Depression, like many chronic health conditions, has presented a very difficult treatment challenge to the U.S. health care system. At any given time, 9% of the population has a depressive disorder. Plus depression produces a greater decrease in quality of health, compared to several other chronic diseases.\textsuperscript{1,2}

Almost 75% of patients with depression see a primary care provider, but they detect only 35 to 50% of adult patients who have major depression\textsuperscript{3}. About 50% of these patients get treated, and only 20 to 40% of treated patients show substantial improvement in the year following diagnosis.\textsuperscript{4}

The Institute for Clinical Systems Improvement (ICSI) is a non-profit quality improvement organization that is sponsored by five health plans and is comprised of 55 medical groups and hospitals, primary in Minnesota.

ICSI is known for bringing together diverse stakeholders to address complex health care system problems. Its stakeholders viewed the poor care provided to patients with depression in primary care as an issue to tackle, and they worked through ICSI to develop a collaborative care model that would measurably improve depression treatment in primary care clinics.

In 2008 ICSI launched DIAMOND (Depression Improvement Across Minnesota, Offering a New Direction). The program is unique in that it changes how care is delivered and paid for in primary care.

By the beginning of 2012, more than 8,000 adult patients with major depression or dysthymia had participated in the DIAMOND program in Minnesota and bordering regions. The clinics reported that 30% of their patients with depression were in remission.

Many primary care clinics have noted that implementing the DIAMOND’s collaborative care model has helped them change their clinic’s culture, enhance the continuity of care for patients, align them with outside expertise and vastly improve care coordination. As a result of and in conjunction with the proven clinical success of the DIAMOND program, ICSI is working to expand the care model to:
• Treat other chronic conditions, which commonly accompany depression, as well as other behavioral health conditions
• Identify and address risky substance use in addition to depression
• Integrate components of the model into behavioral health settings
• Provide a foundation for the design of a health care home.

Model Development
ICSI’s research prior to the launch of DIAMOND identified multiple barriers to good depression care, including: inconsistent use of diagnostic criteria; the challenges of diagnosing depression in the 80% of depressed patients who have other conditions and diseases; technical issues such as medical coding; and cultural challenges such as primary care physicians’ discomfort discussing mental health issues with patients.

Additionally, follow-up care for patients with depression can be hit or miss, particularly in the primary care setting where the majority of patients with depression receive care. Most providers who spend extra time serving patients with depression typically are not compensated for the additional care. ICSI concluded that these challenges required a groundbreaking, comprehensive new approach rather than incremental or piecemeal changes.

Through its review, ICSI found more than 37 trials that showed a collaborative care team approach for managing depression in primary care improves patient health. The DIAMOND model is based on the collaborative care model developed by Wayne Katon, MD, and put into practice by Jurgen Unutzer, MD, in IMPACT—a randomized controlled trial of 18 primary care clinics in five states that enrolled 1,800 patients with depression.

ICSI formed a DIAMOND steering committee that included members from medical groups, health plans, purchasers and patients. The committee approved the DIAMOND care delivery model, patient eligibility and length of participation in the program, and gave recommendations for clinic reimbursement.

Care Practice Redesign
The DIAMOND program’s six key components are:

1. Use of a validated screening tool, the PHQ-9 (Patient Health Questionnaire), for diagnosis and ongoing management of depression.
2. Systematic patient follow-up, tracking and monitoring with PHQ-9 measurements and use of a patient registry to track changing PHQ-9 scores over time.
3. Use of evidence-based guidelines and a stepped-care approach for treatment modification.
4. Relapse prevention planning for patients.
5. A care manager who educates, coordinates care and troubleshoots services for patients.
The care manager schedules regular face-to-face or phone contacts with each patient, during which he or she educates patients about depression and supports and motivates them toward self-management.

Care managers regularly re-administer the PHQ-9, manage the patient registry, monitor patients’ progress, serve as the treatment liaison between the primary care physician and consulting psychiatrist, and work with patients who have improved to prevent relapse and help them know what to do if symptoms return.

The care manager’s accessibility and flexibility result in more frequent contacts with the patient and greater continuity of care than is possible with brief, infrequent physician visits. Care managers typically have backgrounds in nursing, social work, psychology or as certified medical assistants.

Each DIAMOND clinic also engages the services of a consulting psychiatrist who reviews the care manager’s caseload weekly and advises the care manager and primary care physician regarding changes in treatment for patients who are not improving. These changes can include medication adjustments or referrals to other mental health resources. The primary care physician makes final decisions about each patient’s care plan.

**Payment Redesign**

The collaborative care models upon which DIAMOND was based received funding through research grants and support. With DIAMOND, ICSI wanted to develop a sustainable payment model that would reimburse participating medical groups for services proven to lead to better outcomes. The strength of the improved patient outcomes from implementing collaborative care helped convince the steering committee to explore a new payment model to support the DIAMOND program.

A single billing code for DIAMOND services was established and is used only by certified DIAMOND clinics. The code covered care manager services, plus weekly consultation and case review by the psychiatrist. Patients who are 18 or older are eligible to participate in the program for up to a year if they have a diagnosis of major depression or dysthymia and a PHQ-9 score of 10 or higher. The health plans negotiate the monthly reimbursement amount with each clinic in order to avoid any violation of anti-trust law.

**Measuring DIAMOND’s Success**

After five years and more than 10,000 activated patients, DIAMOND has proven it is a highly effective treatment model for patients with depression. At the end of 2012, participating DIAMOND clinics collectively reported that 30% of their patients with depression achieved remission (PHQ-9 score of 9 or lower) within six months of initial assessment, and 40% achieved response (a drop of at least 50% in initial PHQ-9 score).

The results were even better for the smaller subset of roughly 4,500 patients to whom the DIAMOND clinics were able to administer a follow-up PHQ-9 at the six-month mark. Half of those patients achieved remission, while two-thirds achieved response.

Twelve-month remission and response rates for DIAMOND patients were at 53% and 70%, respectively. This indicates the program’s effectiveness over time and the success of its relapse prevention component.

In addition to superior patient outcomes, participating clinics have found that their patient follow-up processes have become more efficient and team communication has improved.
The DIAMOND program’s excellence was recognized in 2010 when it was awarded the American Psychiatric Association (APA) Gold Award for Community-Based Programs.

**Health Care Home Blueprint**
Since the program’s launch ICSI has trained staff at more than 80 primary care clinics and certified them to provide DIAMOND services.

After working with DIAMOND, many clinic administrators and physicians realized its care model could assist them in establishing health care homes. They found it helped them create a team-based culture, redefine staff roles, improve workflow and better integrate behavioral health into their practices—all requirements of a health care home.

Integration of primary and behavioral care has similarly been useful for medical groups that are working to establish accountable care organizations and address total cost of care.

**Extending the DIAMOND Model**
ICSI is working on multiple fronts to apply the DIAMOND model to other health care challenges. For example, in 2010 six DIAMOND clinics piloted ways to further the model to help improve outcomes for other chronic conditions such as diabetes, hypertension and hyperlipidemia.

Since 2008, ICSI has led the Minnesota Behavioral Health Depression Collaborative, which is establishing best practices for depression care by applying elements of DIAMOND in behavioral health clinics.

Behavioral health groups have been especially interested in this work because Minnesota now requires all clinics with physicians on staff to publicly report their depression care performance. Collaborative teams are working to improve coordination of care with nearby DIAMOND primary care clinics.

Based on its DIAMOND expertise, ICSI was selected by the Minnesota Department of Human Services in 2011 to work with Assertive Community Treatment teams to create systems to track, coordinate and co-manage preventive and chronic medical disease care for patients with serious mental illnesses.

**Link to Risky Substance Use**
As part of a three-year grant from the Agency for Healthcare Research and Quality, DIAMOND is being combined with the SBIRT (Screening, Brief Intervention, Referral to Treatment) program for substance abuse. This three-state partnership—Partners for Integrated Care—also includes the Pittsburgh Regional Health Initiative, the Wisconsin Collaborative for Healthcare Quality and the Wisconsin Initiative to Promote Healthy Lifestyles. Twenty-two Minnesota DIAMOND clinics began to screen patients for risky substance use in late 2011. This grant offers the opportunity to evaluate the effectiveness of a combined intervention for depression and substance use.

**Expansion Beyond Minnesota**
ICSI also is extending DIAMOND’s collaborative care model nationally through its Professional Partnerships consulting services department. ICSI consultants have provided training and expertise to the Michigan Center for Clinical System Improvement/Western Michigan Physicians for Transformation to launch DIAMOND. They also have worked with the Hawaii Primary Care Association and Hawaii Medical Service Association (Blue Cross and Blue Shield of Hawaii) to integrate depression and diabetes care in their health care home model. The group is also working with the National Council for Community Behavioral Healthcare to facilitate a five-state Depression Care Collaborative.
Model Becomes Part of Basis for COMPASS

In June 2012, ICSI and nine other medical organizations were awarded with a cooperative agreement from the Center for Medicare and Medicaid Center Innovation. The $18 million award is designed to improve the care of Medicare and Medicaid patients with diabetes and/or cardiovascular disease who also suffer from depression and possibly risky substance use.

Based on DIAMOND, IMPACT, TEAMcare and SBIRT models and their best practices, a new model was created called COMPASS (Care of Mental, Physical and Substance Use Syndromes).

Eight medical groups will be implementing COMPASS in eight states over the next three years starting in January 2013. The goal is to develop the best and sustainable collaborative care management model for addressing both mental and physical chronic diseases.

References:

For More Information
To find out more about DIAMOND, contact Pam.Pietruszewski@icsi.org, (952) 814-7078. You can also monitor progress on the DIAMOND initiative by visiting www.icsi.org.

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