

Newsletter - September 2019

Stakeholders Workshop



Moderating a workshop panel on de-adopting low-value addiction care was **Joshua Sharfstein, MD** (inset) and other panelists (l to r) **Katherine Hobbs Knutson, MD**, **Brendan Saloner, PhD**, and **Chinazo Cunningham, MD**.

On May 31, 2019, Penn LDI and CHERISH held a stakeholders workshop, "Achieving Value in Substance Use Disorder Treatment." This latest CHERISH workshop at the University of Pennsylvania was characterized by unusually lively and frank debates around the single most contentious

issue in today's drug treatment industry -- whether or not to include the use of agonist medications such as buprenorphine or methadone in the treatment.



Recapping a major workshop topic in a blog posted in News@ JAMA, two of the workshop's key participants-- former Maryland Secretary of Health and Mental Hygiene, **Joshua Sharfstein**, and Director of Penn Medicine's Center for Emergency Care Policy and Research, **Zachary Meisel**, wrote: "One of the unfortunate realities of the opioid epidemic is that some of the most heavily advertised services offering addiction treatment actually provide little in the way of evidence-based care and may actually increase the risk of fatal overdose."

Pictures and text originally by Hoag Levins

In This Newsletter

- ▶ Stakeholders workshop recap
- ▶ Roundup of select CHERISH publications
- ▶ Announcement of JCOIN funding
- ▶ Where to find us at upcoming conferences
- ▶ Information on our Consultation Service

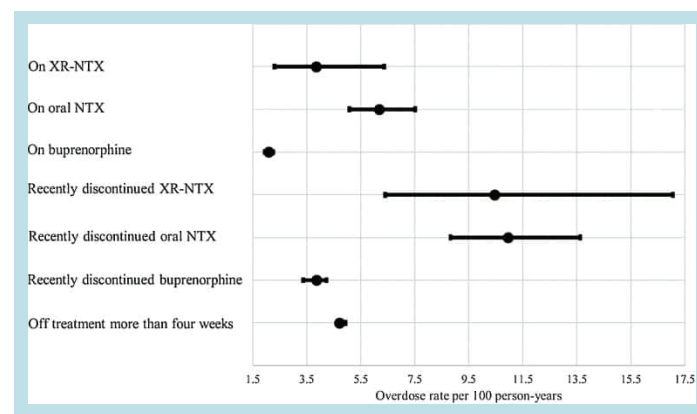
Congratulations Corner

- ▶ Congratulations to **Josh Barocas, MD** for receiving the Herbert W. Nickens Faculty Fellowship from the Association of American Medical Colleges
- ▶ Congratulations to **Czarina Behrends, PhD, MPH** for her appointment as Assistant Professor at Weill Cornell Medicine
- ▶ Congratulations to **Sarah Gutkind, MSPH** for her acceptance as a T32 pre-doctoral trainee at Columbia University in substance abuse epidemiology
- ▶ Congratulations to **Shashi Kapadia, MD, MS** for receiving a NIDA K01 career development award
- ▶ Welcome **Julia Orchinik, MPH, MS** to the CHERISH team at Penn

Buprenorphine for Opioid Use Disorder Lowers Overdose Risk in Commercially Insured Individuals

Morgan JR, Schackman BR, Weinstein ZM, Walley AY, Linas BP. Overdose Following Initiation of Naltrexone and Buprenorphine Medication Treatment for Opioid Use Disorder in a United States Commercially Insured Cohort. *Drug Alcohol Depend* 2019; 200:34-9.

A new study in *Drug and Alcohol Dependence*, by CHERISH investigators **Jake Morgan, Bruce Schackman, and Benjamin Linas** examined the real-world effectiveness of medications in preventing overdoses. Using a database of commercially insured individuals, CHERISH investigators examined overdose risk on and off treatment with buprenorphine, extended-release injectable naltrexone, and oral naltrexone. From 2010-2016, they identified nearly 47,000 individuals diagnosed with an opioid use disorder and prescribed medication with an average follow-up of 1.5 years per person.



1,805 individuals experienced 2,755 opioid-related overdoses (both fatal and non-fatal). Most overdoses occurred while individuals were not on treatment, resulting in a rate of 4.98 overdoses per 100 person years (PY). Individuals on buprenorphine experienced fewer overdoses (2.08 overdoses/ 100 PY) than those on injectable naltrexone (3.85 overdoses/ 100 PY) or oral naltrexone (6.18 overdoses/ 100 PY). The overdose risk for those on naltrexone was not significantly different from those not on treatment. They did not find a higher risk of overdose within four weeks after discontinuation of either buprenorphine or naltrexone. The findings suggest that buprenorphine reduces overdose risk and supports the expansion of medication treatment for opioid use disorder.



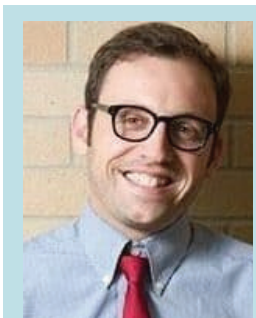
Care Integration of HCV and OUD Treatment is Cost-Effective and Improves Health Outcomes

Gutkind S, Schackman BR, Morgan JR, Leff JA, Agyemang L, Murphy SM, Akiyama MJ, Norton BL, Litwin AH, Linas BP. Cost-effectiveness of HCV Treatment Models for People Who Inject Drugs in Opioid Agonist Treatment Programs. *Clin Infect Dis* 2019; epub ahead of print.

Providing HCV care onsite in OUD treatment settings can also improve HCV-related outcomes. In a recent clinical trial by CHERISH Research Affiliate **Alain Litwin**, investigators randomized participants to one of three onsite HCV treatment models in a methadone maintenance treatment setting. Individuals received HCV medication at the treatment program on a monthly basis during a provider visit, on a weekly basis in a group therapy setting or on a daily basis at a methadone-dispensing window. The clinical trial found high treatment adherence and rates of treatment success among the participants. CHERISH staff, **Sarah Gutkind**, and colleagues compared the three onsite HCV treatment strategies to offsite HCV treatment referrals, in a recent modeling study published in *Clinical Infectious Diseases*. The authors found that only 22% of people in the simulated offsite treatment referral arm were treated successfully, whereas 86-89% of individuals in the onsite treatment HCV treatment strategies achieved treatment success. Administering HCV treatment in a concurrent group therapy setting was the most efficient strategy, with a cost-effectiveness ratio of \$34,300 per quality-adjusted life-year compared to offsite referral.



Barocas JA, Morgan JR, Fiellin DA, Schackman BR, Yazdi GE, Stein MD, Freedberg KA, Linas BP. Cost-effectiveness of integrating buprenorphine-naloxone treatment for opioid use disorder into clinical care for persons with HIV/hepatitis C co-infection who inject opioids. *Int J Drug Policy* 2019; epub ahead of print.



In a recent study published in the *International Journal of Drug Policy*, CHERISH Research Affiliate **Joshua Barocas** and colleagues compared offsite referral for OUD treatment to onsite office-based buprenorphine-naloxone (BUP-NX) for HIV patients offered onsite HCV treatment. Using a micro-simulation model, they found that offering BUP-NX onsite improved HCV outcomes including lifetime prevalence of cirrhosis. Compared to offsite OUD treatment referral, the integrated program reduced active injection drug use, which, in turn, reduced the risk of HCV re-infection by 7%. Most notably, integrating BUP-NX reduced projected liver-related deaths and non-liver related deaths in the first year of treatment and in the five years after beginning treatment, which increased the life expectancy of PWID. Integrated BUP-NX care had a cost-effectiveness ratio of \$57,100 per quality-adjusted life year compared to offsite referral to OUD treatment, which is well below the accepted willingness-to-pay threshold in the US.

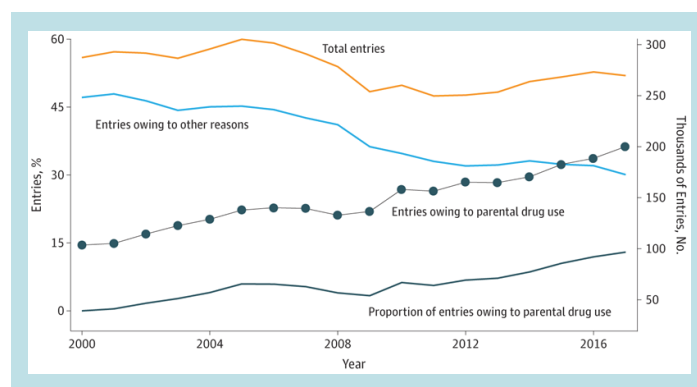
Increased Number of Children Entering the Foster Care Due to Parental Drug Use

Meinhofer A, Angleró-Díaz Y. Trends in Foster Care Entry Among Children Removed From Their Homes Because of Parental Drug Use, 2000 to 2017. *JAMA Pediatric* 2019; epub ahead of print.



In a recent study published in *JAMA Pediatrics*, CHERISH Pilot Grant Recipient **Angélica Meinhofer** examined national trends in foster care entries attributable to parental drug use between 2000 and 2017. There were approximately 5 million foster care entries between 2000 and 2017, 23.38% percent of which were attributable to parental drug use. Moreover, the number of foster care entries attributable to parental drug use increased 147% between 2000 and 2017, from 39,130 to 96,672 entries. Compared with children entering the foster care system for other reasons, children entering because of parental drug use were more likely to be under 5 years old, white and from the Southern region of the US. The proportion of foster care entries related to parental drug use increased in the Midwest and non-metropolitan areas between 2000-2005 and 2012-2017. Meinhofer and Angleró-Díaz suggest the opioid crisis is only one possible explanation for these trends, which may also be related to increased

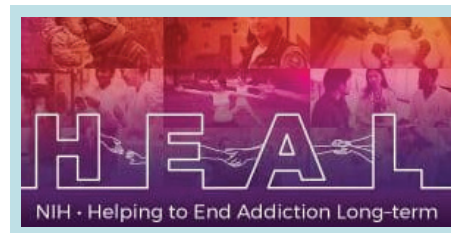
drug use overall, changes in child removal policies, or changes in data collection methods. The findings have economic implications for the foster care system as increased entries require more resources for high-quality foster care interventions, and a greater capacity for foster care particularly as research shows that foster care episodes are longer for children who enter foster care due to parental drug use. Meinhofer commented, “I hope these findings encourage researchers to investigate the implications of increased foster care entries on the foster care system, and on the health outcomes and wellbeing of children.”



CHERISH Investigators and Research Affiliates Support NIDA Justice Community Opioid Innovation Network (JCOIN)

On July 24, 2019, the National Institute on Drug Abuse (NIDA) announced twelve grants totaling approximately \$155 million for the Justice Community Opioid Innovation Network (JCOIN) as part of the greater NIDA HEAL initiative. JCOIN will establish a network of 10 clinical research institutions, a Methodology and Advanced Analytics Resource Center (MAARC), and a Coordination and Translation Center (CTC) that will conduct studies on quality care for opioid use disorders in the criminal justice population that are disproportionately affected by the opioid crisis. Each research center will collaborate with organizations in justice settings and service providers in five or more communities to evaluate evidence-based medication and behavioral interventions for opioid use disorders in a wide variety of criminal justice settings.

The awarded clinical research institutions include the Baystate Medical Center (CHERISH Research Affiliate **Peter Friedmann**), Brown University, Chestnut Health Systems, Inc., Friends Research Institute, Inc., New York State Psychiatric Institute, New York University School of Medicine, Texas Christian University, University of Chicago (CHERISH Research Affiliate **Harold Pollack**), University of Kentucky, and Yale University. The University of Chicago will serve as the MAARC (Dr. Pollack) and George Mason University will serve as the CTC.



In establishing JCOIN, NIDA emphasized the importance of integrating rigorous economic evaluations and considering societal outcomes such as the cost of crime in order to address affordability and sustainability of evidence-based treatment interventions. CHERISH is proud that our investigators **Kathryn McCollister** and **Sean Murphy** will provide economic expertise to Baystate Medical Center (Drs. McCollister and Murphy), Chestnut Health Systems, Inc. (Dr. McCollister and Dr. Murphy as a consultant), Friends Research Institute, Inc. (Dr. Murphy), New York State Psychiatric Institute (Dr. Murphy and Dr. McCollister as a consultant), the University of Kentucky (Dr. McCollister), and Yale University (Dr. McCollister and Dr. Murphy as a consultant).

2019 Addiction Health Services Research Pre-Conference Workshop

Understanding the Economic Impact of Multisite and Multisystem Interventions



October 16, 2019 | 2:30 PM to 5:00 PM MT



Instructors: *Kathryn McCollister, PhD, Sean M. Murphy, PhD*

This workshop will provide a brief overview of economic evaluation methods (e.g., micro-costing, cost-effectiveness analysis, cost-benefit analysis) and describe unique aspects pertaining to the economics of implementation. Attendees will have the opportunity to work through exercises on the estimation of implementation intervention costs by phase and the application of cascade/process-oriented metrics in a cost-effectiveness framework. The role of context – organizational and environmental – in interpreting cost-effectiveness results and informing sustainability of evidence-based practices will also be presented.

Find Us at Upcoming Conferences

Center investigators and staff are looking forward to promoting CHERISH at upcoming conferences:



Consultation Service

We have health economic evaluation expertise in:

- Budget impact and costing
- Cost-effectiveness
- Cost-benefit
- Quality of life
- Qualitative data collection
- Statistical analysis / econometrics

We have health economic modeling expertise in:

- Markov modeling
- Monte Carlo simulation
- Discrete event simulation
- Compartmental modeling
- Agent-based modeling
- Longitudinal data

To learn more about CHERISH consultation services for researchers:

www.cherishresearch.org/consultation