

# **JOINT STATE GOVERNMENT COMMISSION**

**General Assembly of the Commonwealth of Pennsylvania**

## **WARM HAND-OFFS IN PENNSYLVANIA**

**A TASK FORCE AND  
ADVISORY COMMITTEE REPORT**

**December 2020**



*Serving the General Assembly of the  
Commonwealth of Pennsylvania Since 1937*

**REPORT**

*Warm Hand-Offs in Pennsylvania  
A Task Force and Advisory Committee Report*

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## JOINT STATE GOVERNMENT COMMISSION

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The Joint State Government Commission was created in 1937 as the primary and central non-partisan, bicameral research and policy development agency for the General Assembly of Pennsylvania.<sup>1</sup>

A fourteen-member Executive Committee comprised of the leadership of both the House of Representatives and the Senate oversees the Commission. The seven Executive Committee members from the House of Representatives are the Speaker, the Majority and Minority Leaders, the Majority and Minority Whips, and the Majority and Minority Caucus Chairs. The seven Executive Committee members from the Senate are the President Pro Tempore, the Majority and Minority Leaders, the Majority and Minority Whips, and the Majority and Minority Caucus Chairs. By statute, the Executive Committee selects a chairman of the Commission from among the members of the General Assembly. Historically, the Executive Committee has also selected a Vice-Chair or Treasurer, or both, for the Commission.

The studies conducted by the Commission are authorized by statute or by a simple or joint resolution. In general, the Commission has the power to conduct investigations, study issues, and gather information as directed by the General Assembly. The Commission provides in-depth research on a variety of topics, crafts recommendations to improve public policy and statutory law, and works closely with legislators and their staff.

A Commission study may involve the appointment of a legislative task force, composed of a specified number of legislators from the House of Representatives or the Senate, or both, as set forth in the enabling statute or resolution. In addition to following the progress of a particular study, the principal role of a task force is to determine whether to authorize the publication of any report resulting from the study and the introduction of any proposed legislation contained in the report. However, task force authorization does not necessarily reflect endorsement of all the findings and recommendations contained in a report.

Some studies involve an appointed advisory committee of professionals or interested parties from across the Commonwealth with expertise in a particular topic; others are managed exclusively by Commission staff with the informal involvement of representatives of those entities that can provide insight and information regarding the particular topic. When a study involves an advisory committee, the Commission seeks consensus among the members.<sup>2</sup> Although an advisory committee member may represent a particular department, agency, association, or group, such representation does not necessarily reflect the endorsement of the department, agency, association, or group of all the findings and recommendations contained in a study report.

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<sup>1</sup> Act of July 1, 1937 (P.L.2460, No.459); 46 P.S. §§ 65–69.

<sup>2</sup> Consensus does not necessarily reflect unanimity among the advisory committee members on each individual policy or legislative recommendation. At a minimum, it reflects the views of a substantial majority of the advisory committee, gained after lengthy review and discussion.

Over the years, nearly one thousand individuals from across the Commonwealth have served as members of the Commission's numerous advisory committees or have assisted the Commission with its studies. Members of advisory committees bring a wide range of knowledge and experience to deliberations involving a particular study. Individuals from countless backgrounds have contributed to the work of the Commission, such as attorneys, judges, professors and other educators, state and local officials, physicians and other health care professionals, business and community leaders, service providers, administrators and other professionals, law enforcement personnel, and concerned citizens. In addition, members of advisory committees donate their time to serve the public good; they are not compensated for their service as members. Consequently, the Commonwealth receives the financial benefit of such volunteerism, along with their shared expertise in developing statutory language and public policy recommendations to improve the law in Pennsylvania.

The Commission periodically reports its findings and recommendations, along with any proposed legislation, to the General Assembly. Certain studies have specific timelines for the publication of a report, as in the case of a discrete or timely topic; other studies, given their complex or considerable nature, are ongoing and involve the publication of periodic reports. Completion of a study, or a particular aspect of an ongoing study, generally results in the publication of a report setting forth background material, policy recommendations, and proposed legislation. However, the release of a report by the Commission does not necessarily reflect the endorsement by the members of the Executive Committee, or the Chair or Vice-Chair of the Commission, of all the findings, recommendations, or conclusions contained in the report. A report containing proposed legislation may also contain official comments, which may be used to construe or apply its provisions.<sup>3</sup>

Since its inception, the Commission has published almost 400 reports on a sweeping range of topics, including administrative law and procedure; agriculture; athletics and sports; banks and banking; commerce and trade; the commercial code; crimes and offenses; decedents, estates, and fiduciaries; detectives and private police; domestic relations; education; elections; eminent domain; environmental resources; escheats; fish; forests, waters, and state parks; game; health and safety; historical sites and museums; insolvency and assignments; insurance; the judiciary and judicial procedure; labor; law and justice; the legislature; liquor; mechanics' liens; mental health; military affairs; mines and mining; municipalities; prisons and parole; procurement; state-licensed professions and occupations; public utilities; public welfare; real and personal property; state government; taxation and fiscal affairs; transportation; vehicles; and workers' compensation.

Following the completion of a report, subsequent action on the part of the Commission may be required, and, as necessary, the Commission will draft legislation and statutory amendments, update research, track legislation through the legislative process, attend hearings, and answer questions from legislators, legislative staff, interest groups, and constituents.

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<sup>3</sup> 1 Pa.C.S. § 1939.

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December 2020

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To the Members of the General Assembly of Pennsylvania:

We are pleased to release *Warm Hand-offs in Pennsylvania*, as directed by House Resolution No. 216 of 2019. The report is a study of “warm hand-offs,” a term used to describe how people requiring emergency intervention for substance use disorders are moved into treatment and recovery services. The resolution established a legislative task force and directed the Commission to appoint an advisory committee to guide the project and develop recommendations for the General Assembly’s consideration.

The advisory committee was composed of over twenty individuals including staff from several departments, emergency medicine physicians, county drug and alcohol administrators, researchers, certified recovery specialists, a district attorney, a law enforcement official, a hospital administrator, a child advocate, and representatives of health insurance companies and recovery organizations. Some of the advisory committee members were individuals who are in long-term recovery themselves and had knowledge and training in substance use disorder treatment.

The Commission wishes to thank the Task Force and Advisory Committee for their efforts to help save lives and end the scourge of substance abuse that has devastated lives across the Commonwealth.

Respectfully submitted,

Glenn J. Pasewicz  
Executive Director



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## INTRODUCTION

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The advisory committee created to assist the legislative task force in its study and recommendations was comprised of over twenty individuals including the staff from several departments: the Department of Drug and Alcohol Programs (DDAP), the Department of Health (DOH), the Department of Human Services (DHS), the Department of Corrections (DOC), and the Adjutant General. Other advisory committee members were emergency medicine (EM) physicians, county drug and alcohol administrators, researchers, certified recovery specialists, a district attorney, a law enforcement official, a hospital administrator, a child advocate, and representatives of health insurance companies and recovery organizations. Some of the advisory committee members were individuals who were in long-term recovery themselves and who also had knowledge and training in substance use disorder treatment.

The advisory committee held its organizational meeting on September, 27, 2019, and met again on January 23, 2020, on May 15, 2020, on August 21, 2020, on October 8, 2020, and on December 15, 2020. During the pandemic, the meetings were conducted by teleconference and Zoom.



## PREVALENCE AND CURRENT TRENDS

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The Pennsylvania Department of Drug and Alcohol Programs defines an overdose as “a situation in which an individual is in a state requiring emergency medical intervention as a result of the use of drugs or alcohol.”<sup>4</sup>

The number of overdoses, both fatal and nonfatal, remains high, and recent trends are alarming. Pennsylvania, along with other states, is taking measures to address this serious problem.

Emergency department (ED) discharge data can estimate nonfatal overdose prevalence and, thanks to the ability to conduct standardized analyses, track changes across time. This, in turn, allows stakeholders to improve surveillance, develop more effective prevention strategies, and target resources to populations that are affected the most.

### *Nationwide*

Based on the data from the Centers for Disease Control and Prevention (CDC) Morbidity and Mortality Weekly Report and the International Narcotics Control Board’s report on the availability of internationally controlled drugs, it is estimated that “between the year 2000 and 2014, the United States experienced a 137% increase in the rate of drug overdose deaths and 200% increase in opioid-related overdose mortality.”<sup>5</sup> From 1999 to 2016, opioid-related mortality among adolescents and young adults aged 13 to 25 years increased nearly 3-fold (268.2 percent).<sup>6</sup>

According to a CDC report, “in 2017, U.S. drug overdose deaths increased 9.6% from 2016.” At the same time, “from 2016 to 2017, the nonfatal overdose ED visits rates for all drugs, all opioids, nonheroin opioids, heroin, and cocaine increased significantly, whereas those for benzodiazepines decreased significantly.”<sup>7</sup> Using discharge data from the Healthcare Cost and Utilization Project’s (HCUP) Nationwide Emergency Department Sample (NEDS), CDC identified 967,615 nonfatal overdoses in 2017. The Centers for Disease Control and Prevention examined changes from 2016 to 2017, stratified by drug type and by patient, facility, and visit characteristics. The CDC analysts believe “these findings highlight the importance of continued

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<sup>4</sup> Pennsylvania Department of Drug and Alcohol Programs State Plan 2019-2022, Section 3.04 *Overdose Survivors*, <https://www.ddap.pa.gov/Documents/Agency%20Reports/State%20Plan%20and%20Annual%20Reports/2019-2022%20DDAP%20State%20Plan.pdf>.

<sup>5</sup> Joudrey, Paul J. et al. “A Conceptual Model for Understanding Post-Release Opioid-Related Overdose Risk.” *Addiction Science and Clinical Practice*. Vol. 14. Published April 15, 2019, <https://ascjournal.biomedcentral.com/articles/10.1186/s13722-019-0145-5>.

<sup>6</sup> Gather, Julie R.; Shabanova, Veronica; and John M. Leventhal. “US National Trends in Pediatric Deaths from Prescription and Illicit Opioids.” December 28, 2018. *JAMA Network Open*. 2018;1(8):e186558, doi:10.1001/jamanetworkopen.2018.6558.

<sup>7</sup> Vivolo-Kantor, Alana M.; Hoots, Brooke E.; Scholl, Lawrence, et al. “Nonfatal Drug Overdoses Treated in Emergency Departments – United States, 2016-2017.” *Morbidity and Mortality Weekly Report*. April 3, 2020. Vol. 69, No. 13, <https://www.cdc.gov/mmwr/volumes/69/wr/mm6913a3.htm>.

surveillance of nonfatal drug overdoses treated in EDs to inform public health actions and, working collaboratively with clinical and public safety partners, to link patients to needed recovery and treatment resources (e.g., medication-assisted treatment).” They specifically recommend “initiation of medication-assisted treatment in ED settings and subsequent linkage to care for substance use disorders.”<sup>8</sup>

A specialized CDC analysis of the data from the National Vital Statistics System (NVSS) to examine urban-rural differences in drug overdose death rates by sex, age group, and the type of drug involved revealed notable differences that might be useful for care providers and policymakers to know. From 1999 through 2017, the age-adjusted rate of drug overdose deaths in urban counties increased from 6.4 per 100,000 in 1999 to 22.0 in 2017, and “during the same period, the age-adjusted rate in rural counties increased from 4.0 to 20.0”; thus, the age-adjusted rate of drug overdose deaths was slightly higher in urban than in rural counties (22.0 and 20.0 per 100,000, respectively).<sup>9</sup> In 2017, the rate of drug overdose deaths for females was higher in rural counties than in urban counties; for males, the rate was higher in urban counties than in rural counties.<sup>10</sup> In 2017, “the rates of drug overdose deaths involving heroin, synthetic opioids other than methadone, and cocaine were higher in urban counties than in rural counties. In contrast, the rates of drug overdose deaths involving natural and semisynthetic opioids and involving psychostimulants with abuse potential were higher in rural counties than in urban counties.”<sup>11</sup>

Key findings from the recently published NVSS mortality data include the following:

- In 2018, there were 67,367 drug overdose deaths in the United States, a 4.1% decline from 2017 (70,237 deaths).
- The age-adjusted rate of drug overdose deaths in 2018 (20.7 per 100,000) was 4.6% lower than in 2017 (21.7).
- For 14 states and the District of Columbia, the drug overdose death rate was lower in 2018 than in 2017.
- The rate of drug overdose deaths involving synthetic opioids other than methadone (drugs such as fentanyl, fentanyl analogs, and tramadol) increased by 10%, from 9.0 in 2017 to 9.9 in 2018.
- From 2012 through 2018, the rate of drug overdose deaths involving cocaine more than tripled (from 1.4 to 4.5) and the rate for deaths involving psychostimulants with abuse potential (drugs such as methamphetamine) increased nearly 5-fold (from 0.8 to 3.9).<sup>12</sup>

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<sup>8</sup> Ibid.

<sup>9</sup> Hedegaard, Holly; Minino, Arialdi M.; and Margaret Warner. *Urban-Rural Differences in Drug Overdose Death Rates by Sex, Age, and Type of Drugs Involved, 2017: NCHS Data Brief No. 345, August 2019*. Centers for Disease Control and Prevention, National Center for Health Statistics, <https://www.cdc.gov/nchs/products/databriefs/db345.htm>.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Hedegaard, Holly; Miniño, Arialdi M.; and Margaret Warner. *Drug Overdose Deaths in the United States, 1999–2018: NCHS Data Brief No. 356, January 2020*. Centers for Disease, Control, and Prevention National Center for Health Statistics, <https://www.cdc.gov/nchs/products/databriefs/db356.htm>.



The CDC analyzed syndromic surveillance data from 2018 to 2019 in 29 states funded through the CDC’s Overdose Data to Action program and found “overdoses co-involving opioids and amphetamines increased from 2018 to 2019, overall, in both sexes, and in most age groups.” The overall relative and absolute rates increased from 2018 to 2019 for suspected nonfatal overdoses involving opioids by 9.7%, with 2.9 per 100,000 ED visits.<sup>13</sup>

The analysis of the recent CDC reports in *The Journal of the American Medical Association (JAMA)* emphasizes that “nonfatal drug overdoses treated in US emergency departments have increased for every type of drug except benzodiazepines” and that fatal overdoses also increased during the same time period.<sup>14</sup> The authors surmise that “the greatest increase – a 32.9% rise in nonfatal cocaine overdoses – might indicate an upturn in overdoses from combining drugs.”<sup>15</sup> The *JAMA* review draws its readers’ attention to the populations that had the highest nonfatal overdose rates for all drugs: in 2017, these rates were highest among women, teens and young adults aged 15 to 34 years, people living in the Midwest, and people living in non-metro counties. It is worth noting that “three-fourths of the overdoses were unintentional.”<sup>16</sup> The review highlights the CDC’s Overdose Data to Action program launched in September 2019.

Prevalence of synthetic opioids such as fentanyl and growing use of combinations of drugs are viewed as two of the most dangerous current trends. Fentanyl is 50-100 times more potent than morphine, which, obviously, increases risks. Moreover, fentanyl and other synthetic opioids are often mixed with heroin, cocaine, or other compounds and sold to individuals who may be unaware of the contents, which increases the risk of overdose even among long-term users. It is estimated that from 2013 to 2014, the age-adjusted rate of overdose mortality related to synthetic opioids such as fentanyl and tramadol increased by 80 percent.<sup>17</sup> In the past few years, analysts noticed that opioid overdose deaths in adult populations often involved other substances, in particular, benzodiazepines and, increasingly, stimulants.<sup>18</sup> The CDC Morbidity and Mortality Report data indicated that “across the nation, the rate of overdose deaths involving cocaine and psychostimulants with abuse potential increased 42.4%, from 12,122 in 2015 to 17,258 in 2016. These psychostimulants include drugs such as methamphetamine, dextroamphetamine, Ritalin, and MDMA.<sup>19</sup> Specifically, cocaine-involved death rates increased from 6,784 in 2015 to 10,375 in 2016 (52% increase). Psychostimulant deaths also increased during this period, from 5,716 in 2015 to 7,542 in 2016 (33% increase). Of all drug overdose deaths in the U.S. in 2017, 19.8% involved cocaine and 14.7% involved psychostimulants.”<sup>20</sup> Similar results emerged from a comprehensive study of polysubstance involvement in opioid overdose deaths in adolescents and young adults from 1999 to 2018. According to this study, during these two decades, “opioid-only

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<sup>13</sup> Liu S, Scholl L, Hoots B, Seth P. “Nonfatal Drug and Polydrug Overdoses Treated in Emergency Departments- 29 States, 2018–2019.” *Morbidity and Mortality Weekly Report*. August 28, 2020. Vol. 69, No. 34, <https://www.cdc.gov/mmwr/volumes/69/wr/mm6934a1.htm>.

<sup>14</sup> Kuehn, Bridget M. “Nonfatal, Fatal Overdoses Rising.” *JAMA*. May 26, 2020. Vol. 323, No. 20, doi:10.1001/jama.2020.7795.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

<sup>17</sup> Joudrey, Paul J. Op. cit.

<sup>18</sup> Kariisa, Mbabazi “Drug Overdose Deaths Involving Cocaine and Psychostimulants with Abuse Potential -- United States, 2003-2017.” *MMWR Morbidity and Mortality Weekly Report*. 2019. Vol. 68. No. 17, doi:10.15585/mmwr.mm6817a3.

<sup>19</sup> MDMA is an acronym for methylenedioxyamphetamine, also known as “Ecstasy.”

<sup>20</sup> Kariisa, Mbabazi. Op. cit.

and polysubstance-involved overdose deaths among youth increased by 384% and 760%, respectively. In 2018, polysubstance-involved opioid overdose deaths became more prevalent than those involving only opioids.”<sup>21</sup> This study indicated that “of the polysubstance-involved opioid overdose deaths, stimulants were most commonly involved”; moreover, the findings were “consistent with data demonstrating that cocaine is now the substance most commonly coinvolvement in opioid overdose deaths.”<sup>22</sup> Based on their analysis of these recent alarming trends, researchers advise, “Increases in stimulant-involved deaths are part of a growing polysubstance landscape. Increased surveillance and evidence-based multisectoral prevention and response strategies are needed to address deaths involving cocaine and psychostimulants and opioids. Enhancing linkage to care, building state and local capacity, and public health/public safety collaborations are critical components of prevention efforts.”<sup>23</sup>

### *Pennsylvania*

The Commonwealth of Pennsylvania has put significant effort into overdose surveillance and quick response. The Department of Health runs the EpiCenter System that continuously receives real-time data from emergency departments and alerts stakeholders of occurring spikes.<sup>24</sup>

The EpiCenter System allows DOH to receive real-time data from 98 percent of emergency departments in the Commonwealth. The main purpose for the overdose syndromic surveillance is to develop a system for early detection of outbreaks. Whenever there is a spike in overdoses in a particular location, an alert is generated and sent to stakeholders at the state and local levels. The thresholds for alerts were based on 2017 and 2018 data. The system began sending alerts in August 2018. As of January 2020, 43 alerts have been sent out. Alert notification goes out to several state departments: DOH Leadership/Incident Command; DOH Bureau of Emergency Medical Services; DOH Bureau of Public Health Preparedness; DDAP; DHS; Pennsylvania Emergency Management Agency Watch Desk; and Pennsylvania State Police. Local-level stakeholders include Single County Authorities (SCA); Centers of Excellence (COE); Regional Council; Hospital and Healthsystem Association of Pennsylvania and local hospitals; County 911 Centers, which, in turn, can alert the local police, fire, emergency medical services (EMS), and the local Overdose Taskforce (if applicable). Troops and local law enforcement also receive alerts. Alert recipients may take further actions such as forwarding it to a variety of local partners, including drug court teams, coroners, medical directors and ER physicians, and all key players in the warm hand-off process. When DOH requested feedback on alerts, 87 percent of responders found alerts useful; some would appreciate additional information. A recent development in the alert procedure consists in a DOH epidemiologist following up with the local SCA to inform the SCA how many individuals are being treated at each ED. This information is useful to SCAs who are tasked with trying to assist these individuals by providing them with follow-up services. When this information is shared with SCAs, it allows them to target their resources more efficiently. The Department of

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<sup>21</sup> Lim, Jamie K. et al. “Polysubstance Involvement in Opioid Overdose Deaths in Adolescents and Young Adults, 1999-2018.” *JAMA Pediatrics*. Published online November 23, 2020, [https://www.jamapediatrics\\_lim\\_2020\\_1d\\_200043\\_1605560624.05624\(1\).pdf](https://www.jamapediatrics_lim_2020_1d_200043_1605560624.05624(1).pdf).

<sup>22</sup> Ibid.

<sup>23</sup> Kariisa, Mbabazi et al. Op. cit.

<sup>24</sup> Information about the EpiCenter System was provided by Mr. Jared M. Shinabery, Director of the Pennsylvania Prescription Drug Monitoring Program, Department of Health, in his presentation to the advisory committee on January 23, 2020, and in subsequent communications to the Joint State Government Commission.

Health considers the alert process a work in progress, and DOH's goal is to continue to improve this process.

In 2019 versus 2018, there was a 3-percent decrease in the number of suspected overdose-related emergency department visits, with a noticeable difference between counties. It is important to bear in mind that this statistic addresses a decrease in number of overdose cases presenting to ED; the actual number of overdose cases may be higher due to wider naloxone availability, non-reporting, and other factors. In 2019, according to the DOH data, Philadelphia experienced over 9,000 overdoses and Pittsburgh over 6,000. Four rural counties experienced the largest increases in number of overdose cases presenting to EDs: Beaver, Clarion, Chester, and Lebanon.

### Nonfatal Overdoses

Overdose data in Pennsylvania is collected through the syndromic surveillance system, EpiCenter, which collected data from 165 of the 171 emergency departments throughout the Commonwealth in 2020. Rates associated with syndromic surveillance are more advantageous than counts, but it should be noted that not all overdose victims go to an emergency room and not all emergency departments in the Commonwealth report overdoses through syndromic surveillance. In order to identify areas in the Commonwealth that will benefit most from the placement of overdose stabilization and warm hand-off centers, data was examined at the county level.<sup>25</sup> The tables in this section focus on those counties which exceeded the overall rate for Pennsylvania, but a complete list of counties can be found in Appendix B.

In 2018, the overdose rate for any drug was 35.02 per 10,000 population in Pennsylvania. Any drug overdose includes overdoses of any substance, including over-the-counter, prescription, and illicit drugs, but it excludes alcohol-only overdoses. In 2019, that rate dropped slightly to 33.92 per 10,000 population. Philadelphia County had the highest combined rates of any drug overdoses in 2018, 2019, and the first half of 2020 with 59.02, 53.99, 23.21 per 10,000 population, respectively (See Table 1). Carbon County had the second highest overdose rate during that timeframe with Lawrence, Dauphin, and Luzerne following closely behind. Those five counties are all projecting to finish 2020 with a rate above 40 per 10,000 population.

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<sup>25</sup> Pennsylvania Department of Health, Interactive Data Report, *Overdose Data Technical Notes*, accessed Oct. 6, 2020, <https://www.health.pa.gov/topics/Documents/Opioids/OverdoseDataTechnicalNotes.pdf>.

**Table 1**  
**Any Drug Overdose Rates per 10,000 Population**  
**For Counties above Pennsylvania's Average Overdose Rate**  
**2018, 2019 and 1st/2nd Quarter of 2020**

County	2018 Any Drug Overdose Rate per 10,000 Population	2019 Any Drug Overdose Rate per 10,000 Population	1st/2nd QTR 2020 Any Drug Overdose Rate per 10,000 Population
Philadelphia	59.02	53.99	23.21
Carbon	53.88	50.13	21.01
Lawrence	48.39	42.81	20.65
Dauphin	42.59	45.22	21.15
Lehigh	43.69	40.78	20.94
Delaware	45.10	40.96	18.17
Fayette	41.47	42.47	17.79
Blair	40.17	37.96	22.62
Luzerne	47.68	35.88	16.18
Beaver	33.51	45.33	16.87
Erie	37.28	39.36	17.24
Venango	37.45	36.28	17.17
Allegheny	35.74	36.68	18.09
Westmoreland	33.09	39.54	17.74
Cambria	34.99	32.26	21.86
York	36.23	34.05	18.23
Lackawanna	38.43	32.74	14.28
Pennsylvania Total	35.02	33.92	15.88

Source: 2018-2019 Overdoses - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. 2020 Overdoses - Pennsylvania Department of Health, Interactive Data Report, *Pennsylvania Emergency Department Visits Related to Overdose*, accessed Oct 2, 2020, <https://www.health.pa.gov/topics/programs/PDMP/Pages/Data.aspx>.

When examining “opioid only” overdoses, Lawrence County had the highest combined rates with 22.05, 15.09 and 8.48 in 2018, 2019, and the first half of 2020, respectively (See Table 2). Opioid overdoses include overdoses of any opioid substance, including prescription and illicit opiates, such as heroin and illicitly manufactured fentanyl.<sup>26</sup> Philadelphia, Carbon, Delaware, and Luzerne rounded out the top five counties with the highest “opioid only” overdose rates from 2018 through the first half of 2020.

**Table 2**  
**Opioid Overdose Rates per 10,000 Population**  
**For Counties above Pennsylvania's Average Overdose Rate**  
**2018, 2019 and 1st/2nd Quarter of 2020**

County	2018 Opioid Overdose Rate per 10,000 Population	2019 Opioid Overdose Rate per 10,000 Population	1st/2nd QTR 2020 Opioid Overdose Rate per 10,000 Population
Lawrence	22.05	15.09	8.48
Philadelphia	15.05	16.55	7.72
Carbon	14.95	9.19	5.29
Delaware	14.24	9.49	3.35
Luzerne	13.63	8.76	4.60
York	9.64	10.25	5.91
Mercer	10.30	9.58	5.60
Fayette	9.74	11.11	4.22
Lehigh	8.01	10.54	5.54
Dauphin	7.57	10.71	5.34
Allegheny	8.75	8.78	5.47
Westmoreland	6.48	11.24	5.22
Perry	10.40	9.11	3.03
Blair	5.88	10.37	6.20
Cambria	7.21	8.13	6.91
Erie	8.74	8.23	3.71
Armstrong	8.28	6.75	5.52
<b>Pennsylvania Total</b>	<b>7.69</b>	<b>8.25</b>	<b>4.25</b>

Source: 2018-2019 Overdoses - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. 2020 Overdoses - Pennsylvania Department of Health, Interactive Data Report, *Pennsylvania Emergency Department Visits Related to Overdose*, accessed Oct 2, 2020, <https://www.health.pa.gov/topics/programs/PDMP/Pages/Data.aspx>.

<sup>26</sup> Ibid., p. 3.

Overall, opioid overdoses are around a quarter of the “any drug” overdoses per 10,000 population. In the most recent full year of data, 2019, Pennsylvania had an “any drug” overdose rate of 33.92 and an “opioid only” overdose rate of 8.25, approximately 24.3 percent. The “any drug” overdoses in Pennsylvania went from 35.02 in 2018 to 33.92 in 2019, a 3.1 percent decrease. “Any drug” overdoses are projected to decrease again to 31.76 in 2020, based on data collected through the first half of 2020 ( $15.88 \times 2 = 31.76$ ). However, “opioid only” drug overdoses increased from 7.69 in 2018 to 8.25 in 2019, and are projected to increase again to 8.5 in 2020, based on data collected through the first half of 2020 ( $4.25 \times 2 = 8.5$ ).

### Fatal Overdoses

Overdose death data in Pennsylvania comes from death certificate data provided by the Department of Health Bureau of Health Statistics and Registries and the Pennsylvania Coroners and Medical Examiners, who also report their data to the Bureau. Death data shows substances that are indicated as cause of death on the death certificate and all scheduled substances listed on the toxicology report are indicated as a cause of death using the International Classification of Diseases, Tenth Revision (ICD–10). Since no law requires releasing this information, DOH received this information from 43 participating counties.<sup>27</sup> The tables in this section display those counties which exceeded the overall death rate for Pennsylvania, but a complete list of counties, number of overdose deaths, and death rate can be found in Appendix C.

In Pennsylvania, the total number of accidental and undetermined overdose deaths was estimated at 4,422 in 2018 and 4,125 in 2019, which is a 6.7 percent decrease. Between 2018 and 2019, a number of counties experienced a decreased death rate (32 out of 67). No change was experienced in two counties, and 15 were unknown because no data was reported in both years, leaving 18 counties with increased death rates.<sup>28</sup> Opioids caused the highest number of overdose deaths, with fentanyl second. Experts note that this indicates a change: in the past, it used to be prescription drugs that caused the highest number of overdose deaths. Overdoses often involve a combination of opioids and methamphetamines. More than half of individuals died at their home.<sup>29</sup>

In 2018, there were 4,422 overdose deaths for an “any drug” death rate of 3.45 per 10,000 population in Pennsylvania (See Table 3). There were 17 counties which had a death rate greater than Pennsylvania’s rate of 3.45. Southeastern Pennsylvania experienced the highest overdose death rate, with Philadelphia having 1,118 deaths and a death rate of 7.06, more than double the Commonwealth rate. Three northeastern counties followed Philadelphia with death rates of 6.58, 5.45, and 4.88 per 10,000 population in Montour, Carbon, and Luzerne, respectively.

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<sup>27</sup> Pennsylvania Department of Health, Interactive Data Report, *Overdose Data Technical Notes*, accessed Oct. 6, 2020, <https://www.health.pa.gov/topics/Documents/Opioids/OverdoseDataTechnicalNotes.pdf>.

<sup>28</sup> Data generated from Appendix C.

<sup>29</sup> Information provided by Mr. Jared M. Shinabery, Director of the Pennsylvania Prescription Drug Monitoring Program, Department of Health, in his presentation to the advisory committee on January 23, 2020.

**Table 3**  
**Any Drug Overdose Death Rates per 10,000 Population**  
**For Counties above Pennsylvania's Average Overdose Death Rate**  
**2018**

County	2018 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Philadelphia	1,583,592	1,118	7.06
Montour	18,240	12	6.58
Carbon	64,175	35	5.45
Luzerne	317,859	155	4.88
Wyoming	27,087	13	4.80
Cambria	131,449	62	4.72
Mercer	110,471	51	4.62
Lackawanna	210,269	94	4.47
Dauphin	276,864	120	4.33
Lawrence	86,128	37	4.30
Allegheny	1,217,281	483	3.97
Schuylkill	141,815	56	3.95
York	447,847	159	3.55
Bucks	627,812	222	3.54
Lehigh	368,359	130	3.53
Washington	207,018	73	3.53
Delaware	565,231	198	3.50
<b>Pennsylvania Total</b>	<b>12,800,922</b>	<b>4,422</b>	<b>3.45</b>

Source: Overdose Deaths - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. Population - U.S. Census Bureau, Population Division, *Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019*, accessed Sept. 28, 2020, <https://www2.census.gov/programs-surveys/popest/tables/2010-2019/counties/totals/co-est2019-annres-42.xlsx>.

In 2019, there were 4,125 overdose deaths for an “any drug” death rate of 3.22 per 10,000 population in Pennsylvania (See Table 4). There were 16 counties which had a death rate greater than Pennsylvania’s rate of 3.22. Philadelphia County had the highest number of overdose deaths with 1,139 and an overdose death rate of 7.19 per 10,000 population. Montour County had the second highest death rate again in 2019 at 6.03, but Allegheny and Cambria moved up the list with rates of 4.10 and 3.99 per 10,000 population, respectively. Also of note, ten counties had a death rate greater than 4.0 in 2018, but that number dropped significantly to only three counties in 2019.

**Table 4**

**Any Drug Overdose Death Rates per 10,000 Population  
For Counties above Pennsylvania's Average Overdose Death Rate  
2019**

County	2019 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Philadelphia	1,584,064	1,139	7.19
Montour	18,230	11	6.03
Allegheny	1,216,045	498	4.10
Cambria	130,192	52	3.99
Indiana	84,073	33	3.93
Carbon	64,182	25	3.90
Luzerne	317,417	123	3.88
Wayne	51,361	19	3.70
Washington	206,865	75	3.63
Lehigh	369,318	132	3.57
Beaver	163,929	58	3.54
Schuylkill	141,359	50	3.54
Dauphin	278,299	96	3.45
Monroe	170,271	58	3.41
Mercer	109,424	37	3.38
Greene	36,233	12	3.31
<b>Pennsylvania Total</b>	<b>12,801,989</b>	<b>4,125</b>	<b>3.22</b>

Source: Overdose Deaths - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. Population - U.S. Census Bureau, Population Division, *Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019*, accessed Sept. 28, 2020, <https://www2.census.gov/programs-surveys/popest/tables/2010-2019/counties/totals/co-est2019-annres-42.xlsx>.

Overall, Pennsylvania had 3,915 opioid overdose deaths in 2018 and a death rate of 3.06 per 10,000 population. “Opioid only” deaths represented about 88.5 percent of the 4,422 any drug deaths in 2018. Preliminary estimates as of July 2020 indicated that there were 3,485 opioid drug overdose deaths, but county level data was not publicly available at the time of this report.<sup>30</sup> Of the confirmed opioid-related overdose deaths, approximately 37 percent (1,446) also involved a stimulant such as cocaine and/or methamphetamine contributing to their cause of death. When examining the opioid overdose death rates among counties, Philadelphia County remained at the

<sup>30</sup> Pennsylvania DOH, Interactive Data Report, *Fatal and Non-fatal Drug Overdoses in Pennsylvania, 2019*, accessed Oct. 6, 2020, <https://www.health.pa.gov/topics/Documents/Programs/PDMP/Pennsylvania%20Overdose%20Data%20Brief%202019.pdf>.



top of the list with 5.94 (See Table 5). Carbon, Wyoming, Luzerne, and Cambria rounded out the top five counties with the highest “opioid only” overdose death rates in 2018.

When evaluating the data to identify areas in the Commonwealth that will benefit most from the placement of overdose stabilization and warm hand-off centers, Philadelphia County was at the top of the list in 4 of the 5 overdose and overdose death rate tables. A group of northeast counties -- Carbon Monroe, and Luzerne -- were often near to top of many statistical categories examined. Finally, a trio western counties, consisting of Allegheny, Cambria, and Lawrence, appeared near the top of some categories.

**Table 5**  
**Opioid Overdose Death Rates per 10,000 Population**  
**For Counties above Pennsylvania's Average Overdose Death Rate**  
**2018**

County	2018 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Philadelphia	1,583,592	941	5.94
Carbon	64,175	33	5.14
Wyoming	27,087	13	4.80
Luzerne	317,859	147	4.62
Cambria	131,449	58	4.41
Lackawanna	210,269	90	4.28
Lawrence	86,128	36	4.18
Dauphin	276,864	115	4.15
Mercer	110,471	44	3.98
Schuylkill	141,815	52	3.67
Washington	207,018	70	3.38
Allegheny	1,217,281	411	3.38
York	447,847	150	3.35
Bucks	627,812	209	3.33
Westmoreland	350,459	114	3.25
Armstrong	65,352	21	3.21
Lehigh	368,359	118	3.20
Pennsylvania Total	12,800,922	3,915	3.06

Source: Overdose Deaths - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2017-2018 County Health*, accessed Sept. 4, 2019, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. Population - Population - U.S. Census Bureau, Population Division, *Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019*, accessed Sept. 28, 2020, <https://www2.census.gov/programs-surveys/popest/tables/2010-2019/counties/totals/co-est2019-annres-42.xlsx>.

Four years ago, DOH initiated the Prescription Drug Monitoring Program. This program collects both fatal (from coroners and medical examiners) and non-fatal (from EDs) overdose information. The Department of Health maintains the Prescription Drug Monitoring Program Interactive Data Report, which offers the following data:

- County level information
- Non-fatal overdose data from Emergency Departments
- Overdose hospitalizations
- Overdose death data
- Prescribing trends

The Interactive Data Report can be accessed at [www.doh.pa.gov/pdmp](http://www.doh.pa.gov/pdmp).

Experts caution that the ED statistics should be considered as underestimates due to the inherent reporting errors and other factors. Nevertheless, the surveillance system maintained by DOH allows to follow developments in real time, trace the dynamic, and provide an opportunity for better understanding and adequate response. The quality and amount of data being collected has been consistently improving.

## OVERDOSE AND COVID-19

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Pandemics can be stressful, and the coronavirus disease 2019 (COVID-19) can cause “fear and anxiety about a new disease and what could happen can be overwhelming and cause strong emotions in adults and children.”<sup>31</sup> The Centers for Disease Control and Prevention (CDC) recognize that people with pre-existing mental health conditions or substance use disorders may be particularly vulnerable in an emergency. On March 16, 2020, the Substance Abuse and Mental Health Service Administration (SAMHSA) issued guidance to Opioid Treatment Programs (OTPs) in recognition of the evolving issues surrounding COVID-19 and emerging needs facing OTPs, which increased flexibility to request blanket exceptions to SAMHSA regarding OTPs’ prescribing practices for take-home medications within the Commonwealth.

The Department of Drug and Alcohol Programs (DDAP) emphasized that resources were still available for individuals with substance use disorder and encouraged individuals to contact the hotline, which is staffed 24 hours per day, seven days per week to answer phone calls. In addition, substance use disorder counselors, who meet qualifications provided in 28 Pa. Code § 704.7(b), were permitted to provide telehealth using real-time, two-way interactive audio-video transmission services in licensed drug and alcohol outpatient clinics.<sup>32</sup>

Not surprisingly, the pandemic led to alarming spikes in overdoses all around the country. In its special issue brief, the American Medical Association (AMA) expressed its concern about “an increasing number of reports from national, state and local media suggesting increases in opioid-related mortality – particularly from illicitly manufactures fentanyl and fentanyl analogs.”<sup>33</sup> A recent analysis of 500,000 urine drug tests by Millennium Health, a national laboratory service, showed increases of 32 percent for nonprescribed fentanyl, 20 percent for methamphetamine, and 10 percent for cocaine from mid-March through May.<sup>34</sup> A definitive count of the change in overdoses fueled by the pandemic is yet to arrive. Nonetheless, during the summer of 2020, drug-related emergency calls and interviews with coroners already indicated clearly that monthly overdoses had grown dramatically during the pandemic. The number of drug overdoses around the United States is estimated to have risen by 18 percent. The Overdose Detection Mapping Application Program (ODMAP), located at the University of Baltimore, that collects information from more than 1,200 agencies nationwide, stated that more than 60 percent of counties

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<sup>31</sup> Centers for Disease Control and Prevention, “Coping with Stress,” Updated July 1, 2020, accessed October 8, 2020, <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/managing-stress-anxiety.html>.

<sup>32</sup> Department of Drug and Alcohol Programs, “Department of Drug and Alcohol Programs Releases Guidance for Treatment Providers Across the Commonwealth in Response to COVID-19,” accessed October 8, 2020, [https://www.media.pa.gov/pages/ddap\\_details.aspx?newsid=144](https://www.media.pa.gov/pages/ddap_details.aspx?newsid=144).

<sup>33</sup> American Medical Association Advocacy Resource Center. *Issues Brief: Reports of Increases in Opioid-Related Overdose and Other Concerns during COVID Pandemic*. Updated October 6, 2020, <https://www.ama-assn.org/system/files/2020-10/issue-brief-increases-in-opioid-related-overdose.pdf>.

<sup>34</sup> Stacy Weiner, Association of American Medical Colleges. “COVID-19 and the opioid crisis: When a pandemic and an epidemic collide.” *Patient Care*, July 27, 2020, <https://www.aamc.org/news-insights/covid-19-and-opioid-crisis-when-pandemic-and-epidemic-collide>.

participating in the information-gathering project had reported increases in drug overdoses, “with some communities seeing deadly surges in the number of people needing help.”<sup>35</sup> ODMAP is a real-time system which allows users in the field of EMS, law enforcement, and healthcare to record whether or not the overdose incident is fatal or non-fatal and the extent to which naloxone or an overdose reversal drug was administered. Using GPS coordinates, data is uploaded in seconds from the exact location of an overdose.<sup>36</sup> The ODMAP program manager Aliese Alter found that “the number of spike alerts and also the duration of those spikes had increased nationally since the commencement of state-mandated stay at home orders.”<sup>37</sup> According to some estimates, overdoses increased up to 42 percent per month during the epidemic, as compared to the same months in 2019.<sup>38</sup>

An effort to facilitate timely analysis and response led to investigating novel sources of near-real-time information to track epidemiological trends during the COVID-19 pandemic. One of such sources is emergency medical services data. A group of researchers conducted a retrospective observational analysis using the National EMS Information System (NEMIS), a large registry of more than 10,000 EMS agencies in 47 states, which contribute data in near real time and represent more than 80 percent of EMS activations nationally in 2020. The researchers calculated weekly overdose-related cardiac arrests (determined on-site) and overdose-related EMS activations (determined by dispatch) and then compared 2020 values with a baseline, defined as the weekly average of 2018 and 2019 values.<sup>39</sup> Excess values for 2020 were compared temporally with a cell phone-based mobility score as a measure of social distancing. The findings indicated “a large-magnitude, national surge in overdose-related cardiac arrest during the initial months of the COVID-19 epidemic in the US. Peak rates in May were more than double the baseline from 2018 and 2019, and overall 2020 values were elevated approximately 50%.”<sup>40</sup> Analyzing their data, the authors surmised that “the temporal similarities to decreased mobility suggest that the fall-out from the COVID-19 pandemic – perhaps especially social isolation – is sharply accelerating fatal overdose trends.”<sup>41</sup> Another important observation is that “the lack of a commensurate sharp increase in total (fatal and nonfatal) overdose incidents could indicate a rising overdose case fatality rate in a context of more stable, albeit elevated, overdose rates.”<sup>42</sup> The lethality of each overdose incident could be increased by some trends noted by public health and addiction experts at the outset of the pandemic, such as “an increased proportion of individuals

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<sup>35</sup> Mann, Brian. *U.S. Sees Deadly Overdose Spike During Pandemic*. NPR, August 13, 2020, <https://www.npr.org/sections/coronavirus-live-updates/2020/08/13/901627189/u-s-sees-deadly-drug-overdose-spike-during-pandemic>.

<sup>36</sup> Overdose Detection Mapping Application Program, How it Works, “Level 1 – Data Collection and Agency Administration Interface,” <http://www.odmap.org/#how> (accessed Oct. 28, 2020).

<sup>37</sup> Mann, Brian. Op. cit.

<sup>38</sup> Wan, William and Heather Long. “‘Cries for Help’: Drug Overdoses Are Soaring during the Coronavirus Pandemic.” *The Washington Post*. July 1, 2020, <https://www.washingtonpost.com/health/2020/07/01/coronavirus-drug-overdose/>.

<sup>39</sup> Friedman, Joseph; Beletsky, Leo; and David L. Schriger. “Overdose-Related Cardiac Arrests Observed by Emergency Medical Services During the US COVID-19 Epidemic.” *JAMA Psychiatry*. Published online December 3, 2020, [https://jamapsychiatry\\_friedman\\_2020\\_ld\\_200017\\_1606751853.63516.pdf](https://jamapsychiatry_friedman_2020_ld_200017_1606751853.63516.pdf).

<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

using substances alone, increased toxification of the drug supply, and reduced access to treatment.”<sup>43</sup>

In the Commonwealth, the early data present a complicated view. In a review of 2020 overdose data collected through the syndromic surveillance system in Pennsylvania, only the first and second quarters of 2020 were available at the time of this report, so pandemic data is only reflected in the months of March through June. The overdose rate through the first half of 2020 for any drug overdoses was 15.88 per 10,000 population in Pennsylvania.<sup>44</sup> Judging by these numbers, that rate has, actually, decreased slightly from rates of 18.88, 16.37 and 16.75 per 10,000 population in the first halves of 2017, 2018, and 2019, respectively.<sup>45</sup> It should be noted that while the overdose rate appears to be slightly lower during the COVID-19 pandemic, data from the syndromic surveillance system is collected from emergency departments, which have seen a decline in visits overall. The National Syndromic Surveillance Program (NSSP) found that ED visits declined 42 percent during the early part of the COVID-19 pandemic, from a mean of 2.1 million per week (March 31–April 27, 2019) to 1.2 million (March 29–April 25, 2020).<sup>46</sup>

Coroners’ reports from a number of Pennsylvania counties paint a grimmer picture. According to them, the COVID epidemic led to noticeable increases in fatal and nonfatal overdoses, reversing the course of improvement seen prior to it and erasing the recent successes in reducing drug overdoses. Several counties in the Commonwealth reported alarming spikes. Beaver County found, “Overdoses and overdose deaths are happening at a rate that hasn’t been seen since 2017, at the height of the opioid epidemic in western Pennsylvania.”<sup>47</sup> The opioid crisis peaked in Beaver County in late 2016 and early 2017. Death numbers dropped by half in 2018 compared to the year before, while the number of overdoses dropped slightly. Since the start of the epidemic, the number of overdose death increased sharply. In Beaver County, “overdose deaths are up 30 percent from the first three months of the year.”<sup>48</sup> In Cumberland County, the coroner’s office was feeling the strain of an uptick in opioid overdose deaths as early as May 2020.<sup>49</sup> The highest overdose death count in Cumberland County’s history occurred in 2017. One year later, overdose deaths had fallen by 40 percent; the welcome decline continued in 2019, falling another roughly 10 percent.<sup>50</sup> The pandemic brought a spike in overdose deaths in the county, with more

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<sup>43</sup> Ibid.

<sup>44</sup> Pennsylvania Department of Health, Interactive Data Report, *Pennsylvania Emergency Department Visits Related to Overdose*, accessed Oct 2, 2020, <https://www.health.pa.gov/topics/programs/PDMP/Pages/Data.aspx>.

<sup>45</sup> Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>.

<sup>46</sup> Hartnett K.P., Kite-Powell, A., DeVies, J., et al., “Impact of the COVID-19 Pandemic on Emergency Department Visits — United States, January 1, 2019–May 30, 2020,” *Morbidity and Mortality Weekly Report*. June 12, 2020. Vol. 69, No. 23, <https://www.cdc.gov/mmwr/volumes/69/wr/mm6923e1.htm>.

<sup>47</sup> Kurutz, Daveen Ray. “COVID Sends Opioid Crisis into Tailspin.” *Beaver County News*. September 5, 2020, <https://www.timesonline.com/story/news/2020/09/05/covid-sends-opioid-crisis-int-tailspin/5715587002/>.

<sup>48</sup> Ibid.

<sup>49</sup> Cress, Joseph. “Cumberland County Coroner’s Office Reports an Uptick in Overdose Deaths During Coronavirus Pandemic.” *The Sentinel*. May 3, 2020, [https://cumberlink.com/news/local/crime-and-courts/cumberland-county-coroners-office-reports-an-uptick-in-overdose-deaths-during-coronavirus-pandemic/article\\_ad653521-dc48-5f8f-b6c0-359cdf90bb4d.html](https://cumberlink.com/news/local/crime-and-courts/cumberland-county-coroners-office-reports-an-uptick-in-overdose-deaths-during-coronavirus-pandemic/article_ad653521-dc48-5f8f-b6c0-359cdf90bb4d.html).

<sup>50</sup> Vaughn, Joshua. “In Pennsylvania, Overdose Deaths Were Falling. Then COVID-19 Hit.” *The Appeal*. July 6, 2020, <https://theappeal.org/pennsylvania-overdose-crisi-covid/>.

than 30 people dying by early June, putting the county “on track to reach, and potentially eclipse, its 2017 high-water mark.”<sup>51</sup> A similar situation developed in York County, where overdose deaths had also peaked in 2017 and declined in the two following years. It was reported that “confirmed and suspected opioid deaths in York County tripled in March from January’s number.”<sup>52</sup> The York County coroner observed an approximately 75 percent spike in overdose deaths by mid-June.<sup>53</sup> Philadelphia, which had the highest rate of overdose deaths in the Commonwealth in 2017 and nearly the highest rate in 2018, is also experiencing a rise in overdose deaths, which advocates in the area attribute to forced isolation and limited access to treatment.

Early data from other states, such as New Jersey and Illinois, also point to significant increases. The number of overdose deaths in Chicago roughly doubled in the first five months of 2020 compared to the same period in 2019.<sup>54</sup> One study of emergency medical services responses to opioid overdoses in Virginia found that in one urban emergency department, “the total number of nonfatal opioid overdose visits increased from 102 between March and June 2019 to 227 between March and June 2020.”<sup>55</sup> Notably, this doubling of the opioid-related overdose visits occurred during the same time period when “the number of all emergency department visits decreased from 36 565 to 26 061.”<sup>56</sup> Even though the early studies performed in Virginia and Kentucky are limited in scope and may underestimate the number of opioid overdoses due to common delays in official reporting of fatal opioid overdoses and other factors, they attest to an important problem: “Psychosocial consequences related to coronavirus disease 2019 (COVID-19) may place individuals at a heightened likelihood of opioid overdose or relapse.”<sup>57</sup>

Analysts suggest that “the continued isolation, economic devastation and disruptions to the drug trade in recent months are fueling the surge.”<sup>58</sup> At the start of the epidemic, when borders closed and cities shut down, some officials expected a decrease in overdose due to disruptions in drug traffic. The results, however, appear to be the opposite. Reporters speculate that as traditional lines are disrupted, drug users may be turning to new suppliers and substances they are less familiar with, which increases the risk of overdose and death. Medical examiners observe synthetic drugs and less common substances showing up more often in autopsies and toxicology reports.<sup>59</sup> It is also believed that social distancing and stay-at-home orders lead to more situations when people take drugs alone, making it less likely someone else will be there to call 911 or administer naloxone

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<sup>51</sup> Ibid.

<sup>52</sup> Kirkland, Talia. “Overdose Deaths Skyrocket in Pennsylvania During COVID-19 Pandemic.” *21 News*. April 22, 2020. <https://local21news.com/news/local/overdose-deaths-skyrocket-in-pennsylvania-during-covid-19-pandemic>.

<sup>53</sup> Vaughn, Joshua. “In Pennsylvania, Overdose Deaths Were Falling. Then COVID-19 Hit.” *The Appeal*. July 6, 2020, <https://theappeal.org/pennsylvania-overdose-crisi-covid/>.

<sup>54</sup> Ibid.

<sup>55</sup> Ochalek, Taylor A. et al. “Nonfatal Opioid Overdoses at an Urban Emergency Department During the COVID-19 Pandemic.” *JAMA*, September 18, 2020, doi:10.1001/jama.2020.17477.

<sup>56</sup> Ibid.

<sup>57</sup> Ibid.

<sup>58</sup> Wan, William and Heather Long. Op. cit.

See also Horwitz, Sari; Cenziper, Debbie and Steven Rich. “As Opioids Flooded Tribal Lands Across the U.S., Overdose Deaths Skyrocketed.” *The Washington Post*. June 29, 2020, <https://www.washingtonpost.com/graphics/2020/national/investigations/native-american-opioid-overdose-deaths/>

<sup>59</sup> Wan, William and Heather Long. “‘Cries for Help’: Drug Overdoses Are Soaring during the Coronavirus Pandemic.” *The Washington Post*. July 1, 2020, <https://www.washingtonpost.com/health/2020/07/01/coronavirus-drug-overdose/>.

in case of an overdose. Anxiety and depression caused by the fear of the virus and the economic and social consequences of the epidemic increase chances that individuals with substance use disorder would resort to drugs and/or alcohol. National sales of alcohol increased by over 50 percent for the week ending March 21, 2020, compared with one year before, and survey studies revealed significantly increased alcohol consumption as well as heavy drinking in the U.S., especially noticeable in some population groups.<sup>60</sup> In addition to various negative physical health consequences, excessive alcohol use is well-known to exacerbate existing mental health problems, such as anxiety or depression, which are already increasing during the pandemic. Excessive alcohol use also leads to risk-taking behaviors. These circumstances may create a vicious circle for susceptible individuals. At the same time, access to treatment has become more limited, with many treatment centers and recovery programs forced to close or significantly limit their operations during shutdowns. As Dr. Caleb Alexander, a professor of epidemiology and medicine at the Johns Hopkins Bloomberg School of Public Health, put it, “It’s hard to underestimate the effects of the pandemic on the community with opioid use disorder. The pandemic has profoundly disrupted the drug markets. Normally, that would drive people to treatment. Yet treatment is harder to come by.”<sup>61</sup>

A recent comprehensive study coauthored by Nora Volkow, MD, director of the National Institute on Drug Abuse (NDA), demonstrated that “people with substance use disorder (SUD), particularly those with opioid use disorder (OUD) and Black individuals, are at an increased risk of coronavirus diseases 2019 (COVID-19).”<sup>62</sup> Dr. Volkow and her coauthors conducted a case-control study of deidentified electronic health records for over 73 million unique patients, including 12,030 with diagnosed COVID-19. The findings were that “patients with an SUD diagnosis within the previous year were significantly more likely (adjusted odds ratio, 8.7) to have been diagnosed with COVID-19 than those without SUD.”<sup>63</sup> The association was the strongest among those with OUD, followed by those with tobacco use disorder. The study also showed that “among patients with COVID-19, those with SUD were more likely to be hospitalized and to die than those without SUD.”<sup>64</sup> Dr. Volkow offered a following explanation of the study results: “The lungs and cardiovascular system are often compromised in people with SUD, which may partially explain their heightened susceptibility to COVID-19. Another contributing factor is the marginalization of people with addiction, which makes it harder for them to access health care services.”<sup>65</sup>

As early as May 2020, researchers pinpointed specific direct and indirect risks for patients with OUD and COVID-19 infection. Direct risks are due to the fact that opioids use makes patients especially vulnerable to the virus from the physiological standpoint. As COVID-19 disease is often

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<sup>60</sup> Pollard, Michael S., Tucker, Joan S., and Harold D. Green, Jr. “Changes in Adult Alcohol Use and Consequences During the COVID-19 Pandemic in the US.” *JAMA Network Open*, September 29, 2020: e2022942, doi:10.1001/jamanetworkopen.2020.22942.

<sup>61</sup> Bruce, Giles. “Coronavirus Crisis Disrupts Treatment for Another Epidemic: Addiction.” *Kaiser Health News*. July 6, 2020, <https://khn.org/news/coronavirus-crisis-disrupts-treatment-for-another-epidemic-addiction/>.

<sup>62</sup> “Substance Use Disorder Linked to Higher COVID-19 Risk.” *JAMA*. October 27, 2020. Vol. 324. No. 16, <https://jamanetwork.com/journals/jama/fullarticle/2772258>.

<sup>63</sup> *Ibid.*

<sup>64</sup> *Ibid.*

<sup>65</sup> National Institutes of Health. *Substance Use Disorders Linked to COVID-19 Susceptibility*. September 14, 2020, <https://www.nih.gov/news-events/news-releases/substance-use-disorders-linked-covid-19-susceptibility>.

associated with serious lung complications, such as acute respiratory distress syndrome (ARDS) and opioids directly affect the brainstem to slow breathing, “individuals using opioids may be at increased risk for worsened hypoxemia with the infection.”<sup>66</sup> The authors also cautioned against the possible negative impact of triage bias associated with substance use disorder and the inability to find a safe place to self-isolate due to higher rates of homelessness among this patient population and to the disruption in the functioning of usual community partners such as homeless shelters and recovery houses. Indirect risks for opioid-associated harm can be expected when community members stay apart and first responders are overwhelmingly engaged in urgent COVID-19 response; this may mean the opportunity for a life-saving intervention with naloxone in cases of an overdose may be dramatically decreased.

Summarizing the reasons why drug use during the COVID-19 pandemic can be particularly deadly, researchers attribute higher risks to the following factors: under the new circumstances, people with substance use disorders have sometimes

- Turned to new dealers or unfamiliar drugs;
- Overdosed alone with no one nearby to help by calling 911 or administer the opioid-overdose antidote naloxone;
- Kept away from drug-using peers because of the lockdowns;
- Struggled to find help because of limited services and even closed facilities; or
- Hesitated to seek SUD treatment in the early days of the pandemic for fear of contracting COVID-19.<sup>67</sup>

From the long-term perspective, traumatic experiences such as extended intensive care unit stays and hospitalizations followed by lengthy recovery can be expected “to increase mental health comorbidities that carry risk for problematic substance use behaviors.”<sup>68</sup> In light of these perceived risks, SUD experts and advocates called for the proactive public health response. They conjectured harm reduction approaches such as expanded access to opioid-associated services through telehealth, more flexible prescribing and monitoring practices guidelines could “create more accessible care and reduce the burden on acute hospital services during this crisis.”<sup>69</sup> Obviously, further analysis will be required.

In response to the alarming situation in which more than forty states, including Pennsylvania, have reported increases in opioid-related mortality as well as ongoing concerns for those with a mental illness or substance use disorder, the American Medical Association (AMA) outlined several measures that governors and states legislatures can take:

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<sup>66</sup> Slat, Stephanie; Thomas, Jennifer; and Pooja Lagisetty. “Coronavirus Disease 2019 and Opioid Use – a Pandemic Within an Epidemic,” *JAMA*. May 29, 2020. <https://jamanetwork.com/channels/health-forum/fullarticle/2766790>.

<sup>67</sup> Stacy Weiner, Association of American Medical Colleges, “COVID-19 and the opioid crisis: When a pandemic and an epidemic collide.” *Patient Care*, July 27, 2020, <https://www.aamc.org/news-insights/covid-19-and-opioid-crisis-when-pandemic-and-epidemic-collide>.

<sup>68</sup> Slat, Stephanie; Thomas, Jennifer; and Pooja Lagisetty. “Coronavirus Disease 2019 and Opioid Use – a Pandemic Within an Epidemic,” *JAMA*. May 29, 2020. <https://jamanetwork.com/channels/health-forum/fullarticle/2766790>.

<sup>69</sup> *Ibid.*



- Adopt new Substance Abuse and Mental Health Services Administration (SAMHSA) and Drug Enforcement Administration (DEA) “rules and guidance in-full for the duration of the national emergency—this includes flexibility for evaluation and prescribing requirements using telemedicine;
- Support the removal of prior authorization, step therapy and other administrative barriers for medications used to treat opioid use disorder; meaningful enforcement of mental health and substance use disorder parity laws is long overdue;
- Remove existing barriers for patients with pain to obtain necessary medications. This includes removing arbitrary dose, quantity and refill restrictions on controlled substances; and
- Implement and support harm reduction strategies, including removing barriers to sterile needle and syringe services programs.”<sup>70</sup>

Even though forthcoming studies of the impact of the pandemic on substance use disorder, in general, and overdoses, in particular, will throw light on various aspects of this problem, medical professionals are already trying to draw lessons from the current experience. They stated, “The US COVID-19 epidemic has likely adversely affected the incidence of opioid overdose but has also led to opportunities to reduce overdoses by improving treatment.”<sup>71</sup> While experts acknowledge that “COVID-19 has introduced a number of key challenges to receiving treatment, all differentially affecting low-income or other valuable populations,” they point out “it has also been accompanied by changes favoring access to care.”<sup>72</sup> These changes include

- 1) reducing financial barriers to treatment and naloxone through the emergency expansion of Medicaid,
- 2) easing of restrictions on the dispensing of methadone (e.g., take-home doses for 14-28 days instead of daily directly observed dosing), and
- 3) expanding the role of telemedicine in the care of patients with opioid use disorder (e.g., buprenorphine initiation and follow-up by video or telephone visit).<sup>73</sup>

A recent *JAMA* editorial outlines specific policies that have emerged during the pandemic and can have a lasting impact if implemented broadly in the future: “Successfully linking and retaining individuals in care and treatment will require comprehensive approaches to expanding access, such as eliminating caps to the number of patients who can be treated by a prescriber; expanding community outreach, social services, and telemedicine; by more emergency department physicians obtaining waivers to initiate medication treatment for patients with opioid use disorder who are discharged from the emergency department; and eliminating the barrier of requiring a waiver to prescribe buprenorphine in the first place.”<sup>74</sup> The authors posit that “COVID-19 has ushered in the introduction of policies that, if made permanent, have the potential to not only

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<sup>70</sup> American Medical Association Advocacy Resource Center. *Issues Brief: Reports of Increases in Opioid-Related Overdose and Other Concerns during COVID Pandemic*. Updated October 6, 2020, <https://www.ama-assn.org/system/files/2020-10/issue-brief-increases-in-opioid-related-overdose.pdf>.

<sup>71</sup> Hailey, Danielle F. and Richard Saitz. “The Opioid Epidemic During the COVID-19 Pandemic.” *JAMA*. September 18, 2020, doi:10.1001/jama.2020.18543.

<sup>72</sup> Ibid.

<sup>73</sup> Ibid.

<sup>74</sup> Ibid.

mitigate the effect of the COVID-19 pandemic on overdoses, but also address long-standing structural barriers to accessing proven treatments.”<sup>75</sup>

One of such policies that has probably spurred most interest is the expanded role of telehealth and telemedicine. In 2018, the U.S. Department of Health and Human Services working with the Drug Enforcement Administration (DEA) released guidance to assist clinicians in using telemedicine as a tool to expand buprenorphine-based medication-assisted treatment (MAT) for opioid use disorder treatment.<sup>76</sup> This approach especially supported access to MAT in rural areas.<sup>77</sup> The Rural Health Information Hub<sup>78</sup> presents a case scenario to demonstrate a practical example of a nurse practitioner in a rural health clinic collaboration remotely with an addiction specialist physician through telehealth to manage MAT. This practical script is attached as an Appendix I.<sup>79</sup>

On April 20, 2020, Highmark announced that its commercial, Affordable Care Act, and Medicare Advantage members in Pennsylvania and Delaware now have access to a comprehensive, technology-enabled opioid use disorder program.<sup>80</sup> Members can access services and meet on-demand with medical staff and teleaddiction counselors through a smart phone, a tablet, or a computer. Services may be initiated through a self-referral or through a warm hand-off by an emergency department. Following an assessment process, members are connected to a multi-disciplinary care team, including a physician, a therapist, a case manager, a care manager, and a wellness coach. The program offers individualized treatment plans, including MAT. According to the nationally-recognized teleaddiction service provider, “more than 90% of patients are retained in treatment one month after beginning services....More than 90% of patients are negative for opioids within 90 days of beginning treatment, and more than 85% are negative for

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<sup>75</sup> Ibid.

<sup>76</sup> According to the DEA’s *Use of Telemedicine While Providing Medication Assisted Treatment (MAT)* statement, pursuant to the provisions of the Ryan Haight Act of 2008, DEA-registered practitioners acting within the United States, which include DATA 2000-waivered practitioners, are exempt from the in-person medical evaluation requirement as a prerequisite to prescribing or otherwise dispensing controlled substances via the Internet if the practitioner is engaged in the “practice of telemedicine” as defined under 21 U.S.C. § 802(54). The “practice of telemedicine” entails, among other things, “the practice of medicine in accordance with applicable Federal and State laws by a practitioner (other than a pharmacist) who is at a location remote from the patient and is communicating with the patient, or health care professional who is treating the patient, using a telecommunications system referred to in section 1395m(m) of Title 42,” and in practices with certain features identified in 21 U.S.C. § 802(54). Practitioners should familiarize themselves with all aspects of the “practice of telemedicine” definition provided in 21 U.S.C. § 802(54), which is available at: <https://www.deadiversion.usdoj.gov/21cfr/21usc/802.htm>.

<sup>77</sup> U. S. Department of Health and Human Services. *Telemedicine and Prescribing Buprenorphine for the Treatment of Opioid Use Disorder*, September 2018, available at [https://www.careinnovations.org/wp-content/uploads/DHCS\\_HHS-MAT-Telemedicine-Statement.pdf](https://www.careinnovations.org/wp-content/uploads/DHCS_HHS-MAT-Telemedicine-Statement.pdf) (accessed October 5, 2020).

<sup>78</sup> National clearinghouse on rural health issues, RHIhub is a guide to improving health for rural residents—provides access to current and reliable resources and tools to help you learn about rural health needs and work to address them. The RHIhub is the nation’s rural health information source. The website offers a library of resources, coverage of rural issues, state guides, evidence-based toolkits, program models and more, <https://www.hrsa.gov/library/rural-health-information-hub-rhi-hub>.

<sup>79</sup> U. S. Department of Health and Human Services. *Telemedicine and Prescribing Buprenorphine for the Treatment of Opioid Use Disorder*, September 2018, available at [https://www.careinnovations.org/wp-content/uploads/DHCS\\_HHS-MAT-Telemedicine-Statement.pdf](https://www.careinnovations.org/wp-content/uploads/DHCS_HHS-MAT-Telemedicine-Statement.pdf) (accessed October 5, 2020).

<sup>80</sup> “Highmark expands telehealth opioid treatment program to Pennsylvania, Delaware.” *Smyrna/Clayton Sun-Times*, April 20, 2020, available at <https://www.scsuntimes.com/story/news/local/2020/04/20/highmark-expands-telehealth-opioid-treatment-program-to-pennsylvania-delaware/112108538/> (accessed October 5, 2020).

other stimulants and sedatives. Health-related costs are reduced by \$20,000 annually when opioid dependent patients are on MAT.”<sup>81</sup>

In addition to telehealth and telemedicine, telebehavioral health has the potential to significantly contribute to the warm hand-off process. “Telebehavioral health involves the use of technology to provide behavioral health care services at a distance for individuals who are at risk for or suffer from mental illness, or behavioral or addictive disorders, ranging from mood and anxiety disorders, to substance use disorders, to post-traumatic stress disorder, and suicidality.”<sup>82</sup> Telebehavioral health can encompass patient-to-provider interactions; direct-to-consumer interactions initiated by the patient; and provider-to-provider interactions.

Telebehavioral health can involve the following:

- 1) synchronous (real-time) video communication through computers and mobile devices;
- 2) asynchronous transmission of video and images using secure electronic systems (commonly referred to as store and forward);
- 3) remote patient monitoring (RPM), which is personal health data being transmitted from an individual in one location to a clinician in a different location;
- 4) mobile health (mhealth) applications, which are designed to foster health and well-being, and
- 5) any combinations of these methods.<sup>83</sup>

Experience supports the belief that telebehavioral health benefits both patients and families as well as hospitals, health systems, providers, and payers. For patients and families, these technologies provide timelier, more convenient access to care and treatment; improved outcomes and experience; and keeping patients in care continuum often reducing costs. For hospitals, health systems, providers, and payers, telebehavioral health enables more timely care, enhanced capacity to deliver initial and follow-up care, and reduced utilization of higher-cost services.<sup>84</sup>

One example is the Maine Mobile Health Program. The program administrators advocate that telehealth reduces barriers to access to behavioral health. Using technology, this program “meets the needs of patients across the state in various languages to provide timely and culturally appropriate behavioral health services.”<sup>85</sup> Services include assessments and referral to treatment; ongoing counseling; substance use treatment; monitor treatment; and consultations with other

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<sup>81</sup> Ibid.

<sup>82</sup>National Quality Forum and AHA (*American Hospital Association*) Center for Health Innovation, *Redesigning Care: A How-To Guide for Hospitals and Health Systems Seeking to Implement, Strengthen and Sustain Telebehavioral Health*, March 2019, available at <https://www.aha.org/system/files/media/file/2020/03/Telebehavioral-Health-Guide-FINAL-031919.pdf> (accessed October 5, 2020).

<sup>83</sup> Ibid.

<sup>84</sup> Hilty, D.M. et al. *The Effectiveness of Telemental Health: A 2013 Review, June 2013*, available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662387/pdf/tmj.2013.0075.pdf> (accessed October 5, 2020) and Shigekawa, E. et al. *The Current State of Telehealth Evidence: A Rapid Review*, December 2018, available at <file:///C:/Users/lhack/AppData/Local/Temp/hlthaff.2018.05132-1.pdf> (accessed October 5, 2020).

<sup>85</sup>Valencia Orozco, Laura, *Reducing Barriers to Access to Behavioral Health using Telehealth*, P. 7, available at <https://www.ncchca.org/wp-content/uploads/2019/10/Reducing-Barriers-to-Access-to-Behavioral-Health-Using-Telehealth-Orozco.pdf> (accessed October 5, 2020).

providers. When providing these services, “the originating site (location of the patient) and the receiving site (location of the provider) can be anywhere as long [as] it allows for privacy and confidentiality.”<sup>86</sup>

The Maine Mobile Health Program seeks to achieve the following goals: increase access to all patients, breakdown language barriers, decrease barriers to access due to transportation and geographic locations, improve patient satisfaction, improve provider satisfaction, expand the behavioral health program (including providing staffing to better represent patient demographics), and decrease costs.<sup>87</sup> The successes of the program include offering services in multiple languages, increasing number of participants receiving behavioral health treatment, reaching more patients statewide, decreasing number of no-show patients due to poor weather conditions and/or lack of transportation, and requiring fewer staff to coordinate the appointment.<sup>88</sup>

Despite the seeming benefits of telehealth, significant implementation challenges exist. Participants and providers require adequate access to both equipment/devices and Internet access, both of which may be lacking in rural settings.<sup>89</sup> One way to overcome this obstacle may be for clinics to offer space and/or equipment to assist patients. “There is also mistrust of technology-based health care, and doubt in the quality of telehealth services; trust is integral to effective collaboration among providers or organizations and trust will take time to develop.”<sup>90</sup>

Older clients may be less comfortable with the technology required for telehealth sessions; they are more likely to lack both the technical knowledge and trust into this format of counseling. The youth, on the contrary, are “very comfortable with technology, have access to computers and/or smart phones and seem to like meeting with their providers from the comfort of their home,” observed the director of the Youth Outpatient Substance Use Program at the University of California San Francisco.<sup>91</sup> Even young patients sometimes do not have a private space from which to conduct a confidential visit. Maintaining privacy and confidentiality presents a significant challenge, especially for patients who live in crowded environments or have household members in close proximity during telehealth visits. Many other patients do not have access to a phone, Wi-Fi, or other resources. Some adults struggling with SUD are homeless. Importantly, telehealth works best for people who are already engaged in care, which is not the case for most people with opioid addiction and those who have just survived overdose.

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<sup>86</sup> Ibid.

<sup>87</sup> Ibid.

<sup>88</sup> Ibid.

<sup>89</sup> Hiser, Yih-ing and Larissa J. Mooney. “Integrating Telemedicine for Medication Treatment for Opioid Use Disorder in Rural Primary Care: Beyond the COVID Pandemic.” *The Journal of Rural Health*, (2020) 1-3, available at Helath<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361555/pdf/JRH-9999-na.pdf> (accessed October 5, 2020).

<sup>90</sup> Ibid.

<sup>91</sup> Kagan, Heather J. *Opioid Overdoses on the Rise during COVID-19 Pandemic, despite Telemedicine Care*, <https://abcnews.go.com/Health/opioid-verdoses-rise-covid-19-pandemic-telemedicine-care/story?id=72442735> (accessed August 24, 2020).

Other barriers to wide-scale adoption of telehealth for substance use disorders include SUD treatment’s reliance on frequent visits and intense monitoring through urine toxicology; “clinician discomfort and concern about loss of therapeutic rapport in remote visits”; and adequate training in and access to secure technologies for both patients and clinicians.<sup>92</sup> These considerations need to be addressed and solutions incorporated within current guidelines on using telehealth for SUD treatment. Telemedicine prescribing of controlled medications, particularly buprenorphine for opioid use disorder, is perceived as a valuable option for reaching patients in rural and other underserved areas. Telemedicine enthusiasts believe that “telehealth can uniquely address capacity shortages, but much work is needed to support large-scale dissemination and adoption. In the future, it will also be critical to understand the effects on treatment uptake and on patient outcome to assess the quality of care delivered.”<sup>93</sup>

“Telehealth is not the magic solution,” said Caleb Banta-Green, a principal research scientist at the University of Washington Alcohol and Drug Abuse Institute.<sup>94</sup> Experience with telehealth use for SUD acquired during the pandemic will need to be carefully studied in order to determine how it can be continued going forward. Detailed guidelines, policies for oversight and standards for telehealth privacy and security will need to be developed if this promising method is to be used more broadly in the future.

Psychiatrists caution that COVID’s negative impacts on mental health and substance use disorders may extend far beyond the pandemic’s official end; they predict an “imminent mental health surge” that will “bring further challenges for individuals, families, and communities including increased deaths from suicide and drug overdoses.”<sup>95</sup> Prevention and treatment efforts will need to continue. At the same time, lessons learnt during the pandemic may inform developing strategies and lead to improved policies in the future.

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<sup>92</sup> Lin, Lewei (Allison); Fernandez, Anne C.; and Erin E. Bonar. “Telehealth for Substance-Using Populations in the Age of Coronavirus Disease 2019: Recommendations to Enhance Adoption.” *JAMA Psychiatry*. December 2020. Vol. 77. No. 12,

[https://jamanetwork.com/journals/jamapsychiatry/fullarticle/10.1001/jamapsychiatry.2020.1698?guestAccessKey=6ee4de9b-309b-41e0-a2db-12d11af9c02e&utm\\_source=silverchair&utm\\_medium=](https://jamanetwork.com/journals/jamapsychiatry/fullarticle/10.1001/jamapsychiatry.2020.1698?guestAccessKey=6ee4de9b-309b-41e0-a2db-12d11af9c02e&utm_source=silverchair&utm_medium=)

<sup>93</sup> Ibid.

<sup>94</sup> Kagan, Heather J. Op. cit.

<sup>95</sup> Simon, Naomi M., Saxe, Glenn N., and Charles R. Marmar. “Mental Health Disorders Related to COVID-19-Related Deaths.” *JAMA*. October 12, 2020, doi: 10.1001/jama.2020.19632.



## APPROACHES TO OVERDOSE RECOVERY

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Addressing the overdose crisis successfully requires a variety of strategies. Prevention plays a big role and involves changes in prescribing practices and other measures. The use of naloxone, introduced in Pennsylvania early and broadly, has saved many lives. There are still areas, especially in rural Pennsylvania, where the lack of availability of naloxone remains a missed opportunity to prevent an overdose death. Naloxone should be made available uniformly throughout the Commonwealth, and education regarding its use should be continuous. Making naloxone available to clients and their families upon discharge from the hospital or release from prison is widely recommended as a preventive measure.

The potential for educating patients about naloxone use and supplying naloxone to the patients who have experienced an overdose or who are being discharged from opioid treatment programs has been corroborated by a number of studies. A recent year-long cohort study performed in New Mexico sought to measure use of take-home naloxone for overdose reversals performed by study participants with opioid use disorder who received treatment at an opioid treatment program. Study participants were provided with two doses of take-home naloxone, along with opioid overdose education. The primary outcome was “to measure the association of take-home naloxone with overdose reversals performed by patients with opioid use disorder enrolled in an opioid treatment program.”<sup>96</sup> The findings were that after one year, 73 of 395 study participants performed 114 opioid overdose reversals in the community.<sup>97</sup> Based on their findings, the researchers concluded that “take-home naloxone as part of overdose education and naloxone distribution provided to patients in an opioid treatment program may be associated with a strategic targeted harm reduction response for reversing opioid overdose-related deaths” and recommended that policy makers “consider regulations to mandate overdose education and naloxone distribution in opioid treatment programs.”<sup>98</sup>

Emergency medicine physicians have also spoken in favor of being able to provide one or two doses of naloxone to the patients they have treated after an overdose as well as their family members when the patients are being discharged. When combined with opioid overdose education, it can be an effective step to prevent another overdose and a valuable part of the warm hand-off process.

To prevent overdose, it is important to analyze carefully its occurrence and to implement a targeted approach. Recent research has recommended predictive modeling as a promising tool. For

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<sup>96</sup> Katzman, Joanna G. et al. “Association of Take-Home Naloxone and Opioid Overdose Reversals Performed by Patients in an Opioid Treatment Program.” *JAMA Network Open*. February 26, 2020. Vol. 3. No. 2, doi:10.1001/jamanetworkopen.2020.0117.

<sup>97</sup> Ibid.

<sup>98</sup> Ibid.

example, an extensive predictive modeling study of four statewide Maryland databases, involving 2.2 million individuals, indicated that “fatal opioid overdose in the next 12 months could be predicted with an area under the curve as high as 0.89.”<sup>99</sup> The authors of this study created a cross-sectional sample using 2015 data from four Maryland databases: all-payer hospital discharges, the prescription drug monitoring program (PDMP), public-sector specialty treatment, and criminal justice records for property or drug-associated offenses. Maryland adults aged 18 to 80 years with records in any of the four databases were included, with the exception of individuals who died in 2015 or had a non-Maryland zip code. Main outcomes and measures were fatal opioid overdose defined by the state medical examiner and one or more nonfatal overdoses treated in Maryland hospitals during 2015. The study revealed that “the factors most strongly associated with the baseline year (by odds ratio) included male sex, use of addiction treatment, at least 1 nonfatal overdose, and release from prison.”<sup>100</sup> Identifying the relative risk of overdose across different population groups with the help of a predictive risk model developed by linking clinical and criminal justice data may facilitate public health efforts to prioritize life-saving interventions. Based on their findings, the authors concluded that in their analysis, “fatal and nonfatal opioid overdose could be accurately predicted with linked administrative databases,” and that “predictive models using linked databases can be used to target large-scale public health programs.”<sup>101</sup>

House Resolution 216 underlines justly that “managing the aftermath of an overdose by offering lifesaving assistance is only the first step needed for survival” and identifies warm hand-off to addiction treatment as “the critical next step to restore lasting health and safety.”<sup>102</sup>

In their discussions, the advisory committee members underscored that the real goal is to treat addiction. They pointed out the necessity of changing society’s mindset to address addiction, not just make efforts to reduce overdose death statistics by stabilizing overdose patients. Continuity of treatment is of the essence; it can play a significant part in overdose prevention.

In its proposition of a continuum of care approach, largely based on pioneering efforts in Western Pennsylvania to address the heroin/opioid epidemic, researchers from the University of Pittsburgh Institute of Politics highlighted the importance of warm hand-offs for creating a seamless and sustainable continuum of care. They wrote:

A critical element of successfully addressing the opioid epidemic is ensuring smooth transitions to or from treatment services for individuals identified with SUD. This requires a knowledge of key intercept points ensuring that mechanisms are in place that allow for smooth transitions, or warm handoffs. Warm handoffs at intercept points, such as emergency departments, physician offices, law enforcement, discharge from treatment centers, or a release from jail, give those dealing with SUD a better pathway to treatment and recovery.<sup>103</sup>

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<sup>99</sup> Saloner, Brendan et al. “Predictive Modeling of Opioid Overdose Using Linked Statewide Medical and Criminal Justice Data.” *JAMA Psychiatry*. June 24, 2020, doi:10.1001/jamapsychiatry2020.1689.

<sup>100</sup> Ibid.

<sup>101</sup> Ibid.

<sup>102</sup> HR216, P.N. 1355 (2019).

<sup>103</sup> Miller, Terry; Lauer, Aaron; Mihok, Briana; and Karlie Haywood. *A Continuum of Care Approach; Western Pennsylvania’s Response to the Opioid Epidemic*. Pittsburgh, PA: University of Pittsburgh Institute of Politics, 2016, <http://d-scholarship.pitt.edu/29950/1/IOPOpioidReport2016.pdf>. P. 26.



The Agency for Healthcare Research and Quality (AHRQ) describes the warm hand-off in the following way: “A warm handoff is a transfer of care between two members of the health care team, where the handoff occurs in front of the patient and family.”<sup>104</sup>

A more specific definition applicable to the warm hand-off of an SUD patient reads as follows: “A warm handoff is the process of transitioning a patient with SUD from an intercept point, such as an emergency department, to a treatment provider once the patient is stable.”<sup>105</sup> This definition postulates that the warm handoffs process is not limited to opioids; it is not limited to overdoses; it provides a pathway to treatment and recovery; and it can decrease the risk of subsequent overdose.<sup>106</sup>

A formal definition proposed for a model policy designed for emergency departments describes a warm hand-off as “an approach to care-transition in which a health care provider in the ED does a face-to-face introduction of a patient with substance abuse problems to an addiction treatment provider or to an individual who can facilitate a referral to an addiction treatment provider.”<sup>107</sup>

The need for warm hand-off programs is made clear by notable statistics showing how many individuals experience overdose repeatedly and how few of them receive follow-up services after their initial SUD treatment. According to one study, among the individuals who died of an opioid-related overdose, 62 percent had at least one prior overdose, 22 percent had at least two prior overdoses, and 17 percent had experienced three to six prior overdoses.<sup>108</sup> Another study, based on the records of patients who carried private health insurance, found that 40 percent of patients who received hospital care for opioid-related conditions did not get any follow-up services within thirty days of the hospitalization; only 10.7 percent of patients received the recommended combination of both medication and a therapeutic service within thirty days following an opioid-related hospitalization, with 6 percent of patients receiving medications only and slightly more than 43.3 percent receiving therapy only during this time period after discharge.<sup>109</sup> The authors of this report state that “identifying patterns of post-discharge treatment is an important step in developing targeted prevention, intervention, and treatment options for patients with an SUD related to prescription opioids” and recommend more research “to understand the barriers that patients with an SUD-related to prescription opioids have in trying to access services after

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<sup>104</sup> Agency for Healthcare Research and Quality. *Warm Handoff: Intervention*, <https://www.ahrq.gov/patient-safety/reports/engage/interventions/warmhandoff.html>.

<sup>105</sup> Perry, Karen; Sullivan, Ross; and Michael Barnes. *Warm Handoffs: Overcoming Barriers to Implementation: Rx Drug Abuse and Heroin Summit (An NCAD Meeting)*. Center for U.S. Policy, April 2019, [https://centerforuspolicy.org/wp-content/uploads/2019/04/Warm\\_Handoffs\\_Overcoming\\_Barriers.pdf](https://centerforuspolicy.org/wp-content/uploads/2019/04/Warm_Handoffs_Overcoming_Barriers.pdf).

<sup>106</sup> Ibid.

<sup>107</sup> Barnes, Michael C. and Daniel C. McClughen. “Warm Handoffs: The Duty of and Legal Issues Surrounding Emergency Departments in Reducing the Risk of Subsequent Drug Overdoses.” *The University of Memphis Law Review*. Vol. 48, <https://dcbalaw.com/wp-content/uploads/2019/01/WarmHandoffsBarnesMcClughen.pdf>.

<sup>108</sup> Stooze, Mark A.; Dietze, Paul M.; and Damien Jolley. “Overdose Deaths Following Previous Non-fatal Heroin Overdose: Record Linkage of Ambulance Attendance and Death Registry Data.” *Drug and Alcohol Review*. Vol. 28. No. 4. July, 2009, <http://onlinelibrary.wiley.com/doi/10.1111/j.1465-3336.2009.00057.x/full>.

<sup>109</sup> Ali, Mir M. and Ryan Mutter. *Patients who are Privately Insured Receive Limited Follow-up Services after Opioid-Related Hospitalizations: The CBHSQ Report*. Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. February 11, 2016, [https://www.samhsa.gov/data/sites/default/files/report\\_2117/ShortReport-2117.pdf](https://www.samhsa.gov/data/sites/default/files/report_2117/ShortReport-2117.pdf).

hospitalization, as well as the barriers that health care providers have to making the optimal referral.”<sup>110</sup> These statements are applicable to various kinds of SUD patients.

Researchers and practitioners point out that “even when stakeholders in the community are ready to make a warm handoff, they often encounter barriers in referring someone with an SUD treatment. There may not be enough beds, or the beds available may be reserved to patients with a particular type of insurance.”<sup>111</sup> Even four years ago, experts with a vast knowledge of the field cautioned that “the programs and 12-step groups in existence today may not be sufficient to address continued and anticipated increase in people recovering from SUDs going forward” and suggested that “in addition to more of the same programs, new programs need to be developed, particularly for individuals recovering from heroin/opioid addiction and their families.”<sup>112</sup> This remains a valid concern today.

To optimize the use of existing resources and connect patients with needed services in more efficient ways, some states have established regional behavioral health referral and treatment networks. The advisory committee members listened to a presentation on one of such systems: OpenBeds.<sup>113</sup> OpenBeds is a behavioral health treatment access and social services referral platform that allows its users to view real-time availability of both inpatient and outpatient treatment resources and social services and to create digital referrals. In addition, it offers decision-support tools which help to select a level of treatment based on the American Society of Addiction Medicine (ASAM) criteria. Social services can be requested separately or in conjunction with a treatment referral. The platform has a patient show/no show indicator, which helps to trace the results. An ability to process simultaneous (multiple-facility) referrals helps reduce effort and decrease placement times, which is very important in the warm hand-off process. Rationale for declined referrals helps identify gaps in the care. Clinicians and their clients are provided with educational materials to assist them in making an appropriate referral. There is a public-facing access point, which enables individuals to reach out to providers and anonymously express interest in treatment.

OpenBeds can be a source of valuable data:

- Capacity
  - Capacity of services over time
  - Utilization of services
  - Frequency of service availability updated
- Access
  - Time from referral to decision by receiving service
  - Referral outcome and disposition
  - Frequency of referrals received and referred out
  - Frequency of referrals accepted/declined

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<sup>110</sup> Ibid.

<sup>111</sup> Miller, Terry; Lauer, Aaron; Mihok, Briana; and Karlie Haywood. Op. cit. P. 26.

<sup>112</sup> Ibid.

<sup>113</sup> Dr. Nishi Rawat, Senior Vice President, Appriss Health; Ms. Elizabeth Romero, Director, Delaware Division of Substance Abuse and Mental Health; Ms. Lisa Johnson, Special Assistant to the Director, Delaware Division of Substance Abuse and Mental Health. Presentations at the advisory committee meeting on May 15, 2020.

- Rationale for declined referrals
- Referral patterns across the state
- Demographics of patients referred.<sup>114</sup>

Detailed analytics and reports may help to improve processes at referring and treatment organizations. Some states relying on OpenBeds, including Delaware, have found it a useful resource.

Behavioral health and substance abuse referral and treatment networks such as OpenBeds raise certain concerns, including patient confidentiality issues and the range of access to data for various users. If the Commonwealth considers acquiring OpenBeds or a similar platform, these issues will need to be addressed, along with financial investments that implementation and maintenance of a system of this kind would require.<sup>115</sup>

Patient access and program capacity are consistently perceived as the two most pivotal barriers to OUD treatment.<sup>116</sup> A warm hand-off can be an effective way to overcome these barriers and expeditiously provide the patient with the most successful approach to treating his or her addiction and preventing overdose in the future. Moreover, research has shown that ED warm hand-off programs increase initial patient engagement rates. One of the recent studies based on data from rural EDs in Georgia found that “peer interventions can be beneficial for all types of drug use, not just for individuals who experience accidental opioid drug poisoning (i.e., overdose)”; results also suggested that “both clinical and community-based supports can be used for referrals to appropriate levels of care.”<sup>117</sup>

The growing awareness of the need to facilitate treatment after an overdose led to several community-based and professional innovations. In addition to peer-based emergency department warm hand-off programs and emergency department buprenorphine induction, a recent review of these innovations includes hybrid recovery community organizations (RCOs) and low-threshold OUD treatment programs (office-based opioid treatment, or OBOTs).<sup>118</sup> Hybrid RCOs combine the delivery of recovery support services and harm reductions services; “they are intended to serve

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<sup>114</sup> Ibid.

<sup>115</sup> Additional information regarding mental health bed registry can be found in a recent Joint State Government Commission report *Behavioral Health Care System Capacity in Pennsylvania and Its Impact on Hospital Emergency Departments and Patient Health: Report of the Advisory Committee on Emergency Department Treatment and Behavioral Health*. Harrisburg, PA; Joint state Government Commission, July 2020, [http://jsg.legis.state.pa.us/publications.cfm?JSPU\\_PUBLN\\_ID=495](http://jsg.legis.state.pa.us/publications.cfm?JSPU_PUBLN_ID=495).

<sup>116</sup> Ashford, Robert D. et al. “Responding to the Opioid and Overdose Crisis with Innovative Services: The Recovery Community Center Office-Based Opioid Treatment (RCC-OBOT) Model.” *Addictive Behaviors*. November 2019. Vol. 98: 106031, doi: 10.1016/j.addbeh.2019.106031.

<sup>117</sup> Ashford, Robert; Meeks, Matthew; Curtis, Brenda; and Austin McNeill Brown. “Utilization of Peer-Based Substance Use Disorder and Recovery Interventions in Rural Emergency Departments: Patient Characteristics and Exploratory Analysis.” *Journal of Rural Mental Health*. 2018. Vol. 43. No. 1, doi: 10.1037/rmh0000106, [https://www.researchgate.net/publication/329294482\\_Utilization\\_of\\_peer-based\\_substance\\_use\\_disorder\\_and\\_recovery\\_interventions\\_in\\_rural\\_emergency\\_departments\\_Patient\\_characteristics\\_and\\_exploratory\\_analysis](https://www.researchgate.net/publication/329294482_Utilization_of_peer-based_substance_use_disorder_and_recovery_interventions_in_rural_emergency_departments_Patient_characteristics_and_exploratory_analysis).

<sup>118</sup> Ashford, Robert D. et al. “Responding to the Opioid and Overdose Crisis with Innovative Services: The Recovery Community Center Office-Based Opioid Treatment (RCC-OBOT) Model.” *Addictive Behaviors*. November 2019. Vol. 98: 106031, doi: 10.1016/j.addbeh.2019.106031.

some of the most at-risk populations for both OUD and opioid-involved overdose events, including a subset ... not often engaged in other levels of care.”<sup>119</sup> OBOTs typically include induction, stabilization, and on-going pharmacotherapeutic maintenance treatment; some of them also offer concurrent psychosocial supports. Emphasizing the importance of medication treatment and building upon the foundational frameworks of each of the above-mentioned innovations, the authors of this review propose a new model of OUD pharmacotherapy: the Recovery Community Center Office-Based Opioid Treatment Model (RCC-OBOT). They discuss two potential implementation scenarios (the overdose and non-overdose event protocols) and potential barriers to implementation of the model (service reimbursement, licensing regulations, and organizational concerns). They acknowledge that future research will be required to validate the model and to identify actual implementation and sustainability barriers and best practices.”<sup>120</sup>

Regulatory burden and operational burden, along with safety concerns, potentially associated with the RCC-OBOT, would present serious obstacles with any stand-alone warm hand-off facilities. The main concern is that such facilities can hardly be expected to provide adequate medical care to their clients. In its discussion of various options, including a scenario that would allow EMS workers or police officers, after administering naloxone, to transfer a patient either to an ED or to a warm hand-off/overdose stabilization center, the advisory committee expressed profound concern about the safety of such a protocol. The advisory committee members believe that ED is the only proper place for a patient who has just experienced an overdose as his or her condition can be unstable; the patient may have underlying medical conditions that may have impact on recovery; and an EMS provider or a police officer cannot be legitimately expected to take on a responsibility of making such a portentous decision. Other serious concerns arise regarding the impact on emergency medical services in case they were burdened with a task to transport patients to a county or regional warm hand-off/overdose stabilization center in addition to their regular duties. This could potentially have an adverse financial and operational impact on EMS as transport times, if lengthy, would take a needed resource out of an area for an extended period of time. EMS agencies are under tremendous financial and logistical pressure right now due to COVID-19 and occasionally are failing to meet their core mission responsibilities of 911 response. It is also not unusual, especially in the rural setting, that EMS agencies are being sent across multiple jurisdictions and even county borders to handle emergency 911 calls due to workforce shortages increasing the number of unstaffed services. Removing an available ambulance from service for a long period of time would directly impact the availability of resources for 911 emergency response. Financially, this transport would also likely be a non-covered service not reimbursable under current Medicare, Medicaid and third-party reimbursement guidelines creating a financial disincentive to transport these individuals to warm hand-off centers.

In their attempts to spearhead the warm hand-off process, some states such as Florida introduced new laws mandating certain emergency room policies and procedures.<sup>121</sup> To assist states that are contemplating such a step, the National Alliance for Model State Drug Laws (NAMSDL) drafted a Model Act Providing for the Warm Hand-off of Overdose Survivors to Treatment. Its legislative findings section refers to first responders’ and the recovery community members’ heroic “lifesaving overdose reversal efforts, all resulting in many more lives saved and

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<sup>119</sup> Ibid.

<sup>120</sup> Ibid.

<sup>121</sup> Fla. Stat. Ann. §395.1041 (6).

many more overdose survivors in our emergency health care systems.”<sup>122</sup> The section further alludes to these first responders “reporting that many whose overdoses are reversed are overdosing repeatedly, indicating that most overdose survivors are not being successfully transitioned to treatment and recovery support services, placing themselves at grave risk of death and causing extraordinary strain and suffering to their families and communities, including first responder and health care system services.”<sup>123</sup>

The advisory committee members fully share these concerns as well as the main purposes declared in the Model Act: “ensure that effective practices are used by emergency medical services personnel so that overdose victims are medically stabilized” and “ensure that effective practices are used by emergency services personnel and emergency departments so that stabilized overdose survivors are successfully transferred to appropriate treatment and recovery support services, as determined by an individualized treatment plan based on an assessment and clinical placement criteria.”<sup>124</sup> The advisory committee members, however, questioned several specific measures proposed by the Act such as transferring a patient to a detoxification facility as a step in the warm hand-off process. Both medical providers and representatives of the recovery community strongly objected to making detoxification facilities a destination for warm hand-offs as fundamentally unsuitable for such purposes; moreover, some advisory committee members cautioned that an offer to go to a detoxification facility may cause the patient to reject the idea of a warm hand-off altogether and thus, turn out to be counter-productive, undermining our efforts to engage people in treatment. The advisory committee members questioned the need for a legislative mandate as Pennsylvania providers currently engage in these legislated practices. Addressing a legislative solution, emergency department physicians noted the variability among EM providers and stated each county appears to function using available resources; they cautioned against proposing a mandate, especially considering the resource allocations necessitated by a potential mandate. An unfunded mandate would lead to deleterious consequences, especially as it would be difficult to incorporate agility of required services into a legislative mandate. A more useful approach may be to encourage facilitation of resources currently in place, trying to match presently stretched resources to meet the increasing demand for services. For example, an urban ED may require 24/7 availability of services, while rural facilities may benefit from engaging the warm hand-off services on demand from centralized support.

Having considered various approaches, the advisory committee has come to a conclusion that the best route for the Commonwealth to take with regard to warm hand-offs is to expand and develop the process that has already emerged in Pennsylvania, building on the existing resources. Agencies that are already involved in the warm hand-off process are the Single County Authorities (SCAs), the Centers of Excellence (COEs) and, to a lesser degree, some of the mental health crisis intervention centers. These agencies are well-positioned to adopt further services and provide platform for expanding and strengthening of warm hand-offs statewide.

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<sup>122</sup> National Alliance for Model State Drug Laws. *Model Act Providing for the Warm Hand-off of Overdose Survivors to Treatment*. Harrisburg, PA, 1918, <https://namsdl.org/wp-content/uploads/Warm-Hand-off-Model.pdf>.

<sup>123</sup> Ibid.

<sup>124</sup> Ibid.

Pennsylvania was one of the pioneers among other states in both the use of naloxone as a life-saving measure after overdose and the development of the warm hand-off process. The Department of Health (DOH), the Department of Drug and Alcohol Programs (DDAP), and the Pennsylvania College of Emergency Physicians (PACEP) collaborated to develop the warm hand-off protocol and created the Warm Hand-off Care Map flowchart, which is presented in Appendix D. The protocol has been implemented broadly throughout the Commonwealth and has been effective though certain areas require enhancement and improvement. The advisory committee analyzed the flowchart and identified potential barriers at each step as well as possible ways to minimize and overcome them. These are discussed in the relevant sections of the report and reflected in the recommendations. Key factors to an effective warm hand-off include clear protocols, proper education for all staff involved, quick establishment of a therapeutic alliance with an overdose patient,<sup>125</sup> close collaboration of participating agencies as a result of building close relationships between them, and a variety of treatment options for patients. The advisory committee continually emphasized significant differences in the hospital systems' and social services' capabilities as well as in the range of treatment facilities available in various Pennsylvania areas. As one of the members phrased it, echoing the thoughts of many others, the goal should be "the marriage of best practices with the realities on the ground." The Commonwealth should strive to achieve consistency in offering warm hand-offs based on the evidence-based best practices statewide while at the same time allow for flexibility based on local circumstances.

The performance and effectiveness of the warm hand-off can be evaluated in different ways. Some researchers and treatment providers recommend a broader view of a long-term impact of warm hand-offs; they believe that even when a warm hand-off initiation does not bear fruit immediately, it is planting seeds for future recovery: even if the client does not proceed to treat his or her SUD at that first approach, he or she is more likely to turn to treatment at a later point as he or she is more comfortable and better informed. Other experts prefer a narrower perspective on the warm hand-offs' impact, based on specific outcome measures. To judge how successful a warm hand-offs program is, four basic process evaluations can be applied: number of assessments, number of referrals to treatment, number of admissions to treatment, and number of shows/no shows to treatment. An important outcome would be whether a patient has had a repeat overdose or hospitalization for SUD within certain periods of time after the warm hand-off. The SCAs and COEs already have a system of criteria they apply to assessing the outcomes of the warm hand-offs process. They also have a system of reporting data, sharing information, conducting training, and ensuring adherence to evidence-based and promising practices. While this system should be continuously reviewed and improved, based on the emerging innovations and best practices, it provides an additional argument in favor of expansion and further development of the existing warm hand-offs infrastructure. The key elements of this infrastructure are analyzed in the subsequent sections of the report.

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<sup>125</sup> See more about the importance of a therapeutic alliance in: Campbell, Barbara K. et al. "Facilitating Outpatient Treatment Entry Following Detoxification for Injection Drug Use: A Multi-Site Test of Three Interventions." *Psychology of Addictive Behaviors*. June 2009. Vol. 23. No. 2, doi: 10.1037/a0014205.

## EMERGENCY DEPARTMENTS

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Emergency department is not the only, but it is the central point where warm hand-offs after an overdose can be initiated. After saving a patient's life, some emergency departments stop there, usually recommending further treatment without providing any specific links. Though ED physicians realize patients require long-term treatment for opioid use disorder that led to an overdose, they may not have the mechanisms or resources to ensure appropriate linkage to care. A rapid transition to outpatient care facilitates patients' access to necessary services, including medication-assisted therapy. When there is little or no communication between EDs and treatment programs, as is often the case, even when emergency medicine (EM) doctors refer patients for ongoing treatment, there are delays in outpatient services, poor follow-up rates, gaps in medication-assisted therapy, and worse outcomes overall. Emergency medicine physicians emphasize that "the transition of care from the ED to the outpatient setting represents a high-risk period for patients, and carefully coordinated care is essential to minimize the potential for acute opioid withdrawal and relapse."<sup>126</sup> General consensus is growing that more assertive strategies are needed to enhance patients' progression to substance use disorder treatment after an overdose. Warm hand-offs and regional referral systems have been recommended as two "mechanisms by which communication between the ED and outpatient providers can be improved and rapid entry into long-term treatment achieved."<sup>127</sup>

Noting an alarming rise in opioid overdoses, CDC urged emergency departments to "plan for the increasing number of patients with opioid-related conditions, including overdose, injection-related concerns, and withdrawal."<sup>128</sup> CDC recommend that emergency departments "develop post-opioid overdose protocols, which may include

- Offering overdose prevention education, naloxone, and related training for patients, family members, and friends.
- Linking patients to treatment and services in the community as needed.
- Starting MAT in the ED."<sup>129</sup>

An argument has been made that today "warm handoff policies are the standard of care when treating a patient who experienced an overdose."<sup>130</sup> Failure to provide warm hand-off service may, thus, expose hospitals to medical malpractice liability. According to some legal experts, "given the extent of the overdose epidemic and growing pressure on all stakeholders, including

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<sup>126</sup> Duber, Herbert C. et al. "Identification, Management, and Transition of Care for Patients with Opioid Use Disorder in the Emergency Department." *The Annals of Emergency Medicine*. Published online on June 5, 2018, doi: 10.1016/j.annemergmed.2018.04.007.

<sup>127</sup> Ibid.

<sup>128</sup> Centers for Disease Control and Prevention. "Opioid Overdoses Treated in Emergency Departments." *CDC Vital Signs*. March, 2018, accessed November 7, 2019, <https://www.cdc.gov/vital-signs/opioid-overdoses/index.html>.

<sup>129</sup> Ibid.

<sup>130</sup> Barnes, Michael C. and Daniel C. McClughen. Op. cit.

emergency departments, to prevent fatal overdoses, the view that warm handoff programs are the standard of care for emergency departments in treating patients presenting with nonfatal overdose is gaining widespread recognition.”<sup>131</sup> These experts contend that “not only can warm handoff programs comply with federal and state privacy and prescribing laws, but also that it is in hospitals’ best interests to provide warm handoff services to avoid negligence claims.”<sup>132</sup> Two experienced lawyers who designed a model policy on emergency department response to nonfatal drug overdose recommend that a warm hand-off policy for patients with SUD should require that “a practitioner attempt to transition a patient with a SUD directly to a treatment provider through an in-person introduction” and, moreover, that “even if the patient does not consent to a warm handoff, and does not wish to initiate treatment prior to discharge, the practitioner should attempt to contact the patient’s emergency contact or other caregiver who may convince the patient to obtain further care.”<sup>133</sup> These authors believe that “federal patient privacy laws permit emergency care providers to share information with other health care providers without a patient’s consent, and likely permit emergency care providers to notify a patient’s emergency contact or other caregiver regarding an overdose in order to facilitate a warm handoff.”<sup>134</sup> Their claim is based on three exceptions to the general nondisclosure rule that are provided by HIPAA and that, in their view, “likely apply when an emergency department provider notifies other parties involved in a patient’s care of the patient’s overdose without the patient’s consent: health-care-provider, good-faith-belief, and best-interest exceptions.”<sup>135</sup> Implementation of warm hand-offs policies by emergency departments requires ensuring that they protect the patient’s privacy, but when properly constructed, such policies have shown promising results and appear to be beneficial to patients, their families, and healthcare systems. Hospitals and emergency departments need to exercise caution to ensure they follow both federal and state confidentiality laws and regulations.

At the federal level, the Health Insurance Portability and Accountability Act (HIPAA) prescribes the minimum standard for maintaining the privacy of an individual’s protected health information.<sup>136</sup> Enacted in 1996, HIPAA incorporated protections for information related to substance use disorder treatment, which protections originally were enacted in the early 1970s as part of the federal plan to provide grants to states to create programs to address alcohol abuse, prevention, treatment, and rehabilitation.<sup>137</sup> The conference report for the final version of the 1972 enactment stressed that “the strictest adherence to the provisions of this section is absolutely essential to the success of all drug abuse prevention programs. Every patient and former patient must be assured that his right to privacy will be protected. Without that assurance, fear of public disclosure of drug abuse or of records that will attach for life will discourage thousands from seeking the treatment they must have if this tragic national problem is to be overcome.”<sup>138</sup>

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<sup>131</sup> Ibid.

<sup>132</sup> Ibid.

<sup>133</sup> Ibid.

<sup>134</sup> Ibid.

<sup>135</sup> Ibid.

<sup>136</sup> Health Insurance Portability and Accountability Act of 1996, PL 104-191, 110 Stat 1936.

<sup>137</sup> § 408, 86 Stat. 65, Pub. L. 92-255, March 21, 1972, known as the Drug Abuse Office and Treatment Act of 1972, and 88 Stat. 125, Pub. L. 93-282, May 14, 1974, known as the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act Prevention, Treatment and Rehabilitation Amendments of 1974.

<sup>138</sup> H.R. REP. 92-775, H.R. Rep. No. 775, 92ND Cong., 2ND Sess. 1972, 1972 U.S.C.A.N. 2045, 1972 WL 12582 (Leg.Hist.).



HIPAA included administrative simplification provisions requiring the U.S. Department of Health and Human Services (HHS) to issue the provisions for what is now known as the “Privacy Rule,” which HHS published in December 2000 and subsequently modified in August 2002. This rule sets national standards for protecting identifiable health information of individuals and sets limits and conditions on its use and disclosures without patient authorization by three types of covered entities: health plans, health care clearinghouses, and health care providers who conduct standard health care transactions electronically.<sup>139</sup> The regulations also expressly state that “[w]here provided, the standards, requirements, and implementation specifications adopted under this subchapter apply to a covered entity’s business associate.”<sup>140</sup>

The Privacy Rule protects all “individually identifiable health information” held or transmitted by a covered entity or its business associate, in any form or media, whether electronic, paper, or oral.<sup>141</sup> Individually Identifiable Health Information, according to HIPAA regulations, is information that is a subset of health information,<sup>142</sup> including demographic information collected from an individual, and:

- 1) Is created or received by a health care provider, health plan, employer, or health care clearinghouse; and
- 2) Relates to the past, present, or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present, or future payment for the provision of health care to an individual; and;
- 3) Identifies the individual; or
- 4) With respect to which there is a reasonable basis to believe the information can be used to identify the individual.<sup>143</sup>

Another set of federal regulations regarding the protection of individual mental health information pertains specifically to confidentiality of substance use disorder patient records.<sup>144</sup> Concerns about persons with substance use disorders avoiding treatment because they have a history of illegal substance use or wish to avoid being stigmatized prompted this higher level of protection. Under the purpose and effect provisions of Part 2, the regulations state:

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<sup>139</sup> “HIPAA for Professionals,” *HHS.gov*, accessed July 15, 2020, <https://www.hhs.gov/hipaa/for-professionals/index.html>; “Health Information Privacy,” *HHS.gov*, accessed July 15, 2020, <https://www.hhs.gov/hipaa/for-professionals/privacy/index.html>; 45 C.F.R. Part 160 *et seq.*

<sup>140</sup> 45 C.F.R. § 160.102(a)(1)-(3), (b).

<sup>141</sup> “Health Information Privacy Summary of the HIPAA Privacy Rule,” *HHS.gov*, accessed July 15, 2020, <https://www.hhs.gov/hipaa/for-professionals/privacy/laws-regulations/index.html>.

<sup>142</sup> Health Information is defined under 45 C.F.R. §160.103 as “any information, including genetic information, whether oral or recorded in any form or medium, that: (1) is created or received by a health care provider, health plan, public health authority, employer, life insurer, school or university, or health care clearinghouse; and (2) relates to the past, present, or future physical or mental health or condition of an individual; the provision of health care to an individual; or the past, present, or future payment for the provision of health care to an individual.

<sup>143</sup> 45 C.F.R. § 160.103.

<sup>144</sup> 42 C.F.R. Part 2.

The regulations in this part are not intended to direct the manner in which substantive functions such as research, treatment, and evaluation are carried out. They are intended to ensure that a patient receiving treatment for a substance use disorder in a part 2 program is not made more vulnerable by reason of the availability of their patient record than an individual with a substance use disorder who does not seek treatment.<sup>145</sup>

Disclosure of such information may put the patient's housing, custody, job, or insurance at risk, or increase stigma against the individual. These regulations prohibit the disclosure and use of such patient records without patient consent except under certain circumstances which include *medical emergencies*, research, and certain audits and evaluations (emphasis added).<sup>146</sup> The protections provided under these regulations apply to federally assisted "Part 2 programs," which includes a majority of the drug and substance use disorder treatment centers, but generally not hospital emergency departments.<sup>147</sup> Exceptions to these covered programs are the U.S. Department of Veterans Affairs and the U.S. Armed Forces.<sup>148</sup>

Pennsylvania has more defined disclosure restrictions regarding drug and alcohol use disorder health information than the corresponding federal provisions. The Pennsylvania Drug and Alcohol Abuse Control Act (PDAACA) requires that

All patient records (including all records relating to any commitment proceeding) ... shall remain confidential, and may be disclosed only with the patient's consent and only (i) to medical personnel exclusively for purposes of diagnosis and treatment of the patient or (ii) to government or other officials exclusively for the purpose of obtaining benefits due the patient as a result of his drug or alcohol abuse or drug or alcohol dependence except that in emergency medical situations where the patient's life is in immediate jeopardy, patient records may be released without the patient's consent to proper medical authorities solely for the purpose of providing medical treatment to the patient. Disclosure may be made for purposes unrelated to such treatment or benefits only upon an order of a court of common pleas after application showing good cause therefor.<sup>149</sup>

Unlike the federal regulations regarding drug and alcohol abuse health information, the PDAACA essentially requires a patient's consent to disclose such information and only allows disclosure without patient consent in an emergency medical situation where the patient's life is in immediate jeopardy. Aside from this scenario, a health care provider would have to obtain a court order permitting disclosure.<sup>150</sup>

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<sup>145</sup> 42 C.F.R. §2.2(b)(2).

<sup>146</sup> 42 C.F.R. §§ 2.2(b), 2.51, 2.52, 2.53; *See also* John Petrla "Clinical Practice and Information Sharing: HIPAA, State Confidentiality Laws and Other Legal Issues," (December 3, 2013), <http://www.pacenterofexcellence.pitt.edu/documents/HIPAA%20Harrisburg%20Presentation.pdf>.

<sup>147</sup> 42 C.F.R. § 2.11.

<sup>148</sup> 42 C.F.R. § 2.12.

<sup>149</sup> 71 P.S. § 1690.108(b).

<sup>150</sup> *Ibid.*

The Department of Drug and Alcohol Programs is currently in the process of assessing Pennsylvania’s confidentiality regulations. It partnered with a public health non-profit, Vital Strategies, to find out what stakeholders think about requirements that control the sharing of information about people in SUD treatment programs or information about SUD in a person’s health record. In September 2020, DDAP finished collecting stakeholder feedback about Pennsylvania’s SUD confidentiality regulations – over 1,600 survey responses were received from stakeholders across the state. Findings from the survey and stakeholder interviews are in the process of being summarized in a report expected to be released in early 2021.<sup>151</sup>

Lately, there have been illuminating studies demonstrating the insufficiency of timely, efficacious treatment after an overdose. One of them is an extensive cohort study of Medicaid-enrolled youths 13 to 22 years of age. The study revealed that “among 3606 individuals who experienced opioid-related overdose and had continuous enrollment for at least 30 days after overdose, less than one-third received timely addiction treatment after overdose, and only 1 in 54 youths received pharmacotherapy with buprenorphine, naltrexone, or methadone.”<sup>152</sup> The researchers observed that “nonfatal opioid overdose may be a critical touch point when youths who have never received a diagnosis of opioid use disorder can be engaged in treatment” and purported to assess the percentage of youths receiving timely addiction treatment, which they defined for the purposes of their study as a claim for behavioral health services, for buprenorphine, methadone, or naltrexone prescription or administration, or for both behavioral health services and pharmacotherapy within 30 days of incident overdose.<sup>153</sup> They examined nonfatal incident and recurrent opioid overdoses involving heroin or other opioids. They found that of 3,606 youths with opioid-related overdose and continuous enrollment for at least 30 days after incident opioid overdose, almost 70 percent (68.9 percent) received no addiction treatment within 30 days after incident opioid overdose, whereas less than thirty percent (29.3 percent) received behavioral health services alone, and a very small number – only 1.9 percent – received pharmacotherapy.<sup>154</sup>

Other important findings included the ominous discovery that though “the risk of recurrent overdose among youths with incident heroin involvement was significantly higher than that among youths with other opioid overdose,” young people with heroin overdose were “significantly less likely than youths with other opioid overdose to receive any treatment after their overdose.”<sup>155</sup> Based on their findings, the authors concluded that “interventions are urgently needed to link youths to treatment after overdose, with priority placed on improving access to pharmacotherapy.”<sup>156</sup>

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<sup>151</sup> Pennsylvania Department of Drug and Alcohol Programs. *SUD Confidentiality: Stakeholder Assessment of Pennsylvania’s SUD Confidentiality Laws and Regulations*, <https://ddap.pa.gov/Pages/SUD-Confidentiality.aspx>.

<sup>152</sup> Alinsky, Rachel H.; Zima, Bonnie T.; Rodean, Jonathan et al. “Receipt of Addiction Treatment After Opioid Overdose Among Medicaid-Enrolled Adolescents and Young Adults.” *JAMA Pediatrics*. 2020. Vol. 174. No. 3, doi: 10.1001/jamapediatrics.2019.5183.

<sup>153</sup> Ibid.

<sup>154</sup> Ibid.

<sup>155</sup> Ibid.

<sup>156</sup> Ibid.

An additional argument reinforcing the pressing need to initiate MAT in the emergency department after a nonfatal overdose as well as conduct a thorough mental health assessment was offered by a recent investigation of the association between unintentional and intentional opioid overdoses. A California-based study found that “following nonfatal opioid overdose, patients were at high risk of mortality from several causes.”<sup>157</sup> The authors’ findings led them to a conclusion that “shared increased risks for all external-cause mortality across groups support a unified self-injury conceptualization that emphasizes common underlying determinants, while differential mortality risks for suicide and unintentional overdose supports the clinical utility of distinguishing nonfatal overdoses by intent.”<sup>158</sup> Their recommendation is as follows: “The high risk of unintentional overdose and suicide death following nonfatal opioid overdoses underscore the importance of initiating opioid agonist treatment in the ED for patients with opioid use disorder and performing mental health assessments to evaluate underlying suicide risk.”<sup>159</sup>

In recent years, emergency departments made significant efforts to reduce opioid prescribing. There has been growing interest in establishing best practices for transitioning patients with opioid use disorder from the ED to appropriate longitudinal services. As many patients with substance use disorder are not seeking treatment in traditional inpatient treatment centers, in addition to saving their patients’ lives in the immediate crisis, emergency departments can become a key entry point into long-term treatment for such patients, especially those who have just experienced an overdose. Experts assert that “expanding the availability of medication-assisted therapy and facilitating entry into appropriate outpatient treatment centers is a critical step in addressing this treatment gap.”<sup>160</sup>

*Medication-assisted therapy* is a term that refers to any addiction treatment that includes the use of pharmacologic treatments. For opioids, such therapy uses pharmacologic properties of medications that act as agonists, partial agonists, or antagonists of the  $\mu$ -type opioid receptor, including methadone, buprenorphine, and naltrexone.<sup>161</sup>

Recently, the addiction medicine treatment community has been advocating for replacing the term “Medication Assisted Treatment” (MAT) with another term – “Medications for Opioid Use Disorder” (MOUD). The latter term appears to be preferable because it highlights the primary role of medication as treatment of OUD as opposed to a secondary treatment to assist other forms. On the other hand, the term “MAT” has a broader range of meaning as it is applied not only to opioid use disorder but to other substance use disorders such as alcohol use disorder. The advisory committee recognizes the importance of this terminological discussion. As the term “MAT” is more commonly used at present and is included in multiple official documents and program names, it is used throughout this report for the sake of consistency.

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<sup>157</sup> Olfson, Mark; Schoenbaum, Michael; and Sidra Goldman-Mellor. “Risks of Mortality Following Nonfatal Intentional and Unintentional Opioid Overdoses.” *JAMA Psychiatry*. November 2020. Vol. 77. No. 11, doi:10.1001/jamapsychiatry.2020.1045.

<sup>158</sup> Ibid.

<sup>159</sup> Ibid.

<sup>160</sup> Duber, Herbert C. et al. “Identification, Management, and Transition of Care for Patients with Opioid Use Disorder in the Emergency Department.” *The Annals of Emergency Medicine*. Published online on June 5, 2018, doi: 10.1016/j.annemergmed.2018.04.007.

<sup>161</sup> Ibid.

Most experts worldwide currently agree that a combination of medication-assisted treatment and behavioral health services is the most successful strategy to pursue after an overdose and that the sooner after an overdose such a treatment is initiated, the higher chances are that it will bring positive outcomes.

Medical researchers maintain that “medication-assisted therapy improves long-term outcomes for patients with opioid use disorder,” that “specifically, patients who receive opioid agonist therapy as part of treatment for opioid use disorder have a decreased chance of fatal overdose compared with those who receive psychological counseling alone,” and that “patients receiving maintenance buprenorphine for at least a year require fewer ED visits and hospitalizations compared with those who discontinue buprenorphine.”<sup>162</sup>

In the past several years, this contention has been corroborated by potent studies in England and the United States.

A national data linkage cohort study of the English National Drug Treatment Monitoring System and the Office for National Statistics national mortality database led the researchers to the conclusion that “patients who received only psychological support for opioid dependence in England appear to be at greater risk of fatal opioid poisoning than those who received opioid agonist pharmacotherapy.”<sup>163</sup> The study was focused on tracking the fatal drug-related poisoning (DRP) in groups of patients who received various kinds of treatment: residential (with or without opioid agonist pharmacotherapy (OAP) or psychological support); OAP (with or without psychological support); and psychological support alone. The findings demonstrated that “OAP was associated with a strong reduction in DRP risk.”<sup>164</sup> In fact, according to the data analyzed in this study, “the DRP risk associated with psychological support was twice that for OAP” and was even “comparable to the risk when not in treatment.”<sup>165</sup> Though the researchers found opioid agonist therapy significantly more effective in limiting the risk of a subsequent overdose than psychological support alone, they observed that “the DRP risk increased during the month following discharge from OAP or residential treatment”; they believe this elevated risk upon discharge “is likely to be mediated by reduced opioid tolerance, due to dose tapering and cessation of prescribing at discharge.”<sup>166</sup> The immediate period after the cessation of opioid agonist pharmacotherapy, apparently, requires close attention.

An important randomized clinical trial was performed by doctors from the Yale School of Medicine and the Yale School of Public Health. The trial was intended to test the efficacy of three interventions for opioid dependence: (1) screening and referral to treatment; (2) screening, brief intervention, and facilitated referral to community-based treatment services; and (3) screening, brief intervention, ED-initiated treatment with buprenorphine/naloxone, and referral to primary care for 10-week follow-up.<sup>167</sup> The trial involved opioid-dependent patients who were treated at

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<sup>162</sup> Ibid.

<sup>163</sup> Pierce, Matthias et al. “Impact of Treatment for Opioid Dependence on Fatal Drug-Related Poisoning: A National Cohort Study in England.” *Addiction*. Vol. 111. 2015, doi:10.1111/add.13193.

<sup>164</sup> Ibid.

<sup>165</sup> Ibid.

<sup>166</sup> Ibid.

<sup>167</sup> D’Onofrio, Gail et al. “Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence: A Randomized Clinical Trial.” April 28, 2015. Vol. 313. No. 16, doi: 10.1001/jama.2015.3474.

an urban teaching hospital ED. To measure the results, the researchers used engagement in treatment, defined as enrollment in and receiving formal addiction treatment on the 30th day following the randomization, as the primary outcome. The secondary outcomes were self-reported days of illicit opioid use, urine testing for illicit opioids, human immunodeficiency virus (HIV) risk, and use of addiction treatment services. The results indicated that the patients in the buprenorphine group were engaged in treatment at significantly higher rates than in the other two groups.<sup>168</sup> The authors report that their “findings demonstrate that ED-initiated buprenorphine with coordinated follow-up for ongoing treatment was more effective than referral with or without brief intervention.”<sup>169</sup> Their conclusion is that “among opioid-dependent patients presenting for emergency care, ED-initiated buprenorphine, compared with brief intervention and referral, significantly increased engagement in formal addiction treatment, reduced self-reported illicit opioid use, and decreased use of inpatient addiction treatment services but did not significantly decrease the rates of positive urine testing for opioids or HIV risk.” The authors acknowledge that the findings from their single-site study require replication in other centers. At the same time, they note that “the increasing prevalence of opioid use disorders and the increasing toll of overdose deaths due to opioids amplifies the urgency to decrease barriers, such as the delays that can occur with treatment referrals to accessing treatment.”<sup>170</sup> Initiating buprenorphine treatment at the emergency department with a specific model of follow-up care appears to present a promising warm hand-off process.

It is worth noting that in their subsequent article based on the same trial, an article which was focused on long-term outcomes of the ED-initiated buprenorphine for opioid dependence with continuation in primary care, the authors observed that the differences between the groups diminish as time goes by. Evaluating the long-term outcomes at 2, 6, and 12 months following ED interventions, the researchers concluded that “ED-initiated buprenorphine was associated with increased engagement in addiction treatment and reduced illicit opioid use during the 2-month interval when buprenorphine was continued in primary care. Outcomes at 6 and 12 months were comparable across all groups.”<sup>171</sup> The study treatment was provided for a total of 10 weeks. After that, patients were transitioned to various outpatient providers offering treatment for opioid dependence or were tapered off buprenorphine, due to patient preference and insurance coverage. The researchers surmise that “it is unlikely that engagement in treatment at 6 and 12 months was related to the ED-initiated buprenorphine or 10-week buprenorphine treatment provided as part of this study.”<sup>172</sup> As their study, despite its limitations, “provides evidence that ED-initiated buprenorphine treatment with linkage to ongoing treatment in primary care increases engagement in formal addiction treatment and reduces self-reported illicit opioid use while such treatment is continued,” the authors view the ED visit as “an opportunity to engage patients with opioid use disorder in effective medication-assisted treatment.”<sup>173</sup> It is important to evaluate the implementation of this model in a diverse array of emergency departments.

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<sup>168</sup> Ibid.

<sup>169</sup> Ibid.

<sup>170</sup> Ibid.

<sup>171</sup> D’Onofrio, Gail et al. “Emergency Department-Initiated Buprenorphine for Opioid Dependence with Continuation in Primary Care: Outcomes During and After Intervention.” *The Journal of General Internal Medicine*. 2017. Vol. 32. No. 6, doi:10.1007/s11606-017-3993-2.

<sup>172</sup> Ibid.

<sup>173</sup> Ibid.

Not only was ED-initiated buprenorphine treatment with linkage to ongoing treatment in primary care shown to bring promising clinical outcomes, but it also appears to be more cost-effective than brief intervention or referral. Based on the above-mentioned randomized clinical trial, researchers compared cost effectiveness of each treatment. They concluded that “in the United States, emergency department-initiated buprenorphine intervention for patients with opioid dependence provides high value compared with referral to community-based treatment or combined brief intervention and referral.”<sup>174</sup> In addition, the authors observed that “estimates of intervention costs occurring during the enrollment ED visit were remarkably low (\$8-\$83), reflecting the minimal health care resources used in the ED-based component of the intervention.”<sup>175</sup> They noted that “the initial investment for EDs may require that emergency physicians be waived to prescribe (but not to dispense) buprenorphine/naloxone, but the ongoing investment for EDs to provide the ED-initiated buprenorphine strategy would be small.”<sup>176</sup>

A meaningful part of the cost-effectiveness study involves the analysis of the current addiction treatment financing environment. The authors remind their readers that historically, addiction treatment financing in the U.S. has been fragmented, with a mix of health insurance (private and public), state agencies, and patients financing care delivered in both traditional health care venues and addiction treatment-specific venues. Underlining that the availability of a primary care or other physicians to provide follow-up care for patients who initiate buprenorphine in the ED is essential to the success of ED-initiated buprenorphine, the authors opine that their “findings suggest that integrated models, such as Accountable Care Organizations (ACOs) or other global or bundled arrangements, where organizations may bear responsibility for the full costs of an episode of care may encourage provider organizations to ensure that cost-effective downstream treatments are available. For example, ACOs may contract with a primary care group to accept referrals from an ED, with short waiting time to appointments.”<sup>177</sup>

Comparison of different treatment pathways for opioid use disorder points to the superior effectiveness of medication for opioid use disorder compared with nonpharmacologic treatment. A recent retrospective comparative effectiveness research study, based on the national data, compared six different pathway designations for opioid use disorder:

- 1) No treatment
- 2) Inpatient detoxification or residential services
- 3) Intensive behavioral health (intensive outpatient or partial hospitalization)
- 4) Buprenorphine or methadone
- 5) Naltrexone
- 6) Only nonintensive behavioral health (outpatient counseling).<sup>178</sup>

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<sup>174</sup> Busch, Susan H. et al. “Cost Effectiveness of Emergency Department-Initiated Treatment for Opioid Dependence.” *Addiction*. November 2017. Vol. 112. No. 11, doi: 10.1111/add.13900.

<sup>175</sup> Ibid.

<sup>176</sup> Ibid.

<sup>177</sup> Ibid.

<sup>178</sup> Wakeman, Sarah E. et al. “Comparative Effectiveness of Different Treatment Pathways for Opioid Use Disorder.” *JAMA*. February 2020. Vol. 3. No. 2, doi: 10.1001/jamanetworkopen.2019.20622.

The primary outcomes were overdose or serious opioid-related acute care use, which was defined as an emergency department or hospitalization with a primary opioid diagnosis code. A secondary outcome was admission to inpatient detoxification or readmission for those who initiated treatment with inpatient detoxification or residential services. The findings demonstrated that of the six different treatment pathways, “only treatment with buprenorphine or methadone was associated with reduced risk of overdose and serious opioid-related acute care use compared with no treatment during 3 and 12 months of follow-up.”<sup>179</sup> Accordingly, the authors suggested that buprenorphine and methadone “may be used as first-line treatments for opioid use disorder.”<sup>180</sup> The researchers noted that though in their national sample of commercial insurance and Medicare Advantage enrollees with OUD, treatment with buprenorphine or methadone was associated with reduction in overdose and serious opioid-related acute care use, “only a few individuals were treated with these medications.”<sup>181</sup> In addition, treatment duration for opioid use disorder was relatively short, even though the findings show that individuals who received longer duration OUD treatment with buprenorphine or methadone had lower rates of overdose or serious opioid-related acute care use.”<sup>182</sup> These findings deserve serious attention from medical providers, policymakers, and insurance companies.

Based on the existing studies and growing evidence, experts increasingly agree that “ED initiation of buprenorphine is safe and efficacious” and recommend that “EDs should consider how such a treatment program with aggressive linkages to an outpatient medication-assisted therapy program could be initiated in their setting.”<sup>183</sup>

A cross-sectional study of the trends in the use of buprenorphine in the U.S. emergency departments from 2002 (when it was approved) through 2017 found the use had increased during that period; the authors attributed the increase in use to an increase in opioid-related ED visits. The authors consider buprenorphine use in ED settings “a promising strategy for narrowing the treatment gap” and recommend prioritizing research on strategies to address potential barriers to ED adoption of buprenorphine treatment initiation.<sup>184</sup>

The Centers for Disease Control and Prevention put initiating buprenorphine-based MAT in emergency departments on the list of evidence-based strategies for preventing opioid overdose, noting that if a patient in the emergency department may be eager to begin MAT, especially if he or she is there due to an overdose, receiving a referral and waiting several days to begin treatment “greatly decreases the likelihood that this patient will successfully engage in care. Providing an initial dose of buprenorphine in the emergency department eliminates these delays in care and allows the patient to begin experiencing the benefits of MAT immediately.”<sup>185</sup> If the hospital can

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<sup>179</sup> Ibid.

<sup>180</sup> Ibid.

<sup>181</sup> Ibid.

<sup>182</sup> Ibid.

<sup>183</sup> Duber, Herbert C. et al. “Identification, Management, and Transition of Care for Patients with Opioid Use Disorder in the Emergency Department.” *The Annals of Emergency Medicine*. Published online on June 5, 2018, doi: 10.1016/j.annemergmed.2018.04.007.

<sup>184</sup> Rhee, Taeho Greg; D’Onofrio, Gail and David A. Fiellin. “Trends in the Use of Buprenorphine in US Emergency Departments, 2002-2017.” *JAMA Network*. October 20, 2020, <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2771868>.

<sup>185</sup> Carroll, Jennifer J.; Green, Traci C. and Rita K. Noonan. *Evidence-Based Strategies for Preventing Opioid*



provide subsequent daily doses on a temporary basis, if necessary, this can serve as a “bridge” while “a referral and “warm hand off” to a physician who can continue to provide MAT is carried out.”<sup>186</sup>

Emergency department-initiated buprenorphine treatment with referral for outpatient follow-up is endorsed by the American College of Medical Toxicology (ACMT), the American Academy of Emergency Medicine (AAEM), the American Society of Addiction Medicine (ASAM), and the American College of Emergency Physicians (ACEP).<sup>187</sup> The position statement announces that “ACMT supports the administration of buprenorphine in the emergency department (ED) as a bridge to long-term addiction treatment. Furthermore, ACMT supports the administration of buprenorphine to appropriate patients in the ED to treat opioid withdrawal and to reduce the risk of opioid overdose and death following discharge.”<sup>188</sup> After an initial dose of buprenorphine in the emergency department, there needs to be “close follow-up or a “warm hand-off” with a long-term care provider.”<sup>189</sup> The statement asserts that “the ED can play a crucial role in the lives of patients with OUD and their families by offering treatment with buprenorphine. Such treatment needs to be supported by prompt access to ongoing treatment with buprenorphine.”<sup>190</sup> The authors acknowledge that when patients are initiated in the emergency department after an overdose, their motivation to be treated may be very high and may change over time. They underscore, however, that “each instance of engagement in MAT, even if the patient eventually drops out of care, predicts higher success the next time treatment is sought.”<sup>191</sup> This is an important consideration. Furthermore, the CDC document stresses that “providing “bridging” doses of MAT medications to individuals seeking treatment greatly improves patient engagement in MAT care during treatment initiation – a key moment for those with opioid use disorder, when maintaining trust and stability is of utmost importance.”<sup>192</sup>

As it has been recognized that treatment of opioid use disorder with buprenorphine decreases opioid use and tends to prevent morbidity and mortality and that emergency departments are an important setting for buprenorphine initiation for patients with untreated OUD, researchers proceeded to evaluate key barriers and facilitators for clinician initiation of buprenorphine in the ED with referral for the treatment of opioid use disorder. A recent mixed-methods evaluation of over two hundred attending physicians, resident physicians, and advanced practice clinicians (APCs) in academic emergency departments revealed a certain level of staff discord: mixed levels of knowledge and awareness of evidence supporting the initiation of buprenorphine in the ED with referral for ongoing treatment as well as differences in the readiness to implement practice change. Key barriers that the researchers were able to identify included “lack of training and experience in treating opioid use disorder, concerns about ability to link to ongoing care, and competing needs

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*Overdose: What’s Working in the United States.* CDC, 2018. P. 24,  
<https://www.cdc.gov/drugoverdose/pdf/pubs/2018-evidence-based-strategies.pdf>.

<sup>186</sup> Ibid.

<sup>187</sup> American College of Medical Toxicology. *ACMT Position Statement: Buprenorphine Administration in the Emergency Department.* Published May 2019. Revised September 2019,  
[https://www.acmt.net/\\_Library/Positions/ACMT\\_PS\\_Bup\\_ED\\_9\\_2.pdf](https://www.acmt.net/_Library/Positions/ACMT_PS_Bup_ED_9_2.pdf).

<sup>188</sup> Ibid.

<sup>189</sup> Ibid.

<sup>190</sup> Ibid.

<sup>191</sup> Ibid.

<sup>192</sup> Ibid.

for time and resources in a busy emergency department.”<sup>193</sup> Facilitators included “provision of education and training, establishment of protocols, and enhanced communication across different stakeholder groups.”<sup>194</sup> Based on their findings, the authors underscore “the importance of clinician and system-level changes.”<sup>195</sup> They contend their “findings suggest that opportunities to promote readiness for ED-initiated buprenorphine with referral to ongoing treatment will need to address perspectives on the evidence and ED context for implementation.”<sup>196</sup> As “specific opportunities to promote practice change vary across emergency clinician type,” the researchers recommend that “future implementation strategies should consider these factors and tailor interventions accordingly for attending physicians, residents, and APCs.”<sup>197</sup>

One of the obstacles to making ED-initiated buprenorphine with ongoing treatment part of the warm hand-off process is that MAT is not always recognized as an acceptable option by some providers at all levels of care. This means that EM physicians may hesitate to initiate buprenorphine as they feel that prompt access to continued treatment cannot be assured or that the need to ongoing MAT may, actually, limit the patient’s options in finding a provider for ongoing care. Recognizing this, and in line with best practices for opioid use disorder treatment and recommendations from the national American Society of Addiction Medicine (ASAM) Board of Directors, DDAP has listed elimination of barriers that prevent providers from offering MAT at any level of care as one of its strategic goals and specific objectives in the department’s state plan for 2019-2022.<sup>198</sup>

Representatives of the Pennsylvania College of Emergency Physicians (PACEP) shared their perspective on treating patients suffering from an overdose and transitioning them to long-term treatment with the advisory committee.<sup>199</sup> They pointed out a number of issues that need to be addressed:

- Despite the magnitude of the opioid epidemic and substance use in general, the volume of patients at any given facility is highly variable and represents a very small proportion of their patients overall.
- The cost to maintaining a 24/7 system everywhere at once is significant.
- The variability in county-based systems leads to confusion and differences in available care.
- Relatively few patients need to be directly transferred to inpatient treatment.

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<sup>193</sup> Hawk, Kathryn F. et al. “Barriers and Facilitators to Clinician Readiness to Provide Emergency Department-Initiated Buprenorphine.” *JAMA Network Open*. 2020;3(5):e204561, doi: 10.1001/jamanetworkopen.2020.4561.

<sup>194</sup> Ibid.

<sup>195</sup> Ibid.

<sup>196</sup> Ibid.

<sup>197</sup> Ibid.

<sup>198</sup> *Pennsylvania Department of Drug and Alcohol Programs State Plan 2019-2022*, <https://www.ddap.pa.gov/Documents/Agency%20Reports/State%20Plan%20and%20Annual%20Reports/2019-2022%20DDAP%20State%20Plan.pdf>.

<sup>199</sup> Information provided to the Joint State Government Commission by Dr. Michael Lynch and Dr. Gillian Beauchamp in their e-mails received on May 28, 2020 and May 29, 2020, followed by several subsequent e-mails.

- Identifying inpatient treatment availability in real time is difficult; factors that contribute to decisions to accept patients at those facilities seem inconsistent.
- Short-term medical follow-up (i.e., next day) for patients who need medication management such as with benzodiazepines, buprenorphine, or methadone is not readily available in many places.
- Housing insecurity, transportation issues, legal complications, childcare, and employment all complicate patient's abilities to adhere to treatment engagement.
- Establishing new or dedicated physical structures to addressing associated social complications is not feasible in most of the state though may be appropriate in more urban settings.

PACEP representatives outlined several guiding principles and solutions to consider:

- Any plans will need to be based upon scalability when considering healthcare facilities with low volumes of patients and counties with fewer residents and/or resources.
- Some degree of pooling resources and centralizing some processes that are fairly reproducible regardless of county should be considered as a way to produce services throughout the Commonwealth.
- Warm hand-off processes and education about them should consider and include any SUD, not just opioids, as higher volumes will improve scalability and cost-effectiveness (several counties report that alcohol-related referrals are, actually, more common than opioids).
- Sustainable funding mechanism for warm hand-offs needs to be established, potentially as a care management fee from payers. Fee for service is unadvisable due to the variable licensure and training of the individuals providing the service as well as the infrequency of utilization.
- The programs should not be run through or be dependent upon hospital staff being hired (unless specifically funded), but should be expected to run through SCAs with designated processes for hospital activities that can include staff privileges, as several hospitals currently employ. The benefit of the program is enjoyed by the insurer, not the hospital, so the resource should be funded by Medicaid/MCO or private insurance rather than individual hospitals.
- Integration of warm hand-off process initiation in the Electronic Health Records (EHRs), such as has been done with the Prescription Drug Monitoring Program (PDMP), would improve provider utilization as it would fit with the workflow more readily.

- Telehealth should be considered a central part of any scalable care delivery construct, especially as many of Pennsylvania counties are either rural counties with long travel times and understaffed agencies or densely populated counties with multiple hospitals, making a mobile response staff difficult to maintain.
  - Create a pool of certified recovery specialists/peers to be available to connect immediately with patients by audio-visual interface (secure telemedicine platform), phone, or even e-mail 24/7 while patients are still in the ED. Maintain regular communication with that patient until he or she is able to engage in local treatment.
  - Create a pool of medical providers who are available to provide telemedicine-based medical treatment. Currently, under public health emergency declaration, appropriately licensed providers are able to deliver care including buprenorphine and benzodiazepine prescribing solely via telehealth (for buprenorphine, it can be done by phone only if video is not available). This can serve as a bridge to local treatment if there is going to be a delay. It is unclear if this capability will remain following the pandemic, but it is likely that some capacity to deliver this care will eventually be permitted outside of public health emergencies, given the need to improve access to this care.
- The OpenBeds model could be a valuable resource to integrate into a robust, scalable, data-driven universal warm hand-off process.
- While physical buildings may be necessary in some places for patients with housing issues or environmental factors contributing significantly to their SUD, bolstering social support services for patients is key to assist these individuals, particularly given that many programs traditionally exclude people with substance use disorders and substance-related criminal justice involvement. This social support system should include regular personal contact, even if remotely (virtually), to facilitate “social reentry” (not unlike post-incarceration) with resources to assist with childcare/custody, housing, employment, legal aid, basic technology such as computer/internet/e-mail access to promote access to care, and welfare resources.

*Hospital Quality Improvement Program: Opioid Use Disorder Emergency Department Initiative*

To facilitate warm hand-offs, DHS established a new hospital quality improvement program (HQIP) dealing with follow-up treatment after ED visits for opioid use disorder (OUD). The new program is based on a modified Healthcare Effectiveness Data and Information Set (HEDIS) specification of follow-up within seven days for opioid treatment after a visit to the emergency department for opioid use disorder. The activity will align with other OUD warm hand-off initiatives and with the DHS Office of Medical Assistance Programs’ (OMAP’s) focus on pregnant women with OUD.

The Opioid Use Disorder for Emergency Department follow-up reports are generated using a DHS modification on the HEDIS performance measure “Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (FUA).” Unlike the HEDIS measure, the DHS modification currently does not include alcohol or other drug abuse (AOD), but limits the data reported to only opioid/opioid poisoning diagnoses. The event denominator is any HealthChoices member seen in the ED for OUD. HealthChoices is the name of Pennsylvania’s managed care programs for Medical Assistance (Medicaid) recipients. The event numerator is anyone in the denominator seen for OUD treatment within seven days of discharge from the ED. Each ED is given an opportunity to earn benchmark and incremental improvement incentives using calendar year 2018 as a base year and calendar year 2019 as the first year to earn a performance incentive. \$30 million was paid out, total, for year one of the program. The amount allocated for benchmark and incremental improvement payments is \$35 million. The dollar amount of the payments to a particular hospital depends on the clinical pathway(s) chosen by the hospital and the outcomes measures attained by the hospital.<sup>200</sup>

In addition, during 2019, health systems had an opportunity to earn “process” incentives by implementing defined clinical pathways to better OUD treatment. These pathways are expected to help the health systems to place more individuals with OUD into treatment and improve the rates of the seven-day follow-up performance in 2019. Health systems were encouraged to implement all or any of the following four clinical pathways:

- 1) ED initiation of buprenorphine with warm hand-off to the community;
- 2) Direct warm hand-off to the community for MAT or abstinence-based treatment;
- 3) Specialized protocol to address pregnant women with OUD; and
- 4) Direct inpatient admission pathway for methadone or observation for buprenorphine induction.

The emergency departments of health systems were offered an award of a base payment of \$25,000 for the initial pathway implemented and additional payments for the second, third, and fourth pathways implemented as follows: 2<sup>nd</sup> Pathway - \$37,000, 3<sup>rd</sup> Pathway - \$56,000, 4<sup>th</sup> Pathway - \$75,000. This allows a hospital that implements all four pathways to receive a payment totaling \$193,000. Any remaining funds available after the pathway payments are completed would be distributed to eligible hospitals based on the proportion of each eligible hospital’s calendar year 2016 OUD-related ED visits divided by the total calendar year 2016 OUD-related visits for all eligible hospitals. A hospital is eligible to receive a remaining funds payment by attesting to its implementation of, at least, one pathway.

The Department of Human Services established specific pathways requirements and identified the minimum number of HealthChoices recipients each hospital must have to be assigned a particular tier: low-volume EDs, standard EDs, or high volume EDs; the number was determined based on the volume of OUD-related ED visits that occurred in calendar year 2016.

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<sup>200</sup> Information about the HQIP program was provided to the Joint State Government Commission and the advisory committee by Ms. Gwendolyn Zander, Chief of Staff, Office of Medical Assistance Programs, Department of Human Services, in e-mails received on May 15, 2020 and November 5, 2020, and in her presentation at the advisory committee meeting on August 21, 2020.

Each of the pathways was to be clearly defined in writing and as operational with a minimum number of HealthChoices recipients by January 17, 2019.

By the fall of 2020, 160 hospitals participated in the HQIP program; 120 out of 160 developed at least one pathway, and 77 hospitals attested to developing all pathways.<sup>201</sup> Preliminary results demonstrate increased connections to treatment within seven days of an ED visit for opioid overdose.

Hospital care management teams are required to be focused on warm hand-offs from the ED to inpatient admission, observation status, external drug and alcohol providers for all the American Society of Addictive Medicine (ASAM) levels of care, and local Centers of Excellence or the Pennsylvania Coordinated Medical Assisted Treatment (PACMAT) programs. Specifically, the care management team is expected to have on-call care management 24-hour coverage, and health systems are expected to train existing ED care management personnel and ED providers on appropriate OUD guidelines of care; stigma prevention; Screening, Brief Intervention, and Referral to Treatment (SBIRT); and MAT waiver prescriber training (physicians, certified registered nurse practitioners, and physician assistants if initiating buprenorphine, following pathway #1). Health systems are strongly encouraged to actively work towards submitting electronic continuity of care documents (CCDs) to the Department for Medicaid recipients seen in the ED with a diagnosis of opioid use disorder.

Hospitals' feedback regarding HQIP has been generally favorable. Emergency department physicians actively involved in treating OUD patients feel there is benefit to participation in HQIP. It has been noted, however, that it is much easier for larger, academic hospitals to fulfill the requirements of the four pathways. For smaller, community (non-academic) hospitals, implementation of these pathways presents more of a challenge. Doing so requires specific expertise and physician champions – resources that may not be available at all hospitals. At the initial stage, reporting can be challenging even for larger hospitals that have data and quality experts on their staff. Ensuring the HQIP process is achievable and understandable by small community hospitals would improve the process. The unpredictability of incentive payments limits the ability to invest in sustainable processes that may not be fully covered. This is a situation where a lower volume does not necessarily correlate with less effort or resource utilization. Having a 24/7 process available is costly regardless of whether it is used ten times a day, once a day, or once a week. The cost factor should be taken into account. The difficulty that arises with a mechanism such as this is creating sustained positions and processes since the annual allocation is unknown and cannot be easily predicted, nor is there an indication how long this program will remain in place. This creates an emphasis on short-term investments. If the costs were shared among all public and private payers in a manner consistent with facility patient/ payer mix and associated benefit in addition to its funding capacity, it would help to address this uncertainty and would allow a more sustainable investment in human resources and positions, especially if applied across the spectrum of substance use disorders rather than solely focused on OUD.

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<sup>201</sup> A complete list of participating hospitals, as well as the pathways they attested to developing, can be found at <http://www.dhs.pa.gov/provider/hospitalassessmentinitiative>.

Overall, HQIP has been perceived as a welcome initiative to facilitate implementation of best practices. It has improved health system response, with some hospitals being more prepared or having more access to community resources than others. While certain improvements are desirable, including better sustainability and more emphasis on harm reduction, hospitals “have been able to stand up more defined and robust warm handoff systems across the system, increase ED initiation of buprenorphine, get dozens of ED providers x-waivered, and implement ED and inpatient order sets for buprenorphine and methadone initiation and maintenance across the system with associated provider education as a result of the program.”<sup>202</sup> Though HQIP was implemented recently, the program has already started making positive impact on OUD treatment in the Commonwealth.

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<sup>202</sup> Dr. Michael Lynch. Personal e-mail to the Joint State Government Commission received on May 29, 2020.





## SINGLE COUNTY AUTHORITIES

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In Pennsylvania, the Department of Drug and Alcohol Programs (DDAP) has been acting as the Single State Authority, as required by the federal Substance Abuse and Mental Health Services Administration (SAMHSA) for substance disorder services, since July 1, 2012. As such, it is responsible for the administration of control, prevention, intervention, treatment, rehabilitation, research, education, and training activities within the department as well as across state agencies.

DDAP administers the federally funded Substance Abuse Prevention and Treatment Block grant by allocating state and federal funds to 47 administrative units called Single County Authorities (SCAs), which are designed to coordinate access to treatment, case management, and recovery support services across the local system of care.<sup>203</sup> The SCAs have “flexibility to develop their service delivery system in response to community needs.”<sup>204</sup>

The funding specifically used for warm hand-off purposes cannot be isolated; however, Tables 6 and 7 show how DDAP allocates the funding sources to its 47 Single County Authorities, and SCAs either directly deliver, or contract with providers to deliver, substance use disorder services. The tables include the activities that can be funded through these sources, but the amount actually utilized varies greatly among the 47 SCAs. Most SCAs use the Federal Substance Abuse Block Grant (SABG) and Federal State Opioid Response (SOR) funds for the warm hand-off process, and this activity falls into the “treatment-related” category.

<b>Table 6 SCAs Funding Sources</b>	
<b>Source</b>	<b>Allowable Activity Categories</b>
Federal Substance Abuse Block Grant (SABG)	Prevention, intervention, treatment, treatment-related
Federal State Opioid Response (SOR) (note this is a time-limited grant)	Prevention, intervention, treatment, treatment-related
State General Assistance	Administration, prevention, intervention, treatment, treatment-related
State Opioid Funds	Intervention, treatment, treatment-related

Source: data provided by DDAP to the Joint State Government Commission in a personal e-mail of October 14, 2020.

<sup>203</sup> See the list of the SCA units in Appendix E.

<sup>204</sup> Pennsylvania Department of Drug and Alcohol Programs. *Case Management and Clinical Services Manual*. July 1, 2020-June 30, 2025. Harrisburg, PA, July 2020.

<b>Table 7 SCA Funding and Expenditures</b>			
<b>Source</b>	<b>Allowable Activity Categories</b>	<b>SFY 18/19 Case Management and Recovery Support Expenditures</b>	<b>SFY 19/20 Case Management and Recovery Support Expenditures</b>
Federal Substance Abuse Block Grant (SABG)	Prevention, intervention, treatment, treatment-related	\$16,017,517	\$17,839,096
Federal State Targeted Response (STR) and Federal State Opioid Response (SOR) (note these are time-limited grants specifically to be used for individuals with an OUD diagnosis). STR ended in 4/30/20 and the various SOR grant periods are effective between 9/29/18-9/29/21.	Prevention, intervention, treatment, treatment-related	\$4,737,767	\$3,159,614
State General Assistance	Administration, prevention, intervention, treatment, treatment-related	\$9,005,854	\$7,616,257
State Opioid Funds	Intervention, treatment, treatment-related	\$820,990	\$1,770,753

Source: data provided by DDAP to the Joint State Government Commission in a personal e-mail of October 14, 2020.

Some SCAs have been able to supplement their funding with private grants or donations, in addition to the funds provided by DDAP.

In the past few years, DDAP has made warm hand-offs one of its priorities. In late 2015, DDAP mandated each Single County Authority adopt warm hand-off policies and procedures, which became effective in January 2016. Since January 2016, the department has consistently worked with stakeholders “to ensure a seamless transition from emergency medical care to substance use disorder treatment for an individual following an overdose.”<sup>205</sup> From the beginning, DDAP identified several obstacles to implementation: SCAs lacked relationships with hospital

<sup>205</sup> *Pennsylvania Department of Drug and Alcohol Programs State Plan 2019-2022*, <https://www.ddap.pa.gov/Documents/Agency%20Reports/State%20Plan%20and%20Annual%20Reports/2019-2022%20DDAP%20State%20Plan.pdf>.

systems; certified recovery specialists (CRSs) were unavailable; transportation issues existed; and insurance and funding issues had to be addressed and resolved. The biggest challenge appeared to be assisting hospital staff not only to understand the importance of the warm hand-off process but also to appreciate the crucial opportunity to engage patients in life-saving treatment. The department has made consistent efforts to identify and address these challenges. In 2018, DDAP hosted six warm hand-off summits throughout the Commonwealth. These events offered networking and relationship-building opportunities among SCAs, hospitals, insurance providers, EMS, fire, police, and local governments. In addition, the summits helped to define major challenges, including lack of transportation (especially overnight), funding for services, and availability of services 24/7. In 2019, DDAP sponsored a second round of eight summits, which served as forums to further explore challenges associated with warm hand-offs. As a result of all these activities, the department has been able to report positive results. Warm hand-off programs now exist at varying levels of implementation throughout the Commonwealth. Based on its data as of fall 2019, DDAP reports that “since January 2017, more than 5,000 individuals have been directly referred to treatment as part of the warm hand-off. Counties with successful implementations are seeing a success rate of 90 percent of overdose survivors directly admitted into treatment following an overdose.”<sup>206</sup>

The current edition of the DDAP “Case Management and Clinical Services Manual” is “identifying individuals who have overdosed as an additional priority population to better facilitate access to care directly following an overdose event.”<sup>207</sup>

The warm hand-off policy description in the current DDAP manual reads as follows:

To ensure expedient, appropriate, and seamless care for all individuals who have overdosed from any substance of abuse, SCAs must develop, implement, and maintain a plan for screening, assessing, referring to treatment, and tracking all individuals who have survived a recent overdose. The SCAs must coordinate with local hospitals to address the needs of individuals who have experienced an overdose to develop a policy and procedures, which must be approved by DDAP’s Treatment Division and include the elements below:

- 1) Details or process by which an individual who experienced an overdose will be offered a 24/7 direct referral from the Emergency Department (ED) to treatment by one or any combination of models noted below;
- 2) The hospital(s), the SCA and provider(s), as applicable, must have on file any Memorandum of Understanding (MOU) or Letter of Agreement (LOA) that may apply;
- 3) Timelines for the referral processes;
- 4) A mechanism for tracking referrals or refusals for treatment; and
- 5) Completion of DDAP’s warm handoff monthly report in accordance with DDAP’s Report Schedule.<sup>208</sup>

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<sup>206</sup> Ibid.

<sup>207</sup> *Pennsylvania Department of Drug and Alcohol Programs State Plan 2019-2022*, Section 3.04 *Overdose Survivors*, <https://www.ddap.pa.gov/Documents/Agency%20Reports/State%20Plan%20and%20Annual%20Reports/2019-2022%20DDAP%20State%20Plan.pdf>.

<sup>208</sup> Ibid.

At present, each of the Commonwealth's 47 SCAs has implemented a warm hand-off policy pursuant to Section 3.04 Overdose Survivors of the Pennsylvania Department of Drug and Alcohol (DDAP) "Case Management and Clinical Services Manual."<sup>209</sup>

The Treatment Manual outlines seven identified models to execute a warm hand-off:

- 1) SCA Agency Model
- 2) Contracted Provider Model
- 3) Certified Recovery Specialist Model
- 4) Treatment Provider Model
- 5) Direct Referral to Treatment by Hospital Staff Model
- 6) Recovery Community Model, and
- 7) DDAP Approved Model.

In addition to choosing one identified model, the SCAs may implement a combination of the identified models.<sup>210</sup> Each of the SCA warm hand-off policies incorporates provisions/mechanisms for tracking all warm hand-off referrals and refusals for treatment and also delineates the party/parties responsible for completing and/or submitting DDAP's required monthly warm hand-off report.<sup>211</sup>

#### *The SCA Agency Model*

The SCA Agency Model involves either case management staff or treatment staff (in the case of a functional unit) directly providing assessment services to local healthcare facilities, including emergency departments on a 24/7 basis incorporating weekends and holidays. Merely sponsoring a call-in telephone number during non-business hours is unacceptable.

The following five SCAs have adopted the SCA Agency Model: Beaver County Behavioral Health Drug and Alcohol Program (BCBHD&A)<sup>212</sup>, Cameron, Elk and McKean (CEM) SCA<sup>213</sup>, Crawford County Drug & Alcohol Executive Commission (CCDAEC),<sup>214</sup> Dauphin County Department of Drug & Alcohol Services,<sup>215</sup> and Fayette County Drug and Alcohol Commission, Inc. (FCDAC).<sup>216</sup>

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<sup>209</sup> Ibid. See Appendix F.

<sup>210</sup> A chart summarizing the model(s) utilized by each of the 47 SCAs can be found in Appendix G.

<sup>211</sup> Pennsylvania Department of Drug & Alcohol Programs, *Treatment Manual*, Version 5.0, § 5.04, pages 11-14, last modified December 2019, available at <https://www.ddap.pa.gov/Documents/Agency%20Manuals/Treatment%20Manual.pdf> (accessed December 17, 2019).

<sup>212</sup> Individual Single County Authority (SCA) policies cited below in this section of the report were provided to the Joint State Government Commission by the Pennsylvania Department of Drug and Alcohol Programs on October 18, 2019.

Beaver County Behavioral Health Drug and Alcohol Program (BCBHD&A) Overdose Policy, last modified July 1, 2016.

<sup>213</sup> Cameron, Elk and McKean (CEM) SCA Overdose Survivors Policy.

<sup>214</sup> Crawford County Drug and Alcohol Executive Commission (CCDAEC) Crisis On-Call, Warm Hand-Offs Policy and Procedure, last modified February 2019.

<sup>215</sup> Dauphin County Department of Drug & Alcohol Services Warm Hand-off Policy, last modified October 11, 2019.

<sup>216</sup> Fayette County Drug and Alcohol Commission, Inc. Access for Care, last modified August 2019.

The BCBHD&A policy explicitly addresses both adults and youth who have suffered an overdose. This policy centers on strong collaboration with the local hospital emergency department.<sup>217</sup>

CEM SCA operates a 24-hour inpatient facility. When an overdose survivor presents to the emergency department (ED), the ED staff contacts CEM SCA and an initial screening/referral form is completed by telephone.<sup>218</sup> During business hours, a case manager arranges to complete a level of care (LOC) assessment in person at the hospital. During after-business hours (including weekends and holidays), the ED staff collaborates directly with the SCA inpatient facility staff, and the case manager supervisor schedules the LOC.<sup>219</sup>

CCDAEC adopts an on-call approach. Cooperating with the local hospital, CCDAEC initiates its process with the ED staff contacting CCDAEC staff by telephone to determine the following information concerning the overdose survivor patient: 1) detox/withdrawal management needs, 2) medical/psychological stability, and 3) possible admission to treatment or refusal for treatment and why.<sup>220</sup> Next, the CCDAEC staff speaks with the overdose patient by telephone to complete screening (demographics, phone number, D&A use, insurance (or income information if funding is required)); detox/withdrawal management criteria; willingness for inpatient/outpatient treatment; and transportation to treatment needs. Next, the steps for placement are completed (detox/withdrawal management placement within 24 hours of determination).<sup>221</sup> The CCDAEC policy clearly outlines the crisis management staffing requirements for the crisis calls received after business hours using a dedicated cellular phone. In addition, the CCDAEC policy outlines the supervision and compensation of the on-call crisis staff.<sup>222</sup>

Dauphin County Department of Drug & Alcohol Services sponsors a mobile case management staff on a 24/7 basis. Responding to calls from the ED staff, emergency management services (EMS), or law enforcement, the mobile team responds within 30-45 minutes of receiving the call.<sup>223</sup> During business hours, staff gathers the following patient information: name, drug of choice, reason for referral, current location, and referred person's name, title, contact information, and whether the Release of Information (ROI) process has been completed. The responsibilities of the on-call mobile case manager are clearly outlined in the policy.<sup>224</sup> Next, the screening steps for the overdose survivor are included. If emergency detox services are needed, the case manager begins placement procedures. If immediate placement is not available, the case manager maintains contact with patient until placement is completed. The policy repeatedly stresses the case manager should keep the referral service/hospital updated about placement procedure. If no emergent care needs are identified during initial screening, the case manager schedules an in-office assessment

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<sup>217</sup> Beaver County Behavioral Health Drug and Alcohol Program (BCBHD&A) Overdose Policy, last modified July 1, 2016.

<sup>218</sup> Cameron, Elk and McKean (CEM) SCA Overdose Survivors Policy.

<sup>219</sup> Ibid.

<sup>220</sup> Crawford County Drug and Alcohol Executive Commission (CCDAEC) Crisis On-Call, Warm Hand-Offs Policy and Procedure, last modified February 2019.

<sup>221</sup> Ibid.

<sup>222</sup> Ibid.

<sup>223</sup> Dauphin County Department of Drug & Alcohol Services Warm Hand-off Policy, last modified October 11, 2019.

<sup>224</sup> Ibid.

within three business days. Lastly, if a patient decides not to continue with the process, a case manager documents details of the patient's refusal for referral.<sup>225</sup>

FCDAC operates pursuant to a detailed, easy-to-follow policy. In addition to the policy including the names and contact information of the contracted service providers, the policy outlines the procedure if a patient has health insurance coverage and if a patient requires assistance after business hours (that is, report to the hospital ED).<sup>226</sup> In addition, the policy incorporates links to local support groups and the Pennsylvania DDAP resources. Within the procedure section, referrals from both an urgent care facility and the local EDs are addressed. During non-business hours, FCDAC contracts with an answering service to contact FCDAC staff to assist with the referral and placement. If the patient requires financial assistance, the procedure to be completed by the case manager is clearly outlined. The procedure states the FCDAC will ensure both the local medical providers and treatment providers are aware of the referral process described in the FCDAC policy.<sup>227</sup>

### *The Contracted Provider Model*

The Contracted Provider Model involves the SCA contracting with a provider (that is, case management units, treatment providers, crisis intervention, et cetera) to complete screening, assessment, and referral services to area hospital EDs.<sup>228</sup> SCAs facilitate the discussions with the agencies and hospitals to develop a warm hand-off process in the hospital setting. A memorandum of understanding between the agency and the healthcare facility/ ED (rather than the SCA) may be created to define protocols to complete assessments and placements. The SCAs must remain involved and be a partner in the warm hand-off process, particularly in cases requiring public financial assistance.<sup>229</sup> Currently, five SCAs employ the Contracted Provider Model: Carbon-Monroe-Pike Drug and Alcohol Commission,<sup>230</sup> Erie County Office of Drug & Alcohol Abuse,<sup>231</sup> Lebanon County Commission on Drug & Alcohol Abuse (LCCDAA),<sup>232</sup> Tioga County Department of Human Services,<sup>233</sup> and York/Adams Drug & Alcohol Commission (YADAC).<sup>234</sup>

Carbon-Monroe-Pike Drug and Alcohol Commission staff are on call 24/7 to assist the contracted providers, which have the ability to complete mobile assessments on site at local

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<sup>225</sup> Ibid.

<sup>226</sup> Fayette County Drug and Alcohol Commission, Inc. Access for Care, last modified August 2019.

<sup>227</sup> Ibid.

<sup>228</sup> Pennsylvania Department of Drug & Alcohol Programs, *Treatment Manual*, Version 5.0, § 5.04, page 13, last modified December 2019, available at <https://www.ddap.pa.gov/Documents/Agency%20Manuals/Treatment%20Manual.pdf> (accessed December 17, 2019).

<sup>229</sup> Ibid.

<sup>230</sup> Carbon-Monroe-Pike Drug and Alcohol Commission Policy for Overdose Survivors, last modified October 7, 2019.

<sup>231</sup> Erie County Office of Drug & Alcohol Abuse Overdose Survivors Policy (Warm Hand-Off), last modified July 1, 2016.

<sup>232</sup> Lebanon County Commission on Drug & Alcohol Abuse Overdose Survivor Policy & Procedures, last modified January 24, 2018.

<sup>233</sup> Tioga County Department of Human Services Policy Warm Handoff, last modified May 1, 2017.

<sup>234</sup> York/Adams Drug & Alcohol Commission Overdose Requirements Policy, last modified January 8, 2016.

hospitals.<sup>235</sup> Pike County does not benefit from a hospital, so the SCA staff are on call to assist overdose survivors from this county. Both a flowchart and a tracking form for overdose survivors are included in the Carbon-Monroe-Pike Drug and Alcohol Commission Policy.<sup>236</sup> SCA and hospital staff meet quarterly to exchange information, discuss issues, and address new staff. Starting in October 2019, the SCA employs and an in-house case manager in the Monroe County ED seven evenings a week. During business hours, SCA staff are available for in-person response to overdose patients presenting at the EDs in both Carbon and Monroe Counties.<sup>237</sup>

Erie County Office of Drugs & Alcohol Abuse contracts with two local providers to serve the county's hospital EDs, requiring a MOU between the providers and hospital EDs. The providers must offer 24-hour mobile overdose crisis services and have a full-time, staffed office in Erie County. In addition to meeting all DDAP requirements for implementing warm hand-off procedures, the contracted providers must remain engaged with the SCA "for the evaluation and review of the program to insure compliance."<sup>238</sup>

Lebanon County Commission on Drug & Alcohol Abuse exclusively uses a Contracted Provider Model and contracts with two providers. In addition to including the names and addresses of the three emergent care facilities, the policy and procedures require the providers to meet face-to-face with patients at the facilities.<sup>239</sup>

Tioga County Department of Human Services Policy designates a contracted provider to be available 24/7 to meet with patients at the hospital and to forward information necessary to complete the DDAP required monthly report. The policy states the contracted provider will contact the SCA if a patient refuses treatment directly from ED, so the SCA staff may follow up with the patient.<sup>240</sup>

YADAC utilizes a Contracted Provider Model. In addition to identifying the counties' four emergency departments by name and address, the policy explicitly includes emergency responders as well as departments. The Outreach and Education section of the policy includes the key components of warm hand-off services:

- Establishment and maintenance of a positive and collaborative relationship with local emergency responders/departments,
- Education to local emergency responders/departments on the importance of linkage to clinically appropriate treatment/case management services and the fact that overdose survivors are considered an at-risk population, and

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<sup>235</sup> Carbon-Monroe-Pike Drug and Alcohol Commission Policy for Overdose Survivors, last modified October 7, 2019.

<sup>236</sup> Ibid.

<sup>237</sup> Ibid.

<sup>238</sup> Erie County Office of Drug & Alcohol Abuse Overdose Survivors Policy (Warm Hand-Off), last modified September 4, 2018.

<sup>239</sup> Lebanon County Commission on Drug & Alcohol Abuse Overdose Survivor Policy & Procedures, last modified January 24, 2018.

<sup>240</sup> Tioga County Department of Human Services Policy Warm Handoff, last modified May 1, 2017.

- Establishment of written agreements with York/Adams emergency responders/departments to identify all overdose survivors and refer these individuals for coordination of warm hand-off.<sup>241</sup>

In addition, the YACAC policy includes services to support both the patient and his/her family/supports. The policy stresses the patient is the center of the process: it encourages promotion of “self-advocacy” so patients’ “voices are fully heard and their needs and goals established as the focal point of their rehabilitation, clinical services and recovery.”<sup>242</sup> The YADAC policy offers “recovery education and support to overdose survivors and their families/supports for every phase of the recovery journey,” including the explanation of risks, signs, and symptoms of an overdose, along with how to obtain and administer naloxone.<sup>243</sup> The policy encourages “active identification of support linkages” such as community-based self-help groups and community resources and assistance to overdose survivors and their families in “bridging the barriers to fully participate in identified support linkages.”<sup>244</sup> Lastly, the policy promotes developing “trust and rapport” with both the patient and his/her family/supports, while acknowledging the “setting most comfortable” for the patients and families should be determined and their preferences should be accommodated.<sup>245</sup> The policy requires YADAC to maintain a current listing of contact information for warm hand-off services, of types of services provided with contact information and business hours, along with “a description of the process to access care during business hours, evenings and holidays as well as the process of how to access care for insured and uninsured individuals.”<sup>246</sup>

### *The Certified Recovery Specialist Model*

The Certified Recovery Specialist Model engages a certified recovery specialist (CRS) with appropriate training to provide screening and/or referral to treatment.<sup>247</sup> While this model is often used to supplement another DDAP model(s) of service, three SCAs use this model exclusively: Berks SCA<sup>248</sup>, Delaware County Office of Behavior Health Division of Drug and Alcohol (Delaware County SCA)<sup>249</sup>, and Northumberland County SCA.<sup>250</sup>

Berks SCA contracts with a provider to offer 24/7 assistance to overdose survivors through both EDs and EMS. Pursuant to the policy, the ED/EMS staff introduce the patient to the available CRS services.<sup>251</sup> The Reading Hospital offers the Hospital-Based Warm Hand-off Program (HB-

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<sup>241</sup> York/Adams Drug & Alcohol Commission Overdose Requirements Policy, last modified January 8, 2016.

<sup>242</sup> Ibid.

<sup>243</sup> Ibid.

<sup>244</sup> Ibid.

<sup>245</sup> Ibid.

<sup>246</sup> Ibid.

<sup>247</sup> Pennsylvania Department of Drug & Alcohol Programs, *Treatment Manual*, Version 5.0, § 5.04, page 13, last modified December 2019, available at <https://www.ddap.pa.gov/Documents/Agency%20Manuals/Treatment%20Manual.pdf> (accessed December 17, 2019).

<sup>248</sup> Berks SCA Overdose Policy.

<sup>249</sup> Delaware County Office of Behavioral Health Division of Drug and Alcohol: SCA Requirements for Overdose Survivors, last modified March 2019.

<sup>250</sup> Northumberland County SCA Overdose Survivors Policy.

<sup>251</sup> Berks SCA Overdose Policy.



WHO) by housing a CRS at the ER 24/7 to assist overdose patients, patients presenting with severe opiate withdrawal symptoms, and patients admitted for any drug and/or alcohol-related incident. Offering face-to-face service, the CRS arranges for an immediate LOC assessment, referral to treatment, and authorization of treatment funding.<sup>252</sup> If transportation to detoxification services is needed, the CRS arranges it. In addition, the CRS assists the patient to develop a recovery plan, which “will be client-driven and outcomes-based and will focus on recognizing and removing barriers to treatment as well as identifying supports to enhance recovery.” The CRS maintains regular contact with the client throughout all phases of treatment/recovery process.<sup>253</sup>

The Berks SCA Policy outlines the administration of Naloxone for First Responders: Overdose Prevention Initiative. Collaborating with community drug and alcohol treatment providers, Berks County school districts, and concerned parents, Berks SCA serves as a central point for Naloxone distribution and training.<sup>254</sup> With the goal of decreasing the number of opioid-related overdose deaths, the initiative targets fire departments, schools, drug and alcohol providers, homeless shelters, and families. The Berks County District Attorney Office provides naloxone kits to all local police departments that choose to participate. To those who wish to receive a kit, the SCA offers required training. The policy includes specific protocols for distributing the overdose kits.<sup>255</sup> Naloxone Overdose Prevention Kits include a dose of naloxone, an intra-nasal atomizer, educational information, gloves, a rescue breathing mask, and a form for naloxone utilization report. Berks SCA tracks the number and types of responders trained to administer naloxone, the number of kits distributed and to what type of agency/service provider, and the number of kits used to revive an individual experiencing an opioid overdose.<sup>256</sup>

Delaware County uses the CRS Model to serve the county’s seven EDs.<sup>257</sup> One provider services all seven hospitals on a 24/7 on-call basis. The policy includes detailed shifts of service. ER CRS staff network with the Center of Excellence manager and staff to create a hub and spoke networking system among the medical providers, police departments, and first responders.<sup>258</sup>

The Delaware SCA’s policy includes the following provisions: the CRS meets face-to-face with the patient; to supplement the warm hand-off program, SCA drug and alcohol brochures and CRS brochures explaining drug & alcohol screening and assessment are distributed biweekly to the seven EDs by SCA case management staff. The brochure identifies the three access centers’ contact information for quick entry into the drug and alcohol treatment system.<sup>259</sup> The policy specifically provides contact information for assessments for individuals with commercial insurance. The CRS is responsible for making transportation arrangements to treatment and monitoring the patient’s treatment “to ensure appropriate continuum of care.”<sup>260</sup> The policy

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<sup>252</sup> Ibid.

<sup>253</sup> Ibid.

<sup>254</sup> Ibid.

<sup>255</sup> Ibid.

<sup>256</sup> Ibid.

<sup>257</sup> Delaware County Office of Behavioral Health Division of Drug and Alcohol: SCA Requirements for Overdose Survivors, last modified March 2019.

<sup>258</sup> Ibid.

<sup>259</sup> Ibid.

<sup>260</sup> Ibid.

concludes with requiring the Delaware County SCA case management supervisor to oversee the policy implementation.

Northumberland County uses the CRS Model executed through a 24/7 phone line. The CRS responds to the patient in person. The SCA contracts with a provider to assist with inpatient treatment after business hours. The CRS tracks necessary data and reports to the SCA. The policy clearly states the contracted inpatient treatment facilities are responsible for transporting the patient for admission.<sup>261</sup>

### *The Direct Referral to Treatment by Hospital Staff Model*

Direct Referral to Treatment by Hospital Staff Model involves hospital staff (social workers, detox personnel, or other staff) assisting a patient with referral directly to SUD treatment, which may occur in collaboration with the SCA or independently of the SCA. Similar to the Contracted Provider Model, the SCA is expected to develop some type of working relationship with the hospital staff to assist with necessary funding authorization and data collection.<sup>262</sup> Currently four SCAs exclusively use the Direct Referral to Treatment by Hospital Staff Model: Allegheny County Department of Human Services: Office of Behavioral Health: Bureau of Drug and Alcohol Services,<sup>263</sup> Forest-Warren Human Services,<sup>264</sup> Lehigh County Drug and Alcohol Abuse Services,<sup>265</sup> and Potter SCA.<sup>266</sup>

Allegheny County Department of Human Services: Office of Behavioral Health: Bureau of Drug and Alcohol Services presently collaborates with six Centers of Excellence (COE): two of them offer 24/7 service; three offer daylight only service; and one offers services days and evenings Monday through Friday, but no weekend services. The COEs are responsible for collecting required data to forward to the SCA.<sup>267</sup>

Forest/Warren Human Services through an MOU with the local hospital offers 24/7 treatment placement services, including a warm hand-off procedure. Hospital staff collect the required data and forward it to the SCA.<sup>268</sup>

Lehigh County Drug and Alcohol Abuse Services adopts the Direct Referral Model through both the traditional hospital staff referral model and the Hospital Opioid Support Team (HOST). Available seven days a week from 8:00 AM to 12:00 AM, HOST sponsors a hotline. HOST staff collaborate with referral sources to complete a warm hand-off. Lehigh County Drug and Alcohol Abuse Services uses a contracted provider to complete LOCs. Two forms are

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<sup>261</sup> Northumberland County SCA Overdose Survivors Policy.

<sup>262</sup> Pennsylvania Department of Drug & Alcohol Programs, *Treatment Manual*, Version 5.0, § 5.04, page 13, last modified December 2019, available at <https://www.ddap.pa.gov/Documents/Agency%20Manuals/Treatment%20Manual.pdf> (accessed December 17, 2019).

<sup>263</sup> Allegheny County Warm Handoff Protocol.

<sup>264</sup> Forrest-Warren Human Services Overdose Survivor Policy, last modified July 7, 2017.

<sup>265</sup> Lehigh County Drug and Alcohol Abuse Services Overdose Survivor Requirements, last modified July 2016.

<sup>266</sup> Potter SCA Warm Handoff.

<sup>267</sup> Allegheny County Warm Handoff Protocol.

<sup>268</sup> Forrest-Warren Human Services Overdose Survivor Policy, last modified July 7, 2017.

included in the Overdose Survivor Requirements Policy: 1) Overdose Survivor Referral to Treatment and 2) Hospital: Request for Assessment.<sup>269</sup> In 2019, the warm hand-offs program (HOST) made 2,300 referrals.<sup>270</sup>

Lehigh County SCA emphasizes multi-faceted, comprehensive approach, encompassing not only opioids, but all substances, including alcohol; involving not only emergency departments, but other inpatient settings; and addressing specific population groups' needs, for example providing support to pregnant women, in both pre-natal and post-natal care. The balanced system Lehigh County's SCA is striving to create incorporates outreach, Naloxone Saves, Blue Guardian, and warm hand-offs. Lehigh County' practices are based on the full realization of the importance of the hospital systems' participation. Hospitals hire CRSs; emergency departments initiate MAT and then connect patients with outpatient services if needed or with inpatient care and detoxification for those who need it. This close collaboration between the health systems and SCA can be considered one of the best practices in warm hand-offs. Lehigh County SCA has consistently and purposefully worked on creating meaningful relationships with law enforcement, professional and volunteer fire departments, HUB, community, and treatment providers.<sup>271</sup> Warm hand-offs are routinely initiated both by hospitals and by law enforcement.

In March 2019 in Lehigh County, the District Attorney and the Drug and Alcohol Administrator announced a new initiative Blue Guardian designed "to use the existing relationships between police and their communities to assist individuals and their families plagued by opioid addiction in accessing treatment."<sup>272</sup> The District Attorney, the Lehigh County Regional Intelligence and Investigation Center (RIIC), police departments, and the Lehigh County Department of Drug and Alcohol collaborate in executing the initiative. Blue Guardian is a component of the Illicit Drug Identification and Tracking System (IDITS), a software application developed by RIIC and software consultants from Computer Aid, Incorporated. "The RIIC received a \$250,000 grant from the Pennsylvania Commission on Crime and Delinquency to create the IDITS application as a better mechanism for data collection and analysis of drug-related investigations and deaths, drug trends, emergence of new drugs, and those drugs of greatest concern."<sup>273</sup> The software enables law enforcement to enter information on naloxone administrations making the information "available to resources assigned to perform treatment outreach."<sup>274</sup>

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<sup>269</sup> Lehigh County Drug and Alcohol Abuse Services Overdose Survivor Requirements, last modified July 2016.

<sup>270</sup> Dr. Gillian A. Beauchamp, Lehigh Valley Health Network; Mr. Layne Turner, Lehigh Single County Authority; Mr. James B. Martin, Lehigh County District Attorney; Ms. Julia Kocis, Director, Lehigh County Regional Intelligence and Investigative Center. Presentation at the advisory committee meeting on May 15, 2020.

<sup>271</sup> Ibid.

<sup>272</sup> "County Officials Launch Program to Fight Opioid Abuse." *The Lehigh Valley Press News*, March 28, 2019, <https://www.lvpnews.com/20180328/county-officials-launch-program-to-fight-opioid-abuse/> (accessed September 11, 2020).

<sup>273</sup> Ibid.

<sup>274</sup> Ibid.

Blue Guardian has a carefully designed protocol consisting of six basic steps:

Step One

- Police administer naloxone

Step Two

- Police enter information in Blue Guardian Application
- Data sent to PA PDIN Application
- Naloxone use data report generated

Step Three

- Single County Authority (SCA) notified of naloxone use by law enforcement

Step Four

- SCA submits referral information to contracted vendor providing Certified Recovery Specialist (CRS) services

Step Five

- CRS reaches out to individual's home law enforcement agency and schedules joint face-to-face contact within 48-72 hours.

Step Six

- If individual/family want additional support, warm hand-off is made to CoE
- If individual/family decline support, noted in police contact summary.

With its comprehensive, detailed protocol and clearly defined roles as well as its attention to family involvement, Blue Guardian exemplifies one of best practices in warm hand-offs.

In 2019, more than a half of the contacted individuals entered treatment.<sup>275</sup>

Potter SCA supports a traditional direct hospital 24/7 referral model by providing current provider and treatment services information to the ED and assisting ED staff with necessary funding authorization. The hospital staff tracks required data and forwards the information to the SCA.<sup>276</sup>

### *Combination Models*

The remaining thirty SCAs utilize a combination of the identified DDAP models. Six SCAs use a combination of the SCA Agency Model during business hours and the Contracted Provider Model during non-business hours (evenings, weekends, and holidays): Centre County

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<sup>275</sup> Dr. Gillian A. Beauchamp, Lehigh Valley Health Network; Mr. Layne Turner, Lehigh Single County Authority; Mr. James B. Martin, Lehigh County District Attorney; Ms. Julia Kocis, Director, Lehigh County Regional Intelligence and Investigative Center. Presentation at the advisory committee meeting on May 15, 2020.

<sup>276</sup> Potter SCA Warm Handoff.

SCA<sup>277</sup>; Huntingdon, Mifflin, Juniata SCA<sup>278</sup>; Mercer County Behavioral Health Commission, Inc.<sup>279</sup>; Northampton County Drug & Alcohol Division<sup>280</sup>; Schuylkill County Drug & Alcohol Program<sup>281</sup>; and Westmoreland Drug and Alcohol Commission, Inc. (WeDAC).<sup>282</sup>

While implementing the SCA Agency Model during standard business hours, Huntingdon, Mifflin, Juniata SCA; Schuylkill County Drug & Alcohol Program; and WeDAC have adopted a Contracted Provider Model for after-business hours, weekends, and holidays. Schuylkill County Drug & Alcohol Program provides its contractors with a cell phone and necessary equipment to facilitate electronic completion of screening and placement coordination, due to the rural nature of Schuylkill County.<sup>283</sup> The procedure clearly states the contracted provider may not transport patients. The SCA staff monitors the contracted provider's services through a shared data system with the hospital. The procedure outlines compensation for the contracted provider and requires the contracted provider to gather monthly call statistics required by DDAP.<sup>284</sup>

In Westmoreland County, the contracted providers collect data and report it to WeDAC to complete the DDAP required monthly report.<sup>285</sup> The policy includes a detailed explanation of data the contracted providers are to collect and report. During non-business hours, the contracted provider completes the LOC assessment only if withdrawal management services are needed. Otherwise, the client is scheduled for a LOC assessment with the SCA on the following business day.<sup>286</sup>

Another combination is using a CRS in conjunction with the SCA Agency Model; it is implemented by Armstrong-Indiana-Clarion Drug and Alcohol Commission,<sup>287</sup> Blair County Drug and Alcohol Program Inc.,<sup>288</sup> Bradford/Sullivan SCA,<sup>289</sup> Bucks County Drug & Alcohol Commission, Inc.,<sup>290</sup> Clearfield-Jefferson Drug and Alcohol Commission,<sup>291</sup> Columbia Montour Snyder Union (CMSU) Drug and Alcohol Services,<sup>292</sup> West Branch Drug and Alcohol Abuse

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<sup>277</sup> Centre County Access to Treatment—Overdose Survivor.

<sup>278</sup> Huntingdon, Mifflin, Juniata SCA Warm Handoff: Access to Treatment—Overdose Survivors.

<sup>279</sup> Mercer SCA Overdose Policy and Procedure, last modified July 25, 2018.

<sup>280</sup> Northampton County Drug & Alcohol Overdose Policy.

<sup>281</sup> Schuylkill County Drug & Alcohol Program Overdose Survivor Services Policy (Warm Hand Off), last modified January 2, 2019.

<sup>282</sup> Westmoreland Drug and Alcohol Commission, Inc. Warm Handoff Policy, last modified July 24, 2018.

<sup>283</sup> Schuylkill County Drug & Alcohol Program Overdose Survivor Services Policy (Warm Hand Off), last modified January 2, 2019.

<sup>284</sup> Ibid.

<sup>285</sup> Westmoreland Drug and Alcohol Commission, Inc. Warm Handoff Policy, last modified July 24, 2018.

<sup>286</sup> Ibid.

<sup>287</sup> Armstrong-Indiana-Clarion Drug and Alcohol Commission Overdose Survivors Policy and Procedure, last modified July 1, 2018.

<sup>288</sup> Blair County Drug and Alcohol Program Inc. Emergency Department Detoxification/Substance Use Disorder Referral Process, last modified July 1, 2016.

<sup>289</sup> Bradford/Sullivan Warm Handoff Policy.

<sup>290</sup> Bucks County Drug & Alcohol Commission, Inc. Warm Hand-off Policy: Bucks County Connect, Assess, Refer, Engage, Support (BCARES), last modified October 7, 2019.

<sup>291</sup> Clearfield-Jefferson Drug and Alcohol Commission Warm Handoff/Overdose Policy and Procedure, last modified February 2018.

<sup>292</sup> Columbia Montour Snyder Union (CMSU) Drug and Alcohol Services Overdose/Warm Handoff Policy, last modified October 2, 2019.

Commission Overdose Policy (Lycoming/Clinton Counties),<sup>293</sup> and Washington Drug and Alcohol Commission, Inc. (WDAC).<sup>294</sup>

Armstrong-Indiana-Clarion’s SCA has developed the Addiction Recovery Mobile Outreach Team (ARMOT), which provides case management and recovery support services to individuals with substance use disorders as well as education and support to rural hospital staff, patients, and patients’ families and friends.<sup>295</sup> This program is a collaboration of Armstrong-Indiana-Clarion Drug and Alcohol Commission (AICDAC), Armstrong County Memorial Hospital, Clarion Hospital, and Indiana Regional Medical Center.

As the executive director of the Armstrong-Indiana-Clarion Drug and Alcohol Commission Ms. Kami Anderson emphasized in her presentation to the advisory committee, “Collaboration is the key!” In addition to its partnership with the three local rural hospitals, AICDAC established partnerships with multiple local drug and alcohol treatment providers such as ARC Manor, Cen-Clear, Conewago-Firetree, Family Services of Western PA, and The Open Door. It has agreements/contracts with over twenty withdrawal management/residential drug and alcohol treatment facilities statewide.<sup>296</sup>

Close contact with the emergency departments allowed AICDAC leaders to fine-tune their procedures; based on the EDs’ reporting, they adapted and adjusted the ways they act. For example, having noticed that if an ED call about the overdose arrives in the middle of the night during the weekend and the call-back is delayed till Monday morning, it is often too late for an effective hand-off, AICDAC made arrangements for the CRS staff to be available via phone 24/7. That was a meaningful improvement.

Serving both adults and adolescents, the program staff encourages patients to involve family members in the recovery process with the goal of educating families about the types of support needed throughout the recovery process. ARMOT was initially funded by a 2015-2018 Federal Office of Rural Health Policy (FORHP) Rural Health Care Services Outreach Grant.<sup>297</sup> The program is executed through a collaboration of hospital staff, a mobile case manager (MCM), and a peer certified recovery specialist (CRS). The hospital staff screens a patient to determine whether he/she suffers from a substance use disorder. If the patient verbally agrees, the hospital staff refers the patient to ARMOT. Next, the MCM meets bedside with the patient to screen and assess the appropriate type of treatment. After discussing available treatment options with the patient, the MCM completes a referral to treatment and coordinates transport with the treatment provider. In addition to arranging treatment placement, the MCM introduces and connects the patient to available community resources. Plus, the MCM educates hospital staff about substance use disorders and the recovery process.<sup>298</sup>

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<sup>293</sup> West Branch Drug and Alcohol Abuse Commission Overdose Policy, last modified July 11, 2019.

<sup>294</sup> Washington Drug and Alcohol Commission, Inc. Overdose Response Policy, last modified July 1, 2019.

<sup>295</sup> “Addiction Recovery Mobile Outreach Team (ARMOT),” *Rural Health Information Hub*, available at <https://www.ruralhealthinfo.org/project-examples/940> (accessed December 17, 2019).

<sup>296</sup> Ms. Kami Anderson, AICDAC Executive Director; Mr. Mike Krafick, CRS Supervisor. Presentation at the advisory committee meeting on May 15, 2020.

<sup>297</sup> “Addiction Recovery Mobile Outreach Team (ARMOT),” *Rural Health Information Hub*, available at <https://www.ruralhealthinfo.org/project-examples/940> (accessed December 17, 2019).

<sup>298</sup> *Ibid.*

To supplement the MCM, ARMOT engages a peer CRS who meets with the patient upon request. Sharing his/her knowledge and experience with a substance use disorder and the recovery process, the CRS is able to both educate the patient's family about the recovery process and connect the patient to community support and resources (Alcoholics Anonymous (AA) or Narcotics Anonymous (NA)). The CRS will accompany the patient to his/her first support meeting.<sup>299</sup>

ARMOT offers comprehensive case management services, with a focus on a collaborative process between client and case manager that facilitates access to available resources as well as engagement in the continuum of treatment and support services, while educating clients on the skills necessary to achieve self-sufficiency and recovery from substance abuse. Case coordination/service planning incorporates access to healthcare, basic needs, physical health, emotional/mental health, family, childcare, education/vocation, life skills, social issues, and employment. Recovery support services, which are non-clinical services that assist individuals and their families to recover from alcohol and other drug problems, complement treatment, outreach, engagement, and other strategies and interventions to assist people in recovery in gaining skills and resources needed to initiate, maintain, and sustain long-term recovery.

Since September 2015, ARMOT received 1,650 referrals and screened 74 percent of the referred patients; 81 percent of callers that met with AICDAC staff entered treatment. Of those assessed, 85 percent went to treatment directly from the hospital. Over one half of patients completed drug and alcohol treatment, and many patients re-engaged with ARMOT after a relapse and were placed back in treatment. More than 1,800 local hospital staff have been educated on substance use disorders and the recovery process by ARMOT.<sup>300</sup> The leaders of AICDAC believe it is effective in reducing the stigma and improving hospital response.

Blair County Drug and Alcohol Program, Inc. collaborates with the ED to provide 24/7 warm hand-offs, incorporating the support of CRS to engage patients in SUD treatment.<sup>301</sup>

Bucks County Drug and Alcohol Commission, Inc.'s warm hand-off policy is Bucks County Connect, Assess, Refer, Engage, Support (BCARES). This program aims to ensure that any individual with a substance use disorder who is admitted to a Bucks County hospital unit or emergency department is provided with recovery support services, education, and resources, including direct transition to drug and alcohol treatment upon a patient's consent.<sup>302</sup> These services are provided to hospitals 24/7 using a combination of on-site and on-call hours.

BCARES supports two program enhancements. First, BCARES Family Connect is composed of family members with loved ones either in recovery or experiencing a SUD. These volunteers are available 24/7 to assist other families in need of support. They provide information

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<sup>299</sup> Ibid.

<sup>300</sup> Ms. Kami Anderson, AICDAC Executive Director; Mr. Mike Krafick, CRS Supervisor. Presentation at the advisory committee meeting on May 15, 2020.

<sup>301</sup> Blair County Drug and Alcohol Program Inc. Emergency Department Detoxification/Substance Use Disorder Referral Process, last modified July 1, 2016.

<sup>302</sup> Bucks County Drug & Alcohol Commission, Inc. Warm Hand-off Policy: Bucks County Connect, Assess, Refer, Engage, Support (BCARES), last modified October 7, 2019.

about family support groups and other community resources. Family Connect referrals may be made by BCARES CRS, assessment center staff, hospital social workers, and others.<sup>303</sup>

The second enhancement is the BCARES Healthcare Professionals Opposing Stigma, a group of healthcare professionals in long-term recovery. This group visits the six Bucks County hospitals to increase awareness of other professionals, including providing education about

- 1) effective language and stigma,
- 2) signs of substance use in co-workers,
- 3) medication diversion in hospitals, and
- 4) impact of impaired healthcare professionals on both the hospitals and the patients.

In addition to its educational activities, BCARES Healthcare Professionals Opposing Stigma provides professional resources for assistance.<sup>304</sup>

The BCARES initiative is a partnership between three identified providers of CRS and Certified Family Recovery Specialists (CFRS) and the six hospitals located in Bucks County. Each hospital procedure is customized to the specific hospital's identified needs and protocols. Providers and hospitals work together to identify the times of greatest need and the appropriate number of on-site versus on-call hours to ensure 24/7 in-person coverage of BCARES services.<sup>305</sup> Many of the services are embedded in the ED. The CRS meets face-to face with the overdose survivor to determine placement needs. Prior to direct transfer to a treatment facility, BCARES staff distributes an envelope of written materials explaining available resources.<sup>306</sup>

If a patient accepts treatment, the CRS completes the Approval of Care (AOC) paperwork and submits it to AOC Department within 24 hours. The CRS arranges for transportation directly from ED/other hospital unit to the facility.<sup>307</sup>

To address payment for treatment, if the patient is eligible for payment assistance (Medicaid or HealthChoices, Medicare, commercial insurance, etc.), the CRS completes a pre-certification and forwards to the AOC within 24 hours. Within three business days of admission, the AOC Department completes a clinical review, plus

- 1) Within 24 hours after the admission, an assessment based on the American Society of Addiction Medicine (ASAM) criteria from the treating facility is sent to AOC.
- 2) Treating facility must enter patient into the PA-WITS system within 48 hours.
- 3) All other AOC paperwork is to be completed and forwarded to AOC within three business days, including all consents and request for admission, Client Liability Income

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<sup>303</sup> Ibid.

<sup>304</sup> Ibid.

<sup>305</sup> Ibid.

<sup>306</sup> Ibid.

<sup>307</sup> Ibid.



Verification form, HIPAA Disclosure, Client Handbook sign-off, and Recovery Plan.<sup>308</sup>

The steps for admission are outlined and differentiated between BCDAC, Inc. business hours and non-business hours (after hours, weekends, and holidays). Lastly, the policy outlines how to collect required tracking of individuals who have survived an overdose.<sup>309</sup>

Bucks County Connect-Assess-Refer-Engage-Support (BCARES) program underwent a thorough evaluation by the Public Health Management Corporation's Research and Evaluation Group. The study was funded by the Independence Blue Cross Foundation. This evaluation used a mixed-methods approach that combines both quantitative and qualitative research methods to identify the process and outcomes associated with the BCARES initiative:

- 1) the warm hand-off patient data,
- 2) the process evaluation of protocols, education, and leadership communication, and
- 3) provider knowledge and attitudes related to opioid use disorder.<sup>310</sup>

The evaluation was conducted from August 2017 through February 2018. It sought to assess the effectiveness of the BCARES program in initiating warm hand-offs and getting patients into treatment and to identify best practices for warm hand-off protocols and associated supports. The evaluation found the program promising and suggested possible ways of improvement. Based on their observations on the Bucks County program, the authors underscored to the benefit of other counties, hospitals, and treatment agencies seeking to implement a warm hand-off program that “a warm handoff program is not just a protocol, but also a system of communication and education that supports continuous quality improvement by involving all stakeholders in implementation and outcome improvement.”<sup>311</sup>

Clearfield-Jefferson Drug and Alcohol Commission (CJDAC) supplements the SCA Agency Model by engaging a CRS to support a patient until the patient is transported to a drug and alcohol facility. This procedure is beneficial in cases in which placement cannot be arranged immediately.<sup>312</sup> Columbia, Montour, Snyder, Union Drug and Alcohol Services (CMSU) offers the assistance of a CRS to EDs 24/7.<sup>313</sup> The CRS meets face-to-face with the patient with the goal of engaging him/her to enter drug and alcohol treatment. While CMSU case management staff complete the LOC, the CRS remains available to assist with facilitating the referral. In addition, the CRS, as appropriate, follows up with patients in the community, meeting them at their convenience to continue to encourage drug and alcohol treatment and offer recovery support.<sup>314</sup>

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<sup>308</sup> Ibid.

<sup>309</sup> Ibid.

<sup>310</sup> Public Health Management Corporation's Research and Evaluation Group. *Bucks-County-Connect Assess-Refer-Engage-Support (B-CARES) Program Evaluation: Final Report 2018*, [http://www.ibxfoundation.org/pdfs/media\\_center/publications/b-cares-report.pdf](http://www.ibxfoundation.org/pdfs/media_center/publications/b-cares-report.pdf).

<sup>311</sup> Ibid.

<sup>312</sup> Clearfield-Jefferson Drug and Alcohol Commission Warm Handoff/Overdose Policy and Procedure, last modified February 2018.

<sup>313</sup> Columbia Montour Snyder Union (CMSU) Drug and Alcohol Services Overdose/Warm Handoff Policy, last modified October 2, 2019.

<sup>314</sup> Ibid.

Serving Lycoming and Clinton Counties, West Branch Drug and Alcohol Abuse Commission also employs a CRS to offer face-to-face support to overdose patients. The policy notes the CRS should arrive “within 15-30 minutes of notification whenever possible.”<sup>315</sup> Also, the CRS has the primary responsibility for maintaining the overdose data related to the warm hand-off procedure.

Washington Drug and Alcohol Commission, Inc. (WDAC) uses a two-pronged approach for 24/7 direct referral from ED: SCA Agency Model and CRS Model. WDAC staff triage all ED calls to determine whether a CRS or case manager should be dispatched. CRS staff are trained to complete both assessments and referrals from ED to treatment.

Cumberland Perry Drug and Alcohol Commission,<sup>316</sup> Lancaster County Drug and Alcohol Commission,<sup>317</sup> and Philadelphia SCA<sup>318</sup> combine the Contracted Provider Model with the CRS Model. In Cumberland and Perry Counties, the CRS meets face-to-face with the patient to encourage and facilitate treatment. The policy delineates the following treatment options: detox or medication-assisted treatment with Vivitrol, methadone, and buprenorphine.<sup>319</sup> The CRS’s responsibility is to explain each respective treatment. The CRS requests the patient signs all necessary consent forms. Lastly, the CRS logs all outreach activity necessary to complete the DDAP monthly report.<sup>320</sup>

Lancaster County Drug and Alcohol Commission contracts to provide for its 24/7 warm hand-off procedure, and the contractor uses a CRS Model to complete screening and facilitate treatment. If placement cannot be arranged immediately, the CRS arranges for “constant companionship and/or contact” until placement occurs.<sup>321</sup>

Philadelphia SCA engages CRS services to supplement services available to individuals “before, during, and after formal clinical drug and alcohol treatment to achieve the fundamental goal of accessing and sustaining long term recovery in the community.”<sup>322</sup> The CRS both accompanies the patient through the assessment process and assists with connecting the patient to most appropriate level of care. Philadelphia SCA “works collaboratively with Community Behavioral Health who manages behavioral health care for the City’s 718,023 Medicaid recipients through Pennsylvania’s mandated Medicaid managed care program.”<sup>323</sup> Individuals who are not Medicaid eligible and are uninsured are served through the Behavioral Health Special Initiative, which is administered through an operating unit under the Department of Behavioral Health and

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<sup>315</sup> West Branch Drug and Alcohol Abuse Commission Overdose Policy, last modified July 11, 2019.

<sup>316</sup> Cumberland Perry Drug and Alcohol commission Overdose Policy: Facilitation of Treatment Referrals for Individuals Who Experience a Substance Abuse Overdose, last modified May 2017.

<sup>317</sup> Lancaster County Drug and Alcohol Commission Overdose Survivors, last modified May 25, 2019.

<sup>318</sup> Philadelphia Single County Authority Warm Handoff Overdose Survivor Policy, last modified October 2019.

<sup>319</sup> Cumberland Perry Drug and Alcohol Commission Overdose Policy: Facilitation of Treatment Referrals for Individuals Who Experience a Substance Abuse Overdose, last modified May 2017.

<sup>320</sup> Ibid.

<sup>321</sup> Lancaster County Drug and Alcohol Commission Overdose Survivors, last modified March 25, 2019.

<sup>322</sup> Philadelphia Single County Authority Warm Handoff Overdose Survivor Policy, last modified October 2019.

<sup>323</sup> Ibid.

Intellectual Disability Services and governed by the Office of Addiction Services using a managed care model.<sup>324</sup>

Bedford County SCA Personal Solutions, Inc.,<sup>325</sup> Cambria County Drug and Alcohol,<sup>326</sup> Franklin/Fulton Drug and Alcohol Program (FFDA),<sup>327</sup> and Lawrence County Drug and Alcohol Commission, Inc.<sup>328</sup> combine the SCA Agency Model and the Direct Referral to Treatment by Hospital Staff Model. Bedford County SCA completes the warm hand-off process during business hours and relies on the hospital staff to make direct referrals during non-business hours.<sup>329</sup>

The hospital serving Cambria County maintains an outpatient drug and alcohol license within the hospital. Cambria Drug and Alcohol and the hospital collaborate to provide a warm hand-off service, including a drug and alcohol counselor both being housed in the hospital and serving in a mobile capacity.<sup>330</sup> The policy outlines a procedure during both business hours and non-business hours. The outpatient treatment provider is responsible for collecting required DDAP data. Cambria County Drug and Alcohol staff monitors all referrals of overdose patients.<sup>331</sup>

Franklin/Fulton Drug and Alcohol (FFDA) Program staff meets in person with the patient at the ED to complete the LOC assessment on a 24/7 basis, using an on-call process for non-business hours.<sup>332</sup> The Direct Referral to Treatment by Hospital Staff Model is used to assist overdose survivors who are admitted to the Behavioral Health Unit, ICU or CCU. FFDA provides the EDs with a resource list to assist with these referrals.<sup>333</sup>

Lawrence County Drug and Alcohol Commission, Inc. completes screenings and assessments during business hours both face-to-face and by phone.<sup>334</sup> During non-business hours, the hospital staff contacts contracted providers to arrange non-hospital detoxification services. Within three business days, Lawrence County Drug and Alcohol Commission staff completes the screening at the facility.<sup>335</sup> This policy includes a provision allowing for language interpretation and translation services; this service is approved and scheduled by the executive director or administrative assistant.<sup>336</sup> The policy requires LOC assessments to be completed face-to-face at

- 1) SCA office,
- 2) Lawrence County Jail,
- 3) hospital,

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<sup>324</sup> Ibid.

<sup>325</sup> Personal Solutions, Inc. (Bedford Co. SCA) Warm Hand-Off Policy.

<sup>326</sup> Cambria County Drug & Alcohol Overdose Survivors Policy, last modified August 24, 2016.

<sup>327</sup> Franklin/Fulton Drug and alcohol Program Overdose Survivors Policy, last modified July 1, 2019.

<sup>328</sup> Lawrence County Drug and Alcohol Commission, Inc. Screening and Assessment Policies and Procedures, last modified September 8, 2017.

<sup>329</sup> Personal Solutions, Inc. (Bedford Co. SCA) Warm Hand-Off Policy.

<sup>330</sup> Ibid.

<sup>331</sup> Ibid.

<sup>332</sup> Franklin/Fulton Drug and alcohol Program Overdose Survivors Policy, last modified July 1, 2019.

<sup>333</sup> Ibid.

<sup>334</sup> Lawrence County Drug and Alcohol Commission, Inc. Screening and Assessment Policies and Procedures, last modified September 8, 2017.

<sup>335</sup> Ibid.

<sup>336</sup> Ibid.

- 4) schools, or
- 5) other locations.<sup>337</sup>

The detailed policy includes the following sections: Assessment/Placement Tools (for adults -- Pennsylvania Client Placement Criteria and for adolescents -- the most current version of the American Society of Addiction Medicine Patient Placement Criteria for Adolescents); Assessment/Placement Requirements (LOC assessment must be completed in full and is valid for six months); Client Orientation (execute Informed Consent to Participate Form and receive complete explanation of assessment process, coordination of services, recommended treatment services, facility choice, client rights and program rules, assessment/treatment limitations, confidentiality laws/rules/regulations, releases, compliance/grievance and appeals process, client liability determination (copays), and follow-up appointments/procedures); Facility Choice (provide at least two facilities offering determined level of care from which client chooses), Coordination of Services Assessment (based on Case Management Service Plan), Admission to Treatment (time frame requirements, residential/outpatient/residential referral process/non-residential referral process, and special needs), Assessment Outcome Notification (observing confidentiality laws, case manager informs referral source of assessment outcomes and has patient sign a Consent to Release information form), Liability and Abatement (determine client liability (co-pay) and payment schedule; if necessary, a Liability Reduction form is completed), and Funding Determination/Authorization of Services (determine funding eligibility before requesting SCA funding, which is approved by SCA Management (Executive Director, Fiscal Officer)).<sup>338</sup>

Butler County Drug and Alcohol Programs,<sup>339</sup> Greene County Drug and Alcohol Program,<sup>340</sup> and Venango County Substance Abuse Program (VCSAP)<sup>341</sup> combine the SCA Agency Model, Contracted Provider Model, and Direct Referral to Treatment by Hospital Staff Model. Butler County Drug and Alcohol Programs maintain and distribute provider-referral lists to EDs.<sup>342</sup> Green County Drug and Alcohol Program's policy clearly identifies the tracking responsibilities of each referring entity.<sup>343</sup> VCSAP's approach involves the ED making a direct referral to contractor if emergent medical care is needed. VCSAP assists patients during business hours, and a contracted provider responds to calls after business hours.<sup>344</sup>

Lackawanna/Susquehanna Office of Drug and Alcohol Programs (LSODAP),<sup>345</sup> Luzerne/Wyoming Counties Drug and Alcohol Program,<sup>346</sup> and Somerset SCA<sup>347</sup> combine the SCA Agency Model, Contracted Provider Model, and Certified Recovery Specialist Model. LSODAP embeds a CRS 24/7 in the ED of one county hospital. The CRS through a contracted

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<sup>337</sup> Ibid.

<sup>338</sup> Ibid.

<sup>339</sup> Butler County Drug and Alcohol Programs Overdose Survivors Policy and Procedure, last modified August 2018.

<sup>340</sup> Greene County Drug and Alcohol Program Warm Hand-Off Policy, last modified July 6, 2017.

<sup>341</sup> Venango County Substance Abuse Program Substance Abuse Policy #1325, last modified July 2016.

<sup>342</sup> Butler County Drug and Alcohol Programs Overdose Survivors Policy and Procedure, last modified August 2018.

<sup>343</sup> Greene County Drug and Alcohol Program Warm Hand-Off Policy, last modified July 6, 2017.

<sup>344</sup> Venango County Substance Abuse Program Substance Abuse Policy #1325, last modified July 2016.

<sup>345</sup> Lackawanna/Susquehanna Office of Drug and Alcohol Programs Overdose Survivors Policy, last modified September 20, 2019.

<sup>346</sup> Luzerne/Wyoming Counties Drug and Alcohol Program Warm Hand-Off Protocol.

<sup>347</sup> Somerset SCA Warm Hand Off Procedure with Emergency Departments and Twin Lakes Center, last modified September 2018.

provider handles the screening and referral to treatment. LSODAP completes the LOC and follows the patient through his/her continuum of treatment. An on-call process is used for other hospitals in Lackawanna and Susquehanna Counties to engage both contracted CRS and LSODAP staff to complete the LOC. LSODAP staff tracks data from all five hospitals.<sup>348</sup>

Somerset SCA policy includes a Medical Listing Resource List that contains phone numbers for ED staff to call during and after business hours, along with service contact numbers to be given to patients who leave before a referral is made, including detoxification and inpatient treatment, outpatient services, and medication-assisted treatment.<sup>349</sup>

Chester County Department of Drug and Alcohol Services combines a Contracted Provider Model and Direct Referral to Treatment by Hospital Staff Model.<sup>350</sup> If a patient requires SCA funding assistance and does not require detoxification services, the hospital staff completes the warm hand-off procedure. If detoxification services are needed, the contracted provider is contacted. During business hours, the SCA completes the LOC, and the contracted provider completes the LOC after business hours.<sup>351</sup>

Montgomery County Drug and Alcohol combines the Contracted Provider Model, the Certified Recovery Specialist Model, and the Direct Referral to Treatment by Hospital Staff Model to “meet the distinct needs of each community.”<sup>352</sup> The policy states, “Due to the complex nature of the county, each area has a distinct character, culture and composition.”<sup>353</sup> The 24/7 contracted provider for Medical Assistance referrals is identified. For individuals “not eligible or not yet enrolled in managed care benefits for coverage through Medical Assistance or private insurance,” a mobile crisis services triage number is provided, followed by detailed procedures for each hospital, including contact names and phone numbers and hours.<sup>354</sup> The SCA is responsible for tracking required data with the assistance of case management and treatment provider network.

Lastly, Montgomery County Drug & Alcohol has formed a partnership with the Montgomery County Office of Public Health, the Montgomery County Drug Overdose Task Force, and the County Commissioners to promote “a county wide health education campaign to raise awareness and provide education and resources on what overdose looks like, how to reverse opioid overdose and where to go to receive treatment services once the person is stabilized.”<sup>355</sup> Naloxone is available through a standing order at participating pharmacies throughout the county. “A limited amount of Naloxone is available to the general public upon request through the three Montgomery County Office of Public Health clinic sites located in Norristown, Pottstown and

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<sup>348</sup> Lackawanna/Susquehanna Office of Drug and Alcohol Programs Overdose Survivors Policy, last modified September 20, 2019.

<sup>349</sup> Somerset SCA Warm Hand Off Procedure with Emergency Departments and Twin Lakes Center, last modified September 2018.

<sup>350</sup> Chester County Department of Drug and Alcohol Services Treatment Access for Overdose Survivors, last modified February 2018.

<sup>351</sup> Ibid.

<sup>352</sup> Montgomery County Drug and Alcohol Overdose Survivors Warm Hand-Off Case Management Policy and Procedures, last modified June 5, 2019.

<sup>353</sup> Ibid.

<sup>354</sup> Ibid.

<sup>355</sup> Ibid.

Willow Grove, made possible with funding from the SCA.”<sup>356</sup> In addition, quarterly narcotic education and distribution events are held throughout the county.

Wayne County SCA has adopted a combination of SCA Agency Model and Recovery Community Model to offer warm hand-offs at the ED.<sup>357</sup> During business hours, Wayne County SCA staff completes a face-to-face screening and assessment. Using an on-call system, Wayne County SCA staff complete LOCs and referrals during nonbusiness hours. To supplement the SCA staff, recovery volunteers are engaged to provide additional support and encouragement throughout the referral process and possibly transportation to a treatment facility.<sup>358</sup>

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<sup>356</sup> Ibid.

<sup>357</sup> Wayne County SCA Overdose Survivors Warm Handoff Policy.

<sup>358</sup> Ibid.

## CENTERS OF EXCELLENCE

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Centers of Excellence (COEs) have emerged as part of the Commonwealth’s response to the opioid epidemic.

Centers of Excellence are defined as “specialized programs within healthcare institutions which supply exceptionally high concentrations of expertise and related resources centered on particular medical areas and delivered in a comprehensive, interdisciplinary fashion.”<sup>359</sup> Centers of Excellence are believed to “afford many advantages for healthcare providers and the populations they serve”; they have “the ability to dramatically enhance the depth and breadth of healthcare services available to communities.”<sup>360</sup> The integrated, multi-faceted approach provided by the center of excellence delivery model is especially important when treating patients with substance use disorder.

In 2015, Pennsylvania Governor Tom Wolf allotted \$15 million in behavioral health funds and Medical Assistance funding to create 20 Opioid Use Disorder (OUD) Centers of Excellence (COE) throughout the Commonwealth. In 2016, another 25 Centers of Excellence were chosen statewide. Currently, there are 45 COEs in Pennsylvania.<sup>361</sup>

An OUD Center of Excellence is intended for patients who

- have an OUD
- may have a co-occurring behavioral and/or physical health condition
- need help to navigate the care system
- need guidance to stay in treatment.

The Pennsylvania Department of Human Services (DHS) defines the vision of the COE as “ensuring effective care coordination, integrating physical and behavioral health needs to every patient with an Opioid Use Disorder (OUD), and increasing access to Medication-Assisted Treatment (MAT).”<sup>362</sup>

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<sup>359</sup> Elrod, James K. and John L. Fortenberry, Jr. “Centers of Excellence in Healthcare Institutions: What They Are and How to Assemble Them.” *BMC Health Services Research*. Vol. 17, Suppl. 1 (July 11, 2017): 425, doi: 10.1186/s12913-017-2340-y.

<sup>360</sup> Ibid.

<sup>361</sup> You can find the list of Pennsylvania COEs in Attachment H. The list includes 47 COEs because one of them operates two separate programs, and they are licensed separately; another COE operates in two distinct locations, and each is licensed separately.

<sup>362</sup> Pennsylvania Department of Human Services. *Centers of Excellence: Goals and Benchmarks*. 2018. [https://www.dhs.pa.gov/about/Documents/Find%20COEs/c\\_291267.pdf](https://www.dhs.pa.gov/about/Documents/Find%20COEs/c_291267.pdf).

DHS requires that the COE deploy a community-based care management (CBCM) team to support care management of individuals with OUD. This team consists of licensed and unlicensed professionals who provide a suitable range of behavioral health and primary care expertise and role functions, have shared operations and workflows, and have formal or on-the-job training.

The COE must

- 1) Establish one or more CBCM teams tailored to the needs of each client and situation.
- 2) Employ methods to identify clients within the COE designated area who may need or may benefit from the COE. Develop and maintain a capacity to make initial contact with individuals where they are physically located, in a safe, public location within 30 miles of the COE or within the COE itself (the department recommended a set of appropriate community stakeholders).
- 3) Ensure that all insured COE-engaged clients who are eligible for Medicaid are appropriately enrolled within 60 days of becoming engaged with the COE. If an uninsured or under-insured COE-engaged client is not eligible for Medicaid, the COE must conduct a referral to the appropriate Single County authority (SCA).
- 4) Engage clients in identifying their treatment and non-treatment needs for care and the particular clinicians or other individuals to address those needs.
- 5) Involve both the client and CBCM to create an explicit, unified, and coordinated care plan that addresses each COE-engaged client's treatment and non-treatment needs with systematic follow-up and adjustment of the care plan if the client is not improving as expected.
- 6) The CBCM COE-engaged client's care plan should be supported by 1) the client expecting that his/her behavioral and physical health care needs will be coordinated as a standard of care, 2) COE office practice, leadership alignment, and business model, and 3) a continuous quality improvement and measurement of effectiveness that routinely collects and uses data and periodically examines and reports outcomes.
- 7) Ensure every COE-engaged client receives a Level Of Care Assessment by a qualified professional within 7 days of initial contact, if the client consents to receive OUD treatment services and the Level of Care Assessment has not already been completed with the client within the past 6 months.
  - ❖ If the COE-engaged client consents to receive OUD treatment services, the COE will identify and engage with an appropriate OUD treatment provider per the results of the Level of Care Assessment and client choice, and ensure client admission to OUD treatment within 14 calendar days of initial contact with the CBCM team.



- ❖ If the COE-engaged client does not consent to receive OUD treatment services, the CBCM team will still prepare individualized care plans that provide positive support services, utilizing motivational interviewing to progress the client toward addressing treatment needs.
- 8) Utilize the Prescription Drug Monitoring Program (PDMP) and urine drug screen testing as allowed, required by law, and appropriate to identify individuals at increased risk for inappropriate medication usage per Pennsylvania Prescribing Guidelines for opioids and benzodiazepines.
  - 9) Administer the Brief Assessment of Recovery Capital Tool face-to-face within 30 days of the initial COE treatment admission date, then re-administer it face-to-face every six months thereafter.

The COE may place an individual in an inactive status from COE services if 1) he or she voluntarily elects to discontinue participation in the program or 2) he or she consistently participates in SUD treatment and establishes community supports that perpetuate the recovery process.<sup>363</sup>

The Centers of Excellence used to be grant-funded; now funding is provided through Medicaid Managed Care Organizations (MCOs). The grants paid to COEs were funded with a blend of direct state funding (\$10 million per year in the Behavioral Health Services Initiative (BHSI) line of the budget) and a combination of state/federal funding using the Medicaid capitation line of the budget - a funding source that includes a blend of state and federal funds (a total of \$12.5 million per year, with the majority of that being federal dollars). For the first two years since initial installation, during which COEs were grant-funded, each of the 45 COEs was paid \$500,000 per year, totaling \$22.5 million. In 2019, DHS switched to a billable model. Instead of receiving a flat amount of \$500,000 per year from DHS, COEs began to bill the MCOs for their services in the amount of \$277.22 per member, per month. This is funded completely through the DHS Medicaid capitation line item of the budget, using federal match. The total amount it costs to fund COEs through capitation is very similar to the grant cost. Currently, DHS pays a grand total of \$22,454,820 in capitation to fund COEs. Of the 45 COEs, 19 are physical health providers and 26 are behavioral health providers. Under grant funding, \$13 million went to behavioral health COEs, while the remaining \$9.5 million went to physical health COEs. At present, under capitation, \$12,973,896 goes to behavioral health MCOs to pay behavioral health COEs, and the remaining \$9,480,924 goes to physical health MCOs to pay physical health COEs. The majority of these costs are covered by federal, not state dollars, due to the federal match.<sup>364</sup> DHS is continuously working on various ways to avoid duplication of services and on improved quality metrics.<sup>365</sup>

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<sup>363</sup> Ibid.

<sup>364</sup> The funding information was provided to the Joint State Government Commission by the Office of Medical Assistance Programs, Department of Human Services, in an e-mail received November 5, 2020.

<sup>365</sup> Information provided to the Joint State Government Commission by Ms. Gwendolyn Zander, Chief of Staff, Office of Medical Assistance Programs, Department of Human Services, in a personal interview on February 28, 2020.

COEs collect performance measurements on a regular basis. DHS began collecting data from its 45 COEs in October of 2016 and has been collecting monthly data submissions from all of the COEs since they began operations using DHS funding. Each month, every COE is responsible for collecting and submitting data on a standardized spreadsheet developed by DHS. The Department of Human Services has engaged the University of Pittsburgh's School of Pharmacy Program Evaluation and Research Unit (Pitt PERU) to provide technical assistance to COEs, including assistance in the area of data collection and reporting.

In 2020, the University of Pittsburgh Medicaid Research Center (MRC) and Program Evaluation and Research Unit (PERU) conducted a comprehensive evaluation of the COE program, using data on almost 28,000 unique clients served by 45 COEs across the Commonwealth. As for the general physical and behavioral health status of COE enrollees, it's worth noting that more than 60 percent of them were diagnosed with substance use disorder in addition to OUD. With regard to warm hand-offs, this finding reinforces the idea that they should not be limited to OUD but should reach individuals with other kinds of substance use disorders as well. Analyzing the COE effects on OUD treatment measures, researchers found that engagement with a COE was associated with significant improvements in a range of COE-related treatment measures, and these improvements persisted two years following engagement:

- The use of medication as part of enrollee's treatment increased by almost 50 percent in the first year, relative to the comparison group.
- "Initiation" and "Engagement" both increased. "Initiation" and "Engagement" in OUD treatment measures if enrollees engaged additional treatment in a timely manner after receiving an OUD diagnosis in any clinical setting. "Initiation," which requires at least one follow-up engagement, increased more than 10 percent in both years, and "Engagement," which requires at least two separate engagements increased by more than 30 percent in both years.
- Timely follow-up treatment after an ED visit for OUD (within seven days) increased more than 25 percent in both years after enrollees engaged a COE for treatment.
- COE enrollees increased their number of both primary care and behavioral health visits after engaging a COE. Behavioral health visits, in particular, increased more than 60 percent in the first year after COE engagement.

Having analyzed their findings, the evaluators concluded that "the Centers of Excellence program has shown significant, long-term improvements in OUD treatment-related measure relative to a comparison population" and that "the COE program can be a critical part of a broader strategy to improve OUD treatment practices in Pennsylvania."<sup>366</sup>

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<sup>366</sup> Information provided to the Joint State Government Commission by the Office of Medical Assistance Programs, Department of Human Services, in an e-mail received November 12, 2020.

COEs actively collaborate with key partners, convening recurring quarterly meetings with their key partners and developing strategies to achieve effective coordinated care between key partners. Well-developed relationships with their local partners allow COEs to arrange services dependent on their clients' needs and ensure comprehensive care, which is important for successful treatment and recovery.



Source: Pennsylvania Department of Human Services

Currently, COEs acquire their clients through self-referrals, hospital referrals (both emergency rooms and usual hospitalizations), and SCAs. In some regions cooperation with the local SCAs is closer than in others. In order to reach their quantitative benchmarks, COEs need to engage a significant number of clients each year, so they should be interested in getting referrals as part of the warm hand-offs process.

Many of the COE goals and benchmarks are in tune with the goals of warm hand-offs. COEs are expected to initiate a quick response. They utilize a comprehensive approach: their care plans address both treatment (in both physical and behavioral health) and non-treatment needs. COEs are encouraged to expand screenings for social determinants of health, for added diagnoses and referral to services, including both medical and social, such as domestic violence and housing insecurity. All COEs are required to employ a CRS. A COE must demonstrate its ability to accept referrals 24 hours per day, seven days per week, through mobile engagement teams that facilitate warm hand-offs by traveling to the location where an individual in need of COE services presents. Examples of these locations are emergency departments, jails or prisons, sites where an overdose occurred, client's home, et cetera. Warm hand-offs conducted by COEs can occur from an emergency department to treatment services, from treatment services to non-treatment recovery support services, or between levels of care for treatment services. As part of harm reduction services, COEs must provide its members with access to naloxone for overdose prevention purposes.

One of the purposes of COE's creation is to increase access to medication-assisted treatment (MAT). Accordingly, COEs are required to provide access on site that is available within 24 hours to at least one medication for the treatment of OUD (for example, buprenorphine, methadone, naltrexone), as determined by both client choice and treatment needs assessed during initial contact or ongoing engagement, and also to establish and implement a referral pathway so that every COE-engaged client has access within 24 hours for any medication not available on site, as determined by client choice and treatment needs assessed during initial treatment or ongoing engagement.<sup>367</sup>

If some of the COEs were to expand their warm hand-offs services, important factors will need to be taken into account. One of them would be complex medical needs of some patients, who may require specialty treatment, may have peripherally inserted central catheters (PICC lines), et cetera. A number of COEs that already provide inpatient care could probably be transformed into overdose stabilization/warm hand-off centers, with additional changes made; an alternative would be for COEs to have direct affiliation with a specific local medical facility.

The Centers of Excellence in Pennsylvania include a variety of institutions, with different resources and capabilities: from hospitals and health centers to licensed drug and alcohol treatment programs. Dependent on their nature and the services they provide, they operate under different types of licensure. COEs that are narrowly focused on drug and alcohol treatment are licensed by DDAP; in fact, typically they are dually licensed by DDAP and the Department of Human Services Office of Mental Health and Substance Abuse Services (OMHSAS). All physical health (PH) provider types (hospitals, clinics, and physician practices) are licensed by the Department of

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<sup>367</sup> Pennsylvania Department of Human Services. *Centers of Excellence: Goals and Benchmarks*. 2018. [https://www.dhs.pa.gov/about/Documents/Find%20COEs/c\\_291267.pdf](https://www.dhs.pa.gov/about/Documents/Find%20COEs/c_291267.pdf).

Health (DOH). There are some behavioral health clinics that are not licensed D&A treatment providers and only have a behavioral health (BH) clinic license; these are only licensed by OMHSAS. Many COEs maintain multiple licenses. Licensure issues will need to be among those considered if a particular COE is to be transformed into an overdose stabilization and/or a warm hand-offs center. Adjustments will probably be required in a number of cases.

As some of the COEs have already been engaged in the warm hand-off process, their leaders and supervisors were able to share their experience and observations with the advisory committee members. They identified the following hallmarks of successful warm hand-offs programs implemented by COEs:

- Strong relationships with the local Single County Authority
- Clear definition of roles
- Clearly defined pathways and protocols
- Embedding care management staff in emergency departments.

Perceived barriers to successful implementation include

- Multiple providers attempting to coordinate care
- Poor communication between partners within the system
- Missing out on the short window of time between overdose, stabilization, and discharge.<sup>368</sup>

An opportunity to engage the client within this short window can be considered one of the biggest advantages provided by effective warm hand-offs. It was number one on the list of the warm hand-off positives compiled by Ms. Dena Sobecky, the head of one of the most successful COE's warm hand-off programs, Alliance Medical Services, located in Cambria County:

- Immediate engagement (in-person)
- Real-time communication with community partner
- Establishing strong community partnership
- Shared data reporting.<sup>369</sup>

Some concerns shared in her presentation also deserve the attention of those who are considering initiation of a warm hand-off program or are already running one. One of these concerns is that currently, warm hand-offs are limited only to OUD patients, those who had an opioid overdose. Like many other stakeholders, this agency would like to see warm hand-offs expand and incorporate other substances' overdose as well. Based on the Alliance Medical Services' experience, other concerns include patients' refusal of treatment or a particular facility, lack of available beds at the time of a warm hand-off, lack of insurance, poor community awareness, and stigma. Alliance Medical Services have found ways to address some of these

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<sup>368</sup> Ms. Gwendolyn Zander, Chief of Staff, Office of Medical Assistance Programs, Department of Human Services. Presentation at the advisory committee meeting on August 21, 2020.

<sup>369</sup> Ms. Dena Sobecky, Centers of Excellence (COE) Coordinator, Alliance Medical Services. Presentation at the advisory committee meeting on August 21, 2020.

concerns: for example, if a person is not insured, the COE will contact a local SCA; if there are no facilities available, a CRS or a case manager will support the patient through the night by text, or e-mail, or another way possible, et cetera.

The warm hand-offs (WHO) program as implemented by the Alliance Medical Services contains the following components:

- Contract with the Conemaugh Memorial Medical Center and the Miners Medical Center
- 24/7 on-call availability with trained COE staff
- Hospital phones on-call number for WHO
- COE response to WHO at ED within 30 minutes
- Demographic and screener information gathered
- LOC assessment-ASAM completed
- Real-time referrals made for all LOC with patient participation
- Release-of-information forms signed when applicable
- WHO appointment established/implemented
- COE billable note; admission to COE program if eligible.<sup>370</sup>

Ms. Sobecky's detailed description of Alliance Medical Services' steps in introducing and implementing warm hand-offs, which included development of clear processes by both the COE and the participating hospitals, of documentation and reporting protocols, and of training modules, can be of use to other COEs and similar programs. Even though each county is unique, as Ms. Sobecky readily acknowledged, some of the processes adopted by her agency have proven to be successful and can be emulated by other warm hand-off programs.

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<sup>370</sup> Ibid.

## MENTAL HEALTH CRISIS INTERVENTION SERVICES

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The Department of Human Services' Office of Mental Health and Substance Abuse Services (OMHSAS) provides for an integrated behavioral health system addressing mental health treatment, as well as substance use services, and manages the delivery of community mental health services administered by counties under the Pennsylvania Mental Health and Intellectual Disability (MH/ID) Act and the Mental Health Procedures Act. County governments are required to provide an array of community-based mental health services, including unified intake, community consultation and education, support for families caring for members with mental disorders, and community residential programs. The community residential services also include crisis intervention services. Non-residential services include family-based support, outpatient care, partial hospitalization, peer to peer support, aftercare, and emergency and crisis intervention. These services are administered by single counties, county jointers, or through contracts with private, nonprofit organizations or agencies and primarily funded with state, federal and/or county matching funds.<sup>371</sup>

In fiscal year (FY) 2019-20, \$1.119 billion was appropriated in Pennsylvania for mental health services, which includes crisis intervention services. Approximately \$803 million of the mental health services came from state appropriations and \$316 million was from federal funds and augmentations. That represents a 5.8 percent increase from \$1.058 billion appropriated in FY 2018-19.<sup>372</sup> The Human Services Block Grant (Block Grant) allocates funds to select county governments to provide locally identified, county-based human services to meet the service needs of county residents. The Block Grant contains a small, but significant portion of the total funds allocated to counties for the delivery of human services which include:<sup>373</sup>

- Mental health community base-funded services;
- Behavioral Health Services Initiative;
- Intellectual disabilities community base-funded services;
- Act 1988-153 drug and alcohol services;
- Homeless Assistance Program (HAP); and
- Human Services Development Fund (HSDF).

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<sup>371</sup> Governor Tom Wolf, "Executive Budget," E27-26 (2020-2021), <https://www.budget.pa.gov/PublicationsAndReports/CommonwealthBudget/Documents/2020-21%20Proposed%20Budget/2020-21%20Executive%20Budget%20Book%20-%20Web%20Version.pdf>.

<sup>372</sup> Ibid. at E27-3.

<sup>373</sup> Pennsylvania Department of Human Services, Human Services Block Grant Program, "Report of the Expenditures of Block Grant Funds by County Governments," 7, Fiscal Year 2018-2019, [https://www.dhs.pa.gov/docs/Block-Grants/Documents/FY%202018-19/2018-19BlockGrantReport\\_May2020.pdf](https://www.dhs.pa.gov/docs/Block-Grants/Documents/FY%202018-19/2018-19BlockGrantReport_May2020.pdf).

In FY 2018-19, \$523.3 million was allocated for all services under the Block Grant. Mental health community base-funded services received the highest allocation with \$388.9 million, or 74.3 percent of the total. Drug and alcohol services were on the lower end of the Block Grant allocation with \$27.2 million, or 5.2 percent of the total. In reviewing county by county impact reports for crisis intervention examples, Armstrong and Indiana counties moved \$35,485 into drug and alcohol to serve 152 individuals through the county’s intervention program to assist in funding a crisis warm hand-off program.<sup>374</sup> Other significant sources of funding for county human services programs are not included in the Block Grant, such as ID waiver programs, the behavioral health HealthChoices program, and early-intervention services.<sup>375</sup>

In Pennsylvania, crisis intervention services are required to be available in all counties under the Mental Health and Intellectual Disabilities (MHID) Act of 1966.<sup>376</sup> The services are required to be available 24 hours a day, 7 days a week to all Pennsylvania residents regardless of socioeconomic status, health insurance coverage and any prior connections to the behavioral health system. Counties are also required to provide services in the following areas: intervention, assessment, counseling, screening and disposition. The services should be immediate to ease the stress on people experiencing emotional, mental or behavioral difficulties. Referrals can be made from community mental health agencies, family members, police, friends, neighbors or anyone concerned about the welfare of someone who appears to be having a mental health crisis.<sup>377</sup>

Every county in Pennsylvania currently has some form of crisis intervention and may provide services in any combination of 24/7 telephone crisis services, walk-in services, mobile crisis services, medical mobile crisis services and crisis residential services. Services are either provided by a single county or regionalized across multiple counties, with 48 programs covering Pennsylvania’s 67 counties (See Table 8).

<b>Table 8</b>	
<b>Pennsylvania’s Crisis Intervention Programs By County</b>	
1)	Allegheny County Department Of Human Services
2)	Armstrong/Indiana Behavioral & Developmental Health Program
3)	Beaver County Behavioral Health
4)	Bedford-Somerset Developmental And Behavioral Health Services (DBHS)
5)	Berks County MH/DD
6)	Blair County MH/BH/ID Programs
7)	Bradford/Sullivan MH/ID
8)	Bucks County Dept. Of Mental Health/Developmental Programs
9)	Butler County MH/EI/ID Program
10)	Cambria County Behavioral Health/Intellectual Disabilities Program

<sup>374</sup> Ibid. at 17.

<sup>375</sup> Ibid. at 4.

<sup>376</sup> Act of October 20, 1966 (P.L.169, No.44).

<sup>377</sup> Department of Human Services, Crisis Intervention, accessed September 14, 2020, <https://www.dhs.pa.gov/Services/Mental-Health-In-PA/Pages/Crisis-Intervention.aspx>.



**Table 8**  
**Pennsylvania’s Crisis Intervention Programs By County**

- 11) Cameron/Elk Counties Behavioral & Development Programs
- 12) Chester County Dept. Of MH/Intellectual & Developmental Disabilities
- 13) Carbon-Monroe-Pike MH/DS
- 14) Centre County MH/ID/EI
- 15) Clarion County MH/DD
- 16) CMSU Behavioral Health & Developmental Services
- 17) Community Connections Of Clearfield/Jefferson Counties
- 18) Crawford County Human Services
- 19) Cumberland/Perry MH/IDD
- 20) Dauphin County Mental Health/Intellectual Disabilities Program
- 21) Delaware County BH/ID
- 22) Erie County MH/ID
- 23) Fayette County Behavioral Health Administration
- 24) Forest/Warren Human Services
- 25) Franklin/Fulton MH/ID/EI
- 26) Greene County Human Services
- 27) Juniata Valley Behavioral & Developmental Services - HMJ
- 28) Lackawanna/Susquehanna BH/ID/EI Programs
- 29) Lancaster County BH/DS
- 30) Lawrence County Mental Health & Developmental Services
- 31) Lebanon County MH/ID/EI
- 32) Lehigh County MH/ID/D&A/EI
- 33) Luzerne-Wyoming Counties Mental Health And Developmental Services
- 34) Lycoming/Clinton MH/ID
- 35) McKean County Mental Health Services
- 36) Mercer County MH/DS
- 37) Montgomery County MH/DD/EI Program Office
- 38) Northampton County MH/EI/Dev. Prog. Div.
- 39) Northumberland County BH/ID Services
- 40) Philadelphia Dept of BH & Intellectual Disability Svcs.
- 41) Potter County Human Services
- 42) Schuylkill County Administrative Offices Of MH/DS/D&A
- 43) Tioga County Dept. Of Human Services
- 44) Venango County Mental Health & Developmental Services
- 45) Washington County BH/DS
- 46) Wayne County Office Of Behavioral & Developmental Programs/EI
- 47) Westmoreland County Behavioral Health & Dev. Svcs.
- 48) York/Adams MH/IDD

Source: Department of Human Services, Crisis Intervention “Pennsylvania Crisis Intervention Phone Numbers by County and County Contacts,” accessed September 14, 2020, <https://www.dhs.pa.gov/Services/Mental-Health-In-PA/Pages/Crisis-Intervention.aspx>.

According to data provided by the Office of Mental Health and Substance Abuse Services (OMHSAS), there are 72 distinct licensed crisis intervention providers within those 48 programs offering services at 103 different locations across the Commonwealth. Each location can offer multiple services as follows:<sup>378</sup>

- 51 provide walk-in crisis services;
- 39 provide telephone services;
- 48 provide mobile services;
- 12 provide crisis residential services; and
- 5 provide medical mobile services.

With such variation in crisis intervention services across the Commonwealth, several programs were examined for specific differences. The Carbon-Monroe-Pike Mental Health and Developmental Services program is an example of several smaller counties forming a regionalized program. Carbon, Monroe and Pike counties operate their joint mental health and developmental services program with offices located in each of the three counties. Due to the COVID-19 pandemic, the majority of staff are working from home. The individual offices remain operational and accessible to the public, but people in need of services are directed to first contact several different telephone numbers or online resources.

The Cumberland-Perry Mental Health, Intellectual & Developmental Disabilities program and the Dauphin County Mental Health, Intellectual Disabilities program are examples of two mid-sized county programs. The Cumberland-Perry program is an alliance of three organizations with a mission to empower and support mental health or intellectual disabilities. The program is managed by a single program administrator who is appointed by both county boards of commissioners and has contracts with an array of supports and services within each county. Across both counties, the program has the following three entry locations: the Stevens Center, the Holy Spirit Behavioral Health Center, and the Intellectual and Developmental Disabilities Support Unit - Cumberland Human Services building.<sup>379</sup> The Dauphin County Mental Health, Intellectual Disabilities program provides 24/7 telephone crisis hotline counseling, consultation and referral services. The program offers walk-in locations for face-to-face services for individuals in crisis. The program also has a mobile crisis unit to provide individual and team services delivered to where the crisis is actually occurring.<sup>380</sup>

Philadelphia County is a single county providing services through their Department of Behavioral Health and Intellectual Disability Services (DBHIDS). Services are available to Philadelphians, regardless of their ability to pay. DBHIDS offers sensitive and trained staff to assist with general information and referral resources for services such as:

- Case Management;

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<sup>378</sup> Data provided by the Office of Mental Health and Substance Abuse Services (OMHSAS), December 2019, (on file with the Joint State Government Commission).

<sup>379</sup> Cumberland County, Pennsylvania, "Mental Health, Intellectual & Developmental Disabilities," accessed September 2, 2020, <https://www.ccpa.net/118/Mental-Health-Intellectual-Develop-Dis>.

<sup>380</sup> Dauphin County, Pennsylvania, "Mental Health/Autism/Developmental Programs," accessed September 2, 2020, [https://www.dauphincounty.org/government/departments/mental\\_health\\_and\\_intellectual\\_disabilities/index.php](https://www.dauphincounty.org/government/departments/mental_health_and_intellectual_disabilities/index.php).

- Housing Supports;
- Homelessness Outreach;
- Mental Health Court;
- Criminal Justice Supports;
- Family Supports; and
- Other Mental Health-Related Supports.

DBHIDS' website contains numerous emergency hotline numbers and non-emergency service numbers. The website also contains an extensive list of Behavioral Assessment Centers (BAC) and Crisis Response Centers (CRC). The BACs serve as a point of entry for mental health and addiction recovery programs and determine which level and type of care best meets the needs of people with substance use histories and challenges based on the Pennsylvania Client Placement Criteria (PCPC) assessment guidelines. In many cases, they will help link individuals using opioids to one of the community-based medication-assisted treatment (MAT) providers as appropriate. In cases of emergency related to mental health or addiction-related crisis, CRCs operate 24/7 and can do emergency evaluations to help determine the most appropriate level of care and services to provide connections to their programs.<sup>381</sup>

Based on the county program examples above, the existing crisis intervention system in Pennsylvania, under the MHID Act of 1966, can potentially serve as overdose stabilization and warm hand-off centers. Several of the crisis intervention programs are already providing substance use and opioid related services and may be suitable to incorporate the warm hand-off model(s) the advisory committee adopts, particularly within the existing brick and mortar facilities. The BACs in Philadelphia serve as a point of entry for addiction recovery programs and determine which level and type of care best meets the needs of people with substance use histories, including linking individuals using opioids to community-based MATs. Holy Spirit Behavioral Health Services, within the Cumberland-Perry Mental Health, Intellectual & Developmental Disabilities program, treats patients with dual substance abuse and mental health conditions. Specifically, their Maternal Assistance Program provides help for pregnant women and new mothers addicted to drugs, alcohol and/or tobacco.<sup>382</sup> These are just a few examples where the existing crisis intervention programs already offer treatment for opioids and substance use disorders and could potentially expand on those services by adding a warm hand-off model. A recent Joint State Government Commission report based on the work of another advisory committee recommends expansion of crisis intervention services in all Pennsylvania counties.<sup>383</sup>

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<sup>381</sup> Department of Behavioral Health and Intellectual Disability Services, "Mental Health Services," accessed September 3, 2020, <https://dbhids.org/mental-health-services/>.

<sup>382</sup> Geisinger, "Geisinger Holy Spirit Behavioral Health Services Camp Hill," accessed September 12, 2020, <https://locations.geisinger.org/details.cfm?id=220>.

<sup>383</sup> Joint State Government Commission. *Behavioral Health Care System Capacity in Pennsylvania and Its Impact on Hospital Emergency Departments and Patient Health: Report of the Advisory Committee on Emergency Department Treatment and Behavioral Health*. Harrisburg, PA; Joint State Government Commission, July 2020, [http://jsg.legis.state.pa.us/publications.cfm?JSPU\\_PUBLN\\_ID=495](http://jsg.legis.state.pa.us/publications.cfm?JSPU_PUBLN_ID=495).



## CERTIFIED RECOVERY SPECIALISTS

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Certified Recovery Specialists (CRSs) are individuals with their own lived experience who have been trained to provide motivation, support, and care coordination to other people recovering from substance use disorder. In the warm hand-off process, CRSs play a specific and very important role in connecting opioid overdose survivors in the emergency department to a licensed drug provider treatment; they work with overdose survivors “to identify their treatment needs, connect them to an appropriate level of care, and link them to community resources that will support their recovery.”<sup>384</sup> As described earlier in the report, close collaboration between the emergency department staff and the CRS as well as consistent and reliable availability of CRSs are essential for a successful warm hand-off. Shortening the interval between ED arrival and CRS intervention can prove critical.

To play their role effectively, CRSs need to be adequately trained. The Commonwealth has a well-developed system of CRS training and certification carried out by the Pennsylvania Certification Board (PCB).<sup>385</sup>

PCB has been in existence for 41 years and is a private nonprofit (non-governmental) organization. Historically, the PCB has certified addiction-related specialists, including certified addiction counselor, prevention specialist, counseling specialist, recovery specialist, clinical supervisor, mental health peer specialist, and community health work and family-based mental health specialist.

Ms. Mary Jo Mather, the PCB executive director, emphasized that the mission of PCB is consumer protection ensured by establishing a well-developed certification process incorporating rigorous ethics certification. Each certification has unique ethics requirements, which must be signed and recertified every two years. To address concerns regarding certified professionals, PCB supports an ethical complaint process. PCB investigates complaints and imposes appropriate disciplinary action.

The CRS certification was developed and offered in 2008. In January 2018, PCB introduced new Certified Family Recovery Specialist credentials. A component of a certification process is updating credentials according to current best practices. Credentials are received, at least, every five years, including review of core competencies (domains) and standards (requirements) for a credential. A focus group of subject matter experts is developed to review the current information.

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<sup>384</sup> *Code4PA: Warm Handoff Use Case*, <http://www.code4pa.tech/wp-content/uploads/2018/09/warm-handoff-use-case.pdf>.

<sup>385</sup> Information on the CRS training and certification in Pennsylvania was provided by Ms. Mary Jo Mather, Executive Director of the Pennsylvania Certification Board (PCB); Ms. Alissa Bradley, Director of Certifications, PCB; and Ms. Deborah Hass, Director of Training and Education, PCB, in their presentations at the advisory committee meeting on August 21, 2019.

In August 2019, a focus group of CRSs reviewed the CRS credential using a rigorous process including a thorough review of domains and competencies. The focus group recommended an extensive update to the current credential. The proposed changes in the CRS credentialing were fairly significant in terms of expanding core competencies, revising language, and a suggestion to increase the number of required hours of training. These proposed revisions were included in a survey administered to 1500 CRSs to collect relevant feedback about the process changes. All of this information was shared with DDAP.

In effect, since 2008, the current CRS credential includes a total of 54 hours of training, including

- 18 hours of recovery management
- 12 hours of education and advocacy
- 6 hours of ethics
- 6 hours of confidentiality
- 12 hours of any treatment relevant to the field of addiction
- Minimum high school diploma or GED
- 18 months of continuous personally lived recovery experience
- 1,000 word statement about lived experience
- Passing a 50-question multiple choice exam

A CRS certification is valid for two years. The CRS certification must be renewed every two years by completing ongoing training (received within 2-year period) relevant to recovery support services, including 6 hours of ethics and 3 hours in confidentiality.

Since 2008, PCB has certified 2,851 CRSs. Currently, 1,511 individuals hold a current and valid CRS credential. Among those,

- 65% are female and 44% are male
- 73% have a high school or GED (remainder have completed higher level of education)
- 73% Caucasian; 18% African American; 4% Latino/Hispanic.

Over the last three years, there has been an average 95 percent certification pass rate. PCB receives 300-400 annual applications for CRS certification. For various reasons, including financial, many CRSs do not renew their certifications.

A new CRS curriculum will become effective January 1, 2021, requiring 78 hours of training. The existing content was thoroughly reviewed by current stakeholders and providers and verified by a survey. The review process increased four existing domain areas to multiple domain areas including

- recovery, planning, and collaboration
- substance abuse knowledge
- advocacy
- ethical responsibility and professionalism

- safety and self-care
- communication, interpersonal, and professional skills
- cultural competency.

DDAP requested PCB develop an updated standard curriculum to be offered by colleges, recovery community organizations, and individual trainers. To develop this uniform curriculum, PCB collaborated with a variety of subject matter experts, stakeholders, organizations, and DDAP. The goal is to develop comprehensive standardized training including a lot of practical applications and homework. Another goal of the revised curriculum is to better prepare CRSs to enter the workforce with knowledge of a wide variety of recovery pathways. While CRS lived experience is critical to this process, the warm hand-off process is addressed in the curriculum as a recovery pathway. The current curriculum includes family recovery, along with teaching skills to navigate social service systems and the information about the resources available to determine family needs. PCB will host a statewide training of trainers and offer an online portal. In addition, PCB will offer a meeting for all providers to update them about the revised credentials. Lastly, the examination will be updated to reflect the credential updates.





## EMERGENCY MEDICAL SERVICES AND OTHER FIRST RESPONDERS

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One of the most common first responders to overdose are emergency medical services (EMS) providers. The Pennsylvania Department of Health Bureau of Emergency Medical Services publishes a statewide data report annually. The report provides clinical, operational, and workforce data to the public and the EMS community pertaining to the Commonwealth of Pennsylvania EMS system.

According to its latest report, in 2019, the EMS system in Pennsylvania was comprised of 1,339 agencies that responded to 2,171,285 calls for service; “the overwhelming majority of these calls for services constituted emergency responses to incident scenes.”<sup>386</sup>

As a part of the department’s role in combating the opioid crisis, the DOH Bureau of Emergency Medical Services has provided the Opioid Command Center various reports related to EMS utilization of naloxone. In 2019, a total of 15,556 administrations of naloxone on 911 responses by EMS providers were reported to the state EMS data bridge; of these administrations, the bureau has identified that “there were 11,884 unique patient encounters in which EMS providers administered naloxone.”<sup>387</sup> The bureau cautions about the accuracy of certain data elements and datasets contained within its report: the data are “only as accurate as the information provided by field providers through electronic patient care records (ePCR) systems”; the bureau is, however, confident that though the datasets are not perfect, they “demonstrate a reasonable account of the efficacy” of the Commonwealth’s EMS system.<sup>388</sup>

As EMS providers are frequently the first responders on the scene and they are the ones to administer naloxone, this puts them on the front lines of addressing overdose and initiating warm hand-off after the naloxone administration. In light of the warm hand-offs project, some additional information regarding EMS encounters with overdose is of value. Some of these data include the location where EMS providers administered a dose of naloxone and the patients’ response to an offer of further treatment after the naloxone administration.

According to the EMS Bureau’s data on the reported incident location where patient received a dose of naloxone administered by EMS providers, in 2019, approximately 50 percent of patient encounters of this type occurred in a private residence.<sup>389</sup> Nearly 35 percent of the submitted records were reported as blank or not recorded. The bureau would like to see the

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<sup>386</sup> Pennsylvania Department of Health Bureau of Emergency Medical Services. *2019 EMS Data Report*. Harrisburg, Pennsylvania. October 2019,

<https://www.health.pa.gov/topics/Documents/EMS/2019%20EMS%20Data%20Report.pdf>.

<sup>387</sup> Ibid.

<sup>388</sup> Ibid.

<sup>389</sup> Ibid.

accuracy of this measurement increased as active tracking of this metric can assist public health partners and DOH in more accurate determination of local and regional needs for public access naloxone deployment.

The EMS incident disposition of emergency records indicate that in 2019, 87 percent of patients who had a documented dose of naloxone were ultimately transported to a health care facility for further evaluation and treatment.<sup>390</sup> This metric is important from the warm hand-off perspective. Tracking of this metric can assist state, regional, and local leaders in identifying opportunities for participation in the EMS naloxone leave-behind program endorsed by DOH and the EMS Bureau.

Additional information on the impact of increased mental health- and substance use disorder-related EMS calls can be found in a recent Joint State Government Commission report based on the work of another advisory committee.<sup>391</sup>

Among other aspects of the warm hand-off process in the Commonwealth, House Resolution 216 directs the advisory committee to investigate “the effectiveness, financial impact and the impact of the availability of emergency medical services (EMS) resources to a geographical area when EMS utilizes an overdose stabilization and warm hand-off center.”<sup>392</sup> To assist the advisory committee with its deliberations on this question, the Joint State Government Commission reached out to the EMS community and to the DOH Bureau of Emergency Medical Services. Mr. Dylan J. Ferguson, the Bureau Director, prepared a detailed and informative analysis of potential impacts on EMS in case the Commonwealth emergency medical services are tasked with transporting some overdose patients to alternative locations instead of hospitals. The analysis includes data on EMS responses by ground transport units resulting in naloxone administrations by county and by DOH health district; on distribution of time on task by 911 ground transport units when naloxone was administered (transport time is a crucial metric related to operational efficiency of EMS companies); and on opioid epidemic financial effects on the emergency medical system.<sup>393</sup> The EMS Bureau Director expressed concerns similar to those voiced by the EMS community. He recommends that if EMS are to be involved in “any type of alternate transport or handoff mechanism related to overdose survivors,” it must be arranged in such a way that such measures do not “significantly negatively impact EMS transport times, EMS scene times, or cumulative EMS time on task.”<sup>394</sup> With regard to financial impact, it is important to know that “insurers have historically not paid for EMS transport to destinations that are not a hospital emergency department when the call for service originates from the 911 system”; so if the legislature is considering EMS participation in transporting overdose patients to any other facility,

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<sup>390</sup> Ibid.

<sup>391</sup> Joint State Government Commission. *Behavioral Health Care System Capacity in Pennsylvania and Its Impact on Hospital Emergency Departments and Patient Health: Report of the Advisory Committee on Emergency Department Treatment and Behavioral Health*. Harrisburg, PA; Joint State Government Commission, July 2020, [http://jsg.legis.state.pa.us/publications.cfm?JSPU\\_PUBLN\\_ID=495](http://jsg.legis.state.pa.us/publications.cfm?JSPU_PUBLN_ID=495).

<sup>392</sup> HR216, P.N. 1355 (2019).

<sup>393</sup> Information provided to the Joint State Government Commission by Mr. Dylan J. Ferguson, Director of the Department of Health Bureau of Emergency Medical Services, in a personal e-mail received November 20, 2020. The document in its entirety can be found in Appendix J.

<sup>394</sup> Ibid.

“there must be clear consensus that transports to any type of alternate destination, or additional handoff services from the scene be adequately funded.”<sup>395</sup>

As has been mentioned earlier in the report, the advisory committee does not recommend that EMS transport overdose survivors to any facilities other than ED. At the same time, it is important to remember that EMS providers and other first responders are a pivotal link in the warm hand-offs process; they need support and training to assist them in performing their role.

To facilitate the best possible outcomes for patients and their families, to help put patients on the path to recovery and prevent future overdose, and at the same time, to avoid emotional burnout themselves, first responders need clear, specific guidelines and proper training.

The Department of Health launched First Responder Training on Addiction and Connection to Treatment (ACT) in the fall 2020.<sup>396</sup> DOH believes the first responders’ initial encounters serve as critical opportunities to engage individuals in treatment, including training both the patient and family members to administer naloxone. As first responders work on the front lines of the opioid epidemic, DOH does not want these encounters to be a missed opportunity for intervention. DOH identifies four main points of intervention: naloxone administration, naloxone leave-behind, encouraging treatment, and facilitating warm hand-off. The department endorses a compassionate response, especially considering the current stigma surrounding SUDs. In September 2020, DDAP set in motion a statewide campaign to battle stigma associated with SUDs, and this initiative has full support of DOH. The campaign *Life Unites Us* is an evidence-based approach to stigma reduction of substance use disorders (SUD), specifically opioid use disorder (OUD). Stigma and burnout, along with lack of understanding about SUD, lack of knowledge on how to effectively assist individuals with SUD, and lack of specific policies and procedures on naloxone administration, connection to treatment, and safety around illicit substances, constitute the main barriers inhibiting effective response. Training should help to overcome these barriers.

It is well known that many patients overdose repeatedly, which leads to first responders, especially in certain neighborhoods, frequently encountering the same patient. The result is not only increased danger to patients and harm to their families, but burnout among first respondents. Any tools they can be given that would increase their ability to facilitate getting patients into treatment and preventing repeat overdoses should be employed. Motivational interviewing skills may serve as such a tool to combat the opioid epidemic.

DOH ACT training is designed to address a broad audience, including both first responders (EMS, law enforcement, firefighters, other public safety professionals) and agency leadership responsible for developing policies and procedures to train first responders. DOH assists with creating policies and procedures; it provides sample policies and procedures. The training is available in all 67 counties, free of charge. The program is funded through the SAMHSA First Responders-Comprehensive Addiction and Recovery (FR-CARA) grant and the CDC Overdose

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<sup>395</sup> Ibid.

<sup>396</sup> Information regarding the First Responder Training program was presented by Mr. Jared M. Shinabery, Director of the Prescription Drug Monitoring Program Office, Pennsylvania Department of Health, and Mr. Steve Forzato, Director of Center for Addiction & Recovery Education at Saint Joseph’s University at the advisory committee meeting on October 8, 2020.

Data to Action. FR-CARA grant is awarded to local governmental entities to enable them to “train and provide resources to first responders and members of other key community sectors at the state, tribal, and local government levels on carrying and administering a drug or device approved or cleared under the Federal Food, Drug, and Cosmetic Act for emergency treatment of known or suspected opioid overdose”; recipients can also use the funding to “establish processes, protocols, mechanisms for referral to appropriate treatment and recovery communities, and safety around fentanyl, carfentanil, and other dangerous licit and illicit drugs.”<sup>397</sup> The CDC Overdose Data to Action is a three-year cooperative agreement that began in September 2019; funds awarded as part of this agreement “support state, territorial, county, and city health departments in obtaining high quality, more comprehensive, and timelier data on overdose morbidity and mortality and using those data to inform prevention and response efforts.”<sup>398</sup>

To develop training programs, DOH selected two partners: Saint Joseph’s University Center for Addiction and Recovery Education and University of Pittsburgh School of Pharmacy’s Program Evaluation and Research Unit (Pitt PERU); these have been granted creative freedom to develop trainings on designated topics with DOH’s input. The two trainings are distinctive in conveying overlapping information. St. Joseph’s training is directed to a broad audience, while Pitt PERU’s training is more specifically directed to law enforcement, fire, and EMS. While the content of the two trainings is similar, the methods engaged are audience-specific. First responders are not required to complete the trainings; however, DOH uses a variety of mechanisms to encourage first responders to engage in the training.

Saint Joseph’s University branded the training Phoenix Training: Raising Public Service, Improving Community Support. A critical goal of the training is to create buy-in among the audience with the goal of “changing minds and behaviors regarding the views of those suffering from SUDs.” The Phoenix brand symbolizes a new beginning; this is an image popular in the SUD community.

Saint Joseph’s University strived to create a curriculum that would be in the “voice of the learner” (first responder). The curriculum explains the concept of the recovery-oriented system of care and identifies the first responders’ role in this system.

A key goal of the training is to encourage first responders to act with compassion. The training is initiated by representatives from police, firefighters, and EMS addressing their peers to lay the foundation for the buy-in training component. The practical ACT training informs the audience about availability of both Narcan and warm hand-offs throughout the Commonwealth.

The training is targeted to three learner groups:

- 1) public safety partners (police, firefighters, EMS, including all ranks);
- 2) supervisors (department policy makers—to maintain buy-in); and

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<sup>397</sup> Substance Abuse and Mental Health Services Administration. *First Responders-Comprehensive Addiction and Recovery Act*, <https://www.samhsa.gov/grants/grant-announcements/ti-19-004>.

<sup>398</sup> Centers for Disease Control and Prevention. *Overdose Data to Action*, <https://www.cdc.gov/drugoverdose/od2a/index.html>.

- 3) peer champions (individuals in recovery and individuals with family members affected with SUDs).

Encouraging individuals to engage in treatment can be considered a crime-prevention strategy, which should be an additional incentive for police first responders.

First responders' work is highly stressful; moreover, meeting the same individuals repeatedly due to overdose can make first responders experience disappointment and the sense of futility of their efforts. To acknowledge first responders' contributions, the training uses positive feedback videos.

An important ACT training objective is to encourage the trainees to acknowledge their implicit bias understandably rooted in years of experience responding to challenging emergency calls. The training includes practicums of engagement techniques. Another ACT training objective is to stress the importance of post-overdose data entry to assist all subscribers with the response to the SUD epidemic.

In an attempt to combat negative stories, this training aims to increase first responders' understanding and awareness of the well-developed available recovery-oriented systems of care (i.e., well-established network of recovery services). Recovery communities serve as a great resource to overcome isolation associated with SUDs. A major recurring theme of the training is that first responders are critical to the mission—introducing someone to the recovery process.

In addition to the physical tools used by first responders, the training highlights additional tools available to all first responders: communication skills, understanding (of the brain science of addiction), and knowledge (referrals to community partners). For example, for one of the trainings DOH and DDAP provided Narcan to be distributed to all the trainees. A tactic of the buy-in aspect of this training is demonstrating how learned skills may assist the trainees' own family and friends (similar to CPR).

The training is especially helpful to rural first responders, who may not encounter an overdose as frequently as an urban first responder. The training includes informing the audience that administering naloxone is not harmful to a patient who may not be experiencing an overdose; this assists with split-second decision whether or not to administer naloxone.

A strong, recurring theme of the ACT training is the critical role first responders play in making the connection between the patient and treatment/recovery. First responders assist patients not only as advocates but also as referrals to SCAs, which serve as abundant resources in the warm hand-off process. The training includes introductions between first responders and SCA staff. In addition, DDAP Secretary Smith has recorded a short tutorial to introduce first responders to SCA services. The training introduces motivational engagement techniques, including the following components: collaborate (act as partner in the process); evoke (versus educate/lecture); and honor personal autonomy (versus being an expert).

To influence the uncommitted patients to choose assistance, first responders are trained to create a discussion about the benefits of seeking help and the losses of not getting help. If the patient declines assistance, the training stresses the importance of leave-behind information. Two keys to a patient's readiness are understanding importance of getting help and instilling the confidence that the patient can succeed in making a change.

The training includes demonstrative examples of talking through barriers to encourage uncommitted patients to engage in treatment. Real-life examples are incorporated in the training. Also, the training addresses the next steps/plan to assist a patient committed to make a change. For example, first responders should engage SCA staff as soon as possible. Practically speaking, first responders are encouraged to call a treatment facility directly as it often results in patient receiving higher priority. Remaining positive and encouraging engagement throughout communication is essential. The training instructs first responders, especially those with police background, to avoid confrontational approaches.

ACT training will continue for two years. Due to COVID, a virtual live training has been developed.

As first responders' training is a new initiative, DOH is currently testing a variety of pilot programs and is actively researching opportunities to include it in continuing education (for example, for EMS). EMS representatives also feel that this might be a good solution: though some aspects of the ACT training could be beneficial to them, a four-hour training session is impractical for an EMS provider. Incorporating these training topics in continuing education modules can be an effective hook; another good option would be making shorter sessions available online.

To encourage participation among first responders, DOH highlights agencies and service providers through press releases to publicly acknowledge the organization's efforts to address these critical issues through educational training. DOH is willing to shine the light on agencies that are willing to adopt these extremely important protocols.

DOH currently collaborates with the Office of Attorney General through the Law Enforcement Treatment Initiative (LETI); the goal of this policy is the law enforcement connecting individuals to treatment. Another strategic DOH partner is DDAP, which funds SCAs.

One of the areas involving first responders' actions that requires further thoughtful determination is their impact on children and families. In addition to taking care of the patient who has overdosed and may be in a critical condition, first responders find themselves in a position when they also need to take into account the interests of a child or children who may be present at the scene, which is a common occurrence. There is an issue of child safety, whether the child remains at home with the parent or caregiver who has just been given naloxone, or left to stay with another party who may or may not be a safe and reliable choice. Not all EMS agencies have specific protocols or policies outlining steps to be taken when EMS respond to an overdose involving an adult, with a child also present at the scene. When police officers are present, they usually take the responsibility of placing the children, but this is not always the case. Children and Youth Services are expected to get involved, but their representatives are not always readily available. Many EMS providers would like to have continuing education and clear guidance on how to deal with

situations like this. From the patient’s perspective, she or he may desire a pathway to treatment but may also be quite concerned about the implications for her or his connection to or even custody of the children. A recent meeting of interdisciplinary stakeholders involved in helping the American Academy of Pediatrics further its contractual work with the Commonwealth related to child abuse and neglect recognition/reporting registered EMS officials’ concerns regarding the increase in situations where a child is present at an overdose and the first responders’ need for clearer guidelines and protocols.<sup>399</sup> Children advocates strongly recommend that this issue be given serious consideration in any warm hand-offs policy decisions.

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<sup>399</sup> *Spotlighting Pennsylvania Children Impacted by the Opioid Crisis: Presentation to Pennsylvania’s Unified Coordination Group*. February 19, 2019. Information provided to the advisory committee by Ms. Cathleen Palm, founder of the Center for Children’s Justice, on December 15, 2020.





## DEPARTMENT OF CORRECTIONS MAT PROJECT AND WARM HAND-OFFS

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One of the places where warm hand-offs can be very beneficial in multiple ways is a correctional facility. Substance use disorder is very common among inmates. In fact, the majority of the prison population (up to two-thirds, according to some data) are addicted to drugs or alcohol. Getting these inmates into treatment during the period of incarceration can be a big step to recovery and increase their chances to a drug-free and crime-free life upon release. A warm hand-off from drug and alcohol treatment in a correctional facility to a local provider upon release can assure that the former inmate continue his or her treatment; it can, thus, become a significant part of successful reentry. Moreover, warm hand-offs are exceedingly important as a measure to prevent overdose.

The time after an individual's release from prison or jail is considered to be one of the most dangerous time periods for overdose, often fatal. In fact, "post-release opioid-related overdose mortality is the leading cause of death among people released from jails or prisons."<sup>400</sup> There are a number of reasons why "inmates with an opioid addiction who leave lockups without a medication to ease cravings and block the euphoric effects of opioids are at an extremely high risk to die of overdose within days of their release."<sup>401</sup> Without medication-assisted treatment, people with addictions continue to crave drugs even though they have little or no access to them. At the same time, their tolerance level drops, so a small dose of drugs can become lethal. In addition to physiological aspects of cravings, there are powerful psychological reasons a person who used to rely on drugs may turn to them again: there is stress of reentry, which involves reconnecting with family, or increased loneliness when that is impossible; trying to find a job; and coming to terms with the changes that occurred during the period of incarceration.

Lack of medical insurance is a common and significant factor that precludes seeking physical and mental health help in acceptable ways. Specifically, "reduced access to care has implications for screening to identify overdose risk and interruptions in access to medications for opioid use disorder."<sup>402</sup> Medical professionals caution that "post-release changes in mental health treatment may lead to polypharmacy such as use of opioids with benzodiazepines, especially in the context of treating post-release anxiety disorders," and polypharmacy use is widely recognized to be a strong overdose risk factor.<sup>403</sup> Another factor that can increase overdose risk is alcohol use. Alcohol use disorder is very common among both male and female former inmates. The stress of reentry may exacerbate substance use disorders. Research has found, that, among those formerly

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<sup>400</sup> Joudrey, Paul J. et al. "A Conceptual Model for Understanding Post-Release Opioid-Related Overdose Risk." *Addiction Science and Clinical Practice*. Vol. 14. Published April 15, 2019, <https://ascjournal.biomedcentral.com/articles/10.1186/s13722-019-0145-5>.

<sup>401</sup> Vestal, Christine. "This State Has Figured Out How to Treat Drug-Addicted Inmates." *Stateline*. February 26, 2020, <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/02/26/this-state-has-figured-out-how-to-treat-drug-addicted-inmates>.

<sup>402</sup> Joudrey, Paul J. et al. Op. cit.

<sup>403</sup> Ibid.

incarcerated, “problems with family, friends and significant others were associated with 3 times the odds of substance use and over 2.5 times the odds of unhealthy alcohol use.”<sup>404</sup>

A group of researchers developed a comprehensive post-release opioid-related overdose risk model that combines the biological determinants or mechanisms of overdose in the general population with underlying environmental and social factors that contribute to post-release opioid-related overdose mortality in correctional populations and, on the basis of their model, outlined pathways to lower this risk.<sup>405</sup> One of the recommendations is to use incarceration as an opportunity to initiate opioid agonist therapy (OAT). Data from England and other countries demonstrate that individuals with opioid use disorder who received OAT during incarceration are much less likely to die of an overdose than those who did not receive treatment. For example, an English national study indicated that “prison-based opioid substitution therapy was associated with a 75% reduction in all-cause mortality and an 85% reduction in fatal drug-related poisoning in the first month after release.”<sup>406</sup> Offering medication-assisted treatment in prison or jail, however, is not enough -- this treatment needs to remain available upon transitioning out of the correctional system: “Mitigating the risk of opioid-related overdose mortality following release will require improved coordination across criminal justice, health, and community organizations. Expanding access to OAT and naloxone around the transition period could prevent overdose.”<sup>407</sup>

The risk is especially high in the days immediately following the release. A review of various states’ data indicated that in Massachusetts, “opioid-related overdose deaths accounted for 40 percent of all deaths among former inmates released between 2013 and 2014”; a study of the Washington State Department of Prisons documented that within the first two weeks after release, “prisoners’ risk of death by overdose was more than 100 times more likely than the general population and risk of death by all causes was more than 12 times likely.”<sup>408</sup> A study in North Carolina in 2018 found that “in the first two weeks after being released from prison, former inmates were 40 times more likely to die of an opioid overdose than someone in the general population.”<sup>409</sup> In Maryland, a review of opioid-related overdose deaths post-release found that “for the prison population, the risk of overdose was 8.8 times greater in the first week after release, compared to the period of three months to a year after release. Notably, a majority of deaths happened after one year, potentially as a result of discontinued treatment. For the Baltimore city jail population, the risk of overdose was 8.2 times greater in the first week after release, compared to the period of three months to a year after release. Heroin was involved in nearly 90 percent of deaths in the first

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<sup>404</sup> Calcaterra, Susan L. et al. “The Association between Social Stressors and Drug Use/ Hazardous Drinking among Former Prison Inmates.” *Journal of Substance Abuse Treatment*. July 2014. Vol. 47 (1), doi:10.1016/j.jsat.2014.02.002.

<sup>405</sup> Joudrey, Paul J. et al. Op. cit.

<sup>406</sup> Marsden, John et al. “Does Exposure to Opioid Substitution Treatment in Prison Reduce the Risk of Death after Release? A National Prospective Observational Study in England.” *Addiction*. August 2017. Vol. 112. No. 8, doi: 10.1111/add.13779.

<sup>407</sup> Joudrey, Paul J. et al. Op. cit.

<sup>408</sup> Mace, Shannon et al. *Medication-Assisted Treatment for Opioid use Disorder in Jails and Prisons: A Planning and Implementation Toolkit*. National Council for Behavioral Health and Vital Strategies. January 2020, [https://www.thenationalcouncil.org/wp-content/uploads/2020/09/MAT\\_in\\_Jails\\_Prisons\\_Toolkit\\_Final\\_12\\_Feb\\_20.pdf?daf=375ateTbd56](https://www.thenationalcouncil.org/wp-content/uploads/2020/09/MAT_in_Jails_Prisons_Toolkit_Final_12_Feb_20.pdf?daf=375ateTbd56).

<sup>409</sup> Vestal, Christine. “This State Has Figured out How to Treat Drug-Addicted Inmates.” *Stateline*. February 26, 2020, <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/02/26/this-state-has-figured-out-how-to-treat-drug-addicted-inmates>.

week after release.”<sup>410</sup> The investigators specifically pointed out that the Department of Public Safety and Correctional Services manages a robust treatment system within its facilities. “The risk of dying as a result of opioid overdoses in the week following release reflects these individuals’ high risk of vulnerability upon reentry to the community.”<sup>411</sup> To reduce overdose deaths upon release from prison and jail, the Maryland Department of Public Safety and Correctional Services, similar to other states, is distributing opioid overdose prevention materials in correctional facilities and treatment programs that serve the inmate population.

This well-intended measure, however, may be insufficient. A warm hand-off, when medication-assisted treatment is started during incarceration and continued post-release, with the inmate being directly connected to a local provider by the correctional facility staff, provides a safer and more reliable option.

Linkage to care and services upon release is included as an important component in the “Medication-Assisted Treatment for Opioid Use Disorder in Jails and Prisons Planning and Implementation Toolkit” issued in January 2020. This toolkit was developed by the National Council for Behavioral Health and Vital Strategies in partnership with faculty from Johns Hopkins University. The authors attest the effectiveness of MAT to individuals while they are incarcerated in reducing rates of post-release overdose death, recidivism, and future criminal behavior. The authors recommend “several additional steps jails and prisons can take to enhance individuals’ likelihood of success in the community and their recovery upon release:

- Connect patients to health insurance coverage.
- Coordinate care with community providers.
- Provide linkages to social services and recovery supports.
- Provide education and resources to prevent opioid overdose.”<sup>412</sup>

As the period immediately after release is a period of heightened risk for opioid overdose, the toolkit highlights the importance of ensuring individuals who are on MAT while they are in a correctional facility can continue to take their medications after release. One of the recommended strategies, in addition to linking patients with a community-based provider, is giving “patients on buprenorphine a “bridge prescription,” which is a short-term prescription or supply of medication to support adherence and prevent overdose before obtaining a new prescription in the community.”<sup>413</sup> Bridge prescriptions require careful consideration of the number of days of medication dispensed and the logistics of medication dispensing at the time of release.

The National Institute on Drug Abuse guide on substance abuse treatment for criminal justice populations includes continuity of care for drug abusers reentering the community as one of its leading principles: “Offenders who complete prison-based treatment and continue with treatment in the community have the best outcomes. <...> Treatment in prison or jail can begin a

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<sup>410</sup> Maryland Department of Health and Mental Hygiene. *Risk of Overdose Death Following Release from Prison or Jail*. November 2014, [https://bha.health.maryland.gov/OVERDOSE\\_PREVENTION/Documents/corrections%20brief\\_V3.pdf](https://bha.health.maryland.gov/OVERDOSE_PREVENTION/Documents/corrections%20brief_V3.pdf).

<sup>411</sup> Ibid.

<sup>412</sup> Mace, Shannon et al. Op. cit.

<sup>413</sup> Ibid.

process of therapeutic change, resulting in reduced drug use and criminal behavior post-incarceration.”<sup>414</sup> Another principle included in this guide is making medicines such as methadone, buprenorphine, and extended-release naltrexone available to inmates who could benefit from them. To support this recommendation, the National Institute on Drug Abuse offers convincing statistical evidence showing that methadone treatment before and after release from prison increases treatment retention and reduces drug use: the data cited in the guide indicates that “at 12 months post-release, offenders who had received methadone treatment in prison and continued it in the community were significantly more likely to enter and stay in treatment and less likely to test positive for opioid and cocaine use than participants who received counseling and referral to methadone, or those who received counseling with transfer to methadone maintenance upon release.”<sup>415</sup>

The National Institute on Drug Abuse states that in addition to other drug-related societal burdens such as lost job productivity, family disintegration, and recidivism, “inadequate treatment while incarcerated also contributes to overdoses and deaths when inmates leave the prison system” and asserts that “to be effective for this population, treatment must begin in prison and be sustained after release through participation in community treatment programs.”<sup>416</sup> The National Institute on Drug Abuse specifically recommends medications including methadone, buprenorphine, and naltrexone, along with behavioral therapies, overdose education, and distribution of the opioid reversal medication naloxone while an individual is in justice diversion treatment programs or upon release.<sup>417</sup>

Access to MAT in the U.S. correctional system is, however, very limited: according to a recent National Academy of Sciences’ report, only 5 percent of people with opioid use disorder in jail and prison settings receive such treatment.<sup>418</sup> The report refers to a survey of prison medical directors that suggested most were not aware of the benefits of using medication as part of treatment, and when treatment was offered, it usually consisted of only behavioral counseling and/or detoxification without any follow-up treatment.<sup>419</sup>

The majority of state and federal prisons as well as county and municipal jails in the United States do not offer addiction treatment that includes all of the three medications approved by the U.S. Food and Drug Administration, which are methadone, buprenorphine and Vivitrol. Those that do often limit the programs only to inmates who received the medication before they were incarcerated. Even fewer assist inmates to continue their treatment post-release and prevent a likely relapse and possible fatal overdose. More advanced programs do this. For example, a comprehensive MAT program in Rhode Island, which offers all three medications not only to those on treatment medication when they enter, but also to inmates who are known to be active users of heroin or other opioids to ease their withdrawal and get them into treatment, provides inmates who

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<sup>414</sup> National Institute on Drug Abuse. *Principles of Drug Abuse Treatment for Criminal Justice Populations: A Research-Based Guide*. April 2014, [https://www.drugabuse.gov/sites/default/files/txcriminaljustice\\_0.pdf](https://www.drugabuse.gov/sites/default/files/txcriminaljustice_0.pdf).

<sup>415</sup> Ibid.

<sup>416</sup> National Institute on Drug Abuse. *Drug Facts: Criminal Justice*. June 2020, <https://www.drugabuse.gov/sites/default/files/drugfacts-criminal-justice.pdf>.

<sup>417</sup> Ibid.

<sup>418</sup> National Academies of Sciences, Engineering, and Medicine. *Medications for Opioid Use Disorder Save Lives*. Washington, D.C: The National Academies Press, 2019, <https://doi.org/10.17226/25310>.

<sup>419</sup> Ibid.

detoxed during incarceration with the opportunity to start any of the three medication before discharge, with appointments set up for continued treatment on the outside – a warm hand-off. This unique program has been reported to have “dramatically reduced overdose deaths after inmates are released. The number of recently incarcerated people who died from overdose dropped by two-thirds from 26 in the first half of 2016 – before the program started – to just nine in the first half of 2017, after the program’s implementation.”<sup>420</sup>

Pennsylvania is one of the ten states that are offering MAT in state-run prisons. It started enrollment in its Vivitrol program in 2015, at the SCI Muncy, for female offenders. The Department of Corrections developed a detailed Vivitrol protocol for individuals with alcohol and/or opioid use disorder. Preliminary evaluation results appear to be promising with regard to compliance and drug use. Vivitrol (injectable naltrexone) is used to reduce drug cravings, which can better equip former inmates to focus on their immediate reentry needs when they are returning to the community. Vivitrol should be taken in conjunction with participation in community-based psychosocial treatment services. Reentrants receiving Vivitrol have their first injection administered inside the SCI prior to release and are eligible to receive up to eleven additional monthly injections in the community, contingent upon a community-based medical doctor’s continued prescription.

Eligibility for the program is determined by several factors:

- Male and female reentrants that have less than 18 months until their minimum date (may also be re-parole candidates).
- History of alcohol and/or opioid misuse.
- Not experiencing liver failure and not having acute hepatitis or other liver problems.
- Commitment to remaining drug-free and to participating in community-based treatment services while taking Vivitrol.<sup>421</sup>

Drug and Alcohol Treatment (DAT) staff and the Vivitrol social worker conduct informational sessions regarding Vivitrol institution-wide, clearly identifying the benefits of receiving Vivitrol and encouraging the reentrants to consider participating in this opportunity. Interested reentrants are referred to the Vivitrol social worker for eligibility determination. The social worker provides education on the potential use of Vivitrol to aid reentrants in their recovery and reentry efforts and determines if the interested reentrants fit the established criteria for participation. The social worker is also responsible for proper completion of the documentation required. The DAT staff, nursing staff, and Vivitrol social worker work collaboratively to provide treatment referral and supervision to inmates involved in the program. Once the inmate is accepted into the program, the nursing staff will check his or her medical status, administer naltrexone test doses, and if no adverse reactions occur, administer the Vivitrol injection. Prior to release, the Vivitrol social worker will schedule individuals’ initial community-based appointments (for example, counseling services, medical services, et cetera) and inform the identified parole manager

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<sup>420</sup> Vestal, Christine. “This State Has Figured out How to Treat Drug-Addicted Inmates.” *Stateline*. February 26, 2020, <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2020/02/26/this-state-has-figured-out-how-to-treat-drug-addicted-inmates>.

<sup>421</sup> Information provided by the Pennsylvania Department of Corrections to the Joint State Government Commission in a personal e-mail received on May 15, 2020.

of the anticipated date of release of all program participants. At time of release, the social worker will also give the reentrant a Vivitrol medical card or bracelet used to alert medical personnel that the individual is taking Vivitrol.

The Pennsylvania Board of Probation and Parole (PBPP) has designated a central office parole manager to receive the initial notification of program participants. The parole manager will notify the district director, or deputy district director, or their designee as well as the supervising agent of the anticipated date of release. The parole agent will oversee attendance in recommended treatment and continuation of Vivitrol injections, for up to eleven months following release from the SCI, and will provide positive reinforcement to the participant. The central office parole manager serves as the liaison with DOC. If a reentrant decided to terminate his or her involvement in the program, the parole agent will notify his superiors, and the parole manager will then notify the DOC/MAT coordinator. When necessary, referrals should also be made for wrap-around services such as occupational assistance, housing assistance, and counseling for mental health or family needs.

Post-release, program participants reside either at an approved home plan residence or at a selected Community Correction Center (CCC) or Community Contract Facility (CCF). A selected treatment facility is responsible for providing an appropriate level of care assessment and treatment recommendation based on the assessment results. Participants residing at a selected CCF are expected to meet with an on-site physician immediately following transfer to the facility. Within the first week, the physician must assess the participant for continued Vivitrol treatment, and place an order for the purchase of Vivitrol for all eligible reentrants. Reentrants returning to an approved home plan residence or a CCC must visit the selected treatment facility within the first week of institutional release to be assessed by a physician for continued participation in the Vivitrol program.

The selected community-based treatment facility will seek reimbursement for costs from Medicaid. If Medicaid cannot fund the purchase of Vivitrol or the fee for alcohol and other drug use disorder (AOD) treatment, the selected community-based treatment facility will seek reimbursement from the PA DOC. The CCF obtains Vivitrol through an already-established agreement with Besse Medical. Selected CCF staff will receive training from Alkermes, Inc., the manufacturer of Vivitrol, prior to the administration of Vivitrol. Alkermes has committed to provide ongoing training and support. The selected community-based treatment facility provides nursing staff or other qualified individuals who facilitate drug-screening, specific to alcohol and/or opioid use, and administers the Vivitrol injection at or before 28 days from the previous injection. If more than 28 days have elapsed since the last dose, a liver panel should be completed to rule out liver failure and acute hepatitis. If a drug screen indicates the use of opiates, the participant must be evaluated for detoxification and must be free from opiates for 7-10 days before he or she can receive the next injection. The assessment, drug screen, and Vivitrol injection are to be completed on site at the selected community-based treatment facility. Prior to the injection, nursing staff must provide an instant drug screen and an instant pregnancy test (for female reentrants) and then administer the Vivitrol for participants whose results are negative. Nursing staff must take vital signs immediately before and 15 minutes after the injection. If vital signs are normal, the participant may return to the CCC, CCF, or his or her home plan residence. All positive drug screen results or admissions of drug use will be forwarded to the parole agent and clinical staff at the

selected community-based facility. Vivitrol should not be administered if the program participant has tested positive for alcohol and/or opiates, as this will result in immediate withdrawal.

When inmates sign a consent form to enlist in the Vivitrol program, they are warned, among other risks and possible side effects, about the risk of a life-threatening overdose that can happen if they discontinue the use of Vivitrol and return to a previous level of AOD use, as tolerance to opiates has decreased as a result of being on a blocker. Program participants are cautioned that Vivitrol works by reducing cravings to use alcohol and/or opiates and by blocking any “high” they would receive by using alcohol and/or opiates, so if they continue to increase their use of opiates to experience a “high” while taking Vivitrol, this may result in a potentially fatal drug overdose. Program participants are strongly advised that it is “of the highest importance” that they receive their injection no more than 28 days apart and that “ongoing community-based AOD treatment is a mandatory component of the Vivitrol protocol.”<sup>422</sup>

Smooth and efficient warm hand-off process is especially important when treating patients with Vivitrol due to the nature of this medication. Vivitrol is an opioid antagonist. To avoid precipitating opioid withdrawal syndrome, opioid-dependent patients, including those being treated for alcohol dependence, must be free of opioids including both opioid street drugs and opioid-containing medicines such as buprenorphine and methadone for a minimum of 7-10 days before starting Vivitrol. It is indicated for the prevention of relapse to opioid dependence, following opioid detoxification. Vivitrol is commonly used for the treatment of alcohol dependence in patients who are able to abstain from alcohol in an outpatient setting prior to initiation of treatment with Vivitrol. Patients should not be drinking at the time of initial Vivitrol administration. The use of Vivitrol should be part of a comprehensive management program that includes psychosocial support.

Vivitrol can have serious side effects such as hepatotoxicity. The medication warnings specifically include the risk of overdose at the end of a dosing interval, after missing a dose a following an attempt to overcome opioid blockade: use of lower doses of opioids after Vivitrol treatment is discontinued, at the end of a dosing interval, or after missing a dose could result in life-threatening opioid intoxication. The program administrators and participants need to be aware that any attempt by a patient to overcome the blockade produced by Vivitrol by taking opioids is very dangerous and may lead to fatal overdose. Continuity of care post-release is critical.

Some of the difficulties to ensure continuity of care are due to the high cost of the medication and high co-pays for doctors to administer Vivitrol. Medicaid sets restrictions on paying for Vivitrol injections, which is understandable, given the high cost of this treatment and Medicaid’s limited resources. It needs to be taken into account.

An outcome evaluation, specifically the analysis of the outcomes of program participants and the program’s ability to reduce relapse and recidivism, should be ongoing.

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<sup>422</sup> Pennsylvania Department of Corrections. *Vivitrol Information Acknowledgement* form.

DOC continues to systematically and incrementally expand its MAT program. Currently, Vivitrol/naltrexone is available at all of the State Correctional Institutions. In addition, the department offers methadone for pregnant inmates at SCI-Cambridge Springs, and DOC is planning to expand its availability at other facilities as well. The department currently maintains individuals on an MAT who were committed to care and custody on a verified MAT (all facilities); that includes buprenorphine as well as those MATs that were previously mentioned. Every facility has a social worker, who is dedicated to continuity of care coordination for those who are being released on MAT. In addition, there are social workers in the Bureau of Community Corrections who also follow these cases. The social worker facet has proven to be most valuable. DOC also has an MAT Statewide Coordinator at its Central Office who is the DOC primary liaison with all stakeholders. DOC social workers continuously coordinate with Single County Authorities to obtain formal consent and refer clients after release.<sup>423</sup>

As of March 2020, there were 343 unduplicated participants receiving MAT; the medications used are buprenorphine, Vivitrol, and Revia. To date, the Vivitrol program, in particular, has served 1,253 individuals (1,622 injections) with an average of 70 new participants each month.<sup>424</sup> DOC continues to see increases in the number of individuals receiving Vivitrol prior to institutional release and in the number of inmates interested in receiving multiple injections prior to their release.

The funding for the MAT program is provided by the State Opioid Response (SOR) grants from SAMHSA. The current amounts are \$3.2 million (SOR Y1), \$3.2 million (SOR Y2), and \$2.5 million (SOR Sup.).<sup>425</sup>

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<sup>423</sup> Information provided to the Joint State Government Commission by Ms. Tracy Smith, Director of the Treatment Services, Pennsylvania Department of Corrections, in a personal e-mail received on November 20, 2020.

<sup>424</sup> Data provided by the Pennsylvania Department of Corrections to the Joint State Government Commission in a personal e-mail received on May 15, 2020.

<sup>425</sup> Ibid.



## RECOMMENDATIONS

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As a result of its review of current practices in Pennsylvania and research nationwide, the advisory committee has come to a conclusion that the best route for the Commonwealth to take with regard to warm hand-offs is to expand and develop the process that has already emerged in Pennsylvania, building on the existing resources. Many emergency departments have embraced an idea of warm hand-offs and are making strides in initiating them for their overdose patients. Agencies that are already involved in the warm hand-off process are the Single County Authorities (SCAs), the Centers of Excellence (COEs) and, to a lesser degree, some of the mental health crisis intervention centers. These agencies are well-positioned to adopt further services and provide platform for expanding and strengthening of warm hand-offs statewide.

Based on its analysis and experiences, the advisory committee has developed the following recommendations.

### *General*

Expand the concept of a warm hand-off to include any substance use disorder, not just opioids, for tracking, funding, and education purposes.

Strive for consistency in the warm hand-off process while allowing flexibility based on local circumstances, including demographics and funding.

Track evidence-based practices and promulgate them throughout the state.

Enhance collaboration among agencies that are in key positions of the warm hand-off process; establish effective lines of communication between them for the purpose of reporting data, sharing information, conducting training, and ensuring adherence to best practices.

Develop clear protocols, with clear definitions of each party's responsibilities, at each step of a warm hand-off.

Continue to develop and expand education of all staff involved.

Augment a variety of treatment options for patients; "meet them where they are"; remove any barriers that may exist between them and their ability to receive adequate treatment, with the goal to ensure that overdose survivors have access to all modalities and levels of care.

Build up program capacity and the range of available programs in order to provide patients with the most successful approach to treating their addiction and preventing future overdose.

Prioritize the long-term, comprehensive approach to SUD treatment, including medication-assisted treatment, peer support, counseling, and social services.

Incorporate harm reduction measures into each step of the warm hand-off process.

Target preventive measures to the most vulnerable populations.

Involve family members in the engagement and treatment of overdose survivors at various steps of the warm hand-off process, encouraging their participation in the initial conference at the emergency department or reaching out to them as a follow-up after the first responders' administration of naloxone.

Select appropriate intervention strategies dependent on the area's opioid treatment program capacity and other relevant factors.

Use innovative strategies such as telemedicine to overcome workforce and geographical barriers.

Expand medication-assisted treatment (MAT). To boost outpatient capacity, identify and eliminate roadblocks that prevent providers from offering MAT at any level of care; make treatment programs and half-way houses that refuse to accept patients on MAT ineligible to receive state funding.

Study warm hand-off outcomes; perform more extensive, long-term tracking, and disseminate the results.

### ***Emergency Departments***

Take steps to establish therapeutic alliance with the patient at the first encounter.

Ensure that emergency departments have the ability to initiate medication-assisted treatment (buprenorphine, in particular) in appropriate patients and use the warm hand-off process to assist the patients in continuing their treatment upon discharge.

Develop regulations and provide funding for hospitals to prescribe naloxone and give it out upon discharge (optimally, it should be two doses: one for the patient and one for a family member).

Establish a sustainable funding mechanism for warm hand-offs, potentially as a care management fee from payers.

Consider the possibility of integrating warm hand-off process initiation in the Electronic Health Records (EHRs), as has been done with the Prescription Drug Monitoring Program (PDMP).

Increase the number of substances in routine clinical toxicology testing, specifically include fentanyl and alcohol.

### ***Single County Authorities (SCAs) and Centers of Excellence (COEs)***

Develop and reinforce strong relationships with each other in every region.

Develop and reinforce strong relationships with their local hospitals' emergency departments.

Ensure that certified recovery specialists (CRS) are available at emergency departments at all times. In-person CRS staffing is believed to be most successful; however, mobile units or audio-visual interface, even phone or e-mail can be effective. The goal is to connect with the patient immediately and maintain regular communication with him or her until that patient is able to engage in local treatment.

Ensure that certified recovery specialists are continuously provided with education on current SUD trends and addiction in general; they also need both logistical and emotional support to help them avoid burnouts.

Continue to promulgate best practices and seek new ways to facilitate warm hand-offs in their region.

### ***Emergency Medical Services (EMS) and Other First Responders***

Continue training to enhance first responders' ability and willingness to facilitate warm hand-offs; provide the necessary funding.

To make this training more accessible and encourage more EMS providers and other first responders to engage in it, consider the possibility of including it in current continuing education modules.

Update the existing mandatory training programs for police officers, EMS providers, and firefighters to include an Addiction and Connection to Treatment (ACT) module that will promote standard practices and improve outcomes for people with substance use disorders.

Establish clear protocols for various situations, including those when children are present on the scene with an adult overdose patient.

Provide clear information and easy access to a local SCA that would help to facilitate the warm hand-off process.

Provide positive feedback to first providers, who often respond to repeat overdose calls and experience burnouts.



## APPENDICES

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THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE RESOLUTION

No. 216 Session of  
2019

INTRODUCED BY POLINCHOCK, CIRESI, DIGIROLAMO, FARRY, FREEMAN,  
HEFFLEY, McCLINTON, PASHINSKI, RIGBY, SAPPEY, THOMAS AND  
TOOHIL, APRIL 10, 2019

REFERRED TO COMMITTEE ON HUMAN SERVICES, APRIL 10, 2019

A RESOLUTION

1 Establishing a legislative task force on overdose recovery and  
2 directing the Joint State Government Commission to conduct a  
3 study on warm hand-off to treatment for individuals with a  
4 substance use disorder in this Commonwealth and to report its  
5 findings and recommendations to the House of Representatives.

6 WHEREAS, Managing the aftermath of an overdose by offering  
7 lifesaving assistance is only the first step needed for  
8 survival; and

9 WHEREAS, The Commonwealth began to combat the opioid  
10 addiction crisis by authorizing the use of naloxone for first  
11 responders to bring individuals back from the brink of death  
12 after an overdose; and

13 WHEREAS, For overdose survivors, warm hand-off to addiction  
14 treatment is the critical next step to restore lasting health  
15 and safety; therefore be it

16 RESOLVED, That the House of Representatives establish a  
17 legislative task force on overdose recovery; and be it further

18 RESOLVED, That the task force be comprised of four members of  
19 the House of Representatives appointed by the Speaker of the

1 House of Representatives, two members recommended by the  
2 Majority Leader of the House of Representatives and two members  
3 recommended by the Minority Leader of the House of  
4 Representatives; and be it further

5       RESOLVED, That the House of Representatives direct the Joint  
6 State Government Commission to assist the task force and conduct  
7 a study on warm hand-off to treatment for individuals with a  
8 substance use disorder in this Commonwealth; and be it further

9       RESOLVED, That the Joint State Government Commission, as part  
10 of its study, establish an advisory committee, consisting of the  
11 following members:

12           (1) The Secretary of Drug and Alcohol Programs or a  
13       designee.

14           (2) The Secretary of Health or a designee.

15           (3) The Secretary of Human Services or a designee.

16           (4) The Secretary of Corrections or a designee.

17           (5) The Adjutant General or a designee.

18           (6) An individual who is in long-term recovery with  
19       knowledge and training in substance use disorder treatment.

20           (7) A certified peer specialist.

21           (8) The following representatives from professional  
22       associations or businesses in this Commonwealth:

23                   (i) A district attorney.

24                   (ii) A law enforcement official.

25                   (iii) A fire department.

26                   (iv) An emergency medical service provider.

27                   (v) A provider of drug and alcohol addiction  
28       treatment.

29                   (vi) A hospital administrator.

30                   (vii) An addiction treatment provider.



- 1 (viii) A certified recovery specialist.  
2 (ix) A recovery organization.  
3 (x) A health insurance entity.  
4 (xi) An emergency physician.  
5 (xii) A public health specialist.  
6 (xiii) A county drug and alcohol administrator.  
7 (xiv) An expert in large-scale data entry systems  
8 and procedures.  
9 (xv) An expert in Federal and State confidentiality  
10 laws regarding substance use disorder and treatment.  
11 (xvi) An expert in medical marijuana.  
12 (xvii) A foundation supporting unmet addiction  
13 treatment needs;

14 and be it further

15 RESOLVED, That the initial purpose of the advisory committee  
16 shall be to recommend ways to develop and implement overdose  
17 stabilization and warm hand-off centers that are staffed at  
18 locations that can medically oversee the stabilization of  
19 overdose survivors, begin detoxification when clinically  
20 appropriate, engage survivors with intervention specialists,  
21 complete a full addiction assessment and referral and connect  
22 survivors to all modalities and levels of treatment established  
23 by research as effective in achieving long-term recovery  
24 depending on the survivor's individual clinical needs; and be it  
25 further

26 RESOLVED, That the advisory committee provide expertise on  
27 how overdose stabilization and warm hand-off centers shall  
28 address the needs of survivors' families and utilize families in  
29 the engagement and treatment of the survivors, as appropriate;  
30 and be it further

1       RESOLVED, That the advisory committee offer recommendations  
2 on how to ensure that medical personnel at overdose  
3 stabilization and warm hand-off centers are trained in  
4 identifying patients who, due to other conditions, should be  
5 referred immediately to a hospital emergency department; and be  
6 it further

7       RESOLVED, That the advisory committee explore mechanisms and  
8 recommend ways to expand, where feasible, the function of  
9 currently existing crisis health care facilities so they can  
10 serve as overdose stabilization and warm hand-off centers, in  
11 addition to their current functions; and be it further

12       RESOLVED, That the development of overdose stabilization and  
13 warm hand-off center recommendations made by the advisory  
14 committee include:

15           (1) Identifying the areas in this Commonwealth that will  
16 benefit most from the placement of overdose stabilization and  
17 warm hand-off centers through an analysis of population  
18 density and number of overdose deaths.

19           (2) Creating the design, staffing structure and  
20 operational protocols of the overdose stabilization and warm  
21 hand-off centers, which may include consideration of existing  
22 detoxification facilities with expanded capacity and  
23 functions.

24           (3) Expanding the functions of currently existing crisis  
25 health care facilities so they can also serve as overdose  
26 stabilization and warm hand-off centers.

27           (4) Identifying funding sources for overdose  
28 stabilization and warm hand-off centers that can become self-  
29 sustaining.

30           (5) Examining the need for creating a new licensing

1 category to cover the overdose stabilization and warm hand-  
2 off centers.

3 (6) Establishing criteria to evaluate the performance  
4 and effectiveness of overdose stabilization and warm hand-off  
5 centers that can be used to gather and make recommendations  
6 for continuous quality improvements.

7 (7) Examining methods of collecting clinically useful  
8 data related to capacity and treatment outcomes;  
9 and be it further

10 RESOLVED, That the advisory committee establish criteria to  
11 evaluate the effectiveness, financial impact and the impact of  
12 the availability of emergency medical services (EMS) resources  
13 to a geographic area when EMS utilizes an overdose stabilization  
14 and warm hand-off center; and be it further

15 RESOLVED, That the advisory committee establish criteria to  
16 evaluate the effectiveness of the Department of Health's EMS  
17 warm hand-off training curriculum and protocols relative to  
18 medical overdose stabilization; and be it further

19 RESOLVED, That the Joint State Government Commission issue a  
20 report of its findings and recommendations to the House of  
21 Representatives no later than 18 months after the adoption of  
22 this resolution.



**Any Drug Overdose Rates per 10,000 Population  
For Pennsylvania By County  
2018, 2019 and 1st/2nd Quarter of 2020**

County	2018 Any Drug Overdose Rate per 10,000 Population	2019 Any Drug Overdose Rate per 10,000 Population	1st/2nd Qrt 2020 Any Drug Overdose Rate per 10,000 Population
Adams	25.78	21.31	9.34
Allegheny	35.74	36.68	18.09
Armstrong	31.57	29.57	15.48
Beaver	33.51	45.33	16.87
Bedford	22.62	22.63	8.92
Berks	26.96	32.92	15.19
Blair	40.17	37.96	22.62
Bradford	24.82	21.21	8.38
Bucks	33.90	30.73	13.25
Butler	21.29	22.19	9.58
Cambria	34.99	32.26	21.86
Cameron	0.00	ND	ND
Carbon	53.88	50.13	21.01
Centre	21.19	14.93	7.99
Chester	16.30	20.50	9.54
Clarion	19.87	20.89	11.61
Clearfield	19.15	24.82	11.46
Clinton	17.83	11.90	8.79
Columbia	22.30	21.38	7.79
Crawford	34.56	32.45	14.93
Cumberland	24.07	23.43	12.05
Dauphin	42.59	45.22	21.15
Delaware	45.10	40.96	18.17
Elk	23.20	18.24	13.25
Erie	37.28	39.36	17.24
Fayette	41.47	42.47	17.79
Forest	8.24	ND	ND
Franklin	27.83	25.58	12.59
Fulton	23.41	17.21	11.71
Greene	29.31	25.75	9.04

**Any Drug Overdose Rates per 10,000 Population  
For Pennsylvania By County  
2018, 2019 and 1st/2nd Quarter of 2020**

County	2018 Any Drug Overdose Rate per 10,000 Population	2019 Any Drug Overdose Rate per 10,000 Population	1st/2nd Qrt 2020 Any Drug Overdose Rate per 10,000 Population
Huntingdon	21.48	23.69	13.06
Indiana	25.20	27.34	13.96
Jefferson	21.08	24.74	11.92
Juniata	16.60	13.76	4.05
Lackawanna	38.43	32.74	14.28
Lancaster	31.68	28.83	16.08
Lawrence	48.39	42.81	20.65
Lebanon	26.25	33.69	19.04
Lehigh	43.69	40.78	20.94
Luzerne	47.68	35.88	16.18
Lycoming	28.42	22.88	10.12
McKean	23.68	21.48	8.54
Mercer	31.44	33.61	18.16
Mifflin	28.56	23.16	15.58
Monroe	28.90	25.43	9.14
Montgomery	22.21	23.17	10.85
Montour	22.48	19.19	10.42
Northampton	28.01	28.28	13.59
Northumberland	29.21	26.90	14.72
Perry	32.30	28.18	12.36
Philadelphia	59.02	53.99	23.21
Pike	18.94	16.61	7.51
Potter	3.01	9.02	6.62
Schuylkill	37.88	33.23	11.82
Snyder	13.32	16.78	6.42
Somerset	23.26	23.66	12.03
Sullivan	0.00	0.00	ND
Susquehanna	17.50	20.20	9.12
Tioga	22.32	12.52	7.36
Union	19.43	14.07	8.04
Venango	37.45	36.28	17.17
Warren	22.79	26.58	9.87
Washington	30.39	28.17	14.32
Wayne	24.19	24.97	13.07
Westmoreland	33.09	39.54	17.74

**Any Drug Overdose Rates per 10,000 Population  
For Pennsylvania By County  
2018, 2019 and 1st/2nd Quarter of 2020**

County	2018 Any Drug Overdose Rate per 10,000 Population	2019 Any Drug Overdose Rate per 10,000 Population	1st/2nd Qrt 2020 Any Drug Overdose Rate per 10,000 Population
Wyoming	11.47	14.06	8.14
York	36.23	34.05	18.23
Pennsylvania Total	35.02	33.92	15.88

ND: Not displayed. Data is not displayed when the overdose count is between 1 and 4.

Source: 2018-2019 Overdoses - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. 2020 Overdoses - Pennsylvania Department of Health, Interactive Data Report, *Pennsylvania Emergency Department Visits Related to Overdose*, accessed Oct 2, 2020, <https://www.health.pa.gov/topics/programs/PDMP/Pages/Data.aspx>.

**Opioid Overdose Rates per 10,000 Population  
For Pennsylvania By County  
2018, 2019 and 1st/2nd Quarter of 2020**

County	2018 Opioid Overdose Rate per 10,000 Population	2019 Opioid Overdose Rate per 10,000 Population	1st/2nd Qrt 2020 Opioid Overdose Rate per 10,000 Population
Adams	3.99	3.60	2.04
Allegheny	8.75	8.78	5.47
Armstrong	8.28	6.75	5.52
Beaver	2.80	2.98	1.76
Bedford	2.91	5.82	2.08
Berks	5.51	8.93	3.23
Blair	5.88	10.37	6.20
Bradford	ND	0.82	0.82
Bucks	5.75	6.14	2.56
Butler	3.67	3.63	2.50
Cambria	7.21	8.13	6.91
Cameron	0.00	0.00	0.00
Carbon	14.95	9.19	5.29
Centre	0.31	ND	1.17
Chester	4.30	5.78	2.59
Clarion	ND	0.00	1.29
Clearfield	2.15	2.27	1.01
Clinton	0.00	0.00	ND
Columbia	1.52	3.05	1.07
Crawford	4.00	5.76	2.59
Cumberland	4.93	5.32	3.54
Dauphin	7.57	10.71	5.34
Delaware	14.24	9.49	3.35
Elk	ND	ND	1.66
Erie	8.74	8.23	3.71
Fayette	9.74	11.11	4.22
Forest	0.00	0.00	ND
Franklin	2.33	5.62	2.84
Fulton	0.00	0.00	ND
Greene	ND	5.47	1.37
Huntingdon	0.00	ND	1.33
Indiana	2.01	7.58	4.73
Jefferson	ND	3.89	1.38
Juniata	0.00	0.00	ND



**Opioid Overdose Rates per 10,000 Population  
For Pennsylvania By County  
2018, 2019 and 1st/2nd Quarter of 2020**

County	2018 Opioid Overdose Rate per 10,000 Population	2019 Opioid Overdose Rate per 10,000 Population	1st/2nd Qrt 2020 Opioid Overdose Rate per 10,000 Population
Lackawanna	6.03	5.07	2.56
Lancaster	6.48	6.75	3.85
Lawrence	22.05	15.09	8.48
Lebanon	4.81	7.43	6.16
Lehigh	8.01	10.54	5.54
Luzerne	13.63	8.76	4.60
Lycoming	2.91	3.78	1.06
McKean	ND	0.00	1.47
Mercer	10.30	9.58	5.60
Mifflin	3.46	1.30	2.16
Monroe	6.37	6.49	2.60
Montgomery	4.14	5.33	2.41
Montour	0.00	0.00	ND
Northampton	6.63	6.59	4.03
Northumberland	4.51	5.17	3.19
Perry	10.40	9.11	3.03
Philadelphia	15.05	16.55	7.72
Pike	2.50	1.25	1.79
Potter	0.00	0.00	ND
Schuylkill	4.71	3.95	2.47
Snyder	0.00	ND	ND
Somerset	3.52	5.27	4.74
Sullivan	0.00	0.00	0.00
Susquehanna	ND	ND	1.23
Tioga	0.00	0.00	0.00
Union	0.00	ND	ND
Venango	8.20	6.64	3.52
Warren	ND	0.00	0.00
Washington	5.49	6.65	4.24
Wayne	3.52	4.88	4.10
Westmoreland	6.48	11.24	5.22
Wyoming	3.70	ND	2.80
York	9.64	10.25	5.91

**Opioid Overdose Rates per 10,000 Population  
For Pennsylvania By County  
2018, 2019 and 1st/2nd Quarter of 2020**

County	2018 Opioid Overdose Rate per 10,000 Population	2019 Opioid Overdose Rate per 10,000 Population	1st/2nd Qrt 2020 Opioid Overdose Rate per 10,000 Population
Pennsylvania Total	7.69	8.25	4.25

ND: Not displayed. Data is not displayed when the overdose count is between 1 and 4.

Source: 2018-2019 Overdoses - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. 2020 Overdoses - Pennsylvania Department of Health, Interactive Data Report, *Pennsylvania Emergency Department Visits Related to Overdose*, accessed Oct 2, 2020, <https://www.health.pa.gov/topics/programs/PDMP/Pages/Data.aspx>.

**Any Drug Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2018**

County	2018 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Adams	103,062	16	1.55
Allegheny	1,217,281	483	3.97
Armstrong	65,352	22	3.37
Beaver	164,582	42	2.55
Bedford	48,094	ND	--
Berks	420,529	89	2.12
Blair	122,503	24	1.96
Bradford	60,794	10	1.64
Bucks	627,812	222	3.54
Butler	187,638	45	2.40
Cambria	131,449	62	4.72
Cameron	4,501	0	0.00
Carbon	64,175	35	5.45
Centre	162,601	20	1.23
Chester	522,086	107	2.05
Clarion	38,672	11	2.84
Clearfield	79,572	18	2.26
Clinton	38,696	ND	--
Columbia	65,215	17	2.61
Crawford	85,110	19	2.23
Cumberland	251,131	48	1.91
Dauphin	276,864	120	4.33
Delaware	565,231	198	3.50
Elk	30,110	ND	--
Erie	271,544	75	2.76
Fayette	130,323	41	3.15
Forest	7,284	0	0.00
Franklin	154,579	33	2.13
Fulton	14,525	ND	--
Greene	36,661	ND	--

**Any Drug Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2018**

County	2018 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Huntingdon	45,395	ND	--
Indiana	84,441	19	2.25
Jefferson	43,614	ND	--
Juniata	24,718	ND	--
Lackawanna	210,269	94	4.47
Lancaster	543,969	107	1.97
Lawrence	86,128	37	4.30
Lebanon	141,339	25	1.77
Lehigh	368,359	130	3.53
Luzerne	317,859	155	4.88
Lycoming	113,866	12	1.05
McKean	40,950	ND	--
Mercer	110,471	51	4.62
Mifflin	46,211	ND	--
Monroe	169,294	54	3.19
Montgomery	826,924	187	2.26
Montour	18,240	12	6.58
Northampton	304,564	69	2.27
Northumberland	91,080	20	2.20
Perry	46,154	14	3.03
Philadelphia	1,583,592	1,118	7.06
Pike	55,780	18	3.23
Potter	16,623	ND	--
Schuylkill	141,815	56	3.95
Snyder	40,518	ND	--
Somerset	73,872	13	1.76
Sullivan	6,076	0	0.00
Susquehanna	40,560	10	2.47
Tioga	40,690	ND	--
Union	45,017	ND	--
Venango	51,201	ND	--
Warren	39,551	0	0.00
Washington	207,018	73	3.53
Wayne	51,395	17	3.31
Westmoreland	350,459	119	3.40
Wyoming	27,087	13	4.80
York	447,847	159	3.55

**Any Drug Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2018**

County	2018 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Pennsylvania Total	12,800,922	4,422	3.45

ND: Not displayed. Data is not displayed when the death count is between 1 and 9.

Source: Overdose Deaths - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. Population - U.S. Census Bureau, Population Division, *Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019*, accessed Sept. 28, 2020, <https://www2.census.gov/programs-surveys/popest/tables/2010-2019/counties/totals/co-est2019-annres-42.xlsx>.

**Any Drug Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2019**

County	2019 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Adams	103,009	ND	--
Allegheny	1,216,045	498	4.10
Armstrong	64,735	13	2.01
Beaver	163,929	58	3.54
Bedford	47,888	ND	--
Berks	421,164	105	2.49
Blair	121,829	30	2.46
Bradford	60,323	14	2.32
Bucks	628,270	163	2.59
Butler	187,853	60	3.19
Cambria	130,192	52	3.99
Cameron	4,447	0	0.00
Carbon	64,182	25	3.90
Centre	162,385	ND	--
Chester	524,989	104	1.98
Clarion	38,438	ND	--
Clearfield	79,255	ND	--
Clinton	38,632	ND	--
Columbia	64,964	12	1.85
Crawford	84,629	19	2.25
Cumberland	253,370	37	1.46
Dauphin	278,299	96	3.45
Delaware	566,747	173	3.05
Elk	29,910	ND	--
Erie	269,728	68	2.52
Fayette	129,274	21	1.62
Forest	7,247	ND	--
Franklin	155,027	19	1.23
Fulton	14,530	ND	--
Greene	36,233	12	3.31
Huntingdon	45,144	10	2.22
Indiana	84,073	33	3.93
Jefferson	43,425	10	2.30
Juniata	24,763	ND	--

**Any Drug Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2019**

County	2019 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Lackawanna	209,674	56	2.67
Lancaster	545,724	101	1.85
Lawrence	85,512	26	3.04
Lebanon	141,793	19	1.34
Lehigh	369,318	132	3.57
Luzerne	317,417	123	3.88
Lycoming	113,299	21	1.85
McKean	40,625	ND	--
Mercer	109,424	37	3.38
Mifflin	46,138	ND	--
Monroe	170,271	58	3.41
Montgomery	830,915	196	2.36
Montour	18,230	11	6.03
Northampton	305,285	55	1.80
Northumberland	90,843	28	3.08
Perry	46,272	ND	--
Philadelphia	1,584,064	1,139	7.19
Pike	55,809	14	2.51
Potter	16,526	ND	--
Schuylkill	141,359	50	3.54
Snyder	40,372	ND	--
Somerset	73,447	12	1.63
Sullivan	6,066	ND	--
Susquehanna	40,328	ND	--
Tioga	40,591	ND	--
Union	44,923	ND	--
Venango	50,668	ND	--
Warren	39,191	ND	--
Washington	206,865	75	3.63
Wayne	51,361	19	3.70
Westmoreland	348,899	78	2.24
Wyoming	26,794	ND	--
York	449,058	143	3.18

**Any Drug Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2019**

County	2019 Population	Any Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Pennsylvania Total	12,801,989	4,125	3.22

ND: Not displayed. Data is not displayed when the death count is between 1 and 9.

Source: Overdose Deaths - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2012-Current County Health*, accessed Sept. 5, 2020, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. Population - U.S. Census Bureau, Population Division, *Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019*, accessed Sept. 28, 2020, <https://www2.census.gov/programs-surveys/popest/tables/2010-2019/counties/totals/co-est2019-annres-42.xlsx>.



**Opioid Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2018**

County	2018 Population	Opioid Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Adams	103,062	16	1.55
Allegheny	1,217,281	411	3.38
Armstrong	65,352	21	3.21
Beaver	164,582	40	2.43
Bedford	48,094	ND	--
Berks	420,529	76	1.81
Blair	122,503	20	1.63
Bradford	60,794	ND	--
Bucks	627,812	209	3.33
Butler	187,638	43	2.29
Cambria	131,449	58	4.41
Cameron	4,501	0	0.00
Carbon	64,175	33	5.14
Centre	162,601	14	0.86
Chester	522,086	98	1.88
Clarion	38,672	ND	--
Clearfield	79,572	12	1.51
Clinton	38,696	ND	--
Columbia	65,215	14	2.15
Crawford	85,110	18	2.11
Cumberland	251,131	46	1.83
Dauphin	276,864	115	4.15
Delaware	565,231	161	2.85
Elk	30,110	ND	--
Erie	271,544	67	2.47
Fayette	130,323	39	2.99
Forest	7,284	0	0.00
Franklin	154,579	31	2.01
Fulton	14,525	ND	--
Greene	36,661	ND	--
Huntingdon	45,395	ND	--
Indiana	84,441	15	1.78
Jefferson	43,614	ND	--
Juniata	24,718	ND	--

**Opioid Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2018**

County	2018 Population	Opioid Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Lackawanna	210,269	90	4.28
Lancaster	543,969	95	1.75
Lawrence	86,128	36	4.18
Lebanon	141,339	23	1.63
Lehigh	368,359	118	3.20
Luzerne	317,859	147	4.62
Lycoming	113,866	ND	--
McKean	40,950	ND	--
Mercer	110,471	44	3.98
Mifflin	46,211	11	2.38
Monroe	169,294	49	2.89
Montgomery	826,924	163	1.97
Montour	18,240	ND	--
Northampton	304,564	57	1.87
Northumberland	91,080	19	2.09
Perry	46,154	14	3.03
Philadelphia	1,583,592	941	5.94
Pike	55,780	16	2.87
Potter	16,623	0	0.00
Schuylkill	141,815	52	3.67
Snyder	40,518	ND	--
Somerset	73,872	13	1.76
Sullivan	6,076	0	0.00
Susquehanna	40,560	ND	--
Tioga	40,690	ND	--
Union	45,017	ND	--
Venango	51,201	ND	--
Warren	39,551	0	0.00
Washington	207,018	70	3.38
Wayne	51,395	15	2.92
Westmoreland	350,459	114	3.25
Wyoming	27,087	13	4.80
York	447,847	150	3.35

**Opioid Overdose Death Rates per 10,000 Population  
For Pennsylvania By County  
2018**

County	2018 Population	Opioid Drug Overdose Deaths	Overdose Death Rate per 10,000 Population
Total	12,800,922	3,915	3.06

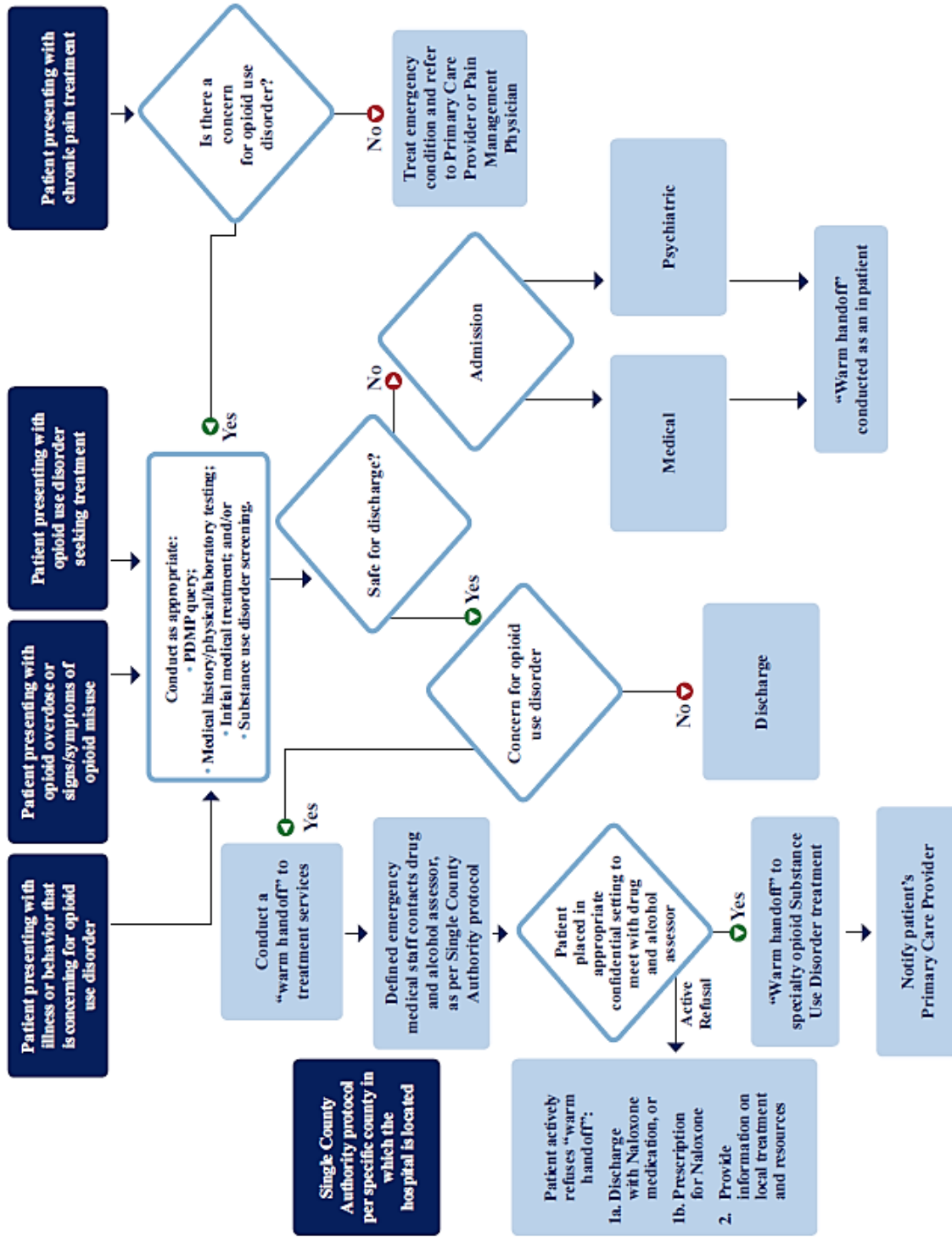
ND: Not displayed. Data is not displayed when the death count is between 1 and 9.

Source: Overdose Deaths - Pennsylvania Department of Health, *Estimated Accidental and Undetermined Drug Overdose Deaths CY 2017-2018 County Health*, accessed Sept. 4, 2019, <https://data.pa.gov/Opioid-Related/Estimated-Accidental-and-Undetermined-Drug-Overdos/azzc-q64m>. Population - Population - U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2019, accessed Sept. 28, 2020, <https://www2.census.gov/programs-surveys/popest/tables/2010-2019/counties/totals/co-est2019-annres-42.xlsx>.



Pennsylvania Department of Health.  
Pennsylvania Department of Drug and Alcohol Programs  
Pennsylvania Prescription Drug Monitoring Program (PDMP)

## Emergency Department “Warm Handoff”: For Opioid Use Disorder



Pennsylvania Department of Health, Pennsylvania Department of Drug and Alcohol Programs  
*Pennsylvania Prescription Drug Monitoring Program (PDMP)*  
*System User and Stakeholder Training*  
*Referral to Treatment for Substance Use Disorder Related to Opioid Use: Model 5 Guide Document. Created 09.29.2017.*  
[www.pa.gov/collections/opioid-epidemic](http://www.pa.gov/collections/opioid-epidemic)

## APPENDIX E

<b>Pennsylvania Single County Authorities</b> (updated 12/4/20)					
<b>SCA</b>	<b>Phone Number</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Allegheny County Department of Human Services Office of Behavioral Health Bureau of Drug and Alcohol Services	(412) 350-3328	One Smithfield Street, 3rd Floor	Pittsburgh	PA	15222
Armstrong-Indiana-Clarion Drug and Alcohol Commission, Inc.	(724) 354-2746	10829 US Route 422, PO Box 238	Shelocta	PA	15774
Beaver County Behavioral Health Drug and Alcohol Program	(724) 847-6225	1050 Eighth Avenue	Beaver Falls	PA	15010
Berks County Council on Chemical Abuse	(610) 376-8669	601 Penn Street, Suite 600	Reading	PA	19601
Blair County Drug and Alcohol Program, Inc	(814) 381-0921	3001 Fairway Drive-Suite D	Altoona	PA	16602
Bradford/Sullivan Drug and Alcohol Programs	(570) 265-1760	220 Main Street, Unit 1	Towanda	PA	18848
Bucks County Drug & Alcohol Commission, Inc.	(215) 444-2700	55 East Court Street, 4 <sup>th</sup> Floor	Doylestown	PA	18901
Butler County MH/MR Drug and Alcohol	(724) 284-5114	124 West Diamond Street, PO Box 1208	Butler	PA	16003
Cambria County Drug and Alcohol Program	(814) 536-5388	Central Park Complex, 110 Franklin Street, Suite 300	Johnstown	PA	15901
Cameron Elk McKean Counties Alcohol and Drug Abuse Services Inc	(814) 642-2910	12 Church St. Suite 100	Port Allegany	PA	16743
Carbon Monroe Pike Drug and Alcohol Commission	(570) 421-1960	724 Phillips Street, Suite 203	Stroudsburg	PA	18360

**Pennsylvania Single County Authorities**  
(updated 12/4/20)

<b>SCA</b>	<b>Phone Number</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Centre County Mental Health Intellectual Disabilities Early Intervention and Drug and Alcohol	(814) 355-6744	3500 East College Avenue, Suite 1200	State College	PA	16801
Chester County Department of D&A Services	(610) 344-6620	Government Services Center Suite 325, 601 Westtown Road, PO Box 2747	West Chester	PA	19380
Clearfield Jefferson Drug and Alcohol Commission	(814) 371-9002	480 Jeffers Street	DuBois	PA	15801
Columbia Montour Snyder Union Drug and Alcohol Program	(570) 275-5422	PO Box 219, 5 Terrace Lane	Danville	PA	17821
Crawford County D&A Executive Commission, Inc.	(814) 724-4100	920 Water Street, Downtown Mall	Meadville	PA	16335
Cumberland Perry Drug and Alcohol Commission	(717) 240-6300	Dennis Marion Public Services Building, 16 West High Street, Suite 302	Carlisle	PA	17013
Dauphin County Department of Drug and Alcohol Services	(717) 635-2254	1100 South Cameron Street	Harrisburg	PA	17104
Delaware County Office of Behavioral Health	(610) 713-2365	20 South 69th Street, Third Floor	Upper Darby	PA	19082
Erie County Office of Drug and Alcohol Abuse	(814) 451-6877	240 West 11th Street, Suite B-50	Erie	PA	16501
Fayette County Drug and Alcohol Commission, Inc.	(724) 438-3576	100 New Salem Road, Suite 106, Fayette County Health Center Building	Uniontown	PA	15401
Forest -Warren Human Services D&A Program	(814) 726-2100	285 Hospital Drive	North Warren	PA	16365
Franklin Fulton County Drug and Alcohol Program	(717) 263-1256	425 Franklin Farm Lane	Chambersburg	PA	17202
Greene County Human Services Program	(724) 852-5276	Fort Jackson Building, Third Floor, 19 South Washington Street	Waynesburg	PA	15370



**Pennsylvania Single County Authorities**  
(updated 12/4/20)

<b>SCA</b>	<b>Phone Number</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Juniata Valley Tri-County Drug and Alcohol Abuse Commission	(717) 242-1446	31 S. Dorcas St., Suite D	Lewistown	PA	17044
Lackawanna/Susquehanna Office of Drug and Alcohol Programs	(570) 963-6820	123 Wyoming Ave, 4th Floor	Scranton	PA	18503
Lancaster County Drug and Alcohol Commission	(717) 299-8023	150 North Queen Street, Suite 410	Lancaster	PA	17603
Lawrence County Drug and Alcohol Commission, Inc.	(724) 658-5580	20 E. Washington Street, 2nd Floor	New Castle	PA	16101
Lebanon County Commission on Drug and Alcohol Abuse	(717) 274-0427	220 East Lehman Street	Lebanon	PA	17046
Lehigh County Drug & Alcohol Services	(610) 782-3555	Government Center, 17 South Seventh Street	Allentown	PA	18101
Luzerne Wyoming Counties Drug and Alcohol Program	(570) 826-8790	111 N. Pennsylvania Avenue, 2nd Floor	Wilkes-Barre	PA	18701
Lycoming Clinton West Branch Drug and Alcohol Abuse Commission	(570) 323-8543	213 West Fourth Street	Williamsport	PA	17701
Mercer County Behavioral Health Commission Inc.	(724) 662-1550	8406 Sharon Mercer Road	Mercer	PA	16137
Montgomery County Department of Health & Human Services	(610) 278-3642	Montgomery County Human Services Center, PO Box 311	Norristown	PA	19404
Northampton County D&A Division	(610) 829-4725	2801 Emrick Boulevard, 3 <sup>rd</sup> Floor	Bethlehem	PA	18020
Northumberland County BH/IDS	(570) 495-2154	Human Senior & Social Services Building, 217 North Center Street	Sunbury	PA	17801
Philadelphia Office of Addiction Services	(888) 545-2600	1101 Market Street, Eighth Floor	Philadelphia	PA	19107
Bedford Personal Solutions, Inc	(814) 623-5009	145 Clark Building, Suite 5	Bedford	PA	15522

**Pennsylvania Single County Authorities**  
(updated 12/4/20)

<b>SCA</b>	<b>Phone Number</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Potter County Drug and Alcohol	(814) 544-7315	62 North Street, P.O. Box 241	Roulette	PA	16746
Schuylkill County Drug and Alcohol	(570) 621-2890	410 North Centre Street	Pottsville	PA	17901
Somerset County Drug and Alcohol	(814) 445-1530	300 North Center Avenue, Suite 360	Somerset	PA	15501
Tioga County Department of Human Services	(570) 724-5766	1873 Shumway Hill Road	Wellsboro	PA	16901
Venango County Substance Abuse Program	(814) 432-9744	One Dale Avenue	Franklin	PA	16323
Washington D&A Commission, Inc.	(724) 223-1181	90 West Chestnut Street, Suite 310 T	Washington	PA	15301
Wayne County Drug and Alcohol Commission	(570) 253-6022	318 Tenth Street	Honesdale	PA	18431
Westmoreland Drug and Alcohol Commission, Inc.	(724) 243-2220	1200 Maronda Way, Suite 300	Monessen	PA	15062
York Adams Drug and Alcohol Commission	(717) 771-9222	100 West Market Street, Suite B04	York	PA	17401

### Section 5.04 Overdose Survivors<sup>426</sup>

#### Overview

DDAP defines an overdose as a situation in which an individual is in a state requiring emergency medical intervention as a result of the use of drugs or alcohol. Specific examples may be seen in the International Classification of Disease (ICD-10) diagnosis codes for substance overdose or poisoning.

#### Requirements

To ensure expedient, appropriate and seamless care for an individual who has overdosed, SCAs must develop, implement, and maintain a plan for screening, assessing, referring to treatment and tracking of individuals who have survived a recent overdose. The SCA must coordinate with their local hospital(s) to address the needs of individuals who have experienced an overdose to develop a policy and procedure that includes:

- 1) The details or process by which an overdose survivor will be offered a 24/7 direct referral from the ED to treatment by one or any combination of models noted below;
- 2) The parties responsible (including having on file any MOU or LOA that may apply);
- 3) The timelines for the processes involved;
- 4) The mechanism for tracking such referrals or refusals for treatment; and
- 5) The completion of DDAP's warm handoff monthly report.

This may be accomplished through a timely exchange of referral information from the referring party to the SCA. Such a tracking mechanism may be between the hospital and SCA and/or between the treatment provider network and the SCA. This should include those individuals who are publicly funded, and wherever possible, those individuals who are otherwise funded, even if by basic, unidentified referral statistics.

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<sup>426</sup> Pennsylvania Department of Drug & Alcohol Programs, *Treatment Manual*, Version 5.0, § 5.04, pages 11-14, last modified December 2019, available at <https://www.ddap.pa.gov/Documents/Agency%20Manuals/Treatment%20Manual.pdf> (accessed December 17, 2019)

Regardless of the models chosen by the SCA, all the elements noted in the preceding paragraph must be present to receive approval of the policy. The SCA must submit the warm handoff policy to DDAP's Treatment Division for review and approval. Monitoring of the warm handoff policy will be completed by DDAP's County Program Oversight Section. Once approved, any subsequent changes to the policy must be submitted to DDAP.

As indicated, the policy and procedure established must include one or a combination of the following identified models:

1) **SCA Agency Model:** The SCA, through case management staff or, in the case of a functional unit, through treatment staff, provide assessment services to local healthcare facilities/EDs. In such instances, the SCA would need to assure that procedures for referral to treatment during after hours, weekends and holidays are established for their county, rather than the provision of a number to call during non-business hours.

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2) **\*Contracted Provider Model:** The SCA contracts with a provider(s) i.e., case management units, treatment providers, crisis intervention, etcetera to conduct screening, assessment, and referral services to area hospital EDs. Such an arrangement would be noted in the SCA's contractual agreement with the applicable provider agencies, and would include a work statement and cost of completing such assessments. The SCA facilitates discussions with the agencies and hospital to develop a process to conduct assessments in the hospital setting.

3) **Certified Recovery Specialist Model:** Where Certified Recovery Specialist (CRS) services are available to or through an SCA, such staff would provide screening, and/or referral to a professional/provider qualified to clinically assess and refer to treatment OR be utilized to provide either assessments/referral from healthcare facilities/EDs to treatment. Appropriate training commensurate with the service would need to be completed. If CRS staff conduct Level of Care Assessments, the staff must meet the METs noted in section 8.06.

4) **\*Treatment Provider Model:** The SCAs can assure that through the business practices of a local treatment/service provider(s), provider staff is serving the area's Hospital EDs. This may already be occurring as a courtesy/referral source by treatment providers to local healthcare facilities/EDs. (In some instances, the treatment provider may be hospital owned/affiliated.)

5) **Direct Referral to Treatment by Hospital Staff:** The hospital Social Worker, detox personnel, or other hospital staff assists a patient with referral directly to SUD treatment. This may occur through a special arrangement that the SCA has with the hospital or by the hospital staff, independent of the SCA; however, it is the expectation that the SCA would be engaged in some level of relationship/arrangement with the hospital or receiving treatment provider as it relates to authorization for funding when necessary and statistically reporting.

6) **Recovery Community Model:** Where the SCA has a strong relationship with the recovery community, be it through a recovery organization or a strong presence of a 12-Step Fellowship, the SCA can arrange for identified/designated individuals who are willing to volunteer with assisting an overdose survivor getting to a treatment facility. This would more likely include client engagement, information and referral to clinical assessment and potential transportation to

treatment, rather than assessment and referral. The SCA would be responsible for entering into the necessary agreements with the organization/individuals and for providing basic information on how to access the treatment system within that county.

7) **DDAP Approved Model:** The SCA can present another viable alternative not otherwise mentioned in this policy for DDAP approval or a combination of any of the above. Possible examples might be where an SCA has a strong relationship with the ED hospital staff whose social work department, nursing staff or other identified staff utilize resources made available by the SCA to make a referral directly from the ED; or the SCA might serve as a single point-of-contact with the ED to facilitate referral to treatment with a plan in place for after-hours, weekend and holiday access to treatment.

\*An MOU between that agency and the healthcare facilities/EDs (rather than the SCA) may be developed to include protocols for completion of assessments.

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It should be noted that in those instances in which an entity other than the SCA is responsible for the actual post overdose referral to treatment activity, the SCA should be engaged and have an awareness of the protocol(s) that are occurring within the county and be a partner in the process, especially as it relates to establishing a mechanism for post overdose referrals to treatment of publicly-funded individuals.

SCAs are required to identify which models they will be utilizing and the details of the policy and procedure to CPO staff upon DDAP's request.

DDAP is identifying individuals who have overdosed as an additional priority population in an effort to better facilitate access to care directly following an overdose event. Admission to treatment for individuals who have overdosed must be considered in conjunction with the requirements delineated in the DDAP Treatment Manual. Further, if the SCA chooses to restrict access to assessment/admission to treatment, such restrictions shall not apply to overdose survivors.

In those instances, in which an SCA is unable to actively engage in any of the identified strategies noted within this policy, a waiver request must be submitted to DDAP identifying those specific barriers which prevent implementation as well as action steps and timelines for mitigating the barriers.

**APPENDIX G**

<p align="center"><b>SUMMARY</b>  <b>47 Single County Authorities' Adoption of</b>  <b>DDAP Warm Hand-off Policy Models</b></p>						
County	SCA Agency Model	Contacted provider Model	Certified Recovery Specialist Model	Treatment Provider Model	Direct Referral to Treatment by Hospital Staff	Recovery Community Model
Allegheny					X	
Armstrong-Indiana-Clarion	X	X	X			
Beaver	X					
Bedford	X				X	
Berks			X			
Blair	X		X			
Bradford/Sullivan	X		X			
Bucks	X		X			
Butler	X	X			X	
Cambria	X				X	
Cameron/Elk/McKean	X					
Carbon/Monroe/Pike		X				
Centre	X	X				
Chester		X			X	
Clearfield/Jefferson	X		X			
Columbia/Montour/Snyder/Union	X		X			
Crawford	X					
Cumberland/Perry		X	X			
Dauphin	X					
Delaware			X			
Erie		X				
Fayette	X					
Forest/Warren					X	
Franklin/Fulton	X				X	
Greene	X	X			X	
Huntingdon/Mifflin/Juniata	X	X				

**SUMMARY**  
**47 Single County Authorities' Adoption of**  
**DDAP Warm Hand-off Policy Models**

County	SCA Agency Model	Contacted provider Model	Certified Recovery Specialist Model	Treatment Provider Model	Direct Referral to Treatment by Hospital Staff	Recovery Community Model
Lackawanna/ Susquehanna	X	X	X			
Lancaster		X	X			
Lawrence	X				X	
Lebanon		X				
Lehigh					X	
Luzerne/Wyoming	X	X	X			
Lycoming/Clinton	X		X			
Mercer	X	X				
Montgomery		X	X		X	
Northampton	X	X				
Northumberland			X			
Philadelphia		X	X			
Potter					X	
Schuylkill	X	X				
Somerset	X	X	X			
Tioga		X				
Venango	X	X			X	
Washington	X		X			
Wayne	X					X
Westmoreland	X	X				
York/Adams		X				

Source: Individual Single County Authority (SCA) policies provided by the Department of Drug and Alcohol Programs on October 18, 2019. Analysis performed by the Joint State Government Commission staff.



## APPENDIX H

<b>Center of Excellence Certificate of Eligibility (COE) Licensure Type, per PA County</b>			
<b>Name</b>	<b>PA County</b>	<b>Licensing Agency</b>	<b>Licensure Type</b>
AIDS Care Group	Sharon Hill	DOH	PH Clinic, Physician Group
Allegheny Health Network	Pittsburgh	DOH	Hospital
Alliance Medical Services	Johnstown	DHS OMHSAS, DDAP	Metadone
Butler Memorial Hospital	Butler	DOH	Hospital
CASA of Livingston County/Trinity	Sayre	DHS OMHSAS, DDAP	D&A
Clearfield-Jefferson Drug & Alcohol Commission	DuBois	DHS OMHSAS, DDAP	D&A
Clinical Outcomes Group, Inc.	Pottsville	DHS OMHSAS, DDAP	D&A
Community Health & Dental Care, Inc.	Pottstown	DOH	PH Clinic
Crossroads Counseling, Inc.	Lock Haven	DHS OMHSAS, DDAP	D&A
Crozer-Keystone Health System	Chester	DOH, DHS OMHSAS	Hospital, PH/BH Clinic
Esper Treatment Group	Erie	DHS OMHSAS, DDAP	Metadone
Family First Health Corporation	York	DOH	PH Clinic
Family Service Association of Bucks County	Langhorne	DHS OMHSAS, DDAP	D&A
Gateway Rehabilitation Center	Aliquippa	DHS OMHSAS, DDAP	D&A
Geisinger Clinic	Bloomsburg	DOH	Hospital
Habit OPCO Dunmore Comprehensive Treatment Center	Dunmore	DHS OMHSAS, DDAP	D&A
Hamilton Health Center	Harrisburg	DOH	PH Clinic
Highlands Hospital	Connellsville	DOH	Hospital
Lancaster General Hospital	Lancaster	DOH	Hospital
Magee - Women's Hospital of UPMC	Pittsburgh	DOH	Hospital
Maternal Addiction Treatment, Education, & Research	Philadelphia	DOH, DHS OMHSAS, DDAP	PH/BH Clinic, D&A
Mon Valley Community Health Services, Inc.	Monessen	DOH	PH Clinic
Mt. Pocono Medical	Mt. Pocono	DHS OMHSAS, DDAP	Metadone

**Center of Excellence  
Certificate of Eligibility (COE)  
Licensure Type, per PA County**

<b>Name</b>	<b>PA County</b>	<b>Licensing Agency</b>	<b>Licensure Type</b>
Narcotic Addiction Recovery Program of Thomas Jefferson University	Philadelphia	DHS OMHSAS, DDAP	D&A
Neighborhood Health Centers of the Lehigh Valley	Allentown	DOH	PH Clinic
New Directions Treatment Services	Wyomissing	DHS OMHSAS, DDAP	Methadone
Pathways to Housing PA	Philadelphia	DHS OMHSAS	Case Management
Penn Foundation, Inc.	Sellersville	DHS OMHSAS, DDAP	D&A
Penn Presbyterian Medical Center	Philadelphia	DOH, DDAP	Hospital, D&A
Pennsylvania Care LLC d/b/a Miners Medical	Ashley	OMHSAS	MH Clinic
Pennsylvania Counseling Services Allison Hill	Harrisburg	DHS OMHSAS, DDAP	D&A
Pennsylvania Counseling Services York Psychiatric	York	DOH, DDAP	BH Clinic, D&A
Public Health Management Corporation	Philadelphia	DOH, DHS OMHSAS, DDAP	PH Clinic, D&A
Pyramid Healthcare, Inc.	Altoona	DHS OMHSAS, DDAP	Methadone
Resources for Human Development/Montgomery County Methadone Center	Norristown	DHS OMHSAS, DDAP	Methadone
Tadiso, Inc.	Pittsburgh	DHS OMHSAS, DDAP	D&A
Temple University	Philadelphia	DOH	Hospital
The CARE Center, Inc.	Washington	DHS OMHSAS, DDAP	D&A
The Wright Center for Primary Care Clarks Summit	Clarks Summit	DOH, DHS OMHSAS	Physician, BH Clinic
Total Wellness LLC Clean Slate	Scranton	DOH	Physician
Total Wellness LLC Clean Slate	Williamsport	DHS OMHSAS, DDAP	D&A
Tower Health Reading Hospital	West Reading	DOH	PH Clinic
Treatment Trends, Inc.	Allentown	DOH	Physician
TW Ponessa & Associates Counseling Services, Inc.	Lancaster	DHS OMHSAS	BH Clinic
University of Pittsburgh Physicians General Internal Medicine Clinic	Pittsburgh	DOH	Hospital
UPMC Western Psychiatric Hospital	Pittsburgh	DHS OMHSAS, DDAP	BH Clinic, D&A
Wedge Medical Center	Philadelphia	DHS OMHSAS, DDAP	D&A

Source: Department of Human Services Office of Medical Assistance Programs

Notes:

- There are 45 COEs, but there are 47 on this list: one COE operates two separate programs, and they are licensed separately; another COE operates in two distinct locations, and each location is licensed separately.
- “D&A” (drug & alcohol) is indicated as the licensure type for any provider that is licensed by DDAP, without additional distinguishing details in their licensure type. D&A providers are typically dually licensed by DDAP and the Department of Human Services Office of Mental Health and Substance Abuse Services (OMHSAS).
- All physical health (PH) provider types (hospitals, clinics, and physician practices) are licensed by the Department of Health (DOH).
- There are some behavioral health clinics that are not licensed D&A treatment providers and only have a behavioral health (BH) clinic licensure. These are only licensed by OMHSAS.
- Many COEs maintain multiple licenses.



### **Clinical Case Scenario Illustrating Utilization of Telemedicine to Manage MAT in a Rural Area**

HHS has developed the following case scenario to provide clinicians with an example of a clinical practice engagement consistent with the DEA statement and applicable HHS administered authorities.

A patient is being seen in a rural health clinic staffed by a nurse practitioner licensed in the state and has a DEA registration consistent with the nurse practitioner's scope of practice.

The nurse practitioner conducts an examination of the patient and determines that treatment with buprenorphine for opioid addiction is clinically indicated, and the patient agrees to treatment.

The nurse practitioner does not have a DATA 2000 waiver to prescribe buprenorphine for the treatment of opioid addiction, but the clinic has an agreement with an addiction specialist in a large city in the same state (or in another state so long as the remote addiction specialist is also registered with the DEA and licensed in the state where the patient is located) to provide remote telemedicine services for addiction treatment.

The remote addiction specialist has a DATA 2000 waiver to prescribe buprenorphine for the treatment of opioid addiction and is licensed and DEA-registered in the state where the rural health clinic is located. •At the patient visit, the nurse practitioner connects the patient to the remote addiction specialist via an appropriately safeguarded interactive telecommunications system.

The addiction specialist, after engaging with the patient remotely concurs with the nurse practitioner that buprenorphine is clinically indicated for this patient and issues a prescription for a specific formulation and dosage of a buprenorphine product to be filled at the patient's local pharmacy.

After the initial encounter, the patient continues to have his/her buprenorphine treatment managed by the remote DATA 2000-waived practitioner (who remains the buprenorphine prescriber of record) in collaboration with the local nurse practitioner.

The patient will be considered a patient of the DATA 2000-waived practitioner for purposes of 21 U.S.C. § 823(g)(2), and 42 C.F.R. Part 8, Subpart F when applicable.

Source: U. S. Department of Health and Human Services, *Telemedicine and Prescribing Buprenorphine for the Treatment of Opioid Use Disorder*, September 2018, available at [https://www.careinnovations.org/wp-content/uploads/DHCS\\_HHS-MAT-Telemedicine-Statement.pdf](https://www.careinnovations.org/wp-content/uploads/DHCS_HHS-MAT-Telemedicine-Statement.pdf) (accessed October 5, 2020).



### **An Analysis of the Impact of Overdoses on Pennsylvania’s Emergency Medical Services System and Operational Considerations for Alternate Service Delivery Models**

#### **Purpose:**

For the advisory committee to establish criteria to evaluate the effectiveness, financial impact and the impact of the availability of emergency medical services (EMS) resources to a geographic area if EMS utilizes an overdose stabilization and warm hand-off center as an alternative destination.

#### **Problem:**

With no currently established overdose stabilization and warm hand-off centers, it is difficult to be able to assess what the potential financial and/or operational impact would be. The assessment of the financial implications is further complicated by the vast differences in funding mechanisms and cost structure of the Commonwealth’s EMS agencies.

#### **Analysis**

##### **Time Period:**

The Bureau of EMS within the Pennsylvania Department of Health conducted a baseline analysis of EMS patient care report data submitted to the department of EMS patient encounters covering a time period of 01/01/2018 – 12/31/2019.

##### **Sample Size:**

During that time there were a total of 4,458,200 EMS records submitted to the Department’s electronic reporting system, that were documented as being a 911 response (interfacility transfers were excluded from analysis) with an incident state documented as Pennsylvania. Of these, 35,922 of the records (<1%) reported at least one dose of naloxone being administered by the reporting EMS unit. It is imperative to note that not all 35,922 encounters can be considered an overdose. Naloxone is still given in some areas and by some clinicians as a rule-out medication for patients who are unconscious with an unknown etiology.

Additionally, because of the tiered nature of the commonwealth’s EMS system, there are instances where 2 or more EMS units will respond to the same patient. Each of these responding units will submit their own electronic report to the department. Because the department does not collect patient identifying information, it is not possible to completely control for this potential duplication.

The accuracy of certain data elements and datasets contained within this report are only as accurate as the information provided by field providers through electronic Patient Care Records (ePCR) systems. For example, if an EMS provider only documents the administration of a medication in the narrative portion of the ePCR, this will not be reflected in datasets reported. The Bureau is aware that the datasets are not perfect but demonstrate a reasonable account of the efficacy of the commonwealth’s EMS system.

**Scope:**

Because the focus of this analysis is related to the financial and operational impact of EMS transport to alternate destinations “Overdose Stabilization Centers,” additional analysis will be focused only to EMS records that were submitted by transport capable units. This restriction helps control for duplication; in addition, EMS units not licensed for transport are not able to bill 3<sup>rd</sup> party insurance for services rendered and thus restricting to transporting units allows for a more accurate financial analysis.

Restricting to ground transport units, with valid time information available results in a total of 4,273,204 (95.85% of the original total) EMS records submitted, and 34,540 (96.15% of the original total) of those records reported at least one dose of naloxone being administered. Records were received from 429 different EMS organizations.

**Table 1 911 EMS Responses by Ground Transport Units Resulting in Naloxone Administration by County, 01/01/2018-12/31/2019**

Table 1 displays the number of EMS patient records that were submitted to the department by ground EMS transport units that had at least one dose of naloxone electronically documented. 539 cases (1.56%) while having an incident state as PA did not have an incident county listed. The frequency of naloxone administration by emergency medical services in each county is a baseline to determine the maximum of how frequently an overdose stabilization/warm hand-off center could possibly be utilized.

COUNTY	NUMBER OF PATIENT ENCOUNTERS WITH NALOXONE ADMINISTRATION
<b>**NO COUNTY LISTED**</b>	539
<b>ADAMS</b>	100
<b>ALLEGHENY</b>	4,035
<b>ARMSTRONG</b>	183
<b>BEAVER</b>	192
<b>BEDFORD</b>	63
<b>BERKS</b>	869
<b>BLAIR</b>	293
<b>BRADFORD</b>	69



<b>COUNTY</b>	<b>NUMBER OF PATIENT ENCOUNTERS WITH NALOXONE ADMINISTRATION</b>
<b>BUCKS</b>	1,886
<b>BUTLER</b>	454
<b>CAMBRIA</b>	563
<b>CAMERON</b>	*<5
<b>CARBON</b>	287
<b>CENTRE</b>	47
<b>CHESTER</b>	622
<b>CLARION</b>	70
<b>CLEARFIELD</b>	58
<b>CLINTON</b>	37
<b>COLUMBIA</b>	147
<b>CRAWFORD</b>	175
<b>CUMBERLAND</b>	224
<b>DAUPHIN</b>	417
<b>DELAWARE</b>	1,822
<b>ELK</b>	38
<b>ERIE</b>	815
<b>FAYETTE</b>	487
<b>FOREST</b>	7
<b>FRANKLIN</b>	91
<b>FULTON</b>	7
<b>GREENE</b>	52
<b>HUNTINGDON</b>	52
<b>INDIANA</b>	205
<b>JEFFERSON</b>	46
<b>JUNIATA</b>	9
<b>LACKAWANNA</b>	351
<b>LANCASTER</b>	563
<b>LAWRENCE</b>	369
<b>LEBANON</b>	303
<b>LEHIGH</b>	1,318
<b>LUZERNE</b>	1,243
<b>LYCOMING</b>	340
<b>MCKEAN</b>	28
<b>MERCER</b>	474
<b>MIFFLIN</b>	20
<b>MONROE</b>	298
<b>MONTGOMERY</b>	1,281
<b>MONTOUR</b>	27
<b>NORTHAMPTON</b>	607

<b>COUNTY</b>	<b>NUMBER OF PATIENT ENCOUNTERS WITH NALOXONE ADMINISTRATION</b>
<b>NORTHUMBERLAND</b>	237
<b>PERRY</b>	14
<b>PHILADELPHIA</b>	8,983
<b>PIKE</b>	38
<b>POTTER</b>	*<5
<b>SCHUYLKILL</b>	340
<b>SNYDER</b>	29
<b>SOMERSET</b>	128
<b>SULLIVAN</b>	11
<b>SUSQUEHANNA</b>	63
<b>TIOGA</b>	48
<b>UNION</b>	26
<b>VENANGO</b>	111
<b>WARREN</b>	28
<b>WASHINGTON</b>	517
<b>WAYNE</b>	118
<b>WESTMORELAND</b>	1,056
<b>WYOMING</b>	75
<b>YORK</b>	537

Table 2 911 EMS Responses by Ground Transport Units Resulting in Naloxone Administration by DOH Health District, 01/01/2018-12/31/2019

Table 2 provides the same information as Table 1 but presented from the perspective of the Commonwealth's established health districts.

<b>DOH HEALTH DISTRICT</b>	<b>CUMULATIVE TIME ON TASK (MINUTES)</b>
<b>UNKNOWN</b>	88,509.5 (1.49%)
<b>NORTHCENTRAL</b>	59,760.33 (3.63%)
<b>NORTHEAST</b>	203,252.33 (12.79%)
<b>NORTHWEST</b>	103,930.1 (6.48%)
<b>SOUTHCENTRAL</b>	90,828.32 (5.30%)
<b>SOUTHEAST</b>	664,444.38 (45.24%)
<b>SOUTHWEST</b>	366,055.65 (25.03%)

Table 3 Cumulative Time on Task by Ground Transport Units Resulting in Naloxone Administration by DOH Health District, 01/01/2018-12/31/2019

Table 3 breaks down by health district the amount of cumulative time on task in minutes spent by EMS providers on responses involving an administration of naloxone over the two-year time period. Cumulative time on task is calculated by measuring the elapsed time between the time that the EMS unit was dispatched and the time that the EMS unit was listed as available for their next assignment. Commonwealth wide, EMS units spent a collective 1,390,361.52 minutes or the equivalent to 965 days on EMS responses with a documented naloxone administration.

DOH HEALTH DISTRICT	CUMULATIVE TIME ON TASK (MINUTES)
UNKNOWN	88,509.5 (1.49%)
NORTHCENTRAL	59,760.33 (3.63%)
NORTHEAST	203,252.33 (12.79%)
NORTHWEST	103,930.1 (6.48%)
SOUTHCENTRAL	90,828.32 (5.30%)
SOUTHEAST	664,444.38 (45.24%)
SOUTHWEST	366,055.65 (25.03%)

Figure 1 Distribution of Time on Task by 911 Ground Transport Units when Naloxone was Administered 01/01/2018 – 12/31/2019

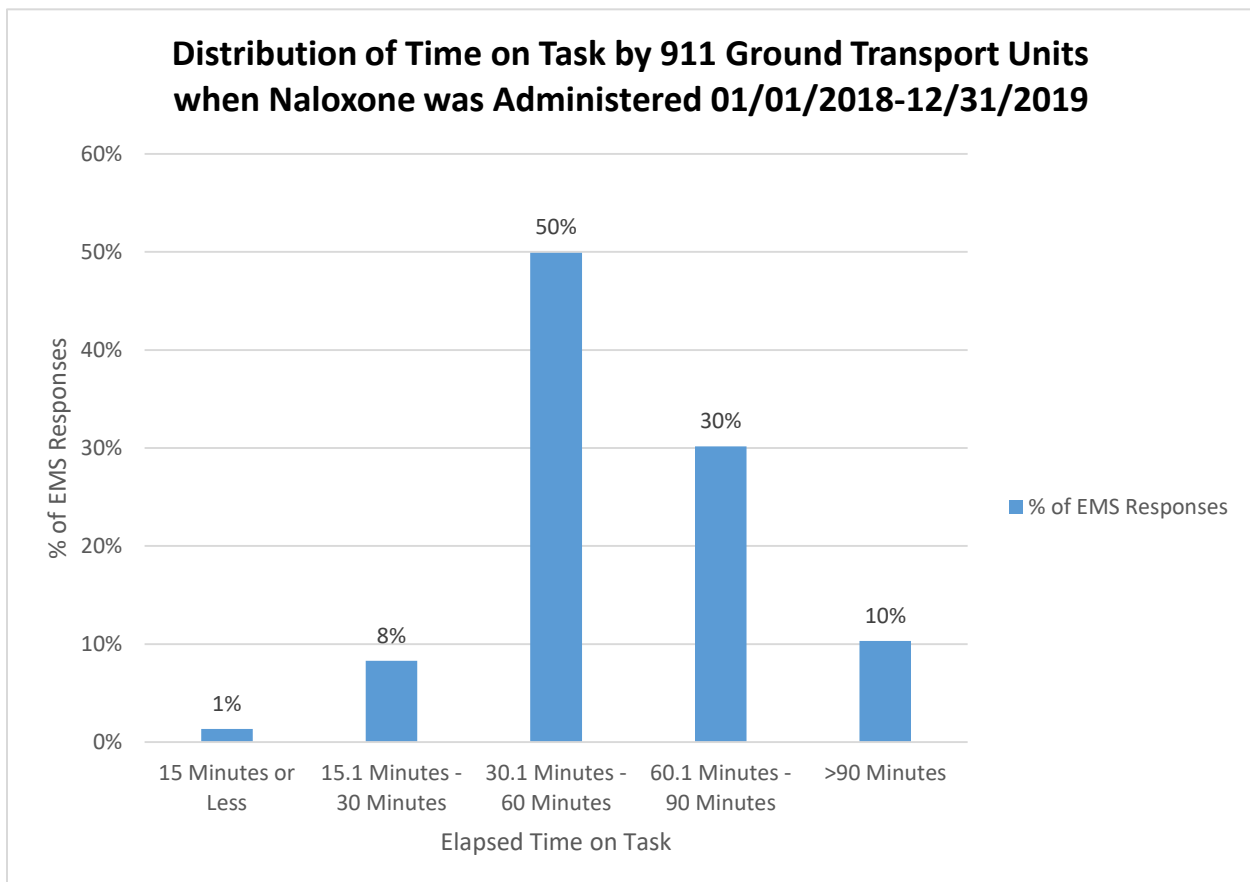


Table 4 Analysis of 911 Transport Times for EMS Transports of Patients Whom Naloxone was Administered by County

Of the 34,547 patient contacts resulting in naloxone administration by EMS providers on ground transport vehicles 29,141 were transported to a medical facility for further treatment and evaluation by the EMS unit.

Transport time is a crucial metric related to operational efficiency of EMS companies. Transport time is defined as the elapsed time from when the ambulance departed the scene with a patient to when they arrived at the hospital emergency department. The incorporation of overdose stabilization centers as potential receiving facilities for EMS patients would need to be able to maintain similar or reduced transport times in order to avoid adverse operational affects to the Commonwealth emergency medical services system. Table 4 provides by county the number of EMS transports (when the patient was given naloxone), the median transport time interval, the average transport time interval, and the maximum transport time reflected in the data for that county. All time intervals are presented in minutes.

COUNTY NAME	COUNT OF EMS TRANSPORTS	MEDIAN OF TRANSPORT TIME	AVERAGE OF TRANSPORT TIME	MAX OF TRANSPORT TIME
<b>**NO COUNTY LISTED**</b>	463	7	9.207858	45
<b>Adams</b>	77	15	16.05993	47
<b>Allegheny</b>	3,392	10.31667	11.53646	56
<b>Armstrong</b>	141	12	15.63906	51
<b>Beaver</b>	154	18.5	20.81288	87
<b>Bedford</b>	56	13.5	16.38636	60
<b>Berks</b>	802	10	11.69958	67
<b>Blair</b>	283	6.566667	8.914549	37.16667
<b>Bradford</b>	59	7	14.34091	66
<b>Bucks</b>	1,634	9	9.99845	34
<b>Butler</b>	285	12.13333	14.23198	56.85
<b>Cambria</b>	480	9	12.13586	61
<b>Cameron</b>	*<5	24	24	24
<b>Carbon</b>	261	8	11.78534	38
<b>Centre</b>	47	12	16.39242	46
<b>Chester</b>	578	11	12.6028	50
<b>Clarion</b>	58	10	12.41026	34
<b>Clearfield</b>	59	8.5	13.3	99
<b>Clinton</b>	37	8	11.4	38
<b>Columbia</b>	121	8.816667	13.21149	55.06667
<b>Crawford</b>	156	9	10.77314	39
<b>Cumberland</b>	185	13.875	13.38093	28

<b>COUNTY NAME</b>	<b>COUNT OF EMS TRANSPORTS</b>	<b>MEDIAN OF TRANSPORT TIME</b>	<b>AVERAGE OF TRANSPORT TIME</b>	<b>MAX OF TRANSPORT TIME</b>
<b>Dauphin</b>	367	12.35	12.46577	46.65
<b>Delaware</b>	1,639	7	7.506954	131
<b>Elk</b>	35	4	9	52
<b>Erie</b>	720	7.783333	9.190309	46
<b>Fayette</b>	415	10	11.36029	38
<b>Forest</b>	5	33.5	37.75	51
<b>Franklin</b>	70	10	12.78595	41
<b>Fulton</b>	*<5	20	32.66667	75
<b>Greene</b>	48	22	20.28125	46
<b>Huntingdon</b>	32	15.5	17.85985	53
<b>Indiana</b>	150	17	18.33537	53
<b>Jefferson</b>	44	13	15.12121	90
<b>Juniata</b>	*<5	22	22	22
<b>Lackawanna</b>	287	8.758333	11.45487	73.61667
<b>Lancaster</b>	405	17	16.61157	44.91667
<b>Lawrence</b>	296	7	9.176812	70
<b>Lebanon</b>	266	8.1	10.96728	48.95
<b>Lehigh</b>	1,304	6	7.883957	76
<b>Luzerne</b>	1,215	8	9.409956	79
<b>Lycoming</b>	249	5	6.966292	53
<b>Mckean</b>	23	3.8	4.927778	11
<b>Mercer</b>	393	6	8.217228	99
<b>Mifflin</b>	49	7	7.451613	20
<b>Monroe</b>	262	15	15.64859	39
<b>Montgomery</b>	1,168	7.016667	8.805532	85.35
<b>Montour</b>	23	4.55	5.327778	7.95
<b>Northampton</b>	572	10	10.98053	31
<b>Northumberland</b>	201	9	11.05556	42
<b>Perry</b>	12	31.65	29.56111	49
<b>Philadelphia</b>	7,174	9	10.69397	68
<b>Pike</b>	21	23	23.38571	33
<b>Potter</b>	*<5	23	23	24
<b>Schuylkill</b>	241	18	18.51229	75
<b>Snyder</b>	36	25	24.18519	57
<b>Somerset</b>	110	14	13.90141	37
<b>Sullivan</b>	6	38.9	38.7	49
<b>Susquehanna</b>	37	26.5	24.54167	48
<b>Tioga</b>	46	20	19.34144	37
<b>Union</b>	21	9	11.06667	23
<b>Venango</b>	89	16	17.10526	36

<b>COUNTY NAME</b>	<b>COUNT OF EMS TRANSPORTS</b>	<b>MEDIAN OF TRANSPORT TIME</b>	<b>AVERAGE OF TRANSPORT TIME</b>	<b>MAX OF TRANSPORT TIME</b>
<b>Warren</b>	7	6.833333	6.336667	10.6
<b>Washington</b>	435	9	10.9566	60.16667
<b>Wayne</b>	51	19	17.85958	51.35
<b>Westmoreland</b>	844	12	13.78092	57
<b>Wyoming</b>	29	18.5	18.61818	49.46667
<b>York</b>	405	13.85833	16.63513	82.03333

Table 5 Analysis of 911 Transport Times for EMS Transports of Patients Whom Naloxone was Administered by Health District

<b>DOH HEALTH DISTRICT</b>	<b>COUNT OF EMS TRANSPORTS</b>	<b>MEDIAN OF TRANSPORT TIME</b>	<b>AVERAGE OF TRANSPORT TIME</b>	<b>MAX OF TRANSPORT TIME</b>
<b>UNKNOWN</b>	463	7	9.207858	45
<b>NORTHCENTRAL</b>	849	9	11.98798	66
<b>NORTHEAST</b>	4,039	8	10.2066	79
<b>NORTHWEST</b>	1,887	7.375	9.879954	99
<b>SOUTHCENTRAL</b>	1,808	11	12.96469	82.03333
<b>SOUTHEAST</b>	13,641	9	10.45298	131
<b>SOUTHWEST</b>	6,454	11	12.39139	87

Table 5 provides the same information as Table 4 but presented from the perspective of the Commonwealth's established health districts.

Map 1 on the following page displays from a map form, the median transport time of 911 encounters involving naloxone administration.

# Map 1: Median Transport Time for 911 Naloxone Involved Patient Encounters

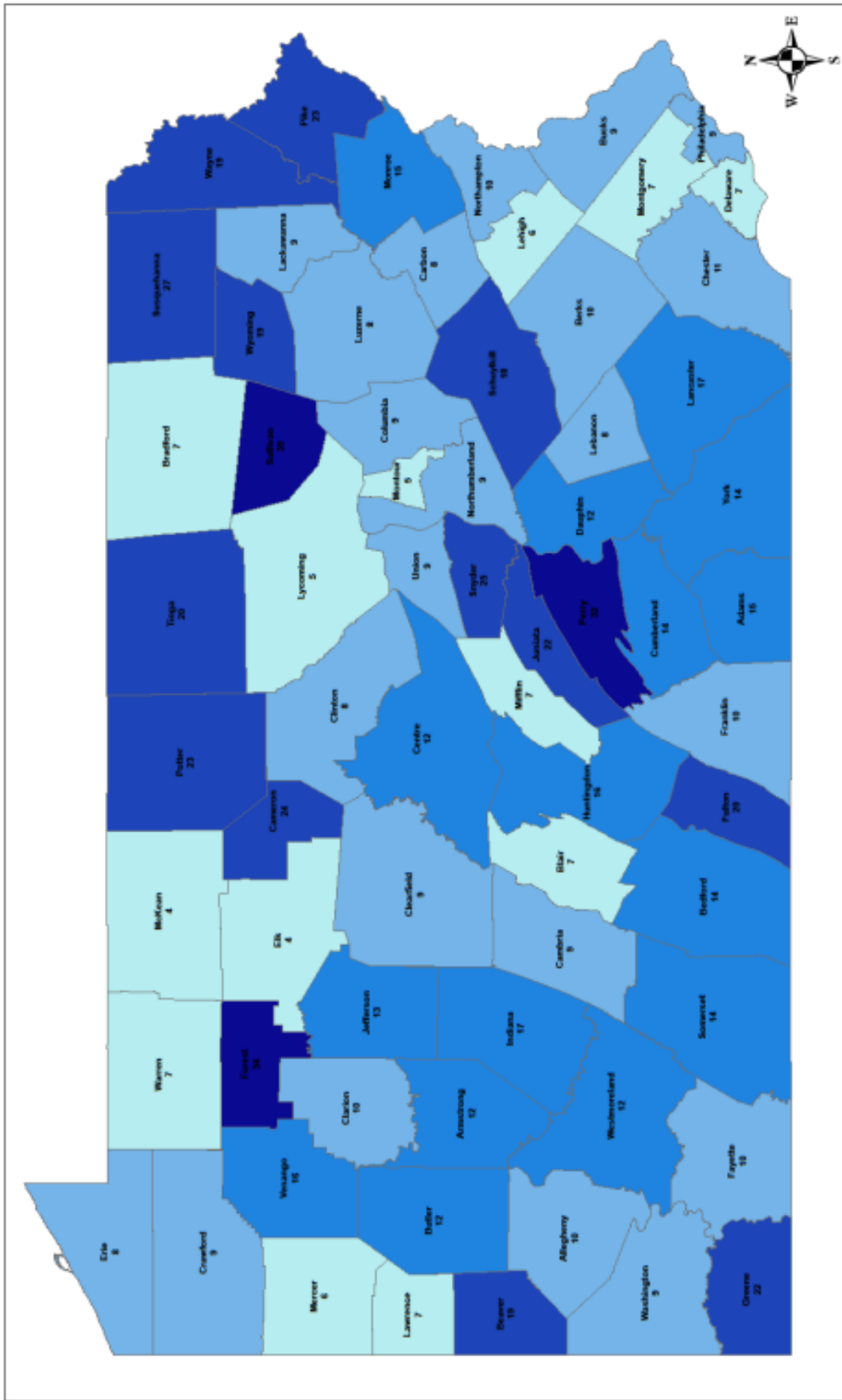


Table 6 Analysis of 911 Scene Times for EMS Patients Whom Naloxone was Administered by County

For this analysis we considered all 34,540 911 related EMS responses by licensed ground transport vehicles that resulted in naloxone administration and did not limit it to only patients whom were transported.

Scene time is measured as the interval from the time that the unit arrived on scene to the time that the ambulance left the scene, either initiating transport or clearing the scene with a refusal of service.

COUNTY	COUNT OF EMS RESPONSES	MEDIAN OF SCENE TIME	AVERAGE OF SCENE TIME	MAX OF SCENE TIME
<b>**NO COUNTY LISTED**</b>	539	16	17.2646	51
<b>ADAMS</b>	99	20	19.60238	43.38333
<b>ALLEGHENY</b>	4,035	20	21.1954	142
<b>ARMSTRONG</b>	183	19	21.88485	84
<b>BEAVER</b>	192	23.5	24.18523	49
<b>BEDFORD</b>	63	19	18.93182	31
<b>BERKS</b>	869	15.11667	16.57078	79.51667
<b>BLAIR</b>	293	19.71667	21.1616	76.05
<b>BRADFORD</b>	69	14	14.97778	32
<b>BUCKS</b>	1,885	16.03333	17.28794	140.8167
<b>BUTLER</b>	454	18.025	19.86913	123
<b>CAMBRIA</b>	563	19	20.14169	55
<b>CAMERON</b>	*<5	10	10	10
<b>CARBON</b>	287	19	19.73936	47
<b>CENTRE</b>	47	22	23.11237	43
<b>CHESTER</b>	622	17	17.74446	63.36667
<b>CLARION</b>	70	22	23.28571	41
<b>CLEARFIELD</b>	58	19	18.89744	39
<b>CLINTON</b>	37	20	21.5	45
<b>COLUMBIA</b>	147	19.28333	18.74494	37
<b>CRAWFORD</b>	175	18.08333	18.43077	46
<b>CUMBERLAND</b>	224	20.05833	21.94354	77.88333
<b>DAUPHIN</b>	417	18	18.83105	43
<b>DELAWARE</b>	1,821	17	18.91886	135
<b>ELK</b>	38	22	22.0625	37
<b>ERIE</b>	815	17.4	18.10584	71.36667
<b>FAYETTE</b>	487	22	23.45188	86
<b>FOREST</b>	7	19	19	37
<b>FRANKLIN</b>	91	19	20.42963	44
<b>FULTON</b>	7	37	30.66667	38
<b>GREENE</b>	52	19.5	26.2	108



COUNTY	COUNT OF EMS RESPONSES	MEDIAN OF SCENE TIME	AVERAGE OF SCENE TIME	MAX OF SCENE TIME
HUNTINGDON	52	10	10.62944	28
INDIANA	205	19	20.92926	79
JEFFERSON	46	17.5	17.75	35
JUNIATA	9	7	12.4	27
LACKAWANNA	351	20	20.41754	51
LANCASTER	563	18.18333	20.32604	70.03333
LAWRENCE	369	20	21.07899	66
LEBANON	303	18	20.05451	66.7
LEHIGH	1,318	14	15.37513	48.95
LUZERNE	1,243	16	17.45963	88.15
LYCOMING	340	21	23.30392	65
MCKEAN	28	15	16.8141	28
MERCER	472	18	19.27068	64
MIFFLIN	20	17	16.18182	24
MONROE	298	21	23.35227	140
MONTGOMERY	1,281	17.85833	18.94921	110.7167
MONTOUR	27	20.29167	19.35278	26.35
NORTHAMPTON	607	17	17.81491	48
NORTHUMBERLAND	237	19	20.13267	51
PERRY	14	19	18.57407	35
PHILADELPHIA	8,981	18	19.17177	206
PIKE	38	18	25.6	58
POTTER	*<5	21	16.33333	22
SCHUYLKILL	340	16	17.89386	70
SNYDER	29	19	20.68421	39
SOMERSET	128	20	18.75342	36
SULLIVAN	11	16.58333	19.02778	28
SUSQUEHANNA	63	17	19.815	57
TIOGA	48	15	14.45856	30
UNION	26	20	18.52941	27
VENANGO	111	21	21.93103	42
WARREN	28	14	14.83704	32.41667
WASHINGTON	517	20	21.56088	74
WAYNE	118	19.05833	22.39444	158.55
WESTMORELAND	1,056	20	21.59827	70
WYOMING	75	15.39167	15.59167	29
YORK	537	19	20.12733	51.81667

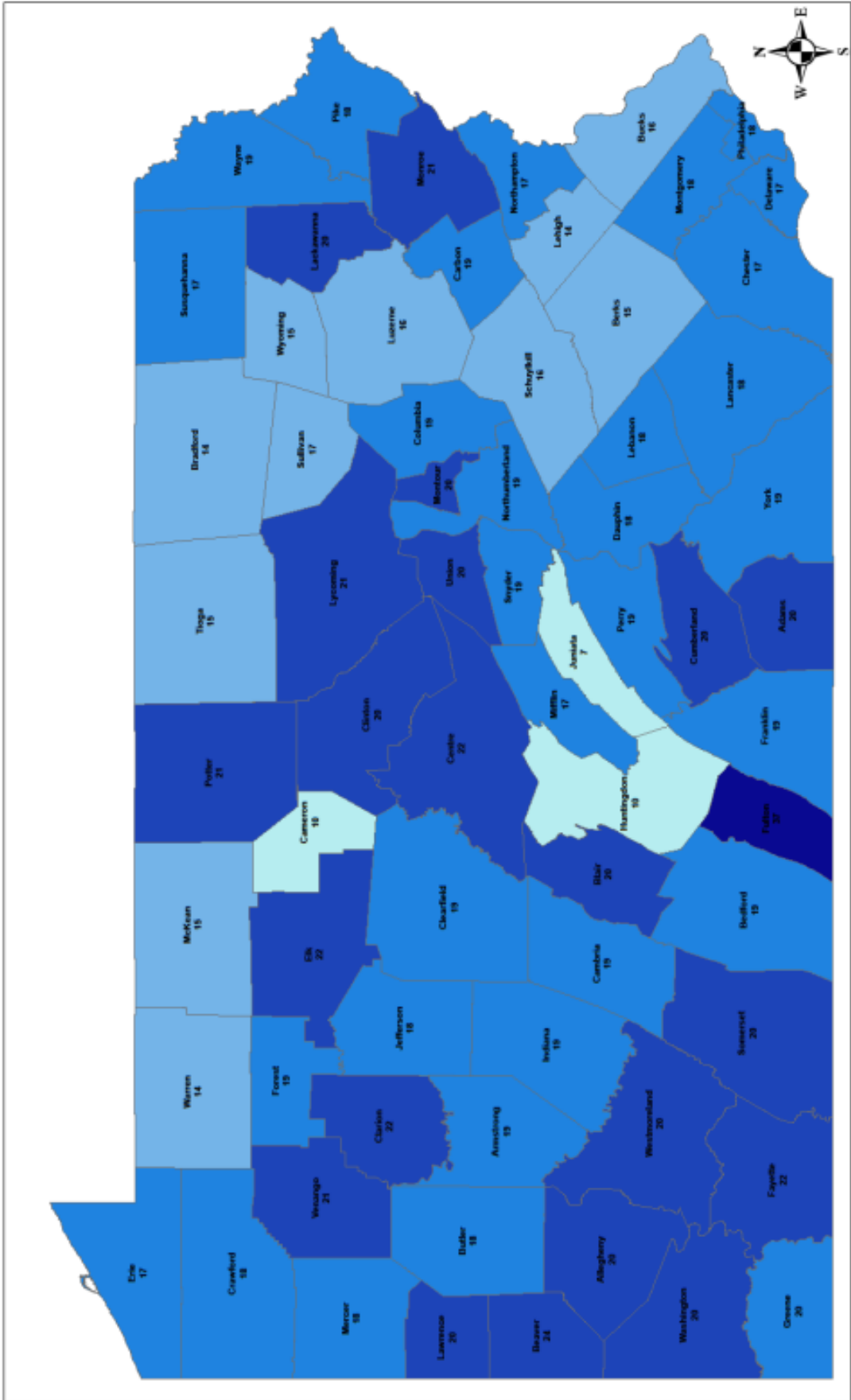
Table 7 Analysis of 911 Scene Times for EMS Patients Whom Naloxone was Administered by DOH Health District

Table 7 displays the same information as table 6 but from a perspective of the Department of Health Districts.

<b>DOH HEALTH DISTRICT</b>	<b>COUNT OF EMS RECORDS</b>	<b>MEDIAN OF SCENE TIME</b>	<b>AVERAGE OF SCENE TIME</b>	<b>MAX OF SCENE TIME</b>
<b>UNKNOWN</b>	539	16	17.2646	51
<b>NORTH CENTRAL</b>	1,021	19	20.39768	65
<b>NORTHEAST</b>	4,398	16.76667	17.7936	158.55
<b>NORTHWEST</b>	2,219	18.13333	19.18916	71.36667
<b>SOUTH CENTRAL</b>	2,129	19	19.90018	77.88333
<b>SOUTHEAST</b>	16,362	17	18.69504	206
<b>SOUTHWEST</b>	7,872	20	21.32364	142

Map 2 on the following page displays in a map form, the median scene time of 911 encounters involving naloxone administration.

# Map 2: Median Scene Time for 911 Naloxone Involved Patient Encounters



## Opioid Epidemic Financial Effects on the Emergency Medical Services System

It is extremely difficult to quantify the financial impacts of the opioid epidemic on the Commonwealth’s EMS agencies. This is in part because each agency’s financial operations, costs, revenues, and budgets all are different. In addition, financial information related to EMS agencies is not reported to the Department of Health. However, there are some approximations that can be made utilizing industry available averages.

### Labor Costs

96 percent of EMS transports, when naloxone is administered is performed by a licensed Advanced Life Support (ALS) ambulance. The minimum required staffing for an ALS ambulance is one paramedic and one EMT. Utilizing the cumulative time on task and the average reported wages for an EMT and a paramedic, we can deduce the approximate labor cost related specifically to opioids. In looking for a source for Pennsylvania specific salary information, we initially consulted publicly available information from the Pennsylvania Department of Labor. However, consistent with federal reporting from the Bureau of Labor and Statistics EMT and paramedic salaries were categorized and reported together. Further research identified a nationwide salary survey with results broken down by state and by certification level. The average reported EMT salary was \$13.75 and the average reported paramedic salary was \$22.21 (EMS Survey Team, 2018). Utilizing those figures, we can calculate an approximate minimum direct labor cost (minimum because an ALS ambulance could have been staffed with two or more paramedics). However, for accuracy based on what is known about industry trends, we utilized the minimum legal crew compliment. Table 8 below estimates that the minimum direct labor cost related to 911 responses resulting in naloxone administration is \$833,451.82.

**NOTE**—This cost does not account for the labor cost of readiness, better articulated as the costs incurred by an organization having an ambulance available and waiting for an emergency call to occur. Nor does it account for any other costs such as vehicle, medications, overhead, etc.

Table 8 Minimum Direct Labor Cost for 911 Naloxone Related EMS Responses 01/01/2018-12/31/2019

<b>CERTIFICATION</b>	<b>HOURLY RATE</b>	<b>CUMULATIVE TIME ON TASK IN HOURS</b>	<b>MIN. LABOR COST</b>
<b>EMT</b>	\$13.75	23,177.192	\$318,686.39
<b>PARAMEDIC</b>	\$22.21	23,177.192	\$514,765.43
<b>TOTAL</b>		46,354.384	\$833,451.82

## Billable Revenues

Emergency medical services agencies typically engage in what is referred to as bundle billing, meaning that the service is billed for utilizing a flat rate, in addition to a separate mileage charge. The exact rate that an EMS agency charges varies from agency to agency. However, in most instances, when a patient has Medicare or Medicaid, the rate that the EMS agency will be reimburses at is capped. Additionally, the licensure level of the EMS unit drives the amount that is both billed and reimbursed.

For EMS transport to overdose stabilization centers to be financially viable, there must be definitive resolution to the issue that insurers have historically not paid for EMS transport to destinations that are not a hospital emergency department when the call for service originates from the 911 system.

Since most patient transports involving naloxone are by Advanced Life Support units, we can estimate the total amount of billable revenues and approximate expenses as a result of patient transports with documented naloxone administration. There were 29,141 documented patient transports with naloxone administration. As it relates to the billed rate, it varies significantly through the Commonwealth ranging from an approximate low of \$600 to a higher value of \$2,000 or higher. For this estimate, a conservative value of \$900 is utilized; as a result, this should be considered a lower bound related to minimum expenses incurred and charges levied. Table 9 estimates billable charges for naloxone related 911 transports.

Table 9 Estimated Billable Revenue for 911 Naloxone Related EMS Responses 01/01/2018-12/31/2019

<b>ALS BILLED RATE</b>	<b>NUMBER OF TRANSPORTS</b>	<b>ESTIMATED CHARGES</b>
<b>\$900</b>	29,141	\$26,226,900

The billed rate attempts to collect the costs that are incurred with providing the service. This includes vehicle costs, administrative overhead, medication costs, equipment costs, facility costs, personnel costs, and the cost to be ready to respond 24 hours a day 7 days a week.

We are unable to project the amount of revenues received due to varying reimbursement policies of the various insurers. However, we can definitively say that based on the lower nonnegotiable rates of both Medicare and Medicaid, and the rate of self-pay/no pay that the cost to provide the service outpaces the reimbursed cost of providing care.

## Conclusion

In order to incentivize and encourage EMS participation with any type of alternate transport or hand-off mechanism related to overdose survivors, it is recommended that such measures not significantly negatively impact EMS transport times, EMS scene times, or cumulative EMS time on task. Additionally, there must be clear consensus that transports to any type of alternate destination, or additional handoff services from the scene be adequately funded.<sup>427</sup>

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<sup>427</sup> The analysis was performed by Mr. Dylan J. Ferguson, Director of the Pennsylvania Department of Health Bureau of Emergency Medical Services, and submitted to the Joint State Government Commission in his personal e-mail on November 20, 2020.