THE NATIONAL QUALITY FORUM

A Path Forward to Measuring Continuing Care Management for Substance Use Illness: Patient-Focused Episodes of Care

Washington, DC: November 4, 2009
Workshop Summary

Over the past 15 years, it has become clear that substance use conditions are in many ways like other chronic health conditions requiring long-term management. In 2006, the National Quality Forum (NQF) endorsed a set of evidence-based practices for the treatment of substance use conditions. One of those practices was focused on continuing care management of substance use illness, specifically:

> 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 (NQF, 2007).

However, without a measurement strategy, it is not possible to move from endorsed practices to endorsed measures, to identify performance, improve treatment, and ultimately improve patient outcomes. Given the longitudinal and chronic nature of substance use illness and its attendant coordination needs, as well as the vital role of patient empowerment and knowledge, substance use illness is an excellent example of the utility of an episode-based model to assess what constitutes optimal care and how this can be achieved in the most efficient manner.

Project Background

This project built upon prior work at NQF completed under the National Voluntary Consensus Standards for the Treatment of Substance Use Conditions: Evidence-Based Treatment Practices project, as well as work under the auspices of the patient-focused episodes of care project which has developed a measurement framework for evaluating efficiency—defined as quality and costs—across the full trajectory of an illness.

The goal of this project was to lay a path forward to operationalize measurement of the NQF-endorsed practice of continuing care management of substance use illness by applying NQF's measurement framework for evaluating efficiency across patient-focused episodes of care. The project was guided by a Planning Committee, chaired by Allen S. Daniels, EdD (Depression and Bipolar Support Alliance), and comprised of experts from the substance use illness community and others with expertise in performance measurement (Appendix A). Primary support for this project was provided by the Open Society Institute (OSI) and the Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA).

Specifically for this project, NQF worked with the full range of stakeholders to:

- Commission a white paper that analyzed the current state of the field of continuing care management of substance use illness and the key issues around the development of a measurement strategy utilizing a value-based episode of care approach.
- Plan and convene a workshop to devise a path forward for developing measures of the NQF-endorsed practice of continuing care management of substance use illness. The workshop discussion built upon the commissioned white paper and was designed to result in recommendations for closing measurement gaps for the NQF-endorsed practice of continuing care management of substance use illness.

The following workshop summary provides a high-level synthesis of discussion at the workshop, *A Path Forward to Measuring Continuing Care Management for Substance Use Illness: Patient-Focused Episodes of Care*, convened November 4, 2009, in Washington, DC (see Appendix B for agenda and Appendix C for workshop invitees). The summary will: (1) briefly describe continuing care management (CCM) for substance use illness (SUI) and the current state of quality measurement for the field; (2) present one approach for measuring quality care through the patient-focused episodes of care framework and describe the Planning Committee's conceptualization of the framework to substance use illness; (3) highlight recognized gaps in quality measurement for the field; and (4) summarize a path forward based on expert recommendations for closing measurement gaps.

Where We Are Today: Continuing Care Management and Substance Use Illness Quality Measurement

Excessive use of alcohol and drugs is a major problem in the United States. It is a substantial drain on the U.S. economy and a source of enormous personal tragedy. It also, by every measure, qualifies as a major public health problem. Most persons with abuse or dependence do not receive the treatment they need; according to the 2006 National Survey on Drug Use and Health report, only 2.5 million of the 23 million who needed SUI treatment in a specialty facility received it. A 2009 report by SAMHSA's Center for Substance Abuse Prevention provided evidence of the cost burden of substance use illness, stating "[According to NIH] national estimates of the costs of illness for 33 diseases and conditions, alcohol ranked second, tobacco ranked sixth, and drug disorders ranked seventh."

Over the years, scientific knowledge has increased substantially regarding the use of effective, evidence-based therapies for treating people with substance use conditions. However, as is true of other areas of healthcare, the increase in scientific knowledge has not been accompanied by the consistent implementation of proven methods of treatment. The treatment field has traditionally been siloed, often doing the work itself to bridge the divide between the public health and healthcare systems and between providers within these systems to deliver on patients' needs. And while substance use illness is gaining recognition as a chronic condition that must be managed through long-term, coordinated care, the approaches to treatment, measurement of quality care, and accountability for that care have been inconsistent.

Unlike other chronic conditions, such as diabetes and cancer, the quality measurement field for substance use illness is lacking a strong set of endorsed quality measures to allow providers, payors, plans, and consumers alike to understand and report on performance. However, work is underway in the field to address this gap and build upon evidence-based treatment practices for SUI endorsed by NQF in 2007. And while notable examples of progress exist in several regions across the country, further work is needed to move the field toward endorsed measures that can be widely adopted for performance measurement and public reporting.

Experts convened at the workshop indicate that in order to move toward endorsed measures for substance use illness, several issues must be addressed. An important and foundational issue is the lack of agreement in the field on the definition of *continuing care management*. Confusion as to the parameters of CCM, including its care components and its start and end points, may shed light on the diversity of measurement of such services. Further dialogue and analytical work is necessary to reconcile these differences – to evaluate various definitions and examine convergence and divergence among them – so that the field can move forward on quality and performance measurement and shift quality assessment further into clinical practice.

This report adopted the definition of CCM as endorsed in the NQF report, *National Voluntary Consensus Standards for the Treatment of Substance Use Conditions: Evidence-Based Treatment Practices* (2007):

Practice Domain	Continuing Care Management of Substance Use Illness
Practice Statement	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.
Target Outcomes for Patients	• Receives care for all conditions (substance use, medical, and mental health) • Stabilization of coexisting conditions • Retention in treatment • Engagement in long-term monitoring • Prevention of relapse or delayed time to relapse

The specifications for this endorsed practice – what CCM entails; for whom it should be performed; who should perform it; and where it should be performed – speak to a coordinated, integrated approach to a patient's SUI treatment with strong sensitivity to coexisting conditions as well as particular consideration of the wide range of providers and settings that may be involved in treatment.

The white paper commissioned for this project (Appendix D), authored by Amy K. Rosen, PhD and James R. McKay, PhD, builds upon the practice definition above and offers insight into CCM and SUI care delivery; measures currently available and needed to speak to the quality of SUI care delivered; and analysis of the technical aspects associated with adopting episode-

based measurement for CCM and SUI. The next section elaborates on the episode framework and how it was conceptualized to substance use illness.

One Approach to Quality Measurement and Performance Improvement: The Patient-Focused Episodes of Care Framework

NQF's Measurement Framework for Evaluating Efficiency Across Patient-Focused Episodes of Care

Considering the complexity of substance use illness, as well as its numerous care settings and care providers, conceptualizing valuable and efficient care for patients and their families can prove challenging. Endorsed by NQF in 2009, the *Measurement Framework for Evaluating Efficiency Across Patient-Focused Episodes of Care* offers an approach to evaluating efficiency across episodes of care while taking into careful consideration not only the various settings and providers of care (and transitions between them), but also specifically the treatment preferences of the patient. Furthermore, in presenting the opportunity to assess efficiency (as a function of cost and quality of care) from the patient's perspective as well as the provider's, the framework also specifically allows for the assessment of gaps in measurement, care provision, and patient-provider and provider-provider communication, driving toward a comprehensive set of measures of efficiency in the system and value to the patient.

The episode of care framework is governed by a set of key measurement domains and served to frame the white paper content and discussion at the workshop. The domains offer a balance between identifying and filling measurement gaps while still keeping central the intentions of efficient, patient-centered care:

- Patient-level outcomes
- Cost and resource use
- Processes of care (NQF, 2009)

The episode of care approach offers strengths and limitations with respect to feasibility and measurement among others, especially as they apply to a range of conditions from acute to chronic. But it is by looking at the episode of care approach through the lens of these various conditions, including substance use illness, which allows for these strengths to be bolstered and limitations addressed moving forward.

Strengths:

1. *Patient-centered* way of evaluating health system performance.
2. Clinical guidelines can offer *clear pathways*, and evidence-based endorsed practices can help determine the duration and level of services for populations within such pathways.
3. A way to shift performance measurement toward assessments that allow judgments to be made about *value*—by providing measures of quality, cost of care, and

outcomes that can only be interpreted in the light of patients' well-informed preferences.
4. Potential to foster and enable *new strategies for financing* healthcare that could eliminate current incentives to overuse certain services (i.e., imaging for low back pain) and underuse others (i.e., preventive care such as colon cancer screening), and could facilitate the development of alternate payment models.
5. Allows for *comparisons for conditions over time*, not simply between clinical encounters: This timing construct provides for linkages with payment and performance reporting systems, and may also provide the opportunity for a patient's progress to be tracked from year to year, thereby extending the larger episode beyond the single year timeframe.

Limitations:

Despite its advantages, limitations are associated with attempting to evaluate efficiency across episodes. These stem mainly from the inability of existing commercial episode grouper methodologies to:

1. Address *appropriateness* of care.
2. Adequately *risk-adjust* for different populations.
3. Manage measurement of patients with *multiple chronic conditions and complex co-morbidities*, especially relevant in substance use illness.
4. Facilitate *comparisons among organizations*.

The patient-focused episode of care framework report offers further discussion of additional considerations with regard to both the strengths and limitations of the episode of care approach, including: access to quality care; limits of a 1-year timeframe, particularly for chronic conditions; difficulty of payment structure and mechanisms; and ever-present data needs.

Conceptual Episode of Care Model for Substance Use Illness

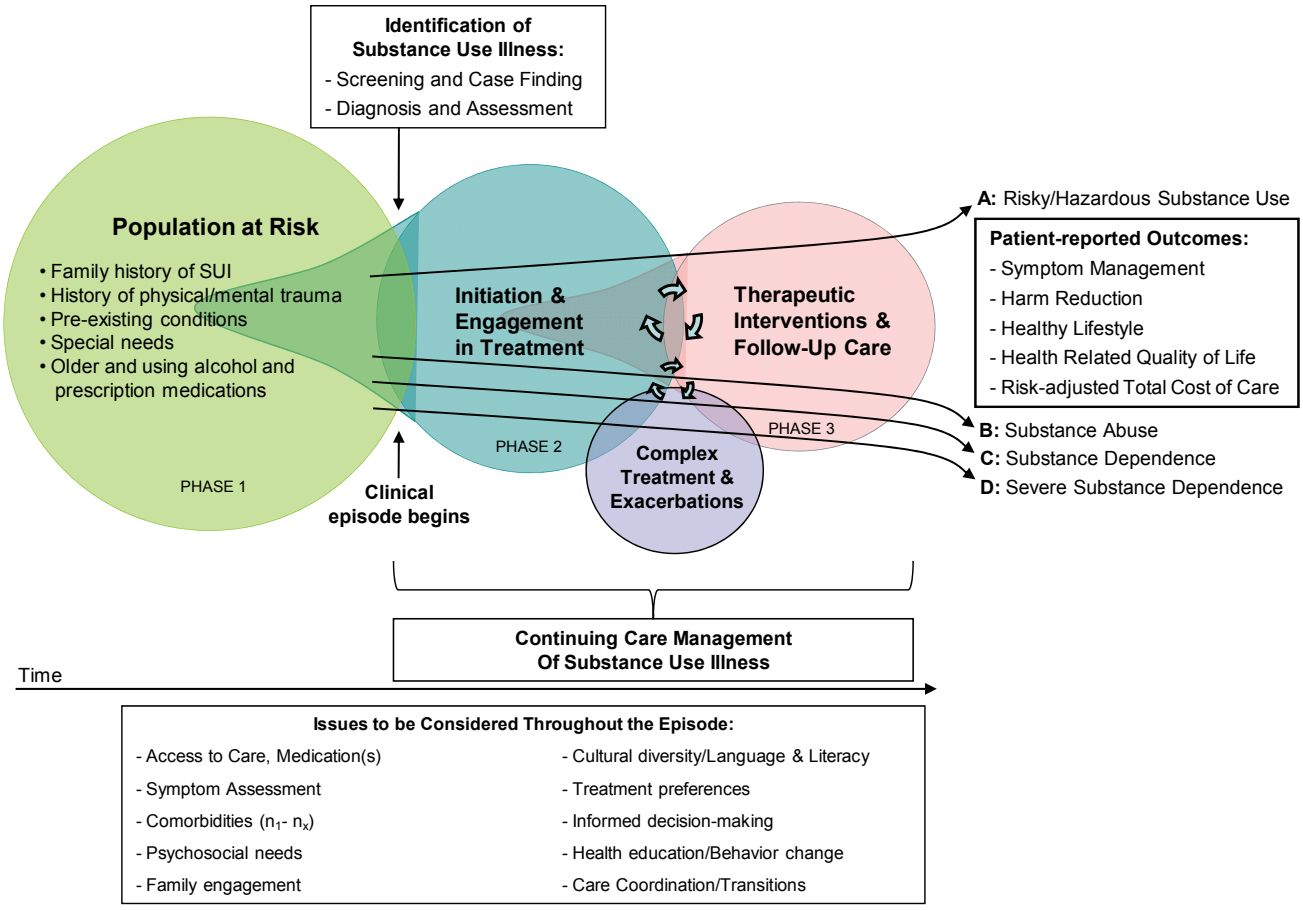
It is important to note that treatment for *substance use illness* is incredibly complex; the condition encompasses a wide range of types of substance abuse, varying severity of illness for each substance, and impacts a highly heterogeneous population. And on top of the lack of integration SUI treatment faces both with and within the healthcare system, treatment for certain populations also involves considerable interaction and coordination with non-healthcare sectors, including housing, welfare, employment, and legal systems. Furthermore, social constructs of stigma and shame often keep those with substance use illness and their families from seeking appropriate and comprehensive medical attention.

Understanding these compounding challenges in being able to reach at-risk populations allows policymakers and providers alike to appreciate the value of quality care across the full continuum of a patient's substance use illness, from identification of the condition and

initiation and engagement in treatment to therapeutic interventions. Critical through all phases is the coordination of care between the multiple settings, providers, and community resources engaged in helping patients and their families successfully manage their condition and delay and/or avoid relapse.

For the workshop invitees' reaction, a Working Group of the Planning Committee developed an episode model for substance use illness (Figure 1) based on the patient-focused episodes of care framework, which includes the identification of opportunities for continuing care management. Creating pathways based on severity of illness and using NQF-endorsed practices for support, a substance use illness episode model was created to visually represent this conceptualization and understand the various areas where measures would be most useful.

Figure 1. Context for Considering a Substance Use Illness Episode of Care



Covering the full range of severity of substance use illness, the model demonstrates the complexity of issues (access to care, psychosocial needs, treatment preferences, informed decision making, and health literacy, among others) to consider both within and beyond the health care system as a patient moves through the episode. The model further presents several

pathways by which a patient with substance use illness might negotiate through diagnosis, treatment, and follow-up with multiple care providers and settings, as well as consideration for several patient-reported and desired outcomes. Within this broad substance use illness episode, continuing care management components of the episode are offered. A brief overview of the various phases of the substance use illness episode is provided below.

Episode Phases

Ideally, in evaluating how well the health care system performs in providing high quality substance use illness care, it would be important to consider the population(s) at risk and to capture the period preceding diagnosis, when it is conceivable that the condition—and its diagnosis and subsequent treatment—could have been detected at an earlier stage and adequate health system, public health, employer, and community resources marshaled to support a patient and family through this initial phase.

As identified by the Working Group, the populations at particular risk of SUI include:

i. Patients with family history of SUI (characterized by initial substance use at an early age)
ii. Patients with histories of physical and/or mental trauma
iii. Patients with pre-existing medical and/or psychiatric conditions (SUI may arise as a consequence of physical and/or mental stress related to pre-existing medical or psychiatric condition(s))
iv. Patients who belong to populations with special needs (SUI occurs in conjunction with physical and/or mental stress, cultural/environmental factors and limited access and/or use of treatment, and society's reaction to the patient's sexual orientation)
v. Patients who are ethnic minorities (SUI may be intensified as a function of cultural tradition and limit access and/or use of treatment)
vi. Older patients who use alcohol and prescription medications (often overlooked as an at-risk group for SUI, this risk group can be characterized by late presentation to the healthcare system due to a lack of effective screening at the primary caregiver level)

<u>Phase 1: Population at Risk</u>

In this initial phase, the focus is on opportunities for detection/screening of SUI, which are strongly dependent upon the care setting in which the patient presents, as well as the training, awareness level, and self-efficacy of the care provider. In many cases screening/detection is carried out in a different setting (i.e. community or geriatric center) and by a different individual than that who is responsible for establishing a patient's diagnosis; therefore, careful attention to the "hand-off" between detection/screening and diagnosis can result in further opportunities to diagnosis and link a number of individuals with SUI to the appropriate care resources for treatment.

The above considerations are applicable to the experience of all types of SUI patients within the acute care setting. This phase also includes the start of the clinical component of an SUI episode with presentation into the clinical setting. Screening and case finding occurs in the primary care, emergency care, and specialty care settings, and is followed by an initial diagnosis and assessment prior to entry into the next episode phase.

Phase 2: Initiation and Engagement in Treatment

Transitioning from screening and diagnosis, initiation and engagement in treatment commences in the second phase of the episode. This phase specifically can include a brief intervention, which is characterized by motivational interviewing and information sharing and advice, and can be successful for particular patient types and substances.

Patients are categorized based on the severity of their illness (Pathways A through D, developed de novo for the purpose of this exercise) and thus move through subsequent portions of the episode in different ways, with services needed/rendered and settings of care variable:

Pathway		**Patient Characteristics and Treatment Expectations**
A	Risky or Hazardous Substance Use	- Patients present in episode with low severity of substance use illness. - Expectations of treatment include symptoms' cessation or remission, or ongoing symptom management with improved quality of life and harm reduction.
B	Substance Abuse with or without medical co-morbidity	- Patients present in episode with intermediate severity of illness, which may be further exacerbated by the presence of a medical and/or psychiatric condition(s) (depression, anxiety, PTSD). - Expectations of treatment include ongoing symptom management with improved quality of life and harm reduction.
C	Substance Dependence	- Patients present in episode with high severity of illness or returning for treatment for an illness characterized by dependence, which may be further exacerbated by the presence of a chronic medical condition(s). - Expectations of treatment include ongoing symptom management with improved quality of life and harm reduction.
D	Severe Substance Dependence	- Patients present in episode with exceedingly high severity of illness characterized by the presence of multiple substance use, medical, and/or psychiatric problems. This pathway would also include a subset of patients who are exhibiting a lack of engagement in their treatment plan. - Expectations of treatment include improved quality of life, remission or harm reduction and involvement in 12-step program.

Between this second phase and the third phase, certain patients may fluctuate in their needs and circumstances, as captured by the "Complex Treatment & Exacerbations" period in the diagram. For such patients, the ability of care providers to make appropriate adjustments in care will allow a patient to better manage his/her condition. Continuing care management will encompass care for specific patients and their families across the second and third phases of the episode (including complex treatment and exacerbations) as determined by the severity of illness and the assessments of care providers.

Phase 3: Therapeutic Interventions and Follow-up Care

The third phase of the substance use illness episode involves the use of specific interventions best suited to the needs of the patient and determined by the severity of illness which accounts for substance(s) abused and co-occurring conditions. Therapeutic interventions may include: psychosocial interventions; pharmacotherapy; and/or adjunctive self-help programs. As the condition increases in complexity, so may the treatment plan and the need for regular adjustments to the treatment plan.

This episode model and its accompanying outline, which offers additional detail on the phases and populations at risk (see Appendix E), could prove helpful in guiding future work to build measure sets for varying episodes of substance use illness. The white paper also offers additional detail on the technical and operational considerations for taking such an approach to this condition.

Addressing Measurement Gaps: Driving Toward the Desired State of Substance Use Illness Quality Measurement

The episode of care approach provides a useful framework for mapping existing substance use illness practices and measures as well as for highlighting measurement gaps, and thus can inform us about areas in need of measure refinement or development. The Workshop built upon gaps offered in the white paper (Table 1) and provided an open forum through which experts in substance use illness and quality measurement could expand on these identified gaps and dive deeper.

According to the white paper, mapping measures currently available and/or in use and subsequent possible measurement gaps for substance use illness to the three measurement domains of the episodes of care framework suggests the following:

Table 1. Available Measures and Perceived Gaps in Current Quality Measurement for Substance Use Illness (Rosen and McKay, 2010)

Domain	Available Measures	Gaps in Measurement
Patient-level Outcomes	• Substance Use • Consequence of Use • Social Functioning • Occupational functioning • Involvement with legal system • Medical and psychiatric conditions	• Standardized protocols that link regular assessments of progress to clinical decision making • Patient preference • Quality of life • Patient satisfaction • Case-mix adjustment strategies
Cost and Resource Use	• Costs of individual services • Number of visits, services received, sessions, etc.	• Overall cost and services delivered across episode of care • Structural elements needed to implement and sustain continuing care management model • Performance contracting and other innovative payment mechanisms
Processes of Care	• Engagement and retention • Progress toward treatment goals	• Standardized protocols that link regular assessments of process to clinical decision making • Positive recovery goals • Case-mix adjustment strategies

The workshop further elaborated on these measurement gaps through expert presentations and discussion on stakeholder-specific challenges and opportunities as they relate to quality service delivery and measurement of quality care. A selection of key, overlapping gaps are highlighted below, and workshop presentations are available online for further detail:

Patient Engagement and Patient-focused Measurement

In summary, patient outcomes, patient self-management, treatment goals, shared decision-making, patient/family engagement, and other factors intrinsic to the episode framework are not fully captured by current measures. Patients and their families are missing the information they need to understand the condition and appreciate the resources available to increase the potential for successful management and recovery. Providers are also missing critical information on their patients' experience and satisfaction of care, thereby jeopardizing the communication between providers and patients and between providers themselves to offer comprehensive care that is in accordance with patient preferences and treatment goals and that is monitored and adjusted over time.

Care Coordination and Linkages to the Community

Current measures do not take into consideration the multidisciplinary and interdisciplinary provider teams working across multiple and varied care settings involved in substance use illness care. This is especially true of the dependence of substance use illness patients and families on resources external to traditional healthcare settings. Thus, clearer coordination and communication between providers in healthcare and stronger, more explicit linkages to community resources can help all providers of care offer the diverse set of treatment options that patients need to manage and maintain recovery through their substance use. Particular focus on the role of the primary care setting and necessary hand-offs to specialty care services is key. These factors must be taken into account in order to report on measures for the full episode of substance use illness care and to be able to understand the quality of care being delivered.

System-Level Capacity/Needs

Successfully treating substance use illness requires that its providers and settings be better integrated within the current healthcare system. Such integration, which currently does not exist for substance use illness, often depends upon structural changes, namely the creation and use of substance use illness healthcare information systems that can meet current standards for and have data that is integrated with the general health care system. These systems would then be able to reflect substance use illness episodes, which they are currently unable to do. Certain laws, regulations, and practices may require revisions that break down current communication barriers between providers while maintaining respect for the privacy of those living with substance use illness. Ultimately, payment mechanisms and their incentives will need to align with the needs of patients and the ability of providers to deliver quality care and report outcomes of that care.

The Path Forward: Expert Recommendations of Needs and Next Steps

In an effort to fully capture the expertise assembled at the workshop, a concluding exercise was conducted whereby each attendee offered concrete recommendations for closing the substance use illness quality measurement gaps highlighted above. The recommendations were structured by the measurement domains of the episode framework, with particular focus on how continuing care management's target outcomes for patients (as described earlier and detailed in the 2007 NQF consensus report) may be accounted for. A summary of the high-level recommendations is offered below; a detailed account of the identified measurement gaps and considerations for closing those gaps is presented in Appendix F.

While the recommendations detailed within this workshop summary do not comprehensively capture all that must be achieved to continue to measure and improve the quality of continuing care management for substance use illness in the United States, they offer concrete and critical

suggestions for a path forward, using the gaps and challenges discussed as opportunities for improvement, and taking into consideration all aspects of care, complex as they may be.

Patient-Level Outcomes

One of the most apparent themes across the suggested recommendations for closing substance use illness quality measurement gaps was a call for patient-focused measurement that spoke to outcomes of care. Workshop participants spent significant time discussing that a focus on outcomes and cross-cutting issues must come first, with particular emphasis on collecting, analyzing, and sharing data on patient experience of care and satisfaction with care (and understanding the difference between the two). Given the diversity of resources that can be employed to provide comprehensive care to a patient with substance use illness, understanding the impact care from each setting and provider has on a patient's outcomes will allow for a more accurate reflection of the value of the care provided, especially as it may relate to the original goals of the treatment plan.

Finally, described as one of the most critical aspects of a treatment plan for substance use illness and to help balance the providers' accountability for this complex condition, many workshop participants called for measures that would speak to a patient's successful self-management of the condition and an understanding of resources available to support a patient in this particular aspect of care. Furthermore, gaining an appreciation for patient and family knowledge of substance use illness as well as the various resources available within the healthcare system and community settings may offer insight into where and how to target services to reach critical at-risk populations to make a positive impact on population health.

Cost and Resource Use

The workshop participants called for continued development of cost and resource use measures that can help capture the complexity of the services and settings a patient with substance use illness may require across the full episode of care. Such measures not only can measure the volume or length of services, but also can speak to the *value* a patient with substance use illness places on the care received. Since currently available resources (including workforce readiness and training) fall short of providing the care needed for this condition, the argument to continue and increase investment in programs and services to help alleviate the economic burden substance use illness creates for the United States is not as strong as it can be.

Such an approach would specifically help bolster efforts by employers and purchasers of health care to continue to develop wellness and other support programs to help address the needs of patients with substance use illness while increasing productivity and well-being. Careful attention to payment models for care for substance use illness and the measure components of those models can be helpful in addressing any existing payor gaps for all levels of care, including continuing care management.

Processes of Care

As discussed in the earlier sections, substance use illness treatment involves a wide range of expertise to successfully manage the condition and handle the complexities of recovery over time. These experts operate within and across multiple care settings and exist within the healthcare system, the public health system, and across various community resources. In order to ensure quality care for patients and their families, care must be highly coordinated and accountability shared across the episode of care. Included in this effort is consideration of the housing, employment, food, education, welfare, and justice systems, among others, for a fuller appreciation of the various ways outside of the healthcare system that a patient with SUI may enter care and subsequently succeed in managing the condition.

Recognizing the chronic nature of substance use illness, this coordination will involve a great deal of work during hand-offs between primary care and specialty care and during points at which a treatment plan must be evaluated and adjusted to achieve treatment goals. Measures must speak to the quality of care throughout the episode, with particular attention paid to ongoing monitoring of patients that is sensitive to the type of substance use illness, the severity of that illness, and the specific cultural, socioeconomic, and co-morbidity considerations that may directly or indirectly impact patient outcomes. Several workshop attendees suggested encouraging the healthcare system to approach quality measurement for substance use illness similarly to the approach currently taken for other chronic conditions, such as diabetes and cardiovascular disease. Current regulations that make sharing of patient data across settings difficult or impossible and legal barriers limiting patients' access to public and private resources need to be revised.

Additional Considerations

Significant needs exist around translating research into practice and in securing the correct and relevant data elements to present a complete picture of the evidence-based care that each patient deserves. Although regulations currently limit data sharing, it is clear that progress on closing measurement gaps will rely on the creation and adoption of a system for data collection and sharing that integrates substance use illness care delivery and measurement with the general healthcare system. Without this integration, process measures may not give us some of the information we need to better understand patient outcomes.

Conclusions and Next Steps

It is clear that barriers exist today that do not allow for providers and communities to offer the best possible care to all substance use illness patients and for those patients to access that care. Current measures are limited in scope and significant data and research needs exist. Furthermore, as various stakeholders in the continuum of substance use illness care begin to work to close the measurement gaps and achieve more efficient and more valuable care for the patient, the roles the patients and their families play will prove critical to any future success, as will the level of coordination between the multiple care providers and settings. Measurement's

reach will also need to consider broadening well beyond the clinical setting and into communities, where much-needed supports can be provided and the cultural and social factors associated with substance use illness development and treatment (including disparities) addressed. The field needs to continue to push from evidence-based practices to evidence-based measures.

NQF has been active in taking steps to help close these measurement gaps. As the convener and a Partner of the National Priorities Partnership (NPP), NQF has worked with 31 other key stakeholders in health and health care to establish national priorities and goals for performance measurement and public reporting. The Partnership has identified an initial set of six national priorities (patient and family engagement; population health; safety; care coordination; palliative care; overuse), with corresponding goals and actions. Several of these priorities directly relate to the gaps and path forward described in this summary, particularly patient and family engagement, population health, and care coordination.

Furthermore, in an effort to build upon its work on the episode of care approach to measurement, NQF will continue to convene experts on this approach and related cost and resource utilization aspects of care to work toward encouraging the development and construction of usable, cross-cutting measure sets to assess care for chronic and acute conditions alike. The work of this group will also contribute to the conceptualization of the episode framework to *multiple* chronic conditions, set to commence in the summer of 2010. Additionally, substance use illness is being considered a co-morbidity in NQF's current work on consensus standards for mental health outcomes.

Taken together, the recognized gaps in substance use illness quality measurement and the expert recommendations provided through this NQF workshop provide a better understanding of key measurement gaps and a conceptual framework—patient-focused episodes of care—for moving forward.

Appendix A

Substance Use Illness Workshop Planning Committee

Allen Daniels, EdD *(Chair)*
Executive Vice President and Director of Scientific Affairs; Depression and Bipolar Support Alliance

Lawrence Becker
Director, Strategic Partnerships and Alliances; Xerox Corporation

Michael G. Boyle, MA
President; Fayette Companies

Bethany DiPaula, **PharmD, BCPP**
Assistant Professor/Director of Pharmacy; University of Maryland/Springfield Hospital Center

Pamela S. Hyde, JD *(until 10/4/09)*
Cabinet Secretary; New Mexico Human Services Department

Keith Isenberg, **MD**
Manager, Medical Director, Behavioral Health Central Region; WellPoint

Daniel Kivlahan, PhD
Director, Center of Excellence in Substance Abuse; VA Puget Sound Health Care System

Edison Machado, Jr., MD, MBA
Medical Director and Programs Leader; Bridges to Excellence

Frank McCorry, PhD
Director of NYC Operations; New York State Office of Alcoholism & Substance Abuse

Madeline Naegle, PhD, FAAN, APRN
Professor and Coordinator, Advanced Practice Nursing: Psychiatric-Mental Health; Coordinator, Substance Related Disorders Sequence; Director, WHO Collaborating Center in Geriatric Nursing Education; New York University College of Nursing

Harold Pincus, MD
Director of Quality and Outcomes Research; New York Presbyterian Hospital and Health System

Charlotte Rerko, RN, BC
Chief Clinical Officer; Recovery Resources

Rhonda Robinson Beale, MD
Chief Medical Officer; United Behavioral Health

Mark Willenbring, MD
Director; National Institute on Alcohol Abuse and Alcoholism

NQF Staff

Karen Adams, PhD
Vice President, National Priorities

Anisha S. Dharshi, MPH
Senior Program Director, National Priorities

Nadine C. Allen
Administrative Assistant, National Priorities

Appendix B

A Path Forward to Measuring Continuing Care Management for Substance Use Illness: Patient-Focused Episodes of Care

November 4, 2009

Omni Shoreham Hotel
2500 Calvert Street NW
Washington, DC 20008

WORKSHOP AGENDA

8:30 am Welcome & Opening Comments

Janet Corrigan, NQF, President and CEO
Allen Daniels, Depression and Bipolar Support Alliance, Committee Chair
Anisha S. Dharshi, NQF, Program Director, National Priorities
Karen Adams, NQF, Vice President, National Priorities

Message from the Sponsors

Victor Capoccia, Open Society Institute
Jack Stein, Substance Abuse and Mental Health Services Administration

8:45 am **Panel I**

Current and Desired State of Measurement for Continuing Care Management of Substance Use Illness: A Prospective Approach

White Paper Presentation:

Amy Rosen, Center for Organization, Leadership, and Management Research, VA Boston Healthcare System and Boston University School of Public Health
James McKay, University of Pennsylvania, Penn-VA Center for Studies of Addiction, and Treatment Research Institute

Presentation to include: Review of key components of white paper, as well as preliminary discussion of direction forward.

9:15 am Discussion Period with Invited Participants (including opportunity for audience to weigh in)

10:30 am **Panel II**

NQF's Measurement Framework: Application of the Episode of Care Framework to Continuing Care Management for Substance Use Illness

Review of NQF Episodes of Care Measurement Framework
Larry Becker, Xerox Corporation
Edison Machado, Bridges to Excellence

Application of Episode of Care Framework to Substance Use Illness
Madeline Naegle, New York University, American Nurses Association
Edison Machado, Bridges to Excellence

11:15 am Discussion Period with Invited Participants (including opportunity for audience to weigh in)

12:15 pm Lunch

1:00 pm **Panel III**

Addressing Measurement Gaps in Continuing Care Management for Substance Use Illness

Key Gaps in Continuing Care Management for Substance Use Illness: What Areas of Quality Need to be Addressed?

Key Perspective/Area	*Speaker*
Consumer/Patient	*Patricia Taylor, Faces and Voices of Recovery*
Health Plan	*Rhonda Robinson Beale, United Behavioral Health*
Health System & Primary Care	*Jeff Samet, Boston University School of Medicine*
Specialty Care Provider	*Arthur Schut, Arapahoe House*
Employer/Purchaser	*Eric Goplerud, George Washington University School of Medicine*
State Medicaid/Agency	*Suzanne Fields, Massachusetts Office of Health and Human Services*
Reactant	
Criminal Justice System	*Michael Finigan, NPC Research, Inc.*

2:00 pm Discussion Period with Invited Participants (including opportunity for audience to weigh in)

2:45 pm **Group Exercise: Recommendations**

3:15 pm **Panel IV**
Next Steps: Final Recommendations for NQF and the Broader Health/Public Health Community

Review of Suggested Measurement and Prioritization Areas

Key Delineation of Next Steps: Group Discussion with Invited Participants (including opportunity for audience to weigh in)

Allen Daniels

4:25 pm Closing Comments
Allen Daniels
Anisha Dharshi

4:30 pm Adjourn

Appendix C

Substance Use Illness Workshop Invitees

Robert Anthenelli
University of Cincinnati

Lawrence Becker
Xerox Corporation

Michael G. Boyle
Fayette Companies

Mady Chalk
Center for Policy Research and Analysis
Treatment Research Institute

Lelin Chao
People's Community Health Center

Allen Daniels
Depression and Bipolar Support Alliance

Bethany DiPaula
University of Maryland/ Springfield Hospital Center

Sarah Duffy
National Institute on Drug Abuse
Neuroscience Center

Arthur Evans
Department of Behavioral Health and Mental Retardation Services

Quadir "J.J." Farook
InfoMC

Suzanne Fields
Massachusetts Office of Medicaid

Michael W. Finigan
NPC Research, Inc.

Eric Goplerud
George Washington University

Pamela Greenberg
Association for Behavioral Health and Wellness

Keith Isenberg
WellPoint
Anthem Blue Cross Blue Shield

Daniel Kivlahan
VA Puget Sound Health Care System

Michael R. Lardiere
National Association of Community Health Centers

Edison Machado, Jr.
Bridges to Excellence

Ronald Manderscheid
Global Health Sector
SRA International, Inc.

Frank McCorry
New York State Office of Alcoholism and Substance Abuse Services
Office of New York City Operations

James McKay
University of Pennsylvania Medical Center

Madeline Naegle
New York University
American Nurses Association

Morrie Olson
Reckitt Benckiser Pharmaceuticals, Inc.

Harold Pincus
New York Presbyterian Hospital and Health System

Charlotte Rerko
Recovery Resources

Steven Richeimer
University of Southern California
Keck School of Medicine

Rhonda Robinson Beale
United Behavioral Health

Amy Rosen
Center for Organization, Leadership, and Management Research, Boston University School of Public Health

Jeffrey Samet
Boston University School of Medicine

Arthur Schut
Arapahoe House, Inc.

Patricia Taylor
Faces and Voices of Recovery

Constance Weisner
Kaiser Permanente
Division of Research

Mark Willenbring
National Institute on Alcohol Abuse and Alcoholism

Appendix D

White Paper

A PATH FORWARD TO MEASURING CONTINUING CARE MANAGEMENT FOR SUBSTANCE USE DISORDERS:

PATIENT-FOCUSED EPISODES OF CARE

A white paper to serve as a background discussion document for an NQF workshop designed to adapt and improve substance use illness quality measures for continuing care management within a changing information and practice environment.

Amy K. Rosen, PhD
Professor, Health Policy and Management
Boston University School of Public Health
and VA Research Career Scientist
VA Boston Healthcare System
Boston, MA

James R. McKay, PhD
Professor of Psychology in Psychiatry
Director, Center on the Continuum of Care
in the Addictions
Director, Philadelphia VA CESATE
University of Pennsylvania

I. Introduction

Goals of the White Paper

The goals of this white paper are: (1) to define the key elements and goals of continuing care management; (2) to apply an episodes framework to the conceptualization of continuing care management for substance use disorders (SUD); (3) to identify challenges in applying an episode framework to continuing care management, including important gaps in measurement; and (4) to propose methods for assessing the quality and efficiency of continuing care management provided within an episode framework. These topics are addressed in the next sections.

Structure of the White Paper

This paper begins with a discussion of the key elements and goals of continuing care management. An episode framework is then described, as applicable to chronic disease, and this framework is applied to continuing care management for SUD. We present both the strengths and challenges in operationalizing this approach with respect to the SUD continuing care treatment field. Next, we discuss the current state of the treatment system for SUD, including treatment guidelines and quality measures being used in research and in practice. These are conceptualized within the three measurement domains of the episode framework: patient-level outcomes, overall resource use, and processes of care. Suggestions for an improved treatment delivery system that uses measurement of outcomes and processes to inform clinical decision making in continuing care management are also presented. We conclude with a discussion on the perceived gaps in measures to assess quality of continuing care management and suggestions

for measurement of quality that would help move the field forward and effectively operationalize an episode framework for continuing care management of SUD.

II. Key Elements and Goals of Continuing Care Management

To address the chronic nature of SUD, the field of addiction treatment has increasingly focused on the development and implementation of "continuing care" interventions (Dennis & Scott, 2007; McKay, 2009). A typical example of a continuing care intervention is weekly group counseling after residential or intensive outpatient treatment. Extended low intensity monitoring and linkage to community resources following the completion of standard outpatient treatment are also examples of continuing care. Continuing care can be provided through a number of different modalities and orientations, including group, individual, and couple/s family therapy, and monitoring visits or "recovery checkups." It can be delivered in specialty clinics, other settings, or remotely via telephone, tele-video, or the internet.

At this point, there are a number of other terms in the addiction treatment field that imply or are in some way associated with the concept of continuing care management (McKay, 2005). These include "aftercare," "step-down care," "stepped care," "continuum of care," and "disease management." However, "continuing care," and these related terms, all describe service delivery systems in which treatment for SUD typically involves some phase of care beyond the initial acute care episode. The key goals of continuing care management include the following (Dennis & Scott, 2007; McKay, 2009):

- Easing the transition from a more intensive to a less intensive form of treatment
- Regular monitoring of patients' symptoms, status, and functioning
- Addressing relapse risks as they emerge through the use of evidence-based interventions

- Providing support for efforts to deal with co-occurring problems
- Facilitating ongoing participation in self/mutual help programs
- Providing social support or linkage to social support
- Linking the patient to other sources of recovery support in the community
- Facilitating patients' involvement in a range of positive, recovery oriented activities
- Tailoring, or adapting, treatment over time as needed in response to changes in patients' symptoms, status, or functioning to provide more effective and cost-effective care

To determine the quality of continuing care management at the program or system level, it is necessary to assess the degree to which these goals are being achieved. As is discussed later in the paper, not all of these goals are regularly met in the current substance use disorder service delivery system.

There is general agreement that individuals with alcohol or drug dependence require continuing care management, particularly if they have a history of multiple treatment episodes followed by relapse. However, there is less agreement regarding whether individuals with substance use problems and disorders that have not progressed to that level of severity and chronicity need continuing care management, and if so, what that should entail. There are also some differences of opinion as to where in the recovery process continuing care interventions should begin. For some participants in the NQF continuing care management initiative, continuing care should begin relatively early in the treatment process, after an intensive intervention such as residential or inpatient treatment or intensive outpatient treatment. In this situation, continuing care provides a combination of treatment and monitoring, in which the balance shifts more from the former to the latter over time. Alternatively, for other participants,

continuing care represents relatively low-level monitoring, which should be provided after formal clinic-based phases of treatment are completed. According to the first definition, standard outpatient care that follows residential or intensive outpatient treatment would be seen as continuing care, whereas according to the second definition, it would not.

III. Episodes of Care

An episode of care is a "series of temporally contiguous health care services related to treatment of a given spell of illness or provided in response to a specific request by the patient or other relevant entity" (Hornbrook, Hurtado, and Johnson, 1985). It relates health care inputs (the specific set of events, process and time period necessary for generating a specific outcome) to health care outputs. This conceptual framework serves as a foundation for evaluating health care delivery, by examining the complexity of diseases and related health care services, regardless of setting or service, that are delivered for a particular medical care problem (Rosen and Mayer-Oakes 1999; Rosen and Mayer-Oakes, 1998; Rosen et al., 1998).

Episodes are also useful for evaluating efficiency --costs and quality-- providing a measurement strategy that can identify both quality and quantify costs for individual services provided during the episode (Hornbrook, Hurtado, and Johnson, 1985; Rosen et al., 1998). Episodes typically involve multiple encounters; each encounter is composed of the chronologic sequencing of services and events over a defined period of time, allowing for the examination of the entire process of care that is rendered. An episode of care, as a unit of analysis, thus makes it possible to evaluate the quality of care delivered around a specific condition, at varying points within the episode, without confounding by care setting or type of provider. For example, episodes link processes with outcomes of care, providing a unique window into whether

treatment follows evidence-based guidelines for a particular condition or whether a patient's outcome reflects the treatment delivered. Finally, an episode approach allows for a comprehensive comparison of medical conditions longitudinally, by tracking care across systems and providers over time. In some organizations, readily available claims or encounter data can be easily used to generate episodes. These data contain both dates of service and events, allowing care to be organized in chronological sequence, providing a meaningful way of examining the course of treatment delivered to patients (Hornbrook, Hurtado, and Johnson, 1985).

An episode framework is also useful for providing a patient-centered approach, if the treatment and outcome preferences of a patient are accounted for in the episode. An "episode of illness," as compared with an "episode of care" refers to what the patient actually experiences and how he/she perceives the illness rather than the health care services organized to deliver care related to that specific condition. An episode provides a framework for examining how well the patient's preferences for treatment actually match with the care processes that are being delivered (Hornbrook, Hurtado, and Johnson, 1985). The patient's needs at each stage of an episode (diagnostic evaluation, treatment intervention, and continuing care) can be evaluated. For example, at the end of the episode of care, two key patient-related outcomes are measurable: 1) patient-level outcomes and 2) overall resource use. These domains provide important information on whether the care delivered was appropriate in meeting the patient's needs and medical condition (Brook, 2009). They also allow for a longitudinal assessment of the quality and cost (i.e., efficiency) of the episode across the entire trajectory of treatment. Processes of care, across the trajectory, are also important domains necessary for measuring efficiency, particularly if they are strongly linked to the intermediate or final outcomes being assessed. How

all these dimensions get incorporated into an episode is challenging, given the variation in severity across patients, their differing needs, and the variety of providers and settings involved in care.

An Episode of Care Framework for Continuing Care Management for SUD

An episode of care framework has been developed and endorsed as a conceptual model by the National Quality Forum (NQF) for measurement of quality and efficiency. The framework has been conceptualized for application to several chronic diseases, including diabetes and cancer (NQF, 2009). This framework, not without its challenges, has shown strong face validity and good performance in evaluating quality and efficiency of these diseases. A major goal of this paper is to explore whether this framework can be successfully adapted to measure quality and efficiency of continuing care management of SUD. An episode framework has strong face validity for SUD, because, similar to diabetes and other chronic health conditions, SUD is chronic, requiring long-term management and comprehensive care. Although some individuals with SUD recover with little or no treatment and do not necessarily benefit from or need continuing care management, most individuals who seek treatment for SUD require some type of continuing care management. According to the NQF, treatment of SUD involves both a continuum of care and a longitudinal perspective, with comprehensive treatment for those with more severe SUD, including employment of a chronic care model (NQF, 2007). Similar to other chronic diseases, the complexity of settings and providers typically involved in continuing care management suggests that the episode framework is ideal for assessing and meaningfully integrating the three important domains: patient-level outcomes, overall resource use, and processes of care. Similar to other chronic diseases, an episode framework, if constructed

appropriately, is useful for highlighting current gaps in the measurement of outcomes for SUD management and for providing opportunities for the development of new process and outcome measures. These measures will be useful at each of the different stages of the episode in examining quality and efficiency within different clinical care settings.

Thus, an episode of care framework for continuing care management of SUD makes sense on a theoretical level, because of its previous use in conceptualizing other chronic diseases. On a practical level, however, there are numerous challenges that need to be overcome, but that can be achieved based on previous work. In the next few paragraphs, we first conceptualize continuing care management of SUD within the episode of care framework, presenting the various components and domains that are necessary for episode construction. Next, we discuss the measurement and other related issues relevant to SUD and continuing care management that may shed light on the strengths and challenges in using an episode of care framework as a conceptual model for evaluating the quality and efficiency of continuing care management for SUD.

Components of an Episode of Care Framework for Continuing Care Management of SUD

Similar to an episode of diabetes, an episode of care for continuing care management of SUD should incorporate different phases, such as the population at risk (phase 1), evaluation of treatment needed and initiation/engagement in treatment (phase 2), and patient-reported outcomes (phase 3). The population at the most risk can include individuals with a family history of SUD, individuals with pre-existing chronic medical or psychiatric conditions, individuals in treatment previously, as well as those with histories of trauma. Although several scenarios exist for a patient's entry and movement through an episode of care for continuing care

management, taking a broad view, one possible scenario for an episode of care for continuing care management begins with the patient's initiation into continuing care management following an initial phase of treatment (this needs to be clearly defined but would generally follow an intensive initial phase of brief treatment) (phase 2). The next phase of an episode of continuing care management consists primarily of maintenance treatment (which encompasses related process/outcome measures), although periodic returns to a more intensive level of specialty care may be required if a patient suffers a severe or prolonged relapse. The final phase leads to the end of formal maintenance treatment, at which point the endpoints of the episode are assessed (e.g., health-related quality of life, symptom management, and resource use—costs and utilization). Components across the trajectory of an episode may include stabilization and assessment, ongoing monitoring of progress with each treatment intervention, types of services provided, severity of the disease, comorbidities of the patient, coordination of care, types of providers involved, intermediate and long-term outcomes (health-related quality of life, and overall costs of service per episode). This scenario allows for monitoring a patient's progress through continuing care management and provides opportunities for adjusting a patient's treatment at specific points during the episode based on the outcomes assessed. Given the many components of an episode for continuing care management, more thought is necessary in order to conceptualize, and then construct, an episode of continuing care management for SUD.

Challenges to Use of an Episode of Care Approach for Continuing Care Management of SUD

There are numerous challenges to using an episode of care framework for continuing care management of SUD (see Table 1 below). First, continuing care management represents the "maintenance" phase of an episode—in that the initial treatment has stabilized the individual

sufficiently and he/she is now ready to receive care in order to "maintain" his or her functioning and prevent further relapse. One of the challenges, therefore, in conceptualizing an episode approach for continuing care management is to decide whether a "maintenance episode" is a separate episode in its own right or a component of a larger episode of care provided for SUD. Further, conceptualizing an episode of care for continuing care management differs from other chronic diseases, such as diabetes, which typically involve both a diagnostic and an evaluation phase and begin with screening, diagnostic evaluation, and/or initial interventions to establish stability, rather than with ongoing treatment for maintenance purposes. Thus, an important question to be addressed is: should a continuing care management episode be considered as its own episode or as a component of a larger episode?

Second, another challenge in constructing an episode of continuing care management of SUD is accounting for the numerous data elements that are necessary for understanding a longitudinal trajectory of an episode of care: patient's comorbidities and severity of disease, multiple encounters within the episode, overlapping episodes if appropriate, patients' preferences for treatment and outcomes, transitions of care, and both patient-level and resource use outcomes at each stage of the episode. Processes of care should be transparent at each stage of an episode, both to assess how well the services delivered align with the patient's preferences and needs and to examine their association with patient-level outcomes. Thus, an important question to resolve is: are patient-level outcomes, resource use, and processes of care readily accessible and measurable within the episode of care?

Third, since continuing care management can be ongoing, the episode length must be flexible (rather than defined at 12 months) to account for the variety of services (inputs) delivered to the patient during their continuing care management as well as the effect of these

services on the patient's outcome(s) (outputs). This may differ from that of diabetes, for example, where there is an evaluation and ongoing management phase that is followed by a phase that includes "exacerbation of diabetes and complex treatments," allowing patients to return to maintenance of diabetes from previous phases. For continuing care management, the ongoing management phase may be the final phase. Thus, another question that needs to be addressed in episode construction of continuing care management is: should the episode length be flexible, and how long should the episode be?

Fourth, another challenge to an episode approach for continuing care management of SUD is that the current organizational structure and data availability of the nation's SUD treatment system does not lend itself to widespread adoption of an episode approach, at least in many healthcare systems. (Healthcare systems such as Kaiser Permanente and the Veterans Health Administration (VHA) are exceptions to this). The focus of the current system is on relatively brief treatment episodes with little support for extended treatment or coordination of care across the continuum. Included within these challenges/barriers are several issues worth noting:

1) Defining and measuring outcomes of continuing care management (i.e., which ones might be relevant in capturing quality and efficiency and are they readily available?);
2) Incorporating patient preferences and attitudes into the episode involves collecting self-reported data, which is time consuming and expensive, difficult to accomplish, and not necessarily reliable;
3) Incorporating comorbidities, as well as the treatment of comorbidities, into the episode of SUD: should they be in the same episode or not? If separate episodes, how should they overlap?

4) Accounting for family involvement in the episode (obtaining some information from the family on their involvement in and support for treatment is important since it may impact short- or long-term outcomes) may be important but is not easy to accomplish; and
5) Capturing the psychosocial needs of patients in the episode involves self-report, which is challenging, but is potentially important (e.g., the psychosocial needs of the individual may not align with their health beliefs or preferences, and may not match the services that are actually available or provided).

Fifth, using administrative data presents a number of challenges. Episodes of care are generally constructed linking discrete and related events tracked using administrative data. However, administrative databases do not always contain all the data elements necessary for constructing chronological episodes, such as clinical data or potentially dates of diagnoses, procedures, visits, and utilization. There continue to be concerns about the accuracy of administrative data, the ambiguity of certain ICD-9-CM and CPT codes, and the reliability of administrative data-based measures (the extent to which repeated measurements yield consistent results) due to variability in coding practices within and across sites (Iezzoni, 2003; Kashner, 1998; O'Malley et al., 2005; Stange KC et al., 1998; Tisnado et al., 2006). Nonetheless, compared to medical records or patient self-reported data, administrative data represent a potentially valuable and efficient resource for constructing episodes of care, since they are relatively inexpensive, potentially available, and can track the type and amount of services across different care settings.

Finally, determining when a new illness episode begins and ends is another challenge in episode construction. This may represent the greatest challenge to adapting an episode

framework to continuing care management of SUD. Unlike a diabetes episode, an SUD episode does not begin with evaluation, screening, and diagnosis, but with initiation to treatment (i.e., continuing care management for SUD). However, because of the episodic and chronic nature of substance use disorders, it can be difficult to determine whether a resumption of heavy use after a period of abstinence or low-level use represents a continuation of the prior illness episode or the onset of a new episode. Obviously, the longer the period of abstinence or light use, the more likely resumption of heavy use will represent a new illness episode. However, there is no consensus within the field on exactly how long the break must be, and, as far as we know, no research evidence that can be directly used to establish such a consensus. The DSM-IV defines early full remission as at least one month with no symptoms of abuse or dependence, whereas sustained remission requires at least 12 months with no symptoms. It is likely that one month without use is not a sufficient hiatus to indicate a new episode of use if relapse occurs, whereas requiring that 12 months must elapse before a return to use is counted as a new episode is probably too long.

Thus, defining the start, duration, and end of the episode is a major challenge: does the episode start when the patient begins receiving continuing care treatment or when SUD is defined? Similarly, does it end when the patient has been abstinent? What is the appropriate period of time for remission? Further, the definition of when an episode starts and ends may vary, depending upon the setting of care and/or practice patterns of the providers.

Table 1. Challenges to Use of an Episode of Care Framework for Continuing Care Management of SUD

Challenges	Issues
Separate or nested episode	Maintenance episode has different features than typical episode
Incorporation of domains into episodes	Patient-level outcomes, overall resource use, processes of care
Structure of SUD treatment system	Fragmentation, multiple providers, settings of care
Data availability	Obtaining relevant outcomes of care; and incorporation of patient preferences, co-morbidities, family involvement, and psychosocial needs of patient
Administrative data limitations	Lack of available data elements; system limitations; coding issues
Determining Episode Start and Stop and Length	Begins with continuing care management; no consensus on length of remission
Application of episode to improving clinical practice	Development of a measurement strategy that will allow translation to clinical practice

IV. Substance Use Illness Service Delivery System

a. Current State of the Treatment System for Substance Use Disorder (SUD)

Virtually all of the treatment provided in addiction specialty treatment programs—whether public or private—consists of 12 step-oriented group counseling sessions provided in specialty care programs (McKay, 2009; McLellan et al., 2003; McLellan & Meyers, 2004). This is a barrier to treatment for the many people with SUD who do not want this kind of intervention. The lack of treatment options also means that patients who do not respond well to 12-step oriented specialty care treatment are likely to dropout before becoming eligible to receive continuing care. Overall, these factors significantly limit the ability of the treatment system, in its current form, to provide healthcare services during the episode(s) of care that adequately match SUD illness episode(s).

Most treatment programs for adolescents also follow 12-step models of recovery, although there can be a greater emphasis on addressing family functioning and parenting issues. Components that are intended to increase positive cooperation between adolescents and the development of self-confidence and active coping skills are also common. Reviews of the quality of the adolescent specialty care system have noted the paucity of programs, lack of credentialing requirements for providers, and severe limitations in funding for treatment (McLellan & Meyers, 2004). Recent data indicate that only 10% of adolescents with substance abuse or dependence receive treatment for those disorders. Of the small group that does get treatment, only 10% receive continuing care management after the end of the initial phase of care (Dennis et al., 2005; Office of Applied Studies, 2005).

b. Current State of Continuing Care for SUD

As discussed previously, the term "continuing care" refers to any treatment intervention that is provided to patients following a more intensive, initial phase of treatment. These patients usually experience a relatively chronic form of SUD, and often have had multiple treatment episodes. They can be distinguished from other individuals with less severe forms of SUD, who may present for treatment in specialty care but also may be identified in other settings. Typically, this initial treatment is some form of residential or inpatient care, or an intensive outpatient or day treatment program. Depending on what type of treatment it follows, continuing care can range from as little as one session per month up to several sessions per week. In most cases, it is provided via weekly sessions. The duration of continuing care varies considerably, depending on how it is funded and how quickly patients dropout (McKay, 2009). In most cases, the total duration of treatment is less than 90 treatment days (SAMHSA, 2008). Generally, when

patients stop attending continuing care and then need to re-enter the system at a later date, they begin at a more intensive level of care. Usually, this constitutes a new episode of care. At this point, the duration of continuing care management is determined largely by insurance coverage rather than by empirically based guidelines or the progress of the individual patient. Given the limitations in funding and available treatment programs (McLellan & Meyers, 2004), adolescents likely have less access to continuing care than adults.

As is the case with the treatment provided in residential and intensive outpatient programs, most of the continuing care provided in addiction specialty treatment programs consists of 12 step-oriented group counseling sessions (McKay, 2009; McLellan et al., 2003; McLellan & Meyers, 2004). Although these groups are not standardized and typically are not guided by a manual, they do tend to have a number of common elements. These include reports by patients of their current status, including any recent alcohol or drug use; feedback, support, and sometimes confrontation from other group members and counselors; attention to progress in working on specific steps in the 12-step program and attendance at 12-step meetings; and planning of leisure activities during the week and especially on the weekend, along with general structuring of time in ways that promote recovery. No formal assessment of these group processes are performed, although informal comments regarding contents of groups may appear in progress notes. These groups usually feature rolling admissions, so that they most always contain a mix of new and more experienced patients. The size of the groups can vary considerably, although most clinics strive for around 10 to 15 patients per group.

Despite the need for continuing care following an initial course of treatment, it is not always available and tends to be underfunded (Dennis & Scott, 2007; McKay, 2009; McLellan & Meyers, 2004; Popovici et al., 2008). However, a greater problem is a lack of options for

patients who do not want 12-step oriented treatment or who are not comfortable in a group setting, or even for those who are willing to try standard continuing care but who do not have a good response to that approach (McLellan et al., 2003). Other limitations include a lack of availability of medications approved by the FDA to treat addiction (e.g., naltrexone and acamprosate for alcohol dependence); little use of measurement-based care, in which patients are assessed regularly and the data are used to adjust treatment based on response; and lack of coordination of services within or across episodes of care (McKay, 2009; Miller & Weisner, 2002). Because of these limitations, continuing care as currently available is probably effective for only a narrow range of individuals with substance use disorders.

It is important to acknowledge that there are a number of examples of innovative programs that address some of the limitations noted here. Using funding from Robert Wood Johnson under the Advancing Recovery program, Rhode Island, Delaware, and Arkansas have implemented flexible continuing care models that include use of the telephone to deliver services to patients who might not otherwise have wanted or been able to attend clinic based care. With funding from SAMHSA's Access to Recovery initiative, California recently implemented a telephone-based continuing care intervention in over 80 adolescent treatment programs state-wide. This continuing care program includes prepaid vouchers for stepped care that can be used by adolescents to return to specialty care when they need more support than the telephone can provide. Finally, the state of Connecticut has been an innovator in establishing a recovery - oriented system of care that makes use of a variety of recovery supports outside of traditional clinic-based specialty care.

c. Ideal Service Delivery System with Focus on Measurement

According to the Institute of Medicine (IOM, 2001), health care must be safe, timely, effective, efficient, equitable, and patient centered in order to be judged to be of high quality. The NQF has developed quality standards for substance use disorders which focus on the use of evidence-based practices at each phase or stage of addiction treatment (NQF, 2007). These standards specify the use of evidence-based psychosocial and pharmacological interventions. The NQF standards specifically mention five behavioral interventions—cognitive behavioral treatment, motivational enhancement therapy, contingency management, 12-step facilitation, and marital therapy—but indicate that there are other effective interventions that could be considered. Two other indicators of quality are mentioned:

- Any treatment should be delivered with an empathic, supportive approach, which may be as important as the specific behavioral therapy selected
- Active involvement with community supports, including self-help programs, should be stressed.

The NQF standards also specify that pharmacotherapy should be offered to appropriate individuals with opioid, alcohol, or nicotine dependence. At this point, there are only a handful of FDA approved medications for alcohol and opioid dependence, and no approved medications for stimulant dependence.

Standards for Continuing Care Management

The NQF standards also specify that individuals with substance use disorders should be offered:

- Long term, coordinated management of their substance use illness and any co-existing conditions
- Care management should be adapted based on ongoing monitoring of progress.

Achieving quality standards within these overarching continuing care strategies requires that the following specifications are met in the treatment that is provided:

- Taking patient preferences into account in treatment planning
- Conducting multi-dimensional assessment for treatment planning
- Linking patients to other needed services
- Sharing of diagnostic and treatment information with other service providers (with patient consent)
- Monitoring early response to treatment and modifying the treatment plan as indicated with patient input
- Individualizing continuing care interventions that provide support and skills for self-management of substance use disorders
- Long-term monitoring to identify early signs of relapse

Specific Treatment Suggestions for Continuing Care

Unlike the use of evidence-based guidelines above for SUD, the NQF standards do not specifically identify certain continuing care interventions as "evidence-based." Instead, the emphasis is on overall treatment strategy and specifications, as described above. However, it is

reasonable to assume that the treatments identified as "evidence-based" for substance use disorders would also qualify as evidence-based for continuing care management. The NQF standards call for ongoing monitoring of progress, but do not specify which variables or domains should be monitored, or how often such monitoring should occur. An episode framework provides an appropriate framework for ongoing monitoring of progress, specifying the intervals at which monitoring should occur, and providing guidance on the variables or domains that should be monitored.

d. Key Issues in Measurement of Continuing Care Management

At this point, there is general agreement among SUD treatment researchers on key outcomes to assess to evaluate treatment efficacy and effectiveness. However, much less work has been done to develop a conceptual framework that guides the selection of process and outcome measures for assessing the implementation, quality, and impact of continuing care interventions. Some of the initial work in this area has been done by the NQF, which has proposed five target outcomes for continuing care management: (1) receives care for all conditions, (2) stabilization of co-existing conditions, (3) retention in treatment, (4) engagement in long-term monitoring, and (5) prevention of or delay in time to relapse. Further work in this area should build on these proposed outcomes.

Recent clinical guidelines for SUD treatment, including those from NQF, specify that patients should be assessed at regular intervals so that the information can be used to adjust or modify treatment for those who are not making adequate progress toward recovery. This approach has been referred to by several names, including "measurement-based care," "adaptive treatment," and "concurrent recovery monitoring" (McKay, 2009; McLellan et al., 2005; Murphy

et al., 2007). However, such procedures are rarely implemented in our current SUD treatment system. Instead, most programs follow guidelines that specify that treatment plans are to be updated at 3-month intervals. To put these new practice guidelines into effect, treatment models are needed that specify:

- Frequency of assessments during continuing care
- Patient-level outcomes, overall resource use, and the processes of care measures to be used
- Scores on the assessment measures that indicate need to change treatment
- Other treatment interventions to be tried when assessment indicates progress is not adequate

In short, there are several barriers that may limit the achievement of these goals within the current SUD treatment system. These include the lack of evidence-based guidelines specific to continuing care management, the lack of diversity of care, and the lack of an accepted framework, along with specific process and outcome measures for assessing the delivery of continuing care management services. Thus, there are large measurement gaps that currently exist in the clinical arena as well as a lack of a clearly defined conceptual framework. The NQF-endorsed measurement Framework for Episodes of Care helps to categorize these critical measurement gaps and specify next steps for closing them. In the sections that follow, we organize our discussion of measures around the three primary domains: patient-level outcomes, cost and resource use, and processes of care.

V. Outcome Measures Used in SUD Research

In this section, we consider measurement domains, existing measures, and perceived gaps in measures and procedures to obtain measures.

a. Measurement Domains

Measures for consideration have been organized into three domains: patient-level outcomes, overall cost and resource use, and processes of care. These domains represent the essential components and subcomponents for measuring efficiency as it relates to an episode of continuing care management. The five target outcomes for continuing care management proposed by the NQF are from the patient-level and processes of care domains.

Patient-level Outcomes

Important patient-level outcomes in continuing care management include health status (e.g., substance use, physical and emotional health), quality of life, and social and occupational functioning. Risk adjustment is important to accurately assess differences in patient-level outcomes due to the considerable heterogeneity within and across patient samples. With regard to health status, there are a number of outcome measures that are widely used in SUD treatment research and considered valid and reliable, including measures of substance use quantity and frequency, and consequences of excessive alcohol and drug use. With measures in the latter two areas, there are accepted conventions regarding frequency of assessment (commonly every 3 or 6 months). These measures are also often obtained for risk adjustment at the baseline period, or prior to the receipt of any treatment in the current episode, to provide an indication of severity at intake.

Although valid and reliable quality of life measures are available, they are seldom used in the assessment of continuing care management. Patient satisfaction is also rarely assessed. Conversely, social and occupational functioning, as well as involvement with the criminal justice system, are often examined and a number of good measures for these areas are available and widely used (e.g., the Addiction Severity Index, or ASI).

Cost and Resource Use

Overall cost and resource use is best assessed at the episode level because total cost and resource use can be captured across the trajectory of care. This includes the cost of individual services (e.g., hospitalization, provider fees, clinic visits, medications) as well as resource utilization (e.g., number of visits, and the number and types of services). These are important to assess relative to the patient's severity of illness and need for healthcare services in order to determine efficiency of care across the episode. Specifically for patients needing continuing care management of SUD, assessment of cost and resource use is critical. These patients are usually long-term and chronic, and have multiple psychiatric and medical comorbidities requiring treatment. Obtaining a better understanding of the cost of care delivered and the overall resources consumed should help to facilitate more efficient management of care as well as more focused delivery of care for specific conditions and issues.

Several states have been working on establishing innovative payment structures that create incentives to programs for successfully transitioning patients into continuing care, through mechanisms such as performance contracting. Novel payment mechanisms for continuing care and other forms of recovery supports have also been implemented in California, Rhode Island, and Arkansas

Processes of Care

Process measures such as engagement and retention, receipt of evidence-based treatment, and progress toward treatment goals can all be assessed at the level of the individual patient, the program, or the system. At the patient level, information on processes of care can be used to make adjustments in the person's treatment, when problems such as missed sessions or poor progress toward treatment goals are noted. Process at the level of the program or system can be evaluated by examining engagement and retention rates, provision of evidence-based interventions, and progress toward program goals across all patients treated (with appropriate case-mix adjustment).

For example, duration of retention in continuing care is a common interim process measure of treatment. This is usually operationalized either as the total number of sessions attended during the continuing care episode or the number of weeks between initiation of continuing care and completion of the episode or dropout. These data are obtained from administrative records. Two examples of retention-related process measure are: 1) proportion of patients who are retained for at least 90 days (VHA), and 2) proportion of patients who achieve successful transition from one level of care to the next (Washington Circle group, see below). Other measures of within-treatment process assessed at the patient level frequently used in addiction treatment research include self-efficacy, motivation or commitment to abstinence, and participation in self-help and other recovery support organizations. It should be noted that some of these measures could also be thought of as intermediate outcomes.

b. Existing Measures

Patient-Level Outcomes

Substance use. Two assessment measures have dominated the field of addiction research, the Addiction Severity Index (ASI; McLellan et al., 1992) and the Time-line Follow-back (TLFB) (Sobell et al., 1979; Finney, Moyer, & Searingen, 2003). Both measures provide information on the frequency of alcohol and drug use. The alcohol variables also address quantity of use, as indicated either by frequency of "heavy" drinking days or number of drinks per drinking day. These measures of frequency can also yield dichotomous measures of any use vs. abstinence within a given assessment period, which is also a popular outcome measure. One major difference between the measures is that the ASI is focused on substance use over the 30 days prior to assessment, whereas the TLFB uses a calendar method to assess substance use over the entire period since the last assessment (i.e., 30, 60, 90, 120 days).

Under appropriate conditions of confidentiality and the absence of adverse consequences, the validity and reliability of the ASI and TLFB have been confirmed through many studies. In most high quality research studies, self-reports of substance use gathered with instruments such as the ASI and TLFB are augmented with corroborating data, either from biological assessments (e.g., drug urine screens, liver function tests) or collateral reports from family or friends. However, it is likely that patient reports of recent substance use provided to counselors in clinical practice have higher rates of underreporting.

The ASI can also be used for risk adjustment, through consideration of baseline scores on the seven domains included in this multidimensional instrument: alcohol, drug, medical, psychiatric, social, legal, and employment problem severity.

Consequences of use. Some continuing care studies have also assessed negative consequences of substance use, including problems with mental and physical health, family functioning, employment, and the legal system. A number of validated measures of negative consequences are available, including the Inventory of Drug Use Consequences (Tonigan & Miller, 2002). The combination of measures of quantity/frequency and negative consequences provides a more complete picture of treatment outcomes.

Cost and Resource Use

As mentioned previously, cost and overall resource use are measured by total overall costs and costs specific to services, medications, or visits. Resource use is measured by number of outpatient visits, types of services and/or visits, and length of stay (relevant for hospitalization). As far as we know, there are no current cost or resource use measures specific to continuing care management other than these generic ones. Specific costs for continuing care management of SUD would, for example, include the cost of individual and/or group treatment, while resource use would include the number and types of group-oriented sessions that the participant attended.

Processes of Care

The Washington Circle group proposed a continuity of care measure that involves successful transition from one level of care to the next within 14 days. A recent paper by Garner et al. (in press) found that in an adolescent sample in residential treatment, meeting this goal was associated with better substance use outcomes. This measure could be adapted for an episode framework since transitions of care are transparent within the episode.

The VHA has implemented a performance measure for continuity of care, which indicates the percentage of patients who have at least two treatment contacts per month for at least 3 months. Only patients who achieve initial engagement in treatment are considered in the calculation of the performance measure. A recent evaluation of the validity of the performance measure found that overall, better scores on the performance measure were not predictive of better substance use outcomes. However, when the analysis was limited to the approximately two-thirds of the sample with at least some alcohol or drug use in the 30 days prior to treatment, higher rates of continuity of care did predict significantly better outcomes (Harris et al., 2009).

The continuation portion of the ASAM criteria does provide guidelines on when patients have made sufficient progress to move into the continuing care phase of treatment, but this component of the criteria has not been subjected to empirical evaluation. Most programs are required to update treatment plans every 90 days, including during continuing care, but this process obviously does not guarantee quality of continuing care management in the absence of re-assessment and individualized treatment adjustment.

c. Perceived Gaps in Measures to Assess Quality of Continuing Care Management

As described above, there are a number of measures, particularly in the patient level outcomes and processes of care domains, which are widely used in the addiction treatment field. However, at this point there are no specific or established measures of quality (either patient-level outcomes or processes of care) that have been accepted for the assessment of continuing care management in clinical practice. Table 2, below, presents a summary of available measures and perceived gaps in current measures and measurement strategies within each of the three domains.

Table 2. Available Measures and Perceived Gaps in Current Quality Measures for Continuing Care Management of SUD

Domain	Available Measures	Gaps in Measurement
Patient-level Outcomes	• Substance Use • Consequence of Use • Social Functioning • Occupational functioning • Involvement with legal system • Medical and psychiatric conditions	• Standardized protocols that link regular assessments of progress to clinical decision making • Patient preference • Quality of life • Patient satisfaction • Case-mix adjustment strategies
Cost and Resource Use	• Costs of individual services • Number of visits, services received, sessions, etc.	• Overall cost and services delivered across episode of care • Structural elements needed to implement and sustain continuing care management model • Performance contracting and other innovative payment mechanisms
Processes of Care	• Engagement and retention • Progress toward treatment goals	• Standardized protocols that link regular assessments of process to clinical decision making • Positive recovery goals • Case-mix adjustment strategies

Similarly, high quality treatment process does not always produce good patient-level outcomes. Outcomes in substance use disorder treatment are characterized by a high degree of response heterogeneity (Morgenstern & McKay, 2007). This is certainly the case in public and private programs, and is even present in carefully conducted research studies, where considerable attention is paid to the use of skilled therapists to deliver manual-driven interventions. Response heterogeneity is evident in the high rates of early dropout from and non-response to initial treatment (between-patient heterogeneity of response), as well as in later clinical deterioration in some patients who do well initially (within-patient heterogeneity of response). The wide variability in response is the primary reason for the NQF guidelines that specify that patients should be monitored carefully over time and treatment adjusted according to response. It also

highlights the importance of obtaining measures of both processes of care and patient-level outcomes in order to assess quality. A number of participants in the NQF workgroup stressed the importance of developing measurement strategies for continuing care management in which the data gathered could be translated directly into clinical practice.

As noted, quality assessment is clearly in its beginning stages with respect to continuing care management. Several groups are proposing new measures and data sources to advance the field. These include:

Patient-level Outcomes

- Assessment of patient preferences for treatment and whether treatment provided is what was desired.
- Use of registries to track services for afflicted individuals: Registries can provide detailed clinical information on large number of patients, and could also be used to track patients not currently engaged in care. However, there are potential problems with privacy, confidentiality, and stigma.

Cost and Resource Use

- Lack of measures of structure: At this point, there is little assessment of structural elements needed to successfully implement and sustain high quality continuing care management. Measures are needed that capture how patients are managed across levels of care, availability/wait times for successive levels of care, availability of "step up" interventions when clinically necessary during continuing care, the type of service providers available at each level of care and their training/skills.

Processes of Care

- Adherence to pharmacotherapy: In order to increase the use of evidenced-based medications, close monitoring of prescribing and use patterns is necessary.
- Progress toward achievement of positive recovery goals: Most outcome and process measures are heavily skewed toward psychopathology (e.g., substance use, negative consequences of use, psychiatric severity, coping deficits, low self-efficacy or motivation, etc.). Since improvement of occupational and social functioning and engagement in positive recovery activities are important goals of continuing care management, it is crucial that these factors are assessed regularly

VI. Suggested Guidelines for Quality Care and Its Measurement: Summing it Up

Certain principles have been espoused for the treatment of SUD (NQF, 2007). These include six aims for high-quality health care as defined by the Institute of Medicine (IOM, 2001): health care that is safe, timely, effective, efficient, equitable, and patient centered. However, there are certain barriers that may affect obtainment of these goals, including the lack of evidence-based guidelines specific to continuing care management, the lack of diversity of care, and the lack of an accepted framework useful for assessing the delivery of continuing care management services. In addition, the measurement of patient-level outcomes in continuing care (e.g., substance use, consequences of use, and psychosocial functioning) has been applied primarily in research studies, rather than in clinical care (e.g., continuing care management). Thus, there are large measurement gaps that currently exist in the clinical arena as well as a lack of a clearly defined conceptual framework. However, the five targeted outcomes for continuing

care management proposed by the NQF can be used as a starting point for the development of such a framework. The key points of this White Paper are summarized below.

a. Summary of Key Points

1) How easily can an episode of care model be adapted as a conceptual framework for continuing care management of SUD?

This paper suggests that not only is there a lack of evidence-based guidelines in this area, but the process and outcome measures that currently exist for quality assessment have been more widely used in research than in clinical practice. An episode framework may therefore be somewhat challenging to adapt, particularly given the fact that claims databases are not readily available in all healthcare systems. On the other hand, use of an episode framework may help to facilitate the development of valid and reliable quality measures for continuing care management. Since it provides a useful mechanism for examining the linkage between processes and outcomes, it is likely to encourage the development of evidence-based guidelines in this area.

A key issue in moving an episode of care framework forward is conceptualization of an episode of continuing care management of SUD. Is it a stand-alone episode, or is it nested within a larger SUD episode? If the former, where are its start and stop points and what are the major process and outcome measures that should be defined? If the latter, where should it be incorporated into the larger episode? Does it span the entire evaluation and treatment phase, or is it one component of this larger phase? For any of these conceptualizations, questions remain about episode duration, necessary data elements, and adequacy of databases for running

episodes. These are some of the theoretical challenges that need to be faced in moving the episode construct further along for continuing care management.

2) What changes to the existing treatment system are needed to support quality continuing care management?

There are a number of features in the current treatment system which may pose barriers for an efficient, episode-based approach to continuing care management. These include relatively low retention rates and lack of options for treatment. The quality of treatment, including continuing care management, could be improved through greater use of evidence-based interventions, greater stress on empathic and patient-centered delivery of services, active involvement with community supports, implementation of adaptive models that monitor progress and change treatment as needed, and greater emphasis on patient preference and choice.

3) What changes to measurement strategies are needed to support quality continuing care management?

The discussion of measurement issues was organized around three domains: patient-level outcomes, cost and resource use, and processes of care. Although good measures from each domain are available and in use, considerable gaps in measurement were noted. Within the patient-level outcomes domain, these gaps include measures of patient preference and satisfaction, quality of life, case-mix adjustment, and protocols that link assessment results to clinical decision-making. In the cost and resource use domain, measures of overall costs and services are needed, as are measures of the structural elements that comprise quality of continuing care management. Finally, in the processes of care domain, a greater focus on the

assessment of positive recovery factors, case-mix adjustment, and the relationship of processes to outcome is warranted.

b. Additional Suggestions

High treatment dropout rates mean that many patients are not in treatment long enough to receive a sufficient dose of continuing care, if any is received at all. Therefore, we suggest that the measurement of quality should include a consideration of what programs do to retain patients during both the initial and continuing care phases of treatment. Evidence-based approaches to increasing retention in continuing care include the following (cf McKay, 2009):

- Case management
- Low-level incentives and social reinforcements
- Structured self-help referral
- Adherence to pharmacotherapy
- Active outreach
- Contracts
- Continuity of treatment provider
- Assistance with obtaining adequate housing

c. Issues to be Considered Within the Context of Episodes

<u>Should Measures of Quality be Individualized</u>?

Quality standards usually specify that interventions and the providers that deliver them meet certain standards. However, there is some evidence that addiction treatment is more effective when services for a particular individual are matched to the problem profile of that

individual when he or she enters treatment (McKay, 2009; McLellan et al., 1997). This approach, of course, makes assessment of quality more difficult, in that the needs of each patient must be considered (and measured) along with whether these needs were addressed in treatment. It also brings up a fundamental issue for addiction treatment—whether the interventions should only address substance use, or should also attend to other problems in related or affected areas such as mental and physical health, family functioning, and employment. This issue is particularly important during the continuing care phase of treatment, when one of the primary goals is for the patient to become a fully functioning member of society (White, 2008). In order for this to occur, it may be necessary to address psychiatric, employment, social functioning, and housing issues. If that is the case, should the assessment of services in these areas be factored into overall quality?

Role of Assessment of Quality in Earlier Stages of Treatment

To obtain an accurate assessment of quality during continuing care, is it necessary to also assess quality in the initial phases of care (i.e., detoxification, inpatient/residential, and intensive outpatient treatment IOP)? Also, note that for some patients who stabilize prior to presenting for specialty care, standard outpatient treatment is the initial level of treatment.

Other Issues for Consideration

In additions to the issues discussed in this paper regarding an episode-based approach, limitations to the current system of care, and gaps in measurement, several other measurement-related issues warrant consideration.

Patient-level Outcomes

- Measures used by programs and systems to assess patient outcomes often differ from the measures used in research to capture outcomes. What are the implications of this for the measurement of quality and outcome in continuing care?
- How should measurement of quality and outcome in patients with significant co-occurring disorders be accomplished? What should the focus be within an episode of care?

Cost and Resource Use

- Assessment of communication across settings of care
- How can confidentiality be maintained as patients move through the continuum of care and receive treatment in different setting and systems?
- Research vs. clinical measures of quality and outcome

Processes of Care

- Role of recovery support services: Differences between these services and treatment-oriented continuing care
- Role of mandated care in the continuum of care: Do mandated patients need different outcome/quality measurement scheme?

Policy Issues Regarding Quality Measurement

- Are substance use quality measures ready to be used for pay-for-performance or public reporting? Or are they better suited for quality improvement?
- Are the databases available for developing episodes of care for continuing care management of substance use disorders?

- Can evidence-based guidelines be formulated from existing “standards” in order to better assess the linkage between processes and outcomes within the episode?

Which Stakeholders Should we Engage

- To improve quality measurement in SU?
- To obtain buy-in on using episodes as a framework for continuing care management of SUD?

Appendix A. Existing Substance Use Illness Quality Measures

Veterans Affairs (VA) Practice Guidelines

The VA has established practice guidelines for the treatment of substance use disorders. The first version of these guidelines was developed in the late 1990s, and a revised version will be released shortly. The guidelines consist of several modules that address a phase or component of treatment. These include modules for initial stabilization, pharmacotherapy, traditional rehabilitation, effective behavioral therapies, and management in non-specialty care programs such as primary care. The VA has also recently published the Uniform Services Package (USP), which presents guidelines on the types of services that must be available to treat veterans with mental health disorders including addiction. The USP specifies which types of interventions are to be available at VA facilities of varying sizes and how rapidly patients must be seen. Detailed guidelines for VA practitioners treating individuals with substance use disorders are presented in a separate Handbook.

VA Outcomes Monitoring Efforts

VA investigators have developed a brief (17 item), multi-dimensional assessment tool that will be used to measure within-treatment progress and provide a measure of treatment outcome. The items assess substance use, risk factors for relapse, and pro-recovery or "positive" factors thought to protect against relapse. The instrument will be administered to all patients entering treatment for substance use disorders, and then again at a second point 60 to 120 days later (if the patient is still in treatment). The developers of the protocol would like programs to assess patients monthly, so that the information obtained could be used to modify treatment as needed. However, it is unclear whether VA programs will do this unless mandated to do so. The protocol is currently being implemented in about 40 intensive outpatient programs within the VA, with a goal of use in all outpatient programs by the fall of 2010.

UK Outcomes Monitoring System

The Treatment Outcomes Profile (TOP) is a new national outcomes monitoring tool for drug treatment in England. The instrument, which has about 22 items, is to be administered to all clients at the start of treatment, and then at 3 month intervals thereafter. The items assess alcohol and drug use, injection risk behavior, crime, and health and social functioning. The TOP system has been validated with both drug and alcohol dependent clients; however, the National Treatment Agency in England currently only uses it to monitor drug patients. The system is also in use in a number of other treatment programs in Europe, Asia, Australia, North American, and South America.

Government Performance Results Act (GPRA)

The GPRA assesses 10 domains, including drug and alcohol use, family and living conditions, education/employment/income, crime and criminal justice status, mental and physical health, and social connectedness. The GPRA tool is administered at intake, discharge, and a follow-up 6 months post-intake. The measure is used by the Center for Substance Abuse Treatment (CSAT) to evaluate outcomes in patients treated in programs funded by this agency.

NQF Endorsed Interventions

The list of NQF endorsed interventions for substance use disorders includes brief motivational counseling, supportive pharmacotherapy, cognitive-behavioral therapy, motivational enhancement therapy, contingency management, 12-step facilitation therapy, and behavioral couples therapy.

Washington Circle

The Washington Circle was funded by CSAT to develop and disseminate performance measures for addiction treatment. The first group of measures developed was focused largely on the front end of treatment (e.g., identification, initiation, engagement). A second group of six performance measures focused on continuity of care was recently recommended. These measures can be obtained from routinely collected administrative data.

Systematic Reviews of Treatments and Continuing Care Approaches

The following reviews provide information on effective behavioral interventions that could be implemented in the continuing care phase of treatment.

Burke, R.L., Arkowitz, H., & Menchola, M. (2003). The efficacy of motivational interviewing: A meta-analysis of controlled clinical trials. *Journal of Consulting and Clinical Psychology, 71*, 843-861.

Dutra, L., Stathopoulou, G., Basden, S.L., Leyro, T.M., Powers, M.B., & Otto, M.W. (2008). A meta-analytic review of psychosocial interventions for substance use disorders. *American Journal of Psychiatry, 165*, 179-187.

Hettema, J., Steele, J., & Miller, W.R. (2005). Motivational interviewing. *Annual Review of Clinical Psychology, 1*, 91-111.

McKay, J.R. (2009). Continuing care research: What we've learned and where we're going. *Journal of Substance Abuse Treatment, 36*, 131-145.

Miller, W.R., & Wilbourne, P.L. (2002). Mesa Grande: A methodological analysis of clinical trials of treatments for alcohol use disorders. *Addiction, 97*, 265-277.

Powers, M.B. Vedel, E., & Emmelkamp, P.M.G. (2008). Behavioral couples therapy (BCT) for alcohol and drug use disorders: A meta-analysis. *Clinical Psychology Review, 28*, 952-962.

Prendergast, M., Podus, D., Finney, J., Greenwell, L., & Roll, J. (2006). Contingency management for treatment of substance use disorders: A meta-analysis. *Addiction, 101*, 1546-1560.

Also, see Dennis & Scott (2007) and McKay (2005, 2009) references at the end of the document

Accepted Measures of Outcome and Process

Time-line Follow-Back (TLFB). The TLFB uses a calendar-based methodology to collect information on alcohol and drug use. Data are obtained for each day in the assessment window, and then aggregated at the weekly or monthly level. In studies with participants with alcoholics or drug use disorders, there has been good to excellent agreement between TLFB data and collateral and biological data.

Addiction Severity Index (ASI). The ASI can be used to gather information on medical, employment, drug use, alcohol use, legal, family/social, and psychiatric problem severity. The ASI has demonstrated good internal consistency, test-retest, and inter-rater reliabilities in different groups of substance abusers. It is the most widely used assessment measure in addiction treatment and research. Computerized versions are available that generate treatment plans and progress notes.

Global Appraisal of Individual Needs (GAIN). The Global Appraisal of Individual Needs (GAIN) is a comprehensive, bio-psychosocial assessment tool. It is an integrated series of measures and computer applications designed to support a number of treatment practices, including initial screenings; brief interventions; referrals; standardized clinical assessments for diagnosis, placement, and treatment planning; and monitoring of changes in clinical status and service utilization.

The GAIN has eight core sections (Background, Substance Use, Physical Health, Risk Behaviors and Disease Prevention, Mental and Emotional Health, Environment and Living Situation, Legal, and Vocational). Each section contains questions on the recency of problems, breadth of symptoms, and recent prevalence as well as lifetime service utilization, recency of utilization, and frequency of recent utilization. The items can be used for DSM-IV–based diagnoses, ASAM-based level-of-care placement, JCAHO-based treatment planning, and DOMS-based outcome monitoring. The GAIN also includes items designed to support most state and federal reporting requirements.

Negative consequences of substance use. The Inventory of Drug Use Consequences (InDUC) assesses alcohol and drug use-related problems in eight areas. This measure has good to excellent test-retest reliability. A short version, the SIP, can be used to assess alcohol use-related problems.

Treatment Services Review (TSR). The TSR can be used to collect data on in-program and out-of-program treatment services received during specified periods. The TSR yields information on the occurrence of problems or difficulties (e.g., days sick, days drinking, days using drugs, days of crime, etc.) and the number of treatment services received (e.g., doctor visits, therapy sessions, days of inpatient treatment, etc.). This measure has high test-retest reliability (exact agreement on 88% of the items), and good correspondence with independent measures of treatment provided.

References

Brook, R.H. (2009) Asssessing the appropriateness of care its time has come. *Journal of the American Medical Association*, 302 (9), 997-998.

Dennis, M.L., Scott, C.K. (2007). Managing addiction as a chronic condition. *Addiction Science and Clinical Practice*, December, 45-55.

Dennis, M. L., Scott, C. K., Funk, R., & Foss, M. A. (2005). The duration and correlates of addiction and treatment careers. *Journal of Substance Abuse Treatment, 28*, S51-S62.

Finney, J. W., Moyer, A., & Swearingen, C. E. (2003). Outcome variables and their assessment in alcohol treatment studies: 1968-1998. *Alcoholism: Clinical and Experimental Research, 27*, 1671-1679.

Garner, B.R., Godley, M.D., Funk, R.R., Lee, M.T., & Garnick, D.W. (in press). The Washington Circle continuity of care performance measure: Predictive validity with adolescents discharged from residential treatment. *Journal of Substance Abuse Treatment*.

Harris, A.H.S., Humphreys, K, Bowe, T., Kivlahan, D.R., & Finney, J.W. (in press). Measuring the Quality of Substance Use Disorder Treatment: Evaluating the Validity of the VA Continuity of Care Performance Measure. *Journal of Substance Abuse Treatment*.

Hornbrook, M.C., Hurtado, A. & Johnson, R.E. (1985). Health care episodes: definition, measurement, and use. *Medical Care Review* 42(2), 163-218.

Institute of Medicine (2001). Crossing the quality chasm: a new health system for the 21st century. National Academy Press, Washington, D.C.

Iezzoni, L.I. (2003). *Risk adjustment for measuring health care outcomes*. 3rd edition, Health Administration Press, Chicago, Illinois.

Kashner, T.M. (1998). Agreement between administrative files and written medical records: a case of the Department of Veterans Affairs. *Medical Care,* 36(9), 1324-36.

McKay, J.R. (2005). Is there a case for extended interventions for alcohol and drug use disorders? *Addiction, 100,* 1594-1610.

McKay, J.R. (2009). *Treating substance use disorders with adaptive continuing care*. Washington, DC: American Psychological Association.

McLellan, A.T., Cacciola, J., Kushner, H., Peters, F., Smith, I., & Pettinati, H. (1992). The fifth edition of the Addiction Severity Index: Cautions, additions, and normative data. *Journal of Substance Abuse Treatment, 9, 199-213*.

McLellan A. T., Carise, D., & Kleber, H. D. (2003). The national addiction treatment infrastructure: Can it support the public's demand for quality care? *Journal of Substance Abuse Treatment, 25,* 117-121.

McLellan, A.T., Grissom, G.R., Zanis, D., Randall, M., Brill, P., & O'Brien, C.P. (1997). Problem-service "matching" in addiction treatment: A prospective study in 4 programs. *Archives of General Psychiatry, 54*, 730-735.

McLellan, A. T., McKay, J. R., Forman, R., Cacciola, J., & Kemp, J. (2005). Reconsidering the evaluation of addiction treatment: From retrospective follow-up to concurrent recovery monitoring. *Addiction, 100,* 447-458.

McLellan, A.T., & Meyers, K. (2004). Contemporary addiction treatment: A review of systems problems for adults and adolescents. *Biological Psychiatry*, *56,* 764-770.

Miller, W.R., & Weisner, C. (2002). Integrated care. In W.R. Miller & C.M. Weisner (Eds.), *Changing substance abuse through health and social systems* (p. 243-253). New York: Kluwer Academic/Plenum.

Morgenstern, J., & McKay, J.R. (2007). Rethinking the paradigms that inform behavioral treatment research for substance use disorders. *Addiction, 102,* 1377-1389.

Murphy, S. A., Lynch, K. G., McKay, J. R., Oslin, D. W., & Ten Have, T. R. (2007). Developing adaptive treatment strategies in substance abuse research. *Drug and Alcohol Dependence, 88,* S24-S30.

National Quality Forum (NQF). *Measurement Framework: Evaluating Efficiency across Patient-Focused Episodes of Care*. Washington, DC: NQF; 2009.

National Quality Forum (NQF). *National Voluntary Consensus Standards for the Treatment of Substance Use Conditions: Evidence-Based Treatment Practices – A Consensus Report*. Washington, DC: NQF; 2007.

Office of Applied Studies (OAS; 2005). Treatment Episode Data Set (TEDS): 2002. Discharges from Substance Abuse Treatment Services, DASIS Series: S-25, DHHS Publication No. (SMA) 04-3967, Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from http://wwwdasis.samhsa.gov/teds02/2002_teds_rpt_d.pdf

O'Malley, K.J., Cook, K.F., Price, M.D., Wildes, K.R., Hurdle, J.F., &Ashton, C.M. Measuring diagnoses: ICD9-CM code accuracy. (2005). *Health Services Research*. 40 (5 Pt 2), 1620-39.

Popovici, I., French, M. T., & McKay, J. R. (2008). Economic evaluation of continuing care interventions in the treatment of substance abuse: Recommendations for future research. *Evaluation Review*, 32, 547-568.

Rosen, A.K. , Houchens, R., Gibson, T., & Mayer-Oakes, A. (1998). Developing episodes of care for adult asthma patients: a cautionary tale. *American Journal of Medical Quality,* 13 (1), 25-35.

Rosen, A.K., & Mayer-Oakes, A. Developing a tool for analyzing medical care utilization of adult asthma patients in indemnity and managed care plans: can an episodes of care framework be used? *American Journal of Medical Quality*, 13 (4), 203-212.

Rosen, A.K., & Mayer-Oakes, A. Episodes of care: theoretical frameworks versus current operational realities. *Joint Commission Journal on Quality Improvement*. 25(3), 111-128.

Sobell, L.C., Maisto, S.A., Sobell, M.B., & Cooper, A.M. (1979). Reliability of alcohol abusers' self-reports of drinking behavior. Behavior Research and Therapy, 17, 157-160.

Stange, K.C., Zyzanski, S.J., Smith, T.F., Kelly, R., Langa, D.M., Flocke, S.A., & Jaen, C.R. (1998) How valid are medical records and patient questionnaires for physician profiling and health services research? A comparison with direct observation of patient visits. *Medical Care,* 36 (6), 851-67.

Substance Abuse and Mental Health Services Administration, Office of Applied Studies (2008). *Treatment Episode Data Set (TEDS): 2005. Discharges from Substance Abuse Treatment Services*, DASIS Series: S-41, DHHS Publication No. (SMA) 08-4314, Rockville, MD.

Tisnado, D.M., Adams, J.L., Liu, H., Damberg, C.L., Chen, W.P., Hu, F.A., Carlisle, D.M., Mangione, C.M., & Kahn, K.L. (2006). What is the concordance between the medical record and patient self-report as data sources for ambulatory care? *Medical Care*, 44 (2): 132-40.

Tonigan, J.S., & Miller, W.R. (2002). The Inventory of Drug Use Consequences (InDUC): Test-retest stability and sensitivity to detect change. *Psychology of Addictive Behaviors, 16*, 165-168.

White, W.L. (2008). *Recovery management and recovery-oriented systems of care: Scientific rationale and promising practices*. Pittsburgh, PA: Northeast Addiction Technology Center.

Appendix E

Context for Considering a Substance Use Illness Episode of Care

I. Introduction
   a. Brief background on episode framework as basis for work
   b. Context-setting for SUI within the health care system
   c. Context-setting for SUI patient
      i. Extent of population at risk
         1. Individuals with a family history of substance use illness
         2. Individuals with histories of physical and/or mental trauma
         3. Individuals with pre-existing medical and/or psychiatric conditions
            a. Including high-risk groups: HIV/AIDS, Hep-C, etc.
            b. Individuals with conduct disorder (particularly early onset)/sociopathy/criminal behavior
            c. Individuals with end stage medical complications from a single drug
         4. Individuals that belong to populations with special needs
            a. Adolescents
            b. Individuals who are gay, lesbian, bisexual, transsexual
            c. Individuals who are ethnic minorities
            d. Individuals that belong to indigent populations
         5. Older individuals using alcohol and prescription medications
      ii. Prevention/monitoring of high-risk groups (?): This should include provider and patient/community education
      iii. Disparities in access and treatment
      iv. Comprehensive care
   d. Episode approach and measurement for SUI
      i. Strengths
      ii. Limitations
      iii. Explanation of Pathways (A/B/C/D, etc.)
      - Pathways differentiated by severity of SUI
         1. Pathway A: Risky or Hazardous Substance Use (Brief intervention including Education)
         2. Pathway B: Substance Abuse with or without medical co-morbidity
         3. Pathway C: Substance Dependence
         4. Pathway D: Severe Substance Dependence (Polysubstance abuse with co-existing psychiatric and/or medical disorder)
   e. Role of Continuing Care Management (CCM)
      i. Aspects of CCM
         1. Long-term, coordinated care
         2. Patient is monitored over time
         3. Care is modified over time
         4. Care Management
      ii. Target Outcomes

1. Measurable outcomes for <u>all</u> conditions
2. Coexisting conditions are stabilized
3. Patient retention in treatment
4. Engagement in long-term monitoring
5. Prevention of relapse/delayed time to relapse
6. Harm reduction

f. Overall principles to guide techniques, treatment, and measurement of SUI patients
   i. Role of self-management
   ii. Understanding of cultural diversity
   - Recommended that management and treatment plan be customized based upon patient's ethnicity, cultural background, literacy level, and sexual orientation (link to NQF-endorsed Cultural Competency Framework)
   iii. Understanding of complexities, complications, and co-morbidities
   iv. Concordance of treatment with patient/family preferences when possible

II. Phase 1 Discussion: Populations at risk

a. Presentation into potential episode
   i. Patients with family history of substance use illness
      - Characterized by initial substance use at an early age
   ii. Patients with histories of physical and/or mental trauma
   iii. Patients with pre-existing medical and/or psychiatric conditions
      - Substance use illness may arise as a consequence of physical and/or mental stress related to pre-existing medical or psychiatric condition(s)
   iv. Patients who belong to populations with special needs
      - Substance use illness occurs in conjunction with physical and/or mental stress, cultural/environmental factors and limited access and/or use of treatment, and society's reaction to the patient's sexual orientation
   v. Patients who are ethnic minorities
      - Substance use illness may be intensified as a function of cultural tradition and limit access and/or use of treatment
   vi. Older patients who use alcohol and prescription medications
      - Often overlooked as an at risk group for SUI
      - Characterized by late presentation to the healthcare system due to a lack of effective screening at primary care giver level

b. Opportunities for detection/screening → guidelines?
   - Opportunities for detection/screening are strongly dependent upon the care setting in which the patient presents, as well as the training, awareness level, and self-efficacy of the care provider
   - In many cases screening/detection is carried out in a different setting (i.e. community or geriatric center) and by a different individual than that who is responsible for establishing a patient's diagnosis. This "hand-off" between detection/screening and diagnosis can result in lost opportunities to diagnosis and link a number of individuals with SUI to the appropriate care resources for treatment.

- The above two trends are applicable to the experience of all types of SUI patients within the acute care setting.

c. Presentation of an SUI episode (begins with entrance into a clinical setting)
    i. Screening and Case Finding
        1. PCP and ER setting:
            - Detection and screening must compete with other clinical priorities at time of patient presentation
            - Widespread deficiencies in provider training and skill in substance use detection/screening
            - Lack of guidelines for use in these settings
            - Lack of confidence with standardized screening tools
        2. Specialty care center:
            - Presentation is often result of patient self-identification as an individual with substance use issues/concerns
            - Valid, reliable, and standardized tools available for use in this setting
    ii. Diagnosis and Assessment

III. Phase 2 Discussion: Initiation & Engagement in Treatment
    a. Clinical episode commences
    b. Components
        i. Brief intervention
            - Characterized by motivational interviewing and information sharing and advice
            - Success of intervention varies based upon type of patient substance use being addressed
            - Effective with marijuana, alcohol, nicotine, and some marijuana users.
            - Little data in the literature pointing to effective brief interventions for heroin, amphetamine, and cocaine users.
        ii. Promoting engagement in treatment for SUI
        iii. Withdrawal management
            - Need to differentiate between medical and non-medical withdrawal management strategies
    c. "Pathways" discussion

- The question of whether a patient's movement from one pathway to another would dictate the start of a new episode was discussed. Furthermore, if such a situation does prompt the start of a new episode the question of how to present such a situation in the visual model was raised.

        i. Pathway A: Risky or Hazardous Substance Use (Brief Intervention)
            - Patients present in episode with low severity of substance use illness.
            - Treatment and management dictated by severity of symptoms and patient characteristics rather than type of substance use.
            - For non-dependent individuals in particular, brief intervention including education is effective in reducing use by these patients.
            - Most brief interventions include motivational interviewing and advice giving and support.

- Expectations of treatment include symptoms' cessation or remission, or ongoing symptom management with improved quality of life and harm reduction (this addresses substance and other medical conditions).
- For those patients for whom low grade symptoms persist following brief intervention follow-up care is focused on symptom and withdrawal management.
- Patient self-management strategies may play a key-role in both the initial intervention as well as follow-up care (e.g. 12 step program, patient-self monitoring behavior, alcohol use logs, developing coping mechanism).

ii. Pathway B: Substance Abuse with or without medical co-morbidity
- Patients present in episode with intermediate severity of illness, which may be further exacerbated by the presence of a medical and/or psychiatric condition(s) (depression, anxiety, PTSD).
- It should be noted that the sequential development from substance use or abuse to chronic medical condition(s) is often difficult to establish. This fact is of little consequence as the literature shows that the presence of either acts as strong risk factor for the development of the other.
- Treatment and management is dictated by severity of symptoms and patient characteristics rather than type of substance use.
- Treatment and management options include psychosocial and psychiatric interventions, pharmacotherapy, and patient self-management.
- Psychosocial interventions may include individual or group counseling, referral to social work, psychology, or nursing and assistance with identifying employment or vocational training.
- Psychiatric interventions differ from psychosocial interventions and may include cognitive behavior treatment, contingency management, and behavioral change models.
- The degree to which the above interventions are used vary based upon care setting and patient.
- Research findings support the efficacy of cognitive therapy (CT), cognitive behavioral therapy (CBT), and motivational interviewing (MI).
- Pharmacotherapy use differs based upon care setting and substance used.
- The literature includes support for the effectiveness of pharmacotherapy options amongst patients with nicotine, alcohol, or heroin.
- In most cases, a combination of different types of treatment (i.e. pharmacotherapy along with psychosocial or psychiatric intervention) has been shown to be the most effective strategy for individuals with substance use illness.
- Expectations of treatment include ongoing symptom management with improved quality of life and harm reduction.
- For those patients with persistent symptoms follow-up care most often is focused on withdrawal management and harm reduction.
- Patient self-management strategies may play a key-role in both the initial intervention as well as follow-up care (e.g. 12 step program,

patient-self monitoring behavior, alcohol use logs, developing coping mechanism).

iii. Pathway C: Substance Dependence
- Patients present in episode with high severity of illness or returning for treatment for an illness characterized by dependence, which may be further exacerbated by the presence of a chronic medical condition(s).
- Treatment and management is dictated by severity of symptoms and patient characteristics rather than type of substance use.
- Treatment and management options mirror those offered to patients with substance abuse, with more intense treatment at the start of the treatment plan being characteristic for specific substances (alcohol, benzodiazepine, barbiturates).
- Expectations of treatment include ongoing symptom management with improved quality of life and harm reduction.
- For those patients with persistent symptoms follow-up care most often is focused on withdrawal management and harm reduction.
- Patient self-management strategies may play a key-role in both the initial intervention as well as follow-up care (e.g. 12 step program, patient-self monitoring behavior, alcohol use logs).

iv. Pathway D: Severe Substance Dependence (Polysubstance abuse with co-existing psychiatric and or medical disorder, also can include patients with end stage medical complications from a single drug)
- Patients present in episode with exceedingly high severity of illness characterized by the presence of multiple substance use, medical, and/or psychiatric problems. This pathway would also include a subset of patients who are exhibiting a lack of engagement in their treatment plan.
- These types of patients often enter the system with pre-existing legal, financial, and social issues to address along with their somatic and psychiatric illnesses.
- Treatment and management is dictated by severity of symptoms and patient characteristics rather than type of substance use.
- Treatment and management options mirror those offered to patients with substance abuse and dependency, with combination therapies playing the prominent role for these patients and residential treatment being an option as well.
- Expectations of treatment include improved quality of life, remission or harm reduction and involvement in 12 step program.
- Patient self-management strategies play a role in the treatment and management of these patients.

v. Consideration of co-morbidities ($n_1 – n_x$)

d. Treatment options: To be mapped according to the populations' needs/pathways
i. Motivational interviewing
ii. Withdrawal management
iii. Psychosocial interventions
iv. Psychiatric interventions
v. Pharmacotherapy
vi. Case Management

vii. Patient self management
viii. Ranking of interventions from an effectiveness/cost perspective

e. Various providers and settings of care
f. Treatment plan and adjustments spanning Phases 2 & 3

IV. Phase 3 Discussion: Therapeutic Interventions & Follow-Up Care
a. Components
i. Psychosocial interventions
ii. Pharmacotherapy
iii. Adjunctive self-help programs
b. Growing complexity and subsequent adjustment of treatment

V. Patient-Centered Issues for Consideration across the SUI Episode
a. Access to Care, Medication(s)
b. Symptom Assessment
c. Co-morbidities
d. Psychosocial needs
e. Family engagement
f. Cultural diversity/Language & Literacy
g. Treatment preferences
h. Informed decision-making
i. Health education/Behavior change
j. Care Coordination/Transitions

VI. Patient-reported Outcomes
a. Symptom Management
b. Harm reduction
c. Healthy lifestyle
d. Health Related Quality of Life
e. Risk-adjusted total cost of care

VII. Gaps of Care Management and Measurement
1. Screening and Detection
a. Lack of training and education on substance use illness screening amongst all providers
b. Lack of patient/consumer education
c. Measurement of the effectiveness of current training and education strategies in promoting increased screening and detection of substance use illness
d. Inconsistent application of guidelines to inform screening and detection strategies in the primary care and ER settings
e. Measurement of effectiveness of current substance use illness screening tools in identifying patients with SUI (sensitivity > specificity)
2. Diagnosis and assessment
a. Measurement of the relative disconnect in moving patients from setting of initial screening to that of diagnosis and initial management (gaps in coordination, communication)
b. Measurement of effectiveness of current SUI diagnostic strategies (specificity > sensitivity)
3. Brief Intervention
a. Measurement of the effectiveness of different techniques/

strategies in promoting cessation or remission of symptoms in illicit drug users

4. Gaps in measurement related specifically to the NQF Measurement Framework for Episodes of Care (the white paper authors and Panel III members are also evaluating gaps based on these domains)
    a. Patient-level outcomes (including health status/health related quality of life and patient experience with care)
    b. Cost and resource use (including episode grouper considerations)
    c. Processes of care
    d. Technical issues
        a. Duration of episode, pathways
        b. Start and stop of episode, pathways
        c. Which condition serves as the primary diagnosis
        d. Effect of severity of medical co-morbidities on Pathway D
    e. Important points to note
        a. High risk of relapse in first year after diagnosis
        b. Recovery strategies/progression not universally approached in the field

Appendix F

Identification of and Suggestions for Closing Substance Use Illness Measurement Gaps

Patient-Level Outcomes	Cost and Resource Use	Processes of Care	Additional Considerations
Overarching: • Need for patient-focused measurement that captures patient experience of care and patient satisfaction with care • Ensure treatment goals align with patients' goals and are considerate of social, cultural, economic, and other contexts • Consider role of patient self-management • Understand and increase patient knowledge of and access to care	**Overarching**: • Continued work on assessing cost and resource use across the episode (including cost to the patient) is needed • Encourage greater investment into support resources for SUI patients, including wellness programs • Ensure sufficient and trained workforce to meet need/demand for services	**Overarching**: • Ensure care is coordinated across all settings and providers, with particular focus on transitions in care; look to examples from other chronic conditions • Foster shared accountability throughout the system • Consider how measures can speak to the various types and severity of illness	**Overarching**: • Ensure evidence base translates from research into practice • Attend to data/health information technology (HIT) needs across episode framework measurement domains • Address needs and barriers outside of the healthcare system
Patient/Family Engagement and Experience • Measuring patient engagement in primary care • Measurement of patient involvement in the improvement of their care • Mutual Aid/Self help engagement • Personal empowerment/patient activation • Family outcomes, domestic	***Cost across Episode of Care and Resource Use Assessment*** • Overall cost and services delivered across episode of care • Measure the cost of an episode of care based on comparable population (a) age, gender, diagnosis; (b) severity factors (co-morbidities, risk factors, positive factors); (c) ethnicities, race, etc. • Medical costs for the patient	***Care Coordination/Integrated Care/Shared Accountability*** • Follow-up with primary care • Primary care use of Alcohol Use Disorders Identification Test (AUDIT) and Drug Abuse Screening Test (DAST) • Communication across settings of care • Need to assess knowledge of caregivers re: SUIs, mood disorders, pain medications	***Research Needs*** • Looking at performance measures associated with evidence-based practices/ control event rates processes • State funded substance abuse/mental health agencies need accreditation by Joint Commission or other quality-oriented body to begin building quality measurement/ performance improvement

Patient-Level Outcomes	Cost and Resource Use	Processes of Care	Additional Considerations
violence issues, child trauma, and frequent fighting by patients • Cannot address patient preference without a menu of options; must develop and implement new approaches and choices • Initiation and Level of recovery self management ***Patient Satisfaction*** • Overall life satisfaction attained via coordinated treatment of substance use illness (SUI) and underlying issues (i.e. mental health) that contributed to SUI • Consumer satisfaction/ perception of care: Standardized protocols that link regular assessments of progress to clinical decision (quality of life, patient satisfaction) • Patient's progress in reaching personally identified goals in recovery plan • Social and occupational functionality • Patient ratings for overall effectiveness of a given level of care at a point in their recovery Patient rating "value" of present episode (not helpful 0-5, extremely helpful) • Point-in-time patient satisfaction	prior to treatment (inpatient and outpatient – all levels of care) • Medical costs for the patient after treatment ***Payment Structure and Incentives*** • Equate cost to Return On Investment (ROI) so purchasers see value • ROI is a key enabler (can be fueled by outcome measures) • Measure the attributable cost of alcohol/drug piece of other medical conditions • Provider ability to write claims • Payors mandate and pay for continuing care management (CCM) ***Resource Use Assessment*** • Look at the Veterans Equitable Resource Allocation (VERA) model for capitates care (may be applicable more broadly) • Determine standardized cost ranges for treatment based on CPT codes (e.g. 30-min medical-pharmacological assessment cost? / 30-min counseling cost?) • Using existing Massachusetts and commercial databases and other tools to explore the capability of measuring	• Need to bring substance use monitoring/ screening to pain clinics & general psychiatry clinics • Receives care for all conditions/stabilization of coexisting conditions • Integrated health care very appropriate in some settings but difficult in other settings (specialty treatment) • What we have been discussing seems to require that the patient remain in treatment with a substance abuse provider in order to be measured. What about patients who transfer into primary care? Who is responsible for measuring ongoing care management? • How would substance abuse providers know if patient improves in other chronic diseases? Which disease does the patient have? What is the improvement goal? Was the goal achieved? • When/if primary care practitioner is locus of medical accountability – why not conduct alcohol-drug screening as part of standard blood-urine assessment?	foundation to even begin moving towards measurement and outcomes • Consider diagnostic heterogeneity and continuum of severity in the final model • Re: "mandated clients" - no health system takes "mandated patients" without specific procedural protections (e.g. Massachusetts General Law, Chapter 123: Section 35) – addiction specialty system should require same protections • Differentiate goals of consumers, providers, and payors in performance measure equations • Health Resources and Services Administration (HRSA) and Substance Abuse and Mental Health Services Administration (SAMHSA) co-fund an Integrated Mental Health/ Substance Abuse/Medical learning collaborative to develop best practices and collect data – we do not have sufficient data at this point to move forward with policy decisions ***Data Needs/HIT*** • Acceptance of client/patient reported program data • Lack of evidence-based practice

Patient-Level Outcomes	Cost and Resource Use	Processes of Care	Additional Considerations
assessments to collect across lengths of stay/episodes ***Care Coordination and Recovery Management*** • Having an established primary care physician/team • For co-morbidity require that collaborating providers share accountability for measures of all co-morbidity conditions • Patient level outcomes and process of care: define the elements of a CCM service ex. Identify the common and distinct elements and recovery support; identify measurement opportunities for both CCM and recovery support; identify potential or existing measures for CCM and recovery support performance ***Monitoring and Evaluation*** • Ongoing monitoring of recovery status (e.g. multidimensional assessment of functioning) • Gaps in measure: Instrument to simply monitor patients substance use post-medication • Prevention of relapse/delayed time to relapse: Requires periodic monitoring/ assessment; need payment for	cost/resource though a single SUI episode of care as a preliminary step in defining actual problems in such an approach. • Linking co-morbidity episodes (a) multiple overlapping episodes (b) one mega episode (c) other? • Ultimately an episode based framework is probability i.e. not everyone needs/gets all components. How does one apportion probabilities of population sub-groups to aggregate estimates of total population needs/realistic resources • Is data collection affordable? ***Workforce*** • Training in translation of research into evidence-based practice • Training in provider (professionals/personnel) readiness ***Risk Adjustment*** • Risk adjustment procedures: Is the data good enough to allow this? How much of the variance needs to be captured to be useful for payment purposes	***Ongoing Measurement/ Monitoring*** • Standardized CCM protocols driven by evidence based practice, tied to "clinical pathways" distributed through Addiction Technology Transfer Center (ATTC) Network, NIAtx, etc. • Develop ongoing assessment tools and clinical algorithms • Measure continuity of care, post-discharge follow-up, and post-discharge engagement in the next level of care (three contacts) • Specific focus on measurement-based care: measure, follow-up, adaptation (intensification) of treatment, measure improvement • Measurement of in-treatment sequential assessment with evidence of adaptive treatment • How long should clients remain in treatment? • How to make this individualized? • How to measure (e.g. difference between admit and discharge date? number of sessions?) • Retention in treatment: Evidence-base for these measures? Evidence base is not causal • Measures needed for the 11	use, ineffective treatments - Solution: Purchasers define what they want and only buy that product • Data standards that allow for integrated care definition • 42-CFR is a major barrier to continuing care management • Electronic medical records/integrate health record is integral • Data sharing issues • Do you measure entire episode or compounds of treatment within an episode? • Survey federal performance measure system • Look at electronic health records (EHRs)/personal health records (PHRs) to understand future performance platforms • Create an minimum set of data elements to be gathered by all SUI providers to be utilized by public and private payors • Managed care organizations provide existing regular data sharing with member organizations re: ICD-9 codes, emergency department utilization • Web based registries for patient data that payers, providers and patients can access to input data – medications, update rating

Patient-Level Outcomes	Cost and Resource Use	Processes of Care	Additional Considerations
that (is there a code?); multi-risk factor assessment approach may be ideal in primary care setting • Addiction Severity Index (ASI)-Lite, Timeline Followback (TLFB), Global Assessment of Functioning (GAF), Clinical Global Impression (CGI) (applicable to Phase II & III of episode of care model, Phase I-screening); AUDIT (or full audit); DAST-10 • Consider behavioral health and substance abuse risk assessment as Healthcare Effectiveness Data and Information Set (HEDIS) measure • Gaps in self report instrument(s) useful during CCM: Useful for screening (AUDIT/DAST) vs. sensitive to severity (ASI/TLFB) • Pain assessment, medication if present, and response to medication • Tap into state systems that collect data on multiple prescribers of controlled substances ***Community Linkages*** • Availability and awareness of several resources in the community	***Payment Considerations*** • Pay for performance of community mental health/somatic health agencies who use screening tools and report data on follow-up measures • Providers do what they are paid to do: Clearly define what will be purchased in treatment and continuing care • Measurement and payment policies need to minimize cost shifting (e.g. from "acute" phase to "continuing phase") and cream skimming • Grant funding for community mental health substance abuse agencies to collaborate with primary care practices to "cohabitate" to decrease barriers to access (bidirectional) • States cannot monitor revenue services of providers	endorsed standards; how often are they used? More or less than x%? • Engagement in long term monitoring: Useful to the extent that data system captures all care/client does not leave system, implement in places where this is possible then evaluate • Apply non-medical concepts to CCM • Apply concept of the natural course of illness and recovery • Employ early interventions when needed ***Adoption of Practices and Measures*** • Conduct an inventory of existing measures that may serve as performance measures for CCM: - Modular Survey: Consumer Perception of Care - Physician Consortium for Performance Improvement (PCPI): SUI screening/ assessment among persons with depression - Washington Center Public Sector: Retention measure - Others for primary care • Choose simple-to-administer, reliable, valid outcome measures	scales • Data/measures should ideally be derived from the actual process of care – e.g. longitudinal registries ***High Leverage and Structural Needs*** • Linkage to housing, food, legal, education, and employment • Continue efforts to destigmatize/ medicalize/scientize SUI as a chronic medical disorder • Outline structural supports needed to implement continuing care: Workforce; continuing assessment tools tied to American Society of Addiction Medicine (ASAM) or other simple instrument; payment mechanisms • Legal barriers to accessing public and private resources: Temporary Assistance for Needy Families (TANF), drivers license, housing, and employment

Patient-Level Outcomes	Cost and Resource Use	Processes of Care	Additional Considerations
• Connection to community supports		• As imprecise and as complex as they might be, choose and adopt the episode of care framework for SUI; have to start somewhere; revise overtime as data become available • Create suite of structural measures for CCM (like use of consumer survey; use of "risk protocol" to govern post-treatment contacts) to be adopted by accredited organizations Single State Authorities (National Association of State Alcohol and Drug Abuse Directors (NASADAD)) or SAMHSA (National Survey of Substance Abuse Treatment Service (N-SSATs)) • Evidence based practice and practice based evidence exist; perhaps research and practice should look more like each other • Measures should be practical, validated, and easily implemented, to move from theory to application • A better method of disseminating measures so that all areas of care are properly educated about measures	