

**8:15-9:00 Plenary Address: Tim Baker**

**9:15- 10:45 Breakout Sessions 1**

**1. Closing the gap between research and practice: Successful dissemination strategies in combating resistance to Medicated Assisted Treatment**

Chair:

Tom Freese

ATTC Network

[tfreese@mednet.ucla.edu](mailto:tfreese@mednet.ucla.edu)

The Addiction Technology Transfer Center (ATTC) Network, funded by the Substance Abuse and Mental Health Service's Administration's (SAMHSA) Center for Substance Abuse Treatment (CSAT), is part of the United States Federal Government's efforts in drug control. The purpose of the program is to accelerate the diffusion of innovations in the substance use disorders field through comprehensive, research-driven technology transfer strategies. This presentation will address efforts by the ATTC Network to decrease the gap between research and practice and to influence understanding of factors that enhance uptake of innovations. Taking Medicated Assisted Treatment (MAT) as an example, this presentation outlines how pairing research with innovative dissemination techniques can enhance the use of Evidence Based Practices (EBPs) while creating a synergy between research and clinical practice that enhances quality of care. As part of the National Institute on Drug Abuse (NIDA)/SAMHSA Blending Initiative, the role of the ATTC Network is to provide the workforce with the necessary training to adopt and implement EBPs into their everyday work. This presentation will provide an overview of the Buprenorphine Suite, a training product designed by the ATTC Network to provide the Substance Use Disorder (SUD) treatment field with the necessary tools to access and adopt NIDA research treatment protocols. Additionally this presentation will identify research undertaken by the Network aimed at identifying barriers to providing MAT to minority populations. In doing so the Network has translated that research to the SUD treatment field to ensure that they can adequately engage specific minority populations in MAT.

Traci Rieckmann

Northwest Frontier ATTC at Oregon Health & Science University

[rieckman@ohsu.edu](mailto:rieckman@ohsu.edu)

*Pairing Research with Innovative Dissemination Techniques: Accelerating the Use of Evidence Based Practices In Medication Assisted Treatment*

The use of pharmacotherapy to decrease the symptoms and cravings associated with drug dependence and detoxification is expanding as research continues to confirm that the use of medicated-assisted treatment (MAT) provides better outcomes, and reductions in drug use, mortality rates, and criminal activity. Thus, substantial progress has been made in the field of addiction treatment and some clients have greater access to these important interventions.

Examples of new medications for alcohol and opioid dependence as well as other substance use disorders (SUDs) include Campral, Suboxone® and extended-release Naltrexone (Vivitrol). Unfortunately, despite the evidence of their effectiveness, adoption of medication to treat SUDs remains slow and continues to meet with workforce, organizational, and full systems resistance. According to SAMHSA's National Survey of Substance Abuse Treatment Services, only 22.3% of patients seeking treatment for a SUD were receiving Methadone or Buprenorphine. This gap between research and practice is critical and indicates the need for a better understanding of factors that enhance uptake of innovations.

The ATTC Network is developing MAT materials aimed at increasing competency for SUD practitioners and allied health professionals. To this end, a comprehensive literature review, interviews with national experts and front line practitioners, and client testimonials were collected to shape the message of the materials, training, and marking or outreach messages. This project is an example of pairing the best research with innovative dissemination techniques to accelerate use evidence-based practices while creating a synergy between research and clinical practice that enhances the quality of care.

Tom Freese

Pacific Southwest ATTC at University of California Los Angeles

[tfreese@mednet.ucla.edu](mailto:tfreese@mednet.ucla.edu)

### *NIDA/SAMHSA Blending Initiative – Disseminating a Suite of Evidence-Based Training Products*

The NIDA/SAMHSA Blending Initiative, developed in 2001 by the National Institute on Drug Abuse (NIDA) and the Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Treatment, is designed to meld science and practice together to improve substance use disorder (SUD) treatment and accelerate the dissemination of research-based treatment findings into community-based practice. The ultimate goal of the NIDA/SAMHSA Blending Initiative is provide the SUD treatment workforce with the training necessary to adopt and implement evidence-based practices into their everyday work. This is accomplished by identifying and developing activities and materials (e.g., trainings, self-study programs, and distance learning opportunities) for the SUD treatment field that provide the tools necessary to access and adopt NIDA research protocols. This presentation will provide a brief overview of the NIDA/SAMHSA Blending Initiative in general, as well as the key components of the cutting-edge Buprenorphine Suite. The Buprenorphine Suite is comprised of three Blending Team (BT) products: (1) Buprenorphine Treatment: Training for Multidisciplinary Addiction Professionals; (2) Short-Term Opioid Withdrawal using Buprenorphine: Findings and Strategies from a NIDA Clinical Trials Network Study; and (3) Buprenorphine Treatment for Young Adults. In addition, this presentation will describe the innovative strategies utilized by the ATTC Network to disseminate the Buprenorphine Suite, including national statistics of trainings conducted and participants reached, and results from a needs assessment survey of Buprenorphine trainers from across the United States. The presentation will conclude with a brief description of lessons learned and next steps for an additional medication-assisted treatment training product.

Shawna Malvini Redden  
Pacific Southwest ATTC at Arizona State University  
[smalviniredden@yahoo.com](mailto:smalviniredden@yahoo.com)

*Medicated Assisted Treatment In Minority Populations: Adapting Evidence Based Practices*

The consequences of substance use disorders are particularly severe for racial and ethnic minority populations. Therefore, it is crucial that minority populations have access to the full range of evidence-based treatments including medication-assisted treatment (MAT). The use of medication in combination with counseling can make a significant difference in treatment outcomes, but it must first be made available and accessible to clients. The main goal of this project was to prepare the substance abuse treatment workforce to engage specific minority populations in MAT by understanding the cultural differences regarding the use of MAT among individuals of African American, American Indian, Asian, Hispanic/Latino and Pacific Island descent. With funding from the Substance Abuse and Mental Health Services Administration, representatives from five Addiction Technology Transfer Centers collaborated to conduct focus groups with individuals from each ethnic population who were receiving MAT to treat their substance use disorder for at least six months. The main outcomes of focus groups included better understanding of the perceived benefits and barriers to treatment, as well as specific cultural attitudes, values, and social norms surrounding drug and alcohol abuse. Results of focus groups were used to inform the design, content, and production of both client-directed marketing and informational materials, and clinician/physician-directed training and educational materials.

Discussant:  
Olivia Ryan  
ATTC National Office at University of Missouri Kansas City  
[ryanom@umkc.edu](mailto:ryanom@umkc.edu)

## **2. Mixed Methods Approach towards Understanding Perceived Need for Drug Treatment**

Chair:  
Brenda Booth  
Department of Psychiatry, University of Arkansas for Medical Sciences  
[BoothBrendaM@uams.edu](mailto:BoothBrendaM@uams.edu)

Approximately 90% of individuals with problem drug use in the community perceive no need for treatment; hence this belief represents a major barrier to treatment seeking and treatment outcome. We discuss a community-based mixed-methods approach towards understanding need for treatment in non-treatment seeking cocaine users, combining quantitative, qualitative and neuroscientific (fMRI) methods. However, perceived need is often viewed as a relatively simple binary decision. We present data from over 40 qualitative interviews and 400 quantitative interviews with urban and rural African-American cocaine users, and a pilot fMRI study of 20 urban individuals with cocaine dependence to identify key perspectives on perceived need for

treatment. The presentations highlight the complexity of this denial of need for treatment, including cocaine use expectancies, beliefs in treatment efficacy, discounting the future in favor of more immediate drug use, access to care, prior experiences with treatment, and key neural mechanisms that may mediate perceived need.

Brenda Booth

Department of Psychiatry, University of Arkansas for Medical Sciences

[BoothBrendaM@uams.edu](mailto:BoothBrendaM@uams.edu)

### *Measurement of Perceived Need for Treatment among African-American Cocaine Users*

Objective: Perceived need for treatment is relatively rare amongst cocaine users but is a strong predictor of treatment-seeking. The purpose of this report is to capture the multi-factorial nature of perceived need for treatment.

Methods: 400 African-American cocaine users are being recruited using Respondent-Driven Sampling from one urban and two rural majority African-American Arkansas counties.

Measures include rulers to measure readiness for treatment, readiness to change drug use, perceived effectiveness of treatment, as well cocaine use expectancies, and attitudes towards drug treatment. Data analysis will consist of factor analysis to determine the underlying dimensions of perceived need for treatment, followed by regression analysis to determine rural/urban, gender, and age-group differences. We hypothesize that our composite measure will be positively associated with (1) rural residents (due to low treatment accessibility), (2) older participants (due to greater readiness to change drug use and greater understanding of treatment benefits), and (3) men.

Ann M Cheney, PhD

Department of Psychiatry, University of Arkansas for Medical Sciences

[AMCheney@uams.edu](mailto:AMCheney@uams.edu)

### *Barriers and Facilitators of African American Cocaine Users' Perceived Need for Drug Abuse Treatment*

Objectives: To examine the barriers and facilitators of African American cocaine users' perceived need for drug abuse treatment.

Methods: Participants were recruited through Respondent-Driven Sampling and were purposively selected to explore generational, rural/urban, and gender differences in drug use and treatment seeking patterns. Semi-structured interviews were conducted with 42 participants and examined drug use and treatment-seeking behaviors, perceived need for care, perceptions of treatment, and barriers to accessing drug treatment programs.

Results: Participants reported that travel distance, affordability, doubt in treatment efficacy, fear of parole violation, psychological instability, and resistance to "having to go away" for long periods of time were barriers to seeking and accessing treatment. Facilitators included: legal or family coercion, accumulation of negative consequences from drug use, and beliefs that treatment could improve their situation.

Conclusions: To increase treatment-seeking behaviors among this population, researchers should address barriers that shape perceptions of treatment and access to it.

Tyrone F Borders, PhD  
College of Public Health, University of Arkansas for Medical Society  
[TFBorders@uams.edu](mailto:TFBorders@uams.edu)

*Perceived Access and Need for Drug Abuse Treatment among Rural and Urban African American Cocaine Users*

Objectives: To describe how African American cocaine users' perceived access to drug abuse treatment and drug use severity are associated with their current perceived need for drug abuse treatment.

Methods: Structured interviews are being conducted among a community-based sample of 400 (200 rural/200 urban) African American cocaine users identified and recruited via Respondent-Driven Sampling. The interviews include multiple measures of perceived need for treatment, treatment history, attitudes about treatment accessibility (availability, accommodation, and effectiveness), and drug use severity (drug use frequency and diagnoses of abuse or dependence).

Results: We will report preliminary bivariate and multivariate findings describing how perceptions of access to drug abuse treatment, drug use severity, and related factors are associated with perceived need for drug abuse treatment.

Conclusions/Implications: The presentation will shed new light on the characteristics that facilitate or impede rural and urban African American cocaine users' thinking about the decision to potentially seek drug abuse treatment.

G. Andrew James, PhD  
Department of Psychiatry, University of Arkansas for Medical Sciences  
[GAJames@uams.edu](mailto:GAJames@uams.edu)

*Neural Mechanisms Mediating Perceived Need for Drug Abuse Treatment*

Objectives: To elucidate the neural mechanisms underlying cocaine users' inability to perceive a need for drug abuse treatment.

Methods: Functional MRI is being used to characterize the neural networks underlying two forms of cognition: motivated reasoning and delay discounting. Motivated reasoning is reasoning biased by the desire to reach a preferred conclusion, while delay discounting is the tendency to devalue delayed rewards relative to immediate rewards. We will investigate these cognitive networks in 20 cocaine-dependent individuals who do not perceive a need for treatment.

Results: We will report network dynamics for neural systems subserving these cognitions and evaluate their potential contribution to the inability of cocaine users' to perceive a need for drug abuse treatment.

Conclusions/Implications: By understanding the neural mechanisms underlying cocaine users'

resistance against seeking treatment, we may better develop therapies for addressing cocaine addiction.

**1. Measuring integrated treatment services in addiction, mental health and primary care settings (McGovern, Urada, Potter, Stanley Sacks, Gotham, Drake)**

Chair:

Mark P. McGovern

Dartmouth Medical School

[mark.p.mcgovern@dartmouth.edu](mailto:mark.p.mcgovern@dartmouth.edu)

Co-occurring substance use and mental health disorders are prevalent in the community, more common in clinical settings, and associated with negative treatment and life outcomes. With health care reform impending, routine medical care settings have joined specialty addiction and mental health service providers in developing models and approaches to more effectively serve persons with co-occurring disorders. Three benchmark measures of organizational capacity have been designed to objectively assess program services to patients with co-occurring conditions as provided in addiction treatment, mental health and primary care settings. Four multi-site studies implementing the Dual Diagnosis Capability in Addiction Treatment (DDCAT), Dual Diagnosis Capability in Mental Health Treatment (DDCMHT) and Dual Diagnosis Capability in Health Care Settings (DDCHCS) will be presented in this symposium. Themes across these studies, challenges and opportunities in the existing systems of care, and avenues for future treatment services research will be discussed.

Darren Urada

UCLA Integrated Substance Abuse Programs

[durada@ucla.edu](mailto:durada@ucla.edu)

*Behavioral Health Integration into Primary Care: A Perspective from California*

The implementation of Healthcare Reform will produce a seismic shift in the delivery of behavioral health, including mental health and substance use disorder prevention, treatment, and recovery services. Over the last year, UCLA, under contract with California's Department of Alcohol and Drug Programs, has studied strategies for the integration of behavioral health with primary care as well as measurement of this integration. In addition to conducting extensive literature reviews and key informant interviews, 16 site visits were conducted in California health centers and 5 sites were assessed using the Dual Diagnosis Capability in Healthcare Settings (DDCHCS) tool. Our findings suggest that integrating behavioral health services into primary care settings is complex, and regulatory and organizational challenges must be overcome; however successful strategies to create and sustain, at minimum, dual diagnosis capable health care currently exist in the health centers examined, and continuing integration efforts are underway.

Lisa Potter  
Fairfax-Falls Church Community Services Board  
[lisa.potter@fairfaxcounty.gov](mailto:lisa.potter@fairfaxcounty.gov)

*Improving Co-occurring Services across 40 Mental Health and Alcohol/Drug Programs*

The Fairfax-Falls Church (Virginia) Community Services Board delivers behavioral health services to a jurisdiction of over one million people in the Washington, D.C. area. Since 1969, mental health and substance use programs have operated and delivered services separately. Recently, organizational leadership began a process to make all treatment programs co-occurring capable, or better. The DDCAT and DDMHT instruments were used to evaluate 40 mental health and alcohol/drug programs. Programs receive evaluation results, consultation, evidence-based treatment resources, and develop action plans for organizing quality improvement. System-wide analysis occurs at intervals, looking for cross-cutting gaps, needs and opportunities. Phase two will involve systemic initiatives and a re-evaluation of all 40 programs for changes in capability. Baseline data will be presented with a particular focus on differences between mental health and addiction treatment programs.

Stanley Sacks  
National Development & Research Institutes, Inc.  
[stansacks@mac.com](mailto:stansacks@mac.com)

*Center For Excellence in Integrated Care: “Getting Capable” – a Snapshot of New York State’s Outpatient System*

Since January 2009, the Center for Excellence in Integrated Care (CEIC) has been working with New York State substance abuse and mental health outpatient programs to improve their ability to deliver integrated substance abuse and mental health services to persons with co-occurring conditions. CEIC fosters improved and integrated services through direct technical assistance and the use of a guide, “Getting to Capable.” Using the Dual Diagnosis Capability in Addiction [or in Mental Health] Treatment (DDCA[MH]T), CEIC has evaluated 300 addiction or mental health programs to date, generating a “snapshot” of the ability of the State’s addiction and mental health outpatient system to provide integrated services. These evaluations revealed a system average of 2.70 (on a 5-point scale), which indicates a level closer to Dual Disorder Capable (DDC) than to basic (Addiction or Mental Health Only Services [AOS or MHOS]). At the conclusion of CEIC’s 4-year term, it is expected that the majority of New York State’s outpatient programs will have achieved “capable” (DDC) status. This initiative is significant in its potential to increase access to care, to enhance the health of New York State residents with co-occurring conditions, to promote system transformation, and to inform future developments consistent with Health Care Reform.

Heather Gotham  
Mid-America Addiction Technology Transfer Center, University of Missouri – Kansas City

[gothamhj@umkc.edu](mailto:gothamhj@umkc.edu)

*Effects of Organizational Characteristics on Change in Treatment Program Capability to Provide Co-Occurring Services*

Research which examines the multi-year process of implementing evidence-based practices is rare. This study examines 26 publicly-funded substance abuse and mental health treatment programs seeking to improve services for adults with co-occurring mental and substance use disorders (COD) as part of a 3-year initiative. Using the Dual Diagnosis Capability in Addiction Treatment (DDCAT) or Dual Diagnosis Capability in Mental Health Treatment (DDCMHT) Index, the COD capability of each grantee was rated on three annual site visits. Effects of organizational readiness for change and structural characteristics on capability over time are examined. Across programs, COD capability was low to moderate at Year 1 but increased in both Year 2 and Year 3, although COD capability change varied considerably across agencies. The study found modest evidence that organizational readiness for change was related to increased COD capability, highlighting the complex context in which treatment programs try to improve services for clients.

Discussant:

Robert E. Drake

Dartmouth Psychiatric Research Center

[robert.e.drake@dartmouth.edu](mailto:robert.e.drake@dartmouth.edu)

**2. Health Plans' Provision of Substance Abuse Services in an Age of Parity and Health Reform**

Chair:

Constance Horgan

Institute for Behavioral Health, Heller School for Social Policy and Management, Brandeis University

[horgan@brandeis.edu](mailto:horgan@brandeis.edu)

Health plan decisions can directly influence patients' access to care and cost and quality of care. Rapid changes in the healthcare system, most recently the federal parity law and national healthcare reform legislation, require significant changes to health insurance for substance abuse and mental health (SA/MH) services. Health plans face many decisions regarding their services and organization in responding to this changed environment. This symposium will provide a first look at the current delivery and management of SA/MH services in private health plans based on the third round of a nationally representative, in-depth survey of health plan executives, previously conducted in 1999 and 2003. The 2010 survey (83% response rate) captures pre-parity (2009) and post-parity (2010) benefit years and focuses on benefits, utilization management and integration of SA/MH services into primary care to provide a current picture of the delivery and management of SA/MH services.

Sharon Reif  
Institute for Behavioral Health, Heller School for Social Policy and Management, Brandeis  
University  
[reif@brandeis.edu](mailto:reif@brandeis.edu)

*Changes in Organization and Benefits for Substance Abuse Service in Private Health Plans*

In order to fully understand behavioral health services in private health plans, it is essential to examine a full range of administrative and clinical features. Key decisions that health plans may reexamine because of federal legislation are explored including product characteristics, contracting with vendors, network management, benefit design, and quality approaches for 2009 and 2010 benefit years. Many managed care techniques are now common, yet there remains variation in contracting with carveouts, management of provider networks, and the extent to which plans approach and monitor quality of care. In 2003, 72% of products contracted out the management of specialty SA/MH care to managed behavioral health organizations. In 2010, there has been a shift in the structure of these contracts. This study will provide a national view of the organization and delivery of substance abuse services in health plans and how that has changed between 2009 and 2010.

Dominic Hodgkin  
Institute for Behavioral Health, Heller School for Social Policy and Management, Brandeis  
University  
[hodgkin@brandeis.edu](mailto:hodgkin@brandeis.edu)

*Utilization Management: Parity is not just about benefits anymore*

The techniques health plans use to manage care and control costs can affect the type of treatment patients receive. As a result of the 2008 federal parity law, many plans must offer more generous benefits for the behavioral health services they cover. In addition, the federal regulations specified that parity also applies to utilization management approaches, potentially limiting plans' ability to control access to these benefits. In 2003, prior authorization was required by the vast majority of products for most services, except by only 58% for outpatient substance abuse treatment. In 2010, many plans no longer require prior authorization for substance abuse services and may use other approaches to manage services. We report on changes in plans' use of key techniques such as: utilization review practices for ongoing care; number of continuing care visits/days typically approved; case management activities and selection criteria, including for co-occurring behavioral health/general medical issues.

Maureen Stewart  
Institute for Behavioral Health, Heller School for Social Policy and Management, Brandeis  
University  
[mstewart@brandeis.edu](mailto:mstewart@brandeis.edu)

## *Integration of Substance Abuse Services into Primary Care Settings: What are health plans doing?*

Integration of substance abuse services with primary care has been shown to improve care delivery and is a key component of medical homes and accountable care organizations (ACO) called for in health reform. Alcohol screening, brief intervention and referral to treatment (SBIRT) in primary care is an important evidence-based practice. Health plans motivated to improve their performance in NCQA's high-visibility quality performance system may turn to primary care providers (PCPs) to enhance their screening efforts. Through a nationally representative survey of private health plans we examine policies that may encourage or discourage integration of substance abuse services into primary care. We ask whether health plans provide additional reimbursement for integrated services. We evaluate health plans' level of involvement in medical homes and whether behavioral health services are formally included. We also examine the role health plans are playing in facilitating coordination between PCPs and specialty behavioral health providers.

Discussant:

Sarah Scholle

National Committee for Quality Assurance (NCQA)

### **11:00-12:30 Breakout Sessions 2**

#### **2. Implementing Implementation Science: A Look at Study Designs**

Chair:

Lori Ducharme

National Institute on Drug Abuse

[Lori.Ducharme@nih.gov](mailto:Lori.Ducharme@nih.gov)

Despite substantial public investments, gaps and lags remain in the uptake of evidence-based practices in the broad array of settings where substance abuse treatment and prevention services are delivered. Implementation research seeks to identify and define effective strategies for accelerating and expanding the use of EBPs. Implementation research differs in important respects from clinical effectiveness trials, and is often best conducted using nontraditional study designs. This symposium presents an overview of several current NIDA-funded implementation research studies, examining different evidence-based practices, conceptual models, implementation strategies, and treatment settings. Investigators will describe the implementation framework used, the study design, and key hypotheses. NIDA staff will describe Institute priorities and platforms for substance abuse-related implementation research, suggest strategies for developing competitive implementation research applications, and provide guidance for prospective applicants about navigating the NIH review process.

*Clinical Supervision as an Implementation Strategy*

Steve Martino  
Yale University  
[Steve.Martino@yale.edu](mailto:Steve.Martino@yale.edu)

Research on the effectiveness of clinical supervision as an implementation strategy for evidence-based counseling practices in substance abuse treatment has focused solely on the extent to which supervision improves counselors' treatment fidelity. No prior studies have examined the impact of clinical supervision on client treatment outcomes or on how counselor fidelity via supervision mediates client outcomes. Furthermore, no studies have examined the dose of supervision needed by counselors, nor training required by clinical supervisors, with which to specify an implementation protocol for evidence-based practices. This study randomly assigns counselors (and subsequently clients) to one of two conditions: workshop training plus structured supervision (MIA: STEP), versus workshop training plus supervision-as-usual, to promote motivational interviewing fidelity within an intake and improved client outcomes at 4- and 12-week follow-ups. Counselors in the MIA: STEP condition receive at least 7 supervisions. The study has potentially broad implications for the effective diffusion of counseling-based interventions.

*Medication-Assisted Treatment Implementation in Community Correctional Environments*

Peter Friedmann (Brown University) for the CJDATS MATICCE Workgroup  
[pfriedmann@lifespan.org](mailto:pfriedmann@lifespan.org)

Drug abuse and dependence are significant problems in community correctional populations, yet these settings are often ill-equipped to identify and refer clients to existing community-based treatment services. Staff are often opposed to the use of pharmacotherapies in addiction treatment, and lack the knowledge, resources, and organizational structures to facilitate client linkages to available community treatment services. This study tests an implementation strategy designed to establish or enhance interorganizational linkages between community corrections and local treatment agencies where MAT is offered, with the intended outcome of improving access to pharmacotherapy for opioid- or alcohol-dependent probationers/parolees. 18 community corrections agencies are randomized to receive either a 12-month organizational strategic planning intervention along with staff training on MAT, or staff training alone. Outcome measures assess staff knowledge and perceptions of MAT, willingness to refer, volume of client referrals, treatment enrollment, and sustainability of organizational linkages.

*Integrating Addiction Treatment and Medical Care in a Commercial Health Plan*

Dennis McCarty  
Oregon Health & Science University  
[mccartyd@ohsu.edu](mailto:mccartyd@ohsu.edu)  
Mady Chalk  
Triangle Research Institute

Raina Croff  
Oregon Health & Science University

While recent developments in addiction pharmacotherapies (buprenorphine, Vivitrol) have increased opportunities for integrating drug treatment into mainstream medical care, health plans have been slow to adopt these medications. This project tests a novel implementation strategy – the Advancing Recovery model of system change – to facilitate the integration of medication-assisted treatment in a large commercial health plan. Advancing Recovery extends the NIATx process improvement model by addressing key change levers (financing; interorganizational relationships; regulations and policy; service delivery; and customer impact) to implement change. Twelve addiction treatment programs participate in a 22-month system change intervention. The project takes advantage of the health plan’s extensive utilization and expenditures databases to measure changes in patient admissions, volume of prescriptions written, and utilization of inpatient, residential, and emergency services, and outcomes are measured relative to data from twelve matched comparison sites. Qualitative interviews with key informants identify implementation barriers and effective change strategies.

Discussant:  
Harold Perl  
NIDA  
[Harold.Pperl@nih.gov](mailto:Harold.Pperl@nih.gov)

### **3. Staff turnover within addiction health services**

Chair:  
Bryan R. Garner  
Chestnut Health Systems  
[brgarner@chestnut.org](mailto:brgarner@chestnut.org)

Staff turnover is discussed as a major concern within the substance abuse treatment (SAT) field, yet little research to date has examined the antecedents and consequences of SAT staff turnover. The three presentations included as part of this symposium will address these two important gaps in the literature. The first presentation examines the extent to which perceptions of organizational context and leadership effectiveness predict voluntary turnover. The second presentation examines the extent to which work attitude mediates the relationship between psychological climate and staff turnover. The third presentation examines the association between organizational-level rates of staff turnover and staff perceptions of demand and support. Together these three presentations will provide the audience with a better understanding of not only how prevalent staff turnover is within the SAT field, but also with a better understanding of the factors leading to staff turnover and how staff turnover impacts remaining staff.

Lillian T. Eby  
The University of Georgia

[leby@uga.edu](mailto:leby@uga.edu)

*The Relationship between Perceptions of Organizational Functioning and Voluntary Counselor Turnover: A Longitudinal Investigation*

**Study Aims.** Using four waves of data from a nationwide study, we examine how counselor perceptions of the organizational context (procedural justice, distributive justice, organizational support, job satisfaction) and leadership effectiveness (relationship quality with clinical supervisor, in-role performance of supervisor, extra-role performance of supervisor) predict voluntary turnover over time. **Method.** 598 counselors completed surveys in year 1 and were tracked for three subsequent years to determine if they voluntarily left or remained employed at their treatment organization. **Results.** Data were analyzed using survival analysis. Organizational context variables were significantly related to subsequent turnover; counselors with more favorable perceptions of the organizational context were between 13.8%-22.8% less likely to turn over than those with less favorable perceptions. None of the leadership effectiveness variables were significant. **Conclusions.** Efforts to retain counselors should focus on increasing perceptions of fair treatment, organizational support, and job satisfaction. Methods to enhance organizational functioning will be discussed.

Bryan R. Garner  
Chestnut Health Systems  
[brgarner@chestnut.org](mailto:brgarner@chestnut.org)

*A prospective model of the relationship between psychological climate, work attitude, and staff turnover*

**Aim:** This study examined the extent to which work attitudes (e.g., job satisfaction, intentions-to-quit) temporally mediated the relationship between psychological climate (e.g., supervisor support, coworker support) and staff turnover. **Method:** Therapists (N = 105), who were providing evidence-based treatment to adolescents with substance use disorders, completed organizational surveys at both study recruitment and three months post-recruitment. Additionally, each participant's turnover status was tracked throughout the study, including whether turnovers were voluntary or involuntary. **Results:** None of the participant background characteristics were found to be significant predictors of staff turnover. However, results did support the hypothesized model that work attitude would mediate the temporal relationship between psychological climate and turnover. **Conclusions:** This study provides empirical evidence that staff turnover is more than simply correlated with an individual's work attitude or perception of the work environment, which has been a primary conclusion of much of the existing staff turnover research.

Danica K. Knight  
Texas Christian University  
[d.knight@tcu.edu](mailto:d.knight@tcu.edu)

## *Organizational Consequences of Staff Turnover in Outpatient Substance Abuse Treatment Programs*

**Aim:** The purpose of this study is to examine the impact of staff turnover on perceptions of demands and support in substance abuse treatment programs. **Method:** 354 clinical staff from 63 outpatient substance abuse treatment programs completed the Survey of Organizational Functioning (SOF; included Organizational Readiness for Change, ORC) which measured stress, inadequate staffing, communication, cohesion, and peer collaboration. **Results:** A series of multilevel models (HLM) indicated that counselors working in programs with high staff turnover perceived higher demands and lower support within their organization. These relationships existed after controlling for other organizational (budget and census) and individual (caseload and tenure) measures. Individual caseload and tenure were important determinants of perceived demands, but were not related to perceptions of support. **Conclusions:** Findings suggest program-level demands (staff turnover and reduced budgets) exacerbate perceived demands and diminish perceived support, thereby potentially increasing the likelihood of further stress and subsequent turnover among employees.

Discussant:

Hannah K. Knudsen

University of Kentucky

[hannah.knudsen@uky.edu](mailto:hannah.knudsen@uky.edu)

## **4. Effectiveness of the Adolescent Community Reinforcement Approach for Justice-Involved Youth: Results from an Independently Conducted Randomized Controlled Trial**

Chair:

Craig Henderson

Sam Houston State University

[chenderson@shsu.edu](mailto:chenderson@shsu.edu)

In response to urgent calls for more effective interventions that address multiple problems of young offenders, the Center for Substance Abuse Treatment has released four rounds of demonstration grants to study the implementation and effectiveness of the Adolescent-Community Reinforcement Approach/Assertive Continuing Care. However, a fundamental limitation of these evaluation projects, is that none have utilized RCT designs. Further, although RCTs of A-CRA and ACC exist in the literature, few have been conducted by researchers uninvolved in the development of the treatment approach. In this randomized trial, 128 adolescents in Southeast Texas were randomized to receive either A-CRA or services as usual (SAU). This panel includes three presentations that present promising substance use outcome results through a 12 month follow-up. In addition, we will report the effectiveness of A-CRA on co-morbid internalizing and externalizing symptoms, and examine the impact of change in

environmental risk on change in substance-related impairment.

Craig Henderson  
Sam Houston State University  
[chenderson@shsu.edu](mailto:chenderson@shsu.edu)

*Effectiveness of the Adolescent Community Reinforcement Approach for Justice-Involved Youth: Results from an Independently Conducted Randomized Controlled Trial*

The first paper will report the main outcome results of the trial described above.

Lindsey North  
Sam Houston State University  
[lwn001@shsu.edu](mailto:lwn001@shsu.edu)

*Effectiveness of the Adolescent Community Reinforcement Approach on Comorbid Mental Health Symptoms of Justice-Involved Youth*

This paper reports the results of treatment effects on comorbid internalizing and externalizing symptoms for the trial described above.

Vivian Lotts  
Sam Houston State University  
[val001@shsu.edu](mailto:val001@shsu.edu)

*Predicting Treatment-Related Change in Adolescent Substance Use from Change in Recovery Environment*

This paper will discuss the impact of change in recovery environment on subsequent change in substance use among adolescents in the trial described above.

## **5. Prescription Drug Abuse: Prevention and Treatment Needs across the Continuum of Health Care**

Chair:  
Scott Novak  
RTI International  
[snovak@rti.org](mailto:snovak@rti.org)

Prescription drug abuse has dramatically increased in the United States, despite a downward trend in illicit drug use in the past decade. The Office of National Drug Control Policy recently issued a strategic plan to coordinate federal and state efforts around the prevention and treatment of prescription drug abuse. The broad theme of this symposium is to address points of

intersection between addiction health services and the broader field of medicine in responding to the epidemic of prescription drug abuse. The four presentations will address key clinical and policy levers, present an overview of the current state of knowledge about prescription medication abuse, and identify gaps for future health services research. The session will also promote a transdisciplinary perspective, drawing on how the neuropsychopharmacology of prescription drugs affects the phenotypical expression of addiction and corresponding health services needs in terms of prevention and treatment.

Jennifer Havens  
University of Kentucky  
[jhave2@email.uky.edu](mailto:jhave2@email.uky.edu)

*Predictors of Substance Abuse Treatment Engagement among Rural Appalachian Prescription Drug Users*

**Objective:** To describe the predictors of substance abuse treatment entry among rural drug users. **Methods:** Sociodemographic, substance use and treatment data were collected using interviewer-administered questionnaires at baseline, 6-, 12- and 18-months post-baseline among 503 participants. Random-effects regression was used to model treatment entry over time. **Results:** Over the 18-month period, less than 10% of participants sought treatment for substance abuse. Predictors of treatment entry included more years of education (AOR: 1.02; 95% CI: 1.01, 1.03), white race (AOR: 5.75, 95% CI: 1.15, 28.4) and younger age (AOR: 0.96, 95% CI: 0.93, 0.98). Previous treatment was also a strong predictor of treatment seeking during the study period (AOR: 1.15, 95% CI: 1.07, 1.24). **Conclusions:** Rural drug users do not differ greatly from urban drug users with regard to predictors of treatment engagement. However, the low rates of treatment entry suggest lack of access to viable treatment options.

Mark Edlund  
University of Arkansas Medical Center  
[MJEdlund@uams.edu](mailto:MJEdlund@uams.edu)

*The Clinical Epidemiology of Chronic Opioid Use: Evidence for “Adverse Selection”*

**Objective:** To investigate factors associated with (i) use of prescription chronic opioid therapy among patients with chronic non-cancer pain (CNCP); and (ii) development of opioid abuse and dependence among individuals receiving prescription chronic opioid therapy.

**Methods:** Logistic regression analyses using claims data from two disparate populations, one national, commercially insured population (HealthCore) and one state-based, publicly insured (Arkansas Medicaid).

**Results:** Among individuals with CNCP, mental health and substance use disorders were strong predictors of receiving chronic opioid therapy; and among individuals receiving chronic opioid

therapy, mental health and substance use disorders were associated with development of opioid abuse and dependence.

Conclusion: We found that the individuals most likely to receive prescription chronic opioid therapy (those with mental health and substance use disorders) were also the most vulnerable to development of opioid abuse and dependence, a phenomenon we term “adverse selection”.

Elizabeth Merrick  
Brandeis University  
[merrick@brandeis.edu](mailto:merrick@brandeis.edu)

#### *Addressing Prescription Drug Abuse Problems through Employee Assistance Programs*

Employee assistance programs (EAPs) are an important resource for addressing substance use issues in the workplace, including prescription drug abuse. This study examined employees' utilization and perceptions of EAP services offered by a national managed behavioral health organization (MBHO). A sample of employed persons covered by this MBHO was surveyed by telephone (n=831 respondents), including subsamples of 1) recent EAP utilizers; and 2) non-utilizers of substance use disorder (SUD) treatment. Over 90% of EAP utilizers knew the EAP could help with substance use issues. Yet, few indicated that they had sought EAP help for that reason. Among employees who had not used SUD services and did not report substance use problems, one-quarter indicated they would be "very likely" to use EAP if they did have such a problem. Findings will help employers, providers and others aiming to reduce substance use, including prescription drug use, through workplace initiatives.

Scott Novak  
RTI International  
[snovak@rti.org](mailto:snovak@rti.org)

#### *Characterizing the Mental and Physical Health Services Needs of Adult Prescription Drug Abusers*

Objective: To characterize the physical and mental health treatment needs of adults meeting established diagnostic criteria for abuse and/or dependence on prescription medications.  
Methods: Trend data from the 2005-2009 National Survey on Drug Use and Health. The analytic subsample included 4% of adults that met the past year diagnostic criteria for a prescription drug use disorder  
Results: Only 2% of those meeting the criteria for a prescription drug use disorder did not meet the criteria for another drug or alcohol use disorder. Over the prior 5 years, the characteristics of the treatment population changed over time, where the prevalence of those who only met the criteria for a prescription drug disorder increased. There was a consistent amount of co-occurring physical and mental health problems among those with a prescription medication disorder that was not observed among those with a substance use disorder that did not include a prescription drug disorder.

Discussant:

Bradley Smith

Office of Public Engagement, Special Liaison to the Office of the President

[Bradley.Smith@dhhs.gov](mailto:Bradley.Smith@dhhs.gov)

**12:30-1:45 Lunch**

**12:45-1:45 Plenary Address: Maxine Stitzer**

**2:00-3:30 Breakout Sessions 3**

**1. Research Design, Outcomes, and Policy Implications from Florida Cost Assessment of Addiction Programs (FCAAP), the First State-Wide Assessment of Substance Abuse Treatment Costs**

Chair:

Michael T. French

University of Miami

[mfrench@miami.edu](mailto:mfrench@miami.edu)

Substance abuse programs require contemporary and rigorous economic evaluations to compete with other public programs for scarce healthcare resources. The proposed symposium will present research methods and findings from Florida Cost Assessment of Addiction Programs (FCAAP), the first state-wide assessment of substance abuse treatment costs. Isabelle Beulaygue will describe the challenges of designing a comprehensive state-wide evaluation and then outline the lessons learned. Kathryn McCollister will present the main cost findings from the project. The third paper by Bisma Sayed will introduce the DATCAP Operations Module as a tool to examine cost differences among programs in the same modality. Pierre Alexandre, the fourth presenter, will describe the policy implications of the research findings. The two discussants are Stephenie Colston and Sarah Duffy. The proposed symposium will be interesting and useful for health services researchers, health economists, government policy officials, and program directors.

Isabelle C. Beulaygue

University of Miami

[ibeulaygue@as.miami.edu](mailto:ibeulaygue@as.miami.edu)

*Designing a comprehensive treatment cost study in the state of Florida: Process evaluation and lessons learned*

This paper describes the rationale, study design, procedural challenges, and lessons learned from the Florida Cost Analysis of Addiction Programs (FCAAP). FCAAP is the first state-wide study designed to assess the economic cost of substance abuse treatment in Florida. We collected cost data and client and program information from over 130 agencies. Data were collected using the

Brief Drug Abuse Treatment Cost Analysis Program (Brief DATCAP) and the newly developed DATCAP Operations Module. The information reported in the present paper serves as a prologue for the study by summarizing the methods, approach, and challenges encountered in conducting a state-wide evaluation of treatment costs. We present lessons learned during the process and propose alternatives and solutions aimed at facilitating recruitment, data collection, and retention efforts. Finally, we offer practical recommendations for future large-scale economic evaluations of substance abuse treatment programs.

Kathryn E. McCollister  
University of Miami  
[KMcColli@med.miami.edu](mailto:KMcColli@med.miami.edu)

### *Main Findings from the Florida Cost Analysis of Addiction Programs (FCAAP)*

Public and private stakeholders of substance abuse treatment require economic cost information to guide funding decisions. Rigorous cost assessments have been conducted for several treatment programs across the U.S., but a rigorous evaluation of programs in a particular state has never been attempted. The present study recruited all publicly funded treatment programs in the State of Florida and administered both the Brief Drug Abuse Treatment Cost Analysis Program (Brief DATCAP) and the newly developed DATCAP Operations Module. A total of 175 programs across seven distinct modalities participated in the study (71% response rate). The average weekly cost per client ranges from \$90 for methadone maintenance to \$2,158 for detoxification. Program evaluators and government officials in Florida and other states can use the methods and empirical findings from this ambitious research project as they develop reimbursement algorithms and initiate more extensive evaluations of substance abuse treatment programs.

Bisma Sayed  
University of Miami  
[bsayed@miami.edu](mailto:bsayed@miami.edu)

### *The DATCAP Operations Module as a Tool to Examine Differences in Substance Abuse Treatment Costs: Instrumentation and Findings*

Policy-makers are under increasing pressure to efficiently allocate limited public funds while improving the quality of substance abuse treatment. This task is complicated by the diversity in available treatment services. While programs typically offer similar core services within each modality, significant differences exist in ancillary or wraparound services. Economic evaluation studies rarely investigate the source of cost variability within modalities. The recently completed Florida Cost Analysis of Addiction Programs (FCAAP) developed and administered the DATCAP Operations Module, an instrument designed to assess the source of variations in treatment costs across programs. We identify four key areas that influence costs differences: client demographics, client risk factors, staff characteristics, and program characteristics. Findings suggest that client risk factors and staff credentials explain the greatest share of

variation in treatment costs. Future studies may benefit from the inclusion of the Operations Module to identify determinants of cost variability across substance abuse treatment providers.

Pierre K. Alexandre  
Johns Hopkins University  
[pialexan@jhsph.edu](mailto:pialexan@jhsph.edu)

*Using the Treatment Cost Estimates from Florida to Advance Research and Policy*

Substance abuse treatment stakeholders, including policy makers, researchers, and program administrators, need practical economic analysis techniques, data collection instruments, and evaluation protocols that are readily available and easy to employ. Florida Cost Analysis of Addiction Programs (FCAAP) is the first statewide substance abuse treatment cost study to be undertaken in the US, and the only study to have jointly administered the Drug Abuse Treatment Cost Analysis Program (DATCAP) and the DATCAP Operations Module to assess how client and program characteristics predict variations in treatment costs. Since administration and financing of substance abuse treatment is handled primarily at the state level, the lack of rigorous substance abuse treatment cost data presents a critical handicap to state policymakers that struggle to identify funding priorities and set appropriate service reimbursement rates. This presentation will use the findings from FCAAP to offer research and policy recommendations at the regional and national levels.

Discussants:  
Stephenie Colston  
Dept. of Children & Families, State of Florida  
[stephenie\\_colston@dcf.state.fl.us](mailto:stephenie_colston@dcf.state.fl.us)  
Sarah Duffy  
NIDA  
[duffys@nida.nih.gov](mailto:duffys@nida.nih.gov)

**2. Global Appraisal of Individual Needs (GAIN) as a Growing Infrastructure to Support Health Services Research and Performance Monitoring (Dennis, Godley, Rush, Compton)**

Chair:  
Michael L. Dennis  
Chestnut Health Systems  
[mdennis@chestnut.org](mailto:mdennis@chestnut.org)

A significant gap for addiction health services researchers is the lack of reliable and valid client level data on large samples across geography, modality and the life course of addiction, treatment and recovery. In use by 1700 agencies in 48 states and 6 Canadian provinces, the

Global Appraisal of Individual Needs (GAIN) provides a growing infrastructure to support health services research and performance monitoring. This includes a series of standardized measures that integrate research and clinical assessment, formal training and certification programs, and web-based software applications. Pooled data on over 58,000 clients have been used to provide detailed psychometrics and support 187 publications. The GAIN supports clinical decision making related to diagnosis, treatment planning, and placement, work force development, performance monitoring, economic evaluation and program planning. This symposium will describe the overall system and examples of how it has been used to support health services research and performance outcome monitoring.

Michael L. Dennis  
Chestnut Health Systems  
[mdennis@chestnut.org](mailto:mdennis@chestnut.org)

*Overview of the GAIN Infrastructure and the Psychometric Properties of the Instruments*

This presentation will provide a brief overview of the Global Appraisal of Individual Needs (GAIN) instruments, training/certification programs, web applications and data bases. It will then provide a summary of the purpose, content, reports, software, psychometrics and validations done on four core measures: the 5-7 minute GAIN Short Screener, the 25-35 minute GAIN Quick, the 60-120 minute GAIN Initial and the 45-60 minute GAIN 90-day monitoring versions. A common data set will be used to illustrate how each version provides successively more information. Multiple examples will also be provided on how the GAIN has been accessed by health services researchers to better understand the comorbidity/needs of clinical subgroups, to create propensity score based comparison groups for quasi-experiments, to predict the risk of several key outcomes, and to conduct economic analysis. The presentation ends with an invitation to researchers and information on accessing the GAIN data to support secondary analysis.

Mark D. Godley  
Chestnut Health Systems  
[mgodley@chestnut.org](mailto:mgodley@chestnut.org)

*Using the national GAIN Dataset to support addiction health services research on Adolescent Treatment and Continuing Care*

Prior to 1997 addiction health services research on adolescent substance use and co-occurring disorders, treatment services and outcomes, and continuing care lagged significantly behind adult research. In an effort to speed up knowledge acquisition, the SAMHSA Center for Substance Abuse Treatment has supported using the GAIN in a dozen adolescent treatment funding initiatives over the past 14 years and the creation of a pooled data set with multiple observations over time on more than 18,000 adolescents. This data has been used to support cross-site evaluations, multiple secondary analyses, and for NIDA and NIAAA grants related to adolescents. This presentation will use three examples from the published literature to illustrate

the utility of this dataset: (1) an epidemiological examination co-occurring mental health problems and related treatment utilization; (2) exploratory analysis of gender and race differences of a large-scale evidence-based treatment initiative; and (3) hypothesis testing of predictors of treatment/continuing care effectiveness.

Brian Rush

Health Systems and Health Equity Research Group, Centre for Addiction and Mental Health  
[brian\\_rush@camh.net](mailto:brian_rush@camh.net)

*The GAIN family sweeps across Canada: What are the expectations and impacts for substance abuse and other health and social systems?*

Proactive systematic screening for substance abuse and related co-occurring conditions can serve many functions for a treatment program, or a large network of programs that jointly implement a common tool. These functions range from improving clinical decision-making, fulfilling regulatory requirements, and managing resources including outcome monitoring. The GAIN family of screening and assessment measures has been embraced on a large scale in Canada due to the strength of the psychometric and validation data, age range covered and other factors. Now used in the majority of provinces and territories, this presentation will summarize the scope of use and objectives of GAIN-related data collection for child, adolescent, and adult service and system development. Key themes related to application, impact and future prospects are drawn from key informant interviews across Canada. Canadian contributions to ongoing development of the GAIN measures will also be highlighted (e.g. translation, validation in French, Aboriginal and other languages/cultures).

Discussant:

Wilson M. Compton, III  
National Institute on Drug Abuse  
[wcompton@nida.gov](mailto:wcompton@nida.gov)

### **3. Using pay-for-performance (P4P) methods to improve quality of care**

Chair:

Bryan R. Garner  
Chestnut Health Systems  
[bgarner@chestnut.org](mailto:bgarner@chestnut.org)

Although pay-for-performance (P4P) has been recommended by the Institute of Medicine (2007) to improve delivery of quality care little research has examined the effectiveness or cost-effectiveness of this approach. The three presentations included as part of this symposium will address this important gap in the literature. The first presentation will focus on findings from a P4P pilot study with 6 drug court providers in New Jersey. The second presentation will focus on effectiveness and cost-effectiveness findings from a cluster randomized P4P experiment with

29 community-based treatment organizations implementing evidence-based practices. The third presentation will focus on findings from P4P initiative with 217 health centers in Haiti. Together these three presentations will provide the audience with better understanding of both the effectiveness and cost-effectiveness of using P4P methods to improve quality of care.

Raquel Mazon Jeffers  
New Jersey Department of Human Services  
[Raquel.Jeffers@dhs.state.nj.us](mailto:Raquel.Jeffers@dhs.state.nj.us)

*Pay for Performance Pilot with Drug Court Providers in New Jersey*

**Aim:** The aim of this pilot study was to increase and improve engagement and retention in residential care and support clinically driven lengths of stay in treatment.

**Methods:** Six drug court providers in New Jersey participated in this pilot. Providers achieving 95% bed utilization were eligible for incentives for achieving retention rates of 95%, 90% and 80% for the three key dropout points (i.e., 21, 45 and 91 days).

**Results:** Six agencies received an incentive in FY 2010 Quarter 1, five in Quarter 2, and three in Quarters 3 and 4, respectively. The total incentive payments for these last three quarters was \$25,000. **Conclusions:** Pay-for-performance incentives reduced the number of Drug Court clients returning to jail due to lack of compliance with treatment requirements during the initial period of engagement, and have increased engagement and retention since the new targets that have been attained are higher than what previously existed.

Donald S. Shepard  
Brandeis University  
[shepard@brandeis.edu](mailto:shepard@brandeis.edu)

*The Reinforcing Therapist Performance Experiment: Effectiveness and cost-effectiveness results*

**Study Aim:** This study examined the effectiveness and cost-effectiveness of using pay-for-performance (P4P) methods to improve treatment implementation and effectiveness.

**Method:** 29 treatment organizations and their therapists (N=105) were randomly assigned to either an implementation-as-usual (IAU) or experimental P4P condition. Therapists in the P4P condition had opportunities to receive monetary bonuses for demonstrating monthly competence (\$50 per month) and delivering a pre-defined level of treatment to clients (\$200 per client).

**Results:** Multilevel regression analyses found that assignment to the P4P condition had medium-to-large sized effects on increasing the proportion of months therapists demonstrated monthly competence ( $d=.51$ ) and the likelihood of clients receiving a targeted level of treatment ( $OR=3.71$ ) relative to the IAU condition. However, only small effects were observed for the impact of P4P on improvements in client's days of abstinence ( $d=.09$ ) and overall net-monetary-benefit ( $d=.03$ ). **Conclusion:** P4P directly improved treatment implementation, but had less impact on treatment effectiveness.

Wu Zeng  
Brandeis University  
[Wuzengcn@brandeis.edu](mailto:Wuzengcn@brandeis.edu)

*Synergistic benefit of randomly chosen incentives for primary health care in Haiti*

**Aim:** To evaluate the impact of innovative performance-based financing (PBF), where incentive targets were randomly chosen yearly, added to support (training and technical assistance) on primary health care in Haiti. **Method:** We obtained counts of key medical services from four departments for 217 health centers (15 with PBF and 202 without) for 2008 through 2010, and interviewed staff in 4 facilities. We compared growth rate per quarter for incentivized and non-incentivized services using difference-in-difference approach through regression analyses. **Results:** Incentives, on average, accounted for 6% of the budget to health centers. The growth rate per quarters was increased by 2.3% from support alone and by 5.7% from support plus incentives—more than twice as much. Health center staff appreciated the incentives. **Conclusions:** Incentives seemed to be cost effective and had a favorable synergy with support, suggesting that a small amount of money, strategically used, could have substantial payoff.

Discussant:  
Constance M. Horgan  
Brandeis University  
[horgan@brandeis.edu](mailto:horgan@brandeis.edu)

#### **4. Addiction Health Services Research in Criminal Justice Settings**

Chair: TBD

Mark Zehner  
NIATx, University of Wisconsin, Dept. of Industrial and Systems Engineering  
[mark.zehner@chess.wisc.edu](mailto:mark.zehner@chess.wisc.edu)

*A Process Improvement Approach to Increasing Client Access and Continuation in Drug Courts*

Ten Drug Court programs were selected to participate in a year-long pilot NIATx Learning Collaborative to improve client access to and retention in drug court. The pilot goal was to teach courts and treatment agencies the NIATx process improvement model to resolve barriers effecting access and retention. The collaborative provided technical support from expert NIATx coaches as well as regular peer sharing exchanges.

Change projects were completed between February 2010 and February 2011. Improvement results were collected through court self-reports which summarized the change aim, baseline data and end of change project improvement.

Summary results include: 1) the reduction of wait times an average of 38%. Seven of the eight courts that tested changes to improve wait times achieved reductions. 2) Admissions increased 92-100% and referrals quadrupled. Changes by four different courts across 3 sites will result, on average, in 11 more clients per month with access to drug court.

JoAnn Y. Sacks  
National Development & Research Institutes, Inc.  
[jysacks@mac.com](mailto:jysacks@mac.com)

*Randomized Trial of a Prison Therapeutic Community for Female Offenders: Outcomes at 12-Months Post-Prison Release*

The increasing numbers of incarcerated women with substance abuse problems have underlined the need for effective correctional treatment models for this population. This prospective, longitudinal study randomly assigned female inmates needing substance abuse treatment to either an Experimental Therapeutic Community (E-TC; n=235) or a Control Intensive Outpatient Program (C-IOP; n=192). The aim of the study was to test the hypothesis that the E-TC would have significantly greater overall improvement compared to the C-IOP on outcomes at 12-months post-prison release. Both treatments were effective in reducing drug use and criminal activity, and increasing mental health functioning. At 12-months post-prison release the E-TC treatment group reported greater improvement than the C-IOP group on measures of drug use, criminal activity, and exposure to trauma. The success of prison treatment, and TC programming in particular, in a women's prison setting expands the range of treatment models available to female inmates.

Stanley Sacks  
National Development & Research Institutes, Inc.  
[stansacks@mac.com](mailto:stansacks@mac.com)

*Re-Entry Modified Therapeutic Community for Offenders with Co-occurring Disorders: Crime Outcomes*

This paper describes a stratified, random assignment study to determine the effectiveness of a Re-entry Modified Therapeutic Community (RMTC) vs. standard care for offenders with co-occurring substance use and mental disorders ("co-occurring disorders" or "COD"). Men with COD who had been approved for Community Corrections were recruited from 9 Colorado prisons and assigned, using a randomized block procedure, either to the Experimental (E) condition, the RMTC (n=71), or to the Control (C) condition, Parole Supervision and Case Management (PSCM; n=56), each housed in its own facility. An intent-to-treat analysis 12-months post-prison release showed reincarceration to be less likely for E-RMTC participants (19%) than for C PSCM participants (38%), with the greatest reduction in recidivism found for E-RMTC participants who also received MTC treatment while incarcerated. These findings support the RMTC as a stand-alone intervention, and reinforce support for integrated MTC programs in prison and in aftercare for offenders with COD.

Alexander Cowell  
RTI International  
[cowell@rti.org](mailto:cowell@rti.org)

*Lifetime Benefits and Costs of Diverting Substance Abusing Offenders from State Prison*

Prisons hold a disproportionate number of society's drug abusers. Approximately 50% of state prisoners meet the criteria for a diagnosis of drug abuse or dependence; however, only 10% of prisoners receive any clinically or medically based drug treatment. A substantial literature demonstrates that diverting offenders to community-based treatment has positive net social benefits. In this presentation, we build on a lifetime simulation model of a state prison cohort to examine diversion from re-incarceration to community-based substance abuse treatment. We find that diversion provides positive net societal benefits and cost savings to the criminal justice system. Our study demonstrates the societal gains from improving access to the community drug treatment system for state prisoners.

**3:45-5:15 Breakout Sessions 4**

**1. State and Provider Capacity for Providing Medication Assisted Treatment**

Chair  
Sean J. Haley  
Department of Health and Nutrition Sciences, Brooklyn College and CUNY School of Public Health  
[sjhaley@brooklyn.cuny.edu](mailto:sjhaley@brooklyn.cuny.edu)

It is expected that the use of medication assisted treatment (MAT) for substance use disorders will expand under the Patient Protection and Affordable Care Act (PPACA). This symposium joins both provider and state level findings to address previously identified MAT barriers including lack of funding, cost of medication, and attitudes toward medication. Presentations will describe publicly available medications, whether block grant or other public funds were used to purchase medications or related services, as well as States' capacity to collect treatment data and measure performance. At the provider level, the symposium will describe changes in counselor attitudes over time. The session concludes with examples from three States that significantly expanded access to medication assisted treatment.

Sean J. Haley  
Department of Health and Nutrition Sciences, Brooklyn College and CUNY School of Public Health  
[sjhaley@brooklyn.cuny.edu](mailto:sjhaley@brooklyn.cuny.edu)

*States' Use of Medication Assisted Treatment, Data Capacity and Performance Measure Feasibility*

This study describes States' use of medication assisted treatment (MAT), data capacity, and 5 States' ability to extract public data to calculate performance measures developed through the National Association of State Alcohol and Drug Abuse Directors. Although most States support at least one form of medication and capture data relate to patients' diagnosis, few states document whether a patient is receiving MAT or the medication type. Most States were able to capture performance data related to opioid medication services, but were more limited in their ability to capture services related to alcohol medications. In addition, States appeared more able to capture measures that align with earlier treatment stages, but were challenged when patients elected to taper or stop medication maintenance. In light of changes expected under the Patient Protection and Affordable Care Act, there is a need for a stronger substance abuse treatment infrastructure that can support evidence-based services.

Traci Rieckmann

Department of Public Health and Preventive Medicine, Oregon Health and Science University  
[rieckman@ohsu.edu](mailto:rieckman@ohsu.edu)

*Changing Attitudes toward Use of Buprenorphine for Opiate Dependence Treatment: The Impact of Research Network Participation*

Despite evidence supporting buprenorphine therapy, implementation remains weak. Research indicates that adoption is associated with organizational factors, including research network participation, and clinician characteristics, including attitudes toward medication-assisted treatment (MAT). This study examined factors impacting counselor attitudes toward buprenorphine acceptability and effectiveness. Survey data collected in two waves of the National Treatment Center Study (2002-2004; 2007-2009) included counselors from a national sample of privately funded treatment programs (N wave1=1,097; N wave2=1,226) and programs participating in the National Drug Abuse Treatment Clinical Trials Network (CTN) (N wave1=1,001; N wave2=934). Bivariate and multivariate analysis compared private versus CTN counselors regarding acceptability and effectiveness ratings, counselor characteristics, and program adoption of buprenorphine. Attitudes toward buprenorphine improved over time, with CTN counselors showing greater acceptance of buprenorphine in both waves. After adjusting for covariates, CTN counselors were at least 50% more likely than private counselors to perceive buprenorphine as acceptable and effective.

Kim Johnson

NIATx, University of Wisconsin  
[kimberly.johnson@chess.wisc.edu](mailto:kimberly.johnson@chess.wisc.edu)

*State Strategies to Improve Access to Medication Assisted Treatment*

Adoption of new medications is not a state or county level issue for most of medicine. Once a new medication receives FDA approval, the drug company begins its process of marketing to payers and providers. Medications to treat addiction face a second set of barriers beyond FDA approval at the state and local regulatory level, and at the provider level. This session describes a conceptual model for designing strategies to address both regulatory and provider level policies and practices that were successfully deployed in the Robert Wood Johnson funded Advancing Recovery project. Examples from three states and one county that expanded access to medication assisted treatment for alcohol and opiate addiction will demonstrate the various ways the model was effectively implemented.

Discussant:

Dennis McCarty

Department of Public Health and Preventive Medicine, Oregon Health and Science University  
[mccartyd@ohsu.edu](mailto:mccartyd@ohsu.edu)

## **2. Improving Communication within a Substance Abusing Population: An Efficient Evidence-Based Approach**

Chair:

Chelsey Wilks

University of Nevada Las Vegas  
[wilks3@unlv.nevada.edu](mailto:wilks3@unlv.nevada.edu)

This symposium will review an innovative approach to improve communication and cohesion among family members who have experienced substance abuse and its associate problems. The intervention components were developed within the context of an evidence-based treatment (i.e., Family Behavior Therapy; FBT). FBT is listed in national clearinghouses, as an evidence-supported practice for substance abuse and its co-morbid problems in both adolescent and adult populations. Controlled and uncontrolled trials have indicated significant improvements in a wide-array of problem behaviors, including adult and adolescent drug use, family functioning, employment, days incarcerated, depression, child abuse potential, parental stress, youth problem behaviors, and psychiatric symptoms. Poor communication often leads to, or is associated with, drug use and other problem behaviors. Communication skills training includes the positive request procedure (i.e., assertiveness skills training), and reciprocity awareness which is a method of improving overall tone in the relationship while decreasing anxiety and stress.

Kim Lee

Child to Family Connections  
[spencerleefamily@yahoo.com](mailto:spencerleefamily@yahoo.com)

*Implementation of Positive Requests to Improve Communication*

Poorly stated requests, often perceived as unreasonable demands, often act as antecedents to drug-use and associated problem behaviors. The positive request procedure involves teaching family members to effectively obtain desired reinforcers, thus assisting in the prevention of arguments and upset that of lead to substance abuse. Therapists use prompting checklists and standardized forms to engage each family member through the process. Through modeling and behavioral rehearsal, participants are taught the communication components that have been found to increase the likelihood of obtaining requested actions. The Positive Request procedure may also assist in gaining desired behaviors that are incompatible with substance use (e.g. employment, dates with people who do not use substances).

Steven Culp  
Comprehend Inc.  
[sculp@comprehendinc.org](mailto:sculp@comprehendinc.org)

### *Reciprocity Awareness as a Catalyst for Improved Family Cohesion*

Persons affected by substance abuse have often damaged the quality of their relationships with significant others who do not use substances. Indeed, derogatory and belittling comments are common in families in which drug use occurs. Reciprocity Awareness is designed to assist families in appreciating the things people do for each other, as well as to increase their rate of positive exchange. Therapists use Reciprocity awareness to create awareness of reinforcers that are provided within the family, and increase the number of positive statements that are made within the family. Family members are encouraged by the therapist to express statements of appreciation, while the therapist provides feedback about these interactions

Discussant:  
Jasmine Fayeghi  
University of Nevada Las Vegas  
[jasminefayeghi@aol.com](mailto:jasminefayeghi@aol.com)

### **3. Clinical supervision: Examining its utility, feasibility, and relevance in 2011**

Chair:  
Hannah K. Knudsen  
University of Kentucky  
[hkknud2@email.uky.edu](mailto:hkknud2@email.uky.edu)

Researchers and practitioners agree that clinical supervision is essential for providing quality substance abuse treatment services. However, what is less clear is how clinical supervision impacts counselor well-being, what constitutes clinical supervision practices in community settings, and the best methods for training clinical supervisors in rural/frontier areas. This symposium showcases studies on clinical supervision from three SAMHSA-funded Addiction

Technology Transfer Centers and a platform-study of the NIDA Clinical Trial Network (CTN). Specifically, Dr. Knudsen will discuss Clinical Supervision as a protective factor against counselor emotional exhaustion based on data collected from NIDA CTN-affiliated counselors; Dr. Horvatich will present recent survey results describing the type/amount/frequency of Clinical Supervision in community-based substance abuse treatment programs in 10 rural/frontier states; Dr. Skinstad will present findings from three qualitative studies regarding Clinical Supervision distance learning methods; and Dr. Hartje will describe the implementation of The Coaching Academy for Clinical Supervisors, a multi-phase training program.

Hannah K. Knudsen,  
University of Kentucky  
[hkknud2@email.uky.edu](mailto:hkknud2@email.uky.edu)  
Amanda J. Abraham  
Paul M. Roman

*Clinical supervision and counselor emotional exhaustion: The mediating roles of organizational and occupational commitment*

Background: Counselor emotional exhaustion has negative implications for treatment organizations and patients. Clinical supervision may be protective, but few mediating mechanisms between supervision and exhaustion have been specified. We hypothesized affective organizational commitment and commitment to the counseling occupation mediated this relationship.

Methods: 936 counselors affiliated with NIDA's Clinical Trial Network completed mailed surveys (61% response rate). Structural equation modeling estimated associations between clinical supervision, organizational commitment, occupational commitment, emotional exhaustion and demographic characteristics.

Results: The direct association between supervision and exhaustion was completely mediated by the two types of commitment. Clinical supervision was strongly associated with organizational commitment ( $b=.54$ ) and professional commitment ( $b=.31$ ); these two variables were negatively associated with exhaustion ( $b$ 's of  $-.47$  and  $-.30$ ). The model explained 45% of the variance in emotional exhaustion.

Conclusion: Clinical supervision appears to protect against emotional exhaustion by fostering commitment to both the employing organization and the counseling occupation.

Paula K. Horvatich  
Virginia Commonwealth University  
[phorvati@vcu.edu](mailto:phorvati@vcu.edu)

*The State of Clinical Supervision in Community-Based Substance Abuse Treatment Programs: A survey of Outpatient Treatment Providers representing the Mid-Atlantic and Mountain West ATTC Regions*

**Aims.** Determine the type/amount/frequency of clinical supervision being conducted in community-based substance abuse treatment programs in 10 rural/frontier states.  
**Methods.** Using SAMHSA's Substance Abuse Treatment Facility Locator, 638 adult outpatient treatment providers were identified in Colorado, Idaho, Kentucky, Montana, Nevada, Tennessee, Utah, Virginia, West Virginia, and Wyoming. A brief survey was conducted to examine clinical supervision practices using a randomly selected sample of providers.  
**Results.** Initial findings demonstrate that some providers have reduced clinical supervision practices or shifted to administrative supervision. Likewise, providers are decreasing or cutting clinical supervision as these services do not directly generate revenues.  
**Conclusions.** Clinical supervision is considered a critical element in providing quality care and positively associated with staff retention. However, many community-based treatment providers report reductions in staffing due to financial constraints associated with the downturn in the US economy, and making difficult choices regarding which services to eliminate to reduce costs.

Anne Helene Skinstad  
University of Iowa  
[anne-skinstad@uiowa.edu](mailto:anne-skinstad@uiowa.edu)

*Three examples of clinical supervision offered via distance learning methods: A qualitative description of what works and what doesn't*

**Aims:** Clinical supervision is an integral part of the professional development of therapists and facilitates the adoption of evidence-based substance abuse treatment. This presentation will provide results from three qualitative projects using clinical supervision to change and maintain three different clinical practices. Clinical supervision was provided using distance learning methods in a group format.

**Methods** Clinicians in Iowa substance abuse treatment centers were solicited to participate in these projects. Forty participants were interviewed before and after clinical supervision participation.

**Results:** Results from the pre-post interviews show that 1) clinical supervision is important in changing practice; 2) networking and support from other colleagues are crucial; 3) clinical supervision was most effective in well-organized treatment programs; and 4) leadership support was important for implementing new clinical practices.

**Conclusion:** While clinical supervision is important for the implementation of new practices, well organized programming is crucial for successful implementation of the new clinical practice.

Joyce A. Hartje  
University of Nevada, Reno  
[jhartje@casat.org](mailto:jhartje@casat.org)

*Back to basics: Utilizing training, performance feedback, and coaching to develop a clinical supervision infrastructure in six frontier states*

**Aims.** Examine the impact of a multi-phase program of in-person training, telephone coaching, performance feedback, and web-based education on Clinical Supervision practices in the Mountain West ATTC region.

**Methods.** Clinical Supervision is considered critical to ensuring quality substance abuse treatment services. To improve supervisory skills so it becomes practice as usual, a Coaching Academy for Clinical Supervisors was developed to teach Supervisors how to conduct counselor performance feedback/coaching/mentoring.

**Results.** Participants included 15 Clinical Supervision Coaches and 21 Clinical Supervisors. Most (88%) reported a significant impact on their supervisory practices, noting the following components as extremely useful: Coaching feedback applicable to day-to-day practice; ongoing mentoring and support related to current supervision issues; and gaining a theoretical framework regarding supervision styles/orientation.

**Conclusions.** Developing a competent Clinical Supervision infrastructure by using training plus performance feedback and coaching improves the quality of substance abuse treatment services, thereby making the addiction field more accountable.

Discussant

Hannah K. Knudsen

University of Kentucky

#### **4. Integrating care for alcohol and drug use in primary care: challenges and opportunities**

Chair:

Theresa W. Kim

Boston Medical Center and Boston University School of Medicine

[theresa.kim@bmc.org](mailto:theresa.kim@bmc.org)

Integrating care for substance use (alcohol and drug) in primary care (PC) has the potential to identify substance use before the onset of problems. Integrating care will also provide addiction treatment for PC patients with substance use disorders, many of whom would otherwise not seek specialty addiction treatment. In this symposium, we will highlight several issues related to integrating care.

First, Dr. Walley will examine the role of gender in initiation and engagement with an integrated model of care for patients with HIV or at high risk for HIV infection. Dr. Kim will present an examination of primary care-based Chronic Care Management for substance dependence and addiction outcomes. Dr. Saitz will present study findings relevant to the challenges of universal screening for drug use in PC. Finally, Dr. Tsui will describe an innovative model of care for treatment of hepatitis C for patients engaged with primary care-based treatment for opioid dependence.

Richard Saitz  
Boston Medical Center and Boston University Schools of Medicine and Public Health  
[rsaitz@bu.edu](mailto:rsaitz@bu.edu)  
DP Alford  
JK Witas  
D Allensworth-Davies  
TP Palfai  
DM Cheng  
J Bernstein  
JH Samet  
Affiliations: Boston Medical Center, Boston University Schools of Medicine and Public Health

*Universal screening for drug use in urban primary care*

Objective: Few published data examine universal drug use screening in primary care (PC). We aim to describe universal screening in an urban PC practice.

Methods: Adult patients presenting for PC visits were screened for past 3-month heavy drinking, illicit use of prescription drugs, and illicit drug use. A convenience sample of drug positive screens were enrolled and evaluated in a brief counseling efficacy study.

Results: Over six months, 35% (5,549/15,818) of patients who arrived for PC appointments were screened, 539 (10%) of whom reported heavy drinking (321, 5.9% of screened) and/or drug use (338, 6.2% of screened). Among efficacy study subjects with moderate to high risk screening results, drugs of greatest concern were marijuana (61%), cocaine (19%) and opioids (18%); 48% met criteria for drug dependence.

Conclusions: In-person universal screening in busy urban PC settings can miss many. Drug use prevalence was 6.2% (largely marijuana), and many had drug dependence.

Alexander Y. Walley  
Boston Medical Center and Boston University School of Medicine  
[alexander.walley@bmc.org](mailto:alexander.walley@bmc.org)  
Kaylyn Duerfeldt  
Joe Palmisano  
Amy Sorensen-Alawad  
Chris Chaisson  
Mari-Lynn Drainoni  
Boston Medical Center, Boston University Schools of Medicine and Public Health

*Initiation and Engagement in Addiction Treatment Integrated Into Primary Care: the Role of Gender*

The role of gender in primary-care based addiction treatment initiation and engagement is not clear. To determine the association of gender with treatment initiation and engagement, we

studied 216 patients in a primary care-based addiction treatment program for patients with HIV or high risk for HIV. Covariates included age, race/ethnicity, education, homelessness, HIV, treatment with buprenorphine, 30 day alcohol, cocaine, and heroin use. For women and men, initiation was 74% and 81% ( $p=0.22$ ) and engagement was 51% and 47% ( $p=0.57$ ). The odds ratio for initiation for women compared to men was 0.66 (95% CI: 0.33-1.32) and for engagement was 1.23 (95% CI: 0.68- 2.23). The only covariate significantly associated with initiation or engagement was treatment with buprenorphine. Initiation and engagement were common among both women and men and the differences were not statistically significant. To improve initiation and engagement, factors other than gender, such as medication-assisted treatment, warrant focus.

Theresa W. Kim

Boston Medical Center and Boston University School of Medicine

[theresa.kim@bmc.org](mailto:theresa.kim@bmc.org)

Richard Saitz

Debbie M. Cheng

Michael R. Winter

Julie K. Witas

Jeffrey H. Samet

Boston Medical Center, Boston University Schools of Medicine and Public Health

### *Chronic Care Management for Alcohol and Drug Dependence and Addiction Outcomes*

**Objective:** To examine if primary care-based chronic care management (CCM) for substance dependence is associated with abstinence (no opioid, stimulant, or heavy alcohol use) and addiction severity (alcohol or drugs [AOD]).

**Methods:** 12-month prospective cohort of adults in a randomized trial of CCM for AOD.

Measures of CCM care receipt were based on visits (i.e., “engagement” with outpatient addiction care [Washington Circle]) and the Patient Assessment of Chronic Illness Care (PACIC), a measure of the quality of delivery of CCM.

**Results:** Of 553 subjects, CCM “engagement” was not significantly associated with abstinence or addiction severity ( $p > 0.05$ ). PACIC scores were significantly associated with higher odds of abstinence ( $p < 0.001$ ) and lower alcohol severity ( $p = 0.02$ ) but not with lower drug severity ( $p = 0.09$ ).

**Conclusion:** Receivers of addiction treatment with core components of the Chronic Care Model were more likely to be abstinent and have lower alcohol severity.

**Funding:** R01s AA 10870 & DA10019

Judith Tsui

Boston Medical Center and Boston University

[judith.tsui@bmc.org](mailto:judith.tsui@bmc.org)

### *Integrating Care for Hepatitis Virus Infection in Patients Receiving Office-Based Therapy for Opioid Dependence*

Hepatitis C Virus (HCV) infection is common among opioid addicts, and yet treatment rates in this population are low. New systems of delivery of care that integrate HCV care in the setting of substance use treatment are needed. This current study describes a novel program for providing integrated care for HCV on-site at Boston Medical Center's Office-Based Opioid Treatment (OBOT Program). In 2010, the OBOT program instituted a clinical pathway for providing on-site care for HCV. All patients in the OBOT program are screened for HCV and if they test positive, are offered referral to see a physician for HCV care. To date, approximately 35 patients have been evaluated in the OBOT-HCV clinic. Four patients have been treated: one patient has completed treatment and successfully cleared virus, and the other three are currently on treatment with undetectable viral loads.

Discussant:

Jeffrey H. Samet

Boston Medical Center and Boston University Schools of Medicine and Public Health

[jsamet@bu.edu](mailto:jsamet@bu.edu)

**6:00-8:00: Poster presentations and reception (poster abstracts begin on p. 53)**

**Wednesday, October 5**

**8:30-9:45 Mike Dennis and Mark Lipsey**

**9:45-11:15: Breakout sessions 5**

**1. Novel Strategies to Reaching the Hard-To-Reach Smoker (Cropsey, Carpenter, Hendricks, Ditre)**

Chair:

Karen Cropsey

University of Alabama at Birmingham

[kcropsey@uab.edu](mailto:kcropsey@uab.edu)

Despite over 40 years of public health messaging as well as population and individual based interventions, tobacco smoking remains disproportionately high among certain subgroups of smokers. Developing novel interventions to engage smokers who are unmotivated to quit or who represent an underserved population of smokers is needed to significantly reduce the prevalence rates of smoking. This series of papers will examine novel interventions and strategies to engage smokers who may not be interested in quitting or who have not responded to traditional messages for smoking cessation. First, Dr. Carpenter will discuss a novel NRT sampling approach that was used with a nationally representative sample of smokers who were not interested in smoking cessation treatment. Dr. Hendricks will present the use of an innovative withdrawal intervention designed to teach strategies to alleviate and cope with nicotine withdrawal. Dr. Ditre will propose a reciprocal model of pain and smoking that demonstrates the

unique barriers to smoking cessation among smokers with chronic pain. Finally, Dr. Cropsey will provide a model for integrating smoking cessation services onsite at community corrections to engage disenfranchised criminal justice smokers. These papers will provide novel models for integrating and delivering smoking cessation services to underserved populations of smokers.

Matthew Carpenter  
Medical University of South Carolina  
[carpente@musc.edu](mailto:carpente@musc.edu).

#### *NRT Sampling For Cessation Induction: Moderating Effects Among Sub-Groups of Smokers*

Many smokers are unwilling or unable to make a quit attempt. Identifying, reaching, and treating these unmotivated smokers remains a challenge for the tobacco control community, particularly those clinicians who have direct and frequent contact with large numbers of smokers (e.g., primary care providers, community mental health providers). This study reports on a large (N=849) nationwide, population-based randomized controlled trial testing whether taking brief samples of nicotine replacement therapy (NRT) serves as a catalyzing experience to promote quit attempts and/or cessation among smokers who have no current interest in either. Outcomes over six month follow-up show that provision of NRT samples, relative to not, resulted in higher incidence of any quit attempt (49% vs. 40%; OR=1.5; 95% CI: 1.1-1.9), a 24hr quit attempt (43% vs. 34%; OR=1.5; 95% CI: 1.1-2.0), and floating abstinence (7-day self-reported no smoking at any point in the study: 19% vs. 15%; OR=1.4; 95% CI: 1.0-2.0). No difference was seen in abstinence at six months (16% vs. 14%; OR=1.2; 95% CI: 0.8-1.8). Forthcoming analysis, available during conference proceedings, will determine if these effects are moderated among subgroups of smokers, i.e., to determine if sampling of NRT is more or less efficacious among men vs. women, white vs. non-white smokers, low vs. high dependence groups, or smokers with vs. without extensive quit history. Sampling NRT may be a novel, behaviorally-based method for cessation induction appropriate for those who have not responded to motivational messages. If so, this intervention may readily translate to the clinical setting because it is simple and easy to implement. It may also hold particular appeal for certain groups of smokers who historically have presented a greater challenge to engage and succeed in the process of quitting. Funding through NIDA grants R01 DA021619 and K23 DA020482 (PI for both: Carpenter).

Peter Hendricks  
University of Alabama at Birmingham  
[phendricks@ms.soph.uab.edu](mailto:phendricks@ms.soph.uab.edu)

#### *Withdrawal Exposure with Withdrawal Training for Smoking Cessation*

Despite advancement in the treatment of tobacco dependence, the efficacy of contemporary smoking cessation interventions remains modest. This underscores the need for innovative treatment to address the growing global tobacco epidemic, including the increasingly recalcitrant smokers who present for smoking cessation therapy in the US. A number of prominent theories

of addiction posit that withdrawal processes form the motivational basis of cigarette use. Accordingly, treatments that focus on the alleviation of withdrawal symptoms may hold particular promise. Dr. Hendricks will discuss a novel intervention designed to allay smoking withdrawal symptoms that exposes cigarette users to early abstinence while providing them withdrawal regulation training.

Joseph Ditre  
Texas A&M University  
[jditre@tamu.edu](mailto:jditre@tamu.edu)

*Tobacco Smoking and Chronic Pain: Complex Interactions and Novel Treatment Considerations*

Chronic pain and nicotine/tobacco addiction represent two highly prevalent and comorbid conditions that engender substantial burdens upon individuals and systems. Although interrelations between pain and smoking have been of clinical and empirical interest for decades, research in this area has increased dramatically over the past five years. We conceptualize the interaction of pain and smoking as a prototypical example of the biopsychosocial model, demonstrating complex interplay between biomedical, behavioral, cognitive/affective, and physiological/sensory phenomena. Research in the broad domain of pain and smoking can be usefully dichotomized into investigations of either "effects of smoking on pain" or "effects of pain on smoking," with the latter direction having received less empirical attention despite its relevance to addiction-related outcomes. By integrating the extant literature, we proposed a reciprocal model of pain and smoking that is hypothesized to operate as a positive feedback loop, resulting in greater pain, increased smoking, and the maintenance of tobacco addiction. The current presentation provides a brief overview of these topics, with a focus on how pain may come to motivate smoking and serve as a barrier to quitting among persons with chronic pain. We also discuss factors that are unique and/or relevant to treating persons who present with comorbid pain and tobacco dependence disorders. Future research in this emerging area has the potential to inform novel theoretical and clinical applications.

Karen Cropsey  
University of Alabama at Birmingham  
[kcropsey@uab.edu](mailto:kcropsey@uab.edu)

*Smoking Cessation for Criminal Justice Involved Smokers: A Public Policy Opportunity*

Individuals in the criminal justice system have four times the prevalence of smoking (70-80%) compared to the general population, suggesting that public health messages and smoking cessation interventions have been largely ineffective or have not penetrated to this population. While individuals under criminal justice supervision represent approximately 3.6% of the general population, they represent over 11% of current smokers. Individuals under community corrections (CC) supervision represent the highest proportion of individuals in the criminal justice system, but unlike prisoners, they have access to tobacco products granted the average citizen. Providing smoking cessation interventions onsite at the CC offices at the time of routine

monitoring is one strategy to deliver tobacco cessation services. This study (total anticipated N~600) will report findings from providing bupropion and brief physician advice to quit versus bupropion and four 30-minute sessions of smoking cessation counseling provided onsite at CC. In the 18 months of enrolling participants, we have enrolled 271 participants. Thus far our sample consists of 60% male, 63% African-Americans with an average age of 37+12 years. Participants first tried smoking at age 14+4, regularly smoked at age 17+4, smoke an average of 16+8 cigarettes per day (cpd), and have been smoking for the past 20+11 years. Almost half (46%) had never made a previous quit attempt. About 30% reported having a family member who had died from a smoking-related disease, 31% reported family medical problems related to smoking, and 21% reported personal medical problems related to smoking. Most of our participants reported smoking menthol or menthol light (71%) cigarettes while 19% reported regular tar and 8% reported smoking light tar cigarettes. Overall, our sample of smokers is similar to our previous samples of criminal justice involved smokers and demonstrates high average smoking rates, early smoking initiation, and significant family and personal medical problems associated with smoking. Further, about half of the sample had never attempted to quit smoking, suggesting the need for smoking cessation interventions with this population. Support provided by NCI grant R01CA141663.

Discussant:

Karen Cropsey

University of Alabama at Birmingham

[kcropsey@uab.edu](mailto:kcropsey@uab.edu)

## **2. Measuring Performance to Improve the Quality of Substance Abuse Treatment (Horgan, Pincus, Garnick, Tai, Compton, Weisner)**

Chair:

Constance Horgan

Institute for Behavioral Health, Heller School, Brandeis University

[horgan@brandeis.edu](mailto:horgan@brandeis.edu)

In a rapidly changing environment in the delivery of substance abuse services, it is important to focus on policy approaches that can improve the quality of treatment. In this symposium, we explore various aspects of performance measurement that have the potential to lead addiction treatment services toward the highest possible levels of quality, efficiency, and economy. We discuss their potential to improve quality from three perspectives which are relevant both globally and in the US: state of knowledge, needed research, and the potential of electronic health records. We conclude with a discussion of how these perspectives link to policy approaches as part of health care quality in the context of health care reform in the US and in the context of opportunities and challenges within an integrated health plan.

Harold Alan Pincus

Department of Psychiatry, College of Physicians and Surgeons, Columbia University

[pincush@pi.cpmc.columbia.edu](mailto:pincush@pi.cpmc.columbia.edu)

*Can Global Psychiatry Cross the Quality Chasm?*

Numerous studies have documented significant quality problems in health care, as well as in mental and substance use care. A seminal Institute of Medicine report, *Crossing the Quality Chasm*, outlined a comprehensive strategy for addressing these problems and a second report adapted the strategy for behavioral health. Many countries have increased their efforts to measure and improve the quality of behavioral health care. These initiatives vary widely in scope, intended use and degree of development, reflecting a country's specific health system and socio-political realities. The presentation will first demonstrate an application of the Quality Chasm strategy, describing the evaluation in the US Veteran's Health Administration of developing and applying a comprehensive set of mental health performance indicators. Second, results will be presented from a 12-country project (Australia, Canada, England, Germany, Japan, Ireland, Netherlands, New Zealand, Norway, Scotland, Taiwan, US) to develop a common framework of measures for international comparisons.

Deborah W. Garnick

Institute for Behavioral Health, Heller School, Brandeis University

[garnick@brandeis.edu](mailto:garnick@brandeis.edu)

*Performance Measures for Substance Use Disorders: Research Needs*

There is heightened interest in using performance measures for quality improvement, accountability, payment and planning. This paper reviews current evidence about performance measures focused on substance use disorders and identifies key issues where research is needed. Performance measures are widely used including structural measures (e.g., staffing credentials), process measures focused on the types and timing of treatment (e.g., treatment engagement), and outcomes (e.g., drug/alcohol use, employment). However, further investigation is critically needed in three areas. First, new measures should be developed that focus on substance use disorders as chronic conditions, outcomes throughout the continuum of treatment, and integration with measures for mental health and medical conditions. Second, research is needed to better understand performance measures (e.g., the association of structural or process measures with outcomes). Third, research is needed on implementation, including capacity requirements, electronic health records, data quality, reporting to clinicians and the public and the role of incentives.

Betty Tai

Center for Clinical Trials Network, National Institute on Drug Abuse

[btai@nida.nih.gov](mailto:btai@nida.nih.gov)

*Implication of Adopting Standardized Core Data Elements in Health Systems of Drug Abuse Treatment Providers*

Consensus-based core data elements (CDEs) with standardized vocabularies for drug addiction treatment that can be incorporated into harmonized electronic medical records (EMRs) are needed. The NIDA Clinical Trials Network collected dozens of treatment forms and standardized instruments to develop a relevant set of CDEs. These were refined through a consensus-based meeting of providers and other stakeholders. A “Mind Map” provides a framework for the collaborative process of developing core questions as CDEs for EMRs on SUD in primary care and in specialty treatment settings. Map branches include: 1) involving stakeholders in development of CDEs, 2) choosing screening questions/instruments, 3) developing a data collection hierarchy and CDE questions, and 4) considering interoperability requirements for “certified EHR Technology” and CMS “Meaningful Use”. Current progress in developing EMR core questions as CDEs for use in primary care and specialty treatment and implications for improving quality, assisting integration of addiction treatment into mainstream medicine, and measuring performance are discussed.

Discussant:

Wilson Compton

National Institute on Drug Abuse

[wilson.compton@nih.gov](mailto:wilson.compton@nih.gov)

Constance Weisner

University of California, San Francisco

[Constance.Weisner@kp.org](mailto:Constance.Weisner@kp.org)

### **3. Innovative Approaches to Research and Treatment**

Chair: TBD

Erick Guerrero

University of Southern California, School of Social Work

[erickgue@usc.edu](mailto:erickgue@usc.edu)

Jeanne Marsh

[jmarsh@uchicago.edu](mailto:jmarsh@uchicago.edu)

*Racial and Ethnic Disparities in Completion of Substance Abuse Treatment in LA County, California*

Limited research has examined the between and within racial/ethnic group differences in treatment completion. This study analyzed data collected from publicly funded facilities in Los Angeles County, California. Accounting for clients nested in programs, we examined clients’ demographics, substance use, referral source and treatment experience. Regression models showed that only African-Americans are less likely to complete treatment compared to Non-Latino Whites, while for all members past drug use, use of methamphetamines, unemployment and being served by proposition 36 funded programs were associated with a lower likelihood to complete treatment. The within groups analyzes highlighted the heterogeneity of the Latino sample, reporting differences in past drug use, use of hard core drugs, employment, program type

and referral sources. These findings have implications for designing paths to recovery for members of these racial and ethnic groups. But particularly for Latino subgroups, whose distinct characteristics may explain their respective disparity in treatment completion.

Marlon Mundt

University of Wisconsin School of Medicine and Public Health, Department of Family Medicine  
[marlon.mundt@fammed.wisc.edu](mailto:marlon.mundt@fammed.wisc.edu)

Stacy Sterling

Drug and Alcohol Research Team (DART), Kaiser Permanente Division of Research  
[Stacy.A.Sterling@kp.org](mailto:Stacy.A.Sterling@kp.org)

Cynthia Campbell

Drug and Alcohol Research Team (DART), Kaiser Permanente Division of Research  
[Cynthia.I.Campbell@kp.org](mailto:Cynthia.I.Campbell@kp.org)

Sujaya Parthasarathy

Drug and Alcohol Research Team (DART), Kaiser Permanente Division of Research  
[Sujaya.Parthasarathy@kp.org](mailto:Sujaya.Parthasarathy@kp.org)

### *Social Support and Labor Market Outcomes of Young Adults with a History of Adolescent Chemical Dependency Treatment*

**Aim:** Adolescent substance abusers with stronger social support are more likely to remain abstinent and to avoid relapse following chemical dependency (CD) treatment. Little, however, is known about the effects of social support on young adult employment outcomes after CD treatment in adolescence. The current study evaluates the effects of social support on earnings for adult participants with a history of CD treatment in adolescence.

**Methods:** This investigation evaluates data from the Pathways to Substance Abuse Treatment for Adolescents in an HMO project. The study followed 419 adolescents ages 13-18 years through 7-year post CD-treatment follow-up. The analysis uses fixed-effects models of self-reported income at 5-year and 7-year follow-up to adjust for time invariant unobserved heterogeneity.

**Results:** Young adults with more social support have higher earnings. Participants had 2.2% (0.07%-4.25%) higher earnings for every additional close friend.

**Conclusions:** Continuing social support is linked to better labor market outcomes in adulthood for adolescents with a history of CD treatment.

Laura S. Lorenz

Heller School for Social Policy and Management, Brandeis University  
[llorenz@brandeis.edu](mailto:llorenz@brandeis.edu)

### *Using visual metaphors to communicate lived experience with an invisible condition*

Brain injury affects cognition, emotion, and physical function and poses challenges to understanding consumers' lived experiences. The injury is often invisible, even clinically, causing additional confusion. Forty percent of brain injuries in the US are alcohol-related, and substance abuse is a common issue both prior and subsequent to brain injury. My study used

photovoice, a participatory research approach that uses photography and narrative, with eight adults with disabilities from brain injury so they could communicate their lived experiences. Almost half of their study images are visual metaphors for their feelings. One of the greatest challenges of living with an invisible condition such as brain injury is emotional—wrestling with the grief of losing former abilities and finding new meaning and purpose in life. This paper explores how visual metaphors contribute to meaning-making and coping with the realities portrayed, and play a pedagogic role in communicating lived experience and emotional reality.

#### **4. Organizational Change in Behavioral Health: Lessons from the NIATx200 Cluster Randomized Trial**

Chair:

Dennis McCarty

Oregon Health & Science University

[mccartyd@ohsu.edu](mailto:mccartyd@ohsu.edu)

This symposium presents analyses from the NIATx200 study, the largest randomized trial of organizational change ever conducted in behavioral health. NIATx200 aimed to identify the active ingredients in a successful QI methodology (NIATx) by examining the impact of four interventions on waiting time, annual program admissions, and continuation. Results indicate that coaching is the active ingredient in improvement collaboratives. This symposium extends the results with four presentations, followed by a discussant and questions. The first presentation presents results from the cost-effectiveness analysis. The second presentation examines the representativeness of NIATx200 organizations and explores how characteristics of participating organizations predict participation in QI. The third presentation presents results from a moderator analysis that explores how management and organizational attributes impact primary outcome variation, across and within study interventions. The final presentation describes how the research team and states worked together to create systems to capture the study outcomes.

Michael French

University of Miami

[mfrench@miami.edu](mailto:mfrench@miami.edu)

#### *The Cost and Cost-Effectiveness of Organizational Change in Substance Abuse Treatment Programs*

In response to increasing demand for testing and implementing organizational change, three dissemination models have been proposed: close proximity collaborative models (learning sessions); distance learning collaborative models (interest circle phone calls); and individual coaching by experts in quality improvement. Selecting the best approach is critical to researchers, policy-makers, and provider consortiums, yet little is known about the cost or cost-effectiveness of each approach. This presentation uses data from the NIATx200 study to formally assess the cost and cost-effectiveness of learning sessions, interest circle phone calls, and coaching in improving waiting time, a primary outcome of the study. We find coaching to be

approximately twice as expensive as interest circle calls and half as expensive as learning sessions. Coaching is generally the preferred approach in terms of cost-effectiveness as well. This presentation's goal is to describe the cost and cost-effectiveness methods used in NIATx200 and implications for future work.

Kyle Grazier  
University of Michigan  
[kgrazier@umich.edu](mailto:kgrazier@umich.edu)

*The Effect of Organizational Characteristics on Participation in Quality Improvement Interventions*

Understanding why organizations agreed to enroll in the NIATx200 RCT is important when considering the implementation and sustainability of QI efforts. We examine characteristics of 648 eligible organizations compared with 201 organizations that agreed to participate in NIATx200. First, we use logistic regression to analyze organizational characteristics of agencies eligible for enrollment versus those who enrolled. Second, using stepwise ordinal and logistic regression for enrolled agencies, we examine factors that influenced the extent of each agency's participation in the assigned intervention. First-stage results showed that larger agencies and those located in urban areas were more likely to enroll. Factors affecting hours of participation in the intervention include agencies' affiliations with hospitals, private status, administrative and management staff involvement in change, organization opinion leader support, change leader attributes, and project planning. Findings were consistent across interventions and study periods. We discuss implications for future quality improvement efforts by addiction treatment agencies.

James Ford  
University of Wisconsin  
[jay.ford@chess.wisc.edu](mailto:jay.ford@chess.wisc.edu)

*Moderation Analysis of NIATx200 Outcomes: Effect of QI and Organizational Attributes*

This presentation describes and reports the results of a supplemental NIATx200 moderator analysis exploring how quality improvement (QI) and organizational attributes impact variation in the study's primary outcomes, across and within the study interventions. The analysis will explore the direct effect of QI and organizational attributes on the study outcomes (waiting time from first request to first treatment, continuation rate from first treatment to fourth treatment, and annual client admissions), as well as how organizational variables moderate the effect of the interventions. Example moderator variables include: change leader attributes, leadership support, management commitment to QI, accreditation status, and number of CEOs in the past five years. Preliminary analyses suggest that moderator effects vary by intervention. Implications of the moderating effect of QI and organizational attributes for program management will be discussed, as well as implications for future research on QI in addiction treatment agencies.

Andrew Quanbeck  
University of Wisconsin  
[andrew.quanbeck@chess.wisc.edu](mailto:andrew.quanbeck@chess.wisc.edu)

*Improving Substance Abuse Data Systems to Measure “Waiting Time to Treatment”: Lessons Learned from a Quality Improvement Initiative*

Policymakers, consumers, and other stakeholders increasingly demand that publicly funded addiction treatment systems document timely and effective service delivery. A key challenge in the assessment of addiction treatment is the ability to monitor quality indicators. Waiting time reduction was a focal point for improvement in the NIATx200 study. Waiting time can be difficult to estimate because it requires systems capable of capturing first request for treatment. This presentation describes the changes made in five state data systems to monitor wait times from first request to first treatment, along with the challenges of doing so. It highlights the utility of tracking wait times within agencies. Factors such as training provision and dealing with forms of resistance to implementing systems changes are discussed. This presentation’s goal is to stimulate discussion and provide real world guidance to data managers, policy makers and researchers on issues involved with tracking of service quality measures.

Discussant:  
Mark McGovern  
Dartmouth Medical School  
[Mark.P.McGovern@Dartmouth.edu](mailto:Mark.P.McGovern@Dartmouth.edu)

**11:30-1:00 Breakout Sessions 6**

**1. Emergency Departments’ Role in Addiction Health Services**

Chair: TBD

Christina M. Andrews  
University of Chicago  
[cmandrews@uchicago.edu](mailto:cmandrews@uchicago.edu)

Frank, J.

Green, T. C.

Samuels, A.

Truong, T.

Friedmann, P.

Rhode Island Hospital and the Alpert Medical School at Brown University

*Emergency Department Use for Substance Use Disorders Among Ex-Prisoners*

This study compared the likelihood of an emergency department (ED) visit related to substance use between recently-released prisoners and the general population in Rhode Island from 2007-

2009. Data from a major hospital system and the Department of Health were linked with records from the Department of Corrections to identify visits by ex-prisoners released in the prior year. The sample included 333,369 visits, with 5,147 by ex-prisoners. In bivariate analysis, 15.7% of ex-prisoners had an ED visit related to a primary diagnosis of substance use compared with 4.2% of the general population. Controlling for patient and community factors in random-effects logistic regression models, recent ex-prisoners' ED visits remained more likely to be related to substance use disorders (OR 1.93, 95% CI 1.77, 2.11). Ex-prisoners utilize the ED for substance use disorders more than the general population. Greater access to quality substance use treatment among ex-prisoners might reduce their preventable ED use.

J. Aaron Johnson  
Mercer University School of Medicine  
[johnson.aaron@mccg.org](mailto:johnson.aaron@mccg.org)

*Reduction in illegal drug use days among patients receiving SBIRT services during an emergency department visit: 6 month results from GABASICS*

Recent research on Screening, Brief Intervention, and Referral to Treatment (SBIRT) shows promising results in reducing illicit drug use. With no control group in most studies it is unclear if observed decreases are due to the intervention or other factors such as the hospital visit, the substance use assessment, or regression to the mean. This study examines SBIRT's effects on patients reporting illegal drug use during an emergency department visit. Intervention and control group patients were treated similarly with intervention patients receiving a 10-15 minute brief intervention. Follow-up data were collected 6 months post treatment. Intervention group patients showed reductions in past month drug use from 4.9 days to 1.7 days. The control group showed similar reductions (3.8 to 2.1 days). Regression analysis indicated that the difference between the control and intervention group was not statistically significant suggesting that observed reductions may not be related to the brief intervention.

Amy Knowlton  
Johns Hopkins Bloomberg School of Public Health  
[aknowlto@jhsph.edu](mailto:aknowlto@jhsph.edu)

*Emergency medical services use among substance abusers: Potential role of EMS in linkage to drug treatment*

**Objectives:** Research is needed to inform low cost models for identifying high risk substance abusers and linking them to community behavioral healthcare. The study sought to explore use of emergency medical services (EMS) among substance users.

**Methods:** Data are from Baltimore's electronic EMS records. The study is the first to use electronic records to characterize EMS patients in Baltimore, with among the US' highest rates of drug abuse.

Results: Of patients involved in  $\geq 6$  EMS runs in 2 years, they accounted for  $<0.8\%$  of patients and  $8.7\%$  of incidents.  $52\%$  evidenced mental illness,  $35\%$  substance abuse, and  $66\%$  co-occurring substance abuse and mental illness. Compared to non-frequent patients, they were more likely middle aged, male, and substance abusing.

Conclusions: Findings suggest substance abusers have frequent contact with EMS, and that EMS has a potential role in facilitating their linkage to treatment, with implications to patient outcomes and healthcare costs, and public safety.

## 2. Health Services Systems Integration

Chair: TBD

Emily Jones  
George Washington University  
[emilybjones@gmail.com](mailto:emilybjones@gmail.com)

### *Substance Abuse Services in Community Health Centers: Integration with Medical Care*

Health centers play a critical role in providing substance abuse services in underserved communities but unmet need persists, according to analysis of Uniform Data Systems (UDS) administrative data, the 2010 Health Center Behavioral Health Assessment survey, and qualitative data. Substance abuse services are found less commonly than mental health services, and many locations do not employ trained substance abuse treatment providers.  $30\%$  of health centers offer structured substance abuse treatment on-site and  $15\%$  offer buprenorphine treatment, and almost half of the respondents expressed interest in accessing training for DEA certification for their providers. Routine screening for substance abuse is reported by almost two in three health centers, and a quarter of respondents report screening a select group of patients, based on various factors. Policy recommendations to integrate substance abuse and medical care are offered in light of findings on provider-to-provider communication, information sharing, joint decision-making, screening, co-location, and financing issues.

Heather Gotham  
Mid-America Addiction Technology Transfer Center, University of Missouri – Kansas City  
[gothamhj@umkc.edu](mailto:gothamhj@umkc.edu)

### *Changing Baccalaureate Nursing Student's Perceptions of Working with Substance-Using Patients through SBIRT Training*

Healthcare professionals' perceptions of their role in intervening with patients who use alcohol and drugs can be a major barrier to implementing Screening, Brief Intervention and Referral to Treatment (SBIRT) services. The 8-hour Addiction Training for Nurses (ATN)-SBIRT Program educates baccalaureate nursing students through a junior year seminar, simulation learning, and senior year booster seminar, as well as clinical experience. The Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ) and the Drug and Drug Problems Perception Questionnaire

(DDPPQ) were administered to approximately 300 students four times (outset of junior year, first day of seminar, 30-days post seminar, prior to booster). As a result of SBIRT training, nursing students' perceptions changed. For example, students perceived greater role responsibility in intervening with clients who use alcohol. SBIRT trainings shape how health professionals perceive their role and responsibility in addressing substance use, and may impact implementation of SBIRT to positively affect patient outcomes.

Erin L. Winstanley  
University of Cincinnati College of Medicine  
[winstanley@carc.uc.edu](mailto:winstanley@carc.uc.edu)

*Waging the War Against the Devil in Scioto County: A Grassroots Response to Prescription Drug Abuse in a Rural Community*

The epicenter of the prescription drug epidemic in Ohio includes Scioto county, which was identified by the DEA as having some of highest volume of pain medication prescribers in the entire country. Over the past two years the grassroots community-based response to the prescription drug epidemic in Scioto County has been extremely successful in gaining local and national media attention, as well as brining various key stakeholders to the table and making real legislative changes in the State. The cross-systems approach being under-taken within Ohio represents an unprecedented collaboration to address substance abuse disorders. This presentation will review the strategies used to build support at the community-, treatment- and State-levels. These strategies use novel approaches such as Facebook groups to organize people within the local community and the development of State-wide action groups to mobilize cross-agency collaboration.

Raina Croff  
Oregon Health & Science University  
[croff@ohsu.edu](mailto:croff@ohsu.edu)

*Organization and Integration Across Systems Serving American Indian/Alaska Native Clients with Substance Abuse Disorders*

Systems infrastructure, organizational culture and resource allocation play a pertinent role in providing quality care for American Indians/Alaska Natives (AI/AN) in addictions treatment. A survey of State Tribal Liaisons (n=18, representing 11 Single State Authorities) and AI/AN treatment providers (n=22, from 21 agencies) examined funding, organization, and collaboration between Indian Health Service, the state, and providers. Respondents recognized a lack of integration across entities and felt diminished contact due to insufficient funding negatively impacts provider-state relationships. A fractured system especially limits provider ability to access and sustain funding critical for program continuity and improvement. Providers felt lack of control over funding and need for increased tribal education on generating funding, creating profit, and sustaining self-sufficient programs. Providers reported barriers to additional non-tribal funding included misconception that native people's needs are "all paid for" through IHS and

tribal organizations, and the lack of understanding that vast financial disparities exist among tribes.

Lena Lundgren

Boston University School of Social Work Center for Addictions Research and Services

[llundgre@bu.edu](mailto:llundgre@bu.edu)

*Barriers to implementation of evidence-based addiction treatment: A national study*

Prior studies have found that educational levels of treatment staff, working in a treatment unit affiliated with a research institution, and working in a unit with higher levels of organizational capacity are three factors associated with positive staff attitudes about evidence-based addiction treatment practices (EBPs). This study explored whether these factors were also associated with treatment staff experience of barriers implementing EBPs. Multivariate regression methods examined the relationship between staff (n= 510) and director (n= 296) education levels, working in an organization affiliated with a research institution, organizational capacity (TCU-ORC-Staff and TCU-ORC-Director) and level of barriers experienced when implementing a new EBP controlling for treatment unit characteristics, staff characteristics and type of EBP. Neither education level nor organizational research affiliation was associated with level of barriers experienced. For both samples, working in a unit with less organizational capacity was significantly associated with reporting higher ratings of barriers in EBP implementation.

### **3. From Screening and Access to Initiation**

Chair: TBD

Sarah L. Desmarais

University of South Florida

[sdesmarais@usf.edu](mailto:sdesmarais@usf.edu)

*Evaluation of Various Approaches for Detecting Substance Use Disorders among Adults with Schizophrenia*

Adults with schizophrenia are at increased risk for substance use disorders compared to the general population; however, estimates of disordered substance use vary widely depending on assessment method. One reason for observing such high rates of substance use disorders among those with schizophrenia may be their “supersensitivity” to the effects of alcohol and drugs. Among a large sample of adults with schizophrenia (N=1460) we will report on findings related to: (1) the accuracy of the AUS/DUS, a widely used but relatively untested clinical assessment approach, in detecting substance use disorders with SCID diagnoses serving as the criterion; (2) the supersensitivity model by examining the relative accuracy of frequently used substance use assessment approaches, including self-report, family collateral report, and hair and urine tests; and (3) the predictive and incremental validity of a multi-indicator substance use assessment approach for detecting substance use disorders.

Richard A. Van Dorn  
University of South Florida  
[rvandorn@usf.edu](mailto:rvandorn@usf.edu)

*Assessing Illicit Drug Use among Adults with Schizophrenia*

Rates of lifetime and current drug use disorders in adults with schizophrenia are high. Experts are dubious that adults with schizophrenia can use illicit drugs in moderation without increased risk of addiction. Ensuring accurate drug use assessment is vital to understanding the prevalence, course, and treatment outcomes in this population. This study evaluated multiple approaches to assessing illicit drug use, overall and by type of drug (marijuana, cocaine, opiates, stimulants) in a large sample of adults with schizophrenia (N=1460). We evaluated the (1) concordance between self-report, urine drug screens, hair assays and the SCID; (2) accuracy of self-report, urine drug screens, and hair assays compared to the SCID as criterion; (3) accuracy of urine drug screens and hair assays compared to self-report as criterion; (4) incremental validity of urine drug screens and hair assays over self-report; and (5) correlates of disagreement between assessment methods.

Laura J. Dunlap  
RTI International  
[ljd@rti.org](mailto:ljd@rti.org)

*The Substance Abuse and Mental Health Services Administration's (SAMHSA) Access to Recovery Program: Findings from the Cross-Site Evaluation*

In 2004, SAMHSA established the Access to Recovery (ATR) discretionary grant program. The primary focus of ATR has been to promote increased access to services through the use of payment vouchers, expansion in substance abuse treatment capacity, and increased client choice in providers. As part of this effort, SAMHSA funded an independent cross-site evaluation to provide information on the implementation process and impact of ATR in the 24 grantees funded in 2007-2010 (the second cohort). The evaluation included over 180,000 individuals who were admitted to the program with most clients across the 24 grantees redeeming vouchers for at least one substance abuse service. This presentation provides an overview of the ATR program and its clients, and describes key findings from the process and outcome evaluations.

Amy A. Mericle  
Treatment Research Institute  
[americle@tresearch.org](mailto:americle@tresearch.org)

*Trends in Adolescent Substance Abuse Service Needs and Treatment Capacity*

Adolescent substance abuse remains a critical problem. Unfortunately, research on the capacity of the treatment system to address this problem is lacking. Using NSDUH and N-SSATS data, this study examines trends in: (1) adolescent substance use disorders (SUDs); and (2) the availability of adolescent substance abuse treatment. Results indicate a decrease in the percent of adolescents meeting past year criteria for most SUDs between 2002 and 2009. However, receipt of treatment has remained sparse; approximately only 1 out of 10 adolescents with SUDs report receiving treatment. This trend might be related to the low prevalence of substance abuse treatment for adolescents. Less than 30% of facilities participating in the 2009 N-SSATS survey offered special programming for adolescents, reflecting an overall decrease since 2002. These findings indicate a critical gap in the treatment system to address the needs of adolescents with SUDs.

#### **4. Implementation of Evidence-Based Practices**

Chair: TBD

Ivy Krull  
Boston University, Center for Addictions Research and Services  
[ikrull@bu.edu](mailto:ikrull@bu.edu)

*Attitudes toward evidence-based pharmacological treatments among community-based addiction treatment programs targeting vulnerable patient groups*

This study examined whether serving higher percentages of vulnerable populations is associated with addiction treatment Program Directors attitudes towards evidence-based pharmacological treatment. Analysis included 296 Directors from community-based substance abuse treatment organizations (CBOs) who received funding between 2003 and 2008 to implement EBPs. Multivariable models identified Directors in organizations serving higher percentage homeless clients and severe and persistent mental illness had significantly more negative attitudes toward buprenorphine, controlling for Director and organizational characteristics. Directors in organizations with more internet technology, affiliated with universities/hospitals and higher annual admissions reported more positive attitudes about buprenorphine and pharmacological therapies for mental health disorders. Results suggest addiction researchers/policy-makers need to make research on EBPs available to programs serving high concentrations of homeless/co-morbid populations. These vulnerable populations might benefit most from pharmacological/psychiatric interventions, although they may be last to access these advances due to resistance to EBPs or lack of connection to a research institution.

Carla A. Green  
Center for Health Research, Kaiser Permanente  
Dennis McCarty  
Oregon Health & Science University  
[mccartyd@ohsu.edu](mailto:mccartyd@ohsu.edu)  
Anandam Hilde

### *Adoption of Buprenorphine in Two Health Plans*

FDA approval of buprenorphine for the treatment of opioid dependence provided an opportunity to assess the adoption of agonist therapy in two health plans. Qualitative interviews (n = 101), conducted between 2005 and 2009, with physicians, pharmacists, counselors, and administrators provided insight into the implementation processes. Leadership, in both health plans, played a lead role in supporting adoption of buprenorphine. By the end of 2009, about one-third of the opioid dependent patients were receiving buprenorphine. Buprenorphine attracted patients but some practitioners worried that the medication made detoxification too easy. Physicians were hesitant to prescribe without appropriate backup for emergencies; many were ambivalent about the use of agonist medication. The plans struggled to modify the delivery of care and enhance access. Pharmacy issues slowed implementation. Over time, treatment structure increased with clear expectations for continued participation in counseling. Buprenorphine changed the treatment for opioid dependence in both health plans.

Sharon Reif  
Brandeis University  
[reif@brandeis.edu](mailto:reif@brandeis.edu)

### *How do Management Practices Relate to Performance at Detoxification and Transitional Facilities?*

Despite ongoing focus on evidence-based clinical practices, many individuals relapse following treatment for substance use disorders. Organizational factors may contribute to quality of care, and management practices may be key. We aim to identify management practices associated with higher and lower performing detoxification and transitional facilities in Massachusetts (N=21). Program director interviews covered 6 domains: management experience, personnel and management structures, communication, quality and performance measurement, unit goals, client focus and innovations. State administrative data were used to calculate two performance measures: proportion of clients readmitted to detoxification and who transition to a lower level of care, within 30 days. Preliminary results show that the personnel domain is significant, particularly number of staff, substance abuse certification, and program support of staff (e.g., training, recognition), as is an explicit focus on client retention and outcomes. Despite a highly constrained fiscal environment, program directors have endorsed a number of promising management practices.

Joseph Gurdish  
Institute for Health Policy Studies, University of California, San Francisco  
[joseph.gurdish@ucsf.edu](mailto:joseph.gurdish@ucsf.edu)

### *The relationship of intervention fidelity and outcomes among stimulant users*

Treatment fidelity is rarely measured in practice, and little is known about whether greater fidelity is associated with better outcomes. In this study, 476 digitally recorded counseling sessions were rated for fidelity to a 12-step facilitation protocol. Sessions involved 211 clients, and were provided by 34 counselors. Average Kappa for ratings was .69. Summary fidelity measures represented Adherence, Competence, and Global Fidelity. Using a mixed effects model, we tested the association between these fidelity measures (predictors) and each of 7 ASI composite scores at 3 months (outcomes), controlling for baseline composite, age, gender, ethnicity, and race. Higher fidelity was associated with lower employment problems (Global,  $\beta = -.031$ ,  $p = .003$ ; Adherence,  $\beta = -.042$ ,  $p = .001$ , Competence,  $\beta = -.036$ ,  $p = .001$ ). However, higher fidelity was also associated with higher drug problem severity at 3 months. Additional analyses suggest that client concerns about drug use, rather than actual drug use, were driving this relationship.

Maryann Amodeo

Boston University School of Social Work, Center for Addictions Research and Services  
[mamodeo@bu.edu](mailto:mamodeo@bu.edu)

*Addiction staff reports on facilitating factors in implementing evidence-based practices: Positive elements in the implementation process*

**Aims:** The authors' prior studies identified barriers to implementing evidence-based practices (EBPs). This qualitative study of facilitating factors is the next step in our research. **Research questions:** What factors facilitated implementation for four EBPs? Do facilitating factors vary by EBP?

**Methods:** 178 clinical staff from SAMHSA/CSAT-funded projects completed semi-structured interviews. Coders classified facilitating factors ( $n=518$ ) using a six-category schema: factors related to EBP characteristics, clients, staff, organization, community, or funders/policy makers.

**Results:** Organization-related factors (e.g., available training, administrative flexibility) were primary facilitators for Motivational Interviewing and Assertive Community Treatment (ACT), and secondary for Adolescent Community Reinforcement Approach (A-CRA) and Cognitive-behavioral Therapy (CBT). Community-related factors (e.g., interagency collaboration) were pivotal for ACT; EBP-related factors for A-CRA (e.g., certification requirements) and CBT (e.g., client worksheets).

**Discussion:** Facilitators and barriers differ by EBP. Organization-related factors are key to implementation. Facilitators were not simply the absence of barriers; they brought positive elements to implementation.

**1:00 Luncheon Address: Wilson Compton**

**2:00 Adjourn**

## Poster Session

G. Rush Smith

University of Georgia, Owens Institute for Behavioral Research, Center for Research on Behavioral Health and Human Services Delivery

[rgs12@uga.edu](mailto:rgs12@uga.edu)

### *Bias against Research-Based Approaches to Therapy Mediates the Relationship between Perceptions of CTN Protocol Involvement and Emotional Exhaustion in Substance Abuse Counselors*

Counselors who perceive clinical research conducted in community-based addiction treatment settings as stressful have increased turnover intentions. However, no studies have investigated how perceptions related to the implementation of clinical research are associated with negative affective responses such as emotional exhaustion and bias against evidence-based practices (EBPs). We examined whether research stressors were associated with emotional exhaustion and whether counselor bias against EBPs mediated this relationship. Data from 148 counselors participating in protocols indicated the relationship between protocol stress and emotional exhaustion was completely mediated by counselor attitudes toward EBPs. Findings suggest that supervisors demonstrate the importance of research-based approaches to prevent a stressful protocol from resulting in bias against EBPs, and ultimately, emotional exhaustion.

Marc T. Swogger

University of Rochester Medical Center

[marc\\_swogger@urmc.rochester.edu](mailto:marc_swogger@urmc.rochester.edu)

### *Harmful Alcohol Use Moderates the Relationship between Proactive Aggression and Suicide Attempts among Criminal Offenders*

Aggression is associated with risk for suicide attempts. Aggression is a heterogeneous construct, however, and evidence suggests that impulsive aggression (IA) carries greater risk for suicide attempts than proactive aggression (PA). Counter to this evidence, a recent study of substance dependent individuals found that both IA and PA were associated with suicide attempts, raising the possibility that harmful substance use increases the PA - suicide attempt relationship. To test this, we examined alcohol and drug use disorders as moderators of the relationships between both types of aggression and suicide attempts among criminal offenders. In bivariate analyses, IA was related to suicide attempts and PA was not. However, symptoms of alcohol use disorder moderated the PA - suicide attempt relationship, such that, among offenders with greater symptoms of alcohol use disorder, PA was associated with suicide attempts. Results have implications for risk assessment in criminal offenders with harmful alcohol use.

Emily C. Williams

VA Health Services Research & Development and University of Washington Department of Health Services  
[emily.williams3@va.gov](mailto:emily.williams3@va.gov)

*Results of Alcohol Screening Administered via Telephone and Web among Two HIV-Positive Samples*

Alcohol use and misuse are associated with increased risk of poor HIV-related outcomes. This study evaluated the prevalence of alcohol use and misuse in two samples of HIV+ adults on antiretroviral therapy (ART) who consented to participate in ART adherence trials and responded to the 3-item AUDIT-C questionnaire via telephone (Sample 1) or website (Sample 2). Analyses described the proportion reporting non-drinking (AUDIT-C 0), low-level drinking (AUDIT-C 1-3), and mild, moderate, and severe alcohol misuse (AUDIT-C 4-5, 6-7, and 8-12, respectively). Among Sample 1 (n=447), 43% reported non-drinking, 35% reported low-level drinking, and 13%, 5%, and 4% reported mild, moderate, and severe misuse, respectively. Among Sample 2 (n=294), 18% reported non-drinking, 54% reported low-level drinking, and 21%, 4%, and 2% reported mild, moderate, and severe alcohol misuse, respectively. Alcohol misuse was common (total prevalence 22-27%) among HIV+ trial participants. Respondents appeared willing to report alcohol use via telephone or web.

Danica K. Knight  
Texas Christian University  
[d.knight@tcu.edu](mailto:d.knight@tcu.edu)

*Adapting the TCU Client Evaluation of Self and Treatment (CEST) for Adolescents*

The TCU Client Evaluation of Self and Treatment (CEST) has been used extensively to document and monitor adult clients' responses to and perceptions of treatment. In recent years, programs serving adolescents have begun using the CEST, but information regarding its applicability and appropriate normative data have not been available. Aim: The purpose of this study is to report preliminary data on the reliability of a modified version of the CEST for adolescents. Method: Minor modifications were made to the Adult CEST, incorporating reference to school, de-emphasizing work, and simplifying terminology. Data were from 250 adolescents admitted to 8 residential substance abuse treatment programs in three states across the US. Results: In general, coefficient alphas indicated good reliability. Scale means across primary domains (motivation, psychological functioning, social functioning, and engagement) were analyzed by gender, age, and primary drug of choice. Conclusion: Findings are discussed in terms of their research and clinical applications.

Jennifer Edwards Becan  
Institute of Behavioral Research, Texas Christian University  
[j.r.edwards@tcu.edu](mailto:j.r.edwards@tcu.edu)  
Danica K. Knight  
[d.knight@tcu.edu](mailto:d.knight@tcu.edu)

Brittany Landrum  
[b.landrum@tcu.edu](mailto:b.landrum@tcu.edu)  
Rachel Crawley  
[r.d.crawley@tcu.edu](mailto:r.d.crawley@tcu.edu)  
Grace Rowan-Szal  
[g.szal@tcu.edu](mailto:g.szal@tcu.edu)  
Patrick Flynn  
[p.flynn@tcu.edu](mailto:p.flynn@tcu.edu)

*Thinking Patterns Among Adolescents in Residential Substance Abuse Treatment*

Counselors express cognitive challenges as one of the significant barriers to successfully engaging teens in treatment. Failure to engage may be due in part to difficulty paying attention, lack of perspective-taking, and inadequate problem solving skills. Aim: In order to assess thinking patterns among teens, 9 scales were created. The purpose of the study is to report preliminary psychometric data on each scale.

Method: Data represent 500 adolescents admitted to 8 residential substance abuse treatment sites across the US. The assessment package includes items on negative thinking patterns (urgency, general invincibility) and positive thinking patterns (optimism, hope, assertiveness, attention, premeditation, resisting drug use, and problem solving self-efficacy). Results: Rasch modeling was used to assess reliability in terms of discrimination and difficulty. Descriptive results are reported by gender, age, and drug use severity. Conclusion: Discussion of research and clinical applications will be presented.

Jennifer Pankow, Aaron Cherry, Michele Gould, Kevin Knight  
Texas Christian University  
[j.pankow@tcu.edu](mailto:j.pankow@tcu.edu)

*Current Medication-Assisted Treatment Practices and Perceived Barriers in Midwestern United States Community Corrections*

Offenders are at high risk for relapse immediately following discharge from incarceration and during community supervision. While pharmacotherapy may be an available treatment option for those addicted to opiates or alcohol, low referral rates for this treatment option appear to be a byproduct of misperceptions and lack of knowledge about medication-assisted treatment (MAT) for treating drug addiction. This study examines current MAT referral practices in two community corrections settings where addiction pharmacotherapy is currently available. Perceived barriers to MAT referral, as reported by corrections and treatment providers during interviews conducted as part of the CJDATS Medication-Assisted Treatment Implementation in Community Correctional Environment (MATICCE) study, will be addressed. The findings will be discussed in the context of an organizational intervention strategy aimed at effectively implementing improvements in MAT service delivery by enhancing knowledge about MAT and improving inter-organizational linkages and collaboration between criminal justice supervision settings and community-based treatment settings.

Joyce A. Hartje, PhD  
University of Nevada, Reno  
[jhartje@casat.org](mailto:jhartje@casat.org)

*Assessing the need for teaching juvenile and family court judges about the neuroscience of addiction: Implications for influencing dispositional decisions in juvenile court*

**Aims.** To examine the amount of training juvenile and family court judges (Judges) receive on adolescent-specific alcohol and drug-related issues.

**Methods.** A web-based survey was conducted using the National Council of Juvenile and Family Court Judges listserv.

**Results.** Of the 188 Judges who responded to the survey, 67% estimated that 60-90% of adolescents involved in the juvenile justice system have substance abuse-related problems. However, 85% reported not feeling very confident about how to deal with substance abusing juvenile offenders given that they receive less than 2 hours of training on topics such as adolescent brain development and neuroscience of addiction.

**Conclusion.** Results suggests a need for providing Judges with specific training to increase their knowledge regarding adolescent substance use/abuse and the neuroscience of addiction, and making it relevant to their daily tasks (e.g., applying it to dispositional decisions).

Nancy A. Roget  
University of Nevada, Reno  
[roget@unr.edu](mailto:roget@unr.edu)

*Decreasing stigmatizing attitudes about substance abuse among university undergraduate criminal justice students: Implications for preparing future professionals*

**Aims.** Examine undergraduate criminal justice (CJ) students' stigmatizing attitudes about addiction and individuals with substance use disorders (SUDs).

**Methods.** Control group pre/post design with a mixed-method attitude measure was used to determine the impact of a three-hour neuroscience of addiction curriculum with a CJ enhancement (NIDA Principles of Treatment for CJ, 2006) on University of Nevada, Reno students enrolled in CJ introductory courses.

**Results.** Study measures were completed by 192 students. Results showed significant pre-to-post decreases in stigmatizing attitudes following the Curriculum in the implementation group and between implementation vs. non-implementation groups.

**Conclusions.** Given the number of incarcerated individuals meeting the criteria for SUDs, it is important that CJ professionals understand the neurobiological basis of addiction as knowledge/attitude shifts can impact sanction-based system approaches (Chandler, Fletcher, & Volkow, 2009). Helping CJ students understand substance abusing offenders will increase their professional effectiveness and holds long-term implications for public health and safety.

Michael Chaple

National Development & Research Institutes, Inc.  
[chaple@ndri.org](mailto:chaple@ndri.org)

*The Therapeutic Education System: Effectiveness of a Computer-Delivered Psychosocial Treatment for Offenders with Substance Use Disorders 3-Month Outcomes*

The majority of individuals in criminal justice settings across the U.S. have a critical need for science-based psychosocial treatment targeting substance use. Members of the investigative team previously developed and demonstrated the efficacy of a computer-based, psychosocial treatment program, the Therapeutic Education System (TES). TES may provide routine access to an evidence-based therapeutic intervention, delivered with fidelity, in criminal justice settings.

This study employed random assignment of incarcerated offenders with substance use disorders to either (1) TES (N=258), or (2) Standard Care (N=255), in a multi-site trial conducted in 4 states and 10 prisons. This paper provides an overview of TES, the study design, and participant profiles, and examines the comparative effectiveness of TES vs. Standard Care on drug use, HIV risk and self-reported criminal activity at 3-months post prison discharge. The investigators predict that TES will be more effective than standard care.

James Burgdorf  
Pardee RAND Graduate School  
[burgdorf@prgs.edu](mailto:burgdorf@prgs.edu)

*A break-even and cost-benefit analysis of a voluntary school-based drug prevention program*

School-based drug prevention programming is nearly universal in the United States. These programs usually occur during school hours and typically involve adults in positions of authority (e.g., police officers) extolling the negative consequences of alcohol and illegal drug use. Project CHOICE (PC) is nearly the opposite type of program: it is a voluntary after-school drug prevention program that is facilitated by individuals trained in motivational interviewing. The preliminary results from cluster randomized controlled trial of PC finds that schools assigned to receive the program experienced slower growth in lifetime alcohol use. The break-even analysis suggests the program will be cost-beneficial from the societal perspective if the benefits exceed \$243 per student. To help monetize the benefits of delaying initiation, the paper rigorously reviews the literature linking delayed initiation with reductions in the likelihood of future dependence as well as the costs of alcohol abuse and dependence. Simulations will be conducted to account for the uncertainty surrounding these estimates and to analyze the sensitivity of results to various parameter assumptions.

Susan M. Paddock  
RAND Corporation  
[paddock@rand.org](mailto:paddock@rand.org)

*Modeling Longitudinal Post-treatment Client Outcomes from Open-enrollment Therapy Groups*

We present methods for estimating group therapy's effect on post-treatment outcomes when clients enter group on an open (rolling) basis. We combine hierarchical modeling techniques --- multiple membership (MM) and conditional autoregression (CAR) -- to model correlation among post-treatment outcomes. Under MM, post-treatment observations are modeled using multiple conditionally independent random session effects. CAR relaxes the independence assumption. We examine multivariate extensions of CAR to allow session effects to vary over the post-treatment assessment period. It is important to use post-treatment outcomes data efficiently given the modeling complexity induced by rolling admissions. We combine MM-CAR with longitudinal growth modeling under which the posterior distribution of growth parameters is estimated using non-parametric modeling that borrows strength among clients to overcome parameter identification limitations of standard parametric growth models. We demonstrate these methods in the context of an intervention to deliver group cognitive behavioral therapy to AOD treatment clients with depressive symptoms.

Grace A. Rowan-Szal  
Institute of Behavioral Research  
[g.szal@tcu.edu](mailto:g.szal@tcu.edu)

*Implementation of a Disease Risk Reduction Intervention for Women Offenders in Residential Substance Abuse Treatment*

The Disease Risk Reduction (DRR) project focuses on risky sexual and drug use behaviors during re-entry, including problem recognition, commitment to change, and strategies for avoiding behavioral risks of infections. The WaySafe intervention is a six session group-based interactive curriculum focused on enhancing decision-making skills in two months prior to release from incarceration. This study focused on approximately 400 female offenders (WaySafe vs. Treatment as Usual) admitted to three CJ residential substance abuse treatment facilities of varying length of stay (4, 6 and 9 month programs). The WaySafe intervention was shown to increase knowledge, confidence and motivation regarding avoidance of risky sex and drug behaviors, teaching others about HIV/AIDS, knowing what to do if exposed and general life skills. Results suggest that HIV/Hepatitis prevention programs that include cognitive focusing are a useful treatment addition for women in CJ-based programs for substance abusing offenders across treatment programs of varying length.

Deborah W. Garnick, Sc.D.  
Institute for Behavioral Health, Schneider Institutes for Health Policy, Heller School for Social Policy and Management, Brandeis University  
[garnick@brandeis.edu](mailto:garnick@brandeis.edu)

*Substance abuse treatment engagement and arrests – A multi-state study*

Aims: This study examines the relationship between a process performance measure for substance abuse, treatment engagement, and criminal justice outcomes in multiple states.

Methods: Administrative treatment data for a total of approximately 120,000 outpatient clients were linked to criminal justice data in Connecticut, Massachusetts, New York, Oklahoma, and Washington. Engagement was defined using the Washington Circle specifications: at least two additional treatment sessions within 30 days of treatment initiation. Time-to-event analysis examined the relationship between engagement and arrests. Results: Overall engagement rates ranged from 38% to 78%. Clients meeting the engagement criteria were less likely to be arrested in the year following treatment engagement than those who were not meeting the engagement criteria. Conclusion: Treatment engagement is a useful measure for monitoring quality of care as it is associated with client outcomes. Providers can focus efforts on clients not returning for timely treatment services.

Marian Ryan

Institute for Behavioral Health, Heller School for Social Policy and Management, Brandeis University

[mryan@iha4health.org](mailto:mryan@iha4health.org)

#### *Alcohol Consumption among Older Adults with Chronic Medical Conditions*

The study aimed to investigate the prevalence of at-risk drinking among older adults with common chronic medical conditions, a particularly vulnerable population. A descriptive analysis was completed using the 2005 Medicare Current Beneficiary Survey for community-dwelling Medicare beneficiaries age 65 years and older (N = 7,484). Using self-reported alcohol data, we categorized individuals as within-guidelines drinkers, exceeding monthly but not daily limits, or heavy episodic drinkers, relative to NIAAA guidelines. Depression, diabetes, heart failure, stroke, COPD, and hypertension were identified using linked claims data. The proportion of any at-risk drinking among this sample ranged from 3.5 percent for persons identified with depression to 7.1 percent for persons identified with chronic obstructive pulmonary disease. The role of comorbidity was also explored. Providers should be aware that excessive drinking is an issue for many older patients with chronic illness, and should screen routinely and provide individualized recommendations.

Mary Jo Larson

Institute for Behavioral Health, Schneider Institutes for Health, Heller School for Social Policy and Management, Brandeis University

[larson@brandeis.edu](mailto:larson@brandeis.edu)

#### *Prevalence and Correlates of Psychotropic Medication Use among Child Dependents of Army Active Duty Service Members (ADSM)*

In the past two decades there has been a dramatic increase in psychotropic medication use in children. However, use is not always associated with a recorded mental health diagnosis nor with any accompanying mental health services. Our earlier work showed that the use of antidepressants increased 17% among child dependents following the deployment of their Army, active duty parent. Using a quasi-experimental design, we will analyze FY2005 and FY2009

data from TRICARE, the military's healthcare program, to determine the prevalence and correlates of psychotropic medication use in over 400,000 child dependents of ADSM. This paper will characterize which children (age and gender) use psychotropic medications (by major type), for what reasons (diagnosis or no diagnosis), and whether in combination with non-pharmacologic behavioral health services (some versus none), and the system (military vs. civilian). Implications to be discussed include consideration of the quality and types of behavioral health services available to children.

Katharine A. Bradley  
Group Health Research Institute  
[bradley.k@ghc.org](mailto:bradley.k@ghc.org)

*The Design of a Collaborative Care Intervention for Primary Care Patients with Alcohol Use Disorders: Choosing Healthier drinking Options In Collaborative Care (The CHOICE Trial)*

Randomized controlled trials have demonstrated that collaborative care (CC) by a nurse and interdisciplinary CC team improves outcomes in primary care (PC) patients with depression. CC may be particularly suited to PC delivery of several types of evidence-based care for alcohol use disorders (AUD), including medications, alcohol-related lab monitoring, and repeated brief interventions. We describe the design of a randomized controlled effectiveness trial of CC for AUD. PC patients with AUD will be randomized to usual care or a 12-month CC intervention. Three evidence-based treatments for AUD will be delivered via CC, based on patient preferences: medications, alcohol biomarker monitoring with feedback, and/or repeated brief interventions. This presentation will focus on the trial's population-based screening approach, recruitment and engagement, research assessments, intervention development, and use of a no contact control group to interpret and minimize assessment reactivity. CC is a promising model for improving the quality of care for AUD.

Sharon M. Kelly  
Friends Research Institute  
[skelly@friendsresearch.org](mailto:skelly@friendsresearch.org)

*Therapeutic alliance among interim and usual care methadone patients*

This study examined the relationship between therapeutic alliance and 12-month outcomes among 230 adult participants in a randomized trial comparing methadone with v. without counseling during the first four months of treatment. Mean Helping Alliance Questionnaire (HAQ) scores obtained at 2 and 4 months post-admission for the Condition that received counseling did not predict time to discharge within the first 12 months of treatment using Cox proportional hazards regression. There were no significant differences in HAQ scores measured at 12 month follow-up between participants who received counseling v. participants who did not receive counseling during the first four months of treatment. However, higher HAQ scores at 12 months were significantly associated with fewer self-reported days of heroin use in the past 30

days at 12 months in the total sample ( $p=.035$ ). Factors other than therapeutic alliance would appear to play a role in contributing to attrition from methadone treatment.

Nattinee Jitnarin

National Development and Research Institutes, Inc., Public Health Solutions of NYC  
jitnarin@gmail.com; [jitnarin@ndri.org](mailto:jitnarin@ndri.org)

### *Predictors of Smokeless Tobacco in Fire Service*

Smokeless tobacco (SLT) has significant adverse health consequences. The prevalence of SLT use is high in certain occupational groups in the US including the military and the fire service. However, little is known about the characteristics of users and patterns of use in fire service, an occupational group that needs to maintain high levels of health and fitness. Although some tobacco prevention efforts targeted military members, none have focused on the fire service. This study randomly selected career fire departments ( $N=11$ ), resulting in a sample of 478 firefighters. Multivariate logistic regression models were used to identify predictors of SLT use among firefighters. Being white and binge drinking were strong predictors for SLT use (OR 8.40; 95% CI: 0.02-0.92 and OR 2.58, 1.25-5.30). Information regarding the predictors of SLT use among fire service is needed to characterize SLT initiation in order to develop and implement successful SLT prevention efforts.

Katherine J. Hoggatt

VA Greater Los Angeles and the University of California, Los Angeles  
[khoggatt@ucla.edu](mailto:khoggatt@ucla.edu)

### *Alcohol misuse and mental health care utilization in women Veterans*

Women Veterans are a rapidly growing segment of the VA patient population. Women Veterans have higher rates of alcohol misuse than do their civilian counterparts, but there is limited research on the characteristics associated with their alcohol misuse. We analyzed data from the 2008-09 population-based National Survey of Women Veterans to determine the correlates of alcohol misuse. Overall, 9.1% of women Veterans had AUDIT-C scores consistent with alcohol misuse. Higher AUDIT-C scores were more common among younger women and those with military sexual trauma or PTSD. Among women Veterans who were not current VA users, higher scores were strongly associated with decreased use of mental health care; this inverse association was not observed for women who were VA users and who screened positive for alcohol misuse under the VA criterion. Women Veterans with alcohol misuse may constitute a group with unmet mental health care need, particularly in non-VA settings.

Randall Brown

University of Wisconsin School of Medicine & Public Health  
[randy.brown@fammed.wisc.edu](mailto:randy.brown@fammed.wisc.edu)

### *Assistant District Attorney Decision Making When Referring to Jail Diversion Programs*

The correlation between drug use and crime, and the effectiveness of jail diversion programs for drug-involved offenders is well known, however, the decision making process by Assistant District Attorneys (ADAs) when referring to jail diversion programs is poorly understood. The current study sought to investigate what influences the decision by Dane County ADAs when referring an offender to a drug court program as opposed to traditional adjudication and incarceration. We surveyed 24 ADAs and received 19 completed questionnaires, for a 79% response rate. The ADAs decision making was consistent with current knowledge of offender factors, which are associated with likelihood of a completing drug court program, in terms of social factors, criminal history, and primary substance used. ADA decision making differed with previous findings when it came to drug treatment facilitating reductions in criminal behavior.

Susan H. Godley  
Chestnut Health Systems  
[sgodley@chestnut.org](mailto:sgodley@chestnut.org)

### *Sustainment of EBTs after federal funding for implementation*

Few studies have examined sustainment of EBT delivery after initial funding ends. Since 2006, SAMHSA/CSAT has awarded 80 provider organizations funding to implement A-CRA. Sites received approximately \$300,000 per year for three years to implement the EBT and staff received training, coaching, and progress feedback through a clinical and supervisor certification process. This poster provides data from the first two cohorts (N= 33) regarding plans to sustain the EBT post-funding based on a telephone survey conducted with lead clinicians during their last quarter of funding. Grantees from 26 (79%) sites reported plans to sustain A-CRA; however, many reported that it was unknown how they would continue all model components, such as clinical supervision, which is problematic since it adversely affects potential for A-CRA to be sustained after loss of funding. A description of facilitators and barriers identified that may affect EBT sustainability and implications for EBT dissemination will be provided.

Dennis Watson  
Loyola University Chicago  
[dwatso2@luc.edu](mailto:dwatso2@luc.edu)  
Dana E. Wagner  
Loyola University Chicago

### *Understanding a Model for Housing Active Substance Users: Creation and Validation of a Housing First Fidelity Tool*

Housing First (HF) is an evidence-based practice for housing chronically homeless individuals who have been diagnosed with both serious mental illness and a substance use disorder. While many studies have linked the model to a number of positive outcomes related to substance use,

little research has examined issues related to implementation and fidelity of the model. The current study followed a mixed-methods design to develop a fidelity scale of HF programming in order to assist in implementation and measurement of the model. This presentation will (a) describe the three-phase process followed in development of the fidelity instrument and (b) report results from 53 phone interviews conducted with a national randomly-selected sample of abstinence-only and HF programs. These data were used to validate and finalize the resulting fidelity instrument. The researchers found that there was wide variation in the way HF programs understood and implemented the model and its associated components.

Caitlin Rasplica

*Dept. of Public Health & Preventive Medicine, Oregon Health & Science University*  
[rasplica@ohsu.edu](mailto:rasplica@ohsu.edu)

### Systems Infrastructure and an Evidence-Based Practice Mandate: Program Director and Stakeholder Perspectives

Accelerating access to and use of evidence-based practices will enhance the quality of addiction treatment services. Adoption of such innovations is influenced by systems-wide infrastructure, organizational climate, resource distribution, and provider attitudes. This longitudinal study investigates how such factors influence clinical decision-making and implementation of an evidence-based mandate. Methods: Data from in-depth interviews and focus groups with stakeholders and agency directors (n = 39) during initial planning for the mandate (2004/2005) and again during early implementation (n=42; 2007/2008) capture their response to systems-wide issues and barriers related to the mandate and empirical interventions. Results: Results reflect three emergent themes: 1) Need for consistent cross-system expectations and communication; 2) the increasing challenge of limited resources/support; and 3) the lack of organizational and provider capacity to respond to the mandate. Discussion: Each theme reflects the need for enhanced policy implementation strategies and alternatives to facilitate use of new empirically sound interventions.

Laurel Mangrum, Ph.D.

Addiction Research Institute, University of Texas

[lmangrum@mail.utexas.edu](mailto:lmangrum@mail.utexas.edu)

### *The Effects of Participating in the Louisiana Access to Recovery (ATR) Program on Addiction Treatment Outcomes*

The study compares addiction treatment outcomes of clients who participated in the Louisiana ATR program with clients receiving state-funded treatment but who did not receive ATR services. Data were available for 6,405 ATR clients and treatment outcomes were compared with a randomly selected sample of 6,405 non-ATR clients. Group comparisons at admission to treatment indicated that the ATR group demonstrated greater severity in all ASI domains, higher unemployment and unstable housing, greater history of prior addiction treatment, and higher past-30 day substance use. At discharge, ATR clients had higher rates of treatment completion,

past 30-day abstinence, and maintaining or gaining employment relative to the non-ATR clients. These results suggest that, despite greater severity in the ATR group at admission, participation in the ATR program may have assisted these more severe clients in addressing multiple life issues and enhanced their ability to engage in treatment and achieve positive outcomes.

Ron Claus  
Westat  
[RonaldClaus@westat.com](mailto:RonaldClaus@westat.com)

### *Implementation of Integrated Treatment for Co-Occurring Disorders: A Qualitative Analysis*

**Aim.** The implementation of best practice models for co-occurring substance use and mental health disorders (COD) occurs via multifaceted organizational processes. This study examined the implementation process during a 3-year statewide initiative at 23 substance abuse and mental health treatment providers seeking to improve services for adults with COD.

**Methods.** Using a semi-structured format, researchers conducted 10 focus groups with executive directors, change agents, direct care staff and funding agency staff. Participants discussed notable program changes during the initiative, lessons learned, and sustainability.

**Results.** The study identified the strategies, supports, and approaches used to make programs more co-occurring capable. The qualitative approach generated rich contextual observations and allowed triangulation by respondent role and location.

**Conclusions.** Common implementation processes in the domains of work prioritization, leadership, workforce, reinforcement, and treatment services were identified. Implementation barriers and facilitators are discussed.

Support for this study was provided by the Missouri Foundation for Health.

Wayne E.K. Lehman  
Texas Christian University  
[w.lehman@tcu.edu](mailto:w.lehman@tcu.edu)

### *Treatment engagement and outcomes in Waysafe, a disease risk reduction intervention for offenders*

The Waysafe intervention for incarcerated offenders in the final phase of substance abuse treatment is designed to increase positive decision-making skills after re-entry for healthy living, including skills for reducing disease risk behaviors. Waysafe focuses on reducing risky behaviors after re-entry by improving problem recognition, commitment to change, and strategies for avoiding behavioral risks of infections. Waysafe has been shown to increase knowledge, confidence and motivation regarding avoidance of risky sex and drug behaviors, teaching others about HIV/AIDS, knowing what to do if exposed and general life skills. Engagement in

treatment has been a critical factor in treatment retention and successful psychosocial and behavioral change. Random effects models to account for nesting within eight different prisons examined the role of engagement in a sample of over 700 offenders on Waysafe outcomes as indicated by positive changes on knowledge, confidence and motivation for avoiding behavioral risks of infections.

Charles Neighbors

The National Center on Addiction and Substance Abuse (CASA) at Columbia University

[cneighbors@casacolumbia.org](mailto:cneighbors@casacolumbia.org)

*Care Management for High-Cost Addictions Treatment Clients: Challenges of Defining Targeted Population*

**OBJECTIVE:** Examine impact of a state-based care management (CM) program on utilization of detox, inpatient rehabilitation, outpatient treatment, and cost of all alcohol or other drug treatment services (AODTx) for high-cost Medicaid clients. Examine CM effects moderated by predicted risk of future high spending.

**METHOD:** 1800 clients received CM in 23 counties throughout New York State. With combined data from Medicaid and a statewide registry of AODTx, create statistically matched comparison group. Develop predictive models of high future AODTx costs.

**FINDINGS:** CM clients were clinically complex (e.g., 62% serious mental illness) and costly. Pre-to-post utilization and costs declined for CM; however, not statistically different from comparison group. Conversely, CM affected service utilization and costs among clients with greater risk of high future AODTx cost.

**CONCLUSIONS:** Targeting historically high-cost clients as a group with CM may not lead to cost savings. Predictive models have potential for better defining targeted group.

Shannon Gwin Mitchell

Friends Research Institute

[smitchell@friendsresearch.org](mailto:smitchell@friendsresearch.org)

*Outpatient Buprenorphine Treatment and 3-Month Reductions in DSM-IV Opioid and Cocaine Dependence among African Americans*

Clinical diagnoses of drug dependence are based on the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV). Yet, few studies evaluating drug addiction treatment consider abatement of DSM-IV symptoms as outcome measures. African Americans entering buprenorphine treatment were randomly assigned to receive standard outpatient (OP) or intensive outpatient (IOP) care (N=300). Presence of DSM-IV symptoms for opioid and cocaine dependence was assessed using the Composite International Diagnostic Interview at baseline and 3 month follow-up. Overall, participants reported significant reductions in the number of acute DSM-IV symptoms for both opioid and cocaine dependence at 3 month follow-up, but the magnitude of change did not differ based on treatment condition. Participants retained in treatment at 3 months had fewer symptoms for opioid and cocaine dependence

compared to treatment dropouts. Outpatient buprenorphine treatment, regardless of counseling intensity, is associated with reductions in DSM-IV symptoms for drug dependence.

Craig Henderson  
Sam Houston State University  
[chenderson@shsu.edu](mailto:chenderson@shsu.edu)

### *Integrative Data Analysis of Gender and Ethnic Differences in MDFT RCTs*

Despite well-documented health disparities experienced by minority youth, substance abuse researchers have only addressed the most elementary questions regarding the effectiveness of evidence-based treatments (EBTs) for this population. Although recent reviews have indicated that some EBTs are effective with ethnic minority populations, fundamentally, the question of whether EBTs are equally beneficial for ethnic minority, as well as male and female, youth remains unanswered because most studies lack adequate statistical power to detect either ethnicity or gender by treatment interaction effects. Moderated Nonlinear Factor Analysis (Bauer & Hussong, 2009), conducted under an Integrative Data Analytic (IDA) framework Curran et al. (2008) is ideally suited to addressing questions regarding integrating data from numerous longitudinal studies, even when outcome measures differ across studies. In the proposed poster, we will present preliminary findings from a study combining results from 10 RCTs examining the effectiveness of MDFT and whether ethnicity and gender moderate intervention outcomes.

Lauren M. Hajjar  
The Heller School for Social Policy and Management, Brandeis University  
[lhajjar@brandeis.edu](mailto:lhajjar@brandeis.edu)

### *Determinants of Property Crime Charges*

While it is clear that many individuals who frequently commit crimes also use illicit drugs, the relationship between drug use and criminal activity is extremely complex and no causal links have been established. This analysis uses a death by drug overdose database to determine the relationship between property and drug crime charges. This paper addresses the question of whether individuals who died of a drug overdose are more likely to be charged with property crimes than other types of crime. Results show that individuals with a heroin charge on their probation record were nearly 4 times more likely to be charged with a property crime than those without heroin charges. Additionally, individuals with drug crime charges were expected to have a higher rate of property crimes on their probation record. Despite limitations, regression models demonstrate a highly significant relationship between property and drug crimes, with important implications for service integration.

Maria Torres, MA, Doctoral Candidate  
Brandeis University, Heller School for Social Policy and Management  
[mtorres@brandeis.edu](mailto:mtorres@brandeis.edu)

*Focusing on the Addiction Treatment Workforce: A survey of program directors and clinical staff at outpatient substance abuse treatment programs in Massachusetts*

Difficulties in retaining and recruiting staff impact the quality of care that an addiction treatment facility is able to deliver. By visiting 50-70 outpatient facilities in Massachusetts this study will gain an in-depth insight into this workforce via two survey instruments: the Facility Workforce Survey (FWS) and the Addiction Treatment Counselor Survey (CS). The FWS focuses on the context of care including information on facility characteristics, service delivery and staffing, turnover rate, and hiring. The CS focuses on the individual counselor; providing demographic information, employment history, workload, perception of work environment, burnout, and overall job satisfaction. Data collection began in January of 2011. Preliminary results from 35 FWS and 200 CS will be reported. By focusing on counselors and their workplace, this research creates an opportunity to gain new knowledge and insights about the counselors and the challenges and barriers they face as they seek to deliver quality care.

Jon Morgenstern

The National Center on Addiction and Substance Abuse (CASA) at Columbia University

[jm977@columbia.edu](mailto:jm977@columbia.edu)

*Care Management for Substance Dependent TANF Women: Impact on Healthcare Utilization and Costs*

**OBJECTIVE:** We compare Medicaid expenditures between care management (CM) for substance dependent TANF recipients with usual care (UC; screening and referral to treatment). Prior reports showed CM reduced substance use and increased employment. The current study examines CM impact on healthcare utilization and costs.

**METHOD:** 302 TANF women randomized: 161 CM, 141 UC. Intervention conducted over 2 years, Medicaid records were available for 4 years of follow-up.

**FINDINGS:** Both CM and UC had reductions in healthcare utilization from baseline through the four year follow-up. CM was associated with reductions in ED visits in the first year; yet, these treatment differences dissipated over time. CM was associated with greater mental health services utilization. There were no statistical differences in cost between conditions.

**CONCLUSIONS:** CM targeting substance disorders and employment may not reduce healthcare utilization; however, CM may facilitate entry into mental health treatment.

**Funding:** NIDA, MacArthur Foundation

Kimberly A. Hepner

RAND Corporation

[hepner@rand.org](mailto:hepner@rand.org)

*Effectiveness of Group Cognitive Behavioral Therapy for Depression in Residential Substance Abuse Treatment Clients: One-Year Follow-Up*

Innovative dissemination approaches are needed to provide effective treatments for clients with co-occurring depression and substance use disorders (SUD). We evaluated the effectiveness of group cognitive behavioral therapy for depression (GCBT-D) delivered by trained addiction counselors. Using a quasi-experimental design, clients received either SUD treatment as usual (n = 88) or treatment enhanced with GCBT-D (n = 96). At the 3-month follow-up, GCBT-D clients reported significantly fewer depressive symptoms than the control condition ( $p < .01$ ; average BDI-II scores 5.6 lower). Differences between conditions were not sustained at the 12-month follow-up; however, both groups had decreased depression symptoms corresponding to the minimal range (12.8 vs. 11.6, ns). At 12-months, groups did not differ on past 30 day use of alcohol or problem substance. Data suggest that GCBT-D delivered by addiction counselors improves depression symptoms faster than SUD treatment as usual, but both groups may achieve similar symptom reductions by 12 months.

Michael S. Gordon  
Friends Research Institute  
[mgordon@friendsresearch.org](mailto:mgordon@friendsresearch.org)

*Crime Severity, Frequency and Variety of Prisoners Participating in Methadone/Buprenorphine Clinical Trials*

The US has over 1.5 million state prisoners, and 12-15% have opioid dependence histories. This presentation examines characteristics of 453 prisoners who enrolled in one of two randomized clinical trials of methadone and buprenorphine. The analysis examines which domains impact differences regarding four dimensions of self-reported crime: frequency, severity, variety, and illegal income. Data were obtained for the month before incarceration and lifetime. Based on the criminological and substance abuse literature, six domains were identified as potentially impacting crime: demographics; substance use; other criminal behavior; employment; drug treatment; and psychological problems. Increased understanding of factors associated with various patterns of criminal activity may help develop crime-reduction interventions for different types of opioid-dependent individuals.

Peter D. Friedmann  
Rhode Island Hospital  
[pfriedmann@lifespan.org](mailto:pfriedmann@lifespan.org)

*Modified Directly Observed Therapy for Hepatitis C among IDUs*

Hepatitis C (HCV) genotypes 1 and 4 are endemic and difficult to treat in injection drug users (IDU). Modified directly observed treatment (mDOT), consisting of weekly on-site pegylated interferon injections and monitoring of adherence to ribavirin, may improve outcomes. This retrospective cohort study compared outcomes among 98 patients who received mDOT from the infectious disease clinic and 62 who received standard care (self-administration) from the hepatology clinic at Rhode Island Hospital. mDOT patients were more likely to be IDUs (94% vs. 53%), HIV-infected (14% vs. 2%), and have had a suicide attempt (8% vs. 2%), but there was

no difference in genotypes 1/4 (61% vs. 65%). In a logistic regression model controlling for multiple factors, individuals with genotype 1/4 treated with mDOT were more likely to attain a sustained virologic response (OR 7.8; 95% CI, 1.1-57) . mDOT for HCV may improve outcomes among IDUs with HCV genotypes 1/4.

Lena Lundgren

Boston University School of Social Work, Center for Addictions Research and Services  
[llundgre@bu.edu](mailto:llundgre@bu.edu)

*Barriers to implementation of evidence-based addiction treatment: A national study*

Prior studies have found that educational levels of treatment staff, working in a treatment unit affiliated with a research institution, and working in a unit with higher levels of organizational capacity are three factors associated with positive staff attitudes about evidence-based addiction treatment practices (EBPs). This study explored whether these factors were also associated with treatment staff experience of barriers implementing EBPs. Multivariate regression methods examined the relationship between staff (n= 510) and director (n= 296) education levels, working in an organization affiliated with a research institution, organizational capacity (TCU-ORC-Staff and TCU-ORC-Director) and level of barriers experienced when implementing a new EBP controlling for treatment unit characteristics, staff characteristics and type of EBP. Neither education level nor organizational research affiliation was associated with level of barriers experienced. For both samples, working in a unit with less organizational capacity was significantly associated with reporting higher ratings of barriers in EBP implementation.

Deborah W. Garnick

Institute for Behavioral Health, Schneider Institutes for Health Policy, Heller School for Social Policy and Management, Brandeis University  
[garnick@brandeis.edu](mailto:garnick@brandeis.edu)

*Substance abuse treatment engagement and arrests – A multi-state study*

**Aims:** This study examines the relationship between a process performance measure for substance abuse, treatment engagement, and criminal justice outcomes in multiple states. **Methods:** Administrative treatment data for a total of approximately 120,000 outpatient clients were linked to criminal justice data in Connecticut, Massachusetts, New York, Oklahoma, and Washington. Engagement was defined using the Washington Circle specifications: at least two additional treatment sessions within 30 days of treatment initiation. Time-to-event analysis examined the relationship between engagement and arrests. **Results:** Overall engagement rates ranged from 38% to 78%. Clients meeting the engagement criteria were less likely to be arrested in the year following treatment engagement than those who were not meeting the engagement criteria. **Conclusion:** Treatment engagement is a useful measure for monitoring quality of care

as it is associated with client outcomes. Providers can focus efforts on clients not returning for timely treatment services.

Robert P. Schwartz  
Friends Research Institute  
[Rschwartz@friendsresearch.org](mailto:Rschwartz@friendsresearch.org)

*Entry into methadone treatment via interim maintenance: 12- month outcomes*

This randomized clinical trial compared the effectiveness of three levels of counseling over 12 months for 230 newly-admitted adult patients in two Methadone Treatment Programs (MTPs) in Baltimore. Participants were assigned to either: 1) Interim Methadone (IM – emergency counseling only for the first 120 days); 2) Standard Methadone (SM – counseling as usual); or 3) Restored Methadone (RM – counseling with a reduced case load). There were no significant Group x Time differences in the number of days of self-reported heroin use, cocaine or illegal activities, or opioid or cocaine positive drug tests. These data suggest that MTP patients who begin treatment without counseling perform as well in terms of reduced heroin and cocaine use from admission as those who receive methadone with counseling. Results may have implications for the regulatory and clinical structure of MTPs in the US.

Jan Gryczynski  
Friends Research Institute  
[jgryczynski@friendsresearch.org](mailto:jgryczynski@friendsresearch.org)

*Short-term impact of publicly funded outpatient buprenorphine treatment on quality of life*

Quality of life (QoL) measurement remains underutilized in addiction treatment research, but may provide important insights on the effectiveness of services from the patient's perspective. Changes in QoL were investigated in the context of a randomized clinical trial comparing standard outpatient (OP) to intensive outpatient (IOP) treatment for opioid-dependent African Americans treated with buprenorphine (N=300). QoL was measured using the WHO-BREF instrument at baseline and 3 month follow-up, yielding QoL scores for physical, psychological, social, and environment domains. Overall, the sample showed significant increases in all QoL domains 3 months after treatment entry. There was no evidence of differential change in QoL on the basis of assignment to OP or IOP treatment. Participants who were retained in treatment at the 3 month follow-up (69%) had significantly higher QoL than treatment dropouts for psychological and environmental domains.

Beth Ann Griffin  
RAND Corporation  
[bethg@rand.org](mailto:bethg@rand.org)

*Assessing the Sensitivity of Treatment Effect Estimates to Differential Follow-Up Rates:  
Implications for Translational Research*

The purpose of this study was to evaluate the effectiveness of an evidence-supported adolescent substance abuse treatment program (MET/CBT-5) as delivered by community-based treatment providers relative to its performance in a controlled research trial. However, follow-up rates in the community-based settings were extremely low (54%) compared to the experimental setting (95%). In light of this discrepancy, we developed a promising new method for assessing the sensitivity of findings on treatment effectiveness to differential follow-up in the treatment programs being compared. Specifically, the sensitivity analyses assess how strong the relationship between follow-up and outcomes needs to be to alter inferences. In our case study of MET/CBT-5, we found that a strong association (i.e., effect size differences in outcomes greater than 0.60 between those followed-up and those not) would be required to completely reverse our findings and favor outcomes in the research group over the community sample.

Daniel McCaffrey  
RAND Corporation  
[danielm@rand.org](mailto:danielm@rand.org)

*Using Generalized Boosted Models for Propensity Score Estimation for Multinomial Treatments*

Use of propensity score weighting when examining more than two treatment conditions has received limited attention in spite of theoretical developments showing that it can be used. Moreover, most applications involving more than two treatment groups depend on parametric estimation of the propensity score model when it has been shown that machine learning methods outperform (in terms mean squared error of resulting effects) the use of simple logistic regression models in the binary treatment case. This presentation will discuss the use of weighting to compare multiple treatment conditions, describe a method for estimating the multinomial treatment propensity scores that relies on generalized boosted models (GBM), and introduce a useful diagnostic criterion for assessing balance that does not rely on traditional p-values. The estimation technique and diagnostic criterion proposed will be illustrated using an example dataset which studies the relative effectiveness of three adolescent substance abuse treatment modalities on 12-month outcomes.

Taylor E. Sparks  
Psychology Department, University of Georgia  
[tsparks@uga.edu](mailto:tsparks@uga.edu)

*Turning Tragedy into Meaning: An Examination of the Impact of Patient Death on Substance Abuse Counselor Attitudes toward Work and Life*

A potentially unique occupational hazard associated with the substance use disorder (SUD) treatment field is patient death during or after treatment. Despite the obvious hardship associated

with facing such a tragedy, we investigated whether coping with the death of a patient may also be associated with some unintended positive outcomes in terms of counselors' attitudes about their career and life. Results of independent t-tests computed on a sample of 200 SUD counselors confirm that when compared to those who have not experienced the death of one of their patients (n=95), counselors who have (n=105) are more committed to the SUD profession (M=4.02 and M=4.19, respectively; p=.03) and report less fear surrounding their own death (M=1.77 and M=1.50, respectively; p=.01). This research makes an important contribution to understanding counselors' experiences with patient death, and as such, may have implications for training, management practices, and employee assistance programs.

Amanda Abraham  
University of Georgia  
[aabraham13@gmail.com](mailto:aabraham13@gmail.com)

#### *Adoption of Rapid HIV Testing in SUD Treatment Programs*

**Background:** Minority status and injection drug use (IDU) are associated with increased risk of HIV infection, however, limited research has examined the association between these patient characteristics and HIV testing in substance use disorder (SUD) treatment programs. This study examine whether treatment programs are responding to the HIV testing needs of high-risk patients.

**Methods:** Data for the study were collected via face-to-face interviews with administrators in a sample of community treatment programs (N=198) participating in the NIDA Clinical Trials Network (2008- 2009).

**Results:** Multivariate logistic regression models show that medically oriented programs and those with higher percentages of African American, Hispanic, and IDU patients were more likely to offer non-rapid HIV testing versus no HIV testing. Larger programs and programs with higher percentages of Hispanic patients were more likely to offer rapid HIV testing versus no testing.

**Conclusion:** Findings suggest programs are responding to the testing needs of high-risk patients.

Brittany Landrum  
Texas Christian University  
[b.landrum@tcu.edu](mailto:b.landrum@tcu.edu)

#### *Assessing Adolescent Perceptions around Drug Use Norms*

Research has shown that adolescents who use drugs and alcohol overestimate the degree to which their peers engage in these behaviors (Martens et al., 2006; Wolfson, 2000), underestimate the harm and consequences that result from their decisions, and overestimate their level of control in a situation (Quadrel et al. 1993; Wickman et al. 2008). Aim: To capture these potential thinking errors, a twelve item scale was created and its reliability and validity were

assessed. Method: The sample included 200 adolescent clients from 8 residential drug treatment programs. Results: Conducting Rasch modeling, the current study found that the scale has high reliability with a good range of discrimination and difficulty. Correlations between this scale and motivation and deviancy are also reported. Conclusion: Findings are discussed in terms of the scale's ability to capture social norms and expectations of drug use among adolescent clients. Suggestions for future research are discussed.

Norma G. Bartholomew  
Texas Christian University  
[n.bartholomew@tcu.edu](mailto:n.bartholomew@tcu.edu)

*Pre-intervention HIV Risky Behavior as a Factor in the Effectiveness of Waysafe*

The Waysafe intervention for incarcerated offenders in the final phase of substance abuse treatment is designed to increase positive decision-making skills after re-entry for healthy living, including skills for reducing disease risk behaviors. This study reports on the effectiveness of Waysafe in prison-based treatments, controlling for pre-intervention HIV risky behaviors and gender. HIV risky behaviors were measured using the TCU HVHPform, which addresses HIV/AIDS injection risk, sex risk, condom attitudes, and AIDS concerns. The sample included 940 males and females in 8 prison-based drug treatment programs. Multilevel analysis was used to test the effectiveness of the Waysafe in terms of knowledge, confidence and motivation for avoiding behavioral risks of infections with gender, HIV sex risk and injection risk as factors. The TCU HVHPform scales were confirmed by factor analysis and they had satisfactory reliabilities. Waysafe was found to be effective for males, females, and differing levels of pre-intervention HIV risks.

Mary Jo Larson  
Beth A Mohr  
Rachel Sayko Adams  
Wendy Funk  
Brandeis University, The Heller School for Social Management & Policy  
[larson@brandeis.edu](mailto:larson@brandeis.edu)

*Pre-deployment substance use-related history and opioid medication use of Army service members*

In recent years, alcohol dependence has been one of the top mental health diagnoses among active duty service members who have been hospitalized and there has been a 72% increase in substance abuse-related hospitalization since 2006 (Armed Forces Health Surveillance Center, 2010). This paper describes the behavioral health-related care, substance use-related conditions, and opioid medication utilization in the active duty service years (2001+) for an Army cohort with deployments ending in FY2007-2010. Military health system data will be analyzed. Substance abuse conditions include abuse, dependence, and diagnoses indicative of misuse (excess blood alcohol, personal history of alcoholism, and alcoholism in the family). We

identify cases of possible substance use problems prior to index deployment and for the substance use cohort describe behavioral health use rates and opioid medication use rates. Rates are adjusted for months of inclusion prior to deployment.

Tanja Rothrauff-Laschober  
University of Georgia  
[trothrauff@gmail.com](mailto:trothrauff@gmail.com)

Julia Sauer  
University of Georgia  
[jbsauer13@gmail.com](mailto:jbsauer13@gmail.com)

### *Supervisor and Counselor Reports on Clinical Supervisor Practices*

**Study Aims.** Knowledge about clinical supervision (CS) in substance use disorder (SUD) treatment is mainly based on other healthcare professions. Yet, SUD staff is faced with unique issues, differentiating CS in SUD from other healthcare settings. This study investigates CS practices in SUD treatment, examines supervisors' description of their skills and experience, and counselors' ratings of their supervisors' job performance.

**Method.** Data were obtained from the 2007 MERITS I project. Matched counselor-clinical supervisor dyads (N = 484) completed paper-and-pencil surveys.

**Results.** Clinical supervisors and counselors generally disagree on the provision and engagement of CS practices. Supervisors have considerable clinical skills and experience. Counselor ratings of their supervisors' job performance vary depending on the aspect of performance examined.

**Conclusions.** Formal CS programs might help synchronize supervisor and counselor perceptions on CS practices. While CS seems to be effective, there is still room for improvement.

Francis X. Holt  
Brandeis University  
[fxholt@gmail.com](mailto:fxholt@gmail.com)

### *Consumer and Gatekeeper Motivation and Behavior in a Treatment System with Constrained Access: False-Positive Self-Reporting at a Massachusetts Detox Facility*

When detoxification centers are the entry point to the treatment system, it may encourage false-positive self-reporting. The intersection of caring nursing practice, patients seeking non-detoxification services and lack of integrated planning in the Massachusetts substance abuse treatment system saw placement mismatches in 14.25% of 828 consecutive detoxification admissions.

Quantitative analysis found false-positive self-reporting associated with six independent variables. Persons with a Blood Alcohol Concentration of .08% or lower were seven times more likely to be false-positive self-reporters. Cocaine users and those currently on probation or parole were three times more likely to have this treatment mismatch.

Conclusions: Patients were found to be acting rationally within an irrationally constructed treatment system. These results have implications for training, planning and operation of substance abuse treatment systems.

Brenda D. Smith  
University of Alabama  
[bsmith2@sw.ua.edu](mailto:bsmith2@sw.ua.edu)

*Social Ties and Treatment Practices: Does Cohesiveness Promote Tradition and Hinder Change?*

Consistent with diffusion of innovations theory, social ties within organizations seem to contribute to the use of evidence in practice (Tenkasi & Chesmore, 2003). Still, questions remain about which aspects of social ties promote or hinder the use of evidence-informed practices. This study addresses how cohesiveness among treatment counselors relates to treatment practices. The data come from a cross-sectional survey of 293 outpatient treatment counselors from 57 organizations. ANOVA and multi-level (HLM) models were conducted to appropriately address the nested sample. Contrary to expectation, models indicate that when counselors are more cohesive, they are more likely to use directive/12-step treatment techniques rather than evidence-supported cognitive/motivational treatment techniques. When cohesive staff bond together in the use of traditional practices, as seems the case in many addiction treatment settings, successful efforts at innovation implementation may be those that creatively capitalize on the social aspects of work in challenging organizational contexts.

Patricia B. Wright  
Fay W. Boozman college of Public Health\University of Arkansas for Medical Sciences  
[wrightpatriciab@uams.edu](mailto:wrightpatriciab@uams.edu)

*If You Build It, They Still Won't Come: Individual and Social Factors to HIV Testing Among Rural African American Cocaine Users*

Aim: To explore barriers to HIV testing among rural African American cocaine users from two predominantly African American counties with high rates of cocaine use, STIs, and poverty.

Methods. Sixty-eight African American adults self-reporting past or current cocaine use participated in semi-structured interviews or focus groups.

Results. We found a pervasive sense of mistrust and doubt among participants concerning HIV/AIDS information and health services, as well as the common belief that an HIV/AIDS diagnosis was equivalent to a death certificate. Several assumed they had been tested as part of routine doctor visits and that as long as they were not contacted, they were "OK." Small town social and sexual networks added to concerns about reputation and risk.

Conclusion. Our findings indicate system approaches may fail if they focus solely on improving access to HIV services but do not take into consideration deeply-internalized experiences of rural African Americans.

Supported by: This research was supported by funding from the American Recovery and Reinvestment Act of 2009, National Institute on Drug Abuse Grant 3 R01 DA024575-03S1 to Katharine E. Stewart.

Nikki R. Wooten  
Boston University  
[nwooten@bu.edu](mailto:nwooten@bu.edu)  
Wendy Funk  
Rachel Sayko Adams  
Mary Jo Larson  
[larson@brandeis.edu](mailto:larson@brandeis.edu)

*Gender differences in pre-deployment behavioral health history and prescription opioid medication use in Army service members*

Since 2001, almost two million service members have deployed to Iraq and Afghanistan. Research indicates men and women are similarly affected by combat exposures. Yet, there's limited evidence about their pre-deployment behavioral health history and prescription opioid use. This paper describes the behavioral health care, mental disorders, and prescribed opioid medication utilization in the year prior to deployment for active duty Army soldiers who returned from deployment in FY2010. Using military health system data, prevalence rates for the number of behavioral health visits, and prevalence and utilization rates of prescription opioid medication will be compared for officer and enlisted females to their male counterparts of similar rank. Behavioral health utilization will be reported for the five most common mental disorders among Army service members (PTSD, depression, bipolar, alcohol, and substance dependence) in addition to tobacco use and opioid disorders. All disorders will be identified using the AHQR Clinical Classification Software.

Howard Padwa  
Desiree Crevecoeur-MacPhail  
University of California, Los Angeles  
[hpadwa@gmail.com](mailto:hpadwa@gmail.com)

*Process Improvement to Increase SUD Service Utilization at a Community Health Center*

The Center for Community Health (CCH) is a Federally Qualified Health Center designed to provide primary care, mental health, and substance use disorder (SUD) treatment services to the predominantly homeless population of the Skid Row area in Los Angeles. In 2009-2010, CCH treated 9,000 patients, but less than 100 were assessed for SUDs and none attended onsite group counseling sessions.

Process improvement was implemented to increase utilization of SUD treatment services. As a result, assessments increased by 30% over the previous year, referral rates doubled in just three months, and attendance at group counseling sessions increased dramatically. The improvements resulted from simple changes made at the organizational level, such as implementing an incentive program to encourage group attendance, increasing communication among providers, and providing motivational interviewing training that gave staff additional tools to treat patients ambivalent about utilizing SUD services.

Kelly Dunn  
Johns Hopkins University  
[kdunn9@jhmi.edu](mailto:kdunn9@jhmi.edu)  
Anthony Defulio  
Jeffrey Everly  
Wendy Donlin  
Annie Umbricht  
Michael Fingerhood  
George Bigelow  
Kenneth Silverman.

*An employment-based reinforcement intervention to promote adherence to oral naltrexone within unemployed injection drug users: intervention and 6-month follow-up.*

**Study Aims:** Naltrexone is an opiate antagonist that effectively prevents relapse to opiate use, however rates of adherence are notoriously poor. An employment-based reinforcement intervention may promote increased adherence with oral naltrexone. **Methods:** Participants were randomly assigned to a Naltrexone Contingency (n=35) or Prescription (n=32) group for a 6-month period and completed a 6-month follow-up. Participants attended the workplace daily and received access to computer training and educational programs. Contingency participants ingested oral naltrexone thrice weekly under staff observation to gain entry to the workplace; Prescription participants received a take-home prescription and worked independent of naltrexone ingestion. Primary outcomes were monthly urinalysis test results for naltrexone, opiates and cocaine. **Results:** Contingency participants provided significantly more urine samples that tested positive for naltrexone compared to Prescription participants (83% vs. 23%, respectively,  $P < .0001$ ), however no effect of experimental group on percent opiate (71% vs. 60%,  $P = .19$ .) or cocaine (56% vs. 53% ,  $P = .82$ ) negative samples was observed. No between-group differences in naltrexone adherence persisted at the 6-month follow-up assessment, and the majority of participants had relapsed to opiate and/or cocaine use. **Conclusions:** An employment-based reinforcement intervention can successfully promote adherence with oral naltrexone and help prevent relapse to opiate abuse, however effects diminish once contingencies are removed. This research has important implications for dissemination and use with other low-adherence medications.

Financial Support: NIDA R01-DA019386 and T32-DA007209

Sam Choi  
University of TN at Knoxville  
[schoi9@utk.edu](mailto:schoi9@utk.edu)

*Predictors of Residential Treatment Retention among Individuals with Co-Occurring Substance and Mental Disorders*

Although the efficacy of treatment has been supported in prior research, a significant number of individuals with co-occurring substance and mental disorders does not engage in, stay and complete their treatments. In addition, prior studies indicated that dropout rates are highest at 4 weeks. Accordingly, understanding the factors related to treatment retention for this vulnerable population is one of primary research priorities. The purpose of this study is to determine factors of initial phase of treatment retention with 1,317 voluntary individuals with co-occurring disorders. Logistic regression indicated age, gender, types of drug, ASI medical and psychiatric composition scores, and readiness for change were significantly associated with the timely likelihood of treatment retention. The findings indicate a variety of factors that might be incorporated into pretreatment assessments—so that therapists can initiate preventive measures to decrease attrition and improve treatment outcomes.

Lauren O'Brien  
University of Georgia  
[laurenylyceobrien@gmail.com](mailto:laurenylyceobrien@gmail.com)

*The Adoption of Tablet Naltrexone: A Neo-institutional Analysis*

The organizational level barriers to evidence-based practice adoption are well established, yet few studies have examined institutional level dynamics that may narrow the research to practice gap. This study used Neo-institutional Theory to examine the institutional pressures (coercive, mimetic, and normative) associated with the adoption of tablet naltrexone for alcohol use disorders (AUDs) over time using generalized estimating equations (GEE) in a panel sample of 244 privately funded substance abuse treatment centers. Findings indicate that coercive and normative pressures may promote AUD medication adoption. Implications for these findings are discussed in the context of Parity and Health Care Reform.

Suzanne Spear  
UCLA School of Public Health  
[sspear@ucla.edu](mailto:sspear@ucla.edu)

*Substance Abuse Treatment Programs: An Interorganizational Perspective*

In the field of substance abuse treatment, “continuity of care” refers to the receipt of multiple levels of care or treatment modalities, which range from inpatient or residential to outpatient and ongoing monitoring (McKay, 2009). Implicit in the continuity of care framework is the existence of interorganizational relationships among treatment providers. This study uses social network

analysis to map ties between publicly funded treatment programs and examine system cohesion. Data are based on patient transfers from one service provider to another within 14 days of discharge, as observed in treatment episode data from the state of California. The data are from 2008-2009 and include 159,330 patients from a sample of 31 counties. Cohesion is examined using standard measures of centrality (degree, betweenness) and clustering (k-core). Degree is the number of ties with other providers based on patient transfers. Betweenness measures the extent to which provider ties within the network are dependent upon a central provider. K-cores are akin to social circles, and identify subgroups of providers that share a minimum set of ties (k) with other providers. An analysis of interorganizational ties in Los Angeles County suggest that there is one main network that is highly centralized around a few large providers. The main network includes 180 service providers, including 38 providers from outside counties. Nineteen percent of ties occur within provider organizations that provide multiple treatment modalities. The mean degree score among providers is 3.7 (range=1-74) and the mean betweenness score is 176.4 (range 0-7869). For this presentation, network analyses done for Los Angeles County will be replicated in the other 30 counties. Findings from the overall network analysis will be presented, along with a discussion of the usefulness of patient transfers for assessing interorganizational ties. Identifying the locations of providers within networks, as well as overall organization of providers within networks, may help explain differences in accessibility of treatment services for patients, as well as continuity of service.