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Evaluation of the Medicaid Value Program: Health Supports for Consumers with Chronic Conditions

University of California, San Diego Case Study

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UCSD'S IMPACT + PROJECT DULCE INTERVENTION

Researchers from the University of California San Diego (UCSD) Department of Family Medicine and the Clinical Research Department and Project Dulce at The Whittier Institute for Diabetes, partnered with four non-profit community clinics in San Diego County that have disproportionate numbers of Latino and Asian patients (which include Medicaid, Medicare, and uninsured patients) to implement a depression treatment program known as IMPACT (Improving Mood-Promoting Access to Collaborative Treatment). This Medicaid Value Program (MVP) intervention aims to identify depression and provide depression care management for patients with diabetes (regardless of insurance status) who are already receiving diabetes case management services. Through the treatment of depression, the intervention's goals include reducing patients' depressive symptoms, and in doing so, improving their diabetes self-management, lowering health care utilization and costs, and improving overall health status.

All four of the participating clinics offer Project Dulce—a culturally-specific diabetes case management program focused on Latinos—to their patients. For this project, patients who participate in Project Dulce and screen positive for depression were offered IMPACT. Initially, UCSD planned to randomly assign two clinics to a treatment group (where patients would receive Project Dulce and IMPACT) and two to a control group (where patients would receive Project Dulce only), but one control clinic balked at not providing services. UCSD subsequently changed the project's research design so that patients from three clinics were to receive IMPACT and Project Dulce (forming the intervention group), while those at the fourth clinic were to receive only Project Dulce services (forming the comparison group). However, due to a small sample size, the comparison group was dropped from the study at the end of MVP.

Both Project Dulce and IMPACT have been studied independently. Existing research suggests that Project Dulce patients show improvements in hemoglobin A1c, blood pressure, and cholesterol levels, compared to a retrospective cohort of patients drawn from historical data (Gilmer et al. 2005); and that IMPACT patients experience a reduction in depressive symptoms and functional impairment and an improvement in quality of life compared with usual care (Unutzer et al. 2002). IMPACT, however, has not been studied extensively in non-commercially insured populations, such as those served in the San Diego County clinics.[1] Moreover, Project Dulce and IMPACT have not been studied as a combined diabetes and depression management program.[2]

[1] Existing research on Project Dulce's effects has focused on non-commercially insured populations.

[2] Note, however, that some research has examined IMPACT's effect on depressed adults with selected comorbidities; for example, Katon and colleagues (2006) conducted a subgroup analysis of patients with diabetes receiving IMPACT compared to those receiving usual care.

ORGANIZATIONAL CONTEXT

UCSD staff, which helped coordinate the IMPACT + Project Dulce intervention and are leading a research study of it, have no explicit financial incentive to pursue this work beyond the grants received to do so. However, staff have a strong academic interest in studying this and similar interventions. The incentive for participating clinics, likewise, is not financial; rather, clinic staff have long recognized a gap in patients' mental health care for conditions that are less dire than serious mental illness (such as schizophrenia). Historically, the clinics have lacked the resources to provide depression care and, as one staff member stated, the MVP project "really completes what we can do for our patients." Accordingly, clinic staff were generally reported to be supportive of the IMPACT intervention.[3]

Unlike a health plan or system that might have the financing available to fund a pilot intervention (especially if there is a strong potential business case for such work), UCSD and the participating clinics do not have such resources. Rather, The California Endowment (a large, private foundation) provided the financing for this intervention.

In launching this intervention, UCSD worked closely with several local organizations. Beyond the community clinics themselves, its most prominent partner was the Whittier Institute for Diabetes, located in San Diego, whose mission is "to improve the quality of life for people with diabetes through innovative education programs, clinical care, research, and collaborations that pursue prevention and a cure."[4] Among other activities, the Whittier Institute runs Project Dulce in San Diego's community clinics. UCSD and Whittier Institute staff have worked together for the past several years, studying the effects of Project Dulce. Moreover, the Whittier Institute has been integrally involved in launching the IMPACT + Project Dulce intervention; Whittier staff supervise the IMPACT staff and facilitate cooperation between Dulce and IMPACT staff.

For this project, UCSD and Whittier Institute staff created an advisory board to provide guidance and resources as necessary, and to resolve any implementation issues that arise. In addition to UCSD and Whittier Institute staff, the advisory board included representatives from the Council of Community Clinics (which represents the independent clinics of San Diego County), San Diego County Adult and Older Adult Mental Health Services, the Hospital Association of San Diego and Imperial Counties, and The California Endowment (which is funding much of the intervention).[5] The advisory board generally met on a quarterly basis.

In California, county entities manage local mental health services. Historically, little to no funding has existed for mental health services in primary care settings, and there has been almost no cooperation between community clinics and the mental health system (both at the county and

[3] Before the intervention, UCSD staff did a presentation on IMPACT to the medical director, CEO, and head of nursing in each clinic, and subsequently presented several lunchtime lectures for clinic physicians.

[4] See http://www.whittier.org/

[5] State Medicaid was not involved with this MVP intervention, even though one-third of patients in the participating community clinics are Medicaid beneficiaries. UCSD may try to obtain claims data from the state to examine utilization and costs in the future.

state levels). Only limited mental health services are available through primary care settings, and these are restricted to persons with Medicaid (Medi-Cal) coverage. County-funded mental health treatment for Medi-Cal beneficiaries and the uninsured focuses on treating serious mental illness in specialty settings. This relationship could change, given the passage of a California ballot initiative known as Proposition 63, now called the Mental Health Services Act, in November 2004. This was an important development in mental health care in the state that could help fund the intervention in the future. This act allows the state government to levy a 1 percent tax on personal income over $1 million to fund expanded mental health services for mentally ill children and adults. The passage of this ballot initiative has resulted in millions of dollars of funding for mental health services (including those services provided through primary care), and these monies are making their way to San Diego County programs. Currently, many projects (including IMPACT) are simultaneously vying for Mental Health Services Act funding.

PROGRAM INTERVENTION

Since the intervention layers IMPACT onto Project Dulce, one can consider Project Dulce the baseline program or "usual care." Project Dulce emphasizes self-management with a nurse-led team that includes a registered nurse who is a certified diabetes educator, a bilingual medical assistant, and a bilingual dietitian. Patients in Project Dulce have an initial nurse visit and are asked to return for additional visits with the nurse and dietitian. Telephone contact is used for appointment reminders and to answer specific questions. In addition, Project Dulce uses peer educators to teach diabetes self-management classes. Project Dulce's focus is on diabetes; there is no specific provision to identify and treat depression among patients in the program.

The MVP intervention targeted patients with diabetes who (1) were already enrolled in the Project Dulce disease management program at one of the four participating clinics and (2) screened positive for depression. Patient identification for the MVP intervention occurred when Dulce patients who came to the clinic for office visits were screened by the clinic's medical assistant using the Patient Health Questionnaire (PHQ-9), a short survey of nine questions to assess depressive symptoms. Those who screened positive for depression (approximately one-third of those screened in the first few months of the intervention) were considered part of the target population.[6] (See Figure 1 for information on intervention activities.)

Project Dulce patients who screened positive for depression at an intervention clinic were considered part of the intervention group and received IMPACT services, and those who screened positive at the comparison clinic formed the comparison group and received only Project Dulce services.[7] Patients were not expected to cross over between intervention and

[6] Those whose PHQ-9 responses result in a score of 10 or above were considered a positive screen. Those who screened positive but reported active substance abuse problems or a history of serious mental illness (such as schizophrenia or bipolar disorder) were not eligible for the intervention because such problems likely require more intensive treatment than that provided through IMPACT.

[7] The original study design included random assignment of two treatment clinics and two control clinics. Staff at one of the clinics initially assigned as a control clinic, however, were not comfortable with screening patients for depression but then offering no depression services for those who screen positive. This resulted in a design of three

comparison clinics, given their geographic locations and the fact that patients in the target population typically seek care at their neighborhood clinic.

In the "pure" IMPACT model, physicians are actively involved with the initial patient assessment and prescribing of treatment. In IMPACT + Project Dulce, patients receive ongoing care from a Project Dulce nurse, who works closely with the primary care physician who oversees patient assessments and treatment plans. Therefore, IMPACT + Project Dulce reflects the patient care system used in Project Dulce.

A bilingual depression care manager (with a master's degree in social work) works closely with those patients assigned to receive IMPACT. The depression care manager schedules a visit with the patient to conduct an initial assessment based on clinical and psychosocial history, review education materials, and discuss patient preferences for treatment (medication and/or individual or group psychotherapy). The depression care manager also works side-by-side with Project Dulce nurses in the clinics; patient visits to the depression care manager occur at the same location as the patient's Project Dulce activities. As in Project Dulce, the physician then reviews the assessment and treatment plan and writes prescriptions if needed. New patients who do not have an ongoing relationship with the diabetes nurse or a primary care physician at the clinic are scheduled for a primary care provider (PCP) visit. This system represents a modification of the original IMPACT model and could influence its outcomes.

After the initial assessment, the depression care manager develops a treatment plan with the patient to match that patient's preferences. Three primary approaches that can be used independently or in combination include:

- Problem-solving therapy: a one-on-one therapy approach in which the patient and depression care manager make a list of problems and think through solutions
- Behavioral activation: a therapy in which the depression care manager gets patients to begin participating in activities which they formerly engaged in and enjoyed
- Antidepressant medication

The depression care manager works with intervention patients for three to four months, on average, with occasional followup (such as monthly telephone calls to patients) after that time.

In carrying out IMPACT activities, the depression care manager works closely with Project Dulce nurses at each clinic.[8] The depression care manager also works with the patient's primary

(continued)
intervention clinics and one comparison clinic, but the number of patients recruited at the comparison clinic was small by April 2007. Because of this small sample size, the comparison group was dropped near the end of MVP.

[8] The depression care manager rotates between intervention clinics. Specifically, she spends two days per week at the largest clinic (Neighborhood Healthcare in Escondido), one day each at the two remaining intervention clinics (Linda Vista Healthcare and Mid City Community Clinic), and one day per week meeting with a consulting psychiatrist and other staff about her caseload and handling administrative duties.

care physician to develop a treatment plan and monitor the patient's progress.[9] In addition, the depression care manager participates in Project Dulce's monthly meetings.

Screening and enrollment for the intervention began in July 2006. While the initial design estimated the number of patients in the intervention and comparison groups as 200 in each group, 113 patients were enrolled in the treatment group as of April 2007. Enrollment, however, was still ongoing as of this report, as Project Dulce patients come for office visits at the clinics. Depression screening of Project Dulce patients in the comparison clinic began in December 2006; however, as of March 2007, only 15 patients were enrolled in the comparison group, which was subsequently dropped around June 2007.

PROCESS AND OUTCOME MEASURES

As shown in Figure 1, IMPACT + Project Dulce aims to improve depression care and reduce patients' depressive symptoms, thereby allowing patients to better manage their diabetes. Consequently, the intervention may reduce health care utilization and costs over the longer term, and ultimately improve patients' mental and physical health and quality of life.

UCSD's process measures for this intervention included enrollment rates, depression care manager productivity (as measured by the number of patient contacts), and the proportion of patients with depression care plans (including the number by type of treatment chosen). Outcome measures included patient self-assessment measures (including measures of depressive symptoms, diabetes self-management, and overall health status) and cost and utilization measures (such as outpatient utilization and cost, and emergency room utilization), as measured through clinic data, since many participating patients are uninsured and did not have Medicaid claims. However, the lack of a centralized database across participating clinics made it difficult to collect claims-based outcome data and UCSD staff were not able to report these measures for MVP (UCSD staff reported that the earliest they would have these measures would be the fall of 2007.)

Reported process measures provide important information about how the program was implemented in its first 10 months. For example, the care manager developed a care plan for depression for all intervention patients as of April 2007. She made an average of 3.3 follow-up visits per patient (which, when you add the original assessment visit, means that the average number of visits per patient was more than 4); 90 percent of visits were in-person. With a total sample of 100 patients and a rate of 4 visits per patient over 10 months, the depression case manager visited with more than 3 patients per day over a three-day work week. As this excludes the time needed to discuss care plans with Dulce staff and likely uneven enrollment over time (fewer enrolled in the first few months), it appears that this intervention was rather intensive. The most common therapy was behavioral activation (64 percent), followed by problem solving

[9] In two clinics, the depression care manager also works with the clinic's primary care physicians. In the third clinic, the depression care manager works primarily with the Project Dulce nurses who then communicate with the clinic's primary care physicians.

therapy (57 percent), and antidepressant medication (31 percent).[10] Almost two-thirds of patients in the intervention group received more than one type of therapy at the same time.[11]

By April 2007, only 19 intervention group patients had enough intervention exposure to have a 6-month follow-up visit. Among these patients, PHQ-9 scores fell by an average of 7.8 points (nearly a 50 percent decrease) compared with baseline values. The depression care manager made more than one visit per month (an average of 6.3 visits) to these patients over the six-month period, a further indication of the intervention's intensity.

INTERVENTION CHALLENGES

UCSD's intervention faced several challenges. The most fundamental was that the project team did not obtain funding for the intervention until the spring of 2006 (when The California Endowment awarded a grant for the program), delaying start-up of the intervention. A second delay came when funding for primary care visits and medications, which was anticipated to come from the county in July 2006, was not made available until February 2007. This added significantly to the operations and funding challenges that had to be overcome before the intervention could start. Funding aside, the set-up necessary to implement this type of intervention was substantial. According to one stakeholder, staff was "a little unrealistic [about] how much work is needed to make something like this happen." Specifically, the interests and desires of various stakeholders (such as clinic staff, county mental health services, and the Whittier Institute) had to be aligned, the cooperation of clinic staff had to be secured, and so forth.

Another challenge was the lower than expected prevalence of depression (about 30 percent of screened patients rather than the 40 to 50 percent expected) in the target population. Lower prevalence of depression was one factor in lower than anticipated enrollment (113 intervention group patients as of April 2007). However, other factors included: (1) clinics only started screening and enrolling patients beginning in July 2006, and (2) the depression care manager spent the first couple of months handling the many administrative details of starting a program (such as meeting with clinic staff and arranging for physical space in each clinic), rather than making sure depression screening and enrollment were occurring. On a positive note, only a few patients who screened positive refused to participate, either because they were already receiving treatment for depression or could not find a convenient time to meet with the depression care manager for an initial assessment. Moreover, within less than a year, UCSD was more than half way to its goal of 200 intervention group patients with only one depression care manager (though it had much less success in identifying comparison group patients).

[10] While problem-solving therapy is generally considered integral to the IMPACT program, less than two-thirds of patients receive this therapy. Intervention staff report that it requires patients to actively consider and weigh the pros and cons of various actions. This type of critical thinking is reportedly difficult for many of the intervention patients, given their very low literacy levels.

[11] A total of 34 patients received behavioral activation and problem solving therapy, 19 received behavioral activation and antidepressant therapy, and 18 received problem solving and antidepressant therapy.

The delay in screening patients at the comparison clinic arose for a few reasons. First, a medical assistant was not available to conduct depression screening at this clinic. Second, some clinic staff members were surprised at the depression severity at the intervention sites and were concerned about what might happen if fewer resources were available for suicidal patients at this clinic (compared to the intervention clinics). As a result, UCSD and Whittier staff worked with clinic staff to develop an emergency protocol for suicidal patients. While staff resolved these issues, the depression screening that began at the comparison clinic in December 2006 resulted in very few patients enrolled in the comparison group due to nurses not screening patients as frequently as the project team expected and a smaller than expected group of patients at that clinic. UCSD ultimately decided to drop the group from the study. Staff recommended the use of patient incentives in the future to increase the likelihood that goals are met for recruitment and retention of a comparison group.

An additional challenge was the lack of funding for primary care physician visits and medications related to depression for uninsured patients (including those receiving county medical services), which represented 80 percent of patients receiving the treatment. Consequently, uninsured patients in the intervention group either had to pay out-of-pocket for a physician office visit and medications or skip visits and do without drugs. One intervention clinic was particularly cooperative and willing to obtain medications for these patients through pharmaceutical companies' patient assistance programs and free samples, and monitoring patients in combination with existing pharmaceutical management of diabetes. However, leadership at a second clinic with less infrastructure and fewer resources was less willing to prescribe medications when patients could not afford them and patients were not under the direct care of a primary care provider. A third clinic was not as resource-constrained as the second, but also not as generous as the first in terms of its ability and willingness to accommodate the intervention.

CONCLUSIONS

This MVP intervention represents an innovative approach that combines two existing programs and assesses the marginal benefit of adding IMPACT to Project Dulce. Although the project start date was delayed, many of the stakeholders involved had worked together for several years, so relationships were already established. Along these lines, several staff members have suggested that Project Dulce nurses have been quite cooperative with the IMPACT program and have worked well with the depression care manager (and the relationships between the nurses and the depression care manager have, in fact, improved over time). Moreover, the many people with whom the depression care manager can consult have reportedly been extremely helpful, including a family physician/psychiatrist who volunteered hours to assist at the start of the program (and later was funded by savings and adjustment to the original budget), a psychiatric nurse practitioner from Kaiser Permanente who implemented IMPACT within that plan, and Whittier staff.

Clearly, the slow start of the intervention and the small number of enrollees represent significant challenges, particularly the ability to detect differences in outcomes over time to determine whether the intervention was effective. Also, given the challenges with providing medical services to the uninsured patients in the intervention group, it is not entirely clear what

type of impact the intervention might have on these patients over time. Moreover, without a comparison group, it will be difficult for research staff to argue that any differences in outcomes were not due to regression to the mean.

Sustainability of this MVP intervention is largely a matter of funding. The existence of Mental Health Services Act funding—a potentially sustainable funding source for years to come—may be an important way to expand the program in the future, particularly if UCSD demonstrates that the intervention has a favorable impact on patient outcomes. The IMPACT model (applied to all patients rather than just those in Project Dulce) also appears to have strong potential for expansion to other San Diego clinics—provided funding is available— given growing interest by the Council of Community Clinics. Moreover, the intervention's approach appears generalizable to other San Diego County clinics with similar safety net settings, though modifications to the original IMPACT model (such as lower rates of physician visits for an initial assessment or less access to medication among uninsured patients) must be carefully considered. In addition, the Whittier Institute appears quite committed to incorporating IMPACT into its existing Project Dulce programs in many clinics in the San Diego area—and Whittier staff have begun to think of IMPACT as a necessary and integral part of Project Dulce rather than an overlay on an existing program. While the challenges of this intervention have been many, it may still hold promise for improving care for depressed patients with diabetes.

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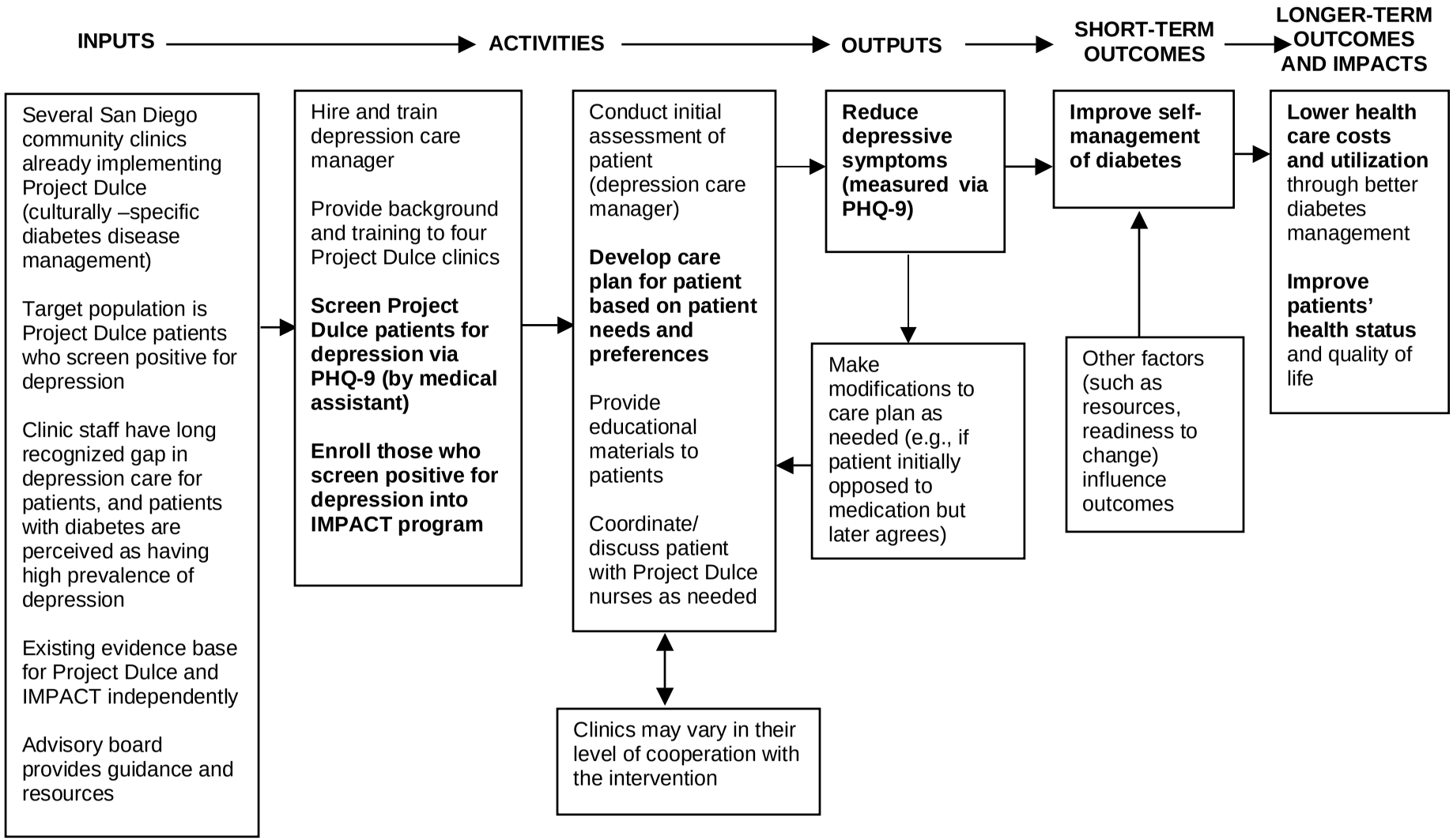
FIGURE 1

LOGIC MODEL FOR UCSD'S IMPACT+ PROJECT DULCE INTERVENTION



Note: **Bold** indicates reported process and outcome measures.