



Linking Primary Care with Substance Use Treatment: A Long-Term Perspective of Continuing Care

Constance Weisner, Felicia Chi, Sujaya Parthasarathy, Jennifer Mertens

CALDAR Summer Institute on Longitudinal Research & National Drug Abuse Treatment Clinical Trials Network Dissemination Conference
UCLA Integrated Substance Abuse Programs, Los Angeles, CA

August 9 2010

Research funded by National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism

Overview

- Why should primary care be a prominent part of continuing care for substance use problems?
- How to conceptualize this?
- Clinical and (observational) research experience
- Call for Innovative interventions

What might an integrated care model for substance use problems look like?

Lessons from disease management

Primary care
Specialty care if needed
Primary care

Primary
Care

Specialty Care
(CD and Psychiatry)

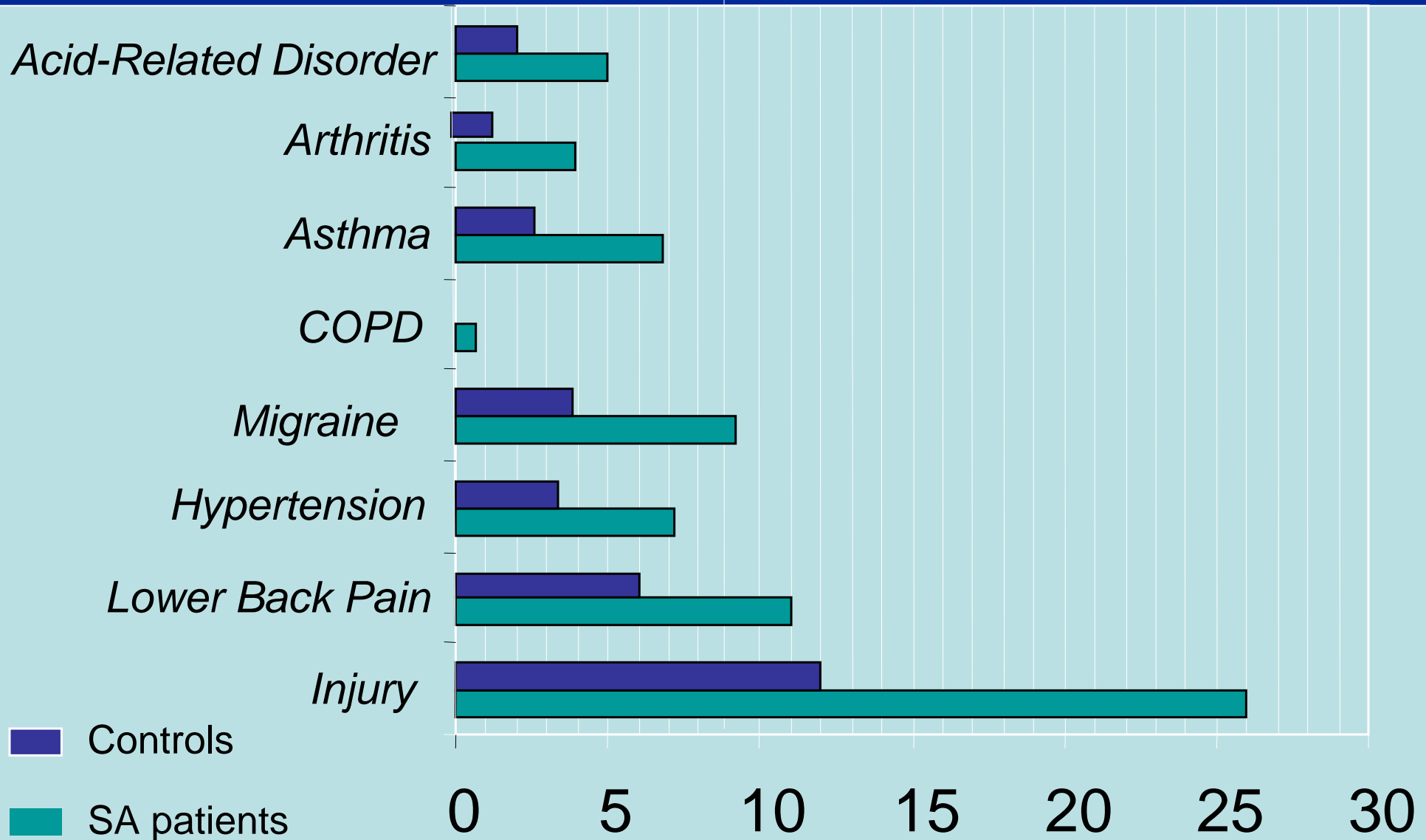


Von Korff M, Gruman J, Schaefer J, Curry SJ, Wagner EH. Collaborative management of chronic illness. *Ann Intern Med.* 1997;127:1097-102.

Bodenheimer T, Wagner EH, Grumbach K. Improving primary care for patients with chronic illness. *JAMA* 2002; 288:1775-9.

Why primary care?

Prevalence in Adult Substance Use Treatment Patients Vs. Matched Controls (%)



Conditional Logistic Regression Results: $p < 0.01$ for all conditions shown

Medical Conditions: Adolescents in Substance Use Treatment vs. Matched Controls (%)

	Tx Intakes	Controls	p-value
Abdominal Pain	10.6	5.7	<.001
Respiratory System Cond.	54.5	37.8	<.0001
Gastroenteritis	6.5	3.9	<.05
Conjunctivitis	6.9	3.2	<.001
Muscle Pain	8.4	3.9	<.0001
Scoliosis	3.1	1.3	<.01
Benign Uterine Cond.	7.7	3.2	<.0001
Injury & Poisoning	49.6	36.4	<.0001
Urinary Tract Infection	3.4	2.0	<.05
STDs	4.8	1.5	<.0001

*One-third of parents reported that their child had chronic health problems (asthma and allergies most commonly). Past pregnancies: 15% of girls

Psychiatric Conditions: Adolescents in Substance Use Treatment vs. Matched Controls (%)

	Tx Intakes	Controls	p-value
Depression	36.3	4.2	<.0001
Anxiety Disorder	16.3	2.3	<.0001
Eating Disorders	1.2	0.43	.07
ADHD	17.2	3.0	<.0001
Conduct Disorder	19.3	1.2	<.0001
Conduct Disorder (w/ODD)	27.3	2.3	<.0001
Any Psychiatric DX	55.5	9.0	<.0001

Medical Conditions of Adult Family members of Individuals with SU Disorders and Control Family Members

(all differences significant)

Medical Conditions	Adult family members of AOD members	Adult Comparison family members
Trauma	14.4	11.0
Lower back pain	10.7	8.8
Hypertension	9.5	8.7
Conditions of the uterus	7.3	6.4
Depression	6.3	3.1
Headache	6.0	4.8
Acid related disorders	5.7	5.1
Asthma	5.7	4.2
Pneumonia	5.2	3.8
Otitis media	4.4	3.5
Diabetes	4.2	4.0
Alcohol/Drug	3.3	1.8

Medical Conditions of Children Family Members of Individuals with SU Disorders and Control Family Members
(all differences significant)

Medical Conditions	Children family members of AOD members	Children comparison family members
Trauma	17.4	13.9
Otitis media	16.9	14.7
Asthma	9.2	7.2
Pneumonia	4.7	4.3
ADD	3.7	1.9
Headache	2.6	1.9
Depression	1.8	0.7
Acid related disorders	1.2	1.0
Alcohol/Drug	1.2	0.5

Hazardous Drinkers and Drug Users in Primary Care

- Prevalence of 10% for either alcohol or drug problems
- Hazardous drinkers and drug users had higher prevalence than other primary care patients of several common medical conditions, including:
 - Injury
 - Hypertension
 - Asthma, emphysema, COPD
 - Pneumonia
 - Depression, Anxiety, and Major Psychoses
- Higher health care costs

Think of unsafe levels of alcohol and drug use as risk factors for other medical conditions

- Hypertension
- Diabetes
- Injury
- Cardiovascular
- Pain management

Integrating Medical and Substance Use Treatment

Important “During” Treatment

Importance of Integrated Services “During” Treatment: Those with Substance Abuse Medical Conditions have Better Outcomes

<u>Independent Variable</u>	<u>O.R.</u>	<u>95% C.I.</u>
Integrated Medical Care (vs. Usual Care)	1.90	(1.22, 2.96)

Controlling for baseline alcohol ASI severity and baseline drug ASI severity

Weisner C, Mertens J, Parthasarathy S, Moore C. Integrating primary medical care with addiction treatment: A randomized controlled trial. *JAMA*. Oct 2001;286(14):1715-1723.

What happens after treatment?

Aftercare as Continuing Care

- Continuing Care is typically presented as aftercare
 - Additional substance use treatment after usual care
 - Stepped down, lower intensity; Recovery Management Checkups, Assertive Continuing Care, Telephone Interventions
- 12 step programs
- Associated with better substance use outcomes (McKay, 2005; S. Godley, M. Godley et al.; Dennis, Scott et al.)

Case for Primary Care-based Continuing Care

- Specialty treatment and aftercare do not last someone's whole life, but ongoing medical care does
- Treatment population also has a high level of medical and mental health conditions that are on-going

Conceptual Approach: Disease Management/Chronic Care Approach

- Individual with a serious chronic problem (e.g., diabetes) is treated in specialty care, and when stabilized returns to PC for management and monitoring
 - referred back to specialty care for services as needed in the course of their health care
- Similarly, SU is a chronic condition requiring ongoing care or management delivered in more than one setting
 - A person may not complete treatment
 - A person may do well after treatment, but then relapse
 - A person may improve in treatment, but more improvement needed

Von Korff M, Gruman J, Schaefer J, Curry SJ, Wagner EH. Collaborative management of chronic illness. *Ann Intern Med.* 1997;127:1097-102.

Institute of Medicine. Improving the quality of health care for mental and substance-use conditions: Quality Chasm series. Washington, DC: National Academies Press; 2005

Significance

- Despite recommendations, most studies show that relatively few PCPs screen, and even fewer screen according to guidelines
- **HOWEVER**, there is little coordination with CD treatment by PC after treatment

Institute of Medicine, “*Improving the Quality of Health Care for Mental and Substance-Use Conditions*,” 2006)

Studies Informing Development of Linkage and Continuing Care Interventions

Interventions Linking Primary Care and SU Treatment Post-Treatment

- Linkage to primary care after detox
 - Uninsured individuals in detox from alcohol, heroin, and cocaine
 - Medical and social work team in detox
 - Primary care appointment made and letter sent to primary care provider
- More linkage with primary care (69% vs. 53%, $p < .001$) for those with primary alcohol and other drugs
- Ongoing observational study found better substance use outcomes for those who had two or more PC visits:
 - Lower odds of drug use or alcohol intoxication, lower alcohol and drug severity

Samet JH, Larson MJ, Horton NJ, Doyle K, Winter M, Saitz R. Linking alcohol- and drug-dependent adults to primary medical care: A randomized controlled trial of a multi-disciplinary health intervention in a detoxification unit. *Addiction*. Apr 2003;98(4):509-516.

Saitz R, Larson MJ, Horton NJ, Winter M, Samet JH. Linkage with primary medical care in a prospective cohort of adults with addictions in inpatient detoxification: room for improvement. *Health Serv Res*. Jun 2004;39(3):587-606.

Beginning Model of Continuing Care

- Alcohol and drug treatment when needed
- Psychiatric services when needed
- Primary care at least every year

A Model of Continuing Care Following Specialty Treatment

Work by Felicia Chi, Division of Research

- Three components:
 - 1) Regular primary care as ANCHOR
 - 2) Readmission to CD treatment when needed
 - 3) Psychiatric services when needed
- “Need for specialty care:

having a non-zero ASI score for the corresponding problem domain at the prior time point

Study Sample

- Study site: KP Chemical Dependency Recovery Program (CDRP) in Sacramento, California
- Study participants: 1,951 adult individuals (i.e. 18 years or older) with SUD entering treatment at the CDRP during April 1994 – April 1996 and April 1997 – December 1998 (representing 93% of CD intakes during the study period)

Data Sources

- Follow-up interviews at 1 year, 5 year, 7 year and 9 year, with response rates of 86%, 81%, 84%, and 75%, respectively
 - Individual Characteristics (demographics and SES)
 - Alcohol & Drug Use
 - Addiction Severity Index (ASI)
- Membership and service utilization from the health plan's administrative databases during 9-year follow-up

Outcome: Remission of Substance Use

- Remission as the primary outcome (Oumitte, 2000; Moos, 2003; Mertens, 2008)
- Remission:
 - Abstinent from alcohol and drugs; or
 - Not abstinent, but
 - drank ≤ 4 times/month in the prior month, with no days of 5+ drinks in the prior month; AND
 - did not use marijuana more than once/month in the prior month; AND
 - did not use drugs other than alcohol or marijuana; AND
 - did not have suicidal ideations, violent behavior, or serious conflicts with family/friends/co-workers in the prior month.

Nine-Year Primary Care-Based Continuing Care Outcomes (Observational Study)

- Patients receiving continuing care were more than twice as likely to be remitted at each follow-up over 9 years ($p < .0001$).*

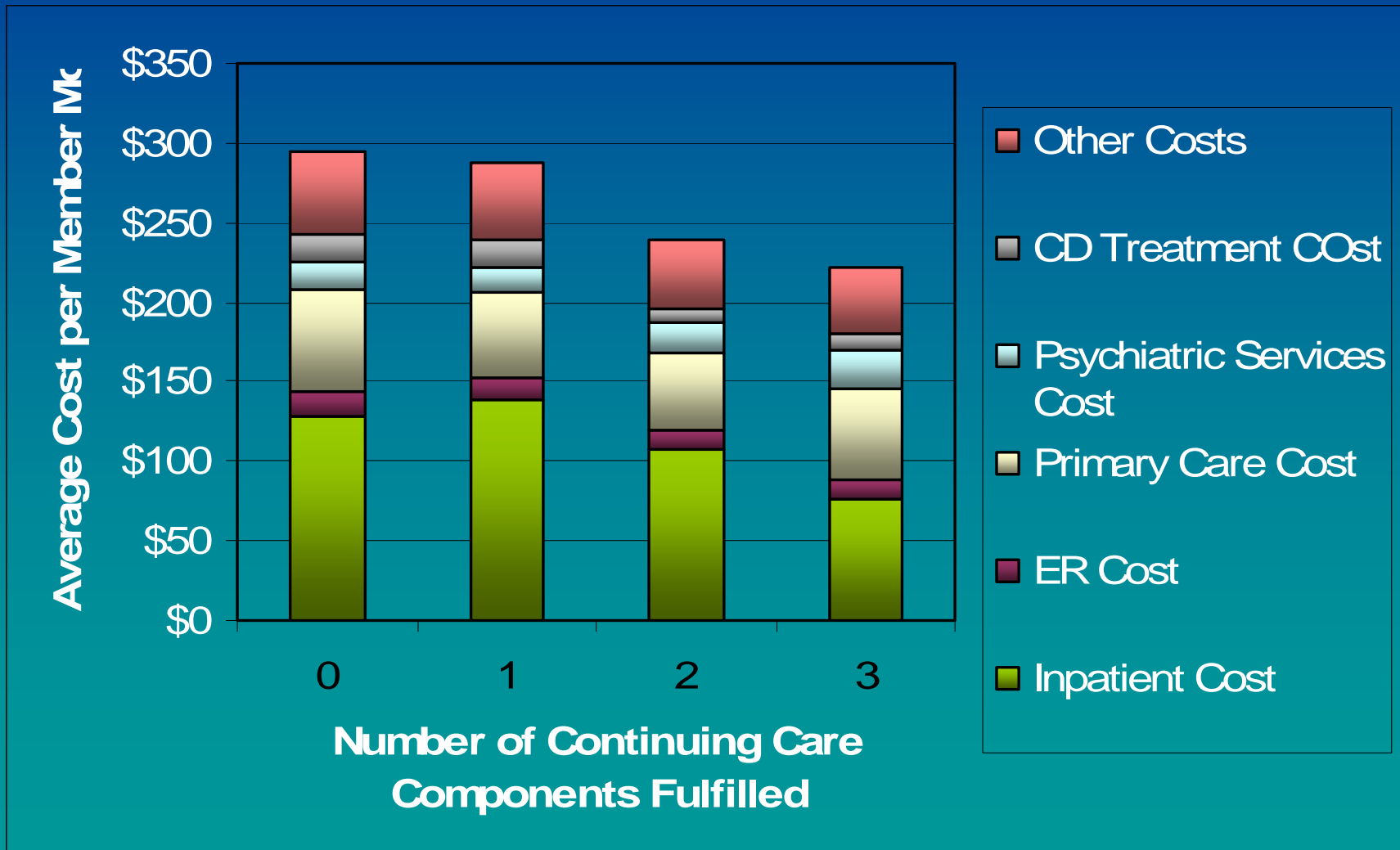
* mixed-effects logistic regression model controlling for time/follow-up wave, demographic characteristics, and completion of index substance use treatment

Continuing Care and Cost

Work by Sujaya Parthasarathy, Division of Research

- Dependent variable: 3 repeated measures of average cost per member month
 - 2 – 5 years after intake
 - 6 - 7 years after intake
 - 8 - 9 years after intake
- Linear mixed model:
 - **Key covariate:** Number of continuing care components received in prior period
 - **Other covariates:** age, gender, employment and marital status, whether completed treatment

Average Costs by Number of Continuing Care Components: Work by Sujaya Parthasarathy, Division of Research



Nine-Year Primary Care-Based Continuing Care Costs (Observational Study)

- Those receiving continuing care in the prior interval were less likely to have ER visits and hospitalizations subsequently ($p < .05$).
 - Receiving continuing care reduces inappropriate utilization, even when not in remission.

Summary

- A continuing care model that regular PC and specialty care predicted remission
 - Consistent with the chronic care model
 - Those receiving continuing care were more than twice as likely to be remitted
 - Significant associations between receiving continuing care and remission across subgroups defined by baseline individual characteristics (age, gender, medical and psychiatric severity), except for those aged 50 and older
- However, only about one tenth received all of the continuing care across time points during the 9-year follow-up

Summary and Implications

- Those receiving all components of CC had lowest overall health care costs
 - Promoting a CC model that integrates different elements of the health care system appears to be cost-effective

Limitations

- Generalizability
 - Private, integrated managed care
 - Individuals with health insurance
- Observational study
 - Skewed cost data
 - Lagged model
 - Marginal structure modeling (MSM) or Time-varying propensity score (PS) methods
- Attrition
 - Sensitivity analysis (completers only, missing = non-remitted)

A beginning model

What might an integrated care model for substance use problems look like?

Lessons from disease management

Primary care
Specialty care if needed
Primary care

Primary
Care

Specialty Care
(CD and Psychiatry)



Von Korff M, Gruman J, Schaefer J, Curry SJ, Wagner EH. Collaborative management of chronic illness. *Ann Intern Med.* 1997;127:1097-102.

Bodenheimer T, Wagner EH, Grumbach K. Improving primary care for patients with chronic illness. *JAMA* 2002; 288:1775-9.

Continuum of Care

Primary Care as Medical Home

Screening in Primary Care

Positive?

Negative?

Assess severity and readiness

Low to Moderate severity?

Brief Intervention and monitor carefully for progress and comorbidities

Moderate to Severe?

Assertive referral to specialty care – CD or MH or BOTH

Motivational Interviewing to get the patient to follow through with referral

Follow-up with specialty providers for during and post-Tx care

Careful monitoring

Continue annual screening and encourage healthy living behaviors

What could this look like in primary care?

Two approaches

1. Training PC providers to screen for problems, especially in those who have been in treatment or diagnosed
2. “Patient-empowerment” approach
 - Empowers patient
 - Educates patient and family about importance of managing SU problems similar to medical problems
 - Addresses stigma, communication, how to raise the issue with providers

Conclusion

- An episodic approach to treatment will not produce lasting results.
- Even those who do well initially after treatment continue to have other problems – need ongoing services.
- Innovative models of Continuing Care are needed.
- Clinical and research interface needed to develop new models that work in different types of health systems

Why is now a good time?

Critical mass of circumstances

- Health reform
- Addiction treatment parity
- Electronic medical records
- HEDIS measure – CPT codes
- Medicaid Waivers in public health centers
 - Medicaid disease management programs for PCCM and fee-for service populations
- NIH/SAMHSA/ONDACP focus on training and treatment
- Concern in health systems about chronic pain and opioid prescribing

Implications

- The task of CD treatment is to set things in motion – also instill motivation for ongoing change
- Primary care is important *after* CD treatment as well - Move toward a disease management model of care: keep primary care in the loop after treatment
 - Important in becoming accustomed to talking about alcohol and other behavioral problems to physicians and health providers as a life pattern



Staff Scientists

Cynthia Campbell, PhD
Jennifer Mertens, PhD

Group Leader & Dissemination Lead

Stacy Sterling, MSW, MPH

Health Economist

Sujaya Parthasarathy, PhD

Analysts

Felicia Chi, MPH
Andrea Hessel, MS
Wendy Lu, MPH
Tom Ray, MBA
Connie Uratsu, MPS

Project Coordinator

Agatha Hinman, BA
Aliza Silver, MA

Adjunct Investigator

Derek Satre, PhD

Interview Supervisor

Gina Smith Anderson

Research Associates

Georgina Berrios
Virginia Browning
Jessica Duhe
Diane Lott-Garcia
Melanie Jackson
Aikya Param
Cynthia Perry-Baker
Barbara Pichotto
Martha Preble
Rebecca Rogot
Lynda Tish
Sandra Wolter

Intern

Christine Lou
Tina Valkanoff