Program Description

IMPACT (Improving Mood—Promoting Access to Collaborative Treatment) is an intervention for adult patients who have a diagnosis of major depression or dysthymia, often in conjunction with another major health problem. The IMPACT model is a collaborative, stepped-care approach in which a trained depression care manager (DCM)—usually a nurse, social worker, or psychologist—works with the patient, the patient's primary care provider, and a psychiatrist to develop and administer a course of treatment.

At the beginning of the intervention, the patient meets with the DCM and receives a 20-minute educational video and a booklet about late-life depression. During this meeting, the DCM completes an initial assessment of the patient's depressive symptoms, encourages the patient to engage in behavioral activation (e.g., physical activity, pleasant events), and discusses options for treatment over the next 10–12 weeks (i.e., the first treatment step): antidepressant medication or a course of six to eight sessions of psychotherapy (e.g., Problem Solving Treatment in Primary Care) delivered by the DCM in a primary care setting. For patients already taking antidepressant medication, treatment can include increasing the dose, augmenting the medication with a course of psychotherapy, or switching to a different medication or psychotherapy. The DCM then works with the patient and the patient's primary care provider to establish the treatment plan.

In addition to meeting with the patient, the DCM has weekly meetings with a supervising team psychiatrist to discuss new patients and patients who have not had a significant improvement in depressive symptoms 10–12 weeks after the start of treatment. If a patient has not significantly improved, the treatment plan is changed with the agreement of the patient and the patient's primary care provider, and the new treatment is delivered for another 10–12 weeks (i.e., the second treatment step). If a patient has significantly improved, the DCM follows up with the patient via monthly phone calls to provide maintenance support (i.e., the third treatment step). Depending on the patient's level of improvement, these support calls may be continued for up to a year from the beginning of treatment.

In the studies reviewed for this summary, IMPACT was implemented with the following populations:

- Patients who were 18 years and older and had a diagnosis of major depression or dysthymia as well as comorbid cancer and/or diabetes.
- Patients who were 60 years or older and had a diagnosis of major depression or dysthymia alone or in conjunction with comorbid panic disorder, posttraumatic stress disorder, mild cognitive impairment, and/or chronic medical illnesses.

Descriptive Information

Areas of Interest	Health and wellness
Outcomes	**Review Date: June 2012** ▸ Severity of depression ▸ Functional impairment ▸ Health-related quality of life **Review Date: August 2007** ▸ Severity of depression ▸ Functional impairment
Ages	▸ 18–25 (Young adult) ▸ 26–49 (Adult) ▸ 50–60 (Older adult) ▸ 61–74 (Older adult) ▸ 75–84 (Older adult) ▸ 85+ (Older adult)
Genders	▸ Female ▸ Male
Races/Ethnicities	▸ American Indian or Alaska Native ▸ Asian ▸ Black or African American ▸ Hispanic or Latino ▸ Native Hawaiian or other Pacific Islander ▸ White ▸ Race/ethnicity unspecified
Settings	▸ Outpatient ▸ Other community settings
Geographic Locations	▸ Urban ▸ Suburban ▸ Rural and/or frontier
Funding/CER Studies	▸ Partially/fully funded by National Institutes of Health ▸ Evaluated in comparative effectiveness research studies
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the developer.
Implementation History	IMPACT has been implemented in approximately 600 sites in 31 States with at least 100,000 individuals and in Australia, Canada, Hong Kong, and the Netherlands. Numerous program evaluations have been conducted at various implementation sites.
Adaptations	IMPACT materials have been translated into Dutch and adapted for use in Australia, Canada, Hong Kong, and the Netherlands.

Quality of Research

Review Date: June 2012

Documents Reviewed

The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the studies reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.

Study 1

Katon, W. J., Von Korff, M., Lin, E. H. B., Simon, G., Ludman, E., Russo, J., … Bush, T. (2004). The Pathways Study: A randomized trial of collaborative care in patients with diabetes and depression. *Archives of General Psychiatry, 61*(10), 1042–1049. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/15466678

Study 2

Ell, K., Katon, W., Xie, B., Lee, P. J., Kapetanovic, S., Guterman, J., & Chou, C. P. (2010). Collaborative care management of major depression among low-income, predominantly Hispanic subjects with diabetes: A randomized controlled trial. *Diabetes Care, 33*(4), 706–713. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/20097780

Study 3

Ell, K., Xie, B., Kapetanovic, S., Quinn, D. I., Lee, P. J., Wells, A., & Chou, C. P. (2011). One-year follow-up of collaborative depression care for low-income, predominantly Hispanic patients with cancer. *Psychiatric Services, 62*(2), 162–170. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/21285094

Ell, K., Xie, B., Quon, B., Quinn, D. I., Dwight-Johnson, M., & Lee, P. J. (2008). Randomized controlled trial of collaborative care management of depression among low-income patients with cancer. *Journal of Clinical Oncology, 26*(27), 4488–4496. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/18802161

Supplementary Materials

Psychometric information. (2012).

Outcomes

Outcome 1: Severity of Depression	
Description of Measures	Severity of depression was assessed using two measures: ▸ The 20-item Depression Scale from the Hopkins Symptom Checklist–90 (HSCL-90). Using a 5-point scale ranging from 0 (not at all) to 4 (extremely), respondents indicate how much they were distressed in the past month by each of 20 depression-related items (e.g., "feeling lonely or blue," "trouble falling asleep," "thoughts of death or dying," "feelings of guilt"). ▸ The Patient Health Questionnaire–9 (PHQ-9). Using a 4-point scale ranging from 0 (not at all) to 3 (nearly every day), respondents indicate how often they were bothered in the past 2 weeks by each of 9 depression-related items (e.g., "little

	interest or pleasure in doing things," "feeling tired or having little energy," "thoughts that you would be better off dead, or of hurting yourself in some way"). Using a 4-point scale ranging from "not difficult at all" to "extremely difficult," respondents then indicate how difficult any of these problems made it to do work, take care of things at home, or get along with other people.
Key Findings	In a 12-month study conducted at nine primary care clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Pathways case management intervention, which incorporated the IMPACT model, and patients in the control group received usual care (i.e., they were advised to consult with their primary care provider regarding issues related to depression). Data were collected at baseline and at 3, 6, and 12 months after baseline. Patients in the intervention group had lower levels of depression severity relative to patients in the control group at the 6-month ($p = .04$) and 12-month ($p = .03$) assessments of the HSCL-90. In an 18-month study conducted at two public community clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Multifaceted Diabetes and Depression Program, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard clinic care as well as patient- and family-focused depression educational pamphlets and a list of community, financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, and 18 months after baseline. Patients in the intervention group had lower levels of depression severity relative to patients in the control group at the 6-month ($p < .001$), 12-month ($p < .001$), and 18-month ($p < .001$) assessments of the HSCL-90. In a 24-month study conducted at outpatient oncology clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid cancer were randomly assigned to the intervention or control group. Patients in the intervention group received the Alleviating Depression Among Patients With Cancer intervention, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard oncology care and were given patient- and family-focused depression and cancer educational pamphlets and a list of center/community financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, 18, and 24 months after baseline. Patients in the intervention group had lower levels of depression severity relative to patients in the control group at the 12-month ($p < .05$) and 24-month ($p < .05$) assessments of the PHQ-9.
Studies Measuring Outcome	Studies 1–3
Study Designs	Experimental
Quality of Research Rating (0.0–4.0 scale)	3.8

Outcome 2: Functional Impairment	
Description of Measures	Functional impairment was assessed with the Sheehan Disability Scale, which is composed of 3 questions that assess the extent to which the patient's health has interfered with work ("To what extent has your health interfered with your work, including paid work or work around the house, in the past month?"), family life/home responsibilities ("To what extent has your health interfered with your family life, in the past month?"), and social life ("To what extent has your health interfered with your social life or relationships with others outside of your family, in the past month?"). Respondents rate each item on a scale ranging from 0 (not at all) to 10 (unable to carry on any activities).
Key Findings	In an 18-month study conducted at two public community clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Multifaceted Diabetes and Depression Program, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard clinic care as well as patient- and family-focused depression educational pamphlets and a list of community, financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, and 18 months after baseline. From baseline to the 18-month assessment, patients in the intervention group had a greater improvement in functional impairment relative to patients in the control group ($p = .04$). At the 6-month assessment, patients in the intervention group had lower levels of functional impairment than patients in the control group ($p = .01$); no significant difference was found between the two groups at the 12- and 18-month assessments.
Studies Measuring Outcome	Study 2
Study Designs	Experimental
Quality of Research Rating (0.0–4.0 scale)	3.7

Outcome 3: Health-Related Quality of Life	
Description of Measures	Health-related quality of life was assessed using two measures: ▸ The Medical Outcomes Study 12-Item Short-Form Health Survey (SF-12), which asks respondents about their views on their health and includes items that compose physical (e.g., "During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?"), mental (e.g., "During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems [such as feeling depressed or anxious]?"), and pain (e.g., "During the past 4 weeks, how much did pain interfere with your normal work [including both work outside the home and housework]?") components. Depending on the item, respondents use a 2-point scale with

	options of "yes" or "no" or a 6-point scale ranging from "all of the time" to "none of the time." ▸ The Functional Assessment of Cancer Therapy-General (FACT-G) scale, a 27-item questionnaire with items for physical well-being (e.g., "I have a lack of energy"), social/family well-being (e.g., "I get emotional support from my family"), emotional well-being (e.g., "I feel nervous"), and functional well-being (e.g., "I am able to enjoy life") subscales. Respondents rate each item on a scale ranging from 0 (not at all) to 4 (very much).
Key Findings	In an 18-month study conducted at two public community clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid diabetes were randomly assigned to the intervention or control group. Patients in the intervention group received the Multifaceted Diabetes and Depression Program, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard clinic care as well as patient- and family-focused depression educational pamphlets and a list of community, financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, and 18 months after baseline. From baseline to the 18-month assessment, patients in the intervention group had a greater improvement relative to patients in the control group in the physical ($p = .04$), mental ($p < .001$), and pain ($p < .001$) components of the SF-12. Patients in the intervention group had better health-related quality of life relative to patients in the control group as reflected by the physical ($p = .04$), mental ($p < .001$) and pain ($p = .001$) components of the SF-12 at the 6-month assessment and the mental component of the SF-12 at the 12-month ($p < .001$) and 18-month ($p = .03$) assessments. In a 24-month study conducted at outpatient oncology clinics, patients with a diagnosis of major depression or dysthymia as well as comorbid cancer were randomly assigned to the intervention or control group. Patients in the intervention group received the Alleviating Depression Among Patients With Cancer intervention, which incorporated the IMPACT model, and patients in the control group received enhanced usual care (i.e., they received standard oncology care and were given patient- and family-focused depression and cancer educational pamphlets and a list of center/community financial, social services, transportation, and child care resources). Data were collected at baseline and at 6, 12, 18, and 24 months after baseline. Patients in the intervention group had improved health-related quality of life relative to patients in the control group, as indicated by the following results: ▸ At the 6-month assessment, relative to patients in the control group, those in the intervention group had improvements in the mental component of the SF-12 ($p < .05$) and the physical well-being ($p < .05$) and functional well-being ($p < .05$) subscales of the FACT-G. ▸ At the 12-month assessment, relative to patients in the control group, those in the intervention group had improvements in the physical ($p < .05$) and pain ($p < .05$) components of the SF-12 and the social/family well-being ($p < .001$), emotional well-being ($p < .05$), and functional well-being ($p < .05$) subscales of the FACT-G. ▸ At the 18-month assessment, relative to patients in the control group, those in the intervention group had improvements in the physical well-being ($p < .05$) and functional well-being ($p < .05$) subscales of the FACT-G. ▸ At the 24-month assessment, relative to patients in the control group, those in the intervention group had improvements in the social/family well-being ($p < .05$) and functional well-being ($p < .05$) subscales of the FACT-G.

Studies Measuring Outcome	Studies 2 and 3
Study Designs	Experimental
Quality of Research Rating (0.0–4.0 scale)	3.8

Study Populations

The following populations were identified in the studies reviewed for Quality of Research.

Study	Age	Gender	Race/Ethnicity
Study 1	▸ 18–25 (Young adult) ▸ 26–49 (Adult) ▸ 50–60 (Older adult) ▸ 61–74 (Older adult) ▸ 75–84 (Older adult) ▸ 85+ (Older adult)	▸ 65% Female ▸ 35% Male	▸ 74.5% White ▸ 9.7% Black or African American ▸ 4.3% American Indian or Alaska Native ▸ 3.3% Race/ethnicity unspecified ▸ 2.7% Asian ▸ 2.7% Hispanic or Latino ▸ 2.7% Native Hawaiian or other Pacific Islander
Study 2	▸ 18–25 (Young adult) ▸ 26–49 (Adult) ▸ 50–60 (Older adult) ▸ 61–74 (Older adult) ▸ 75–84 (Older adult) ▸ 85+ (Older adult)	▸ 82.2% Female ▸ 17.8% Male	▸ 96.1% Hispanic or Latino ▸ 2.3% White ▸ 0.8% Race/ethnicity unspecified ▸ 0.5% Black or African American ▸ 0.3% Asian
Study 3	▸ 18–25 (Young adult) ▸ 26–49 (Adult) ▸ 50–60 (Older adult) ▸ 61–74 (Older adult) ▸ 75–84 (Older adult) ▸ 85+ (Older adult)	▸ 84.5% Female ▸ 15.5% Male	▸ 87.9% Hispanic or Latino ▸ 4.2% Black or African American ▸ 4.0% White ▸ 2.5% Asian ▸ 1.1% Race/ethnicity unspecified ▸ 0.2% Native Hawaiian or other Pacific Islander

Quality of Research Ratings by Criteria (0.0–4.0 scale)

Criterion	Ratings		
	Outcome 1	Outcome 2	Outcome 3
Reliability of Measures	4.0	3.5	4.0
Validity of Measures	4.0	4.0	4.0
Intervention Fidelity	3.5	3.0	3.5
Missing Data and Attrition	3.8	4.0	4.0
Potential Confounding Variables	3.3	3.5	3.3
Appropriateness of Analysis	4.0	4.0	4.0
Overall Rating	**3.8**	**3.7**	**3.8**

Study Strengths

All measures are well established and widely used in the field, and they are supported by ample data from independent investigators showing acceptable levels of all relevant forms of reliability and validity. In all studies, a substantial number of methods were used to maximize levels of intervention fidelity; for example, treatment was structured and followed a stepped-care approach, audio recordings of treatment sessions were reviewed, and frequent supervisory team meetings were held. A Web-based clinical training system also was used with patients in real time to help ensure fidelity. Missing data and attrition were minimal and thoroughly described. There were no significant baseline differences between study groups on any variable. Sophisticated statistical methods, including imputational analysis, were used to explore whether missing data and attrition influenced the findings. The limitations of each study were addressed, and a number of methodological factors were used to prevent and control for confounding variables (e.g., randomized design, analysis of baseline characteristics, blinded raters). All studies had large sample sizes and used appropriate statistical analysis.

Study Weaknesses

In two of the studies, there was no evidence that the instrument used to assess fidelity was psychometrically tested. Some of the fidelity data from the Web-based clinical training system were not discussed.

Review Date: August 2007

Documents Reviewed

The documents below were reviewed for Quality of Research. The research point of contact can provide information regarding the studies reviewed and the availability of additional materials, including those from more recent studies that may have been conducted.

Study 1

Arean, P. A., Ayalon, A. L., Hunkeler, E., Lin, E. H., Tang, L., Harpole, L., … Unützer, J. (2005). Improving depression care for older, minority patients in primary care. *Medical Care, 43*(4), 381–390. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/15778641

Hegel, M. T., Unützer, J., Tang, L., Arean, P. A., Katon, W., Noel, P. H., … Lin, E. H. (2005). Impact of comorbid panic and posttraumatic stress disorder on outcomes of collaborative care for late-life depression in primary care. *American Journal of Geriatric Psychiatry, 13*(1), 48–58. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/15653940

Hunkeler, E. M., Katon, W., Tang, L., Williams, J. W., Jr., Kroenke, K., Lin, E. H., … Unützer, J. (2006). Long term outcomes from the IMPACT randomised trial for depressed elderly patients in primary care. *BMJ (British Medical Journal), 332*(7536), 259–263. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/16428253

Katon, W. J., Schoenbaum, M., Fan, M.-Y., Callahan, C. M., Williams, J. W., Jr., Hunkeler, E., … Unützer, J. (2005). Cost-effectiveness of improving primary care treatment of late-life depression. *Archives of General Psychiatry, 62*(12), 1313–1320. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/16330719

Steffens, D. C., Snowden, M., Fan, M.-Y., Hendrie, H., Katon, W. J., & Unützer, J. (2006). Cognitive impairment and depression outcomes in the IMPACT study. *American Journal of Geriatric Psychiatry, 14*(5), 401–409. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/16670244

Unützer, J., Katon, W., Callahan, C. M., Williams, J. W., Jr., Hunkeler, E., Harpole, L., … Langston, C. (2002). Collaborative care management of late-life depression in the primary care setting. A randomized controlled trial. *Journal of the American Medical Association, 288*(22), 2836–2845. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/12472325

Supplementary Materials

Dwight-Johnson, M., Ell, K., & Lee, P. J. (2005). Can collaborative care address the needs of low-income Latinas with comorbid depression and cancer? Results from a randomized pilot study. *Psychosomatics, 46*(3), 224–232. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/15883143

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

Information on psychometric properties and reference list

Outcomes

Outcome 1: Severity of Depression	
Description of Measures	Severity of depression was assessed using the Hopkins Symptom Checklist, a self-rating scale for depression symptoms. The scale for each question includes four responses—"not at all," "a little," "quite a bit," "extremely"—rated 1 to 4, respectively.
Key Findings	At all three follow-up points after the intervention (12, 18, and 24 months), IMPACT participants reported a lower severity of depression than participants assigned to usual care ($p < .0001$ at all three points). Usual care consisted of continuing care through the participant's primary care provider, care through a mental health specialty provider of the participant's choosing, or no mental health treatment.
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating (0.0–4.0 scale)	3.8

Outcome 2: Functional Impairment	
Description of Measures	Functional impairment was assessed by an index developed from the Sheehan Disability scale, a self-rated assessment that incorporates impairment with work, family, and other social functioning. The index used a scale of 0 to 10, with higher scores indicating greater functional impairment.
Key Findings	At two of three follow-up times after the intervention (12 and 18 months), IMPACT participants reported less functional impairment than participants assigned to usual care ($p < .0001$ and $p < .0009$, respectively); no significant difference was found between groups at 24-month follow-up. Usual care consisted of continuing care through the participant's primary care provider, care through a mental health specialty provider of the participant's choosing, or no mental health treatment.
Studies Measuring Outcome	Study 1
Study Designs	Experimental
Quality of Research Rating (0.0–4.0 scale)	3.7

Study Populations

The following populations were identified in the studies reviewed for Quality of Research.

Study	Age	Gender	Race/Ethnicity
Study 1	▸ 61–74 (Older adult) ▸ 75–84 (Older adult) ▸ 85+ (Older adult)	▸ 65% Female ▸ 35% Male	▸ 77% White ▸ 12% Black or African American ▸ 8% Hispanic or Latino ▸ 3% Race/ethnicity unspecified

Quality of Research Ratings by Criteria (0.0–4.0 scale)

Criterion	Ratings	
	Outcome 1	Outcome 2
Reliability of Measures	3.8	3.5
Validity of Measures	4.0	4.0
Intervention Fidelity	3.0	3.0
Missing Data and Attrition	4.0	4.0
Potential Confounding Variables	3.8	3.8
Appropriateness of Analysis	4.0	4.0
Overall Rating	**3.8**	**3.7**

Study Strengths
The measures used in the study have well-documented psychometric properties. Consistent supervision of intervention professionals suggests strong fidelity. The study had a reasonable and expected level of attrition that was well documented, and statistical adjustments were made for missing data. The use of multiple imputation in some analyses to address missing data is a strength. The study had a large sample size and used strong statistical analyses, supporting the conclusion that the outcomes were most likely due to the intervention.

Study Weaknesses
The intervention utilized measures with good psychometric properties; however, the use of a multimethod approach to evaluate outcome variables would have strengthened this body of research.

Readiness for Dissemination

Review Date: August 2007

Materials Reviewed

The materials below were reviewed for Readiness for Dissemination. The implementation point of contact can provide information regarding implementation of the program and the availability of additional, updated, or new materials.

IMPACT Web site, http://impact-uw.org

Readiness for Dissemination Ratings by Criteria (0.0–4.0 scale)

Criterion	Rating
Implementation Materials	4.0
Training and Support	4.0
Quality Assurance	4.0
Overall Rating	**4.0**

Dissemination Strengths
Program materials are comprehensive, detailed, and user-friendly. They address clinical, administrative, financial, and patient issues related to the delivery of this intervention and are all available at no cost on an easy-to-use Web site. In-person, Webcast, and free interactive Web-based trainings are available to implementers. The program developer is available for telephone consultation and support throughout implementation. Recommended quality indicators, detailed treatment manuals, and evaluation support contribute to quality assurance.

Dissemination Weaknesses
No weaknesses were noted by reviewers.

Costs

The cost information below was provided by the developer. Although this cost information may have been updated by the developer since the time of review, it may not reflect the current costs or availability of items

(including newly developed or discontinued items). The implementation point of contact can provide current information and discuss implementation requirements.

Implementation Materials

Item Description	Cost	Required by Developer
Implementation materials (includes needs assessment, implementation planning grid, information on key components and adaptations, job descriptions, cost and reimbursement information, planning tools, and additional resources)	Free	Yes
1- to 3-day, on-site training	$6,500–$15,000, depending on training length, content, and audience, plus travel expenses	Yes (one training option is required)
Online training	Free	Yes (one training option is required)
1-hour Webinars for primary care providers and consulting psychiatrists	$750 for 3 Webinars	No
On-site booster training covering advanced topics	$6,500–$15,000, depending on training content and audience, plus travel expenses	No
Booster training Webinar covering advanced topics	$500 per Webinar	No
Preimplementation technical assistance via Webinar or phone (includes introductory information and team building support)	$250 per hour	Yes
Postimplementation technical assistance via Webinar or phone (includes ongoing support for care team members)	$250 per hour	Yes
Program evaluation consultation	$250 per hour	No
Online fidelity measure	Free	No

Additional Information

Start-up costs vary by the training option chosen by the organization and how the organization offers the program to patients (i.e., as a primary care-based program, as a component of an existing care management program).

Other Citations

Davidson, K. W., Rieckmann, N., Clemow, L., Schwartz, J. E., Shimbo, D., Medina, V., … Burg, M. M. (2010). Enhanced depression care for patients with acute coronary syndrome and persistent depressive symptoms: Coronary psychosocial evaluation studies randomized controlled trial. *Archives of Internal Medicine, 170*(7), 600–608. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/20386003

Gilmer, T. P., Walker, C., Johnson, E. D., Philis-Tsimikas, A., & Unützer, J. (2008). Improving treatment of depression among Latinos with diabetes using Project Dulce and IMPACT. *Diabetes Care, 31*(7), 1324–1326. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/18356401

Huijbregts, K. M., de Jong, F. J., van Marwijk, H. W., Beekman, A. T., Ader, H. J., Hakkaart-van Roijen, L., ... van der Feltz-Cornelis, C. M. (2013). A target-driven collaborative care model for major depressive disorder is effective in primary care in the Netherlands: A randomized clinical trial from the Depression Initiative. *Journal of Affective Disorders, 146*(13), 328–337. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/23068021

Richardson, L., McCauley, E., & Katon, W. J. (2009). Collaborative care for adolescent depression: A pilot study. *General Hospital Psychiatry, 31*(1), 36–45. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/19134509

Unützer, J., Hantke, M., Powers, D., Higa, L., Lin, E., Vannoy S. D., … Fan, M.-Y. (2008). Care management for depression and osteoarthritis pain in older primary care patients: A pilot study. *International Journal of Geriatric Psychiatry, 23*(11), 1166–1171. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/18489009

Translational Work

Kaiser Permanente in San Diego (KPSD) was one of eight health care organizations that participated in a randomized controlled trial (RCT) of IMPACT. Findings from the RCT indicated that collaborative care management for depression in older adults was significantly more effective than usual care in reducing the severity of depression and improving functional impairment. After the RCT ended, KPSD created a modified version of IMPACT and assessed this model's effectiveness under real-world conditions. KPSD, which encompasses two geographically separate primary care offices with 36 primary care providers, used its model with depressed primary care patients over the age of 18. Core elements of the IMPACT model were retained, such as the inclusion of a DCM in the primary care office, a psychiatrist, and the patient's primary care physician. Modifications included an optional group education class, which provided patients with information on depression, and a medical assistant to help expand the DCM's caseload and assist with patient tracking. Data on utilization, patient demographics, and cost information were accessible from KPSD's internal systems and a clinical information system. At the end of the 6-month intervention period, the PHQ-9 was administered to

assess depression severity. Patients and the treatment team were given the option to extend the 6-month intervention to 12 months if it was deemed that ongoing care was clinically necessitated. Findings indicated that patients experienced significant improvements in depression over 6 months, although the patients' use of services was substantially lower in comparison with patients' use of services in the original RCT. Findings also indicated that the modified version maintained the same strong clinical outcomes as the intervention evaluated in the RCT, suggesting that the IMPACT model is effective for all depressed adults, regardless of age.

The IMPACT model of care for late-life depression has been presented in several published case studies as an example of a successful translation of evidence to practice. In one case study, IMPACT was implemented in eight health care organizations that comprised 18 diverse primary care clinics. The implementation process was described in four steps:

1. Researching the clinical epidemiology of late-life depression. Approximately 5%–10% of older adults visiting their primary care provider have major depression or a dysthymic disorder. Although there has been a substantial increase in the prescription of antidepressant medication for primary care patients who are older adults, improvements in treatment outcomes remain low for these patients. Barriers associated with poor treatment outcomes include the primary care provider's inability to treat a comorbid medical problem because of time and resource restrictions, separation of mental and physical health care, stigma associated with depression, and inequality in reimbursement rates for the treatment of mental disorders and the treatment of physical disorders.
2. Developing a feasible evidence-based intervention strategy. IMPACT investigators based their intervention strategy on 15 years of research showing that collaborative, stepped-care programs are more effective than treatment as usual in primary care. During the implementation process, ongoing consultations were held with clinical and organizational leaders from the eight health care organizations to ensure that the intervention would be feasible, implemented with fidelity, and well monitored.
3. Evaluating the effectiveness and cost-effectiveness of the intervention in diverse settings. An evaluation assessing whether the IMPACT model would maximize the use of evidence-based treatments leading to better treatment outcomes when compared with usual care at each of the participating sites indicated that in comparison with patients who received usual care, those participating in IMPACT were more likely to receive evidence-based treatments, expressed higher satisfaction with depression care, had lower depression rates, experienced an improvement in physical and social functioning, and had a better quality of life. Cost-effectiveness analyses indicated that in comparison with patients who received usual care, those participating in IMPACT had slightly higher health care costs during year 1 of the study but had lower health care costs in year 2 of the study.
4. Moving from research to practice. To meet the challenges of moving from effectiveness trials to real-world implementation, the IMPACT investigators developed a 5-year plan to disseminate the model with funding support from a foundation and created the IMPACT dissemination framework to facilitate adoption, implementation, and sustainability.

In another published case study, IMPACT was implemented through the Depression Improvement Across Minnesota, Offering a New Direction (DIAMOND) initiative, headed by the Institute for Clinical Systems Improvement (ICSI), an independent nonprofit organization collaborating with medical and community groups to improve the quality of care throughout Minnesota. In 2006, ICSI formed a steering committee to help redesign how the primary care process managed patients with depression and to improve reimbursements for

best practices. The IMPACT model served as the structure for DIAMOND, which adopted key components of depression care for adults on the basis of the collaborative care model and adapted them to the local context. The DIAMOND initiative was launched in 10 primary care clinics in Minnesota in spring 2008, and 20 additional sites were added in fall 2008; new clinics were then added every 6 months through 2010. The DIAMOND model aimed to broaden the care team beyond primary care physicians by engaging care managers and a consulting psychiatrist as part of the patient's care. A sustainable payment model that would reimburse medical groups was developed by bundling services for each enrolled patient under a single billing code used only by DIAMOND sites. Through an extensive evaluation plan, the committee carefully monitored program implementation and structural and behavioral elements, such as referrals and patient follow-up. In addition to this internal evaluation process, grant funding was sought to evaluate the effects of the DIAMOND model on the care process, depression outcomes, cost, and other organizational factors.

Site With Translational Work	Articles Describing Site's Translational Work, by Category					
	Planning/ Partners	Adoption	Reach/ Recruitment	Implementation	Effectiveness	Maintenance
Kaiser Permanente in San Diego	—	Article 1	Article 1	Article 1	Article 1	—
8 health care organizations	Article 2	Article 2	Article 2	Article 2	Article 2	Article 2
Primary care clinics in MN	Article 3	Article 3	Article 3	Article 3	Article 3	—

Article Number	Article Reference
1	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
2	Unützer, J., Powers, D., Katon, W., & Langston, C. (2005). From establishing an evidence-based practice to implementation in real-world settings: IMPACT as a case study. *Psychiatric Clinics of North America*, *28*(4), 1079–1092. PubMed entry available at http://www.ncbi.nlm.nih.gov/pubmed/16325741
3	Korsen, N., & Pietruszewski, P. (2009). Translating evidence to practice: Two stories from the field. *Journal of Clinical Psychology in Medical Settings*, *16*(1), 47–57. PubMed abstract available at http://www.ncbi.nlm.nih.gov/pubmed/19238525

Contacts

To learn more about implementation or research, contact:

Kitty Christensen, M.P.H.
University of Washington
(206) 543-4981
info@impact-uw.org

To learn more about implementation or research, contact:

Jürgen Unützer, M.D., M.P.H., M.A.
University of Washington
(206) 543-3128
info@impact-uw.org

Additional program information can be obtained through the following Web site:

http://impact-uw.org

This intervention summary was developed through funding from the Administration for Community Living (ACL), Administration on Aging (AoA). The summary contains information from the Quality of Research and Readiness for Dissemination reviews that were completed in June 2012 and August 2007 for the intervention summary developed by the National Registry of Evidence-based Programs and Practices (NREPP), which is funded by the Substance Abuse and Mental Health Services Administration (SAMHSA).