

CHERISH

Center for Health Economics of Treatment Interventions for Substance Use Disorder, HCV, and HIV



Newsletter - January 2020

Keeping Up With CHERISH



Stephen Cha, MD (Chief Medical Officer of UnitedHealthcare Community & State) (left) and Kate Goodrich, MD, MHS (Director of the Center for Clinical Standards and Quality and Chief Medical Officer at the Centers for the Medicare & Medicaid Services) (right) spoke with **Daniel Polsky, PhD** (Distinguished Professor of Health Economics in the Bloomberg School of Public Health at Johns Hopkins University) (middle) at the December 6, 2019 CHERISH Research Affiliates webinar on “How are innovative payers getting to high quality substance use disorder treatment delivery through incentives?”

In This Newsletter

- ▶ Roundup of select recent CHERISH Research activities and presentations by CHERISH leadership, staff, and Research Affiliates.
- ▶ USPSTF and CDC recommends expanded HCV testing for all US adults
- ▶ Methodology Consultation Success story
- ▶ Information on our consultation services and resources for researchers
- ▶ Where you can find us at upcoming conferences



Steve Safren, PhD and Dan Feaster, PhD, presented to CHERISH leadership about the recently funded NIMH-funded Center for HIV and Research in Mental

Health (CHARM) at the University of Miami Miller School of Medicine on December 13, 2019 in Miami, FL. CHARM promotes culturally competent research addressing mental health and HIV/AIDS disparities.



On October 24, 2019, **Jake Morgan, PhD**, led an Introduction to Health Economics Training, for more than 20 participants sponsored by the

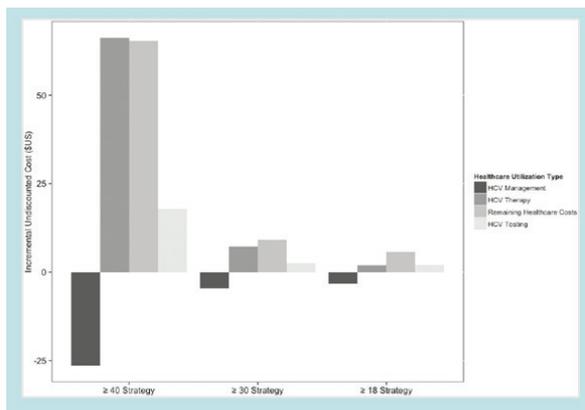
NIDA-funded Center for Drug Use and HIV/HCV Research (CDUHR) at NYU School of Global Public Health in New York, NY.



CHERISH sponsored a pre-conference workshop at the Addiction Health Services Research (AHSR) held October 16 - 19, 2019 in Park City, UT entitled, “Understanding the Economic Impact of Multisite & Multisystem Interventions.” **Kathryn McCollister, PhD**, CHERISH Methodology Core co-Director and **Sean Murphy, PhD**, CHERISH Consultation Service Director, reviewed topics including an introduction to economic evaluation methods in the context of implementation and translational science at the intersection of substance use disorder and health economics analysis. Alongside Michelle Papp, they conducted interactive labs on perspectives and incremental cost-effectiveness ratios.

CHERISH research informs USPSTF and CDC Recommends expanded HCV testing for all US adults

The US Preventive Services Task Force (USPSTF) released a draft recommendation for hepatitis C (HCV) antibody and RNA screening in all adults ages 18 to 79. This is a departure from their current 2013 recommendation of risk-based screening, including people who inject drugs (PWID), and one-time screening in baby boomers born between 1945 and 1965. The recommendation to expand screening into all adults stems from trends in HCV epidemiology that indicate the increase in acute HCV incidence among younger PWID. Injection drug use is the strongest risk factor for HCV and stigma may impede PWID from disclosing these risk factors. The recommendation for screening in all young adults over 18 could minimize the need for risk disclosure and reduce barriers to diagnosis. There has also been an increase in the number of reproductive aged women with HCV infection; mother-to-child vertical transmission is the main route of HCV infection among children. Screening all adults age 18-79 would diagnose individuals at earlier stages of HCV infection avoiding severe sequelae such as cirrhosis, hepatocellular carcinoma or death.



The USPSTF is responsible for developing clinical practice guidelines for prevention and screening based on a careful review of the quality and strength of existing evidence including benefits and costs. In the draft recommendation the USPSTF cites a modeling study by CHERISH Research Affiliate **Joshua Barocas, MD** and CHERISH HCV and HIV Core Director **Benjamin Linas, MD, MPH** from Boston Medical Center, and colleagues from CDC, Massachusetts Department of Public Health, and Stanford. Dr. Barocas' study used a Monte Carlo simulation model to compare the current USPSTF guidelines for birth cohort screening to different strategies that expand screening to younger populations with increased incidence. The study estimated that compared to previously recommended birth cohort screening, expanded screening to adults 18 or older would identify 256,000 additional cases of HCV infection and lead to 280,000

additional cures and 4,400 fewer cases of hepatocellular carcinoma over the cohort lifetime with an incremental cost effectiveness ratio of \$28,193/ QALY in 2016 US dollars and an overall increased life expectancy among those with HCV.

The draft evidence review supporting this new recommendation prepared by the Agency for Health Care Research & Quality cites other modeling studies in addition to the one authored by Drs. Barocas and Linas. These include another study examining the cost-effectiveness universal screening, a study authored by CHERISH Research Affiliate **Sabrina Assoumou, MD, MPH** of Boston Medical Center and colleagues, including **Dr. Linas** and **Dr. Bruce Schackman** and **Jared Leff** from Weill Cornell Medicine, examining the cost-effectiveness of one-time HCV screening for adolescents and young adults in primary care settings, and two studies examining HCV screening in prenatal care.

Draft Recommendation Statement
Hepatitis C Virus Infection in Adolescents and Adults: Screening
This opportunity for public comment expires on **September 23, 2019 at 8:00 PM EST**

Note: This is a Draft Recommendation Statement. This draft is distributed solely for the purpose of receiving public input. It has not been disseminated otherwise by the USPSTF. The final Recommendation Statement will be developed after careful consideration of the feedback received and will include both the Research Plan and Evidence Review as a basis.

Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

Draft: Recommendation Summary		
Population	Recommendation	Grade (What's This?)
Adults ages 18 to 79 years	The USPSTF recommends screening for hepatitis C virus (HCV) infection in adults ages 18 to 79 years.	B

In November 2019 the Centers for Disease Control and Prevention (CDC) announced it was seeking comments on new hepatitis C screening recommendations that also recommends screening at least once in a lifetime for all adults 18 or older, as well as screening for all pregnant women, in addition to risk-based screening. The CDC recommendation relies on much of the same cost-effectiveness literature cited in the USPSTF testing recommendations. The CDC stipulates that its recommendations apply to states and settings where the prevalence of hepatitis C is greater than 0.1% of the adult population, based in part on its review of cost-effectiveness literature which demonstrated that incremental cost-effectiveness ratios were sensitive to HCV prevalence. Currently, there is no state with a hepatitis C prevalence below 0.1%, and only 3 states have an HCV prevalence less than 0.1% among pregnant women according to state birth certificate data. The comment period on the CDC recommendations remains open until December 27, 2019

Methodology Consultation Success Story: Dr. Ashish Premkumar

The incidence of neonatal abstinence syndrome (NAS), also known as neonatal withdrawal syndrome, increased nationally from 3.4 per 1000 hospital births in 2009 to 5.8 in 2012. Recent estimates of NAS cost \$1.5 billion dollars with the majority of the financial burden falling to state Medicaid programs. However, pregnancy offers a unique opportunity for women with opioid use disorder (OUD) to engage with the healthcare system and potentially initiate treatment for OUD.



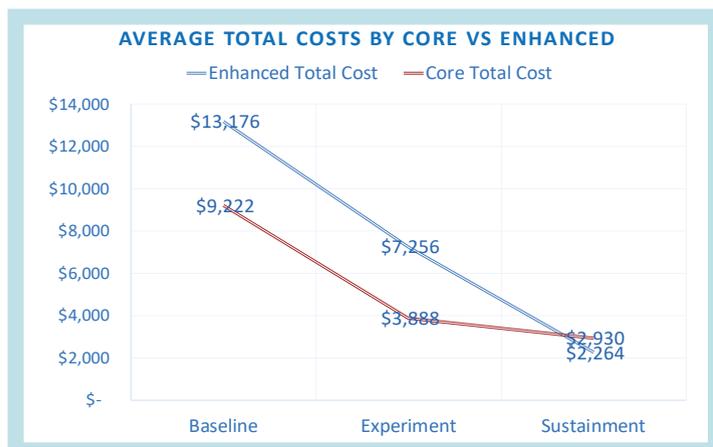
Dr. Ashish Premkumar recently published a cost-effectiveness analysis comparing methadone, buprenorphine or detoxification with buprenorphine taper for management of OUD among pregnant women in Obstetrics and Gynecology. Dr. Premkumar, an obstetrician and gynecologist in the Division of Maternal-Fetal Medicine in the Feinberg School of Medicine at Northwestern University, used the CHERISH Consultation Service to assist him in conducting this cost-effectiveness analysis. During the consultation with CHERISH Research Affiliate **Dr. Joshua Barocas** at Boston Medical Center, Dr. Premkumar obtained assistance in identifying resources and cost estimates to inform the model. The cost estimates from the literature review provided ranges for sensitivity analyses that identified key determinants of cost-effectiveness outcomes.

The study found that buprenorphine was the preferred strategy for OUD treatment during pregnancy, but the findings were sensitive to the costs of methadone and detoxification. The detoxification strategy had the highest rate of relapse and had three times more individuals switching to methadone due to repeated relapse or overdose than the buprenorphine strategy. Although detoxification resulted in fewer cases of NAS and fewer admissions to the neonatal intensive care unit, the higher costs of OUD relapse and methadone maintenance following relapse offset the cost savings associated with fewer NAS cases.

Implementation of evidence-based practices for substance use disorders in juvenile justice settings: Evaluating costs across implementation phases

CHERISH Methodology Core Co-Director, **Kathryn McCollister, PhD**, presented at the Addiction Health Services Research (AHSR) conference held October 16 - 19, 2019 in Park City, UT. Dr. McCollister's presentation entitled, "Implementation of evidence-based practices for substance use disorders in juvenile justice settings: Evaluating costs across implementation phases" described the costs of two strategies to improve SUD

continuum of care engagement across three implementation phases: pre-randomization, early intervention, and late intervention (i.e., sustainment). Dr. McCollister concluded as the sites entered sustainment, fewer activities (i.e., lower engagement), was reflected in lower cost estimates.



2020 NIDA Annual Steering Committee Meeting: Introduction to Economic Evaluation Training

March 22, 2020 | North Bethesda, Maryland



The training is targeted to trainees and investigators in the substance use disorder, HCV, and HIV fields interested in learning about health economic evaluation to integrate into their own research. The course will provide an introduction to multiple economic evaluation methods used to evaluate health care services, with a focus on substance use disorders, HIV, and HCV, as well as exposure to measurement of cost, health utilities and quality-adjusted life years (QALYs); cost-effectiveness analysis; and cost-benefit analysis. The training will take place before the NIDA CTN Annual Steering Committee Meeting.

Application is required. There is no fee to apply or attend. A limited number of travel scholarships are available.

For more information and to apply: www.cherishresearch.org/pgt/training/upcoming

Find Us at Upcoming Conferences

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



Consultation Service

We have health economic evaluation expertise in:

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

We have health economic modeling expertise in:

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

To learn more about CHERISH consultation services for researchers:

www.cherishresearch.org/consultation