Diabetes Management 2005-A Better Way

Athena Philis-Tsimikas, MD
Executive Director & Chief Medical Officer
The Whittier Institute for Diabetes
tsimikas.athena@scrippshealth.org

Jose is an example of a patient that walks through our doors every day.

Jose and his family have lived in South San Diego for over 10 years. He worked in construction before losing vision in one eye. Eight years ago he was told he had diabetes. Not big surprises to him since his mother, grandmother and brother all have the disease. Jose was a member of an established health center and was followed yearly for his diabetes care. He came in faithfully for the blood tests requested by his caring but somewhat busy physician. At several visits his 3-month blood sugar test and cholesterol returned elevated and he was given a prescription to start 2 medications and an appointment to return for a follow up visit. Jose returned for every requested lab test and follow up visit over the next 8 years. His numbers improved slightly though not to ideal ranges. No further advice or changes were made. No referrals for expert or educational assistance were made. Jose believed that he was doing the best he could for his disease. It is not clear why other changes were not made to his regimen. Were there different doctors at every visit? Was the data available at the time of the visit? Was there enough time to go over the changes needed?

Over the subsequent years Jose experienced loss of vision, a left sided stroke, required a coronary artery bypass after experiencing a heart attack and underwent a metatarsal amputation when a small ulcer on his right foot did not heal properly. Jose believed that this was all part of having diabetes.

I met Jose 1 year ago when he first enrolled in Project Dulce. I was dismayed to hear his long list of health problems. As the team reviewed the labs I noticed that his LDL was 180 mg/dl, his HbA1c was 10% and he had a creatinine level of 2.8 mg/dl. Jose was unaware that he had any problems with his kidneys. Jose was still taking his 2 original diabetes and cholesterol drugs every day.

Jose came back on a regular basis to visit with us and his primary care team. He learned more about how to take control of his disease and willingly made adjustments in his medications and diet to try and improve his disease. His blood sugars came into the normal range as did his LDL cholesterol. Despite our and his best efforts, his kidney function continued to worsen. Last month Jose started dialysis.

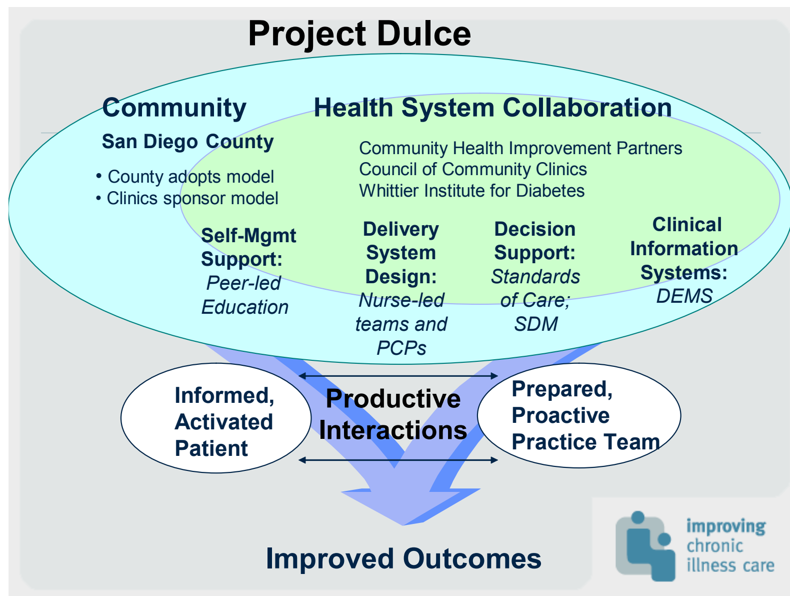
Jose was not our best success story but exemplifies what is happening to so many people with diabetes in our nation. Opportunities missed! We had opportunities to prevent his heart, vascular and kidney disease early on-lower LDL, lower blood sugar, lower BP- yet no action was taken for 8 years. Hard to believe? Maybe… for a group of well educated, highly motivated professionals. Easy to believe for a group of low income, minimally educated, hard working individuals with previous cultural beliefs about the disease and a very busy primary care physician with little back up in systematic approaches to disease management.

Every month Project Dulce staff members gather to share stories of diabetes patients seen. Every month people that sound just like Jose are presented. We have been conducting monthly staff meetings for the last 8 years…and the stories never end. How long will these stories continue?

What we have achieved?
We have achieved a county-wide diabetes management program that collaborates with the San Diego County medical system, community health centers, the Council of Community Clinics, MediCal managed care plans, Scripps hospital systems and UCSD clinical services to provide elements of the Chronic Care Model. (see figure below)

Components used to make the model work include, specially trained diabetes nurse and dietitian case managers, specially trained peer educators (Latino, Filipino, Vietnamese, Anglo), training curriculums for diabetes disease management algorithms and culturally specific diabetes self-management education, basic registry support and diabetes professional education courses.

Why is this better than the old way?
-Several studies to date demonstrate improved clinical outcomes in care using this model. (1-3)
-Preliminary data shows reduced ER/hospital utilization. (3)
-Potentially eliminates stories like Jose's.



How was this achieved?
-After demonstration of improved clinical outcomes reimbursement has been established by the County, some MediCal plans and UCSD similar to the CPSP model.
-The delivery of program services is currently self sustainable.
-Ongoing review of the clinical data shows consistently better clinical management than non Dulce managed groups.

What is needed next to disseminate this model?
Standardized diabetes management and education recommendations that are accepted by all payers.
Standardize certification of individuals to deliver the management and education.
Change regulations to reimburse certified, standardized programs that deliver the new model of care.
Work with smaller group practices to find best methods to incorporate the model into small practices.

How do you start?
You need a physician champion (internist or endocrinologist is probably best).
Motivated, action oriented diabetes professional to act as a lead to catalyze programs and act as the local expert. This can be a nurse, dietitian or pharmacist that has dedicated time.
A system that is dedicated to putting the pieces in place (simple registry, education classes, algorithm based diabetes management).

1. Philis-Tsimikas A, Walker C, Rivard L, Talavera G, Reimann J O F, Salmon M, Araujo R, Improvement in Diabetes Care of Underinsured Patients Enrolled in *Project Dulce*™: A Community-Based, Culturally Appropriate, Nurse Case Management and Peer Education Diabetes Care Model. *Diabetes Care, 2004,27;1,110-115*
2. Aubert RE, Herman WH, Waters J, Moore W, Sutton D, Peterson BL, Bailey CM, Koplan JP: Nurse case management to improve glycemic control in diabetic patients in a health maintenance organization. A randomized, controlled trial. *Ann.Intern.Med.* 129:605-612, 1998
3. Gilmer T, Walker C, Philis-Tsimikas A, Outcomes of Project Dulce: A Culturally-Specific Diabetes Management Program. *The Annals of Pharmacotherapy* 2005, May, Vol. 39