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| **COMPA** | **121 W.121 W. 36th Street #201**  **New York, NY 10018**  **Website:** [**www.compa-ny.org**](http://www.compa-ny.org) |
| **COALITION OF MEDICATION ASSISTED TREATMENT PROVIDERS AND ADVOCATES** | |

***Studies of On-site Medical Care in OTPs***

* The opioid epidemic is a national crisis and growing (Prevalence data and the $100 billion annual costs).
* Opioid Use Disorder is widely agreed to be a chronic relapsing disorder not an acute problem but a chronic disease.
* 73% of Medicaid users in the 2011 study had a SUD, the majority.
* Without effectively managing the SUD behaviors the high cost Medicaid user will continue ED use and avoidable hospitalizations.
* Comprehensive OTP is the most effective approach to stabilize the opioid dependent SUD.
* An integration model OTP would most effectively engage, stabilize and provide primary care onsite - dramatically reducing ED and avoidable hospitalizations and related costs.

**Background**

Policymaking has focused on integrating behavioral health in primary care in order to improve population health. These five studies investigate the impact of onsite medical and primary care delivered in Opioid Treatment Programs, also known as Methadone Maintenance Treatment Programs, in reducing the use of emergency departments and avoidable hospitalizations by Medicaid patients enrolled in the Opioid Treatment Program (OTP). The Medicaid patients enrolled in OTPs suffering from opioid use disorder and from related multiple chronic conditions fit the profile of the Medicaid “super-utilizer.” Opioid Treatment Programs have frequent contact with patients, averaging 3.5 visits per week and federal guidelines require for annual physical examinations for patients. The studies point to an effective evidence-based policy to reduce emergency department visits for super utilizers who are both enrolled in Medicaid and an Opioid Treatment Program.

There is substantial literature written about the benefits of integrating primary care and behavioral health care. Policymakers have embraced this concept and the SAMHSA-HRSA Center for Integrated Health Solutions (CIHS) was created to “promote the development of integrated primary and behavioral health services to better address the needs of individuals with mental health and substance use conditions, whether seen in behavioral health or primary care provider settings.” (Substance Abuse and Mental Health Services Administration/US Department of Health and Human Services; Health Resources and Services Administration, n.d.) The Agency for Healthcare Research and Quality (AHRQ) National Integration Academy serves as “a national resource and a coordinating center for people committed to delivering comprehensive, whole-person health care” (US Department of Health and Human Services; Agency for Healthcare Research and Quality, n.d.) However, there is significantly less literature on integrating the delivery of medical care in substance use treatment sites.

In 2011, the New York State Health Foundation’s Chronic Illness Demonstration Project concluded its study of improvements in managing chronic illness. In that 2011 study using Medicaid claims data of high end users at elevated risk for hospitalization they reported many stats including:

• 76 percent had a history of chronic disease.

• 52 percent had multiple chronic diseases.

• 73 percent had a history of alcohol/substance use. (New York State Foundation Chronic Illness, 2011).

The 2012–2013 New York City patient data on admission to the OTPs showed:

• 25 to 78 percent of clients with high dysfunction.

• 18 to 85 percent of admissions for mental illness and chemical abuse (MICA).

• 9 to 88 percent of clients with other major physical health conditions.

• 1 to 52 percent of clients who were homeless at admission.

• 68 to 100 percent of clients with prior treatment history.

• 4 to 63 percent of clients with criminal justice involvement (New York State Office of Alcoholism & Substance Abuse Services, 2013).

Policymakers across the nation are aware of the work of Dr. Jeffrey Brenner in Camden, NJ who identified patients with similar characteristics as “super utilizers” and demonstrated the outsized impact on cost and resources. As noted in the program report on Dr. Brenner’s work,

“The project is all about working with high-utilizing patients,” said Susan Liu, MPA, in 2010, CCHP’s assistant director at the time about the original care management program. “They are largely homeless, socially complex, are substance abusers, have mental illness, and have poorly managed chronic disease. We will see our patients in the ED or hospital if they wind up there, but otherwise we see them at home, in a shelter, on the street—wherever they are.” (Geisz, 2014, p. 2).

Strategies on containing costs for this population frequently focus on care coordination, and various efforts to engage patients and their families in treatment. (Bodenheimer, 2013).

Adding further urgency to address this policy gap is the growing epidemic of heroin and prescription opioid overdose deaths in the United States. The MMWR report on *Increases on Drug Overdoses and Opioid Involved Deaths* notes “the death rate for synthetic opioids, which include fentanyl (50 to 100 times more potent than morphine, often mixed with heroin and cocaine) increased by 72.2% in 2015 and the heroin death rate increased by 20.6%.” (Rudd, Seth, David, & Scholl, 2016 p.1). Opioid use disorder (OUD) is a chronic, relapsing disease that affects the brain and requires medical treatment, including comprehensive bio-psychosocial and recovery services to be managed successfully. (NIDA, 2016).

There are significant medical complications to non-medical opioid and heroin use, which include increase risk to HIV, Hepatitis (A, B and C), cellulitis, abscesses, infections and endocarditis (Theodorou & Haber, 2005).

Key Findings of the US Surgeon General’s report, Facing Addiction in America include:

* “Well-supported scientific evidence shows that medications can be effective in treating serious substance use disorders, but they are under-used.
* Supported scientific evidence indicates that closer integration of substance use-related services in mainstream health care systems will have value to both systems. Substance use disorders are medical conditions and their treatment has impacts on and is impacted by other mental and physical health conditions. Integration can help address health disparities, reduce health care costs for both patients and family members, and improve general health outcomes.” (U.S. Department of Health and Human Services (HHS), Office of the Surgeon General, Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health. Washington, DC: HHS, November 2016.)

**Five Studies**

Below is a description of five studies that investigate medical care in Opioid Treatment Programs:

1. Laine, C., [Hauck WW](http://www.ncbi.nlm.nih.gov/pubmed?term=Hauck%20WW%5BAuthor%5D&cauthor=true&cauthor_uid=11343483), [Gourevitch MN](http://www.ncbi.nlm.nih.gov/pubmed?term=Gourevitch%20MN%5BAuthor%5D&cauthor=true&cauthor_uid=11343483), [Rothman J](http://www.ncbi.nlm.nih.gov/pubmed?term=Rothman%20J%5BAuthor%5D&cauthor=true&cauthor_uid=11343483), [Cohen A](http://www.ncbi.nlm.nih.gov/pubmed?term=Cohen%20A%5BAuthor%5D&cauthor=true&cauthor_uid=11343483), [Turner BJ](http://www.ncbi.nlm.nih.gov/pubmed?term=Turner%20BJ%5BAuthor%5D&cauthor=true&cauthor_uid=11343483) (2001). Regular Outpatient Medical and Drug Abuse Care and Subsequent Hospitalization of Persons Who Use Illicit Drugs. JAMA, 285(18), 2355. doi:10.1001/jama.285.18.2355

This article is a 2001 retrospective study that appeared in JAMA of over 11,000 HIV positive patients and over 46,000 HIV negative patients receiving methadone maintenance and outpatient treatment for SUD. The study examined linked NYS Medicaid claims for these patients to determine whether receiving on site medical care and an array of treatment services reduces hospitalizations. The first article concluded “Our data indicate that regular drug abuse care with regular medical care for drug users is associated with less subsequent hospitalization.” (Laine, Hauk, et. al, 2001, p. 1).

1. Friedmann, P. D., Hendrickson, J. C., Gerstein, D. R., Zhang, Z., & Stein, M. D. (2006). Do Mechanisms that Link Addiction Treatment Patients to Primary Care Influence Subsequent Utilization of Emergency and Hospital Care? Medical Care, 44(1), 8-15. doi:10.1097/01.mlr.0000188913.50489.77

The second article is a 2006 study which examines the impact on hospitalizations when linking either the delivery or referral to primary care for patients with drug disorders. Patients are heavy users of emergency departments and inpatient hospital care.

“The study concluded that “on-site delivery of primary care reduced subsequent ED and hospital use among patients in methadone maintenance and long-term residential compared with the non-linkage condition but not in outpatient non-methadone programs. Off-site referral for medical care reduced subsequent ED visits but not hospitalizations in long-term residential programs.” (Friedmann, Hendrickson, Gerstein, Zhang, & Stein, 2006, p1).

1. Umbricht-Schneiter, A., Ginn, D. H., Pabst, K. M., & Bigelow, G. E. (1994). Providing medical care to methadone clinic patients: referral vs on-site care. American Journal of Public Health, 84(2), 207-210. doi:10.2105/ajph.84.2.207

The third study is a 1994 study that measured the results of providing methadone patients with onsite medical services. The results were conclusive: “providing medical care at a methadone treatment program site is more effective than the usual referral procedure and is a valuable public health intervention.” (Umbricht-Schneiter, Ginn, Pabst, & Bigelow, 1994, p. 1)

1. Gourevitch, M. N., Chatterji, P., Deb, N., Schoenbaum, E. E., & Turner, B. J. (2007). On-site medical care in methadone maintenance: Associations with health care use and expenditures. Journal of Substance Abuse Treatment, 32(2), 143-151. doi:10.1016/j.jsat.2006.07.008

The fourth study, returned to Montefiore Medical Center SATP, the site of the first 2001 study and again used Medicaid claims data combined with interviews to examine the integration of primary care treatment service into the methadone program and its impact on the use of the ED and inpatient hospitalizations.

“Use of primary care services located on-site in a methadone maintenance treatment program is associated with reduced utilization of ED and inpatient hospital services. Increased expenditures for outpatient care were mitigated by diminished ED and hospitalization expenses. Policy makers should move to eliminate barriers to the adoption of this service delivery model, and future analyses should model economic strategies for fostering its more widespread implementation. Because over 200,000 persons receive methadone maintenance in the United States, more widespread adoption of co-located care could have a substantial impact on the health of this medically needy population.” (Gourevitch, Chatterji, Deb, Schoenbaum, & Turner, 2007, p. 3).

1. Raven, M. C., Carrier, E. R., Lee, J., Billings, J. C., Marr, M., & Gourevitch, M. N. (2010). Substance use treatment barriers for patients with frequent hospital admissions. *Journal of Substance Abuse Treatment*, *38*(1), 22-30. doi:10.1016/j.jsat.2009.05.009

The fifth article is a 2010 study, which “sought to identify and explore remediable factors promoting hospitalization and high costs among frequently hospitalized patients with SU disorders using a quantitative/qualitative mixed methodology.” (Raven et al., 2010 pg. 22).

“Although not part of a representative sample of hospitalized opioid users, study subjects with heroin addiction expressed ambivalence toward methadone maintenance and felt buprenorphine treatment was difficult to obtain. Because both treatment modalities have proven more effective in treating opioid dependence than “medication-free” psychosocial treatment alone (O'Toole et al., 2006), efforts on the part of hospital providers to better promote and facilitate transition to opioid agonist therapy, including buprenorphine, would be expected to reduce repeat detoxification and other opioid use-related admissions.” (Raven et al., 2010 pg. 25).

It is evident in reviewing these five studies that there is a clear benefit in providing integrated, co-located primary medical care treatment services for patients with SUD/OUD in an Opioid Treatment Program. The five articles are dated 1994, 2001, 2006, 2007, and 2010 and none of the articles reflect the most recent information and impact of the opioid and heroin epidemic. Nevertheless, four of the five studies addressed the central question regarding a reduction of emergency department and/or hospitalizations for Medicaid patients enrolled in OTPs by providing onsite medical care directly and concluded that providing onsite medical care would reduce the use of the emergency department and avoid hospitalizations. The fifth article studied SUD treatment barriers for patients with frequent hospital admissions. While this article is more limited in its application, the conclusions for the same population regarding policy are applicable.

Policymakers should consider this evidence to implement a co-located integrated healthcare system that delivers comprehensive primary care onsite in Opioid Treatment Programs, which will reduce the use of the ED and reduce hospitalizations for Medicaid’s super utilizers.

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