential components. For example, as a class exercise, the students visited markets, noting the presence or absence of foods that are diabetes-friendly. Class participants then followed up with letters to the store managers requesting that such foods be made available in their stores. Participants also learned about the political system and wrote letters to politicians requesting attention to issues facing

people with diabetes: healthcare, access to supplies, etc. In the aggregate, 69 people participated in the classes, with 64% (n=44) of them completing the series.

## **VIETNAMESE DIABETES PROJECT (VNDP) COLLABORATION**

### *Background*

The Vietnamese Diabetes Project (VNDP) was a collaborative effort between the Nhan Hoa Comprehensive Health Care Clinic and the Vietnamese American Medical Research Foundation. The project worked closely with Dorothy Mull, Ph.D., the project's evaluator. The data cited in this section were collected and analyzed by Dr. Mull with help from Nhan Hoa staff. The vision of this collaboration was to improve the diagnosis and management of Type II Diabetes among the Vietnamese residents of Orange County. To achieve this vision, four goals were developed:

- Find undiagnosed cases of Type II Diabetes in the Vietnamese community;
- Improve patients' self-management of their Type II Diabetes;
- Identify and reduce barriers to access to health care among Vietnamese patients diagnosed with Type II Diabetes; and
- Improve Vietnamese physicians' diagnosis and treatment of Type II Diabetes among Vietnamese residents of Orange County.

These goals were successfully accomplished through four major activities undertaken by the Collaboration:

- 1) Diabetes screenings;
- 2) Outreach efforts;
- 3) Diabetes self-care workshops; and
- 4) Physician education.

### Diabetes Screenings

In its final report<sup>9</sup>, the VNDP Collaboration reported that it had screened a total of 6,388 people for Type II Diabetes. Of this figure, 43% of those screened were men and 57% were women. Most of the screenings (72%) occurred at the Nhan Hoa Comprehensive Health Care Clinic, and the remaining 28% were conducted in the community by the Clinic's outreach team of health providers.

The data indicate that 10% of those screened tested positive, and among those who tested positive, men had a higher rate (12.8%) compared to the women (8.0%). Clinic staff postulated that this gender difference was observed because women clients tended to ask to be screened regardless of early symptoms of diabetes, whereas men were more likely

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<sup>9</sup> All data cited in the VNDP Collaboration Final Report was through July 31, 2004.

to wait for such early symptoms as frequent urination or excessive thirst before being tested.

### Outreach Efforts

The VNPD Collaboration also launched a successful educational outreach campaign. By the end of the program period, two articles about diabetes and the Nhan Hoa Clinic's VNPD Collaboration had been placed in two Vietnamese-language newspapers (each with a circulation of about 17,000). As a result, several individuals from other states contacted the clinic and were sent copies of the clinic's diabetes education handbook. In addition, over 100 people sought screening at the clinic after seeing the articles.

Other examples of successful media outreach by the VNPD Collaboration include:

- 2,000 copies of a Vietnamese language article on the clinic's diabetes project published in a magazine were distributed to the Vietnamese Catholic community in Orange County.
- A Vietnamese language radio spot on diabetes and the Nhan Hoa Clinic was aired once a week for over 18 months.
- Two articles, one on pre-diabetes and one on alcohol and diabetes, were included in a special issue of the Nhan Hoa clinic newsletter, marking the Vietnamese New Year on February 1, 2003. The majority of the 2,000 copies of each article have been distributed.

The Nhan Hoa Clinic staff also produced written educational materials to broaden the impact of the diabetes educational messages on the Vietnamese community. An educational handbook was developed, entitled "Type II Diabetes". Every graduate of the clinic's diabetes classes received a copy of the handbook. The handbooks were also distributed at the physician education sessions discussed later in this section. By the end of the program period, almost all of the 1,300 copies of the handbook had been distributed, at least 50 of which have been taken to Viet Nam. The Association of Asian Pacific Community Health Organizations (AAPCHO) has included the diabetes handbook in its library of Vietnamese language health-related publications that it publicizes nationally.

In addition, Nhan Hoa Clinic staff developed three diabetes education pamphlets: a general information pamphlet on Type II Diabetes, a primer on the HbA1c test, and a third that addresses the link between stress and diabetes. Thousands of copies were produced of each, and the bulk of them were disseminated in the clinic's waiting room and during outreach activities.

The Collaboration also funded the development of the clinic's web site, [www.nhanhoa.org](http://www.nhanhoa.org). The site has links to the full version of the Vietnamese and English languages education handbooks and the educational pamphlets, as well as to articles on issues related to diabetes.

The final element of the Collaboration’s outreach activities was the purchase of the “Diabetes Van” to conduct outreach in the community. The diabetes van was purchased with support from Orange County’s United Way and the California Endowment. By the end of the program period (July 31, 2004), the van had made 43 visits to shopping centers in the Little Saigon neighborhood where the Nhan Hoa Comprehensive Health Care Clinic is located. There, clinic staff conducted educational outreach, talking to shoppers about diabetes, inviting some to be screened, and referring others to the Nhan Hoa Clinic. In addition, the driver had made 824 trips transporting patients living within a 15-mile radius of the Nhan Hoa Clinic so they could receive care or attend education classes. The van also brought clinic patients to their appointments with specialists, such as ophthalmologists.

### Diabetes Self-Care Workshops

A third accomplishment of the VNDP was the Diabetes Self-Care Workshops. By the end of the program period, 43 cycles of diabetes classes had been held at the Nhan Hoa Clinic. A total of 504 patients participated in the workshops, with 428 (85%) completing the series of five two-hour sessions that made up each cycle. Of the 428 graduates, who ranged in age from 35 to 75, 56% were women and 44% were men. Most of the graduates were referred to the workshops internally, being Nhan Hoa Clinic patients (80%), with 11% referred by CalOptima, and 9% by local physicians. A total of 357 class participants were given glucose meters and grant monies were used to provide 2578 HbA1c tests to Nhan Hoa Comprehensive Health Clinic patients.

A 25-item knowledge pre-post test, given to workshop participants showed a mean score of 13 of the 25 items answered correctly at the pre-test compared to 21 of 25 items answered correctly at the post-test. Analysis indicates statistically significant increases in knowledge.

Additionally, results from a controlled study of 30 pairs of clinic patients indicated that patients who had attended Nhan Hoa Clinic’s diabetes self-care workshops were significantly more likely to have achieved desirable HbA1c levels than those who had not attended.

### **THE VNDP COLLABORATION: PROJECT HIGHLIGHTS**

#### **Partners:**

Nhan Hoa Comprehensive Health Care Clinic  
(lead agency)  
Vietnamese Medical Health Research Foundation

#### **Overview:**

The Nhan Hoa Clinic partner offered screening and disease management services to the Vietnamese community in the county through self-care workshops, transport to the clinic, conducting focus groups on diabetes and nutrition in the community, and developing bilingual diabetes education materials for distribution. Together with the Vietnamese Medical Health Research Foundation, the collaboration provided direct education to Vietnamese physicians on issues related to diabetes.

#### **Project Accomplishments:**

- Screening over 6,000 people for Type II Diabetes.
- Undertaking a major outreach campaign in Vietnamese-language media outlets.
- Producing written educational materials such as a diabetes management handbook and pamphlets distributed through the clinic and clinic’s website.
- Transporting 824 patients to the clinic for treatment and education classes.
- Providing 236 Vietnamese physicians with diabetes education sessions.

In order to understand obstacles to optimal disease management, the project’s evaluator conducted a series of three focus groups on diabetes and nutrition in the Vietnamese community, and supplemented the focus groups with 30 one-on-one interviews with Nhan Hoa Clinic patients born in Vietnam, as well as several Vietnamese American diabetes experts. Four key findings were identified from analysis of the qualitative data:

- ❶ Since families often share meals, family members, as well as patients, need to be educated about Type II Diabetes.
- ❶ Patients need to understand that that they should not dramatically alter the amount of food they eat – skipping meals is not a healthy practice.
- ❶ Patients for the most part are not familiar with portion sizes, and many are not aware of the food composition and calorie counts of many foods eaten in Vietnamese homes, since these foods are not listed in standard English-language databases. As a result, the Nhan Hoa Clinic staff began making plans to develop nutritional materials designed for Vietnamese people with diabetes.
- ❶ Many participants in the focus groups and interviews indicated that their lives were stressful. Given the connection between stress and elevated blood sugar levels, the Nhan Hoa Clinic has made plans to apply for a grant to further support their patients with diabetes as well as other clinic patients.

### Physician Education

The collaborative undertaking of the VNPD Collaboration was the physician education component, which brought together the Nhan Hoa Clinic and the Vietnamese American Medical Research Foundation staff. Over the course of the program period, physicians were invited to four mini-conferences, three of which were held in restaurants and one during the Fourth International Convention of Vietnamese Health Professionals. In total, 335 health professionals attended the education sessions, with 70% identifying as Vietnamese physicians.

At the fourth education session, the 35 participating physicians were asked to answer knowledge queries. Analysis indicates that the physicians correctly answered 83% of the questions about modern diabetes management. The evaluation data collected at the post-test also indicated high levels of participant satisfaction with the sessions. At three of the sessions, participants were asked to rate their experiences. Analysis showed that in the aggregate, the educational content had been “excellent” and had met participants’ needs “very well”.

### **POST-INITIATIVE ACCOMPLISHMENTS OF THE FOUR COLLABORATIONS**

As summarized briefly below, the collaborative partners continue with their work, and there are many examples of post-Initiative accomplishments that demonstrate the new collaborative relationships, technical resources, information sharing, and funding that

have stemmed from the financial and other support provided through PARTNERSHIP Diabetes Initiative – Phase I.

### ABCD Collaboration

With the PARTNERSHIP grant completed, the ABCD Collaboration has continued to provide preventive specialty care. Specifically, St. Joseph Hospital was able to leverage two grants from St. Joseph Health Systems Foundation to provide care. The MOMS component of the ABCD Collaboration was also able to secure funding to continue its efforts in providing case management to women with gestational diabetes. In addition, the data that can now be generated through the Camit-Pro system has served as an essential tool in fundraising. The new mobile vision clinic that replaced the one destroyed by fire continues to support the needs of patients with diabetes in Orange County's health clinic system.

### PEDS Collaboration

The PADRE Foundation has begun implementing nationwide the PEDS demonstration project started in Orange County in 2000 with the PARTNERSHIP grant. With funding from Kaiser Permanente, the nation-wide implementation started in January 2003 and will occur over a ten-year period. The project is a collaboration between the PADRE Foundation and the National Association of School Nurses (NASN). By the end of 2004, 2500 school nurses had received trainings in Georgia, Colorado and Maryland, using a Train the Trainers approach. Trainings had also been conducted at the NASN's 35<sup>th</sup> National Conference in Cincinnati, Ohio, reaching 250 school nurses from across the nation. In addition, the Department of Defense contracted with the PADRE Foundation to conduct a workshop in Germany, providing training to 129 nurses stationed all over Europe. To support the expansion of its work, the PADRE Foundation was able to leverage \$150,000 in additional sponsorship.

### SALUD Collaboration

A major accomplishment of the SALUD project has been that despite significant staffing changes, the collaboration was able to successfully complete the Diabetes Initiative grant. Moreover, SALUD's diabetes management classes continued for two months beyond the grant period, providing services to youth with diabetes and their family members. Furthermore, the relationship established between Latino Health Access and Children's Hospital of Orange County (CHOC) has continued, with clients being referred between the two agencies. The American Diabetes Association (ADA), which took the leadership in providing advocacy classes, has continued to offer those classes, and plans are being made to institutionalize the series so that it continues as part of the services offered by the ADA in Orange County.

## VNPD Collaboration

One of the outcomes of the project that goes beyond the grant is the new alliance that was forged between the Nhan Hoa Clinic and two professors from the University of Southern California School of Medicine – Dr. Dennis Mull and Dr. Dorothy Mull. These professors have connected Nhan Hoa Clinic staff with other providers, some of whom are now serving the clinic as on-going advisors and supporters. For example, a prominent pharmacist from Western University in Pomona has helped the clinic restructure its pharmacy and hopes to send Western University students and faculty to work in the clinic and to do joint research projects there for eventual publication. Dr. Dennis Mull now serves on the Board of Directors of the clinic.

There have been additional post-Initiative accomplishments as well. Medical students from USC have done rotations through the clinic, and one such student conducted a pilot project related to nutrition and diabetes. She plans to rejoin the clinic in February 2005 and to create additional nutrition education materials in Vietnamese and English. A nationally known diabetes researcher at the University of California, Irvine, recently approached the clinic in the hopes of collaborating and applying for government grants related to Type II Diabetes. Finally, the Diabetes Control Program of the California Department of Health Services has expressed interest in disseminating the clinic's diabetes education materials to the larger Vietnamese community using Internet links.

### **OVERVIEW OF GRANTEE ACCOMPLISHMENTS**

In summary, all of the grantees made a significant difference for the individual clients they served. Considered in the aggregate, the accomplishments of the four collaborations can be seen along four dimensions:

- 1) Delivery of services to individuals;
- 2) Characteristics of people served, along with levels of satisfaction with the interventions;
- 3) Statistically significant outcomes; and
- 4) Outreach through media such as radio or newspaper, through the use of mobile units, and the development of materials and web sites.

#### ***Dimension One: Delivery of Services***

All four collaborations were successful in reaching Orange County residents with direct services. Table 2 below enumerates the range of direct services provided by the four collaborations and the numbers of clients/participants who received them.

**Table 2. Total Participants in the First Phase  
of the PARTNERSHIP Diabetes Initiative**

<b>ABCD Collaboration</b>	
Total screenings	2,423
MOMS case management clients	152
<b>PEDS Collaboration</b>	
School nurses trained	168
School Administrators trained	144
UAPs trained	250
Parents* trained	1,000
Students screened	5,471
<b>SALUD Collaboration</b>	
Community meeting participants	840
Prevention class participants	683
Disease management class participants	92
Advocacy class participants	69
Registered conference participants	734
<b>VNDP Collaboration</b>	
Diabetes management class participants	325
Type II Diabetes screening	4,066
Physicians trained	236
<b>TOTAL:</b>	<b>16,653</b>

\* Not funded by PARTNERSHIP but considered part of the project by Grantee

Approximately 16,500 people received services or participated in programs supported through the Partnership's Diabetes Initiative. This figure, however, does not include those indirect participants reached through the various written materials developed by the collaborations, such as the PEDS training manual; the Nhan Hoa Clinic's "Type II Diabetes" Handbook, written in Vietnamese; the non-traditional medicine pamphlet produced through the ABCD Collaboration available in English and Spanish for patients and in English for physicians. Many of these materials, and additional sources of information, were also made available through the grantees' web sites.

***Dimension Two: Collection of Primary Data for Research and Program Development***

A second accomplishment of the collaborations is the collection of demographic characteristics, levels of satisfaction with the interventions and outcome information. Some examples include the ABCD Collaboration's profile of the patients who received specialty screenings, and the PEDS Collaboration's gathering of information on the nurses who received training. (These nurses, in turn, collected demographic information when they trained the Unlicensed Assistance Personnel.) In addition, the PEDS' youth case study, through its data gathering, began to identify cultural barriers to full

participation by youth in diabetes prevention. The SALUD Collaboration collected the demographic characteristics of those who attended their community meetings, and the diabetes management and prevention classes. Finally, the VNDP Collaboration was able to develop a profile of participants in its diabetes management classes and of those who received screenings. In addition, three of the four collaborations gathered satisfaction ratings from those who participated in their programs. Beyond this, each project was able to collect outcome data that documented the impact of its programs on participants. This data, spanning different populations and age ranges, can serve as a resource to those who seek to develop additional initiatives and programs addressing service delivery and access issues in Orange County and elsewhere.

### ***Dimension Three: Achievement of Meaningful Improvements in Disease Treatment and Education***

All four collaborations used outcome data to document statistically meaningful changes among those who used at least some of their services. For example, the ABCD Collaboration collected the number of individuals referred for Level 2 care, thereby potentially avoiding the need for acute care, while MOMS looked at clinical outcomes for births to mothers with gestational diabetes. The PEDS Collaboration tested the knowledge of its trained nurses and UAPs. The SALUD Collaboration evaluated knowledge gain at its community presentations, as well as at its prevention and management classes for youth and their families. The VNDP Collaboration collected pre/post knowledge measures at its management classes and conducted a controlled study comparing health status of patients who participated in the diabetes management classes with those who did not participate.

Importantly, statistically significant improvements were seen in the work of each collaboration. Especially noteworthy were the outcomes observed in the: 1) MOMS component of ABCD; 2) PEDS' school nurse training; 3) SALUD's prevention classes, and 4) VNDP's diabetes management classes.

### ***Dimension Four: Outreach***

A fourth accomplishment of the four collaborations is that they all conducted some form of outreach. The ABCD collaboration provided its level 2 screenings at or near patients' clinics, bringing its Vision Mobile Clinic to specific sites. It also developed pamphlets about the use of non-western remedies among Latinos and Vietnamese populations, and it conducted investigations within the clinics to find commonalities in care of patients. The PEDS collaboration developed a web site to broaden the accessibility to information, and to the PEDS Curriculum developed for this grant, and brought screenings to children in some of the lower socio-economic areas of Orange County. The SALUD project conducted outreach through its community meetings. The VNDP made use of the mass media such as radio and newspaper, conducted screenings in areas where Vietnamese people congregate and developed culturally and linguistically appropriate materials such as a curriculum and pamphlets, all of which are posted on the Nhan Hoa Clinic web site.

Such outreach efforts leverage the educational message, and materials can reach wide groups of people.

### ***Significance of Grantee Accomplishments***

**Access to Care:** The four collaborations reached over 16,500 people, many of whom are the poorest in the county and who have had no medical home. Through the variety of screenings offered by the four collaborations, more people were brought into the system of care and were taught the basic skills of disease management. In addition, through focus groups and follow-up with some of the recipients, a more finely grained understanding of some of the barriers to diabetes care and management were revealed.

**Capacity Building:** The Diabetes Initiative also resulted in capacity building of Vietnamese doctors, public school nurses and unlicensed assistive personnel, and health providers in the health clinics. Within the clinic setting, supplemental guidelines and the computerized tracking system of people with diabetes led to more systematic and consistent care of the clinic's diabetes patient population. In addition, all four collaborations contributed to the body of patient and provider focused literature. Where there were few written materials available at the beginning of the Initiative, by the end, diabetes handbooks and pamphlets had been produced. Two web sites were launched where many of these materials can now be accessed.

**Knowledge Transfer/Skill Building:** The projects were able to demonstrate through the evaluation of their program activities that an intensive educational series can be an effective tool in increasing knowledge about diabetes and changing personal behavior to reduce or manage risk.

**Innovation:** In the development of the supplemental treatment guidelines, the ABCD Collaboration convened a subcommittee of community clinic leaders for the intentional sharing of knowledge and experience, which produced recommendations for innovation at the system level. The subcommittee of clinic leaders possesses an understanding of the socio-economic burden that a chronic disease, such as diabetes, places on the community clinic system. Seeking to maximize scarce medical resources, the group recommended the separation between medical and non-medical interventions. Further, the group envisioned "Community Diabetes Centers" where patients could receive medical care, but also gain access to nutritionists, health education, physical education, and diabetic supplies, such as testing strips and glucometers.

### III. CONCLUSIONS: LESSONS LEARNED FROM THE DIABETES INITIATIVE

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The Diabetes Initiative began with a shared concern about an emerging health disparity in Orange County, the rapid increase in Type II Diabetes, among people of color. This was prior to the current widespread national interest in the diabetes epidemic. The PARTNERSHIP, a new funding collaborative, considered the available data and committed itself to respond to this issue. Addressing it was beyond the capacity of any of the individual grantmakers in the Partnership. Working together allowed them to combine their resources to achieve more than any individual could accomplish separately. Their approach was to work simultaneously at three levels:

- the delivery of prevention and treatment services to those with high levels of needs through program grants;
- the building of organizational capacity through training and support; and
- the strengthening of the broader system of care and prevention for diabetes in Orange County.

This evaluation report has presented information about the results of Phase I of the Initiative at these three levels of activity, demonstrating that the Initiative was successful overall. These findings are summarized below.

#### Area of Greatest Impact: Delivery of Direct Services

The Partnership's greatest successes were achieved in the arena of direct service delivery. All four of the grantee collaboratives made a significant difference for the people they served, reaching more than 16,500 participants in total. The grantees, all experienced providers of health care and related services, were able to make effective use of the funds by doing what they do best. Adults and children in high-risk groups throughout the county were screened for diabetes risk and either received treatment or were referred to other providers. Each of the grantees was able to achieve at least one outcome that produced a statistically significant result, as measured by their evaluators, in addition to the important result of serving people. From this demonstration of impact, these grantees can build (and potentially secure funding for) innovative programs that continue the benefits of the grant-supported activities. If they are successful, the Partnership's requirement that the grantees each have their own project-level evaluator may ultimately be one of the most significant elements of the overall Initiative design.

Through the four grants, the PARTNERSHIP was able to support the development of culturally appropriate methods for serving the Latino and Vietnamese populations in the County. Two of the grants – Nhan Hoa and Latino Health Access – targeted specific ethnic communities. The other two grants – ABCD working through community clinics and PADRE working through public schools – served groups with a high proportion of Latinos. The development of culturally-specific methods was an explicit goal for both the funders and the grantees, and they accomplished it. In creating their culturally-specific interventions, the grantees and their evaluators conducted their own research on

the cultural meaning of diabetes, incorporating that understanding into their interventions. This research will also support future program development.

The Initiative did not specifically target low-income populations but instead focused on two of Orange County's communities of color whose populations experience a higher than average chance of being diabetic and for whom non-profit providers are the primary source of health care. There was also no special emphasis on African Americans, the population with the highest prevalence of Type II Diabetes, during this phase of the Initiative. African Americans are included in the upcoming Phase II.

### Mixed Results: Organizational Capacity Building through Training and Support

The PARTNERSHIP intended to use the Diabetes Initiative as a tool for organizational strengthening of the grantees. Through participation in a multi-year, multi-tier funding effort, the grantees would increase their organizational skills in the areas of collaboration, technology, cultural competency and sustainability. The funders were committed to ensuring that the grantees emerged from this Initiative with the skills necessary to sustain themselves and their innovative programs at the termination of PARTNERSHIP funding.

Unfortunately, there was not a tightly focused capacity-building effort involving training or consulting to complement the program funding. For the most part, any organizational learning was self-taught. The increase in organizational change occurred in the first year. It was during this period that the grantees were the most enthusiastic about the Initiative and when there were several convenings related to planning and evaluation. In subsequent years, however, outside intervention was more problem-focused and reserved for times when the funders believed the grantees needed help. Consequently, there was no incremental growth in organizational skills beyond the first year. The one exception to this observation, as reported in the evaluation interviews, is in the area of collaboration. Over the course of the Initiative, the grantees learned how to work more effectively with the funders and each other.

There is an important lesson in the mixed results of the organizational change component of the Initiative. The funders began their planning with a very ambitious and well-articulated intention to create a stronger network of organizations providing diabetes care and treatment in Orange County. But as the planning progressed and the budgets were developed, most of the funding went into program. There was no actual mechanism created or resources identified to drive organizational change. While some support was provided -- informal consultation to the grantees by the Initiative's Primary Consultant, some sessions early on in the program about logic modeling for the grantees, the Convening Process -- there was no formal program dedicated to capacity building.

### Systems Change

It is instructive to compare the findings in the organizational arena to those in the third area of impact -- systems change. Midway through the Initiative, the funders recognized

that the grantmaking by itself would not produce system change. At most, 10% of the population with diabetes would participate in the funded activities. Most people with diabetes in Orange County have private insurance and get their care through private pay physicians, clinics and hospitals. This private pay system was much too large to be swayed by approximately \$2 million in grants over three years. To effect change at that level, the funders realized they must work in the realm of policy, including those policies relating to reimbursement for services and eligibility for enrollment in public programs, school district policies relating to nutrition and exercise, and private sector policies on how food is marketed to low income groups.

After thoughtful discussion, the PARTNERSHIP recognized that it could not, and possibly should not, take on this policy-changing role at that time. They had no mechanism for it, and all the funds were committed to the grantees and for administration of the Initiative. Appropriately, the funders decided to postpone a focused effort at the policy level until the second phase of the Initiative. They also recognized that some elements of this policy agenda could be addressed through the PARTNERSHIP Safety Net initiative, focusing on access to care. Tying this back to the limited results at the organizational change level had a similar analysis of time and resource allocation occurred, it might have revealed the same limitations.

## Collaboration & Grantmaking

### *The Grantee Collaboration Model*

While the individual collaborations had many successes with their program activities, less successful was the collaborative aspect of each grant. Collaboration, a formal multi-agency structure for working together, was a requirement of the original RFP. All the grantees were comprised of a lead agency with a set of partners. The Initiative did not define any particular structure for the collaborations, and the result was that they took a variety of forms. The Nhan Hoa Collaboration was the smallest, involving only the Clinic and the Vietnamese Physicians Association. In this model, the roles were clearly defined, with almost no overlap. The ABCD Collaboration was the largest, with St. Joseph Hospital, MOMS, nine community clinics and a software vendor. The other grantees used collaborative structures with three partners, expanding the Partnership to others on an as-needed basis.

Harder+Company found that the larger collaboration model was generally not an effective way to organize and allocate resources. Absent any guidance from the funders other than the requirement to “collaborate,” the grantees encountered problems experienced by many other funder-initiated collaborations – poor communication, confusion over roles, lack of coordination, tension over the allocation of resources and lack of accountability. The PARTNERSHIP did no worse in this arena than other large-scale initiatives that mandated grantee collaboration, but it did no better either. Building on this experience, Phase II of the Initiative does not require grantee collaboration; if the applicants want to work in a Partnership, the terms must be clearly specified in advance.

### *Funder-Grantee Relationships*

The grantmaking process, as described in the evaluation results, follows a well-trod path common to similar initiatives. The data describe a group of grantees that showed a high level of enthusiasm at the start of the process. The first year's results showed the most positive results, reaching a plateau in the second year. For some areas of the grantmaking process, there was a slight decline in satisfaction scores. The high proportion of "don't know/no answer" to some questions about the process suggests that there was uneven communication within the collaboratives or between the grantees and the funders. However, the normal problems that arose during the course of the Initiative – slow starts, failure to deliver exactly what was described in the grant agreement, unannounced changes in the scope of work, turf disagreements – and the funders' response to these issues, caused a decline in satisfaction. When interviewed, the grantee comments cited a "lack of communication" or "misunderstandings" to describe communication as the underlying problem. The funders were not clear about their expectations.

Funders often face challenges in handling these types of issues effectively. The power of a shared vision and common commitment fades when issues of deliverables and funding arise. Informal mechanisms work only when there is a high level of trust. Absent clear direction from the PARTNERSHIP, the grantees made assumptions that were not consistent with what the funders expected. The correction of these types of problems -- and they were successfully resolved -- was a sometimes painful and awkward process. The funders used the compelling argument of controlling the money as a way to encourage grantee compliance. From the grantee perspective, this was experienced as a funding initiative that claimed it wanted to do things differently but acted the way funders often do. These process difficulties were not unique to the PARTNERSHIP, nor were they fatal. The grantees' ranking of their own accomplishments and that of the Initiative overall continued to be high, despite the typical bumps in the funding relationship.

### *Collaborative Relationships in Philanthropy*

The Partnership's grantmaking process combined some innovative elements with a more traditional approach to philanthropy. The PARTNERSHIP was interested in moving beyond "business as usual" with this Initiative. They believed the grantees should be committed to the process of long-term system change, starting with successful program activities. The funders allowed the grantees flexibility in shaping their programs to respond to changing community needs and systemic circumstances. However, there were problems in the grantee-funder relationship that arose when funder expectations were not met.

Still, from the perspective of the Initiative as a funders' collaborative, the Diabetes Initiative was a successful process. Orange County had no consistent history of funder collaboration on this scale, combining statewide foundations with local private, corporate and government funders. The PARTNERSHIP maintained a high level of funder involvement throughout its first phase, despite requiring a substantial time commitment from its members. This Initiative was a milestone for Orange County health

philanthropy. Its programmatic accomplishments set a precedent for other collaborations. Almost all the funders have committed for Phase II of the Initiative.

### Laying the Foundation for Phase II of the Diabetes Initiative

Based on the results of Phase I, the funders began meeting in the summer of 2003 to plan for the second phase of the Diabetes Initiative. In 2004, the funders group identified four goals for Phase II of the Initiative. The goals are broad statements of what is to be achieved. They focus on strengthening organizations, improving systems, promoting best practices and improving patient care. The goals are:

1. Create and sustain the capacity of groups and individuals to advocate for more effective policies and programs for people with diabetes and at risk for diabetes and to increase community awareness of diabetes risks and their relationship to exercise, nutrition and obesity.
2. Promote innovative strategies to address the identified gaps in treatment and prevention for children identified as “pre-diabetic,” and provide diabetes education to Orange County’s highest risk populations.
3. Strengthen the relationships and communication among the service providers, funding partners and other key organizations to ensure the coordination of diabetes care and prevention for underserved Orange County residents.

### Final Thoughts

Overall, the Diabetes Initiative was a success. The funders realized the best returns where they invested the most time, attention and funds – in the programs. The lessons learned from the experience with the funding process and the expectation for organizational change was somewhat disappointing to the funders. They had hoped to accomplish all their objectives, even those that were overly ambitious. However, one of the strengths of the PARTNERSHIP is that it is a learning organization. The lessons of the first phase are being used as they begin to implement the second phase, focusing more explicitly on organizational and system change and identifying high needs populations (pre-diabetic children and African Americans) who were not explicitly included in Phase I.

The Health Funders Partnership of Orange County still offers its region and the nation a model for effective collaboration among funders. Its lessons about the importance of clear and consistent communication will help the individual foundations in their own grantmaking. And by continuing to raise the visibility of the risk of diabetes for people whose culture, race/ethnicity, and lack of access to care put them at higher risk of early death and disability, the PARTNERSHIP sets a standard for effective philanthropy.