The COMPASS Consortium is spreading the COMPASS collaborative care management model as part of its **Innovation Cooperative Agreement** with the Centers for Medicare and Medicaid Services (CMS). COMPASS combines the evidence-based elements and best practices learned in implementing several collaborative care management models, including IMPACT and DIAMOND for depression, TEAMCare for diabetes, cardiovascular care and depression, and SBIRT for risky substance use.

This document shows the costs savings that have been achieved with the models that have been incorporated into COMPASS to improve depression care, risky substance use, depression/diabetes and depression/cardiovascular disease management. The consortium estimates the three-year effort will reduce the total cost of care for treating the targeted patient population by 7%. Savings are expected since most patients with depression have other chronic problems. One third of Medicare patients have diabetes and another 30% have coronary artery disease; when depression is present, as it is 15% of the time, health care costs are 65% higher.

**Impact on Depression Care**

- A robust review of 12 economic evaluations covering 10 collaborative care trials to improve depression treatment in primary care has consistently shown high value (several of the studies are referenced below).\(^1\)\(^-\)\(^5\) Cost-effectiveness has tended to improve over time due to greater use of nursing or other less expensive medical professionals in the care programs, the introduction of ‘stepped-care’ which attempts high-value treatment options first, a focus on higher-cost patients with depression, and reduced emergency room visits and hospitalizations.

- The IMPACT (Improving Mood and Promoting Access to Collaborative Treatment) model, a collaborative care management model for treating patients with depression, showed a savings of $3,365 per patient (n = 272) over patients receiving usual primary care over a four-year period, even though the intervention ended after one year.\(^4\)

- A study that implemented an adapted version of IMPACT for all adults found that the post-study group (n=172) had lower annualized total health care costs ($7,471) per patient (excluding pharmacy) than the usual care and intervention groups in the original IMPACT trial.\(^5\)

**References:**


**Impact on Depression and Diabetes Care**

- Recent reports\(^1\)\(^-\)\(^5\) have demonstrated medical cost-savings in excess of program costs for all or a portion of the targeted population when they include inpatient costs in the estimates. For example, in the PATHWAYS study of collaborative care for patients with depression concurrent diabetes, Katon et al\(^1\) observed $4,800 in net savings over five years when including inpatient cost offsets that totaled $4, 510. An earlier report of the same study, found positive net costs of $35
per patient in year one and savings of $1,800 in year two, even while excluding savings from inpatient care.\textsuperscript{2} When incorporating inpatient costs into the analysis Katon et al found cost-savings in each of five years.\textsuperscript{1}

- A study of older adults with diabetes and depression found that in the first year of IMPACT, there was a $655 increase in total outpatient costs; however, in the second year, when no intervention services were provided, there was a cost savings of $639 in total outpatient costs. Over the 24-month period, the total medical costs (inpatient and outpatient) were $896 lower in the intervention group.\textsuperscript{3}

- Among IMPACT participants who had both depression and diabetes, $1,370 were saved over the first 24 months, driven by $1,430 in savings from inpatient stays.\textsuperscript{4}

References:

Impact on Depression and Cardiovascular Diseases
- Studies have consistently shown that patients with diabetes, coronary artery disease (CAD), and congestive heart failure (CHF) have anywhere from a 10% to 100% greater risk of hospitalization if they also have depression.\textsuperscript{1,4} The probability of at least one inpatient stay during a year for those with depression and either diabetes, CAD or CHF are about 48\%, 54\%, and 74\%, respectively, based on averages calculated across studies. Himelhoch et al\textsuperscript{1} found that 1/3 of patients with depression and either diabetes or heart disease, who have a hospitalization during a year, have a hospitalization for an ambulatory care sensitive condition.

References:

Impact on Risky Substance Use
- A review of literature (1992-2004) found that primary care screening and brief interventions for alcohol misuse represent one of the most effective and cost-effective preventive services. The authors reported a cost-effectiveness ratio of $1,755 per quality-adjusted life years saved from the health system perspective (excluding patient time costs and non-medical cost offsets).\textsuperscript{1}

- A 30-month study of the SBIRT model (Screening, Brief Intervention and Referral to Treatment) in nine emergency departments (EDs) for disabled Medicaid patients reported an estimated reduction in Medicaid costs of $366 per member per month (PMPM) (P = 0.05) for all patients and $542 PMPM for patients who received a brief intervention only and had no chemical dependency treatment in the year before or the year after the ED visit.\textsuperscript{2}
• A 12-month study with 17 primary care practices found that brief physician advice for problem drinking resulted in cost-savings of $523 per patient from reduced utilization of EDs and hospital (MCO cost) and $1,151 per patient from reduced ED utilization, hospital utilization, crime, and motor vehicle accidents (total economic costs).3

• A 48-month study of brief physician advice for problem drinkers in primary care with two physician visits and two nurse follow-up phone calls found 20% fewer ED visits and 37% fewer days of hospitalization in the intervention group compared to the control group. Reductions in ER and hospital utilization resulted in net-savings of $546 per patient, with a benefit-cost ratio of 4.3:1.4

References:

Creating COMPASS From Proven Collaborative Care Management Models

The cost savings cited above come from leading collaborative care management models around the country for improving mental and physical chronic diseases: IMPACT, from which DIAMOND was developed, for depression; TEAMCare for diabetes; cardiovascular disease care and depression; and SBIRT for risky substance use.

The COMPASS model includes the evidence-based elements from these models and other best practice implementation strategies learned by the 10 partner organizations in the COMPASS Consortium. The purpose of creating the all-embracing COMPASS is to develop the best and sustainable collaborative care management model for improving mental, behavioral and physical conditions, as well as achieving the Triple Aim of improving the health of the population, the patient experience, including the quality of care, and the affordability of care.

COMPASS Consortium

The consortium consists of the Institute for Clinical Systems Improvement (ICSI) as the lead organization; Community Health Plan of Washington; Kaiser Permanente Colorado; Kaiser Permanente Southern California; Mayo Clinic Health System; Michigan Center for Clinical Systems Improvement; Mount Auburn Cambridge Independent Practice Association; Pittsburgh Regional Health Initiative; AIMS (Advancing Integrated Mental Health Solutions) Center at the University of Washington and HealthPartners Institute for Education and Research.

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