The Business Case for Bidirectional Integrated Care

Mental Health and Substance Use Services in Primary Care Settings and Primary Care Services in Specialty Mental Health and Substance Use Settings

Prepared by
Barbara J. Mauer and Dale Jarvis
MCPP Healthcare Consulting
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About This Paper

The Integration Policy Initiative (IPI) was a collaborative project, led by the California Institute for Mental Health (CiMH), the California Primary Care Association (CPCA) and the Integrated Behavioral Health Project (IBHP). As a project of CiMH, it was funded by The California Endowment with additional financial support provided by IBHP. The IPI Volume I: Report, issued in late 2009, was accompanied by two volumes of additional materials, Volume II: Working Papers and Volume III: Examples for Dissemination, all of which are available at http://www.cimh.org/Initiatives/Primary-Care-BH-Integration.aspx.

Participants in the IPI project coalesced around a vision:

Overall health and wellness is embraced as a shared community responsibility

They also agreed that to achieve individual and population health and wellness (physical, mental, social / emotional / developmental and spiritual health), healthcare services for the whole person (physical, mental and substance use healthcare) must be seamlessly integrated, planned for and provided through collaboration at every level of the healthcare system, as well as coordinated with the supportive capacities within each community.

Ten principles were articulated, as well as a service continuum for planning local capacity, and a series of recommendations were adopted to support the vision, principles and continuum. The recommendations included*: Develop the business case for integration (with an emphasis on the safety net system) while acknowledging the role of specialty services within MH/SU and health care.*

This business case paper is intended for use by audiences who share the desire to simultaneously accomplish the three critical healthcare objectives of the Institute for Healthcare Improvement's Triple Aim:

- Improve the health of the population
- Enhance the patient experience of care (including quality, access, and reliability)
- Reduce, or at least control, the per capita cost of total healthcare

Audiences likely to have a deeply vested interest in each of these areas of concern include, but are not limited to:

- Directors, Medical Directors, and senior clinical leadership of Mental Health and Substance Use Treatment Programs
- Directors and Medical Directors of Federally Qualified Health Centers, Community Health Centers, Rural Health Clinics and other primary care providers
- Statewide and local Mental Health and Substance Use organizations advocating to reduce health disparities
- Health Plans, especially those serving the Medi-Cal population
- Local Level Policy Officials
- State Level Policy Officials

In addition to this detailed paper, a brief handout and a PowerPoint presentation are available on the CiMH website, http://www.cimh.org/Initiatives/Primary-Care-BH-Integration.aspx.

Table of Contents

Introduction

Research suggests that without addressing the healthcare needs of persons with serious Mental Health/Substance Use (MH/SU) disorders as well as the MH/SU treatment needs of the population, it may be very difficult to achieve the three critical healthcare reform objectives articulated by the Institute for Healthcare Improvement's Triple Aim:

- Improve the health of the population
- Enhance the patient experience of care (including quality, access, and reliability)
- Reduce, or at least control, the per capita cost of total healthcare[1]

Healthcare reform, beyond insurance coverage expansion, is focused on investing more of the healthcare dollar in better primary care systems (known as Patient-Centered Medical Homes) to achieve the Triple Aim. Here we describe the business case for also investing more in MH/SU services: establishing services for mild/moderate MH/SU conditions in primary care settings and strengthening specialty MH/SU services while incorporating primary care capacity.

The healthcare system of the future needs robust primary care-based and specialty-based MH/SU capacities to serve the safety net population (traditionally defined as those covered by Medicaid, Medicaid/Medicare, or SCHIP and uninsured persons under 200% of federal poverty).

> "*While safety net infrastructure differs greatly from community to community across California, in many places, primary care clinics have become the de-facto mental health system for individuals across the entire continuum of mental health need…While growing, the Integrated Behavioral Health Care movement within primary care does not replace the role of the specialty mental health system in providing comprehensive treatment and supportive services for the most seriously mentally ill*."[2]

Every community should have a balanced system of MH/SU services that are both primary care- and specialty-based to meet the needs of the population. The September 2009 Integration Policy Initiative (IPI) Report provides a continuum for use by local communities in planning together to ensure a full range of accessible MH/SU services.

Two recent studies have caught the attention of health policy experts involved in healthcare reform. An October 2009 report from the Center for Health Care Strategies found that nationally, 49 percent of Medicaid beneficiaries with disabilities have a psychiatric illness. The subset of this population who had both Medicare and Medicaid coverage had a 52 percent prevalence of psychiatric illness (there is no estimation of the mix of mild/moderate to serious/severe conditions). These figures are significantly higher than the 29 percent overall prevalence rate reported in a previous report from the Center. In the 2009 study, the Center added pharmacy claims data which identified patients whose psychiatric diagnoses were underreported in the encounter data.[3]

This was followed by a study of Californians in the fee-for-service Medi-Cal system prepared by JEN Associates. When the 11 percent of the Medi-Cal enrollees with a serious mental illness (SMI) in the study were compared with all Medi-Cal fee-for-service enrollees, the SMI group's spending was 3.7 times higher than the total population ($14,365 per person per year compared with $3,914). This ratio continued through the analysis with much higher prevalence of high cost health disorders (diabetes, ischemic heart disease, chronic respiratory disease) and much higher utilization rates.[4]

These are two of multiple studies that point to the high prevalence of MH/SU disorders in the safety net population as well as the significantly higher total healthcare expenditures for persons with MH/SU disorders. This paper outlines the evidence that bidirectional integration of MH/SU services and primary care can effectively address these issues.

Studies demonstrate that MH treatments are effective, with results comparable to general healthcare:

> *"The vast majority of individuals with mental illness who receive appropriate treatment improve. For example, the rate of improvement following treatment for individuals with bipolar disorder is about 80 percent; for major depression, panic disorder and obsessive-compulsive disorder improvement rates are about 70 percent. The success rate for those with schizophrenia is 60 percent. These rates are quite comparable to rates of improvement for individuals who suffer from physical disorders, including asthma and diabetes at 70% - 80%, cardiovascular disease from 60% – 70% and heart disease at 41% to 52%."*[5]

While it is generally understood that many serious MH conditions are lifelong in nature (e.g., chronic diseases that must be managed, similar to diabetes), it is more recently understood that serious SU conditions also require lifelong management. In a study that compared hypertension, diabetes, and asthma to addictions, the conclusion was that "*treatments for these illnesses are effective but heavily dependent on adherence to the medical regimen for that effectiveness*."[6]

A succinct description of the rationale for bidirectional integration of MH/SU services (referred to collectively as Behavioral Health [BH]) in healthcare has been articulated by the Substance Abuse and Mental Health Services Administration (SAMHSA):

- Behavioral Health is Part of Health
- Prevention Works
- Treatment is Effective
- People Recover[7]

This paper reviews the changing healthcare environment, looks at how integrated care can improve quality outcomes and reduce healthcare costs, and examines how payment reform as a part of healthcare reform can support a sustainable business case. It summarizes the research that demonstrates that MH/SU services can improve quality outcomes and reduce cost, especially when integrated with primary care.

The Changing Healthcare Environment

There are changes underway in the healthcare environment—universal coverage, delivery system design, and payment reform—that make bidirectional integration of MH/SU services with healthcare more important than ever before, especially in systems that historically have served the safety net population.

Universal Coverage

Through the implementation of healthcare reform, 95% of individuals will have coverage, either through expanded Medicaid enrollment for adults under 133% of the Federal Poverty Level (FPL) or through state insurance exchanges (with subsidies up to 400% of FPL). The Federal

Parity and Healthcare Reform laws require that most individuals covered by private insurance and all individuals covered by Medicaid have access to MH/SU benefits at parity with general medical benefits. This near universal coverage, including MH/SU benefits, creates an unprecedented opportunity to address the needs of Americans with MH/SU disorders.

Delivery System Design

The general healthcare system is undergoing a shift in focus from episodic acute care to managing the health of defined populations, especially those living with chronic health conditions. The Patient-Centered Medical Home concept (PCMH) has gained momentum as the way of effectively delivering primary care in the context of chronic disease. It is anticipated that this concept will be adopted by commercial health plans, Medicare and Medicaid—there are multiple pilots underway, many co-sponsored by public and private payors, in a range of primary care settings (large group practices, federally qualified health centers, single physician clinics) across the country.

> *"Evidence from seven of the largest medical home pilots shows that four factors are essential: dedicated care managers; expanded access; performance management tools; and effective incentive payments. Federal policy, including implementation of health insurance reform legislation, should consider how to include these core elements and offer guidance and incentives for executing them effectively."*[8]

PCMHs and care management are the keys to healthcare delivery system redesign, seen as essential for addressing the fact that 45% of Americans have one or more chronic health conditions and treating these conditions accounts for 75% of direct medical care costs in the United States.[9] The core of the PCMH is team-based care that provides care management and supports individuals in their health goals. In a Commonwealth Fund report, care management was identified as being among the few policy options that hold promise not only of containing costs but also of improving health outcomes for high-risk populations.[10]

A recent research synthesis on care management for patients with complex comorbidities offers important findings for implementing PCMHs. This synthesis reviewed studies of care management in primary care that show convincing evidence of improving quality and found that it takes time to realize these quality outcomes (e.g., 12 months is probably not enough time). Additionally, they found mixed results regarding reductions in hospital use and healthcare costs, though two promising studies included emphasis on training of a care manager team, setting care management panel sizes at reasonable levels, fostering close relationships between care managers and PCPs, and encouraging interactions with patients in-clinic, at home and by telephone.[11]

"*Effective care coordination requires a dedicated nonphysician who is well trained and has an appropriate patient load….providing this functionality requires dedicated resources*."[12] The care coordinator/manager is either a part of the primary care team or part of a community team that supports multiple small physician practices, as in the North Carolina Community Care Networks (and in contrast to care managers based remotely in a health plan or disease management company). With care management as a key component of the PCMH, there is the opportunity to demonstrate the additional quality and cost benefit of including MH/SU services in the primary care setting as a related aspect of care management.

Conversely, adding primary care to MH/SU specialty settings will build the evidence base for the quality and cost benefits of care management focused on health status as well as the MH/SU status of individuals. A recent SAMHSA grant program funded 13 MH agencies to add primary care capacity and supportive healthcare services for people with serious mental illnesses (SMI). Additional funding in the current budget plus new funding in the Prevention Trust Fund will greatly expand this program (to an anticipated total of 52 sites).

The Patient Protection and Affordable Care Act (PPACA) establishes a Medicaid state plan option (as contrasted with a waiver), beginning January 1, 2011, for individuals with chronic conditions to designate a health home to coordinate the delivery of their healthcare. Eligible individuals are people covered by Medicaid who either have at least two chronic conditions; have one chronic condition and are at risk for having a second chronic condition; or who have a serious and persistent mental health condition. The health home can be a designated provider, a team of health care professionals operating with such a provider, or a health team, provided that the health home meets standards established by Health and Human Services. These could include: physician, clinical practice or clinical group practice, rural clinic, community health center, community mental health center, or other providers that meet state and federal requirements.

A dialogue opened in 2009 among leaders in the medical home and MH/SU fields, founded in the recognition that MH/SU services are crucial to addressing complex comorbidities. Recent communication from the American Academy of Family Physicians to the National Committee for Quality Assurance (NCQA), regarding standards for the PCMH, recommends improvement in the standards including *"very importantly an emphasis on incorporating mental health and behavioral health into the standards which we believe are conspicuously missing from the current standards".*[13] NCQA subsequently released draft revised standards in May 2010 that include reference to MH/SU services.

Oregon has released its state Standards for Patient-Centered Primary Care Homes, which include six core attributes (each of which have one or more standards), all described in person-centered language. Under the Care Coordination standard is the following measure: "*When I need to see a specialist or get a test, including help for mental health or substance use problems, help me get what I need at your clinic whenever possible and stay involved when I get care in other places*."[14] Clearly, leaders in implementing healthcare reform are envisioning bidirectional integration of MH/SU services with primary care.

Payment Reform

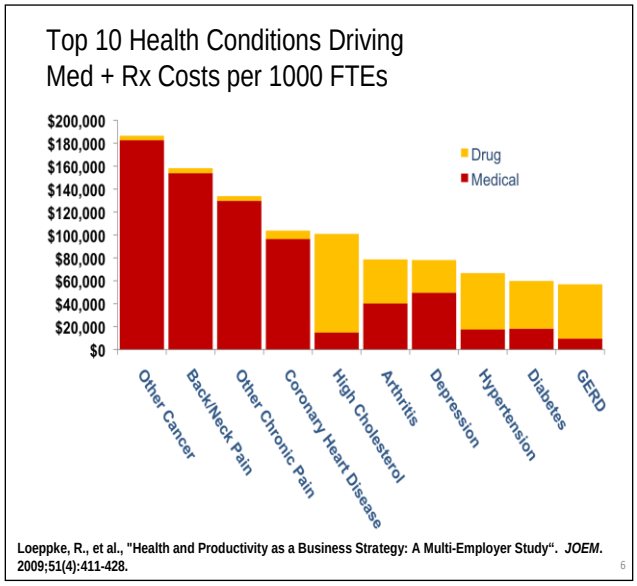
Healthcare reform legislation has linked the ability to demonstrate quality outcomes with managing costs. This environment is already shifting, with Medicare a federal incubator of design and payment reform changes (e.g., PCMH pilots are underway). State Insurance Exchanges, Medicaid programs, and new Dual Eligible (Medicare/Medicaid) plans will be the state incubators of design and payment reform changes. The following discussion contains information critical to both national and state level payment reform decisions.

Mental Health, Substance Use and Healthcare Conditions and the Impact on Healthcare Utilization and Costs

In this section, key findings from research and program evaluations are summarized to describe the interaction between MH/SU conditions and healthcare conditions, and the associated impact on healthcare utilization and costs.

Depression

Depression is one of the top ten conditions driving medical costs, ranking 7th in a national survey of employers (see chart below). It is the greatest cause of productivity loss among workers.[15]



Depression is an important factor in heart disease, along with high blood cholesterol and high blood pressure. A study conducted in Baltimore found that those who had a history of depression were four times as likely to suffer a heart attack as those not suffering from depression.[16] Researchers in Montreal found that heart patients who were depressed were four times as likely to die within six months of having a heart attack as those who were not depressed.[17] Approximately one in six patients treated for a heart attack experiences major depression soon after their heart attack and at least one in three patients have significant symptoms of depression.[18] Adults with coronary artery disease who also have depression or anxiety have $5,700 higher direct annual medical costs than those without anxiety or depression.[19]

The presence of type 2 diabetes nearly doubles an individual's risk of depression and an estimated 28.5% of diabetic patients meet criteria for clinical depression.[20] Studies have shown depression is associated with poor glycemic control, increased risk for complications, functional disability and overall higher healthcare costs in diabetic patients.[21]

Individuals with major depression average twice as many visits to their primary care doctor than do non-depressed patients. [22] A study by Simon and colleagues[23] showed that people diagnosed with depression had nearly twice the annual health care costs of those without depression. Greenberg and associates estimated the cost burden to employers for workers with depression to be $6000 per depressed worker per year.[24]

Chronic Pain

Back/neck and other chronic pain (2nd and 3rd in the top ten chart above) have a significant MH/SU component. A recent analysis in two large HMO health plans (Kaiser and Group Health) reports that, in the period 1999-2005, prevalence of long-term opioid therapy for non-cancer pain increased at Kaiser from 11.6% to 17% for those with SU disorders and from 2.6% to 3.9% for

those without SU disorder histories. At Group Health, in the same period, the respective rates increased from 7.6% to 18.6% and from 2.7% to 4.2%.[25]

> "*Research has shown that a multidisciplinary integration of services for chronic pain management can be effective in reducing pain intensity, medication use, emotional distress, and healthcare utilization, while also increasing functional activity among clients with chronic pain… Although each client's treatment plan is unique, all clients in the Pain Clinic participate in a functional restoration model that works toward achieving measurable behavioral goals. Most clients participate in the clinic for approximately six months, with as many as four different types of appointments each week…. The PMC staff evaluated the clinic's success rate of improving quality of life for clients by evaluating the 1,234 first-year clients over a three year period. Overall, clients reported a 12% reduction in pain intensity, 22% reduction in depression and 31% improvement in their perceived mental health. The PMC's model of care also showed a marked reduction in service visits and emergency room visits, indicating an increase in the clients' ability to manage pain. The reduced number of visits to the clinic and the emergency room resulted in significant savings for the Medical Center: 65% reduction in service visits, resulting in a $2.6 million savings; and a 57% reduction in Emergency Room visits, resulting in savings of $99,000.*"[26]

Ambulatory Care Sensitive Conditions

The third edition of Chronic Conditions of Californians,[27] produced by the California HealthCare Foundation, reports on the prevalence of chronic health conditions in the state. Among the findings in the report: 25% of adults with diabetes had Medi-Cal coverage, compared to 12% of all California adults. Thirty-four percent of adults with psychological distress had Medi-Cal coverage compared to 12% of all California adults. The report discusses ambulatory care sensitive (ACS) conditions, in which the nature of the illness is controllable with effective and timely outpatient care and disease management. In a separate Medi-Cal analysis conducted by the Petris Center and UC Irvine on ACS diabetes hospitalizations, individuals with SMI had a 53% increase in the odds of being hospitalized for ACS-diabetes in a given year.[28]

A study of New York State hospital discharge data from 2004 demonstrated that individuals with MH/SU disorders are more likely to have an admission for an ACS medical condition. During the ACS hospitalization, these individuals showed an average incremental cost of $556 and average incremental length of stay of 0.7 days.[29] Research has demonstrated that people with SMI have difficulty accessing and receiving appropriate healthcare services. If they have comorbid chronic medical conditions, these can result in ACS hospitalizations. The bidirectional placement of primary care capacity in MH/SU settings and whole person care management is intended to address this issue.

Other Impacts on Healthcare Utilization and Costs

An analysis of changes in conditions accounting for a rise in spending among Medicare beneficiaries found that the most notable changes were in spending on a few conditions—diabetes, arthritis, hyperlipidemia, kidney disease, hypertension, and *mental disorders* [emphasis added]. These conditions accounted for more than a third of the rise in Medicare spending.[30]

A recent study conducted by JEN Associates for the California Medi-Cal system found that while individuals with Serious Mental Illnesses (SMI) are 10% of the fee-for-service population,

payments for their total healthcare costs represented 37% of payments. Of the almost 250,000 enrollees with SMI, a subset of almost 10,000 individuals had average annual costs of more than $50,000. In other words, 10,000 people received approximately $500 million worth of care.[31]

Faces of Medicaid III[32] reports that, nationally, 49% of Medicaid beneficiaries with disabilities have a psychiatric condition (52% of dual eligibles) and psychiatric illness is represented in three of the top five most prevalent disease dyads among the highest-cost 5% of beneficiaries with disabilities. The study itself provides little information about SU disorders; however, if one were to apply a comorbidity estimate to the population with psychiatric conditions, it would conservatively suggest that as many as 25% of these high cost beneficiaries also have a comorbid SU condition.[33]

A 2007 federal report found that nearly one in four adult hospital stays (2004) in U.S. community hospitals involved MH/SU disorders. Three-quarters of these admissions were for a non-MH/SU disorder, with a secondary MH/SU diagnosis. About 33% of all uninsured stays, 29% of Medicaid stays and 26% of Medicare stays were related to MH/SU disorders, compared to about 16 % of privately insured stays. Altogether, these admissions accounted for about 7.6 million hospitalizations with average stays of 5.8 days. Specifically, one of ten stays included a mood disorder diagnosis (at a cost of $3.4 billion), and one in fourteen stays involved SU disorders (at a cost of $2 billion).[34]

A large scale review of 1999 claims data for adult Medicaid beneficiaries in Arkansas, Colorado, Georgia, Indiana, New Jersey, and Washington analyzed behavioral health and general medical expenditures for individuals with SU diagnoses compared to expenditures for those without such diagnoses. Individuals with diagnosed SU disorders had significantly higher expenditures with half of the additional care and expenditure for treatment of physical health conditions. A co-occurring MH/SU disorder was associated with higher expenditures for behavioral health care and total expenditures in all states, and with higher medical expenditures in five of the six states. The six states "*paid $104 million more for medical care and $105.5 million more for behavioral health care delivered to individuals with SU diagnoses than for care given to persons with other behavioral health disorders but no substance use diagnosis."*[35]

A New Mexico analysis concluded that "*healthcare expenditures [in the state] for the medical consequences of alcohol use and for the prevention and treatment of alcohol use disorders amounted to nearly $415 million.*"[36]

Washington State studied Medicaid medical expenses prior to specialty SU treatment and in a five-year follow up, compared to Medicaid expenses for the untreated population. Average monthly medical costs were $414 per month higher for those not receiving treatment. In the Medicaid population, 66% of frequent users (those with 31 or more visits in a year) of Emergency Departments (EDs) had SU disorders. This same group of frequent users had an average of 42 narcotic analgesic prescriptions per person in a year.[37, 38, 39, 40]

These studies demonstrate that MH/SU conditions are frequently comorbid with other healthcare conditions and that individuals with these multiple conditions have higher healthcare utilization and costs.

Integrated Care Can Improve Quality Outcomes and Lower Healthcare Cost

Without addressing MH/SU conditions as a part of delivering healthcare, it will be very difficult to achieve the quality outcomes and cost reductions that are envisioned in a redesigned healthcare system.

This conclusion is supported by the research which demonstrates that MH/SU services can improve quality outcomes and reduce cost. Attachment A compiles studies that demonstrate quality and cost improvements by identifying at-risk conditions (MH/SU in primary care or healthcare conditions in MH/SU settings) and addressing them effectively. This section summarizes examples from the research.

- A ranking of 25 preventive services recommended by the United States Preventative Services Task Force (USPSTF) based on clinically preventable burden and cost effectiveness found that alcohol screening and intervention rated at the same level as colorectal cancer screening/treatment and hypertension screening/treatment. Depression screening/intervention rated at the same level as osteoporosis screening and cholesterol screening/treatment.[41] (Note that PPACA requires health plans, Medicare and Medicaid to cover USPSTF services rated A or B [which include alcohol and depression screening/intervention] with no cost sharing).

- Intermountain Healthcare (Utah) has 68 primary care sites, of which 12 are considered to have mental health integration as the norm. Preliminary analysis of claims at these clinics compared to those without mental health integration demonstrated fewer claims for total primary care and psychiatry in the clinics with mental health integration. Similarly, Southcentral Foundation (Alaska) reported a 19% decrease in ED visits for patients seen by the primary care behavioral health consultant, as well as reduction in primary care visits.[42]

- Milliman conducted an analysis of the cost impact of comorbid depression and anxiety on commercially insured patients with chronic medical conditions. They found that:

    - "*Many individuals with chronic medical conditions and co-occurring depression or anxiety are never diagnosed or treated for their psychiatric conditions…the treatment prevalence rate…is significant lower than the expected comorbidity rates…*

    - *Comorbid depression clearly results in elevated total healthcare costs, averaging $505 per comorbid member per month across all chronic medical conditions…comorbid anxiety also clearly results in elevated total healthcare costs…they average $651 per comorbid member per month…*

    - *If a 10% reduction can be made in the excess healthcare costs of patients with comorbid psychiatric disorders via an effective integrated medical-behavioral healthcare program, $5.4 million of healthcare savings could be achieved for each group of 100,000 insured members…the cost of doing nothing may exceed $300 billion per year in the United States."* [43]

- A randomized trial that examined the effect of primary care depression management (the collaborative care model) on employer costs found that "*consistently-employed patients who participated in an enhanced depression management program had 8.2% greater productivity and 28.4% less absenteeism over two years than did employees who received*

usual care. The reduction in absenteeism and the increase in productivity had an estimated annual value of $2601 per full-time equivalent employee ($1,982 for improved productivity and $619 for reduced absenteeism)."[44]

- In the Kaiser Northern California system, family members of patients with SU disorders had greater healthcare costs and were more likely to be diagnosed with a number of medical conditions than family members of similar persons without a SU condition, based on review of health plan administrative data for cost and utilization in the two years prior to the SU patient's first SU service.[45] Following up five years after treatment, Kaiser researchers found that:
  - *"Pre-treatment, families of all treatment patients have higher costs than control families.*
  - *At two-five years post-intake, each year family members (of SU patients who were abstinent at one year) had similar average PMPM medical costs as control family members—they were no longer higher.*
  - *Family members of SU patients who were not abstinent at one year had a trajectory of increasing medical cost relative to control family members. Their costs were higher.*
  - *Successful SU treatment is related to medical cost reductions for family members: these reductions may be considered a proxy for improved health."*[46]

Additional key examples are shown in the table below (see Attachment A for details and reference citations).

Project	Quality Outcomes	Cost Analysis
IMPACT Research Trials (Randomized Controlled Trial)	• Doubled effectiveness of care for depression (50% improvement at 12 months) • Improved physical functioning (SF-12 Physical Function Component Summary Score) • As depression improved, pain decreased	• Lowers long term (4 yr) healthcare costs—$3363 less total cost over 4 years, including cost of IMPACT intervention • In the diabetes sub-group, in the first year there was a $665 increase in outpatient costs and in the second year there was a $639 cost savings. Total medical costs, over 2 years, were $869 less in the intervention group
IMPACT Applications to Patients with Diabetes	• Mean depression scores were significantly lower at 6 and 12 months, and, over 24 months, patients accumulated a mean of 61 additional days free of depression	• The estimated cost savings was $300 per patient treated (e.g., an investment of $800 in depression treatment was offset by a decrease of $1100 in costs of general medical care)
DIAMOND/Adaptation of IMPACT Model	• For those in the program at least six months 42 percent were in remission and an additional 12 percent had at least a 50 percent improvement in depression scores	• In evaluation—no data yet available

Project	Quality Outcomes	Cost Analysis
Colorado Access Depression in Primary Care	• The focus of this analysis was healthcare cost, data not available on outcomes	• ED visits/1000: from 220.3 at 12 months pre to 163 at 24 months post • Office visits/1000: from 211.8 at 12 months pre to 358.2 at 24 months post • Admits/1000 from 49.7 at 12 months pre to 37.4 at 24 months post • Days/1000 from 232.5 at 12 months pre to 205.4 at 24 months post • Savings of $170 PMPM, $2040/year • 12.9% reduction in costs in high-cost, high-risk patients
Kaiser Pre/Post SU Treatment and Medical Costs	• The focus of this analysis was healthcare costs, data not available on outcomes	• SU treatment group had a 35% reduction in inpatient cost, 39% reduction in ER cost, and a 26% reduction in total medical cost, compared with matched control group
Washington State SU and Medical Cost Studies	• The focus of these analyses was healthcare costs, data not available on outcomes	• For the Supplemental Security Income (SSI) population, average monthly medical costs were $414 per month higher for those not receiving treatment, and with the cost of the treatment added in, there was still a net cost offset of $252 per month or $3,024 per year • The net cost offset rose to $363 per month for those who completed treatment • For SSI recipients with opiate-addiction, cost offsets rose to $899 per month for those who remain in methadone treatment for at least one year • In the SSI population, average monthly Emergency Department (ED) costs were lower for those treated—the number of visits per year was 19% lower and the average cost per visit was 29% lower, almost offsetting the average monthly cost of treatment • For frequent ED users (12 or more visits/year) there was a 17% reduction in average visits for those who entered, but didn't complete SU treatment and a 48% reduction for those who did complete treatment

Project	Quality Outcomes	Cost Analysis
Kaiser Integrated Clinic (Primary Care in SU Setting)	• Significantly higher abstinence rates • Significantly reduced inpatient rates	• Average medical costs (excluding addiction treatment) decreased from $470.39 PMPM to $226.86 PMPM
VA Integrated Care Clinic (Primary Care in MH Setting)	• Significantly increased the rates and number of visits to medical providers, reduced likelihood of ER use • Significantly improved quality of most routine preventive services (15 of 17)	• Program cost-neutral from a VA perspective (primary care costs offset by reduction in inpatient costs)
PCARE (Primary Care Access, Referral, and Evaluation) Study (for individuals with SMI)	• Subjects in PCARE received an average of 58.7% of recommended preventive services (compared to a rate of 21.8% in the usual care group) • Subjects in PCARE received a significantly higher proportion of evidence-based services for cardio metabolic conditions (34.9% vs. 27.7%) • Subjects in PCARE were more likely to report having a primary care provider than those in usual care (71.2% vs. 51.9%) • Improved SF-36 scores • Among subjects with fasting blood tests, Framingham risk scores for cardiovascular disease at 12 months were significantly better for PCARE than usual care (6.9% risk versus 9.8%)	• The focus of this analysis was healthcare improvement, data not available on costs.

As has been demonstrated in the implementation of evidence-based practices, fidelity to the researched model is important in achieving the researched results. This is true for integration initiatives as well—the specific model components are critical and have been summarized in Attachment A. Widespread application of these integration models could result in substantial reductions in overall healthcare costs while improving outcomes and the quality of life for those who are served.

Integration and Healthcare Payment Reform

New financing approaches are needed (e.g., to support the integration of primary care and MH/SU services) in order to better address the healthcare needs of persons with SMI and the MH/SU healthcare needs of all Californians. This section begins with a discussion of California's gap between those in need and those served followed by an overview of current funding barriers to integration. This sets the context for exploring how new financing approaches can better support the integration of primary care and MH/SU services in California.

Service Gaps

In November 2000, the California Legislature's Little Hoover Commission Report, *Being There: Making a Commitment to Mental Health* noted that, statewide, the public mental health system is able to serve only about half of those individuals who require services (467,000 served; lower limit of unmet need: 512,083 – 580,926). While the Commission did not place a specific price

tag on this gap, the report included anecdotal statements from the California Association of Mental Health Directors that *"mental health funding provides sufficient resources to meet approximately half of all mental health needs"* and *"services are rationed as a result."*[47]

In 2003, and again in 2008, The Little Hoover Commission reported on the lack of resources devoted to addressing substance use conditions. The 2003 report, *For Our Health & Safety: Joining Forces to Defeat Addiction*, indicated that the treatment system was chronically underfunded, estimating that only one-third of those expected to seek publicly-funded treatment would be able to receive services. The 2008 report, *Addressing Addiction: Improving & Integrating California's Substance Abuse Treatment System*, noted that California lacks a coherent substance use treatment system and that funding is limited and not used strategically.[48]

In 2009, the National Council for Community Behavioral Healthcare released a report, *Unmet Mental Healthcare Needs of Indigent, Uninsured Americans*. This report included a state by state analysis of unmet MH need for Fiscal Year 2006, using updated prevalence data that included persons with mild to moderate MH disorders and those with serious and severe need.[49] When Medicaid data collected for the study was combined with indigent, uninsured data, the gap in California for those with a serious/severe condition was similar to the November 2000 study noted above (531,000 served; 688,000 unserved); and an additional 1.5 million low income Californians with mild/moderate need were found to be unserved.

Funding Barriers

There are a number of well known and documented barriers to financing MH/SU services in primary care and primary care in specialty MH/SU settings. These barriers exist at the federal, state and local government levels. A major area of concern relates to the separate administrative and funding streams for health, mental health and substance use services at each level, each with unique rules and requirements. Within the federal government, HHS has initiated a cross-agency effort to address integration. A number of state governments are also working on boundary-spanning activities.

Because additional MH/SU services will need to be provided to address the unmet need in California and because the savings occur in healthcare costs when effective MH/SU services are provided, more healthcare money will need to be spent on MH/SU services in order to better manage total healthcare expenditures. Currently in the California safety net system there are few mechanisms for addressing this mismatch and with California's budget problems there is little likelihood that MH/SU funding can be increased to achieve the desired services expansion and related healthcare cost efficiencies. For California counties, it will be difficult to identify additional sources to match federal Medicaid funds, as counties also have severe budget problems.

In 2008 the U.S. Department of Health and Human Services released the report, *Reimbursement of Mental Health Services in Primary Care Settings*.[50] The report identified a number of important funding barriers to primary care/MH/SU integration including:

- *"State Medicaid limitations on payments for same-day billing for a physical health and a MH service/visit* [Note that the limit is for same day-billing within a single FQHC for a second, separate BH encounter, which defeats the concept of the warm hand-off from primary care provider to behavioral health consultant]

- *Lack of reimbursement for collaborative care and care management related to MH services* [Except for the DIAMOND project in Minnesota]
- *Medicaid disallowance of reimbursement when primary care practitioners submit bills listing only a MH diagnosis and corresponding treatment* [Despite the fact that primary care practitioners write 70% of antidepressant prescriptions]
- *Lack of reimbursement incentives for screening and providing preventive MH services in primary care settings.* [Note that very few state Medicaid agencies have adopted the CPT codes for Substance Use Screening and Brief Intervention and Health and Behavior Assessment and Intervention]"

Solving these sets of problems in order to achieve primary care/MH/SU integration will require short and long term efforts.

Future Funding Environments

There are a number of key assumptions that frame the future—when healthcare reform is fully implemented:

- Most Californians in the safety net will be covered by Medicaid or a health insurance exchange that includes access to MH/SU benefits;
- These individuals will likely be served by a safety net delivery system that understands the importance of integrated primary care with MH/SU services to achieving quality outcomes and cost management; and
- It is desirable that most of the currently unserved Californians with mild to moderate MH/SU disorders receive their care in primary care settings and those with serious and severe disorders be served in the specialty MH/SU system, with enhanced access to primary healthcare services. Care management would be a part of the services offered in both settings.

Ensuring that adequate funding for this is available, barriers removed, and accountability established will likely unfold in two phases.

Starting as early as 2011, a number of payment reform pilots will be developed and funded by the federal government through the new Center for Medicare and Medicaid Innovation (CMI) that was included in the PPACA health reform law. The Act describes a number of potential pilots that, if successful, will become widely used to fund primary care and MH/SU services. Examples include:

- Funding "*Patient-Centered Medical Home models for high need individuals…that transition primary care practices away from fee for service based reimbursement and toward comprehensive payment or salary based payment*[51]
- *Contracting directly with groups of providers…to promote innovative care delivery models, such as through risk-based comprehensive payment or salary-based payment*[52]
- *Establishing community-based health teams to support small-practice medical homes by assisting the primary care practitioner in chronic care management, including patient self-management activities"*[53]

These pilot ideas are examples of case rate and global payment models where a comprehensive, bundled payment is made for an episode of care for an individual (case rate or care management fee) or a period of time for an enrollee (global payment). Both approaches promote *payment for value* versus *payment for volume* and provide much more flexibility than existing fee-for-service

arrangements. They remove the barriers described above and create incentives for prevention, screening, early intervention and clinical integration models.

In many communities, Accountable Care Organizations (ACOs) will accompany PCMHs in order to facilitate the new payment models. Also envisioned in the PPACA,[54] ACOs are new management entities comprised of healthcare providers that will receive and administer case rates and global payments in return for organizing a system of care for a population of patients and assuring overall quality initiatives that will lead to improved health outcomes and reduced total healthcare costs. The foundation of the ACO will be the PCMHs. Payments from commercial health plans, Medicare and Medicaid to the ACO will follow the patient, based on the PCMH the person chooses (while an ACO may be affiliated with a specific health plan, it is equally likely that they will receive payments from multiple plans). ACOs are expected to replace current Independent Practice Associations (IPAs), but unlike the current IPA system, a PCMH will belong to only one ACO. In California and other states it is expected that many Federally Qualified Health Centers will participate in local ACO structures in order to take advantage of the new payment mechanisms. ACOs will also include networks of specialists and hospitals that work together to improve care and manage costs.[55]

It will be important for ACOs to address the MH/SU needs of their enrollees in order to achieve quality and cost objectives. If MH/SU providers are included as members of the ACOs, the ACO will have a greater ability to ensure access to MH/SU services without the hindrance of existing payment barriers. These approaches will likely lead to a closing of the gap between need and demand for MH/SU services. If an individual is screened in primary care for a MH/SU disorder (a recommended practice, see USPSTF on page 8) and then engaged in MH/SU services, the aligned financial practice would fund effective primary care-based and specialty-based MH/SU care in order to achieve healthcare cost savings.

In order to achieve this level of integration and realize the savings, MH/SU stakeholders (including county agencies and community-based MH/SU provider organizations as well as county organized healthcare systems) will need to be at the table as ACO organizing activities unfold in their local communities. Ideally, MH/SU provider organizations should become members of the ACOs in order to inform the clinical and financial designs and address the funding mismatch described above. State planners and safety net health plans will also want to examine how their roles will change as Accountable Care Organizations become more widespread and how they can support these efforts.

Near Term Funding Strategies

There are a number of strategies California stakeholders can pursue to prepare for this future where persons with MH/SU disorders are served by patient-centered medical homes and accountable care organizations.

Implementing Medical Homes and Accountable Care Organizations: Each of the components of the 1115 Waiver Renewal Plan calls for implementation of medical or health homes. Many states are sponsoring statewide initiatives to define the PCMH, criteria for their selection, standards and measures for their operation, and new payment models.[56]

In order for California providers and payors to implement the PCMH model, there must be an agreed-upon definition of standards for the PCMH, and multi-payer development of the payment reform models. Given the predominance of the medical home idea in the 1115 waiver discussion, the Department of Health Care Services (DHCS) should convene such a process of development, to ensure that there is a statewide approach to the PCMH, in collaboration with the commercial health plans and the Medi-Cal plans (including Local Initiative Plans). For example, in Washington State, eight commercial and Medicaid plans, along with the Medicaid agency and the Health Care Authority (which includes healthcare purchasing for state employees) were convened in fall 2009 to set the standards and agree on the payment model to be piloted. The intent is to solicit pilot sites by fall 2010 (with preference for practices currently participating in a Medical Home collaborative jointly managed by the Department of Health and the Washington Academy of Family Physicians). Implementation of the pilots is scheduled to begin in January 2011.

A number of California counties have created Local Initiative Medi-Cal Managed Care Plans / County Organized Health Systems (here subsequently referred to simply as Local Initiative Plans) in order to provide managed healthcare services to Medi-Cal enrollees in a county. Examples include CalOptima in Orange County, the Health Plan of San Mateo, and L. A. Care Health Plan. The Local Initiative Plans should adopt a strategy to develop PCMHs for the Medi-Cal population, utilizing the emerging best practice of providing MH/SU services in primary care and primary care services in MH/SU provider organizations. These efforts should include using the new payment models of case rates and/or global payments in order to remove existing funding barriers. Some will also want to consider supporting the organization of ACOs to enhance the ability of the delivery system to successfully improve quality and manage costs.

A necessary component of success will be the ability of the Local Initiative Plans and the County Mental Health and Drug & Alcohol Departments to work together to create a virtually integrated structure for blending funding for shared patients. Community health centers, county FQHCs, county MH/SU programs and community based MH/SU programs will need to participate in these local conversations regarding the development of PCMHs and ACOs. This will require all providers (MH/SU, primary care) to build new clinical and organizational capacities, including:

- Staff with skills in whole person care management and working as a member of an integrated team; and
- Administrative infrastructure such as information technology, billing and managing new payment models, and building new partnerships.

Expand Medi-Cal Local Initiative Plans' Benefit Package to Include Substance Use Services: The Local Initiative Plans should review the research described in this paper, project the added costs and cost savings of adding substance use services into the plan, and pilot the SU benefit changes and service delivery models that will be required under Federal Parity.

Health Care Coverage Initiative (HCCI): The Implementation Plan for the California 1115 Waiver Renewal calls for the expansion of the HCCI in the ten currently participating counties and implementation of the coverage initiative in the remaining counties in the near future in order to prepare for Medi-Cal expansion and the insurance exchange in 2014. Work has not yet begun on the state's definition of the Benchmark Benefit Package that will be used in Medi-Cal expansion and the insurance exchange; stakeholders can leverage the research described in this

paper and work with the DHCS to include the appropriate MH/SU services in order to properly manage the total health expenditures of the expansion population. Some counties are considering uninsured persons currently served by Mental Health and Alcohol & Drug as a priority population to bring into the HCCI. This would allow current expenditures of local dollars to be matched by federal funds, bringing additional dollars into the county for these services.

Expanding an FQHC's Scope of Project: There are numerous sites where Federally Qualified Health Centers have expanded their Scope of Project to include MH/SU services. Examples in California include Shasta County, which has contracted with two community-based FQHCs to provide MH services in their primary care settings; and Santa Clara County, which is involved in a multi-year project to integrate MH services into three county-operated FQHC's.[57] This approach, which is compatible with the previously discussed strategies, helps FQHCs participate in a more robust manner to address the needs of their patients with MH/SU disorders.

Restrictions on Same-Day Billing: The Federal government does *not* restrict two practitioners or provider organizations from billing on the same day.[58] States that have instituted such a regulation have the ability to rescind this restriction. In California, AB 1445 was introduced in 2009 to allow Federally Qualified Health Centers (FQHC) and Rural Health Clinics (RHC) to bill up to two visits per day and receive federal matching funds in order to address this problem.[59] This would require a Medicaid State Plan Amendment by the State and necessitate a Change in Scope by the FQHC/RHC in order to obtain an adjustment in the per visit rate. This bill, which has not yet been passed into law, should be supported in order to address the identified barrier.

All five of these strategies have the potential to dramatically alter the fragmentation in care experienced by many safety net Californians with MH/SU disorders. Attachment B provides additional information about the interaction among these strategies.

Summarizing the Business Case and the Need for Leadership

We have learned that prevention works, MH/SU treatment is effective, and people with MH/SU disorders can recover with effective treatment and supports. We also know that a significant number of low income Californians have MH/SU disorders; for those with serious mental illnesses, their total health expenditures are three times greater than the population without a serious mental illness. It will be very difficult for health plans and healthcare delivery systems to improve quality and manage the growth in healthcare expenditures without expanding access to MH/SU services, integrating primary care and MH/SU, and addressing the financing barriers that currently exist.

Leadership at both state and county levels will be critical to success. Because all healthcare is local, Boards of Supervisors, county administrators, health plans, county MH/SU and community-based provider organizations, county organized health systems, community health centers, consumers and advocates must work together craft a set of local solutions that take advantage of the opportunities that will unfold under healthcare reform.

These local leaders will need aligned leadership at the state level to ensure that Medi-Cal waiver designs, Medi-Cal coverage expansion, PMCHs, and the development of the insurance exchange address the needs of Californians with mental health and substance use disorders.

Attachment A: Integrated Mental Health and Substance Use Services Improve Quality Outcomes and Lower Healthcare Costs

IMPACT Mental Health Projects

Initiative Name	IMPACT Research Trials[60, 61, 62, 63, 64, 65, 66]
Brief description	• 1,801 depressed older adults in primary care randomly assigned to IMPACT care or usual care • 18 primary care clinics • 8 health care organizations in 5 states • 8 diverse health care systems • 450 primary care physicians
Quality Outcomes	• Greater satisfaction with depression care • Initial treatments are rarely sufficient—several changes in treatment are often necessary (stepped care) • Doubled effectiveness of care for depression (50% improvement at 12 months) • Effective for Black and Latino populations • Improved physical functioning (SF-12 Physical Function Component Summary Score) • As depression improves, so does pain
Healthcare Costs	• Lowers long term (4 yr) healthcare costs—$3363 less total cost over 4 years, including cost of IMPACT intervention • Intervention patients had lower healthcare costs in every cost category (outpatient and inpatient mental health specialty costs, outpatient and inpatient medical and surgical costs, pharmacy costs, and other outpatient costs)
Key Model Components	• Screening and systematic outcomes tracking (e.g., PHQ-9) to know when change in treatment is needed • Active care management to facilitate changes in medication, behavioral activation • Consultation with mental health specialist if patients not improving

Initiative Name	DIAMOND/Adaptation of IMPACT Model[67, 68]
Brief description	• Integrated adult depression care management supported by 8 commercial payors and state Medicaid plan in Minnesota. • Organized by the Institute of Clinical Systems Improvement (ICSI) • Evidence-based depression care management available in ~ 90 primary care clinics state-wide (from small practices to the Mayo Clinic)
Quality Outcomes	• Initial findings for those in the program at least six months show 42 percent in remission and an additional 12 percent with at least a 50 percent improvement in their depression scores
Healthcare Costs	• No data yet available—evaluation in process
Key Model Components	• Screening expanded beyond depression to include anxiety/PTSD, bipolar, and SU screening • Testing a bundled payment method for every patient being tracked on the project registry Common payment code for IMPACT

Initiative Name	DIAMOND/Adaptation of IMPACT Model[67, 68]
	care covers: Trained care managers (Me's, Social workers, Licensed counselors, Nurses); Psychiatric Consultation (weekly); PHQ-9 follow up • Detailed description of key processes below

Initiative Name	IMPACT Applications to Patients with Diabetes[69, 70, 71]
Brief description	• A series of analyses of the IMPACT model specifically in relation to depression in patients with diabetes tested applicability to Latino adults; a general population of adults; and, older adults in the original IMPACT trials • Depression is twice as common among people with diabetes as in the general population and is believed to adversely affect the complex self-care activities necessary for diabetes control
Quality Outcomes	• The combined diabetes and depression care manager tested in the Project Dulce/IMPACT pilot was both feasible and highly effective in reducing depressive symptoms. Depression scores declined by an average of 7.5 points from 14.8 to 7.3 • The Pathways/Group Health Cooperative (GHC) study reported that mean depression scores were significantly lower at 6 and 12 months, and that, over 24 months, patients accumulated a mean of 61 additional days free of depression • The sub-analysis from the IMPACT trails of older adults with diabetes found that the intervention was a high-value investment, associated with high clinical benefits at no greater ambulatory cost than usual care
Healthcare Costs	• Depression co-occurring with diabetes is associated with higher health services costs (50-100% higher) • The Pathways/Group Health Cooperative (GHC) study reported outpatient health services costs that averaged $314 less than the control group. The estimated cost savings was $300 per patient treated (e.g., an investment of $800 in depression treatment was offset by a decrease of $1100 in costs of general medical care) • When an additional day free of depression is valued at $19, the net economic benefit of the Pathways/GHC intervention was $952 per patient treated • The sub-analysis from the IMPACT trials of older adults with diabetes found that the intervention was a high-value investment. In the diabetes sub-group, in the first year there was a $665 increase in outpatient costs and in the second year there was a $639 cost savings. Total medical costs, over 2 years, were $869 less in the intervention group
Key Model Components	• Project Dulce/IMPACT project added a bilingual, bicultural depression care manager to an existing diabetes management team • Clients averaged 6.7 visits with the depression care manager • Project Dulce included peer-led self-management training • The Pathways/GHC study had specialized nurses delivering a 12 month stepped-care depression treatment program (initial visit followed by contacts twice a month during acute phase, decreasing depending on clinical response) beginning with either problem-solving treatment psychotherapy or a structured antidepressant pharmacotherapy program. Subsequent treatment was adjusted according to clinical response

Key Processes in DIAMOND Adaptation of IMPACT Model

Initial Visit:

- Assessment
- Education
- Discuss treatment options
- Coordinate care with PCP
- Start initial treatment plan
- Arrange follow-up contact
- Document initial visit

Treatment Planning:

- Patient, PCP, Care Manager, and consulting psychiatrist work together
- Treatment plans are individualized because patients differ in
  - medical comorbidity
  - psychiatric comorbidity
  - prior history of depression and treatment
  - current treatments
  - treatment preferences
  - treatment response

Follow-Up:

- Weekly or every other week during acute treatment phase
- In person or by telephone to evaluate symptom severity & treatment response
- Initial focus on
  - adherence to medications
  - side effects
  - behavioral activation and PST
- Later focus on
  - complete resolution of symptoms and restoration of functioning
  - long term treatment adherence

Work with PCP:

- Clarify preferred method of communication
- Communicate changes in patient's clinical and functional status
  - prioritize which changes need to be brought to the attention of the PCP
  - change in symptoms (e.g., PHQ-9)
  - problems with treatment (adherence / side effects)

Patient Education:

- Care managers
- Educational group
- Printed materials
- Video
- Other resources

Medication Management

- Initiating appropriate treatment
- Barriers: ambivalence, access, early dropout
- Medication Adherence
- Side effects
- Tracking effectiveness and adjusting doses
- Treatment change if patient is not responding

Care Management Supports Medication Management:

- Help patients and providers identify
  - Potentially inadequate doses
  - Side effects
  - Adherence problems
  - Ineffective treatment (e.g., persistent symptoms after adequate trial of medication)
- Facilitate patient-provider (e.g., PCP) communication about medications
- Consult with team psychiatrist about medication questions

Brief Counseling:

- Behavioral activation
- PST-PC
- CBT
- Other

Outcome Tracking:

- Routine outcomes tracking at each encounter (in person or telephone) to help adjust treatment if needed
  - Clinical measures
- Tracking system (e.g., registry)

Mental Health Consultation:

- Psychiatry, Psychology, Telemedicine
- Emergency back-up (crisis management)
- Educational support for PCPs / care managers
- Caseload supervision for care managers via systematic review & presentation of
  - entire caseload
  - focus on patients who are not improving
- Recommendations to patients and treating providers based on evidence-based guidelines
- In person consultation or effective referral for complex patients

Health Plan Mental Health Integration Projects

Initiative Name	Colorado Access[72]
Brief description	• Non-profit managed care plan with contract as regional Medicaid HMO and Regional MH Carve-Out • 64% of enrollees in Aged/Blind/Disabled Medicaid aid code • Part of MacArthur Initiative and RWJ Depression in Primary Care Project • Analysis of overlapping populations in two plans showed that 40% of people had a MH diagnosis yet only 33% had ever seen a MH provider, and for most, this was a one-time visit
Quality Outcomes	• The focus of this analysis was healthcare cost , data not available on outcomes
Healthcare Costs	• ED visits/1000: from 220.3 at 12 months pre to 163 24 months post • Office visits/1000: from 211.8 at 12 months pre to 358.2 at 24 months post • Admits/1000 from 49.7 at 12 months pre to 37.4 at 24 months post • Days/1000 from 232.5 at 12 months pre to 205.4 at 24 months post • Savings of $170 PMPM, $2040/year • 12.9% reduction in costs in high-cost, high-risk patients
Key Model Components	• Centralized care management in the plan, with telephonic, onsite in primary care or in-community care contacts based on risk stratification • Care managers were nurses or MH specialists • Registry to track PHQ-9, treatment adherence, self-management goals and progress, educational interventions, case management and comorbid disorders and treatments • Focus on top 2-3% of population using Kronick risk assessment methods • Three levels of risk stratification, based on PHQ-9, presence of psychiatric or medical comorbidities, high risk for non-adherence, psychosocial stressors and treatment-resistant depression.

Initiative Name	Aetna[73]

Brief description	• Integration with PCPs
	  ○ Depression
	  ○ Pediatrics
	  ○ SBIRT
	  ○ Integrated BH

Quality Outcomes	• 61% drop in PHQ-9 score between admission and discharge (45% have moderate to severe depression >14 on PHQ-9) • 48% of enrollees with major depression achieve PHQ-9 < 5 (remission)

Initiative Name	Aetna[73]

Healthcare Costs	• Cost impact: reduction on completion (n=375)
	  ○ ED 39%
	  ○ Inpatient 30%
	  ○ Outpatient 47%
	  ○ Psychiatric visit 3%
	  ○ Psychotherapy visits 290% increase
	• Net total cost savings 39%

Key Model Components	• Health plan penetration
	  ○ Office identification by volume, diagnosis, and pharmacy claims
	  ○ Creation of virtual disease registry
	  ○ Initiative with employer groups and multiple health plans
	• Infrastructure-Practice models
	  ○ Quality infrastructure—EMR, registries, population management
	  ○ Facilitated implementation—PCP office implementation toolkit
	  ○ Web Site: http://www.aetna.com/aetnadepressionmanagement/
	  ○ Role of office administrator- training module
	• Lack of utilization—adoption and persistency
	  ○ Academic detailing
	  ○ Office manager single point of contact
	  ○ Recurrent communication—Email reminders
	  ○ Community physician thought leader communications
	• Reluctant to refer to health plan care management
	  ○ Focus care management on facilitated access to BH
	• BH provider network issues
	  ○ Conceptual framework and training models
	  ○ Training BH and PCPs
	  ○ Incentives
	• Health plan integration
	  ○ Similar to provider integration and cultural issues
	  ○ Integration of BH and medical health data set and care management system
	  ○ Data sharing and privacy issues
	• Behavioral Health Financing
	  ○ Transactional reimbursement and claims payment systems
	  ○ Silos between BH and medical financing—carve in vs. carve out
	  ○ Lack of standardized reimbursement codes to support screening, case management
	  ○ Funding cost of integration

Healthcare in Mental Health Settings

Initiative Name	VA Integrated Care Clinic[74]
Brief description	• A medical clinic was established to manage routine medical problems of patients with SMI at a VA MH clinic • Study randomized 120 veterans to either the integrated care clinic or usual care, followed for one year
Quality Outcomes	• Significantly increased the rates and number of visits to medical providers, reduced likelihood of ER use • Significantly improved quality of most routine preventive services (15/17) • Significantly improved scores on SF-36 Health Related Quality of Life
Healthcare Costs	• Program cost-neutral from a VA perspective (primary care costs offset by reduction in inpatient costs)
Key Model Components	• Medical clinic co-located in VA specialty MH clinic • Nurse practitioner provided the bulk of medical services; a care manager provided patient education and referrals to mental health and medical specialists

Initiative Name	PCARE (Primary Care Access, Referral, and Evaluation) Study[75]
Brief description	• 400 persons with SMI randomized to either care management or usual care • Study setting: inner-city, academically affiliated CMHC in Atlanta, GA. Population largely poor, African American, with SMI
Quality Outcomes	• Subjects in PCARE received an average of 58.7% of recommended preventive services (compared to a rate of 21.8% in the usual care group) • Subjects in PCARE received a significantly higher proportion of evidence-based services for cardio metabolic conditions (34.9% vs. 27.7%) • Subjects in PCARE were more likely to report having a primary care provider than those in usual care (71.2% vs. 51.9%) • Improved SF-36 scores o Mental Component Summary Score: 8.0% improvement in intervention versus 1.1% decline the control group o Physical Component Summary Score: 1.9% improvement in intervention versus 2.8% decline in control, not statistically significant • Among subjects with fasting blood tests, Framingham risk scores for cardiovascular disease at 12 months were significantly better for PCARE than usual care (6.9% risk versus 9.8%) o The intervention group showed an 11.8% improvement at the 1 year evaluation while the control group showed a 19.5 % increase in risk, not statistically significant
Healthcare Costs	• The focus of this analysis was healthcare improvement, data not available on costs.
Key Model Components	• 2 nurse care managers (one psychiatric, one public health) help patients get access to and follow-up with regular medical care but do not provide any direct medical services • Examples of services include patient education; scheduling appointments, advocacy (e.g., accompanying patients to appointments, communicating with PCPs) o Role of care manager: Primary Point of Contact; Clinician; Advocate; Liaison; Educator; Coach/Cheerleader; Translator

Initiative Name	HARP (Health and Recovery Peer) Project[76]
Brief description	• Adapting Stanford's Chronic Disease Self-Management Program (CDSMP), for MH Consumers • In general populations with chronic illnesses, the CDSMP has been shown to improve self-efficacy and reduce unnecessary health service use • Focus groups used to identify key areas needed to be changed or added • Physical wellness fits naturally into existing peer-based recovery programs and peer workforce
Quality Outcomes	• At 6 months, Patient activation clinically and statistically significantly higher in HARP group than control, in addition: o Additional 40 minutes/week in moderate/vigorous exercise o 14.2% improvement in medication adherence compared to 7.3% decline in control o 16.3% increase in improvement on the Health Related Quality of Life Physical Component Summary compared to 8.1% in control
Healthcare Costs	• The focus of this analysis was healthcare improvement, data not available on costs.
Key Model Components	• The CDSMP is a peer-led, annualized program designed to improve individuals' self-management of chronic illnesses • Set short and long-term goals, identify the specific steps and actions to be taken in order to pursue those goals • Rank confidence, on a scale of 1-10, in achieving these objectives; if the confidence is less than 7 reexamine the barriers • Six session format focuses on promoting self-efficacy through goal setting and action plans • Sessions focus on health and nutrition, exercise, and being a more effective patient • Changes to CDSMP o Addition of content on MH and general health interaction symptoms and systems was added o MH certified peer leaders trained to become master CDSMP trainers o Diet and exercise recommendations tailored for socioeconomic status (SES) of public sector population • Socioeconomic status issues are critical to consider in developing programs in this population • Poverty is likely a major cause of excess morbidity and mortality in persons with SMI. Influences everything from diet and exercise to access to medical care in this population

Northern California Kaiser Permanente Substance Use Studies[77, 78]

Initiative Name	Integrated Medical Care
Brief Description	• Internally operated adult outpatient and day treatment SU program with integrated primary care (control group had independent primary care) • 1.25 FTE PCPs with training in SU, 1 FTE medical assistant, 1.8 FTE nurses served the 318 patients assigned to integrated care • Focus on individuals with Substance Abuse-Related Medical Conditions (SAMCs)
Quality Outcomes	• Significantly higher abstinence rates compared to SAMC independent care patients • Significantly reduced inpatient rates compared to SAMC independent care • Significantly more integrated care patients were newly diagnosed with SAMC conditions
Healthcare Cost	• For SAMC integrated care patients average medical costs (excluding addiction treatment) decreased from $470.39 PMPM to $226.86 PMPM
Key Model Components	• Traditional SU outpatient and day treatment, group based, with 10 months of aftercare • Modalities included supportive group therapy, education, relapse prevention, family-oriented therapy, 12 step meetings and individual counseling as needed • Combined with standard PCP practice team with MDs, nurses and MA

Initiative Name	Pre/Post SU Treatment and Medical Costs
Brief Description	• Analysis of average medical cost PMPM in 18 months pre and post SU treatment using historical data
Quality Outcomes	• The focus of this analysis was healthcare costs, data not available on outcomes
Healthcare Cost	• SU treatment group had a 35% reduction in inpatient cost, 39% reduction in ER cost, and a 26% reduction in total medical cost, compared with matched control group
Key Model Components	• Not specified, assume traditional SU outpatient and day treatment

Initiative Name	The Role of Psychiatry in Five Year Outcomes
Brief Description	• Analysis of psychiatric services for adults with psychiatric symptoms after SU treatment using historical data • Comparison of abstinence at five years after treatment for those who subsequently received 2.1 or more hours of psychiatric services/year compared to those with less or no psychiatric services
Quality Outcomes	• Those who received 2.1 or more hours of psychiatric services/year were 2.22 times more likely to be abstinent at five years after SU treatment
Healthcare Cost	• Those with high psychiatric severity at initiation of treatment had $1000 PMPM, reduced to about $300 PMPM at five years
Key Model Components	• Provision of psychiatric services for individuals with psychiatric symptoms after SU treatment, with 2.1 hours or more/year demonstrating contribution to abstinence

Initiative Name	Role of Primary Care in Five Year Outcomes

Brief Description	• Analysis of continuing care and effect on remission, using historical data
	• Continuing care defined as:
	  ○ SU treatment when needed
	  ○ Psychiatric services when needed
	  ○ Primary care at least every year

Quality Outcomes	• Patients receiving continuing care were more than twice as likely to be remitted at each follow-up over 9 years • Those receiving continuing care in the prior interval were less likely to have ER visits and hospitalizations subsequently (even if not in remission)
Healthcare Cost	• Continuing care reduced inappropriate utilization even when not in remission

Key Model Components	• Continuing care defined as:
	  ○ SU treatment when needed
	  ○ Psychiatric services when needed
	  ○ Primary care at least every year

Initiative Name	Costs of Family Members
Brief Description	• Analysis of the medical conditions and costs of family members of individuals with SU conditions using historical data
Quality Outcomes	• The focus of this analysis was healthcare costs, data not available on outcomes
Healthcare Cost	• Pre-treatment, families of all SU patients have higher medical costs than control families • Adult family members have significantly higher prevalence of 12 medical conditions compared with control group; child family members have significantly higher prevalence of 9 medical conditions • At 2-5 years post-intake for SU services, if family member w/SU condition were abstinent at 1 year, family members had similar average PMPM medical costs as control group • Family members of SU patients who were not abstinent at 1 year had a trajectory of increasing medical cost relative to control group
Key Model Components	• Not specified, assume traditional SU outpatient and day treatment

Other Substance Use Studies

Initiative Name	**U.S. Preventive Services Task Force (USPSTF)**[79, 80, 81]
Brief description	• A ranking of 25 preventive services recommended by the USPSTF based on clinically preventable burden and cost effectiveness
Quality Outcomes	• Primary care-based counseling interventions for risky/harmful alcohol use found that good-quality brief multi-contact counseling interventions (defined as an initial session up to 15 minutes long, plus follow-up contacts) reduced risky and harmful alcohol use • Alcohol screening and intervention rated at the same level as such established practices as colorectal cancer screening and treatment and hypertension screening and treatment in clinically preventable burden and cost effectiveness
Healthcare Costs	• Findings suggest that investments in regular screening are likely to be very cost effective from the health-system perspective and to be cost saving from the societal perspective
Key Model Components	• Primary care-based counseling interventions for risky/harmful alcohol use with good-quality brief multi-contact counseling interventions (defined as an initial session up to 15 minutes long, plus follow-up contacts) • Effective interventions include advice, feedback, goal setting and additional contacts for further assistance and support. Support such as: • Commitment to planning • Allocation of resources and staff to consistently identify risk/harmful alcohol-using patients • Delivery resources such as clinician training, prompts, materials, reminders, and referral resources

Initiative Name	**Screening and Brief Intervention (SBI) Studies**[82, 83, 84, 85, 86, 87, 88]
Brief description	• An overview of the effectiveness of SBI as a comprehensive, integrated, public health approach
Quality Outcomes	• Trauma patients: 48% fewer re-injury at 18 month follow up, 50% less likely to re-hospitalize • ED screening: reduced UI arrests • Physician offices: 20% fewer motor vehicle crashes over 48 month follow up
Healthcare Costs	• Randomized trial in UK: $2.30 cost savings for each $1.00 spent in intervention • Randomized trial at US Level 1 Trauma Center: $3.81 cost savings for each $1.00 spent in intervention • Randomized trial in primary care clinic: $4.30 cost savings for each $1.00 spent in intervention
Key Model Components	• Screening: very brief screening that identifies substance related problems • Brief intervention: raises awareness of risks and motivates client toward acknowledgement of problem • Brief treatment: cognitive behavioral work with clients who acknowledge risks and are seeking help • Referral: referral of those with more serious addictions

Initiative Name	Washington State SU and Medical Cost Studies[89, 90, 91, 92]
Brief description	• Analyses of Medicaid medical expenses prior to specialty SU treatment and over a five-year follow up were compared to Medicaid expenses for the untreated population
Quality Outcomes	• The focus of these analyses was healthcare costs, data not available on outcomes
Healthcare Costs	• For the Supplemental Security Income (SSI) population, average monthly medical costs were $414 per month higher for those not receiving treatment, and with the cost of the treatment added in, there was still a net cost offset of $252 per month or $3024 per year • The net cost offset rose to $363 per month for those who completed treatment • For SSI recipients with opiate-addiction, cost offsets rose to $899 per month for those who remain in methadone treatment for at least one year • In the SSI population, average monthly Emergency Department (ED) costs were lower for those treated—the number of visits per year was 19% lower and the average cost per visit was 29% lower, almost offsetting the average monthly cost of treatment • For frequent ED users (12 or more visits/year) there was a 17% reduction in average visits for those who entered, but didn't complete SU treatment and a 48% reduction for those who did complete treatment
Key Model Components	• Details of SU treatments not discussed in detail, but likely included full range including residential, intensive outpatient, outpatient, and methadone maintenance

Initiative Name	Puentes Integrated Medical Care[93]
Brief description	• Primary care clinic co-located with an outpatient methadone clinic, targeted to individuals with history of injection drug use and the homeless population. Located within a large county healthcare system, Santa Clara Valley Health and Hospital System (CA)
Quality Outcomes	• Primary care visits increased from 2.8 visits to 5.9 visits in the same time frames • More than half of patients who began care at Puentes still use care five years later—suggesting this is a medical home for them
Healthcare Costs	• ER and urgent care visits decreased from 3.8 visits in the 18 months prior to the clinic opening to .8 visits in the first 18 months of clinic opening
Key Model Components	• A medical home for individuals with a history of injection drug use or homelessness • Includes traditional medical care, hepatitis C treatment, psychology and psychiatry services and a pain clinic. Integrated treatment team composed of professionals with distinct areas of expertise who work together to treat the whole patient (fostered by single, shared office space and formal case conferences) • Outreach meets patients where they are and build trust through mobile services • Open access and "chat room" with facilitated dialogue while waiting to be seen • Specialty groups for patients with specific medical conditions

Initiative Name	Downtown Emergency Service Center (DESC) 1811 Program[94]
Brief description	• Seattle Housing First model targeted to serve homeless individuals with severe SU or co-occurring conditions. Health and MH/SU staff was wrapped around the housing through DESC's capacities as a MH/SU provider and with a primary care clinic focused on the homeless population
Quality Outcomes	• Alcohol use by Housing First participants decreased by about one-third
Healthcare Costs	• The program saved more than $4 million dollars over the first year of operation. A significant portion of the cost offsets were caused by decreases in residents' use of Medicaid-funded health services
Key Model Components	• Housing First model targeted to serve homeless individuals with severe SU or co-occurring conditions. Health and MH/SU staff were wrapped around the housing

Attachment B: Designing and Financing an Integrated System

This attachment provides an example of how a California community might develop a business plan to leverage the potential benefits of integrating mental health, substance use and primary care services. The example is based on a California County that has a Local Initiative Plan, a Medically Indigent Services Program (MISP), and manages the Medi-Cal and safety net Mental Health and Drug and Alcohol services. The following figure illustrates these components.

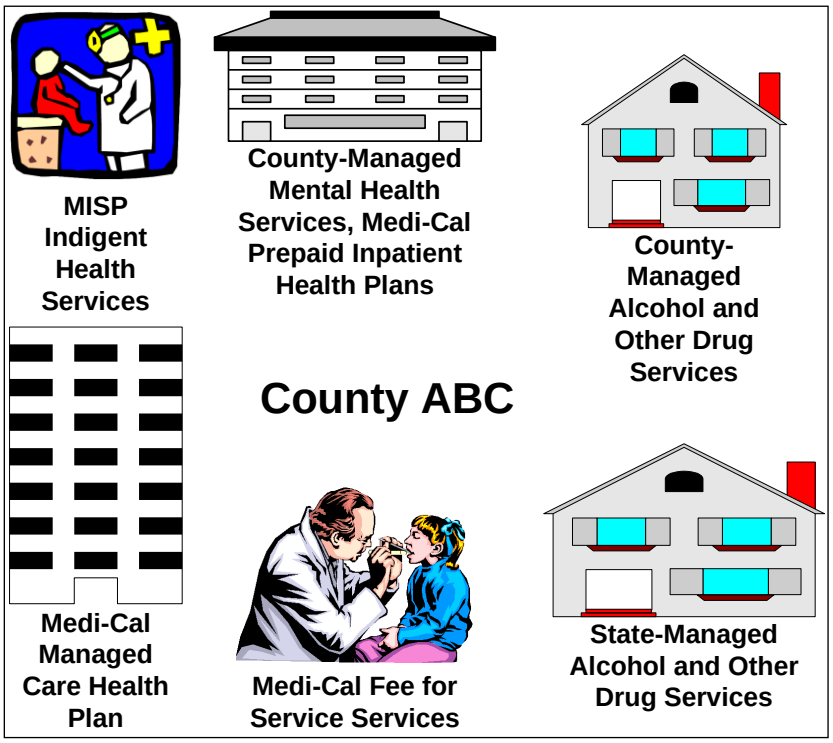


Figure 1: California County Integration Partners

Step 1: Project Organization

Assemble a workgroup consisting of representatives from each integration partner. Develop a set of operating agreements that includes the charter for the project, how decisions will be made and other related issues. Prepare a design and implementation workplan that includes tasks, timelines and resource requirements.

Step 2: Data Analysis

Complete an analysis of the data related to Medi-Cal and uninsured/indigent residents served by the local safety net health, mental health and substance use systems. This will include the number of persons served, the amount and types of services provided, and the cost of services. Focus will be given to inpatient and emergency room utilization and whether there are many individuals receiving these types of acute care that have untreated or inadequately treated chronic health conditions and/or MH/SU disorders. The following table contains an example of enrollees, utilization and costs for our sample County ABC.

County ABC	Current Medi-Cal Enrollees	Current MISP/ Uninsured	Current Totals
Enrollees	44,000	10,000	54,000
Health Care Utilization and Expense			
Inpatient/ED			
Admits	2,200	600	2,800
Costs	$44,000,000	$12,000,000	$56,000,000
Ambulatory			
Served	41,800	3,200	45,000
Costs	$41,800,000	$960,000	$42,760,000
Pharmacy			
Costs	$16,720,000	$320,000	$17,040,000
Total Health Care	$102,520,000	$13,280,000	$115,800,000
Mental Health Utilization and Expense			
Inpatient			
Admits	600	300	900
Costs	$5,100,000	$2,550,000	$7,650,000
Outpatient			
Served	6,500	3,500	10,000
Costs	$16,250,000	$7,000,000	$23,250,000
Residential			
Served	700	500	1,200
Costs	$5,600,000	$4,000,000	$9,600,000
Total Mental Health	$26,950,000	$13,550,000	$40,500,000
Substance Use Utilization and Expense			
Outpatient/Residential			
Served	800	3,000	3,800
Costs	$480,000	$1,800,000	$2,280,000
Total Substance Use	$480,000	$1,800,000	$2,280,000
Total Expense	$129,950,000	$28,630,000	$158,580,000

Table 1: California County Example Data

Step 3: Design Plan Overview

Community Partners in the safety net health and MH/SU systems decide to test the following three interventions:

- **Health Care Coverage Initiative (HCCI)** in order to move those individuals who will be covered by the new healthcare reform law into managed care early, obtaining access to Federal matching dollars.
- **Patient-Centered Medical Homes (PCMH)** implementation with an emphasis on better addressing the needs of all safety net residents with chronic health conditions and/or MH/SU disorders. These medical homes will be designed per agreed-upon state level standards and include MH/SU services in primary care and primary care services in MH/SU provider organizations.
- **Added Substance Use Benefit** for all Medi-Cal enrollees including persons enrolled in the coverage initiative.

The design hypothesis is that by creating more robust primary care services for the portion of the safety net population with chronic health conditions and MH/SU disorders and expanding the availability of MH/SU services to those in need, the integrated health system will be able to reduce inpatient and emergency room utilization and better manage specialty medical care. Moving indigent, uninsured residents into the coverage initiative prior to 2014 (when the healthcare reform coverage initiative law takes effect) will provide additional funds to support the redesign and better serve the population.

The system planners develop a set of revenue and cost assumptions for the new system based on existing research, as illustrated in the following table.

Intervention Name	Description	Source	Conservative Impact	Moderate Impact	Moderate/ High Impact
HCCI	Shift from Uninsured to 50% Federal Match	Estimate	Use local match to expand services	Use local match to expand services	Use local match to expand services
Medical Home Model #1	PC-MH/SU Integration in Primary Care for Mild - Moderate MH/SU Disorders	Aetna Integration Project	Break Even	Savings: 20% ED, 15% IP, 20% Total; assume 10%	Savings: 39% ED, 30% IP, 39% Total; assume 20%
"	"	"	Increase: 3x MH Outpatient visit	Increase: 3x MH Outpatient visit	Increase: 3x MH Outpatient visit
"	"	JEN Associates	$4,000 Original Cost/Yr	$3,600/yr (10% savings)	$3,200/yr (20% savings)
Medical Home Model #2	PC-MH/SU Integration in MH/SU for Serious/Severe MH/SU Disorders	VA Integrated Care Clinic	Cost Increase 5%	Break Even	5% Overall Savings
"	"	Estimate	Assume $4,000/yr MH/SU costs	Assume $4,000/yr MH/SU costs	Assume $4,000/yr MH/SU costs
"	"	JEN Associates	$15,750 Cost/Yr	$15,000 Original Cost/Yr	$14,250 Cost/Yr
SU Benefit Mild/Moderate	For all enrollees; assume 8% Mild/Moderate use services	Estimate	$1,000 SU Cost/Yr	$1,200 SU Cost/Yr	$1,400 SU Cost/Yr
"	"	Kaiser N CA	Savings: 10% from lower ER/IP	Savings: 10% from lower ER/IP	Savings: 10% from lower ER/IP
"	"	JEN Assoc. Cost, revised Est	Cost Increase 5%; $4000 to $4,200	Break Even; $4,000	5% Savings; $4,000 to $3,800
SU Benefit Serious/ Severe	For all enrollees; assume 2% Serious/Severe use services	Estimate	$4,000 SU Cost/Yr	$4,500 SU Cost/Yr	$5,000 SU Cost/Yr
"	"	WA SU for SSI	Break Even	$1,500 Net Savings	$3,000 Net Savings

Table 2: Sample Revenue and Cost Assumptions

Step 4: Structural Design

The system planners create a structural design that integrates all of the services under the Medi-Cal health plan via a *virtual integration* model for the first five years to pilot the new design. Under this model, existing departments will remain intact but business functions will be shifted and integrated to achieve economies of scale. This will be reevaluated as the design unfolds. The existing delivery system will be supported to transition into the new clinical designs. The following diagrams illustrate the structural design and the management services that will be integrated.

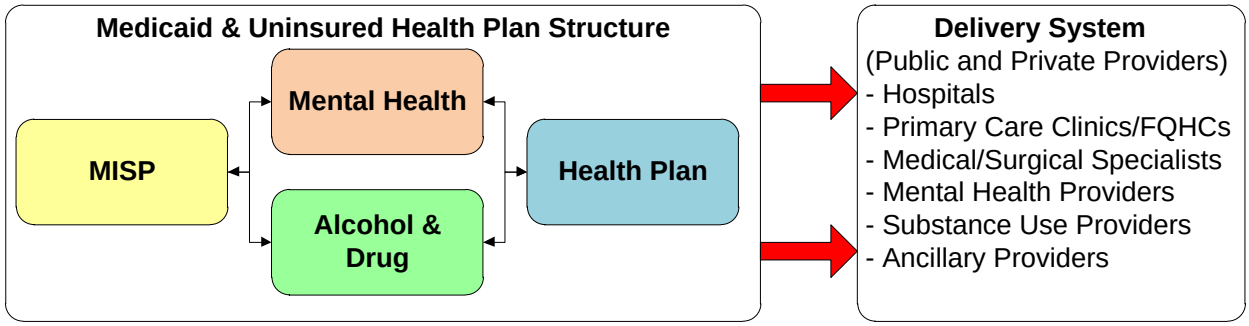


Figure 2: Structural Design

Health Plan Function	Description
Governance	Develop a governing board as well as an advisory board of consumers and providers
Provider Relations	Ensure adequate service capacity for each region, manage the relations with network providers, coordinate with other systems, and meet other contract requirements
Billing & Reimbursement	Design payment mechanisms and manage provider payment and third party coordination processes
Member Services	Ensure enrolles are properly informed, provide customer service, ombuds service and manage grievance system
Care Management	Design and manage a care management system addressing access, authorization, intake and assessment, coordination of care, and ongoing utilization and resource management
Quality Management	Design and manage a quality management system, working under an annual quality plan to monitor performance and improve services
Information Technology	Design and manage IT system to collect, analyze, and submit data to appropriate bodies
Decision Support	Develop and manage data warehouse and design and publish useful reports to support decision making at every level of the PIHP
Accounting & Financial Management	Provide financial planning and management for the PIHP and meet contract reporting requirements
Compliance	Design and operate compliance plan

Table 3: Oversight and Management Functions

Step 5: Reimbursement Design

The system planners work with the delivery system to design and develop an Accountable Care Organization pilot that includes general healthcare and MH/SU providers. The design includes sub-capitation to the ACO for the mild to moderate need population and a three layer ACO financing model for the serious to severe populations in order to ensure that the ACO does not assume too much risk. Both payment mechanisms include a bonus layer to align quality and payment. The following two figures illustrate this design.

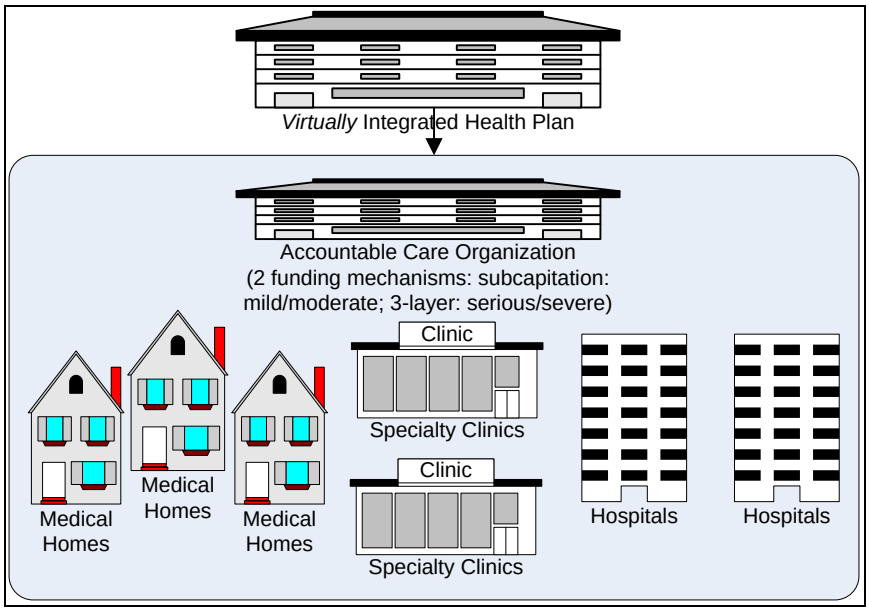


Figure 3: Accountable Care Organization

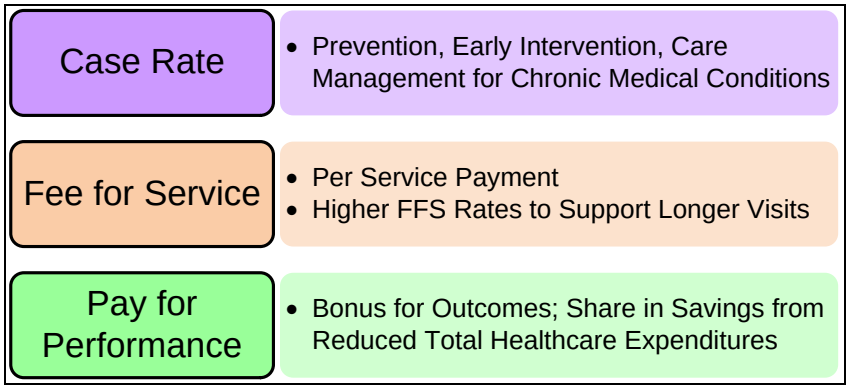


Figure 4: Payment Mechanisms

Step 6: Financial/Utilization Model

The system planners complete their business plan with the development of a financial/utilization model that projects low, moderate and high scenarios in order to determine whether the design is feasible. The following two tables illustrate a summary of this model for the Moderate Scenario after all changes are implemented.

County ABC	Current Medi-Cal Enrollees	Current MISP/ Uninsured	Current Totals	Moderate Scenario Changes	Comments
Enrollees	44,000	10,000	54,000	10,000	Shift uninsured to HCCI
Revenue	$129,950,000	$28,630,000	$158,580,000	$25,630,000	Added FMAP
Health Care Utilization and Expense					
Inpatient/ED					
Admits	2,200	600	2,800	-280	Reduced inpatient 10%
Costs	$44,000,000	$12,000,000	$56,000,000	-$5,600,000	"
Ambulatory					
Served	41,800	3,200	45,000	9,000	All enrollees served
Costs	$41,800,000	$960,000	$42,760,000	$16,640,000	Increase in Primary Care
Pharmacy					
Costs	$16,720,000	$320,000	$17,040,000	$4,560,000	All enrollees served
Total Health Care	$102,520,000	$13,280,000	$115,800,000	$15,600,000	
Mental Health Utilization and Expense					
Inpatient					
Admits	600	300	900	0	Assume no change
Costs	$5,100,000	$2,550,000	$7,650,000	$0	"
Outpatient					
Served	6,500	3,500	10,000	800	Increase to cover demand
Costs	$16,250,000	$7,000,000	$23,250,000	$1,600,000	"
Residential					
Served	700	500	1,200	0	Assume no increase
Costs	$5,600,000	$4,000,000	$9,600,000	$0	"
Total Mental Health	$26,950,000	$13,550,000	$40,500,000	$1,600,000	
Substance Use Utilization and Expense					
Outpatient/Residential					
Served	800	3,000	3,800	1,600	Increase to cover demand
Costs	$480,000	$1,800,000	$2,280,000	$7,764,000	"
Total Substance Use	$480,000	$1,800,000	$2,280,000	$7,764,000	
Total Expense	$129,950,000	$28,630,000	$158,580,000	$24,964,000	
Excess (Deficit)	$0	$0	$0	$666,000	

Table 4: Model of Moderate Scenario

Moderate Scenario Assumption	Financial Impact
Coverage Initiative: 10,000 residents that are currently uninsured and served by the MISP program, Mental Health and/or Substance Use are moved into the Coverage Initiative	Federal Financial Participation (FFP/FMAP) dollars are obtained: approximately 50% match in budget year, 100% match in 2014, ramping down to 90% match in 2019; For the budget year this represents a 1 to 1 match for current MISP and Uninsured MH/AOD except for the portion of MH Residential that is not Medicaid eligible: $25.6M
Inpatient Healthcare: Assume a 10% reduction in inpatient due to expanded primary care, MH and SU	Assume that indigent, uninsured currently have access to inpatient; 280 fewer admissions at an average cost of $20,000: $5.6M added costs
Primary Care: Assume all enrollees will receive primary care services	20% increase in number of patients obtaining access to primary care, increase in spending per patient: $16.6M added costs
Pharmacy: Assume all enrollees will receive adequate medications	20% increase in patients; increase in medication costs for previously uninsured: $4.6M added costs
Mental Health: Increase served to narrow gap	Assume 20% of enrollees served: $1.6M added costs
Substance Use: Increase number served to narrow gap and provide full service array	Assume 10% of enrollees served: 8% mild/moderate, 2% serious/ severe; $7.8M added costs

Table 5: Moderate Scenario Assumptions

Step 7: Implementation Plan

The components of the design are translated into a detailed implementation plan that describes the phasing of each initiative, the decisions needed prior to beginning each phase, and the resources required to support the project.

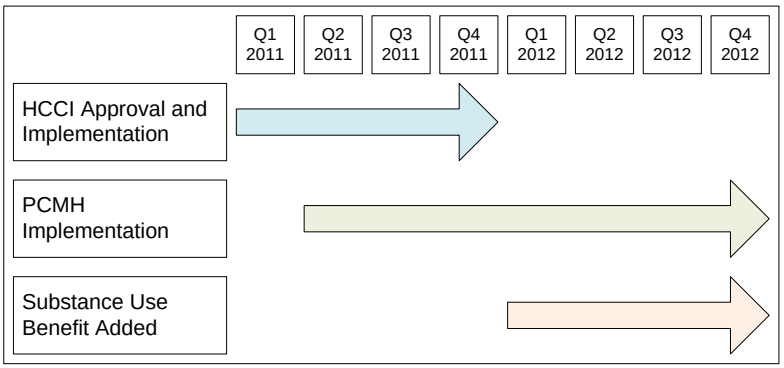


Figure 5: Implementation Plan

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