



An Outcome Evaluation of the IMPACT Program: Executive Summary of Key Findings

JANUARY 2009 – DECEMBER 2013

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Family Health Centers of San Diego



Imperial Beach Health Center

La Maestra Community Health Centers

Mountain Health and Community Services

Neighborhood Healthcare

North County Health Services

San Ysidro Health



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Executive Summary: An Evaluation of IMPACT Program Outcomes from January 2009 through December 2013

Overview: This summary presents key findings from an outcome evaluation of the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) program implemented by Health Quality Partners (HQP), a subsidiary of Health Center Partners (HCP), as part of its Behavioral Health and Primary Care Integration Project. The Behavioral Health and Primary Care Integration Project is funded by the County of San Diego Health and Human Services Agency, Behavioral Health Services through the Mental Health Services Act. HQP has managed the IMPACT program since implemented in 2006 and, to date, the following Community Health Centers (CHCs) have treated more than 3,000 patients: Family Health Centers of San Diego; Imperial Beach Health Center; La Maestra Community Health Centers; Mountain Health and Community Services; Neighborhood Healthcare; and North County Health Services. The IMPACT program is ongoing.

This evaluation was undertaken to better understand program efficacy at multiple levels and explore if patient outcomes correlate with or vary by key clinical and/or demographic markers, including severity of depression, gender, and ethnicity. Findings are intended to highlight the program's successes and value for CHC patients, as well as identify any patient populations who may benefit from more targeted support or outreach strategies.

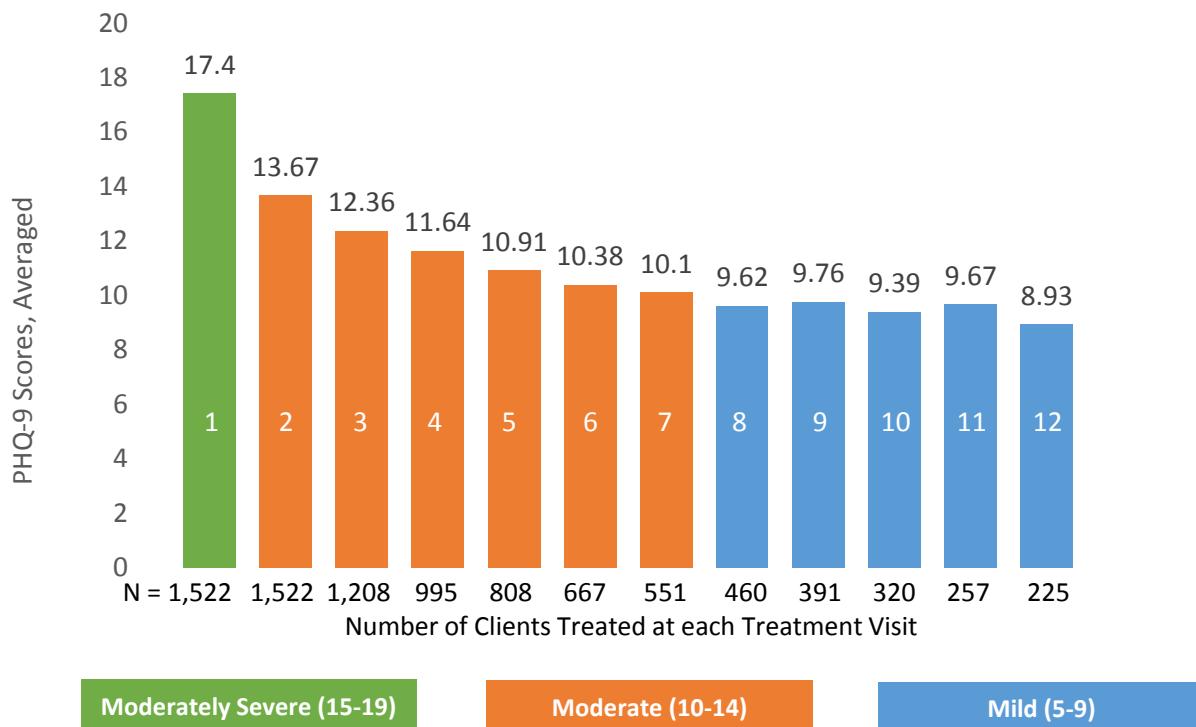
Background: A large body of literature indicates that the IMPACT model is much more effective than usual care for treating depression among adults.ⁱ IMPACT is a team-based and stepped-care approach to treating depression among adults in primary care. The IMPACT model emphasizes pro-active behaviors such as education, problem-solving, scheduling pleasant activities, and exercise. Pfizer Patient Health Questionnaire (PHQ-9) scores are collected from patients at the beginning of every IMPACT visit to assess progress and identify patients who may need their treatment plans adjusted if expected progress is not being made. Treatment goals are to reduce depressive symptoms by 50% among 50% of patients within 12 program visits.ⁱⁱ PHQ-9 scores are the primary metric for measuring patient progress.

Methods: HCP has developed and maintains a database for tracking IMPACT program participation and patient outcomes. A de-identified version of this database was utilized to conduct a retrospective cohort analysis for 1,522 patients who participated in the program between January 2009 and December 2013.¹ Only patients with initial PHQ-9 scores of 10 or above were included to ensure fidelity with the IMPACT model's threshold criteria for program participation (i.e., moderate to severe depression), and patients who dropped out after their first visit were excluded from the analysis. PHQ-9 scores corresponding with patients' depression levels when starting the program were sorted into one of four cohorts: moderate (n=472); moderate-severe (n=505); severe (n=441); and most severe (n=104). Data were analyzed per each cohort to identify variance and account for any population differences that could potentially skew program outcomes. A secondary crosstabs analysis was also conducted to: (a) determine demographic comparability between cohorts, and (b) identify if outcomes varied by gender or ethnicity within and

¹ This timeframe was selected for analysis due to differences in data collection methods prior to 2009 and to programmatic changes implemented in 2014.

across cohorts. **Figure 1** displays aggregated outcomes for all IMPACT participants included in this evaluation. Outcomes per each cohort are provided in the full Summary Report.

Figure 1. Average PHQ-9 Scores for IMPACT Program Participants, January 2009 – December 2013



Overall Findings: Overall, 74% of IMPACT participants were female (n=1,132). The majority of patients identified as either Mexican-American (50%) or Caucasian (37%); 4% identified as African-American, and 9% as “other” or unspecified. Participants ranged in age from 18 to 84; 89% of patients were between ages 26 and 65.

Among females, Mexican-American women had the highest participation rates (53%), followed by Caucasian women (34%). Among males, Caucasian men had higher participation rates (47%) than Mexican-American males (40%).

Females also tended to have more visits than males, regardless of how depressed they were when they started the program. For males, however, a higher number of visits was associated with the initial severity of their depression.

As a whole (n=1,522), data show that patients experienced the most pronounced improvement after their first visit. By the 2nd visit, averaged PHQ-9 scores show patients were categorically less depressed, progressing from moderately severe to moderate levels of depression, with progress continuing across most visits. The highest attrition or “drop out” rates were also evidenced following the 2nd visit when 21% of patients (n=314) did not return for a 3rd visit. PHQ-9 scores collected at the 2nd visit, however, indicate that 63% of those non-returning patients were categorically less depressed than when they started.

Key Evaluation Questions: The collectively high attrition rate evidenced at the 3rd visit and the continued rates of improvement across visits initially raised the following evaluative questions: (1) did patients “drop out” after only two visits because they felt better? Or, (2) are the positive outcomes artificially inflated by disproportionate “drop out” rates of more severely depressed patients? The cohort analysis undertaken specifically addresses these questions.

Cohort Analysis: When analyzed separately, findings per each cohort show similar trends of improvement as when analyzed collectively, regardless of how depressed patients were when they started the program. At the 2nd visit, where averaged PHQ-9 scores indicate marked improvement overall, cohort analysis shows PHQ-9 scores dropped most precipitously among patients with moderately-severe (23%) to severe (24%) depression, followed by the most severely depressed (20%) and moderately depressed (15%) patient cohorts.

Cohort analysis of patients who did not return for a 3rd visit (n=314), shows that 70% of patients who started the program with the highest levels of depression (i.e., had PHQ-9 scores between 20 and 27) were categorically less depressed than when they started IMPACT. Additionally, 64% of patients who started the program with moderately-severe depression and 55% who started with moderate depression also evidenced categorical improvement.

Summary of Key Findings: Although patients are authorized to receive up to 12 IMPACT visits, many experience a decrease in depressive symptoms after only two visits – regardless of gender or ethnicity – and do not return for a third session. Findings from the cohort analyses demonstrated proportional attrition rates across cohorts and program visits and support the conclusion that program outcomes are *not* skewed by greater attrition/persistence rates among any single cohort. Program efficacy is further supported by PHQ-9 scores collected at the 2nd visit, which indicate that 63% of patients, overall, who did not come back for a 3rd visit had categorically lower levels of depression than when they started. Moreover, outcomes *per each cohort* show improvement rates ranging from 55% to 72% among patients who did not come back for a 3rd IMPACT visit. Overall, findings from this evaluation support the value and efficacy of the IMPACT program for CHC patients experiencing moderate to severe depression, regardless of gender or ethnicity.

ⁱ More than 80 randomized clinical trials have shown IMPACT’s collaborative care model to be more effective than usual care. See, for example:

Archer, J. et al., (2012). Collaborative care for depression and anxiety problems. *Cochrane Database of Systematic Reviews* 2012, Issue 10 Available at http://www.cochrane.org/CD006525/DEPRESSN_collaborative-care-for-people-with-depression-and-anxiety

Grypma, L., Haverkamp, R., Little, S., & Unützer, J. (2006). Taking an evidence-based model of depression care from research to practice: Making lemonade out of depression. *General Hospital Psychiatry*, 28(2), 101–107. PubMed abstract available at <http://www.ncbi.nlm.nih.gov/pubmed/16516059>

ⁱⁱ Unützer, J. et al., (2002). Collaborative care management of late-life depression in the primary care setting: A randomized controlled trial. *JAMA*, 228(22): 2836-2845. Available at <https://jamanetwork.com/journals/jama/fullarticle/195599>