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Substance Use Disorders and the Person-Centered Healthcare Home

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This discussion paper has been prepared under the auspices of the National Council for Community Behavioral Healthcare. Comments are welcomed and should be directed to the National Council offices at 1701 K Street NW, Suite 400 Washington, DC 20006-1526. www.TheNationalCouncil.org. Communications@thenationalcouncil.org. 202.684.7457.

Executive Summary

In 2009, the National Council for Community Behavioral Healthcare issued *Behavioral Health / Primary Care Integration and The Person-Centered Healthcare Home* [1] which summarized a bi-directional approach to delivering Mental Health (MH) and Substance Use (SU) services in primary care settings and primary care services in MH/SU settings. It used evidence-based approaches to develop the concept of a patient-centered healthcare home for the population with serious mental illnesses/co-occurring disorders. Its focus was on the integration of MH/SU with general healthcare services in light of the national conversation regarding the development of patient-centered medical homes (PCMHs). The 2009 paper suggested that the expanded scope of the PCMH with MH/SU capacity and stepped care could be reflected by renaming the patient-centered medical home as the person-centered healthcare home, signaling that MH/SU treatments are a central part of healthcare and that healthcare includes a focus on supporting a person's capacity to set goals for improved self management, using the resources of the community and personal support systems.

Person-Centered Healthcare Homes

1. Health screening and registry tracking in MH/SU settings as well as in primary care
2. Nurse practitioner or PCP in MH/SU treatment setting as well as in primary care
3. Behavioral health consultants in primary care, competent in MH/SU disorders
4. Nurse care managers in MH/SU settings as well as in primary care
5. Evidence-based preventive care in all settings
6. Wellness programs in all settings

The purpose of this paper is to expand the dialogue initiated last year by specifically describing the integration of SU treatment with healthcare services. Substance Use Disorder, the term adopted by the Institute of Medicine in reports relating to improving quality in MH/SU treatment, is the context for this discussion. This paper turns attention to these questions: Why are SU disorders important to healthcare? What does a PCMH look like for people living with serious SU disorders and what is the model for bi-directional integration of SU treatment with healthcare? If healthcare reform initiatives become law and regulation, one of the most significant shifts will be in regard to SU disorders, in which access to covered SU treatment will be vastly expanded.

While the medical home has its origins in pediatric care, the concept has expanded as the general healthcare system has contemplated the shift from a focus on episodic acute care to a focus on managing the health of defined populations, especially those living with chronic health conditions. 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.[2] Care management is defined as "*a set of activities designed to assist patients and their support systems in managing medical conditions and related psychosocial problems more effectively, with the aim of improving patients' health status and reducing the need for medical services.*" [3]

Medical homes and care management are the keys to healthcare delivery system redesign; they are seen as necessary to address the fact that 45% of Americans have one or more chronic health conditions and treating these conditions accounts for 75% of direct medical care in the United States. Why SU treatment should be integrated into the PCMH and how to do so is the discussed, as are these (and other) key ideas.

- SU disorders are prevalent in primary care
- SU disorders add to overall healthcare costs, especially for Medicaid
- SU disorders can cause or exacerbate other chronic health conditions
- SU interventions can reduce healthcare utilization and cost
- Continuing care should link the continuum of SU services together and support the individual's change process
- A number of SU treatment approaches are effective, but must be delivered with fidelity
- Behavioral health providers and/or repeated brief interventions in primary care are promising practices
- Medication-assisted therapies in primary care can be expanded
- Many individuals served in specialty SU treatment have no primary care provider
- Health evaluation and linkage to healthcare can improve SU disorder status
- On-site services are stronger than referral to services
- Person-centered healthcare homes can be developed through partnerships between SU providers and primary care providers
- Leadership at every level is needed to implement integration and address the barriers and challenges outlined

There are models for identification, brief intervention and SU treatments that can be developed and deployed to reach those who have not been served in the past. However, individuals with SU disorders have been highly stigmatized by society. By extension, SU treatment has had inadequate financing and less support for the development of new programming. SU treatment providers will need to rethink what services they provide and how they are provided in order to engage with general healthcare and the broader populations needing SU treatment services.

To move person-centered healthcare homes forward will require thoughtful, deliberate and adaptive leadership at every level, across clinical disciplines and across the sectors that currently segment how people are served—how the delivery of their care is organized, how communication among providers occurs and how care is reimbursed.

This paper is intended to be used in national, state and local dialogues regarding the PCMH—to bring the relevance of MH/SU treatment into those discussions and to support

the resolution of the barriers described above. The promise of the PCMH can only be fully realized if it becomes the person-centered healthcare home, with MH/SU capacity fully embedded in primary care teams and primary care capacity embedded in MH/SU teams.

Introduction

In 2009, the National Council for Community *Behavioral Healthcare issued Behavioral Health / Primary Care Integration and The Person-Centered Healthcare Home* which summarized a bi-directional approach to delivering Mental Health (MH) and Substance Use (SU) services in primary care settings and primary care services in MH/SU settings.[4] It used evidence-based approaches to develop the concept of a patient-centered healthcare home for the population with serious mental illnesses/ co-occurring disorders. Its focus was on the integration of MH/SU with general healthcare services in light of the national conversation regarding the development of patient-centered medical homes (PCMH).

Key Ideas

- Purpose of this paper is to describe the integration of SU treatment with healthcare services:
- Why are SU disorders important to healthcare?
- What does a PCMH look like for people living with serious SU disorders?
- What is the model for bi-directional integration of SU treatment with healthcare?
- Will SU service providers need to rethink the services they provide?

The PCMH has continued to gain momentum as a way of effectively delivering care in the context of chronic disease. However, it was developed in isolation from the research on integrated physical and MH/SU healthcare and there was not a clear articulation in the PCMH model of the importance of MH/SU treatment. To address this, a dialogue opened in 2009 among leaders in the medical home and MH/SU fields. This dialogue both influenced and was supported by health reform legislation which included, as a basic benefit, coverage for MH/SU disorders (to be implemented with parity) and references to the importance of integrated care and training of the workforce for integrated care.

The purpose of this paper is to expand the dialogue initiated last year by specifically describing the integration of SU treatment with healthcare services. Substance Use Disorder, the term adopted by the Institute of Medicine in reports relating to improving quality in MH/SU treatment, is the context for this discussion. The term encompasses awareness of the need for early identification and interventions, as in the Screening, Brief Intervention, Referral and Treatment (SBIRT) model, as well as services for more traditional categories of substance abuse and substance dependence.

As described in the 2009 Healthcare Home paper, the PCMH had not been adapted for people living with serious MH/SU disorders. The MH/SU system operates as a specialty care system, although for many of the individuals served in the public sector, it is also the princi-

pal source of care. The 2009 paper sought to answer the question: What does a medical home look like for people living with serious mental illnesses (who often have co-occurring disorders)? In the fall of 2009, the Substance Abuse and Mental Health Services Administration (SAMHSA) announced funding for 13 community mental health centers to provide primary care services via partnerships with community healthcare providers (this program will soon be doubled, presenting an expanded opportunity to learn from the field regarding bi-directional integration into specialty MH settings).

The Four Quadrant Clinical Integration Model developed by the National Council articulates a conceptual model for the integration of physical and MH/SU treatment related to the entire population of a community, including those with serious MH/SU disorders. The model describes the bi-directional integration approach of placing primary care services in MH/SU settings as well as MH/SU treatment in primary care settings. Revised in the 2009 paper to more fully describe these approaches, the model has always been inclusive of co-occurring MH/SU disorders.

Indeed, the population with co-occurring MH/SU disorders may be the most at risk. Nearly 60% of individuals with bipolar disorder and 52% of persons with schizophrenia have a co-occurring SU disorder. Approximately 41% of individuals with an alcohol use disorder and 60% of individuals with a drug use disorder have a co-occurring mood disorder.[5] According to an Oregon study, those with co-occurring MH/SU disorders had an average age at death of 45 years.[6] As providers integrate MH/SU treatment with healthcare services, they will also need to close the gap in providing more seamless services to those with co-occurring conditions. Individuals with co-occurring disorders *"are best served through an integrated screening, assessment and treatment planning process that addresses both SU and MH disorders, each in the context of the other."*[7]

This paper turns attention to these questions: Why are SU disorders important to healthcare? What does a PCMH look like for people living with serious SU disorders and what is the model for bi-directional integration of SU treatment with healthcare? If healthcare reform initiatives become law and regulation, one of the most significant shifts will be in regard to SU disorders, in which access to covered SU treatment will be vastly expanded. If there is near-universal insurance coverage, with SU disorders covered in the basic benefit and new models of PCMHs are implemented, SU providers will need to rethink the services they provide and how they are provided.

The 2009 paper suggested that the expanded scope of the PCMH with MH/SU capacity and stepped care could be reflected by renaming the patient-centered medical home as the person-centered healthcare home, signaling that MH/SU treatment are a central part of healthcare and that healthcare includes a focus on supporting a person's capacity to set goals for improved self management, using the resources of the community and personal support systems.

This paper, focused on SU treatment integration approaches with healthcare, is divided into five sections:

Section 1 outlines the concept of the patient-centered medical home and its critical components, including care management.

Section 2 reviews why the patient-centered medical home should address SU disorders.

Section 3 describes initiatives from the literature and the field that integrate SU treatment with healthcare services.

Section 4 revises the Four Quadrant Clinical Integration Model in light of the features of the person-centered healthcare home and SU disorders.

Section 5 identifies challenges and opportunities for implementing the bi-directional person-centered healthcare home in relationship to SU disorders.

Section 1: The Patient-Centered Medical Home

While the medical home has its origins in pediatric care, the concept has expanded as the general healthcare system has contemplated the shift from a focus on episodic acute care to a focus on managing the health of defined populations, especially those living with chronic health conditions. This section outlines the concept of the patient-centered medical home (PCMH) and its critical components, including the importance of care management.

The Medical Home Concept

Several seminal commentaries influenced thinking about how team-based care might improve clinical care and achieve optimal population health, establishing the foundation for a more detailed conceptualization of the PCMH.

Key Ideas

- Chronic Care Model is the foundation
- Patient-Centered Medical Homes have certification standards and are now being piloted
- Care Management is not the same as Case Management

- The Chronic Care Model,[8] a structured approach for clinical improvement through team based care supported by an organizational and information technology infrastructure, which was the basis for the Bureau of Primary Health Care's (BPHC) Health Disparities Collaborative.[9]
- The Institute of Medicine's (IOM) first Quality Chasm report which articulated Six Aims and Ten Rules to guide the redesign of healthcare, including the importance of team-based care. This roadmap for improving quality in the healthcare system stated that healthcare should be safe, effective, patient-centered, timely, efficient, and equitable.[10]

Following the initial Quality Chasm report, the IOM subsequently embraced the applicability of the Aims and Rules for improving the quality of healthcare for MH/SU disorders, and made two overarching recommendations:

- *"Health care for general, mental, and substance use problems and illnesses must be delivered with an understanding of the inherent interactions between the mind/brain and the rest of the body.*
- *The aims, rules, and strategies for redesign set forth in Crossing the Quality Chasm should be applied throughout mental/substance use health care on a day-to-day operational basis but tailored to reflect the characteristics that distinguish care for these problems and illnesses from general health care."* [11]

[The Chronic Care Model, Health Disparities Collaborative and Quality Chasm Aims and Rules are described in Appendices A and B of the 2009 Healthcare Home paper.]

The American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, and American Osteopathic Association released their Joint Principles of the Patient-Centered Medical Home in 2007.

- *"Each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous, and comprehensive care.*
- *The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.*
- *The personal physician is responsible for providing for all of the patient's healthcare needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life: acute care, chronic care, preventive services, and end of life care.*
- *Care is coordinated and/or integrated across all elements of the complex healthcare system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g., family, public and private community based services). Care is facilitated by registries, information technology, health information exchange, and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.*
- *Quality and safety are hallmarks of the medical home.*
- *Enhanced access to care is available through systems such as open scheduling, expanded hours, and new options for communication between patients, their personal physician, and practice staff.*
- *Payment appropriately recognizes the added value provided to patients who have a patient-centered medical home."*

The Patient-Centered Primary Care Collaborative (PCPCC), a coalition of major employers, consumer groups, patient quality organizations, health plans, labor unions, hospitals, physicians and many others, has focused on developing and advancing the PCMH. In 2009, the PCPCC formed a behavioral health (BH) workgroup to develop more details regarding how MH/SU treatment fit within the PCMH. The PCPCC website provides a wide array of detailed materials helpful for those who want more information about the PCMH model.[12]

In 2006, the Medicare Medical Home Demonstration Project was authorized by Congress.[13] Spurred by that Medicare initiative, large health plans and state Medicaid agencies have implemented demonstration projects to test new payment methods and study the quality and cost advantages of the PCMH model[14, 15, 16] These projects speak to the shared desire to develop delivery and reimbursement models that address the shortcomings of the current healthcare system.

> *"A practice recognized as a patient-centered medical home would receive compensation for the time and work physicians spend to provide comprehensive and coordinated services. This approach is distinctly different from the current system which pays for procedures and treatment of individual diseases rather than valuing and encouraging treatment of the whole patient, preventing chronic illness, and managing multiple, interrelated and ongoing health problems"* [17]

In addition, the payment reform discussion has turned to connecting a portion of the PCMH and/or Accountable Care Organization (ACO) reimbursement to meeting quality indicators and showing an impact on the total healthcare expenditures for a panel of patients.

To support PCMH pilots, the National Committee for Quality Assurance (NCQA) developed standards for medical practices that wish to be certified as PCMHs. The NCQA Physician Practice Connections and Patient-Centered Medical Home materials articulate nine standards for practices to meet, including use of patient self management support, care management, evidence-based guidelines for chronic conditions and performance reporting and improvement.[18] In 2009, the PCPCC BH workgroup submitted recommendations to NCQA regarding future improvements in the certification standards, to include reference to BH services.

The transition for primary care practitioners (PCPs) to a PCMH will be neither fast nor easy. A recent article describes the lessons from thirty-six family practice settings across the country that participated in a two-year PCMH project.[19] Key findings are that:

- Becoming a PCMH requires transformation
- Technology needed for the PCMH is not plug-and-play
- Transformation to the PCMH requires personal transformation of physicians
- Change fatigue is a serious concern even within capable and highly motivated practices
- Transformation to a PCMH is a developmental process
- Transformation is a local process

These findings and the related recommendations are relevant to the bi-directional implementation of integrated care—also a process of transforming personal and organizational practice in the context of local relationships—PCMH and integration initiatives must be woven together and participating MH/SU providers must approach these processes with an understanding of the commitment to transformation.

Why Care Management Is Important

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.[2] Care management is defined as *"a set of activities designed to assist patients and their support systems in managing medical conditions and related psychosocial problems more effectively, with the aim of improving patients' health status and reducing the need for medical services."* [3] This focus on ongoing accountability and responsibility for individuals being cared for should be distinguished from

old ideas about "gatekeeping" access to care—a distinction confounded by the varying ways in which the terms care manager and case manager have been used in the last twenty years.

A new research synthesis on care management for patients with complex co-morbidities offers a number of important findings for implementing PCMHs with integrated MH/SU treatment:[3]

- Care management is a multidimensional activity with models ranging in level of intensity and breadth of scope (key components of care management include: patient identification; individual assessment of risks/needs; care planning with patient/family; teaching patient/family about management of disease(s); coaching patient/family; tracking over time; and revising care plan as needed).
- Studies of care management in primary care show convincing evidence of improving quality; however it takes time to realize these quality outcomes (e.g., 12 months is probably not enough time).
- Care management studies in primary care are mixed regarding reductions in hospital use and healthcare costs (two promising studies included emphasis on training of care manager team, care management panel sizes at reasonable levels, close relationships between care managers and PCPs, and interactions with patients in-clinic, at home and by telephone).
- Selecting the right patients for care management is associated with reducing costs and improving quality (e.g., individuals who need end-of-life care need different services).
- Training of care managers is an important factor in the success or failure to reduce costs and improve quality.
- Successful programs have care managers as part of multidisciplinary teams that involve physicians.
- Presence of family caregivers improves success of care management, and use of coaching techniques is a viable approach.
- The intensity of the care management needed for success in improving quality and reducing costs is unclear.

The 2009 Healthcare Home paper looked at how the PCMH might be supported by the IMPACT model, using key concepts that this model demonstrated first in depression research trials and subsequently in projects that apply the model to populations of all ages and presenting problems common to primary care (e.g., depression, anxiety/PTSD, bipolar disorder, substance use). The key IMPACT components are: [20]

- Collaborative care as the cornerstone in which the team functions in two main ways: the individual's PCP works with a care manager/ behavioral health consultant (BHC) to develop and implement a treatment plan and the care manager/BHC and PCP consult with a prescribing specialist to change treatment plans if individuals do not improve.
- A care manager/BHC (who may be from one of several disciplines) works with the individual to develop a care plan and self management goals, and provides coaching and brief interventions in support of the plan.

- A designated prescribing specialist consults to the care manager/BHC and PCP on the care of individuals who do not respond to treatments as expected.
- Outcome measurement and registry tracking are incorporated as a clinical process in which the care manager/BHC measures depressive or other symptoms at the start of treatment and regularly thereafter, using a validated measurement tool (e.g., the PHQ-9 in the case of depression).
- Stepped care is employed, in which treatment is adjusted based on clinical outcomes and according to an evidence-based algorithm.

A cross-walk of the IMPACT components to the PCMH principles demonstrates that there is significant alignment between these approaches [see the 2009 Healthcare Home paper]. This alignment is reinforced by the findings of the care management synthesis.

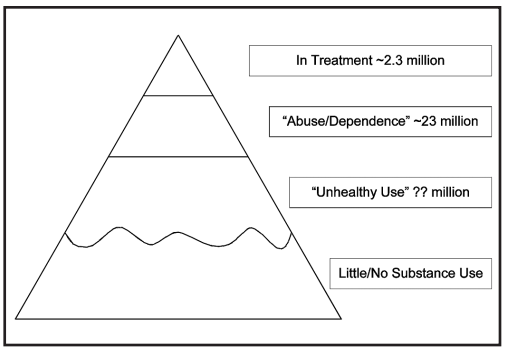
Medical homes and care management are the keys to healthcare delivery system redesign; they are seen as necessary to address the fact that 45% of Americans have one or more chronic health conditions and treating these conditions accounts for 75% of direct medical care in the United States. Why SU treatment should be integrated into the PCMH and how to do so is the remaining focus of this paper.

Section 2: The Case for Substance use Disorder Interventions and the Patient-Centered Medical Home

This section reviews why the patient-centered medical home should address SU disorders, what the implications are for cost offsets and whether SU interventions make a difference in outcomes and cost.

Substance Use Disorders Are Relevant for the PCMH

One of the challenges in bringing SU disorders into the discussion of healthcare delivery system design is the relative newness of the concept, as contrasted with a substantial body of research regarding whether and how to address depression in primary care.



McLellan reviews current knowledge regarding SU interventions by revisiting the pyramid that depicts the relative proportion of adults who use various amounts/intensities of alcohol and other drugs. The broad base of the pyramid reflects the adults who do not use these substances at all or use infrequently. There is a wavy line that conveys the *"imprecise division"* between non-problematic use and "unhealthy use" (for this latter group, the potential number of individuals is not known, but it *"is undoubtedly tens of millions of people"*). Willenbring suggests that at-risk alcohol use can be found in about 21% of the population, harmful use in about 5%, severe dependence in about 3% and chronic dependence in about 1%.[21] In a screening study in three primary care clinics providing care for more than 14,000 patients annually, 23% of the participants had a current SU disorder.[22]

The next line in the pyramid demarks a smaller proportion of people whose quantity/frequency of use meets criteria for an abuse or dependence disorder (estimated to be 23 million people). The top of the triangle includes those individuals who enter specialty SU treatment each year (approximately 2.3 million or 10% of those who meet diagnostic criteria). McLellan points to the *"striking disconnect between the proportions of individuals represented in the four sections of the pyramid"* and the proportions of research papers submitted and their

focus—more than 95% of all articles being on the specialty care pinnacle of the pyramid.[23] McLellan notes that much of the "expertise" that has developed in the field is based on working with the patients in the pinnacle group and, reflecting on the severity of need in that specialty population, suggests the likelihood that this group may need chronic care for long periods of time. Many individuals with less chronic or severe SU disorders will not need the same types of care; they may need *"very different forms of care"* or behavioral or pharmaceutical interventions that have shown modest effects with more severely affected individuals that *"might have far greater impact with those…having less severe medical, employment, psychiatric, and legal co-morbidity."* He concludes that researchers may have to go outside of traditional specialty settings, into mainstream venues (such as primary care), and that effective SU interventions in such settings are less likely to be measured based on patient abstinence than they are *"considered those that increase patient engagement and participation in the primary medical treatment or intervention, those that improve patient symptoms and function in the primary medical areas of concern, those that reduce professional time, and/or increase professional efficiency, and those that make or save them more money."*

This conceptualization of the population pyramid and differential approaches to care is an important frame for looking at the relevance of SU interventions for the PCMH. Another frame is the relationship between SU disorders, other health conditions and related costs. A 2007 federal report found that one in fourteen stays in U.S. community hospitals involved SU disorders.[24] This accounted for about 2.3 million hospitalizations, average stays of 4.6 days and a cost of $2 billion nationally in 2004. 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."* [25]

Key Ideas

- SU disorders are prevalent in primary care
- SU disorders add to overall healthcare costs, especially for Medicaid
- SU disorders can cause or exacerbate other chronic health conditions
- SU interventions can reduce healthcare utilization and cost

The Open Society Institute believes that healthcare reform presents a unique opportunity for SU treatment to contribute to improving quality and containing costs. *"As part of this national discussion, addiction treatment should not be regarded as a burden on our health care system. Instead, it is a solution—a solution that will help make health reform affordable. Every dimension of health care reform—comparative effectiveness research, information technology infrastructure and coverage of the uninsured—should include addiction treatment to help contain costs and achieve the goals of better quality health care…treating addiction will result in significant cost-savings—estimated at billions of dollars—compared with the cost of not treating persons at all."* [26]

Substance Use Disorders Are Prevalent in Medicaid and other Safety-Net Populations

From a public policy perspective, it is important to understand the effect of SU disorders on safety-net populations (e.g., people who are uninsured, poverty level/underinsured, Medicaid insured, or Medicare/Medicaid [dually eligible persons] insured) and on healthcare providers that serve them (e.g., Federally Qualified Health Centers, public clinics and hospitals). According to a recently released report, *Faces of Medicaid III*,[27] 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 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 co-morbidity estimate to the population with psychiatric conditions, it would conservatively suggest that as many as 25% of these high cost beneficiaries also have a co-morbid SU condition.[5]

In Washington State studies,[28, 29] in which investment in expanded SU treatment was tested as an investment in healthcare cost containment and public safety, it was estimated that 20% of disabled individuals on Medicaid needed SU treatment (and 13% of TANF recipients). In the Washington State 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.

A large scale review of claims data from 1999 for adult (21 through 64) 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. The percentage of beneficiaries with diagnoses of SU disorders was 29%, ranging from 16% in Arkansas to 40% in Washington. Individuals with diagnosed SU disorders had significantly higher expenditures with half of the additional care and expenditure for treatment of physical health conditions. In all states, SU diagnoses were associated with higher rates of hospitalization for inpatient psychiatric care and medical care. 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."* Importantly, beginning at age 50, medical costs for persons with SU disorders jumped dramatically (almost doubled) indicating that *"older beneficiaries with addictions should be a particular focus of attention."* [30]

The Relationship between Substance Use Disorders and Health Conditions

The literature regarding the interaction between SU and health conditions is growing. A randomized, controlled trial conducted in the Kaiser Permanente Northern California (Kaiser) system examined differences in treatment outcome and costs between individuals receiving medical care integrated with SU treatment versus an independent model of delivering both medical care and SU treatment. The setting was an internally operated outpatient and day treatment SU program. Kaiser also tracked a subgroup of patients with Substance Abuse-Related Medical Conditions (SAMCs) which included: depression, injury and poisonings/overdoses, anxiety and nervous disorders, hypertension, asthma, psychoses, acid-peptic disorders, ischemic heart disease, pneumonia, chronic obstructive pulmonary disease, cirrhosis, hepatitis C, disease of the pancreas, alcoholic gastritis, toxic effects of alcohol, alcoholic neuropathy, alcoholic cardiomyopathy, excess blood alcohol level, and prenatal alcohol and drug dependence. Many of these are among the most costly conditions to the health plan. Focusing on the SAMC subgroup, they found that SAMC integrated care patients had significantly higher abstinence rates than SAMC independent care patients. SAMC integrated care patients demonstrated a significant decrease in inpatient rates while average medical costs (excluding addiction treatment) decreased from $470.39 to $226.86 PMPM.[31]

In a subsequent study from the Kaiser 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.[32] 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.*[33]

Injuries have been identified as a SAMC (see Kaiser study above). In a U.S. Department of Veterans Affairs (VA) population, using data regarding patient bone fractures and the AUDIT-C (Alcohol Use Disorders Identification Test—Consumption), researchers found that participants with AUDIT-C scores above 8 (with 12 being the highest possible score) demonstrated greater fracture risk than those with scores lower than 3.[34]

The Puentes Clinic (described in more detail in the next section) found a marked decrease in ED and urgent care visits that paralleled the increase in primary care use, with the

most noticeable decrease occurring in the first two years of the inception of the primary care clinic.[79]

A meta-analysis of average alcohol consumption and all-cause mortality reported that men averaging at least four drinks/day and women averaging two or more drinks per day experienced significantly increased mortality relative to nondrinkers.[35]

The Robert Wood Johnson Foundation worked with the Treatment Research Institute (TRI) to conduct ten systematic reviews[36] that analyzed the relationship between SU and chronic illness and conditions. Among the findings reported: people who drink three or more drinks per day are significantly more likely to suffer from hypertension than people who do not drink; among sisters with and without breast cancer, there was a modest (30%) increased risk for breast cancer from drinking about one drink per day; and, among men, level of alcohol consumption is associated with mild or worse sleep-disordered breathing. However, a conclusion drawn from these ten reviews was that *"alcohol can have important effects on health and disease management, but these effects can be salutary, neutral or negative, depending on the amount and duration of alcohol consumption, the nature and progression of the chronic illness and the medications prescribed."*

Substance Use Treatment Services Make a Difference

In addition to the body of studies (described at several points in this paper) from Kaiser, which principally report on a commercially insured population, there are the Washington State studies,[28, 29, 37, 38] in which Medicaid medical expenses prior to specialty SU treatment and over a five-year follow up were compared to Medicaid expenses for the untreated population.

- For the Supplemental Security Income (SSI) population, Washington studied the Medicaid cost differences for those who received treatment and those who did not. 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. Providing treatment for stimulant (methamphetamine) addiction resulted in higher net cost savings ($296 per month) than treatment for other substances. 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.

At the very peak of the population pyramid are chronic inebriates with multiple co-morbidities that present in EDs for a variety of reasons. The Frequent Users of Health Services Initiative, a joint project of The California Endowment and the California HealthCare Foundation, showed that multi-disciplinary, coordinated care can reduce hospital visits and costs, while helping to improve stability and quality of life for patients. The results included a 61% decrease in ED visits and a 62% decrease in hospital inpatient days for clients enrolled in the programs for two years (for clients on Medi-Cal at enrollment, ED visits decreased by 60% and inpatient days decreased by 69% after two years in the programs). One of the four building blocks for success was collaboration and integration for systems change, including MH/SU treatment as well as housing, benefits, and increased access to services. *"Examples of systems change can include adjustments in eligibility requirements, benefits, and provider hours of operation; co-location of services; establishment of referral arrangements; and the sharing of information across multiple agencies, programs, and providers. It can also mean identifying service gaps and adding new services where needed, such as medical respite care, sobering centers, and supportive housing, or integrating existing programs."* [39]

Section 3: Evidence, Experience and Proposed Approaches to Integrating Substance Use Treatment Services and Primary Care

In the future, if individuals have coverage, either through expanded Medicaid enrollment for adults under 133% of the Federal Poverty Level, or through state insurance exchanges (with subsidies), and SU disorders are covered in the basic benefit plans, there will be an unprecedented opportunity to provide SU treatment. There are models for SU identification, brief intervention and treatments that can be developed and deployed to reach those who have not been served in the past. However, individuals with SU disorders have been highly stigmatized by society, and by extension, SU treatment has had inadequate financing and less support for the development of new programming. SU treatment providers will need to rethink what services they provide and how they are provided in order to engage with general healthcare and the larger populations needing SU treatment services. A body of evidence exists regarding approaches SU providers can begin developing to fully prepare to meet these capacity and competency challenges. These approaches are applicable in primary care and/or specialty SU treatment settings and point to models for the Person-Centered Healthcare Home.

Rethinking Approaches to Substance Use Treatment Services

In an overview of the field of SU treatment, McLellan identified three reasons why SU programs have difficulty delivering quality care: the infrastructure (modalities available, program changes, staff turnover, staff credentials, lack of information systems); the acute care treatment model (compared to a continuing care model); and the evaluation model (studies show few differences between current treatment models).[40] What follows is a brief overview of the current knowledge about SU treatment services.

NIATx (The Network for the Improvement of Addiction Treatment) aims to improve access to and retention in addiction treatment by helping SU treatment agencies transform their organizational cultures through process improvement to address the following needs: to get more people into treatment using existing resources, to remove organizational barriers

that limit treatment access, to reduce the field's high rates of premature drop-out from treatment, and to support and improve the service delivery infrastructure. Aims include:

- Reduce waiting time between first request for service and first treatment session
- Reduce the number of patients who do not keep an appointment (no-shows)
- Increase admissions to treatment
- Increase continuation from the first through the fourth treatment session

This focus on process improvement and infrastructure is accompanied by initiatives to promote the use of evidence-based practices.[41]

Key Ideas

- Infrastructure development and process improvement in SU treatment are necessary
- Continuing care should link the continuum of SU services together and support the individual's change process
- NIDA principles provide the overall foundation for system operations
- Recovery Oriented Systems of Care support recovery as a process
- A number of SU treatment approaches are effective, but must be delivered with fidelity
- Communities must work together to create a continuum of services and agreements about seamless access, stepped care and other transitions

McLellan and colleagues, examining SU dependence as a chronic medical illness, reviewed more than 100 randomized controlled trials of SU treatments and found most showed *"significant reductions in drug [including alcohol] use, improved personal health and reduced social pathology but not cure…However, as in treatments for other chronic disorders we found major problems of medication adherence, early drop-out and relapse…problems of poverty, lack of family support and psychiatric co-morbidity were major and approximately equal predictors of noncompliance and relapse across all chronic illnesses examined."* This suggests that addiction may require lifelong management. Comparing addiction with other chronic diseases:

- Genetics play a role
- The medical impact on the body is significant
- Complications develop if the disease is untreated
- Self-care is critical to success
- Medication can help

"Hypertension, diabetes, and asthma are also chronic diseases, requiring continuing care through a patient's life. Treatments for these illnesses are effective but heavily dependent on adherence to the medical regimen for that effectiveness…like other chronic illnesses, the effects of…treatment are optimized when patients remain in continuing care and monitoring without limits or restrictions on the number of days or visits covered."[42]

In a related study, McKay concludes that *"maintaining therapeutic contact for extended periods of time with individuals with alcohol and other drug disorders appears to promote better long-term outcomes than 'treatment as usual'…achieving good compliance and successful disease management with extended interventions will likely require adaptive protocols in which the intensity of treatment can be adjusted up or down in response to changes in symptoms and functioning over time."*[43] Similarly, Kaiser found that *"patients receiving continuing care were more than*

twice as likely to be remitted at each follow-up over nine years" and that *"those receiving continuing care in the prior interval were less likely to have ER visits and hospitalizations subsequently."* [44]

Saitz and colleagues reviewed the literature on chronic disease management (CDM) and concluded that it *"shows promise as an effective strategy for managing substance dependence. It is critical to test the effectiveness of CDM integrated in a primary care setting for substance dependent patients, because this approach can take advantage of the fact that many patients with addictions attend primary care yet do no receive specialty care for their addictions."* [45]

The National Quality Forum (NQF) issued a set of evidence-based practices for the treatment of SU disorders in 2007, The National Voluntary Consensus Standards for the Treatment of Substance Use Conditions. The eleven endorsed practices are organized into four domains (see Appendix A for a summary of the Domains, subdomains and the eleven endorsed practices):

- Screening and case finding
- Initiation and engagement in treatment
- Therapeutic interventions to treat SU illness
- Continuing care management of SU illness

In the detailed specifications for each of the endorsed practices, *"target outcomes are identified, and additional specifications are provided for what a practice entails, for whom it is indicated, who performs it, and the settings where it is provided. Consistent with the priorities established, these practices are applicable across a broad range of populations (e.g., adolescents and adults), settings (e.g., primary care and substance use treatment settings), and providers (e.g., counselors and physicians)."* [46]

The fourth NQF domain is focused on offering long-term, coordinated management of care for SU illness and any coexisting conditions and the NQF is currently working on approaches to measuring continuing care management for SU disorders. Continuing care management is defined as *"any treatment intervention provided to patients post intensive, initial phase of treatment" including weekly group counseling post residential or intensive outpatient treatment (IOP), IOP or outpatient treatment post brief detox intervention, or low intensity monitoring and linkage to community resources post outpatient treatment"* (these may be accomplished through different modalities and delivered in specialty or other settings, or remotely). The key goals of continuing care management identified by the NQF include:

- *"Easing transition from more intensive to less intensive treatment;*
- *Regular monitoring of patients' behavior;*
- *Addressing relapse risks;*
- *Providing support for co-occurring issues;*
- *Facilitating ongoing participation in self-help programs;*
- *Providing and linking to social support; and*
- *Adapting treatment over time as needed."*

In addition to current patient level measures (e.g., Addiction Severity Index) or process of care measures (e.g., continuity of care), the future might include new measures at the patient

level (e.g., registries), processes of care (e.g., progress toward positive recovery goals) and costs and resources (e.g., availability/wait times for each level of care).[47]

The National Institute on Drug Abuse (NIDA) has articulated the principles of effective SU treatment, which are a foundation for any of the treatment approaches deployed.

- *"Addiction is a complex but treatable disease that affects brain function and behavior*
- *No single treatment is appropriate for everyone*
- *Treatment needs to be readily available*
- *Effective treatment attends to multiple needs of the individual, not just his or her drug abuse*
- *Remaining in treatment for an adequate period of time is critical*
- *Counseling—individual and/or group—and other behavioral therapies are the most commonly used forms of drug abuse treatment*
- *Medications are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies*
- *An individual's treatment and services plan must be assessed continually and modified as necessary to ensure that it meets his or her changing needs*
- *Many drug-addicted individuals also have other mental disorders*
- *Medically-assisted detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug abuse*
- *Treatment does not need to be voluntary to be effective*
- *Drug use during treatment must be monitored continuously, as lapses during treatment do occur*
- *Treatment programs should assess patients for the presence of HIV/AIDS, Hepatitis B and C, tuberculosis, and other infectious diseases as well as provide targeted risk-reduction counseling to help patients modify or change behaviors that place them at risk of contracting or spreading infectious diseases"* [48]

The Recovery Oriented System of Care (ROSC) is an approach that emphasizes recovery as a process which is person-centered, self-directed and positively affects families and communities. The goals are:

- To intervene earlier with individuals with substance use problems;
- To improve treatment outcomes; and
- To support long-term recovery for those with substance use disorders.

The continuing care model, evidence-based practices and engagement of families, supports and communities are coupled with a policy environment that removes barriers to employment, housing and education.[49]

A systematic review of the evidence for the U.S. Preventive Services Task Force (USPSTF) on primary care-based counseling interventions for risky/harmful alcohol use found that good-quality brief multicontact counseling interventions (defined as an initial session up to 15 minutes long, plus follow-up contacts) reduced risky and harmful alcohol use and noted that this contrasted with the significant results seen for very brief (one session up to five minutes long) and brief (one session up to 15 minutes long) tobacco interventions (in

that very brief and brief alcohol interventions did not achieve the same results). Effective interventions include advice, feedback, goal setting and additional contacts for further assistance and support. They concluded that *"…those seeking positive results from these interventions in real-world clinical practice will probably require…support such as 1) commitment to planning; 2) allocation of resources and staff to consistently identify risk/harmful alcohol-using patients; and 3) delivery resources (such as clinician training, prompts, materials, reminders, and referral resources."* [50]

In related studies, a ranking of 25 preventive services recommended by the USPSTF based on clinically preventable burden and cost effectiveness found that alcohol screening and intervention rated fourth, over such established practices as colorectal cancer screening and treatment and hypertension screening and treatment.[51] The paper describing the analysis methodology concluded that *"the findings of this paper 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…"* [52]

The Center for Substance Abuse Treatment (CSAT) sponsored Screening and Brief Intervention (S/BI) programs in 20 states. These programs provided screening and brief interventions for people across inpatient, emergency department, primary and specialty care settings, including community health centers. This initiative was based on more than 30 controlled clinical trials that demonstrated the clinical efficacy and effectiveness of S/BI. The essential components of S/BI include:

- Detailed history of alcohol and/or drug use,
- Formal questionnaire-driven assessment of alcohol and/or drug use utilizing validated instruments (see Appendix A for an overview of tools),
- Brief intervention, provider-assisted commitment to behavioral change, and
- Arrangement for appropriate follow-up services if indicated.[53]

Additional dissemination activities related to S/BI have continued since the introduction of the S/BI model:

- The Accreditation Council for Continuing Medical Education chose S/BI as their 2007 demonstration program. The Centers for Disease Control, Substance Abuse and Mental Health Services Administration (SAMHSA), National Highway Traffic Safety Administration and National Institute of Alcohol Abuse and Alcoholism collaborated and funded publication of S/BI guidelines for use in all American College of Surgeons accredited Level I Trauma Centers in the United States.
- Effective January 2008, a series of Current Procedural Terminology (CPT) S/BI codes were approved (99408 and 99409). As they are adopted by public and private payors, they offer a vehicle for billing S/BI services (to date, only a handful of state Medicaid agencies have adopted these codes).
- Currently the National Association of Community Health Centers (NACHC), along with the Center for Integrated Behavioral Health Policy at George Washington University Medical Center are supporting a learning collaborative with nine FQHCs in

Tennessee and two in Virginia developing the clinical and administrative workflows to implement S/BI, with associated performance measures.

- The Joint Commission is testing four SU disorder performance measures (including S/BI) for hospitals in order to assess the reliability of the measures and their associated data elements and obtain information about how the measures and specifications can be enhanced to provide more reliable data.[54]

Of the 20 CSAT-funded S/BI states, only five state programs were evaluated as functioning appropriately, due to lack of consistency in application of the model.[55] The S/BI integrated approach can be difficult to implement with physicians as front line BI providers, and models that use other team members (such as IMPACT, described above) have been more efficient. While most S/BI research has focused on the effectiveness of BI for hazardous alcohol use, less is known about the effectiveness with other drugs. Not all BI models have used formal motivational enhancement techniques, as these approaches evolved on parallel tracks. The experience of learning collaboratives, along with continued research on the S/BI model will assist in refining the elements requiring fidelity.

Fidelity in the application of these evidence-based treatment models is critical to achieving demonstrated outcomes. For example:

- Motivational Enhancement Therapy is a patient-centered approach for initiating behavior change *"by helping individuals resolve ambivalence*" about engaging in treatment and stopping SU. Rather than guiding people through a stepwise recovery process, it employs strategies to evoke rapid and internally motivated change. As with many evidence-based practices, the key is actually replicating the practice (fidelity). Studies found that, even though clinicians reported high satisfaction and significant self-perceived gains after a workshop, recorded samples "reflected only modest changes in practice and no difference in clients' in-session response." Feedback and coaching significantly improved proficiency beyond the effects of a workshop—a *"challenge in training clinicians…is to help them persist in behavior change past an initial workshop exposure that my erroneously convince them that they have already learned the method, a motivational challenge not unlike that of helping clients change lifestyle behaviors."* [56]
- The Transtheoretical model outlines six stages of change that people trying to change behaviors experience: precontemplation, contemplation, preparation, action, maintenance and termination. People move back and forth in their efforts to sustain changes. *"We learned that many 'unmotivated' people could still be encouraged to cease their addictive behaviors because the model focuses on where the individual is in the process of change and not simply on the end result of substance abuse cessation."* In thinking about ways to integrate this thinking into SU treatments, it was observed that *"practitioners tended to focus too much on the stages of changes as labels, that is, saying that a person was a 'pre-contemplator' rather than looking more deeply into the underlying process of change that might have been taking place."* [57]

Cognitive-Behavioral Therapy, Twelve-step Facilitation Therapy, Community Reinforcement, and Behavioral Marital Therapy are among other evidence-based counseling and behavioral therapies being disseminated that require fidelity in implementation.[21, 48]

Medication-assisted treatments are a different set of intervention strategies for use in primary care and specialty SU treatment—pharmacotherapy relating to SU combined with counseling and behavioral therapies—and can be used to engage individuals who would not accept specialty SU treatment, providing effective options in primary care. For example, buprenorphine works by acting on the brain's opiate receptors to relieve withdrawal and cravings without prompting the same intense high or dangerous side effects as other opioids. Buprenorphine/ naloxone (suboxone) further limits the abuse potential because people who try to inject it experience severe withdrawal symptoms; when taken orally as prescribed these adverse effects do not occur. Naltrexone occupies the opioid receptors in the brain without activating them and blocks opioids from attaching to the receptors. In the treatment of alcohol dependence, it is not completely understood how the mechanism works. The blocking action is thought to reduce the pleasurable effect of alcohol, reduce alcohol consumed in one sitting and heavy alcohol consumption days.[58] Other medications for alcohol dependence include camprosate, disulfiram, and topiramate.

The emergence of these counseling and pharmacological interventions and the range of need in the population (from at-risk to severe dependence) requires development of an evidence-based continuum of care that provides accessible, affordable and attractive services.[21] California has recently completed a multisector Integration Policy Initiative (IPI),[59] which resulted in a shared vision and principles as well as a framework for clinical levels of MH /SU integrated care (the IPI Continuum), based on the Intermountain Healthcare [60] approach. Recognizing that all health care is local, the IPI report recommends that communities use the IPI Continuum to develop organizational/structural agreements regarding which agencies will provide which services and how they will work to ensure a seamless system of care.

A community dialogue regarding the integration of MH, SU, and primary care services offers SU service providers the opportunity to rethink their services, historically designed for the populations with the highest need and/or those referred by the criminal justice system. The future could include placement of appropriately trained SU staff in primary care settings, to conduct screening and brief interventions, as well as a renewed set of evidence-based specialty SU offerings, available as stepped care from primary care and incorporating health services for those who principally receive their services in specialty SU settings.

Substance Use Treatment in Primary Care (Future Person-Centered Healthcare Homes)

Despite the emergence of evidence-based practices such as those described above and descriptions of how to proceed from leaders in the field (see below), there has been slow movement toward implementation in the field. The following discussion provides examples of how the approaches discussed above are being implemented and studied further.

In 2001, Samet and colleagues reviewed the potential benefits of linked primary care and SU treatment, the reasons why suboptimal linkages currently exist, the payment system

barriers, and examples of centralized and distributive models of linked services and noted that *"addiction interventions in medical settings may be appropriate for hazardous drinkers and those with other moderate substance use disorders, medically ill substance-dependent patients who refuse formal treatment referral, and substance-dependent patients who receive rehabilitative counseling elsewhere yet would benefit from medical therapy. Minimally motivated patients who will accept only harm-reducing interventions may also benefit from management in primary care settings."* [61] Two years later, Watkins and colleagues described the Chronic Care Model as a framework for addressing alcohol use disorders in primary care, noting that improving care begins with identifying practice guidelines that describe recommended care for a condition. Guidelines would then be adapted for use in a particular setting, and a protocol developed that states explicitly what needs to be done for patients, by whom and when. The protocol would have four essential components: practice/delivery system redesign, collaborative management decision support for providers, and clinical information systems.[62]

While the U.S. Preventative Services Task Force (USPSTF) called for universal screening for alcohol, it held back on calling for universal screening for drug abuse, citing the lack of hard evidence. A new research project at the Adult Medicine Clinic at Harborview Medical Center in Seattle will *"evaluate the efficacy of BI and referral to treatment when indicated, in patients with problem drug use and abuse seen in the primary care medical setting at a large safety-net hospital…(1) to determine if BI is effective in reducing drug use and increasing completed referral to treatment; (2) to test whether higher fidelity to a BI model that emphasizes motivational interviewing is more effective than lower fidelity; (3) to estimate the impact of BI on several public health outcomes; (4) to estimate the costs of the intervention, potential cost offsets, and incremental cost-effectiveness from the payer perspective based on health care service use and drug use frequency."* [63]

The Adult Medicine Clinic at Harborview serves about 7,000 patients in an 18 month period. Patients average age 50, about 66% are male, just under 50% are white, 30% are uninsured, 14% have had any psychotic disorder and 35% have had any SU disorder. This safety-net clinic has had an on-site SU counselor for 15 years, serving as an integral member of the clinic team. The clinic will be part of the S/BI trial described above, and has not previously had a systematic screening method in place, relying instead on internal physician referrals. Of those referred for SU assessment and limited interventions, some initially follow through on an external treatment referral, but approximately 33% are seen over time by the SU counselor, who provides continuity and ongoing support/development of the motivation to eventually accept a referral for methadone or other SU treatment. In following some of these individuals regularly, the SU counselor has frequently alerted physicians to exacerbated health conditions that require attention.[64] This experience in the field seems to align with the idea of continuing care, suggesting that the concept of repeated BI and care management are applicable to SU treatment in primary care settings.

A University of New Mexico demonstration project placed a clinician with master's level training in clinical psychology and SU disorders as an on-site behavioral health counselor in a

busy urban primary care clinic serving a culturally diverse population. Charged with developing a system for screening, evaluation and treatment of SU disorders, she spent 20 hours per week in the clinic. In describing the demonstration project, the authors note that there are three models for addressing SU in primary care: one is for providers to offer brief interventions in the course of ordinary care; a second option is referral of patients to specialty SU treatment; the third, highlighted in this project, is to have *"behavioral health specialists offer services on-site within primary care systems. Most evidence-based treatments for substance use disorders can be offered as outpatient consultation in a primary care clinic. Providing such services in the context of healthcare can reduce stigma and increase patient access to appropriate treatment."* [65]

The VA has high rates of annual alcohol screening using the AUDIT-C in primary care. A new research trial, targeted at alcohol use disorders (AUD), will test a collaborative care intervention for delivering evidence-based care for patients who do not respond to screening and BI and are not engaged in traditional treatment. *"Medical management of AUD in primary care settings, including repeated medically-focused brief interventions has proven effective for decreasing drinking. Monitoring abnormal laboratory tests may engage patients not initially interested in changing drinking, and medications can further improve outcomes among patients with alcohol dependence."* The collaborative care intervention will include repeated scheduled visits for BI with a nurse care manager and lab monitoring or medications when appropriate. The plan is for visits to be weekly for the first month, biweekly for the second month, and monthly thereafter for a year. The nurse care managers will be supported by a nurse practitioner, who will do medical evaluations of participants, and an interdisciplinary collaborative care team.[66]

The National Institute on Drug Abuse (NIDA) recently launched a Physicians' Outreach Initiative, NIDAMED.[67] Targeted to PCPs, resources include an online screening tool, quick reference guide and a comprehensive resource guide for clinicians. The screening tool is the NIDA-Modified Alcohol, Smoking, and Substance Involvement Screening Test or NMASSIST and the brief reference guide provides step-by-step language for introducing this sensitive topic to patients.

Buprenorphine prescribing is approved for physicians who have completed mandated certification training and obtained waivers; however, there are perceived barriers to physician adoption of this intervention. Some safety-net clinics have begun to implement these medication-assisted treatments and reports are appearing in the literature.

- An FQHC in the South Bronx treating 15,000 patients teamed four part-time general internists with a clinical pharmacist, making care available four half days per week. The most common referral source was from the FQHC providers, followed by a nearby syringe exchange program. In the initial visit, prior to starting buprenorphine/naloxone, SU histories were taken, lab tests obtained, and patients were educated about the treatment. Induction and stabilization (days one though seven) was managed jointly by the physicians and pharmacist based on a standard protocol. Motivational interviewing was

often incorporated. Once a patient's doses were stable, frequency of contacts decreased. The median number of visits during the induction and stabilization period was three visits; during the maintenance period, the median was six visits. Data suggest that retention rates differed by type of substance use prior to initiating treatment; "retention rates were higher among those using street methadone and lower among those using opioid analgesics and any alcohol prior to starting buprenorphine." [68]

- Noting that observed induction of buprenorphine present significant challenges to primary care practices (e.g., staffing, dispensing regulations, logistics including the need for assessments over several hours in the clinic), a public hospital primary care clinic uses a home, unobserved induction protocol for buprenorphine/naloxone.[69] After evaluation, if eligible, the patient receives a prescription and induction patient pamphlet, decides when to initiate withdrawal and self-administers the first dose unobserved. At week one, no cases of severe precipitated withdrawal were recorded among the 89% of patients with week one data available, a rate consistent with national buprenorphine safety data. Rates of treatment retention at 24 weeks were similar to national practice trends.
- An investigation of three-month treatment retention and alcohol use among patients treated with extended-release naltrexone injectable suspension in two primary care settings demonstrated that the extended-release naltrexone plus monthly medical management appeared effective for alcohol dependent patients in primary care settings, with treatment retention higher than most observational studies of specialized outpatient alcohol treatment.[70]

One of the most pressing issues to address in primary care is the growth in the use of (and demand for) opioid medications for pain. Anecdotally, from the Integration Learning Collaboratives sponsored by the National Council (each of 16 sites a partnership between a community health center and a MH provider agency)[71] to other integration projects around the nation, this has become a significant issue in primary care practices. A recent analysis based on adult enrollees of two health plans, Kaiser Permanente Northern California and Group Health Cooperative (in Seattle) 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%. The long-term opioid users with a prior SU diagnosis received higher dosage levels, more Schedule II and long-action opioids, and were more often frequent users of sedative-hypnotic medications in addition to opioid use.[72] This is a challenge that calls for the combined expertise of primary care, MH and SU practitioners.

TRI has initiated a policy academy, *Financing for Integrated Care of SU Disorders in Healthcare Settings, f*or Spring 2010.[55] The academy has identified programs in healthcare settings across the country that screen for and treat SU disorders for varied populations and are seeking different organizational/financing models to be represented in the group of programs convened. The intent is to identify lessons learned from the different models, to assist states and counties as purchasers of SU treatment in understanding the range of options they might

implement. The staff of the academy will then work with purchasers to implement strategies to integrate care. The report of the policy academy will add substantially to the knowledge base regarding SU treatment in healthcare settings.

Linking Specialty Substance Use Treatment Settings and Primary Care (Future Person-Centered Healthcare Homes)

While there will always be a boundary between primary care and specialty SU treatment (e.g., intensive outpatient services, methadone programs), and there will always be tradeoffs between the benefits of specialty expertise and of integration, stepped care is a clinical approach to ensure that the need for a changing level of care is addressed appropriately for each person. Within specialty SU settings, in addition to implementing evidence-based SU treatment services, there is the question of access to healthcare services.

With the significant co-morbid health conditions for individuals needing specialty SU services, access to timely health care services is essential. Samet, Friedmann, and Saitz noted that *"for patients in formal addiction treatment, linkage to needed medical and psychological services may improve access to health care, improve physical and mental health, and reduce relapses."*[61] Individuals presenting for SU treatment in a public SU treatment system were interviewed to assess the prevalence and characteristics of individuals without PCPs. Of almost 6,000 respondents, 41% did not have a physician. Characteristics associated with not having a physician included: no health insurance, no history of a chronic or episodic medical illness, male gender, and younger age (by decade). Researchers observed that, to improve linkage to primary care, all healthcare contacts should be utilized, including those in the SU system.[73] What is known about work within specialty SU settings to provide or engage participants with access to primary care? In addition to the Kaiser study described above, there is an emerging body of literature.

In a Boston residential detoxification (from alcohol, heroin or cocaine) program, patients who had no primary care physician were enrolled into a randomized controlled trial, in which the intervention was health evaluation and linkage to primary care (HELP). The HELP clinic, staffed by a multidisciplinary (e.g., physician, nurse, social worker) team utilized the "reachable moment" as an opportunity to link individuals with SU disorders through a facilitated referral to an off-site primary care clinic. Sixty-nine percent of the intervention group compared to 53% of the control group were linked, with linkage defined as attendance at a primary care appointment within 12 months.[74]

In a subsequent report, data collected during the assessment process (e.g., demographics, substance of choice, substances used, addiction severity, substance problems, readiness to change, health-related quality of life, attendance at mutual help groups, primary medical care), follow up interviews over two years, administrative databases of affiliated healthcare organizations and SU treatment utilization data obtained from state sources were used to understand the impact of receipt of primary care. *"For subjects who reported alcohol as their first*

or second drug of choice, receipt of primary care was significantly associated with improved alcohol (ASI) severity…Similarly, for subjects reporting heroin or cocaine as their first or second drug of choice, receipt of primary care was associated significantly with improved drug (ASI) severity." [75] This study suggests that primary care can have an impact even when delivered in the community, separately from the SU program, and the *"the opportunity to achieve even greater benefit may exist if mechanisms were instituted to link primary care more effectively with substance abuse treatment."*

Key Ideas

- Many individuals served in specialty SU treatment have no primary care provider
- Health evaluation and linkage to healthcare can improve SU disorder status
- On-site services are stronger than referral to services
- Housing First settings can wrap-around MH, SU and primary care with mobile teams
- Person-centered healthcare homes can be developed through partnerships between SU providers and primary care providers
- Care management is a part of SU specialty treatment and the healthcare home

A study looking at medical and psychosocial service in SU treatment settings indicated that *"on-site service delivery and transportation assistance were significantly associated with higher levels of client utilization…referral agreements and formal external arrangements had no detectable relationship to most service utilization. On-site case management was related to increased clients' use of routine medical care, financial counseling, and housing assistance, but off-site case management was not correlated with utilization of most services."* [76]

An initiative to serve intravenous drug users recognized that providing comprehensive medical care at a methadone treatment clinic would offer the opportunity to screen for diseases and promote health education and behavioral changes. In this randomized, controlled trial, patients received a medical examination on admission to methadone treatment. Those who needed further care for four target conditions (hypertension, tuberculosis exposure, positive HIV serology/asymptomatic, and acute sexually transmitted disease) either received medical care at the methadone treatment site or were referred to a nearby medical clinic (participants were provided with free medical care for the duration of the study). *"More than 45% of intravenous drug users seeking methadone treatment presented with a condition requiring medical care. When on-site medical care was available, more than 90% received treatment; when referred medical care was available only 35% received treatment."* In the on-site program, the team used non-traditional approaches, accepting unscheduled visits, rescheduling several times for missed appointments, coordinating with the nurses dispensing methadone, and using the methadone dispensing intervention as an opportunity to dispense other medications for medical treatment.[77]

A VA study provided integrated outpatient treatment (IOT) to veterans with severe medical complications caused by alcoholism and recent drinking. The IOT program was designed to overcome the reluctance of many to accept a referral for conventional alcoholism

treatment. The patients were seen monthly at an outpatient clinic by either a nurse-practitioner or a physician; staff would review drinking history and medical problems, and conduct physical examinations and lab tests—biological indicators were used to track the effects of drinking and discussed with patients. Findings included that *"IOT was highly successful in engaging patients; IOT subjects had 2.5 times as many outpatient visits as subjects in the control group… three quarters of those in the IOT group were [also] abstinent after two years…once engaged in outpatient medical care a patient's motivation to change can be enhanced and supported, resulting in even greater reductions in drinking. All told, these results contradict the pessimism widely expressed about prognosis for medically ill alcoholics."* [78]

The Santa Clara Valley Health & Hospital System opened Puentes Clinic, a primary care clinic for patients with a history of injection-drug use, with the goal of providing comprehensive, high-quality primary care access to both active and recovering users. Subsequently, it was incorporated into a Health Care for the Homeless grant and expanded its scope to serve homeless patients. A multidisciplinary team of physicians, nurses, psychologists, and social workers see patients in homeless shelters, mobile medical units and the clinic site. On-site services include hepatitis C treatment, psychology and psychiatry, and a pain clinic. The clinic monitored the clinical use patterns of patients between 2002 and 2004. They found a marked decrease in ED and urgent care visits that paralleled the increase in primary care use. The components of the clinic model that are believed to be critical to success include:

- Outreach: Meeting patients in settings where trust has been established is an important way to begin a therapeutic relationship.
- Open access and a "chat room:" Patients are seen first-come, first-served with the option to wait in the "chat room" with food, coffee, and a psychologist facilitator who supports group discussion through initiating conversations among patients and provides resources and referrals.
- Specialty groups: Patients with specific medical conditions (e.g., hepatitis C, pain) may participate in facilitated group discussions that are designed from a cognitive behavioral perspectives, providing psychoeducation about symptoms and treatment.
- Integrated treatment team: Patients interact with a range of staff members, sometimes with multiple members of the team in the exam room at the same time; this model is supported by a shared office space and formal case conferences.[79]

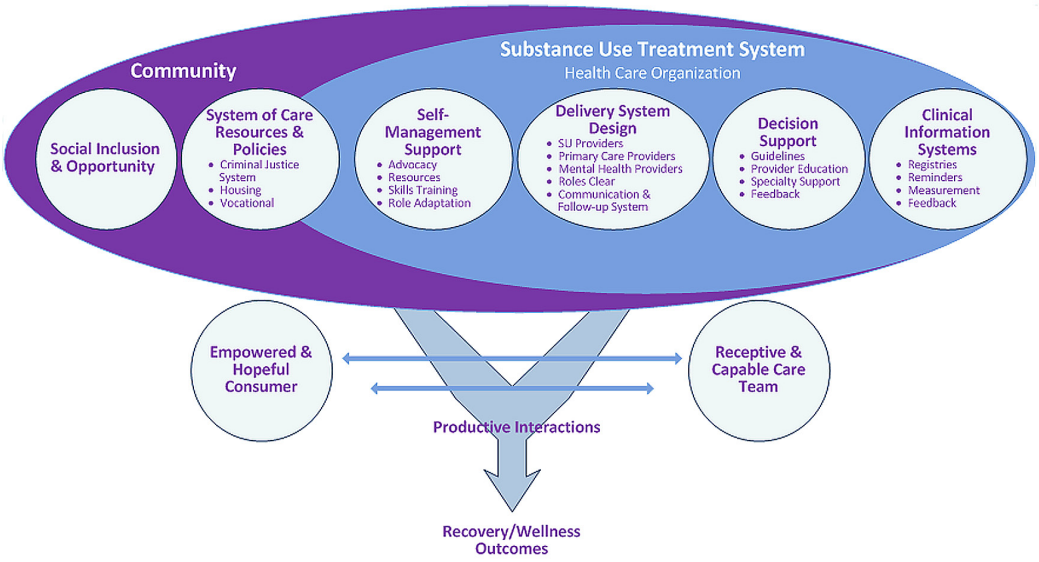
Seattle's Downtown Emergency Service Center (DESC) 1811 Housing First program, is targeted to serve homeless individuals with severe SU or co-occurring conditions (e.g., those at the very top of the population pyramid). Health and MH/SU staff were wrapped around the housing through DESC's capacities as a MH/SU provider and through a Harborview primary care clinic focused on the homeless population. This program saved taxpayers more than $4 million dollars over the first year of operation. Annual average costs per person while homeless, the year before moving in, were $86,062. By comparison, it costs $13,440 per person per year to administer the housing program. A significant portion of the cost offsets were caused by decreases in residents' use of Medicaid-funded health services. [80]

Substance Use Treatment Providers as Person Centered Healthcare Homes

The Chronic Care Model,[81] developed to improve primary care for people with chronic health conditions, such as diabetes or cardiovascular disease, underpins the PCMH concept. The Care Model expands the view beyond the clinical setting, incorporating self-management and the resources of the family/neighborhood/community. Care Model elements include: [81]

1. *"Health System: Create a culture, organization and mechanisms that promote safe, high quality care*
2. *Delivery System Design: Assure the delivery of effective, efficient clinical care and self-management support*
3. *Decision Support: Promote clinical care that is consistent with scientific evidence and patient preferences*
4. *Clinical Information Systems: Organize patient and population data to facilitate efficient and effective care*
5. *Self-Management Support: Empower and prepare patients to manage their health and health care*
6. *The Community: Mobilize community resources to meet needs of patients"* [81]

The revised Care Model, below, is based on a version adapted for use in MH improvement planning in California, in which the community element has been further clarified to add *Social Inclusion & Opportunity*.[82] In this SU version, detail has also been added to the elements of the care model. The Care Model should be a basis for the expanded PCMH, the Person-Centered Healthcare Home (PCHH) in a SU treatment setting.



The PCHH in a SU treatment setting would accept 24/7 accountability for a SU population and include:

- Preventive screening/health services
- Acute primary care
- Women's health
- MH/SU screening and intervention
- Management of chronic health conditions
- End of life care

These services would be supported by enabling services, electronic health records (EHRs), registries (see the California HealthCare Foundation website [83] for a discussion of registries as distinct from EHRs), and access to lab, x-ray, medical/surgical specialties and hospital care. This capacity is referred to as a full-scope healthcare home. All of these services (including MH screening and intervention) should be part of what is offered in a PCHH provided by a SU treatment provider.

For SU providers envisioning a future role as a PCHH, there are two pathways to follow.

1. Providers who want to become full-scope healthcare homes for people living with SU disorders should broaden their target population and seek to become full-scope healthcare homes for a broader community population than those currently receiving SU treatment. Development of a larger primary care base will be necessary in order to build robust, sustainable primary care practices that meet the requirements of the PCMH; organizations interested in pursuit of FQHC status will be required to identify a geographic service area and population beyond their SU treatment participants as part of an application.
2. In a partnership model between a SU provider and a full-scope healthcare home, the organizations must establish mission alignment and be deliberate about designing clinical mechanisms for collaboration, supported by structural and financial arrangements appropriate to their local environment. Roles and expectations should be laid out in advance across the partners.

Person-Centered Healthcare Homes

1. Health screening and registry tracking
2. Nurse practitioner or PCP on site
3. PCP supervising physician
4. Nurse care managers
5. Evidence-based preventive care
6. Wellness programs

Whether alone or in partnership, there are six elements that need to be in place in the PCHH. (The first three should be in place at a minimum.)

1. Ensure regular screening and registry tracking/outcome measurement for all individuals—screen for HIV/AIDS, Hepatitis B and C, tuberculosis, and other infectious diseases; check glucose and lipid levels, blood pressure and weight/BMI, record and track changes and response to treatment, and use the information to obtain and adjust treatment accordingly.

2. Locate medical nurse practitioner/PCP in SU facilities—provide routine primary care services in the SU setting via a nurse practitioner or physician out-stationed from the

full-scope healthcare home. Organizations implementing this model have found that adoption of primary care improvements such as open access scheduling and group visits are effective methods for engaging people in healthcare. The population will present with a mixture of acute care concerns, prevention and screening needs, and chronic medical conditions. The strategy of easy access can be used to engage individuals in their healthcare and connect them to an ongoing relationship with the full-scope healthcare home for their complex healthcare concerns.

Nurse practitioners should be highly experienced working with the SU population, with readily available access to a supervising physician and an ongoing training/supervision component to ensure quality of care.[84] A SU organization hiring a nurse practitioner directly, without the backup of a skilled physician and a full-scope healthcare home, cannot be described as a healthcare home and is not a recommended pathway.

3. Identify a primary care supervising physician within the full-scope healthcare home to provide consultation on complex health issues for the medical nurse practitioner, and/or nurse care manager, if there is no PCP practicing at the SU site.

4. Embed nurse care managers within the primary care team working in the SU setting, to support individuals with chronic health conditions (e.g., HIV, Hepatitis C, hypertension, asthma, chronic obstructive pulmonary disease). Accountabilities include keeping a registry current and complete, longitudinal monitoring of health status and communicating the need for treatment adjustments to the primary care team, as well as coordinating care across multiple medical providers on behalf of the team. For people who have established external primary care relationships and choose not to use the primary care services available in the SU setting, the nurse care manager would work to establish this team relationship with outside healthcare providers and might accompany individuals to outside medical appointments.

Nurse care managers and the primary care team would use standard protocols and curriculum to ensure the following services in primary care settings:

- Intake Assessment
- Health examination
- Medication list
- Vital signs monitoring
- Preventive healthcare
- Disease specific goals
- Action plan
- Healthcare proxy
- Health education

The nurse care managers would work with individuals to connect them to the full-scope person-centered healthcare home (using the SU entry point as the entry point into

primary healthcare as well as access to dental services), link them to enabling services, benefits counseling and peer mentors, as well as plan and co-lead with peers ongoing groups that support smoking cessation, weight management, and physical exercise.

5. Use the evidence-based practices developed to improve the health status of the general population (USPSTF [85]), adapting these practices for use in the SU system. There are evidence-based practices in clinical preventive services that should be utilized with all populations, whether or not they are receiving services related to a particular diagnosis or condition. This is an area for improvement in services to persons with SU disorders, who may have had difficulty accessing healthcare services for acute or chronic medical conditions, not to mention clinical screening and preventive services.

6. Create wellness programs. Utilize proven methods and materials developed for engaging individuals in managing their health conditions, adapted for use in the SU setting, with peers serving as group facilitators.

Section 4: The Revised Four Quadrant Clinical Integration Model, Focused on Substance Use Treatment Services

The National Council's planning model for the clinical integration of health and MH/SU health services focuses on the populations to be served. This Four Quadrant Model builds on the 1998 consensus document for mental health and substance abuse/addiction service integration, as initially conceived by state mental health and substance abuse directors (NASMHPD/ NASADAD) and further articulated by Minkoff and his colleagues.[86] More recently, Minkoff and Cline have been focused on individuals with complex needs and the fact that the systems have not been organized to deal with populations or those with complex needs. This does not mean that everything needs to be moved into one organization—experience in Florida suggests that multiple health plans can be held accountable for moving down a common system pathway, signed on to a common quality improvement plan for the population.[87]

In the 2009 paper, the Four Quadrant model was revised to incorporate the person-centered healthcare home concept—each quadrant considers the MH/SU and physical health risk and complexity of the population and suggests the major system elements that would be utilized to meet the needs of a subset of the population. It is a conceptual framework and collaborative planning tool for addressing the needs of population subsets (not individuals) in each local system. Using the evidence regarding effective clinical practices, each community must develop its uniquely detailed operational arrangements, depending on the factors in their environment, including:

- *Array of and capacity of services in the community: What services are available and is there access to sufficient amounts of the services that are needed?*
- *Consumer preferences: Are individuals more likely to accept care in primary care or specialty settings?*
- *Trained workforce: Do current MH, SU and primary care staff have the right skills to deliver planned services onsite?*
- *Organizational support in providing services: Do managers provide encouragement and support for collaborative activities and what is the impact on operations, documentation, billing, and risk management?*
- *Reimbursement factors: Do payers support collaborative care and make it easy or difficult for the MH, SU and primary care sectors to work together?* [88]

While system planning requires a population-based method, service planning should be person-centered. Therefore, the Four Quadrant Model does not specify in which quadrant individuals should receive care and it should be possible to move from one population subset to another over time. Consistent with appropriate clinical practice, individual choice should be honored. The primary care and specialty MH/SU systems must develop protocols, however, that spell out how acute episodes or high-risk individuals will be supported.

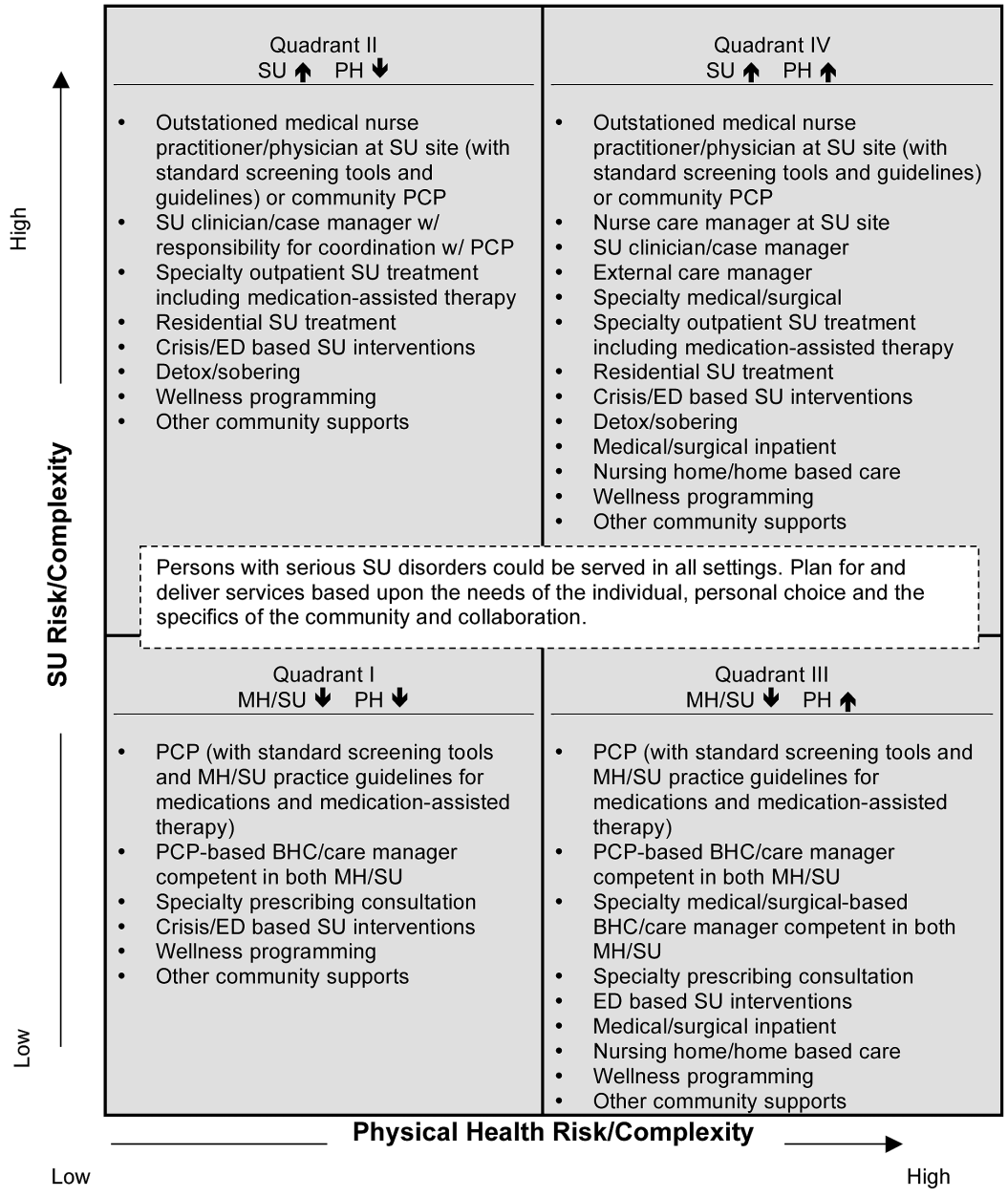
The practice culture of primary care requires:

- Consultative behavioral interventions
- Fast pace of brief interactions
- High volumes of persons seen (an average PCP sees 130 patients per week)
- Immediate access, visibility and availability, where interruptions are OK
- New vocabulary
- Different documentation and tracking systems

The 2009 version incorporated co-occurring MH/SU disorders, and called for the primary care-based behavioral health consultant (BHC) to be competent in both MH and SU assessment and service planning. Only large primary care practices would be able to incorporate separate MH and SU staff. The BHC (from one of a number of disciplines such as social work, psychology, nursing, licensed counseling) needs skills that are not currently part of most training programs. The skills, orientation and characteristics needed to be successful in providing MH/SU treatment in a primary care setting include:[89]

- Finely honed clinical assessment skills (MH/SU)
- Cognitive behavioral intervention skills
- Group and educational intervention skills
- Consultation skills
- Communication skills
- Care management skills
- Flexible, independent and action orientation
- Solution rather than process orientation
- Prevention orientation
- Team and collaboration orientation
- Clinical protocols and pathways orientation
- Focus on impacting functioning, not personality
- Behavioral medicine knowledge base and/or interest in medical issues
- Experience with how the public MH/SU system works
- Understanding of the impact of stigma
- Strong organizational and computer competency
- Bilingual and culturally competency in serving the major population groups seen in the primary care clinic

The Four Quadrant Clinical Integration Model for Substance Use Disorders



Given the need for the primary care BHC to address both MH and SU needs, the focus on SU disorders and treatments is mostly for Q II and Q IV, where the roles are different from those in Q I and Q III. Most provider organizations will find that they are involved in at least two quadrants (e.g., most primary care clinics have populations in Q I and Q III, most MH/SU organizations have populations in Q II and Q IV).

Quadrant I

The Population: Low to moderate MH/SU and low to moderate physical health complexity/risk.

The Model: Person Centered Healthcare Home: a primary care team that includes a BHC/care manager, specialty prescribing consultant, screening for MH/SU concerns, and stepped care.

Quadrant I

- PCP
- PCP-based BHC/care manager
- Specialty prescribing consultation
- Crisis/ED based SU interventions
- Wellness programming
- Other community supports

The Providers: The primary care provider ensures the full-scope healthcare home and uses standard MH/SU screening tools and practice guidelines to serve individuals in the primary care practice. Use of standardized screening tools by the primary care provider and a tracking/registry system focuses referrals of a subset of the population to the primary care-based BHC/care manager. The primary care provider prescribes medications for health and MH conditions and initiates medication-assisted treatments using treatment algorithms. Specialty prescribing consultation is structured to support both the primary care provider and the BHC/care manager, with a focus on treatment planning for individuals who are not showing improvement.

The role of the primary care-based BHC is to provide consultation to the primary care provider as well as to provide MH/SU triage and assessment, brief treatment services to the individual, referral to community and educational resources, medication and symptom tracking, self management supports, and relapse planning (care management).

MH/SU clinical and support services may include individual or group services, cognitive behavioral therapy, psycho-education, brief SU intervention/motivational enhancement, and limited case management. The BHC should be competent in both MH/SU assessment and service planning. The BHC is connected to the specialty MH/SU systems, and able to effectively support stepped care to specialty MH/SU treatment.

Quadrant II

The Population: Moderate to high SU and low to moderate physical health complexity/risk.

The Model: Person Centered Healthcare Home: primary care capacity in a SU setting, including medical nurse practitioner/primary care physician, wellness programming, screening for health status concerns, and stepped care to a full-scope healthcare home. Access to the array of specialty SU treatment designed to support harm reduction and recovery.

Quadrant II

- Outstationed medical NP/PCP
- SU clinician/case manager with responsibility for coordination with PCP
- Specialty outpatient SU treatment including medication-assisted therapy
- Residential SU treatment
- Crisis/ED based SU interventions
- Detox/sobering
- Wellness programming
- Other community supports

The Providers: The primary care physician ensures the full-scope healthcare home either through practicing on site or supervision of the nurse practitioner, consultation with SU provider and stepped care. Specialty prescribing consultation with the primary care provider may be an element in these complex SU situations, but it is more likely that medication-assisted treatment will be handled by the specialty SU prescriber, in collaboration with the primary care physician. Standard health screening (e.g., glucose, lipids, blood pressure, weight/BMI, HIV/AIDS, Hepatitis B and C, tuberculosis, and other infectious diseases) and preventive services will be provided. Wellness programs (e.g., nutrition, smoking cessation, physical activities) are available as primary as well as secondary preventive interventions, incorporating recovery principles and peer leadership and support.

The role of the specialty SU clinician/case manager is to provide assessment, arrange for or deliver specialty SU treatment, ensure case management related to housing and other community supports, ensure that the individual has access to primary care (e.g., on site or other outside PCP), and create a collaborative primary care communication approach (e.g., e-mail, v-mail, face to face) that ensures coordinated service planning.

Note that Quadrant II is where many public sector SU clients currently can be found receiving services. Specialty SU clinical and support services will vary based upon state- and county-level planning and financing; some localities may encompass the full range of services offered by specialty SU systems (see Box 1).

Specialty SU Treatment Services (using Evidence-Based models)

- Outreach teams
- Crisis stabilization facilities (short term crisis assessment/treatment facilities that serve MH and/or SU disorders)
- Crisis respite facilities (follow up to stabilization with brief 4-5 day stay while service plans are developed)
- Sobering sites
- Social detoxification/residential
- Outpatient medical detoxification
- Inpatient medical detoxification
- Pre-treatment groups
- Medication-assisted treatment (including methadone treatment)
- Intensive outpatient treatment/day treatment
- Outpatient treatment •
  Residential treatment
- Aftercare/12 step groups
- Supportive recovery/peer-to-peer support (up to 18 months of continuing care after the episode)
- Parent support groups
- Youth support groups

Housing Supports

- Housing First
- Oxford Houses
- Transitional housing
- Low income sober housing

Box 1: Range of Specialty SU Treatment Services

Quadrant III

Quadrant III

- PCP
- PCP-based BHC/care manager
- Specialty medical/surgical-based BHC/care manager
- Specialty prescribing consultation
- Crisis/ED based SU interventions
- Medical/surgical inpatient
- Nursing home/home based care
- Wellness programming
- Other community supports

The Population: Low to moderate MH/SU and moderate to high physical health complexity/risk. Note that some populations may have acute episodes which bring them into Quadrant III for a period of time, as contrasted with the population with ongoing chronic needs.

The Model: Person Centered Healthcare Home: a primary care team that includes a BHC/care manager, specialty prescribing consultant, screening for MH/SU concerns, stepped care, and access to specialty medical/surgical consultation and care management.

The Providers: In addition to the services described in Quadrant I, the primary care provider collaborates with medical/surgical specialty providers and care managers (e.g., diabetes, asthma) to manage the physical health concerns of the individual. In some settings, BHC/care manager services may also be integrated with specialty provider teams (for example, Kaiser has BHCs in OB/GYN programs, working with substance abusing pregnant women). Specialty healthcare and care management programs should also integrate MH/SU screening and the BHC/care manager into disease management and rehabilitation programs,

building on research findings regarding the frequency and impact of MH/SU co-morbidities in populations with chronic health conditions.

Depending on the setting, the BHC may also (in addition to the services described in Q I) provide behavioral medicine interventions, including health education and behavioral supports regarding lifestyle and chronic health conditions found in the general public (diabetes, asthma) or conditions found in at-risk populations (Hepatitis C, HIV). These population-based services, as articulated by Dyer, would include: patient education, activity planning, prompting, skill assessment, skill building, and mutual support.[90] In addition to these services, the BHC might serve as a physician extender, supporting efficient use of physician time by problem solving with individuals trying to manage either acute or chronic health concerns or related medication adherence issues.

Quadrant IV

The Population: Moderate to high SU and moderate to high physical health complexity/risk. Note that some populations may have acute episodes which bring them into Quadrant IV for a period of time, as contrasted with the population with ongoing chronic needs.

Quadrant IV

- Outstationed medical NP/PCP
- Nurse care manager/SU site
- SU clinician/case manager
- External care manager
- Specialty medical/surgical
- Specialty outpatient SU treatment
- Residential SU treatment
- Crisis/ED based SU interventions
- Medical/surgical inpatient
- Nursing home/home based care
- Wellness programming
- Other community supports

The Model: Person Centered Healthcare Home: primary care capacity in a SU setting, including medical nurse practitioner/primary care physician, nurse care manager, wellness programming, screening/tracking for health status concerns, and stepped care to a full-scope healthcare home. Access to the array of specialty SU treatment designed to support recovery and access to specialty medical/surgical consultation and care management.

The Providers: In addition to the services described in Quadrant II, the primary care physician collaborates with medical/surgical specialty providers and external care managers to manage the physical health concerns of the individual. Nurse care management is added to focus on self management of health conditions (e.g., HIV, Hepatitis C, hypertension, asthma, chronic obstructive pulmonary disease) along with SU disorders through focused goal setting and self management planning. The nurse care manager would also manage standard health screening/registry tracking (e.g., glucose, lipids, blood pressure, weight/BMI, HIV/AIDS, Hepatitis B and C, tuberculosis, and other infectious diseases). Wellness programs (e.g., hypertension groups) are available as secondary and tertiary preventive interventions, incorporating recovery principles and peer leadership and support.

The organization of collaborative care for this population will be more complex, developed by the team of care providers in collaboration with the individual. With the expansion of care management programs, there may be coordination with external care managers in addition to multiple healthcare providers—this may be the role of the nurse care manager or the specialty SU clinician/case manager as the team defines specific roles and responsibilities. The nurse care manager, SU clinician/case manager, and external care manager should ensure they are not duplicating tasks, but working together to support the needs of the individual. A specific protocol should be adopted that defines the methods and frequency of communication among all providers/team members.

In summary, the Four Quadrant Model indicates that there are levels of care in the mental health, substance use and physical healthcare systems (from primary care to specialty providers, hospitals and emergency rooms) and that the integrated care model needs to be articulated at all these levels. The model provides a structure for a community to plan across the physical, mental and substance use healthcare systems, taking into the account the local and state environment and the degree to which it supports collaborative, integrated services.

Section 5: Policy and Practice Implementation Issues

Organizations that have worked on integrating care between primary care and MH/SU providers have come to understand the significantly different cultures, languages, and processes that primary care, MH and SU clinicians bring to collaborative efforts. Those who write and lecture on integrated care routinely list these differences as one of the barriers to successful collaboration. Those who train BHCs for primary care roles focus a portion of their curriculum on the topic of cultures.[91] There is every reason to expect that, as organizations bring primary care into MH/SU settings, similar issues will emerge. The success of person-centered healthcare homes will depend on bridging these cultural differences. This is a policy and practice leadership challenge, at every level—team, clinic, community, state, and national.

These divided sectors result in barriers when integrating primary care into MH or SU and integrating MH or SU into primary care, as well as integrating specialty MH/SU. Many of the barriers have been described in the literature on integration in Quadrants I and III, and appear to be equally applicable to integration in Quadrants II and IV.

Key Ideas

- Leadership at every level is needed to implement integration
- Financing methods require adjustment
- Policy and regulation create excessive documentation requirements
- Workforce skill development is critical
- Clinical information sharing is currently a significant barrier
- Physical facilities in SU specialty are not set up for primary care
- Research is still needed, based on naturalistic data from the field as well as randomized controlled trials

1. Financing methods: There has been a growing dialogue about the barriers to financing MH/SU in primary care. For example, care managers/ BHCs and psychiatric consultation in primary care have not been reimbursable, despite their prominence in the researched models for depression. As noted earlier, Medicaid agencies have been slow to adopt the S/BI codes. Barriers to financing MH/SU in primary care have reappeared as organizations initiate primary care in MH/SU settings.

   Historically, the healthcare system and the MH/SU systems have operated in completely different service delivery, funding and reimbursement sectors. Most claims adjudication systems match the service code to a provider type and a service setting—a mismatch on any one of these can cause the claim to be denied, and many SU programs are still paid through grant methodologies rather than through billing. Integrated care requires a new configuration of coding, matches,

or perhaps new payment methods, such as the case rate proposed for patient-centered medical homes.

2. Policy and regulation: Policies at both the federal and state levels are seldom consciously structured to encourage and support collaborative practice, instead they frequently act as barriers. This is particularly true of state regulations regarding separate MH/SU treatment planning and service documentation, which result in lengthy and time consuming paper and work processes that are not a good match to the pace of primary care and not value-added for specialty MH/SU treatments.

3. Workforce: Skills needed to work on an integrated team (see Four Quadrant discussion) are not generally part of training for clinicians, and as noted above, the success of person-centered healthcare homes will depend on bridging the cultural differences between primary care, MH and SU practitioners—an issue that requires attention in clinical training programs at all levels. Primary care medical staff (e.g., physicians, nurses, support staff) need training on MH/SU disorders, screening and organization of appropriate primary care-based MH/SU treatment services. Specialty SU treatment providers (e.g., licensed clinicians, certified counselors) will need training in evidence-based SU treatments and in understanding the health conditions that need to be addressed in their treatment population.

   There is a shortage of both primary care and MH/SU practitioners to work in either the primary care or specialty SU setting.[92] To adequately address the needs of people with serious MH/SU disorders and chronic health conditions, more primary care and MH/SU practitioners will be required.

4. Clinical information sharing: HIPAA is perceived as (but isn't necessarily) a barrier to communication—sharing information for the purposes of care collaboration is a permitted use under HIPAA, with the exceptions of HIV status and receipt of SU treatment. 42 CFR Part 2 is a significant barrier to integrating SU treatment with MH and primary care services. A proposal is circulating to amend both law (42 USC sec.290dd-2) and regulation (42 CFR Part 2) to allow limited disclosure regarding SU services (e.g., demographic information, diagnosis, medications, lab results and identification of past or current treatment providers) to and among health care providers and health plans for purposes of providing or coordinating health care.[93] Passage of these changes and leadership in providing the states with a model statute for change of state laws, which were enacted historically in light of 42 CFR and are often applicable to both MH and SU disorders, would help remove the continued barriers to exchange of important health care information.

   The Health Information Technology for Economic and Clinical Health (HITECH) Act, a component of the federal stimulus legislation known as the American Recovery and Reinvestment Act of 2009 (ARRA), authorizes funds for health information technology.

The vast majority of funds—approximately $34 billion—are expected to be distributed between 2011 and 2016 as adoption incentives through Medicare and Medicaid to qualified health care providers who adopt and use EHRs in accordance with the Act's requirements. MH/SU providers are not identified as potential qualified health care providers. This will substantially undermine the ability of MH/SU providers to coordinate care in the electronic future, as these safety-net systems, having little access to capital, lag behind their colleagues in the healthcare system in the implementation of EHRs. In addition, Regional Health Information Organizations (RHIOs) or Health Information Exchanges (HIEs) are now being formed to develop systems essential to care coordination and accessible by diverse participating healthcare organizations in a defined geographic region. MH/SU systems should be a part of those HIEs.[94]

Disease registries are a well established means of providing timely reminders for providers and patients in primary care. However, very few MH/SU providers are aware of and use these tools. Access to low cost, simple to use registries or similar tools is vital to overcoming the obstacles otherwise associated with integrating care. To ensure the timeliness of reminders as individuals move between primary care and MH/SU settings, registries must be developed with sufficient inter-operability to support data sharing among providers.

Personal Health Records may be a particularly promising tool for MH/SU clients, which the consumer can control and which contain all of their basic health history information. These may be particularly useful as tools for empowering these individuals and improving their ability to monitor and manage their health care. They may also be useful tools for coordinating care across multiple different health and MH/SU providers.

5. Physical facilities: Integrated models of care rely on teams working in close physical proximity, but can be difficult to accomplish in facilities which are frequently fully occupied when an integration initiative begins. The requirements for developing primary care in MH/SU settings are space intensive and capital intensive Primary care providers require exam rooms and equipment that are not part of specialty MH/SU facilities.

6. Research: Research on evolving models for MH/SU approaches to the person-centered healthcare home would add to our collective knowledge. Willenbring calls for *"a basic science of behavior change through radically different models and methods."*[21] The Substance Policy Research Program (SAPRP) calls for five categories of policy concerns to be informed by research: (1) Organization and delivery of care; (2) Quality of care; (3) Evidence-based practices; (4) Access to care; and (5) Financing and costs of care.[95] For each of these areas, SAPRP articulates what we know, what we need to know, and priority research questions. For organization and delivery of care, SAPRP notes that *"if policymakers and researchers could focus on only one issue in the coming five years, the most critical is the need to more fully blend addiction treatment with primary care and other medical services."*

As the application of care management to specific chronic illnesses has grown, what is obvious is that individuals who need care management frequently have multiple co-morbid conditions and that care management cannot be effectively accomplished by multiple, disease-specific care managers.[3] To date, there is minimal evidence describing the number of conditions that can be successfully addressed by a single care manager. There is a need for research into the care management models and methods for effectively serving individuals with multiple co-morbidities.

To move person-centered healthcare homes forward will require thoughtful, deliberate and adaptive leadership at every level, across clinical disciplines and across the sectors that currently segment how people are served—how the delivery of their care is organized, how communication among providers occurs and how care is reimbursed.

This paper is intended to be used in national, state and local dialogues regarding the PCMH—to bring the relevance of MH/SU treatment into those dialogues and to support the resolution of the barriers described above. The promise of the PCMH can only be fully realized if it becomes the person-centered healthcare home, with MH/SU capacity fully embedded in primary care teams and primary care capacity embedded in MH/SU teams.

Appendix A: National Voluntary Consensus Standards for the Treatment of Substance Use Conditions: Evidence-Based Treatment Practices

Identification of Substance Use Conditions

Screening and Case Finding

1. During new patient encounters and at least annually, patients in general and mental healthcare settings should be screened for at-risk drinking, alcohol use problems and illnesses, and any tobacco use.
2. Healthcare providers should employ a systematic method to identify patients who use drugs that considers epidemiologic and community factors and the potential health consequences of drug use for their specific population.

Diagnosis and Assessment

3. Patients who have a positive screen for—or an indication of—a substance use problem or illness should receive further assessment to confirm that a problem exists and determine a diagnosis. Patients diagnosed with a substance use illness should receive a multidimensional, biopsychosocial assessment to guide patient-centered treatment planning for substance use illness and any coexisting conditions.

Initiation and Engagement in Treatment

Brief Intervention

4. All patients identified with alcohol use in excess of National Institute on Alcohol Abuse and Alcoholism guidelines and/or any tobacco use should receive a brief motivational counseling intervention by a healthcare worker trained in this technique.

Promoting Engagement in Treatment for Substance Use Illness

5. Healthcare providers should systematically promote patient initiation of care and engagement in ongoing treatment for substance use illness. Patients with substance use illness should receive supportive services to facilitate their participation in ongoing treatment.

Withdrawal Management

6. Supportive pharmacotherapy should be available and provided to manage the symptoms and adverse consequences of withdrawal, based on a systematic assessment of the symp-

toms and risk of serious adverse consequences related to the withdrawal process. Withdrawal management alone does not constitute treatment for dependence and should be linked with ongoing treatment for substance use illness.

Therapeutic Interventions to Treat Substance Use Illness

Psychosocial Interventions

7. Empirically validated psychosocial treatment interventions should be initiated for all patients with substance use illnesses.

Pharmacotherapy

8. Pharmacotherapy should be recommended and available to all adult patients diagnosed with opioid dependence and without medical contraindications. Pharmacotherapy, if prescribed, should be provided in addition to and directly linked with psychosocial treatment/support.
9. Pharmacotherapy should be offered and available to all adult patients diagnosed with alcohol dependence and without medical contraindications. Pharmacotherapy, if prescribed, should be provided in addition to and directly linked with psychosocial treatment/support.
10. Pharmacotherapy should be recommended and available to all adult patients diagnosed with nicotine dependence (including those with other substance use conditions) and without medical contraindications. Pharmacotherapy, if prescribed, should be provided in addition to and directly linked with brief motivational counseling.

Continuing Care Management of Substance Use Illness

11. Patients with substance use illness should be offered long-term, coordinated management of their care for substance use illness and any coexisting conditions, and this care management should be adapted based on ongoing monitoring of their progress.

Appendix B: Tools for Substance Use Screening, Treatment Planning and Evaluation

The AUDIT-C (Alcohol Use Disorders identification Test—Consumption)

This is a modified version of the AUDIT instrument that was developed to screen patients in primary health settings for hazardous or harmful drinking; it is a simple three question screen that can stand alone or be incorporated into general health history questionnaires and screens for:

- Frequency of alcohol consumption
- Quantity of alcohol consumption
- Quantity of alcohol consumption on a single occurrence

This tool has been adopted by Kaiser, the VA, the Joint Commission and the Business Coalition on Health for standard SU screening in primary care. While it doesn't test separately for drugs other than alcohol, there is substantial overlap in the populations, and if the AUDIT-C is positively endorsed, it can be followed by the CAGE-AID.

CAGE-AID: Cut down; people Annoy you, feel Guilty; need Eye-opener [Altered to Include Drugs]:

- The CAGE-AID is a conjoint questionnaire where the focus of each item of the CAGE alcohol use questionnaire was expanded to include alcohol and other drugs.
- The CAGE-AID is a simple four question self-report that is easily scored by the clinician.
- Advantage to using this screen is the ability to screen for alcohol and drug problems simultaneously rather than separately.

A two-step strategy approximates the NIAAA recommended approach, in which all patients identified as alcohol drinkers are asked about usual quantity and frequency of drinking, maximum drinks per occasion in the past month, and the four CAGE screening questions. The second step is a confimatory clinical assessment that also considers specific SU problems and dependence.

The NIDA-Modified Alcohol, Smoking, and Substance Involvement Screening Test (NMASSIST).

This Web-based interactive tool guides clinicians through a short series of screening questions and, based on the patient's responses, generates a substance involvement score that suggests the level of intervention needed. The tool also provides links to resources for conducting a brief intervention and treatment referral, if warranted. Can also sample it at: http://www.nida.nih.gov/nidamed/screening/

Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST)

ASSIST is a screening instrument developed for the World Health Organization (WHO) by an international group of substance abuse researchers to detect and manage substance use and related problems in primary and general medical care settings.

The American Society of Addiction Medicine (ASAM) Multidimensional Assessment

The ASAM patient placement criteria (PPC 2-R) provide guidelines to assess the severity of problems to help in determining the most appropriate level of care (admission criteria), remain in that level of care (continuing care criteria) and be discharged from that level of care (discharge criteria). These guidelines are divided into six assessment dimensions, as follows:

1. **Acute Intoxication and/Withdrawal Potential:** What risk is associated with the patient's level of acute intoxication? Is there serious risk of withdrawal symptoms based on the patient's withdrawal history? Are there signs of withdrawal? Does patient need acute inpatient detoxification services or can he be served in an Outpatient detoxification setting?
2. **Biomedical Conditions/Complications:** Are there current physical illnesses other than withdrawal, that need to be addressed or which complicate treatment? Are there chronic conditions that affect treatment? e.g., chronic pain with narcotic analgesics.
3. Emotional/Behavioral or Cognitive conditions/complications: Are there psychiatric illnesses or psychological, behavioral or emotional problems that need to be addressed or which complicate treatment? Are there chronic conditions that affect treatment? Do any emotional/behavioral problems appear to be an expected part of addiction illness or do they appear to be separate? Even if connected to addiction, are they severe enough to warrant specific mental health treatment?
4. **Readiness to Change:** Does the patient feel coerced into treatment or actively object to receiving treatment? How ready is the patient to change? If willing to accept treatment, how strongly does the patient disagree with others' perception that she/he has an addiction problem?
5. **Relapse/Continued Use or continued problem Potential:** Is the patient in immediate danger of continued severe distress and drinking/drugging behavior? Does the patient have any recognition and understanding of, and skills for how to cope with his/her addiction problems and prevent relapse or continued use? How aware is the patient of relapse triggers, ways to cope with cravings to use and skills to control impulses to use?
6. **Recovery/Living Environment:** Are there any dangerous family, significant others, living or school/working situations threatening engagement and success? Does the patient have supportive friendship, financial or educational/vocational resources to improve likelihood of successful treatment? Are there legal, vocational, social service agency or criminal justice mandates that may enhance motivation for engagement into treatment?

The Addiction Severity Index

The Addiction Severity Index (ASI) was developed in 1980 by A. Thomas McLellan and collaborators from the University of Pennsylvania's Center for the Studies of Addiction.

- The ASI is an assessment instrument designed to be administered as a semi-structured interview in one hour or less to patients who present for substance abuse treatment. The instrument gathers information about seven areas of a patient's life: medical, employment/support, drug and alcohol use, legal, family history, family/social relationships, and psychiatric problems.
- Using a ten point scale from 0 to 9, interviewer severity ratings indicate the degree of patient problems in each of the seven problem areas, based on historical and current information.
- Composite scores are based entirely on current information and are indicators of the present status of the patient; they are thus useful for treatment outcome studies, since successive Composite scores can be used to summarize changes in patient status.

Drug Abuse Screening Test (DAST)

This 20-item instrument may be given in either a self-report or in a structured interview format; a "yes" or "no" response is requested from each of 20 questions. It is constructed similarly to the earlier Michigan Alcoholism Screening Test (MAST).

The purpose of the DAST is 1) to provide a brief, simple, practical, but valid method for identifying individuals who are abusing psychoactive drugs; and 2) to yield a quantitative index score of the degree of problems related to drug use and misuse. A factor analysis of the 20 items has indicated that the DAST is essentially a uni-dimensional scale. Accordingly, it is planned to yield only one total or summary score ranging from 0 to 20, which is computed by summing all items that are endorsed in the direction of increased drug problems

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