



### The Massachusetts Health Policy Forum







# **Opioids in the Workforce**

Heidi Sulman, MSW, MPH, Doctoral Student and NIAAA Fellow, Institute for Behavioral Health, Schneider Institutes for Health Policy, The Heller School for Social Policy and Management, Brandeis University

Nancy Lane, PhD, Visiting Research Scholar, Institute for Behavioral Health, Schneider Institutes for Health Policy, The Heller School for Social Policy and Management, Brandeis University

Michael Doonan, PhD, Associate Professor, Schneider Institutes for Health Policy, The Heller School for Social Policy and Management, Brandeis University

Constance Horgan, Sc.D., Professor and Director, Institute for Behavioral Health, Schneider Institutes for Health Policy, The Heller School for Social Policy and Management, Brandeis University

Thursday, November 1, 2018 8:00 - 11:40 a.m.

The Colonnade Hotel 120 Huntington Ave Boston, MA

Copyright © 2018. The Massachusetts Health Policy Forum. All rights reserved.



This issue brief is supported in part by RIZE Massachusetts. Blue Cross Blue Shield of Massachusetts is a sustaining funder of The Massachusetts Health Policy Forum. MHPF is a collaboration of the Schneider Institutes for Health Policy at the Heller School for Social Policy and Management, Brandeis University.

### Table of Contents

Acknowled	gments	. 3
Executive S	ummary	4
Introductio	n	8
Ι.	The Problem	. 8
	Employers are concerned, but unsure whether OUD impacts their workforce – or if it is even their responsibility	
	The Cost and Consequences to Employers Opioid use disorder in the Commonwealth Stigma: A Powerful Contributor	12 12
11.	Current employer- and community-level programs and offerings Employee health benefits: what are insurers currently doing? OUD treatment: optimal treatment and views about MAT Provision of OUD treatment in the Commonwealth	13 13
	Removing barriers Comprehensive pain management Employee Assistance Programs (EAPs) Workers' compensation and disability insurance	15 15 15
<i>III.</i>	Innovative employer and industry programs in the Commonwealth: themes for other employers A. Boston Medical Center	17 17
	<ul> <li>B. Fishing Partnership Support Services</li> <li>C. Seafood Sam's</li> <li>D. The New England Carpenters Benefit Fund</li> <li>E. General Electric and the GE Foundation</li> </ul>	20 20
IV.	Recommendations Employee benefits: intervention points and best practices Pharmacy Benefit Managers (PBMs) Cover alternative pain management options	23 23 23
	Identify and treat persons already exposed Medications for Addiction Treatment (MAT) Employee Assistance Programs (EAPs)	24 25 25
	Workers' compensation and disability insurance Additional Employer Interventions Helping employers get started Opportunities for coordinating across the public and private sectors	26 27
Conclusion		
Appendix A	: Conceptualizing the Problem: Exposure, Addiction, Interventions	30
Appendix B	: The Commonwealth's Efforts to Combat the Opioid Epidemic	32
Appendix C	: Interviewees	33
References		35

#### Acknowledgements

We gratefully acknowledge our colleagues and the many people who generously agreed to be interviewed (listed in Appendix C) for this issue brief. We would particularly like to thank RIZE Massachusetts and Julie Burns for their support and leadership on this issue. We extend a special thanks to Leticia Davis at the Massachusetts Department of Public Health, Sarah Wakeman at Massachusetts General Hospital, and Deborah Garnick, Andrew Kolodny, Sharon Reif, and Hillary Richards at the Heller School for Social Policy and Management at Brandeis University, for their thoughtful and comprehensive review of the issue brief. Thank you to the persons from our featured programs: Michael Botticelli from Boston Medical Center, J.J. Bartlett from Fishing Partnership Support Services, Mike Lewis from Seafood Sam's, Jeff Werner from The New England Carpenters Benefit Fund, and Jennifer Edwards and Adam Malinoski from General Electric/the GE Foundation. We thank our moderator, Deborah Becker, and our panelists: Monica Bharel, J.J. Bartlett, Rachael Cooper, David Chamberlain, Jeff Werner, Kate Walsh, and Ken Duckworth. Lastly, thank you to Ashley Osorio from the Heller School for Social Policy and Management at Brandeis University for her invaluable assistance managing this project.

#### **EXECUTIVE SUMMARY**

The opioid epidemic impacts employers, employees, and dependents in the Commonwealth and the nation. Substance use problems, especially related to alcohol, have been a long-standing concern in the workforce. The opioid epidemic has brought addiction concerns in the workforce to the forefront. While the Commonwealth is a leader in its public health approach to the crisis, the issue of opioids in the workplace has not received the attention it demands. This issue brief examines the extent, cost, and consequences of the problem; current employer-provided benefit offerings; innovative interventions from employers/organizations; and best practices and recommendations. Primary themes include employers' uncertainty regarding how to address the opioid epidemic in the workplace; the need for tailored, workforce-specific solutions, promoted by leadership; and the importance of reducing stigma.

#### Extent, Cost, and Consequences

The statewide prevalence of opioid use disorder (OUD) dramatically increased in the past two decades. Although declining in recent years, opioid-related deaths increased over 450% from 1999 to 2016, from 379 to 2,089 confirmed deaths.<sup>1</sup> One estimate of the annual costs of prescription opioid misuse on Commonwealth employers is roughly \$1.7 billion, which was extrapolated from a 2013 CDC study of the national costs of prescription opioid "abuse, dependence, and overdose."<sup>2,3</sup> The actual cost is likely significantly higher, due to difficulty of capturing unseen and indirect costs.

Nationally and in the Commonwealth, the opioid crisis is taking its toll on individuals, families, communities, and employers are starting to feel these effects directly. In addition to raising health care costs, OUD limits employees' availability and reduces worker productivity.<sup>4</sup> Roughly half of prime-age white men who were out of the labor force report chronic pain and daily use of opioid pain medications.<sup>5</sup> The majority of persons with OUDs are full-time employees.<sup>6</sup> The use of prescription opioids may negatively affect the performance of safety-sensitive tasks at work: people using opioids have a significantly increased risk of motor vehicle crashes, unsafe driving activities, and falls.<sup>7,8</sup> The cost of workers' compensation claims is also markedly higher for workers who receive opioid prescription than those who were not prescribed these drugs.<sup>9,10</sup> Fully 37% of non-elderly persons with an OUD are covered by commercial insurance, largely through employer sponsored plans.<sup>11</sup>

Not all employers are impacted equally, and they vary in their awareness of the problem and the programming they provide employees and dependents. Industries and occupations with high rates of work-related injuries are particularly hard hit. Contract employees, a growing part of the economy, may also be differentially impacted; however, little has been written regarding OUD in this population. For example, in the Commonwealth, construction workers had an incidence of opioid-related overdose deaths nearly five times the state average, and agriculture, forestry, fishing and hunting workers had an incidence over four times the state average.<sup>12</sup> Stigma is also a major impediment to identifying and treating OUD and to creating a workplace conducive to

long-term recovery.<sup>13,14,15</sup> Targeted workplace anti-stigma interventions, as well as preventive interventions aimed at limiting workplace injuries and reducing opioid prescribing to injured workers, may lead to improved employee health.<sup>16,17</sup>

#### **Benefits and Treatment**

Most employers purchase and subsidize health benefits for employees and dependents. For OUD, these benefits typically include inpatient, outpatient and rehabilitation treatment programs. Employers report significant concerns about the quality of opioid treatment. Services offered for treatment of OUD include Medications for Addiction Treatment (MAT, traditionally defined as Medication Assisted Treatment), which provides opioid pharmacotherapy (such as buprenorphine/naloxone, extended-release naltrexone, and methadone) to reduce or eliminate cravings and withdrawal symptoms, and more traditional non-medication or "abstinence-based" programs. Scientific evidence strongly supports MAT as an evidence-based treatment for OUD.<sup>18,19</sup> MAT, which is offered in general medical or specialty behavioral health settings, is underutilized nationally and in the Commonwealth.<sup>20,21</sup> The reasons for this likely concern access/capacity issues; a shortage of treatment and workforce capacity; low perceived reimbursement rates; patient experiences; opposition from some labor unions; and stigma and misunderstanding among patients, providers, and employers.

#### Innovative Interventions

In the Commonwealth, some employers/organizations have developed innovative ways to address opioid issues in the workplace. Many employers and health plans removed barriers to treatment, particularly copayments or prior authorization for MAT. Others are using toolkits and working with health plans and providers to increase access to effective treatment. This report highlights five innovative entities, including Boston Medical Center, Fishing Partnership Support Services, Seafood Sam's, General Electric/the GE Foundation, and the New England Carpenters Benefit Fund. While they differ in terms of origins and offerings, common elements include:

- The importance of senior leadership sponsorship and buy-in
- Careful analysis and attention to the unique needs of each workplace
- Attentiveness to the voices and needs of managers, workers and families
- Support for a stigma-free and recovery-friendly workplace
- Willingness to engage with health plans and treatment providers to influence the quality of treatment provided
- Developing programs internally to meet the unique nature of their workforce

#### Best Practices and Recommendations

Increased employer engagement is necessary to address the crisis – and employers need targeted tools and resources do so. Employer-sponsored health plans and ancillary benefits are underused resources. Employers could work more closely with health plans and use de-identified

data to better understand the prevalence and incidence of OUDs among their employees and their dependents. Employers could encourage the greater use of screening and intervention tools for OUD and other co-occurring SUDs and mental health conditions. Employers could work more closely with health plans to limit exposure to opioids and reduce barriers to treatment. Pharmacy benefit managers (PBMs) could be engaged in this process to identify problematic opioid prescribing patterns and encourage appropriate prescribing. Employers could encourage plans to use targeted case management and cover the cost of recovery coaches. They could support the coverage of alternative pain management options, such as acupuncture, chiropractic care, and physical therapy, and encourage the use of exercise and other non-pharmaceutical interventions.

Most importantly, employers could offer benefit designs that minimize or eliminate barriers to treatment, including MAT, which is the gold standard for OUD treatment. Ensuring that MAT is offered as one of a number of treatment options is critical. Employers could work with their health plans to remove prior authorization for OUD treatment, including both the counseling and pharmacotherapy components of MAT; eliminate copayments or placing MAT drugs on the tier with the lowest cost sharing; and eliminate copayments for counseling or adjunctive services associated with MAT.

Employee Assistance Programs (EAPs) are an underutilized resource and have the potential to provide education and evidence-based referrals.<sup>22</sup> Employers can ask their EAPs for tailored programs designed to prevent OUD and direct employees and their dependents needing treatment to providers using evidence-based practices. The involvement of leadership is a key component of increasing utilization of EAPs.<sup>23</sup> Employers could also use targeted, comprehensive disability management interventions aimed at employees receiving workers' compensation or disability insurance, who have an elevated risk of developing an OUD.<sup>24</sup>

Additional interventions employers may consider include:

- Conducting pre-employment screenings and conduct drug tests as they deem appropriate, in coordination with clearly-defined organizational policies and protocol
- Creating a culture in which the entire workforce feels invested in creating a safe, healthy, and drug-free environment<sup>25</sup>
- Educating and training managers and employees in how to safely use and dispose of opioid prescriptions
- Understanding the signs of overdose and OUD and undergoing naloxone training. Some interviewees – particularly those in industries with high rates of fatal opioid overdose, such as construction and fishing, but also, more recently, Blue Cross Blue Shield of Massachusetts – provide naloxone kits and/or training at the workplace.<sup>26</sup>
- Communicating the basics of effective OUD treatment, namely that detoxification alone is not treatment and that community-based treatment is more effective and safer than using potentially low-quality out-of-state, out-of-network treatment centers.

- Creating a recovery-friendly workplace that allows employees to take time off for appointments and support groups, and that reduces stigma for employees returning to work from treatment for OUD and other SUDs.
- Examining their health benefits, EAP programs, and workers compensation insurance to ensure the use of integrated and evidence-based approaches to combatting opioid misuse and OUD. For many individuals, OUD occurs with polysubstance use, and interventions need to incorporate appropriate treatment to meet these needs.<sup>27</sup>
- Using employer toolkits such as those developed by <u>the National Safety Council</u>, <u>Boston Medical Center</u>, <u>Shatterproof</u>, and <u>the Society for Human Resource</u> <u>Management</u> – to better understand and communicate with their employees concerning opioid use and OUD.

#### Conclusion

The opioid epidemic is a public health and economic emergency for the Commonwealth. The crisis affects every aspect of life including the workplace. It is creating workforce shortages, increasing turnover, absenteeism, presenteeism, and costing millions in health care costs. The problem of stigma impedes identification and treatment of the problem. Progress requires effort from all stakeholders, including employers, employees, unions, health plans, providers, and the Commonwealth. The shared goal is prevention and access to effective treatment and recovery. The good news is that there are promising interventions. The opportunity is to build on innovation and coordinate across relevant stakeholders. The challenge will be to evaluate interventions and expand what works to a broader group of employers in coordination with health plans, providers and state public health efforts.

#### INTRODUCTION

The cost and consequences of the opioid epidemic on individuals, families, communities and the Commonwealth are devastating. This issue brief focuses on the impact of this crisis on employers, employees, and dependents. While the Commonwealth is a national leader in its public health approach to the crisis, the issue of opioids in the workplace remains less articulated with fewer coordinated interventions. This issue brief focuses on (1) the extent of the problem, including costs, consequences, and the differential impact on particular industries; (2) current employer- and community-level programs and offerings; (3) five innovative employer- or industry-specific programs in the Commonwealth; and (4) best practices and recommendations.

The brief was developed to explore the issues affecting and the opportunities available for employers in the opioid epidemic. We reviewed the available employer-specific literature and conducted 38 purposive, semi-structured interviews. Interviewees were selected from seven general groups representing employee and industry groups, academics and other researchers, benefits managers, insurers and health plans, providers, advocates, and government leaders. Primary themes included employers' uncertainty regarding how to address the opioid epidemic in the workplace; the need for tailored, workforce-specific solutions, promoted by leadership; and the prevalence of stigma, both regarding substance use disorders (SUDs) and the use of Medications for Addiction Treatment (MAT, traditionally defined as Medication Assisted Treatment).

Of note, in the time this issue brief was researched and written in mid-2018, attention to issues of employers increased in a number of new areas. These include new reports and approaches, employer toolkits, and conferences and meetings concerning work and opioid use disorder (OUD). The growing openness to discuss these issues, coupled with the continuing efforts of forward-thinking government officials and private sector leaders, creates optimism for the future.

#### I. The Problem

## Employers are concerned, but unsure whether OUD impacts their workforce – or if it is even their responsibility

Several interviewees stated that employers are concerned about OUD in the workforce. Employers' awareness has also increased as public attention is drawn to opioid-related issues through reports, public health campaigns, media coverage, and the voices of impacted families. (Please refer to Appendix 1 for a conceptual understanding of OUD in the workforce.)

The opioid epidemic significantly limits the number of people able to work. Krueger (2017) found that 50% of prime-age white men who were out of the labor force report chronic pain and daily use of opioid pain medications. In fact, workers age 55-64 have the highest rate of opioid prescriptions, at 22%.<sup>28</sup> This is an important issue when the Commonwealth's unemployment rate was a mere 3.5% in June 2018, and employers are left with a limited pool of potential

employees.<sup>29</sup> Additionally, many workers – particularly those in occupations with low job security and availability of paid sick leave – report working while in pain, which may increase opioid use and misuse.<sup>30</sup> Unsurprisingly, the National Safety Council found that 70% of national employers have experienced negative consequences due to prescription opioid misuse, including absenteeism or missed work, employees' use of prescription pain relievers at work, positive drug tests, impaired or decreased job performance, effect on dependents, complaints to human resources or reduced employee morale, near misses or injuries, borrowing or selling prescription drugs at work, arrests, and overdoses.<sup>31</sup>

However, employers remain largely disconnected from the Commonwealth's efforts to combat OUD, and it is unclear whether this stems from uncertainty concerning what they can do or that it is not their responsibility. Until recently, the perceived financial impact related to opioids has been relatively small, and many employers generally focused on keeping addicted employees out of their workforces. However, the breadth of the epidemic forced many employers to reconsider this, as the available workforce will almost certainly include workers or their dependents with OUD. In other areas, workforce shortages – perpetuated in part by increasing numbers of opioid prescriptions – pushed employers to find ways to help workers remain in the workforce, including through treatment for addictions and then recovery supports.<sup>32</sup>

Of course, individual employers vary widely in their awareness of opioid use and addiction issues within their workforce. A behavioral health executive noted that the employers who approached his company's EAP regarding opioids became engaged either because their employees underwent drug screenings or they were in safety-sensitive occupations. Employers also vary in the programming they provide employees and dependents, and in their acceptance of evidence-based treatment offerings. This disparity is particularly evident in high-hazard industries, such as the construction and fishing trades industries among the most hard-hit by the opioid epidemic, as shown by a 2018 Massachusetts Department of Public Health report on opioid-related overdoses. As shown in Figure 1 (below), the report found that workers in five industries had significantly higher rates of opioid-related overdose deaths than the state average of 25.1 workers per 100,000: construction (124.9); agriculture, forestry, fishing and hunting (107.5); transportation and warehousing (48.3); administrative and support and waste management services (43.1); and accommodation and food services (36.5).<sup>33</sup> Interviewees reported being unsurprised by these findings, noting that they largely consist of persons doing physically-demanding jobs marked by high degrees of injury and stress.



Figure 1: Industry sectors with opioid-related overdose death rates significantly higher than the average rate for all workers in the Commonwealth, 2011-2015 (Massachusetts Department of Public Health, 2018)

#### The Cost and Consequences to Employers

Employers whose employees have OUDs use far more healthcare resources and experience far higher levels of annual work loss costs.<sup>34</sup> The annual impact of prescription opioid misuse in the Commonwealth is estimated at roughly \$1.7 billion, <sup>35</sup> based on a 2013 CDC study that provided a national cost of \$78.5 billion from "opioid abuse, dependence, and overdose." Nationwide, the study attributed nearly 37% of costs to increased health care and SUD treatment; nearly 10% to criminal justice; and 53% to lost productivity, both fatal and non-fatal.<sup>36</sup> Of note, the study includes costs solely due to prescription opioid misuse and does not account for those related to heroin or fentanyl. While there are a range of cost estimates, depending on the assumptions and methodology used, nearly all agree that the actual cost in 2018 is likely far higher – particularly when considering additional societal costs, such as the increased burden on the foster care system, first responders, and families and caregivers.

Other studies confirm that employers are facing increased healthcare claims costs. As shown in Figure 2 (below), the cost of prescription opioids in large employer health plans has declined in recent years, going from \$1.9 billion in 2009 to \$1.4 billion in 2016. This may represent an effect of early policies to encourage more cautious opioid prescribing. However, costs related to OUD and overdose treatment have significantly increased in that time. As illustrated by Figure 3

(below), large employer plans alone spent \$2.6 billion on OUD-related costs in 2016 - an increase of nearly \$2 billion, or 307%, since 2009.<sup>37</sup>

Figure 2: Total cost of opioid prescriptions among enrollees in large employer plans, in millions, 2004-2016 (Cox, Rae, & Sawyer, 2018)







The way in which opioids are prescribed is also important. Physiological dependence on prescription opioids can emerge mere days after beginning a regimen of prescription opioids, with the probability of long-term use increasing with duration.<sup>38</sup> In 2011 in the Commonwealth, roughly 20% of the 1.1 million individuals receiving new opioid prescriptions had a prescription lasting over three months – and a fourfold likelihood of dying of an opioid-related overdose within one year.<sup>39</sup> The use of prescription opioids may negatively affect the performance of safety-sensitive tasks at work: people using opioids have a risk of motor vehicle crashes 1.7 to 8.2 times that of non-opioid users, 2.8 times the risk of unsafe driving activities, and a significantly increased risk of falls.<sup>40,41</sup> The cost of workers' compensation claims is also markedly higher for workers who receive opioid prescription than those who were not prescribed these drugs.<sup>42,43</sup> Additionally, workers who are injured on the job are frequently prescribed opioids – and may be at risk for developing OUDs.<sup>44</sup>

One study from the Workers Compensation Research Institute (WCRI) found that workers' compensation claims for workers who received an opioid prescription for non-surgical pain were over three times higher than similar claimants not prescribed opioids – and nearly four times as likely to cost over \$100,000 if those workers received long-acting opioids.<sup>45</sup> In addition to increased costs, a 2018 WCRI study showed that the duration of temporary disability was longer for low back injuries as opioid prescribing increased, and that local prescribing patterns played a strong role. Specifically, the researchers used regional prescribing variations to avoid potential confounding due to differences in individual worker characteristics, their injuries, and their providers. They found that long-term opioid prescriptions were associated with triple the length of temporary disability when compared to no prescriptions. Low-dose prescriptions for short time periods had no association with the duration of temporary disability.<sup>46</sup>

#### Opioid use disorder in the Commonwealth

The statewide prevalence of OUD has increased dramatically in the past two decades, with opioid-related deaths increasing over 450% from 2000 to 2016, from 379 to 2,089 confirmed deaths.<sup>47</sup> In the Commonwealth, an estimated 4.4% of the population – approximately 300,000 individuals – currently has an OUD. As of 2016, the Commonwealth had the eighth-highest rate of age- adjusted opioid overdose deaths in the nation, at 33 deaths per 100,000 people – a 200% increase from 2010.<sup>48</sup> Additionally, opioid-related hospital discharges in the Commonwealth increased 84% from 2007 to 2015, with heroin-related discharges increasing 201%.<sup>49</sup> However, opioid-related overdose deaths have declined in recent years. Estimated and confirmed deaths<sup>1</sup> in the Commonwealth decreased 4% from 2016 to 2017, and 2018 data shows a similar decline.<sup>50</sup>

While the epidemic disproportionately affects males, persons between 25-34, and low-income communities, it spans all age and socioeconomic groups.<sup>51</sup> In fact, a recent survey conducted by Blue Cross Blue Shield of Massachusetts (BCBSMA) found that over half of Commonwealth residents know someone struggling with OUD, and nearly 25% know someone who died from an overdose.<sup>52</sup>

Interviewees stated that employers mistakenly believe that OUD has a small impact on the employed population and their dependents. In fact, in 2016, national data shows that roughly 55% of persons with OUD were employed full-time, and 37% of non-elderly persons with an OUD were covered by commercial insurance.<sup>53</sup>

#### Stigma: A Powerful Contributor

An entrepreneur and SUD advocate said that stigma surrounding SUD is a significant driver of costs and employee health outcomes. Stigma and shame underlie any conceptualization of OUDs

<sup>&</sup>lt;sup>1</sup> The Massachusetts Department of Public Health estimates opioid-related using information from the death certificate, Medical Examiner's notes, and the determination by the State Police of a suspected heroin death. (https://www.mass.gov/files/documents/2018/05/22/Opioid-

related%20Overdose%20Deaths%20among%20MA%20Residents%20-%20May%202018.pdf)

and other SUDs and behavioral health disorders. Stigma plays a powerful role in the hesitancy to recognize and treat any of these conditions. Interviewees from all of the groups interviewed consistently cited stigma as a significant factor in addressing OUD. Specifically, stigma impacts employers' recognition of SUDs in the workplace, limits the efficacy of SUD prevention efforts, and contributes to lower employee utilization of EAP services and evidence-based treatment. Studies suggest that stigma is a primary factor in employees' delaying SUD treatment until symptoms significantly impact their daily functioning.<sup>54,55,56</sup> Targeted workplace anti-stigma interventions may lead to both improved employee health and SUD benefits utilization but also a potential return on investment.<sup>57</sup>

#### II. Current employer- and community-level programs and offerings

Most employers purchase and subsidize health benefits for employees and dependents, making them interested parties in the treatments provided and the outcomes achieved. For OUD, these benefits typically include inpatient, outpatient and rehabilitation treatment programs, and coverage of opioid pharmacotherapy drugs. EAPs also offer complementary health and wellness benefits and can play an important role in prevention and education.

#### Employee health benefits: what are insurers currently doing?

Employers consistently report feeling concerned about poor-quality OUD treatment. One large national insurer limits its networks only to those providers it identifies as high-quality. Another large insurer in the Commonwealth recommends that its clients select Exclusive Provider Organizations (EPOs) rather than Preferred Provider Organizations (PPOs) to limit the utilization of low-quality out-of-network treatment. However, EPOs are also typically less expensive than plans with out-of-network benefits, and employers selecting EPOs are unlikely to do so solely to better manage SUD treatment. Moreover, some interviewees cautioned that EPO selection could have the adverse effect of reducing access to OUD care. Among persons with commercial insurance, out-of-network provider use is more likely in behavioral healthcare than in general medical care, which may be due to beliefs concerning provider quality or a desire to continue care with a previously-known provider.<sup>58</sup>

#### OUD treatment: optimal treatment and views about MAT

Services offered for treatment of opioid misuse include MAT, which provides opioid pharmacotherapy (such as buprenorphine/naloxone, methadone, and extended-release naltrexone) to reduce or eliminate cravings and withdrawal symptoms, and more traditional non-medication or "abstinence-based" programs. Patients on MAT can often benefit from individualized psychosocial supports, such as counseling, recovery coaching, and behavioral health services.<sup>59</sup> Scientific evidence strongly supports the use of MAT to treat OUD.<sup>60,61</sup> MAT also lowers the risk of common comorbidities, such as AIDS, overdose, and hepatitis C.<sup>62</sup> However, while evidence supports its efficacy, stigma about MAT persists among patients, clinicians, and advocates, with many patients and clinicians believing that non-medication treatment is superior. In addition to stigma concerning the use of medication, there remains

misunderstanding within the recovery community about the goal of medication treatment. Rather than seeing it as similar to medication treatments for other illnesses such as diabetes or hypertension, where treatment planning and duration are determined by patients and their physicians, many people continue to hold strong opinions about the use and duration of MAT.

Most experts agree that MAT should be the treatment of choice, while also covering other treatment options as appropriate. The majority of interviewees expressed at least some support for non-medication or "abstinence-based" treatment. This philosophical difference remains a central issue for employers and patients; it may also reflect a desire to ensure that employees have access to the treatment that best meets their individual needs. As one SUD recovery advocate stressed, it is important that people have access to all forms of treatment – including but not limited to MAT – "at the right time and at the right level of care."

In some cases, treatment for opioid dependence can also be initiated and potentially administered within pain management programs, which may be less stigmatizing for patients who may not otherwise be identified as having OUD. Insurers, policymakers and providers all mentioned the need for better pain management training. The Commonwealth has committed to building a phone consultation service for primary care providers seeking assistance in managing their patients' pain.

Additionally, insurers can elect to utilize add-on pain management programs, which assist in identifying patients and prescribers with problematic levels of opioid use and intervening to develop alternative pain management plans.

#### Provision of OUD treatment in the Commonwealth

OUD treatment occurs in both the general medical and specialty sectors. Buprenorphine, the most widely-used MAT drug as of 2015, can be provided by physicians, nurse practitioners, and physician assistants who have completed the Drug Enforcement Agency (DEA) requirements to prescribe.<sup>63,64</sup> The other MAT drugs have different requirements: naltrexone does not require a DEA waiver, and methadone can only be provided in federally certified Opioid Treatment Programs.

Treatment also occurs within publicly- and privately-funded SUD treatment providers, which are licensed and overseen by the Bureau of Substance Addiction Services (BSAS). Operational licensed program capacity has grown exponentially since 2015, and BSAS anticipates further expansion, especially in residential and MAT capacity.<sup>65</sup> MAT providers such as Column Health and Clean Slate have recently entered the local market, with targeted programs and wider access to treatment. However, even with these additions, multiple interviewees noted an ongoing shortage of treatment and workforce capacity, with reimbursement rates for both institutions and providers also seen as insufficient.

Additionally, treatment programs are increasingly adding recovery coaches, health navigators, and other supportive services specifically designed to increase continuity of treatment and

engagement with the recovery community. The Commonwealth is currently developing standards for Peer Recovery Coaches to ensure they are being used appropriately.<sup>66</sup>

#### **Removing barriers**

Many employers and health plans in the Commonwealth have removed barriers to treatment, particularly copayments or prior authorization for MAT. One health plan executive said, "We've removed about any barrier for MAT we possibly can. We contract with every bed we can in Massachusetts - and the number of beds has gone up exponentially in recent years, because of Chapter 258" [a 2014 state law prohibiting insurers from applying Utilization Management during the first 14 days of acute SUD treatment from any provider certified by the Massachusetts Department of Public Health<sup>67</sup>].

Some health plans encourage providers and patients to utilize MAT.<sup>68</sup> However, MAT remains underutilized nationally and in the Commonwealth.<sup>69,70</sup> According to interviewees, the reasons for this are multifaceted and likely concern access/capacity issues; SUD workforce shortages; patient experiences; opposition from some labor unions; and stigma and misunderstanding among patients, providers, and employers.

#### Comprehensive pain management

Comprehensive pain management and lessening exposure to opioids could help prevent the progression from use to addiction. The rate of opioid prescribing in persons covered by large employer health plans has declined 21% since 2009, to an overall rate of 13.6%.<sup>71</sup> This decline is particularly marked among people with musculoskeletal conditions, injuries, and obstetrical complications. Of note, reductions in opioid prescribing have been facilitated by prescription drug monitoring programs (PDMPs), state-based websites tracking the prescribing and dispensing of controlled substances. PDMPs are particularly effective in targeting high-risk prescribers.<sup>72</sup>

#### Employee Assistance Programs (EAPs)

EAPs are employer-based programs designed to address issues that may impact employees' wellbeing or productivity, such as mental health, substance use, and legal or financial concerns. The majority of large employers provide an EAP benefit, with offerings increasing by employer size.<sup>73</sup> Common elements of an EAP include short-term telephonic counseling; referrals to mental health and SUD providers; legal, financial, and other resources; and management training.

According to a toolkit developed by the National Safety Council, each dollar spent on EAPs results in a return on investment of between \$1.49 and \$13.<sup>74</sup> However, EAPs are often underutilized; studies show an average use of between 3% to 4% of employees.<sup>75</sup> Reasons for low use may include employees being unaware of the EAP and its offerings or fearing negative consequences or a breach of confidentiality.

As benefits typically available to all employees – not just those covered by employer-sponsored health insurance – EAPs have the potential to provide education and evidence-based referrals. EAPs may be particularly important for employers with a large portion of temporary or contract employees, who are less likely to receive employer-sponsored health insurance. However, while contract employees are a growing part of the economy, little has been written regarding OUD in this population. However, while EAPs were often formerly offered on-site, off-site EAPs now predominate in all but a few larger companies or specialized settings. As a result, they are often poorly integrated with other benefit offerings, Human Resources functions, and return-to work or disability management efforts. Moreover, EAPs have largely failed to address OUD. According to an EAP specialist, "[EAPs] don't want to get into touchy subjects. It's better to do superficial wellness, rather than necessarily upsetting the apple cart."

#### Workers' compensation and disability insurance

In August 2018, the Commonwealth's review of the prevalence and severity of opioid use by industry suggested that attention to injured workers - including comprehensive pain management, support, and monitoring for early return to work - is effective in decreasing the likelihood of developing an SUD that may lead to long-term disability and exit from the work force. Indeed, the Commonwealth is among the states in which longer-term opioid dispensing for non-surgical workers compensation claims decreased (2%) from 2010-2012 to 2013-2015; the average amount of opioids per claims decreased (20-30%) during this period as well.<sup>76</sup> (However, even after the dosage reductions, the Commonwealth still ranked 5<sup>th</sup> of the 26<sup>th</sup> states analyzed for average highest morphine equivalent amount per claim involving opioids.) An interviewee attributed these reductions to the use of PDMPs and chronic pain prescribing guidelines issued by the Massachusetts Department of Industrial Accidents and Continuing Medical Education.

Comprehensive disability management programs following work-related injury have been shown to successfully decrease opioid use, reduce disability, and facilitate return to work.<sup>77,78</sup> One such example is the Opioid Alternative Treatment Pathway (OATP) pilot project launched in 2017 by the Department of Industrial Accidents, which oversees the Commonwealth's workers' compensation system. The voluntary program targets people with a workers' compensation settlement who are being treated with opioids, and whose insurers seek to discontinue opioid use - a process that currently takes an average of one year to be resolved. In the OATP, injured workers are assigned to a nurse care coordinator within 30 days. Participants engage in a process to reduce or end their opioid use and find an alternative pain management strategy.<sup>79</sup>

#### Laws concerning SUD

According to the Americans with Disabilities Act and Chapter 151B, the Commonwealth's nondiscrimination law, SUD is a recognized disability. As such, employers cannot discriminate against an employee who is in recovery and can perform his or her job with a reasonable accommodation. As per a Commonwealth employment law attorney, such "reasonable accommodations" might include allowing an employee to take MAT drugs, attend support group meetings, or take a leave of absence to attain treatment. Likewise, a history of SUD (with or without treatment) cannot be used as grounds for terminating an employee or reducing an employee's job responsibilities. However, the attorney also noted that employers can discipline at-will employees for illegal substance use, regardless of whether it affects the employee at work. Additionally, the attorney stressed that each situation is fact-specific in terms of determining whether an employer can legitimately discipline an employee for past or current substance use.

# III. Innovative employer and industry programs in the Commonwealth: themes for other employers

The following section highlights five promising programs in Massachusetts: Boston Medical Center, Fishing Partnership Support Services, Seafood Sam's, The New England Carpenters Benefit Fund, and General Electric/the GE Foundation. While differing in approach, they contain common elements: (1) strong leadership support; (2) an anti-stigma component; (3) a tailored, specific understanding of the work and issues within the organization or profession, developed internally; and (4) aimed at the human dilemmas of addiction and the complicated business of recovery.

#### A. Boston Medical Center

#### It starts with leadership and analysis.

In 2017, Boston Medical Center (BMC), long a leader in addiction treatment, launched the Grayken Center for Addiction. As they began a strategic planning process for the Center, Kate Walsh, President and CEO of BMC, took a stand that the Center focus not only on patients with addiction issues, but on the community of BMC employees and their families. With this decision as a starting point, work began throughout BMC to articulate the issues facing the organization and how they might be addressed. In the following, we reference BMC, as it includes the Grayken Center.

#### These included:

**Raising awareness.** Their first activity was to raise awareness through people telling their personal stories of the impact of opioid addiction. They had panel presentations, and gathered 10-word stories and videos from employees throughout the organization. They constructed a voluntary pledge regarding the elimination of stigmatizing language. These activities begin to reduce stigma and create a sense of community around difficult issues.

**Analyzing the economic burden of substance use disorders and benefit utilization.** BMC used the National Safety Council Calculator to estimate the financial burden on their organization from substance use. They reviewed their health benefits and talked with their EAP vendor. They discovered that utilization of both EAP and the behavioral health benefits was surprisingly low, especially for a work force often reported to have a higher prevalence of SUDs.<sup>80</sup>

Understanding the impact of mental health/substance use disorders and utilization of benefits. To better understand low utilization of benefits, they conducted an anonymous employee survey, asking about the impact of mental health and SUDs in their own lives and families. They wanted to get a better understanding of benefit use and satisfaction. One of the findings indicated that BMC employees did not know enough about the available benefits and how they could be accessed

**Putting data into action.** Based on the survey results, BMC developed a benefit guide to behavioral health benefits. They also increased promotion of EAP availability, putting information on screensavers. Focus group discussions identified the need to provide enhanced training for managers around the issues of substance use and the workplace.

**Developing a toolkit.** This process also led to the development of a toolkit and Employer Resource Library (bmc.org/library), which has been released to the public. It was developed in parallel to the internal BMC program and included input from numerous employers. The toolkit provides a framework for employers to use if they choose to develop a comprehensive and stepwise approach to addiction. It is organized into five sections: 1) Assessing and engaging the organization; 2) Empowering and educating managers; 3) Supporting and encouraging employees; 4) Developing policies and practices; and (5) National and local resources.

Senior leadership's commitment and internal and external focus made these initiatives possible. While top down leadership is vital, the actions and directions were determined in large part by information from the employees themselves.

#### B. Fishing Partnership Support Services

#### An industry and its workers provide integrated prevention and support for recovery.

Fishing Partnership Support Services is non-profit, founded in 1997, as an affiliation organization offering group health insurance to fishermen and their families in Massachusetts. As insurance became available through Massachusetts reforms and the Affordable Care Act, the Partnership changed its focus and now serves as a comprehensive support service for fishermen. Their services include health care and insurance navigation, family services, and safety and survival training.

Fishing is one of the most dangerous occupations in the state, and the prevalence of opioid use is high. The Massachusetts Department of Public Health reports that workers in the farming, fishing and forestry occupation group (74% of whom are fishermen) have a rate of opioid overdose death rate of 143.9 per 100,000 workers, over five times the average rate for state workers.<sup>81</sup> Fishermen and their families face challenges associated with how the industry is

structured and operates. The Partnership's programs and services are tailored to these unique needs.

Fishing Partnership Support Services' integrated set of programs offers a comprehensive approach to addressing the opioid epidemic. This includes a focus on prevention and efforts to identify problems and promote access to treatment. Specifics include:

- **Safety training**. Fishing is difficult physical work and the rate of injury and incidental death is high. OSHA regulations do not apply to off-shore operations. The Partnership offers safety training designed to lessen injuries and death. Over 4,000 fishermen have participated in these trainings.
- Fishing Partnership Navigators. The Fishing Partnership's seven navigators are at the heart of the community programs it offers. As spouses and partners of fishermen, their shared experiences and specialized training help assure that important messages and services are delivered by familiar, trusted individuals. Many of these services are delivered in person, on boats and at the harbor. They include such things as ergonomic training to help with injury prevention and pain management and health screenings and immunizations delivered at the harbor. Navigators also work to promote enrollment in health insurance programs.
- **Opioid awareness program**. Stigma surrounding substance use of any kind is strong in the fishing community, due, in part, to stereotypes often applied to the industry. Working with behavioral health providers, the Partnership developed and offers opioid awareness training to fishermen, with special focus on boat owners and captains.
- Naloxone training. A second step in opioid awareness training is naloxone training. Overdoses happen on boats far away from help. Naloxone availability can prevent deaths. Naloxone is now available on over 80 boats.
- **Community and family outreach**. Navigators ride with police on follow-up calls to those who have overdosed. They provide information and referral support. This is very valuable for fishermen's families whose dependents need help in accessing treatment and recovery services. Navigators also provide trauma support for families of fishermen who are hurt or who die.
- **Opioid treatment tailored to meet the needs of fishermen**. The Fishing Partnership worked with several behavioral health providers as they developed and now offer SUD treatment tailored to the working situation of offshore fishermen.

Taken together, this set of services offers the fishing industry and its participants the tools needed to prevent opioid exposure and addiction through training and education; obtain health insurance and treatment at specialized providers; and support recovery through recovery coaching by navigators.

#### C. Seafood Sam's

#### Hands on and personal

Michael Lewis, President of Seafood Sam's Falmouth, Inc., is an outspoken advocate for people in recovery. He openly discusses his own experiences with alcohol and drug addiction, recovery, and then subsequent addiction to opioids following an injury for which he was prescribed opioids, followed by his second recovery.

Significant elements of the approach used at Seafood Sam's include:

**Opportunity for those in recovery.** Lewis is a leader in promoting recovery and reintegration into the community for young persons in recovery from SUDs in Southeastern Massachusetts. He hires persons in early recovery (around 1/5 of the approximately 125 employees at Seafood Sam's are in recovery from SUDs) and supports them in working on their recovery plans. The business does not do routine drug testing, as employees are most likely tested at their treatment providers, and CORI checks are not standard practice.

**Personal experience and understanding.** Lewis uses his own experiences as the framework for understanding what it is to be a young person in early recovery. He observes employees in order to identify signs of relapse or unnamed stresses or problems. They are held accountable for following their recovery plans, and scheduling is adapted to accommodate this. He understands that young people in this situation often have low self-esteem and lack life skills, and opportunities and a supportive environment in which to resolve these issues are provided.

**Employer support.** Lewis supports both MAT and non-medication or "abstinence-based" treatment, seeing places for both types of programs. He is especially supportive of the use of recovery coaches and also sees the need for more education of physicians and other health providers in both addiction and pain management.

**Providing longer-term employment and engagement for better outcomes.** Due to the seasonal nature of the business (Seafood Sam's is closed three months per year), employee turnover is common, though the average length of employment is approximately five years. During that time, Lewis helps employees navigate the challenges of work, school, family and other issues of young adulthood.

#### D. The New England Carpenters Benefit Fund

#### Discovering and encouraging the best treatments for carpenters.

The New England Carpenters Benefit Fund (NECBF, or "New England Carpenters"), which offers self-insured health benefits administered by Blue Cross Blue Shield of Massachusetts to its roughly 22,000 members and retirees, wanted to address the elevated rate of opioid use and SUDs among carpenters.<sup>82</sup> In reviewing their claims data, they found that the prevalence of behavioral health and SUDs for carpenters was one standard deviation above the Blue Cross Blue Shield of Massachusetts population norm. The steps they have taken include the following:

<u>Reducing low quality out-of-network utilization & costs.</u> In 2016, New England Carpenters recognized that it was spending "outrageous amounts" on out-of-state, out-of-network SUD providers, and their employees were most likely not receiving quality effective care. NECBF found pervasive problems with these providers, from low-quality care with little care coordination to the provision of no care at all. New England Carpenters began immediately notifying out-of-network facilities and families that benefits and reimbursement for care in these settings would be limited. As administrators of the health benefits, they also worked with members and their families, encouraging them to seek care at an in-network community treatment provider.

Increased access to care. New England Carpenters also spent considerable time ensuring that members had easy access to care with local in-network SUD providers. NECBF worked with BCBSMA to emphasize that care is available when carpenters and their families call for help and to expedite prior authorization for in-network SUD care. It also partnered with the Gavin Foundation, a Quincy-based recovery home provider, to create a new "Extended Services" level of care. The Extended Services model is flexible and offers an additional 90 days of recovery home services at one of the Gavin Foundation's residences to Fund members who have completed detoxification and (typically) one week of inpatient care. Members are able to return to work while receiving care at Gavin Foundation. Members are tracked after discharge and contacted every six months to determine whether they remain in recovery. NECBF also partners with Gosnold to provide recovery homes in its network.

<u>Continuing care.</u> New England Carpenters continues to provide support after members are discharged. Its Carpenters Assistance Program, an in-house EAP program staffed by two journeymen carpenters in recovery, provides hands-on, tailored services to fellow carpenters. New England Carpenters has also developed a multi-pronged communications strategy to educate carpenters, families, stewards, and employers about addiction as a disease and to build awareness of the resources available through NECBF. Key to this strategy are messages that educate and offer hope and help.

From these efforts, the New England Carpenters have achieved notable results: approximately 25 to 30 members have successfully completed the Extended Services program, and there has been a significant decrease in costs for out-of-network, out-of-state SUD care in the past several years. While NECBF's out-of-network spending averaged approximately \$1.7 million per year in the 24-month period from 7/1/2013 to 6/30/2015, spending decreased to \$661,000 in 2016 and to \$447,000 in 2017.

#### E. General Electric and the GE Foundation

#### A big company educates, listens, and responds to employees.

The GE Foundation – the charitable arm of General Electric (GE), one of the largest employers in Massachusetts and the nation, announced a \$15 million, multi-year commitment to expand access to treatment for people impacted by addiction across the Commonwealth of Massachusetts. Initiatives are focused on human capacity building to better integrate evidencebased medication treatment for substance use disorder into primary care practices while reducing the barriers to entrance by addressing the stigma associated with this disease. While GE Foundation is investing in the opioid crisis in the community where GE operates, GE Company is also focusing inward to support employees and family members who may be struggling with SUDs.

**Employees Raising Awareness**: Teams of employees developed educational and awareness events which ran at the GE Aviation Lynn site during Recovery Month (September) and Mental Health Month (May). The Lynn events provided both a broad overview of the opioid crisis and targeted information focused on what workers need to know as employees, parents, or people with lived experience.

These events created an environment empowering people to share their own, often stigmatized stories. Employees even mobilized and launched an SUD support group, which met on-site and was led by employees with the assistance from the onsite EAP. These events and initiatives can be, in part, attributed to GE s efforts as an employer to address the stigma around SUDs, and to employees' recognition that the company clearly supports the Foundation's efforts to combat the opioid crisis.

A toolkit was developed and shared with other sites interested in replicating similar events.

**Solutions to educate managers and employees.** GE also launched a larger initiative called Shatterproof Addiction Wellness at Work, using a customized online learning module from Shatterproof. This module provides confidential access to resources including information about the epidemic, recognizing addiction, evidence-based care, myths, and the scientific understanding of SUDs as medical illnesses. The toolkit is currently available only to certain business units, but GE plans to make it available company-wide.

According to a GE Manager, people report that the information provided helps them think of addiction as a disease and not just as a moral failing. This is due, in part, to the non-judgmental way in which the information is presented, with a lot of facts. It is also noted that the materials focus on evidence-based care and what will be most helpful to people in recovery.

**Expanding access through GE Benefit changes**. Additionally, GE removed copayments for MAT drugs to increase access to the evidence-based treatment. GE's benefits also fully cover treatment at its outpatient and residential SUD Centers of Excellence (COEs), all of which offer

opioid pharmacotherapy. GE actively promotes its COEs, investing in direct promotion and mail, email, and in-person marketing at annual enrollment. GE's concierge program, Health Coach from GE, which provides free healthcare-related guidance to employees, also refers employees to the COEs as applicable. Also, GE's broader global wellness programs focus on mindfulness, nutrition, stress, resilience, and the EAP (which it heavily promotes) which has helped to create a culture of openness to mental health and SUD-related concerns.

As a large international company, with over 300,000 employees at hundreds of locations around the world, GE's challenges include how to better scale up their strong localized programs. As an employer with national and international reach, their efforts and successes can help influence other companies become more active in approaching opioid issues.

#### IV. Recommendations

Employers can address the opioid epidemic by turning to different types of interventions, which include designing their employee benefits to reduce exposure to opioids and limit barriers to treatment; covering alternative pain management options; identifying and treating persons with OUD; developing tailored EAP, workers' compensation, and disability offerings; providing employee and manager education; combatting stigma; and integrating benefits and programs. Such efforts are described below.

#### Employee benefits: intervention points and best practices

Our research indicates that increased employer engagement is necessary to address the crisis – and that employers need targeted tools and resources do so. A primary and underutilized point of employer intervention exists via employer-sponsored health plans and ancillary benefits. The following section provides recommendations for structuring employee benefits to better prevent and combat OUD.

Employers deserve to know how their dollars are used, and they frequently request certain elements in their health plan offerings. These can include requirements that health plans develop specialized networks, or actively intervene to assure that providers adhere to quality standards.

To address the impact of OUD in their workforce, employers can request de-identified data regarding the prevalence and incidence of OUDs and long-term opioid use. This is not prohibited by HIPAA regulations, which protect the privacy of individual health records. Employers should also request that their health plans use that data to both encourage cautious prescribing of opioids and limit barriers to treatment.

#### Pharmacy Benefit Managers (PBMs)

Employers can turn to PBMs as a strong partner in implementing interventions to limit inappropriate access to opioids and identify problematic prescribing patterns. While a minority

of people exposed to prescription opioids develops an OUD, certain vulnerable population face a significantly increased risk. Excess prescribing can also pose a risk to community-level exposure through leftover pills.

Potential interventions include:

- Use a data-driven approach to control problematic opioid prescription acquisition by tracking opioid prescriptions filled
- Require prescribers to use state PDMPs to limit doctor or pharmacy shopping.
- Incentivize the use of non-opioid pain medications through formulary changes, such as requiring prior authorization or step therapy before approving opioids to treat pain related to soft tissue and musculoskeletal injuries.<sup>83</sup>
- Require pharmacy lock-ins, in which members with problematic prescribing patterns may only use one pharmacy to fill opioid prescriptions.

PBMs should utilize the 2016 CDC guidelines regarding new opioid prescriptions, including limiting new prescriptions to no more than seven days in duration and using caution when escalating over 50 morphine milligram equivalents (MME) per day, guidelines adopted by BCBSMA. A recent report from the Blue Cross Blue Shield (BCBS) Foundation of commercially-insured BCBS members showed that the Commonwealth had the highest reduction (51% since 2013) in new opioid prescriptions and is the third-lowest in the percentage of new prescriptions (73% in 2017) meeting CDC guidelines for dose and duration.<sup>84</sup> While some interviewees critiqued the MME guidelines as arbitrary, they represent a preventive approach to new opioid prescriptions and are meant to offer relative guidance, not absolute requirements. Of note, people with chronic pain on long-term opioid therapy require a different approach and should not be arbitrarily tapered.

#### Cover alternative pain management options

Employers could work with their health plans to offer a greater spectrum of pain management methods, such as acupuncture, exercise, physical therapy, and other non-pharmaceutical interventions. Plans should also consider educating members and empaneled providers in their appropriate use. The failure to offer alternative pain management options is a "missed opportunity."<sup>85</sup> Speakers at the 2014 National Institutes of Health Pathways to Prevention Workshop also stressed the need to use a range of progressive treatment options, based on patients' disease state, clinical and functional status, pain, and risk profile. However, participants noted that complementary pain management approaches are often misunderstood, with limited availability and reimbursement.<sup>86</sup>

#### Identify and treat people with opioid use disorder

Employers could instruct their medical and behavioral health plans to actively seek tools to more effectively identify and treat people with OUD. SUD treatment can result in marked improvements in workplace attendance and efficiency. A study examining 2009-2010 data from a large national managed behavioral health organization found that nearly half of respondents

reported having missed work in the year prior to receiving SUD treatment – and that, post-treatment, over 86% of those respondents reported better work attendance, and nearly 97% reported an improved ability to perform work responsibilities while on the job.<sup>87</sup>

Due to the high rate of polysubstance use - particularly alcohol, cannabis, and nicotine - and mental health comorbidities, health plans and EAPs may benefit from using screening tools to identify persons with OUD.<sup>88,89</sup> Screening tools can also identify frequently co-occurring disorders, such as alcohol misuse and alcohol use disorder, which are particularly prevalent.<sup>90</sup>) Employers could ask their health plans to utilize targeted case management and to cover recovery coach services, either from Certified Addiction Recovery Coaches or coaches affiliated with health plans or licensed treatment programs.

#### Medications for Addiction Treatment (MAT)

Employers could work with their health plans to remove prior authorization for OUD treatment, including opioid pharmacotherapy, counseling or adjunctive services associated with MAT, and visits to opioid treatment programs. Eliminating copayments or placing MAT drugs on the lowest cost tier would increase treatment access and compliance. Copayments for the counseling component of treatment should also be waived or very low due to the high frequency of appointments, especially in the early stages of treatment. Additionally, the health plan could contract with as large network of MAT providers as possible – a particular necessity given the reported shortage of providers nationally and in the Commonwealth.

Misunderstanding and stigma still exist around MAT. Despite a strong evidence base of research showing that MAT produces significantly better outcomes than non-medication or "abstinence-based" programs, <sup>91,92</sup> limiting networks to include only those providers offering MAT may significantly reduce capacity and access. Accordingly, ensuring that MAT is offered as a key treatment option, while also covering other types of treatment, is critical.

#### Employee Assistance Programs (EAPs)

Employers could ask their EAPs for tailored programs designed to prevent OUD and direct employees and their dependents needing treatment to evidence-based providers. The involvement of leadership, both in promoting the EAP and reducing stigma around mental health and SUD issues, is also a key component of increasing utilization.<sup>93</sup> An EAP specialist suggested that EAP providers receive more training in screening and intervention for OUD and other SUDs. Large companies may also consider integrated worksite EAPs, which have been shown to increase utilization, supervisory referrals, and identification and monitoring of SUD cases. Finally, employers could use performance measures or benchmarks for contracting, ongoing evaluation, and quality improvement of their EAPs.<sup>94,95</sup>

#### Workers' compensation and disability insurance

Employers need to be "proactive" concerning opioid prescribing and the potential for OUD in injured workers.<sup>96</sup> Experts stress the need to intervene quickly, particularly for workers with risk factors identified as likely to correlate with risky opioid use: having a personal or familial history of other SUDs, past legal problems, co-occurring mental illness, and adverse childhood experiences such as preadolescent sexual abuse.<sup>97,98</sup> However, while certain people may be at heightened risk for developing OUD, treatment guidelines – such as those from the Centers for Disease Control and Prevention, the American College of Occupational and Environmental Medicine (AECOM), and the Massachusetts Department of Industrial Accidents – should be applied to all workers at the point of injury. A workers' compensation insurance executive stressed the importance of moving patients to less invasive sources of care, suggesting providers likely to be mindful of risk factors associated with opioid misuse, moderating expectations, and encouraging a light return to work as soon as possible to keep employees connected.

Workers' compensation and disability insurers should carefully examine their current prescribing guidelines in lieu of the Commonwealth's actions and consider adopting programs similar to the Department of Industrial Accidents' Opioid Alternative Treatment Pathway pilot project.

#### Additional Employer Interventions

Employers can conduct pre-employment screenings and conduct drug tests as appropriate. These efforts should occur in coordination with clearly-defined organizational drug-free workforce and drug testing policies, with clear protocol concerning their specific threshold for drug testing and return to work requirements. In addition, employers should clearly note that drug testing applies only to non-prescribed medications or illicit drugs and that being on MAT is not a hiring exclusion.

- Employers could focus on creating a culture in which the entire workforce feels invested in creating a safe, healthy, and drug-free environment.<sup>99</sup> However, it is important to note that chronic opioid therapy (within guidelines) and MAT "[do] not preclude the ability to work."<sup>100</sup>
- Employers can also educate and train their managers and employees in how to safely use opioids and discuss their use with providers. While employers cannot directly interface with their employees' providers or inquire about prescriptions used, they can and should inform their workers that opioids carry a serious risk of addiction and misuse.
- Employers can inform employees how to safely handle and dispose of opioids to minimize diversion or misuse by dependents, and promote local events such as drug take-back days or inform employees of the existence of prescription collection locations.
- Employees and especially supervisors should understand the signs of overdose and OUD and consider undergoing naloxone training. Some interviewees particularly those in industries with high rates of fatal opioid overdose, such as construction and fishing, but

also, more recently, Blue Cross Blue Shield of Massachusetts – provide naloxone kits and/or training at the workplace.<sup>101,102</sup>

- Employers can communicate the basics of effective OUD treatment, namely that detoxification alone is not treatment and that community-based treatment is both more effective and safer than using questionable and potentially low-quality out-of-state, out-of-network treatment centers.
- Employers should strive a recovery-friendly workplace that allows employees to take time off for appointments and support groups, and that reduces stigma for employees returning to work from treatment for OUD and other SUDs.
- Finally, employers can examine their health benefits, EAP programs, and workers compensation insurance to ensure the use of integrated and evidence-based approaches to combatting opioid misuse and OUD. For many individuals, OUD occurs with polysubstance use, and interventions need to incorporate appropriate treatment to meet these needs.<sup>103</sup> Interventions should extend to individual employees and their dependents via use of care managers or recovery coaches to help navigate between and among program offerings.

#### Helping employers get started

Several organizations have developed toolkits for employers to better understand and communicate with their employees concerning OUD.

- <u>The National Safety Council's toolkit</u>, for example, provides specific steps employers can take to learn about opioid misuse, update their drug-free workplace policies, revise benefit offerings, and communicate with employees. The National Safety Council, Shatterproof, and NORC at the University of Chicago also offer "<u>The Real Cost of Substance Use to Employers</u>" tool, which provides a simple way for businesses to estimate the cost of substance use in their workplace.
- Boston Medical Center's <u>employer resource library</u> contains five sections focused on organizational engagement, manager education, and sample policies and practices, with 25 concrete tools to enable employers to enact their strategy.
- The Society for Human Resource Management's "<u>Employing and Managing Persons with</u> <u>Addictions</u>" toolkit provides methods for human resources professionals to recognize and cope with SUDs in the workforce.
- <u>Shatterproof</u>'s "What Employers Can Do" website provides a variety of resources to help employers create a recovery-friendly workplace and minimize the costs associated with SUDs. Shatterproof is also developing "evidence-enhanced" family support groups led by clinicians, which can be offered in or near the workplace, and employer-specific online education modules.
- Blue Cross Blue Shield of Massachusetts is also offering a new <u>opioid toolkit pilot program</u> for employers who want to provide naloxone at the workplace. The program is one component of BCBSMA's online <u>opioid resource center</u>, which provides resources on OUD prevention, intervention, treatment, and recovery.

#### Opportunities for coordinating across the public and private sectors

Given the Commonwealth's progress concerning OUD, employers and their health plans would benefit from coordinating their efforts in data analysis, prevention, and quality monitoring with the state. Of course, underlying the entire structure is the workplace culture – the way in which employers create either a health- and recovery-friendly workplace or one that stigmatizes employee mental health and SUD issues.

All interventions are highly dependent on employees' willingness to utilize appropriate resources. Employers must extend "federal and state public health messaging...into the workplace" to educate their employees and reduce the stigma concerning substance use disorders and SUD treatment.<sup>104</sup> Employer leadership is particularly essential to this effort, with multiple interviewees stressing that anti-stigma campaigns need to "come from the top."

#### CONCLUSION

Employers have the unique opportunity to harness their purchasing power as payors of health benefits to support comprehensive substance use disorder programs. These programs can include education and prevention efforts; EAPs; and health benefits that restrict access to opioids and offer robust OUD treatment. Employers can also work to promote better coordination among and between the vendors of health benefits and disability and worker's compensation programs to assure that employees have access to a continuum of care and support. These efforts will help develop and sustain a workplace that encourages long-term recovery. A number of toolkits and resource libraries have recently become available to help employers. Additionally, employers can also look to government programs and efforts to complement their offerings.

Employers and benefit organizations, with input from their employees, are implementing thoughtful and targeted programs. Common elements in these programs include:

- Strong senior leadership sponsorship and buy-in
- Careful analysis and attention to the unique needs of each workplace
- Attentiveness to the voices and needs of managers, workers and families
- Support for a stigma-free and recovery-friendly workplace
- Willingness to engage with health plans and treatment providers to influence the quality of treatment provided
- Developing programs internally to meet the unique nature of their workforce.

It is critical that new employer programs and interventions be formally evaluated. Evaluation encourages the replication of best practices, the most efficient and effective use of resources, and increases the economic return to employers. Additionally, evaluations should include the potentially differential impact of OUD on independent workers and contract employees, who may lack employer-provided health and ancillary benefits, as well as other workplace protections.

In the Commonwealth, government and private sector efforts to reduce opioid prescribing have achieved notable results. Treatment capacity has also been expanded and public health education campaigns instituted. It is important that access to treatment continues to expand. This includes expanding screening, referral, treatment and support for long-term recovery. MAT, an effective treatment, is a particular focus of expansion. It is also important that multiple treatment options be available to encourage treatment engagement among all populations.

The urgency of the opioid epidemic raises the possibility and opportunity for continuing improvements in implementing effective approaches to the prevention, identification and treatment of OUD throughout the Commonwealth. Workplaces free of stigma, with resources for preventing exposure to opioids, and support for treatment and long-term recovery are a common goal for employers and employees alike.

#### Appendix A: Conceptualizing the Problem: Exposure, Addiction, Interventions

The schematic in Figure 4 (below) summarizes a possible conception of the opioid epidemic and the workplace; it displays the relationships and influences between and among the many entities touched by the epidemic and opportunities for addressing the issues.





At the center of the diagram are 'Workers.' Within this environment, stress, injuries and medical procedures such as surgery can mark the start of opioid use, often prescribed by health care providers. Due to the potential for addiction with these medications, personal and social characteristics associated with higher propensities for moving to misuse and addiction, and the opportunity to continue using opioids, a certain percentage of employees will develop OUDs. Additionally, some employees enter the work force with an established OUD or acquire one through recreational drug use. Within the work force, new incidences of OUD are being uncovered, and in some cases, caused by opioid exposure. The same is true for the dependents of employees, who appear in the box directly below.

The boxes surrounding the 'Workers' box show the complicated interplay of factors impacting who is employed, the resources available to them and the possible pathways once OUD is present.

Employers turn to the available population to find employees. Not everyone is available for work, for a variety of reasons, and there is also a pre-existing prevalence of OUD within the available population. Selection of employees can include drug testing and CORI checks, both of which are

common practices. Based on the results of these screenings, the available workforce is further reduced.

Employer-funded programs, shown in the circles along the top, provide benefits to employees who experience health and addiction issues within the workplace. Health plan benefits and programs, pharmacy benefit managers (PBMs), Employee Assistance Programs (EAPs), and workers' compensation and disability carriers all offer opportunities to address issues associated with substance use and the workplace. Dependents of employees also depend on health benefits and programs to pay for treatment. However, as noted elsewhere, these programs may be poorly coordinated, presenting a lost opportunity for employers

The arrows at the right represent possible outcomes for employees with OUDs, who may use available employer- and community-based resources to enter recovery and reenter the workplace. (Of note, this can include temporary relapses or setbacks, the tolerance for which varies among employers.) Employees may also not engage or enter into recovery, resulting in eventual dismissal by the employer and potential overdose or incarceration.

Because opioid use and OUD is a state-wide and national emergency, governments are engaged in constructing and implementing solutions. These are referenced in the 'Public Health Initiatives for All Citizens' circle surrounding the central diagram. These programs impact the overall amount of prescriptions and the overdose death rates. A number of these initiatives are described elsewhere in this issue brief, and we invite readers to consider how these robust and far-reaching public programs can be incorporated into and support employer- and union-based interventions.

#### Appendix B: The Commonwealth's Efforts to Combat the Opioid Epidemic

This issue brief focuses on employers and opioids, and we have highlighted their current activities and approaches. Simultaneously, within the Commonwealth, a large number of public-sector efforts, which impact all citizens, are underway. Employers can benefit from staying up-to-date and involved with these efforts, which can serve as complements to private sector programs.

In 2015, Governor Baker convened a Working Group on Opioids, comprised of 18 leaders from throughout the Commonwealth. Their deliberations, including gathering input from over 170 organizations and individuals, produced a comprehensive set of directions and recommendations that organized the enormous tasks of addressing the opioid epidemic into the actionable areas of prevention, intervention, treatment and recovery support. Through November 2017, the Working Group provided periodic updates on the Commonwealth's progress.

Progress over this period has been impressive. Highlights include:

- Strengthening the PMP and requiring prescribers to check MassPAT before writing opioid prescriptions
- Adding 680 SUD and psychiatric treatment beds
- Certifying 162 sober homes, totaling 2,168 beds
- Expanding screening for substance use in schools
- Establishing core competencies for substance use training for physicians, dentists, nurses and physician assistants.
- Expanding training on naloxone and greatly expanding its use
- Building a robust data base to identify high-risk populations

To support these initiatives, five budget bills have been passed since 2015, containing over \$700 million in additional funding. The 2016 "Act relative to substance use, treatment, education and prevention" limited opioid prescriptions, increased provider education requirements, required student prevention education, and mandated SUD evaluation of overdose and naloxone patients in emergency departments, among other provisions.<sup>105</sup>

In August 2018, a second large bill, "An Act for prevention and access to appropriate care and treatment of addiction," was passed to further strengthen the Commonwealth's efforts.<sup>106</sup> A partial list of the bill's many provisions includes:

- Further extensions and strengthening of the PMP program, and expanded access to naloxone
- Requiring the development of a statewide program to provide remote consultations to primary care and other health care providers in regard to managing patients' chronic pain
- Further expanding treatment in emergency rooms
- Further expanding the use of MAT
- Continuing the development of recovery coaches and assuring their appropriate training

This is only a brief summary of the Commonwealth's efforts. More detailed information is available at <a href="http://www.mass.gov/massachusetts-responds-to-the-opioid-epidemic">www.mass.gov/massachusetts-responds-to-the-opioid-epidemic</a>.

#### Appendix C: Interviewees

- J.J. Bartlett, President, Fishing Partnership Support Services
- Joe Beecroft, Program Specialist, Axial Healthcare
- Monica Bharel, Commissioner, Massachusetts Department of Public Health
- Michael Botticelli, Executive Director, Grayken Center for Addiction, Boston Medical Center
- David Chamberlain, Principal, Strategic Benefit Advisors
- Rachael Cooper, Senior Program Manager Opioids, National Safety Council
- Vic DiGravio, President and CEO, Association for Behavioral Healthcare
- Anton Dodek, Chief Medical Officer, Neighborhood Health Plan
- Kenneth Duckworth, Medical Director for Behavioral Health, Blue Cross Blue Shield of Massachusetts
- Jennifer Edwards, Director, Developing Health U.S., GE Foundation
- Maryanne Frangules, Executive Director, Massachusetts Organization for Addiction Recovery
- John Fromson, Vice Chair for Community Psychiatry, Brigham and Women's Hospital, Chief of Psychiatry, Brigham and Women's Faulkner Hospital
- Rep. Denise Garlick, State Representative (D) Needham
- Eric Gopelrud, Vice President and Senior Fellow, NORC at the University of Chicago
- Scott Gorman, Safety Director, McCourt Construction
- Christie Hager, Senior Fellow in Health Policy, University of Massachusetts Medical School
- Marcy Julian, Senior Western Massachusetts Regional Manager, Learn to Cope
- Laurie Kelly, Communications & Marketing, Axial Healthcare
- Deb Kelsey, Navigator, Fishing Partnership Support Services
- Andrew Kolodny, Senior Scientist, Co-Director of Opioid Policy Research Collaborative, The Heller School for Social Policy and Management, Brandeis University
- Jeff Levin-Scherz, North America Co-Leader, Health Management Practice, Willis Towers Watson
- Michael Lewis, Seafood Sam's of Falmouth, Inc.
- Bernadette Loftus, Associate Executive Director for the Mid-Atlantic States, The Permanente Medical Group
- Adam Malinoski, Manager, Health Services, Clinical Programs, General Electric
- Dale Masi, President and CEO, Masi Research Consultants, Inc.
- Gary Mendell, Founder, Chairman, and CEO, Shatterproof
- Joanne Nicholson, Professor of the Practice, The Heller School for Social Policy and Management, Brandeis University
- Rich Paul, Chief Partnership Officer Employer/Federal Division, Beacon Health Options
- Sharon Reif, Senior Scientist and Lecturer, The Heller School for Social Policy and Management, Brandeis University
- Michael Shor, Managing Director, Best Doctors Occupational Health Institute

- Cindy Steinberg, National Director of Policy and Advocacy, U.S. Pain Foundation, and Chair of the Policy Council, Massachusetts Pain Initiative
- Gail Strickler, Senior Research Associate, The Heller School for Social Policy and Management, Brandeis University
- Elizabeth Anne Stringer, Chief Science & Clinical Officer, Axial Healthcare
- Marylou Sudders, Secretary, Commonwealth of Massachusetts Executive Office of Health and Human Services
- Joseph Sulman, Owner, The Law Office of Joseph L. Sulman
- Joji Suzuki, Director, Brigham and Women's Hospital Division of Addiction Psychiatry
- Scott Taberner, Chief of Behavioral Health & Supportive Care, MassHealth
- Ray Tamasi, Founder and President, The Gosnold Innovation Center
- Jane Terry, Senior Director of Government Affairs, National Safety Council
- Jim Thatcher, Vice President and Regional Medical Director Massachusetts, Beacon Health Options
- Cindy Parks Thomas, Professor and Associate Dean for Research, The Heller School for Social Policy and Management, Brandeis University
- Vennela Thumula, Policy Analyst, Workers Compensation Research Institute
- Becky Turpin, Director, Home and Community Safety, National Safety Council
- Kate Walsh, President and Chief Executive Officer, Boston Medical Center
- Cece Weldon, Vice President, Corporate Safety, Health, and Environment Management Solutions, AECOM
- Jeff Werner, Executive Director, New England Carpenters Benefit Fund

<sup>1</sup> Massachusetts Department of Public Health. (2018, August). *Data brief: opioid-related overdose deaths among Massachusetts residents*. Retrieved from https://www.mass.gov/files/documents/2018/08/24/Opioid-related%20Overdose%20Deaths%20among%20MA%20Residents%20-%20August%202018 0.pdf

<sup>4</sup> Rice, J.B., Kirson, N.Y., Shei, A., Cummings, A.K.G., Bodnar, K., Birnbaum, H.G., & Ben-Joseph, R. (2014). Estimating the costs of opioid abuse and dependence from an employer perspective: a retrospective analysis using administrative claims data. *Applied Health Economics and Health Policy*, *12*(4), 435-446.

<sup>5</sup> Krueger, A.B. (2017). Where Have All the Workers Gone?: An Inquiry into the Decline of the US Labor Force Participation Rate. *Brookings papers on economic activity*, *2017*(2), 1-87.

<sup>6</sup> Cox, C., Rae, M., & Sawyer, B. (2018, April 5). *A look at how the opioid crisis has affected people with employer coverage*. Retrieved from https://www.healthsystemtracker.org/brief/a-look-at-how-the-opioid-crisis-has-affected-people-with-employer-coverage/#item-start

<sup>7</sup> Hegmann, K. T., Weiss, M. S., Bowden, K., Branco, F., Dubrueler, K., Els, C., ... Harris, J. S. (2014). ACOEM practice guidelines: opioids and safety-sensitive work. *Journal of Occupational and Environmental Medicine, 56*(7), e46. <sup>8</sup> Kowalski-McGraw, M., Green-McKenzie, J., Pandalai, S., & Schulte, P. (2017). Characterizing the interrelationships of prescription opioid and benzodiazepine drugs with worker health and workplace hazards. *Journal of Occupational and Environmental Medicine, 59*(11), 1114–1126.

<sup>9</sup> White, J.A., Tao, X., Talreja, M., Tower, J., & Bernacki, E. (2012). The effect of opioid use on workers' compensation claim cost in the State of Michigan. *Journal of Occupational and Environmental Medicine*, *54*(8), 948-953.

<sup>10</sup> Kowalski-McGraw, M., Green-McKenzie, J., Pandalai, S., & Schulte, P. (2017). Characterizing the interrelationships of prescription opioid and benzodiazepine drugs with worker health and workplace hazards. *Journal of Occupational and Environmental Medicine*, *59*(11), 1114–1126.

<sup>11</sup> Cox, C., Rae, M., & Sawyer, B. (2018, April 5). A look at how the opioid crisis has affected people with employer coverage. Kaiser Family Foundation. Retrieved from https://www.healthsystemtracker.org/brief/a-look-at-how-the-opioid-crisis-has-affected-people-with-employer-coverage/#item-start

<sup>12</sup> Massachusetts Department of Public Health. (2018, August). *Opioid-related overdose deaths in Massachusetts by industry and occupation, 2011-2015*. Retrieved from https://www.mass.gov/files/documents/2018/08/15/opioid-industry-occupation.pdf

<sup>13</sup> Hanisch, S.E., Twomey, C.D., Szeto, A.C., Birner, U.W., Nowak, D., & Sabariego, C. (2016). The effectiveness of interventions targeting the stigma of mental illness at the workplace: a systematic review. *BMC Psychiatry*, *16*(1), 1.
 <sup>14</sup> Rüsch, N., & Thornicroft, G. (2014). Does stigma impair prevention of mental disorders?. *The British Journal of Psychiatry*, *204*(4), 249-251.

<sup>15</sup> Walton, L. (2003). Exploration of the attitudes of employees towards the provision of counselling within a profitmaking organisation. *Counselling and Psychotherapy Research, 3*(1), 65–71.

<sup>16</sup> Hanisch, S.E., Twomey, C.D., Szeto, A.C., Birner, U.W., Nowak, D., & Sabariego, C. (2016). The effectiveness of interventions targeting the stigma of mental illness at the workplace: a systematic review. *BMC Psychiatry*, *16*(1), 1. <sup>17</sup> Massachusetts Department of Public Health. (2018, August). *Opioid-related overdose deaths in Massachusetts by industry and occupation*, *2011-2015*. Retrieved from https://www.mass.gov/files/documents/2018/08/15/opioid-industry-occupation.pdf

<sup>18</sup> Potter, J.S., Dreifuss, J.A., Marino, E.N., Provost, S.E., Dodd, D.R., Rice, L.S., ... & Weiss, R.D. (2015). The multi-site prescription opioid addiction treatment study: 18-month outcomes. *Journal of Substance Abuse Treatment*, *48*(1), 62-69.

<sup>19</sup> Weiss, R.D., Potter, J.S., Griffin, M.L., Provost, S.E., Fitzmaurice, G.M., McDermott, K.A., ... & Carroll, K.M. (2015). Long-term outcomes from the national drug abuse treatment clinical trials network prescription opioid addiction treatment study. *Drug and Alcohol Dependence*, *150*, 112-119.

<sup>20</sup> Morgan, J.R., Schackman, B.R., Leff, J.A., Linas, B.P., & Walley, A.Y. (2018). Injectable naltrexone, oral naltrexone, and buprenorphine utilization and discontinuation among individuals treated for opioid use disorder in a United

<sup>&</sup>lt;sup>2</sup> Bebinger, M. (2017, September 21). Billions of dollars lost to the opioid epidemic in Mass. *WBUR*. Retrieved from http://www.wbur.org/commonhealth/2017/09/21/mass-opioid-epidemic-costs

<sup>&</sup>lt;sup>3</sup> Florence, C., Zhou, C., Luo, F., & Xu, L. (2016). The economic burden of prescription opioid overdose, abuse and dependence in the United States, 2013. *Medical Care*, 54(10), 901–906.

States commercially insured population. *Journal of Substance Abuse Treatment, 85*, 90–96. https://doi.org/10.1016/j.jsat.2017.07.001

<sup>21</sup> Jones, C.M., Campopiano, M., Baldwin, G., & McCance-Katz, E. (2015). National and State Treatment Need and Capacity for Opioid Agonist Medication-Assisted Treatment. *American Journal of Public Health, 105*(8), e55. https://doi.org/10.2105/AJPH.2015.302664

<sup>22</sup> Kuhn, S. (2017). Opioid addiction and implications for employers. *Benefits Quarterly*, 33(1), 33.

<sup>23</sup> National Safety Council. (2014, July). *The proactive role employers can take: opioids in the workplace*. Retrieved from https://www.nsc.org/Portals/0/Documents/RxDrugOverdoseDocuments/RxKit/The-Proactive-Role-Employers-Can-Take-Opioids-in-the-Workplace.pdf

<sup>24</sup> Johnston, S.S., Alexander, A.H., Masters, E.T., Mardekian, J., Semel, D., Malangone-Monaco, E., ... & Sadosky, A. (2016). Costs and work loss burden of diagnosed opioid abuse among employees on workers compensation or short-term disability. *Journal of Occupational and Environmental Medicine*, *58*(11), 1087-1097.

<sup>25</sup> Semkiu, J. & Lambert, E. (2016). Opioid abuse: the undetected risk in your organization. *Professional Safety, 61*(10), 57.

<sup>26</sup> Freyer, F.J. (2018, October 3). Many people don't know how to administer overdose-reversing drugs. Blue Cross is trying to change that. *The Boston Globe*. Retrieved from https://www.bostonglobe.com/metro/2018/10/03/worker-overdosed-would-you-know-what/p94RYpQqYtXtvFBuLQLpyN/story.html

<sup>27</sup> Becker, W.C., Sullivan, L.E., Tetrault, J.M., Desai, R.A., & Fiellin, D.A. (2008). Non-medical use, abuse and dependence on prescription opioids among U.S. adults: psychiatric, medical and substance use correlates. *Drug and Alcohol Dependence*, *94*(1–3), 38–47. https://doi.org/10.1016/j.drugalcdep.2007.09.018

<sup>28</sup> Cox, C., Rae, M., & Sawyer, B. (2018, April 5). *A look at how the opioid crisis has affected people with employer coverage*. Retrieved from https://www.healthsystemtracker.org/brief/a-look-at-how-the-opioid-crisis-has-affected-people-with-employer-coverage/#item-start

<sup>29</sup> United States Bureau of Labor Statistics. (2018). *Economy at a glance: Massachusetts*. Retrieved from https://www.bls.gov/eag/eag.ma.htm

<sup>30</sup> Massachusetts Department of Public Health. (2018, August). *Opioid-related overdose deaths in Massachusetts by industry and occupation, 2011-2015*. Retrieved from https://www.mass.gov/files/documents/2018/08/07/opioid-industry-occupation.pdf

<sup>31</sup> Hersman, D.A.P. (2017). *How the prescription drug crisis is impacting American employers* [PowerPoint Slides]. Retrieved from https://www.nsc.org/Portals/0/Documents/NewsDocuments/2017/Media-Briefing-National-Employer-Drug-Survey-Results.pdf

<sup>32</sup> Krueger, A.B. (2017). Where have all the workers gone?: an inquiry into the decline of the U.S. labor force participation rate. *Brookings Papers on Economic Activity*, 2017 (2), 1-87.

<sup>33</sup> Massachusetts Department of Public Health. (2018 August). *Opioid-related overdose deaths in Massachusetts by industry and occupation, 2011-2015*. Retrieved from https://www.mass.gov/files/documents/2018/08/15/opioid-industry-occupation.pdf

<sup>34</sup> Rice, J.B., Kirson, N.Y., Shei, A., Cummings, A.K.G., Bodnar, K., Birnbaum, H.G., & Ben-Joseph, R. (2014). Estimating the costs of opioid abuse and dependence from an employer perspective: a retrospective analysis using administrative claims data. *Applied Health Economics and Health Policy*, *12*(4), 435-446.

<sup>35</sup> Bebinger, M. (2017, September 21). Billions of dollars lost to the opioid epidemic in Mass. *WBUR*. Retrieved from http://www.wbur.org/commonhealth/2017/09/21/mass-opioid-epidemic-costs

<sup>36</sup> Florence, C., Zhou, C., Luo, F., & Xu, L. (2016). The economic burden of prescription opioid overdose, abuse and dependence in the United States, 2013. *Medical Care*, *54*(10), 901–906.

<sup>37</sup> Cox, C., Rae, M., & Sawyer, B. (2018, April 5). A look at how the opioid crisis has affected people with employer coverage. Kaiser Family Foundation. Retrieved from https://www.healthsystemtracker.org/brief/a-look-at-how-the-opioid-crisis-has-affected-people-with-employer-coverage/#item-start

<sup>38</sup> Shah, A., Hayes, C.J., & Martin, B.C. (2017). Characteristics of initial prescription episodes and likelihood of long-term opioid use — United States, 2006–2015. *MMWR Morbidity and Mortality Weekly Report, 66*(10), 265–269.

<sup>39</sup> Massachusetts Department of Public Health. (2017). *An assessment of opioid-related overdoses in Massachusetts* 2011-2015. Retrieved from

https://www.mass.gov/files/documents/2017/.../data-brief-chapter-55-aug-2017.docx

<sup>40</sup> Hegmann, K. T., Weiss, M. S., Bowden, K., Branco, F., Dubrueler, K., Els, C., ... Harris, J. S. (2014). ACOEM practice guidelines: opioids and safety-sensitive work. *Journal of Occupational and Environmental Medicine*, *56*(7), e46.

<sup>41</sup> Kowalski-McGraw, M., Green-McKenzie, J., Pandalai, S., & Schulte, P. (2017). Characterizing the interrelationships of prescription opioid and benzodiazepine drugs with worker health and workplace hazards. *Journal of Occupational and Environmental Medicine*, *59*(11), 1114–1126.

<sup>42</sup> White, J.A., Tao, X., Talreja, M., Tower, J., & Bernacki, E. (2012). The effect of opioid use on workers' compensation claim cost in the State of Michigan. *Journal of Occupational and Environmental Medicine*, *54*(8), 948-953.

<sup>43</sup> Kowalski-McGraw, M., Green-McKenzie, J., Pandalai, S., & Schulte, P. (2017). Characterizing the interrelationships of prescription opioid and benzodiazepine drugs with worker health and workplace hazards. *Journal of Occupational and Environmental Medicine*, *59*(11), 1114–1126.

<sup>44</sup> Walter, A.W., Morocho, C., King, L., Bartlett, J., Kelsey, D., DeSousa, M., ... & Punnett, L. (2018). Preventing opioid use disorders among fishing industry workers. *International Journal of Environmental Research and Public Health*, *15*(4), 648. https://doi.org/10.3390/ijerph15040648

<sup>45</sup> White, J.A., Tao, X., Talreja, M., Tower, J., & Bernacki, E. (2012). The effect of opioid use on workers' compensation claim cost in the State of Michigan. *Journal of Occupational and Environmental Medicine*, *54*(8), 948-953.

<sup>46</sup> Savych, B., Neumark, D., & Lea, R. (2018). *Do Opioids Help Injured Workers Recover and Get Back to Work? The Impact of Opioid Prescriptions on Duration of Temporary Disability*. (NBER Working Papers). National Bureau of Economic Research, Inc.

<sup>47</sup> Massachusetts Department of Public Health. (2018, August). *Data brief: opioid-related overdose deaths among Massachusetts residents*. Retrieved from https://www.mass.gov/files/documents/2018/08/24/Opioid-related%20Overdose%20Deaths%20among%20MA%20Residents%20-%20August%202018 0.pdf

<sup>48</sup> Hedegaard, H., Warner, M., & Miniño, A.M. (2017). Drug overdose deaths in the United States, 1999–2016. (NCHS Data Brief No. 294). Hyattsville, MD: National Center for Health Statistics.

<sup>49</sup> Commonwealth of Massachusetts Health Policy Commission. (2016 September). *Opioid use disorder in Massachusetts*. Retrieved from https://www.mass.gov/files/documents/2016/09/vv/opioid-use-disorder-report.pdf
 <sup>50</sup> Massachusetts Department of Public Health. (2018). *Data brief: opioid-related overdose deaths among Massachusetts residents*. Retrieved from https://www.mass.gov/files/documents/2018/08/24/Opioid-related%20Overdose%20Deaths%20among%20MA%20Residents%20-%20August%202018 0.pdf

<sup>51</sup> Commonwealth of Massachusetts Health Policy Commission. (2016, September). *Opioid use disorder in Massachusetts*. Retrieved from https://www.mass.gov/files/documents/2016/09/vv/opioid-use-disorder-report.pdf
 <sup>52</sup> Dreyfus, A. (2018 March 12). *Opioid epidemic public opinion poll* [PowerPoint Slides]. Retrieved from

https://www.slideshare.net/AndrewDreyfus/massachusetts-public-opinion-poll-the-state-of-the-opioid-epidemic <sup>53</sup> Cox, C., Rae, M., & Sawyer, B. (2018, April 5). *A look at how the opioid crisis has affected people with employer coverage*. Retrieved from https://www.healthsystemtracker.org/brief/a-look-at-how-the-opioid-crisis-has-affected-people-with-employer-coverage/#item-start

<sup>54</sup> Hanisch, S.E., Twomey, C.D., Szeto, A.C., Birner, U.W., Nowak, D., & Sabariego, C. (2016). The effectiveness of interventions targeting the stigma of mental illness at the workplace: a systematic review. *BMC Psychiatry*, *16*(1), 1.
 <sup>55</sup> Rüsch, N., & Thornicroft, G. (2014). Does stigma impair prevention of mental disorders?. *The British Journal of Psychiatry*, *204*(4), 249-251.

<sup>56</sup> Walton, L. (2003). Exploration of the attitudes of employees towards the provision of counselling within a profitmaking organisation. *Counselling and Psychotherapy Research*, *3*(1), 65–71.

<sup>57</sup> Hanisch, S.E., Twomey, C.D., Szeto, A.C., Birner, U.W., Nowak, D., & Sabariego, C. (2016). The effectiveness of interventions targeting the stigma of mental illness at the workplace: a systematic review. *BMC Psychiatry*, *16*(1), 1.
 <sup>58</sup> Kyanko, K.A., Curry, L.A., & Busch, S.H. (2013). Out-of-network provider use more likely in mental health than general health care among privately insured. *Medical Care*, *51*(8), 699.

<sup>59</sup> Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration (SAMHSA). (2018). *Medications for opioid use disorder. Treatment Improvement Protocol (TIP) Series 63.* (No. SMA18-

5063EXSUMM). Rockville, MD: Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services.

<sup>60</sup> Potter, J.S., Dreifuss, J.A., Marino, E.N., Provost, S.E., Dodd, D.R., Rice, L.S., ... & Weiss, R.D. (2015). The multi-site prescription opioid addiction treatment study: 18-month outcomes. *Journal of Substance Abuse Treatment, 48*(1), 62-69.

<sup>61</sup> Weiss, R.D., Potter, J.S., Griffin, M.L., Provost, S.E., Fitzmaurice, G.M., McDermott, K.A., ... & Carroll, K.M. (2015). Long-term outcomes from the national drug abuse treatment clinical trials network prescription opioid addiction treatment study. *Drug and Alcohol Dependence*, *150*, 112-119.

<sup>62</sup> Green, T.C., McGowan, S.K., Yokell, M.A., Pouget, E.R., & Rich, J.D. (2012). HIV infection and risk of overdose: a systematic review and meta-analysis. *AIDS (London, England)*, *26*(4), 403.

<sup>63</sup> United States Department of Health and Human Services. Substance Abuse and Mental Health Services Administration. (2018). *Number of DATA-waived practitioners newly certified per year*. Retrieved from https://www.samhsa.gov/medication-assisted-treatment/physician-program-data/certified-physicians?field\_bup\_us\_state\_code\_value=MA

<sup>64</sup> Alderks, C.E. (2017, August 22). Trends in the use of methadone, buprenorphine, and extended-release naltrexone at substance abuse treatment facilities: 2003-2015 (update). United States Department of Health and Human Services. Substance Abuse and Mental Health Services Administration. Retrieved from

https://www.samhsa.gov/data/sites/default/files/report\_3192/ShortReport-3192.pdf

<sup>65</sup> Commonwealth of Massachusetts. (2017). *Governor's working group on opioids update: action items*. Retrieved from https://www.mass.gov/files/documents/2017/11/15/2017-annual-update-action-items-gov-working-group.pdf <sup>66</sup> Massachusetts Department of Public Health. Bureau of Substance Addiction Services. (2018, April). *Peer Recovery Coaches – April 2018*. Retrieved from http://commcorp.org/wp-content/uploads/2018/07/BSAS-RC-one-pager-3.15-3-25-18-Vetted.pdf

<sup>67</sup> An act to increase opportunities for long-term substance abuse recovery. 2014 Mass. Acts Ch. 258, § 12C. Retrieved from https://malegislature.gov/Laws/GeneralLaws/PartIII/TitleIV/Chapter258

<sup>68</sup> Freyer, F.J. (2018, May 18). Neighborhood Health Plan to encourage prescribing of anti-addiction medication. *The Boston Globe*. Retrieved from https://www.bostonglobe.com/business/2018/05/17/neighborhood-health-plan-encourage-prescribing-anti-addiction-medication/90jaEh8Apae654nyFmgmTL/story.html

<sup>69</sup> Morgan, J.R., Schackman, B.R., Leff, J.A., Linas, B.P., & Walley, A.Y. (2018). Injectable naltrexone, oral naltrexone, and buprenorphine utilization and discontinuation among individuals treated for opioid use disorder in a United States commercially insured population. *Journal of Substance Abuse Treatment, 85*, 90–96. https://doi.org/10.1016/j.jsat.2017.07.001

<sup>70</sup> Jones, C.M., Campopiano, M., Baldwin, G., & McCance-Katz, E. (2015). National and State Treatment Need and Capacity for Opioid Agonist Medication-Assisted Treatment. *American Journal of Public Health, 105*(8), e55. https://doi.org/10.2105/AJPH.2015.302664

<sup>71</sup> Cox, C., Rae, M., & Sawyer, B. (2018, April 5). A look at how the opioid crisis has affected people with employer coverage. Kaiser Family Foundation. Retrieved from https://www.healthsystemtracker.org/brief/a-look-at-how-the-opioid-crisis-has-affected-people-with-employer-coverage/#item-start

<sup>72</sup> Chang, H.-Y., Lyapustina, T., Rutkow, L., Daubresse, M., Richey, M., Faul, M., ... Alexander, G.C. (2016). Impact of prescription drug monitoring programs and pill mill laws on high-risk opioid prescribers: A comparative interrupted time series analysis. *Drug and Alcohol Dependence*, 165, 1–8.

<sup>73</sup> Merrick, E.S.L., Volpe-Vartanian, J., Horgan, C.M., & McCann, B. (2007). Revisiting employee assistance programs and substance use problems in the workplace: key issues and a research agenda. *Psychiatric Services, 58*(10), 1262-1264.

<sup>74</sup> National Safety Council (2014, July). *The proactive role employers can take: opioids in the workplace*. Retrieved from https://www.nsc.org/Portals/0/Documents/RxDrugOverdoseDocuments/RxKit/The-Proactive-Role-Employers-Can-Take-Opioids-in-the-Workplace.pdf

<sup>75</sup> Kuhn, S. (2017). Opioid addiction and implications for employers. *Benefits Quarterly*, 33(1), 33.

<sup>76</sup> Thumula, V., Wang, D., & Liu, T.C. (2017). *Interstate variations in use of opioids, 4<sup>th</sup> edition*. (No. WC-17-28) Workers Compensation Research Institute. Thumula, Vennela, Wang, Dongchun, & Liu, Te-Chun. (2017). Interstate variations in use of opioids, 4th edition (No. WC-17-28). The Workers Compensation Research Institute.

<sup>77</sup> Gagnon, C. M., Stanos, S. P., Van Der Ende, G., Rader, L. R., & Harden, R. N. (2013). Treatment outcomes for workers compensation patients in a US-based interdisciplinary pain management program. *Pain Practice*, *13*(4), 282–288. https://doi.org/10.1111/j.1533-2500.2012.00586.x

<sup>78</sup> Wendt, J.K., Tsai, S.P., Bhojani, F.A., & Cameron, D.L. (2010). The Shell disability management program: a five-year evaluation of the impact on absenteeism and return-on-investment. *Journal of Occupational and Environmental Medicine*, *52*(5), 544–550.

<sup>79</sup> Department of Industrial Accidents, & Omar Hernández. (2017, June). Commonwealth of Massachusetts Executive Office of Labor and Workforce Development. *Opioid Alternative Treatment Pathway*. Power Point slides. Retrieved from https://www.mass.gov/files/documents/2017/09/25/opioid-alternative-treatment-pathway-information-june-12-2017pptx.pptx

<sup>80</sup> Massachusetts Department of Public Health. (2018). *Opioid-related overdose deaths in Massachusetts by industry and occupation, 2011-2015.* Retrieved from https://www.mass.gov/files/documents/2018/08/15/opioid-industry-occupation.pdf

<sup>81</sup> Massachusetts Department of Public Health. (2018, August). *Opioid-related overdose deaths in Massachusetts by industry and occupation, 2011-2015*. Retrieved from https://www.mass.gov/files/documents/2018/08/07/opioid-industry-occupation.pdf

<sup>82</sup> Massachusetts Department of Public Health. (2018, August). *Opioid-related overdose deaths in Massachusetts by industry and occupation, 2011-2015*. Retrieved from https://www.mass.gov/files/documents/2018/08/07/opioid-industry-occupation.pdf

<sup>83</sup> National Safety Council. (2014, July). *The proactive role employers can take: opioids in the workplace*. Retrieved from https://www.nsc.org/Portals/0/Documents/RxDrugOverdoseDocuments/RxKit/The-Proactive-Role-Employers-Can-Take-Opioids-in-the-Workplace.pdf

<sup>84</sup> Blue Cross Blue Shield. (2017). *America's opioid epidemic and its Impact on the nation's commercially-insured population* (The Health of America Report). Retrieved from https://www.bcbs.com/sites/default/files/file-attachments/health-of-america-report/BCBS-HealthOfAmericaReport-Opioids.pdf

<sup>85</sup> Hersman, D.A.P. (2017). *How the prescription drug crisis is impacting American employers* [PowerPoint Slides]. Retrieved from https://www.nsc.org/Portals/0/Documents/NewsDocuments/2017/Media-Briefing-National-Employer-Drug-Survey-Results.pdf

<sup>86</sup> Reuben, D.B., Alvanzo, A.A., Ashikaga, T., Bogat, G.A., Callahan, C.M., Ruffing, V., & Steffens, D.C. (2015). National Institutes of Health Pathways to Prevention workshop: the role of opioids in the treatment of chronic pain. *Annals of Internal Medicine*, *162*(4), 295-300.

<sup>87</sup> Merrick, E.L., Reif, S., Hiatt, D., Hodgkin, D., Horgan, C.M., & Ritter, G. (2012). Substance abuse treatment client experience in an employed population: results of a client survey. *Substance Abuse Treatment, Prevention, and Policy*, *7*(1), 4.

<sup>88</sup> Becker, W.C., Sullivan, L.E., Tetrault, J.M., Desai, R.A., & Fiellin, D.A. (2008). Non-medical use, abuse and dependence on prescription opioids among U.S. adults: psychiatric, medical and substance use correlates. *Drug and Alcohol Dependence*, *94*(1–3), 38–47. https://doi.org/10.1016/j.drugalcdep.2007.09.018

<sup>89</sup> Madras, B.K., Compton, W.M., Avula, D., Stegbauer, T., Stein, J.B., & Clark, H.W. (2009). Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: Comparison at intake and 6 months later. *Drug and Alcohol Dependence*, *99*(1), 280–295.

https://doi.org/10.1016/j.drugalcdep.2008.08.003

<sup>90</sup> Substance Abuse and Mental Health Services Administration (SAMHSA). (n.d.). 2015 National Survey on Drug Use and Health (NSDUH). Table 2.46B—alcohol use, binge alcohol use, and heavy alcohol use in past month among persons aged 12 or older, by demographic characteristics: percentages, 2014 and 2015. Retrieved from https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.htm#tab2-46b

<sup>91</sup> Potter, J.S., Dreifuss, J.A., Marino, E.N., Provost, S.E., Dodd, D.R., Rice, L.S., ... & Weiss, R.D. (2015). The multi-site prescription opioid addiction treatment study: 18-month outcomes. *Journal of Substance Abuse Treatment, 48*(1), 62-69.

<sup>92</sup> Weiss, R.D., Potter, J.S., Griffin, M.L., Provost, S.E., Fitzmaurice, G.M., McDermott, K.A., ... & Carroll, K.M. (2015). Long-term outcomes from the national drug abuse treatment clinical trials network prescription opioid addiction treatment study. *Drug and Alcohol Dependence*, *150*, 112-119.

<sup>93</sup> National Safety Council (2014, July). *The proactive role employers can take: opioids in the workplace*. Retrieved from https://www.nsc.org/Portals/0/Documents/RxDrugOverdoseDocuments/RxKit/The-Proactive-Role-Employers-Can-Take-Opioids-in-the-Workplace.pdf

<sup>94</sup> Merrick, E.S.L., Volpe-Vartanian, J., Horgan, C.M., & McCann, B. (2007). Revisiting Employee Assistance Programs and substance use problems in the workplace: key issues and a research agenda. *Psychiatric Services*, *58*(10), 1262–1264. https://doi.org/10.1176/appi.ps.58.10.1262

<sup>95</sup> Measuring Your Employee Assistance Program's Performance. (2010, November 1). HR Magazine. Retrieved from https://www.shrm.org/hr-today/news/hr-magazine/pages/1110grossman8.aspx

<sup>96</sup> Johnston, S.S., Alexander, A.H., Masters, E.T., Mardekian, J., Semel, D., Malangone-Monaco, E., ... & Sadosky, A. (2016). Costs and work loss burden of diagnosed opioid abuse among employees on workers compensation or short-term disability. *Journal of Occupational and Environmental Medicine*, *58*(11), 1087-1097

<sup>97</sup> Turk, D., Swanson, K., & Gatchel, R. (2008). Predicting opioid misuse by chronic pain patients - a systematic review and literature synthesis. *Clinical Journal of Pain, 24*(6), 497–508.

<sup>98</sup> Stein, M.D., Conti, M.T., Kenney, S., Anderson, B.J., Flori, J.N., Risi, M.M., & Bailey, G.L. (2017). Adverse childhood experience effects on opioid use initiation, injection drug use, and overdose among persons with opioid use disorder. *Drug and Alcohol Dependence*, *179*, 325–329.

<sup>99</sup> Semkiu, J. & Lambert, E. (2016). Opioid abuse: the undetected risk in your organization. *Professional Safety, 61*(10), 57.

<sup>100</sup> Lavin, R.A., Kalia, N., Yuspeh, L., Barry, J.A., Bernacki, E.J., & Tao, X.G. (2017). Work enabling opioid management. *Journal of Occupational and Environmental Medicine*, *59*(8), 761-764.

<sup>101</sup> Freyer, F.J. (2018, October 3). Many people don't know how to administer overdose-reversing drugs. Blue Cross is trying to change that. *The Boston Globe*. Retrieved from

https://www.bostonglobe.com/metro/2018/10/03/worker-overdosed-would-you-know-what/p94RYpQqYtXtvFBuLQLpyN/story.html

<sup>102</sup> Department of Health and Human Services, National Institute for Occupational Safety and Health. (2018). *Using naloxone to reverse opioid overdose in the workplace: information for employers and workers* (No. 2019-101). Retrieved from https://www.cdc.gov/niosh/docs/2019-101/default.html

<sup>103</sup> Becker, W.C., Sullivan, L.E., Tetrault, J.M., Desai, R.A., & Fiellin, D.A. (2008). Non-medical use, abuse and dependence on prescription opioids among U.S. adults: psychiatric, medical and substance use correlates. *Drug and Alcohol Dependence*, *94*(1–3), 38–47. https://doi.org/10.1016/j.drugalcdep.2007.09.018

<sup>104</sup> Kuhn, S. (2017). Opioid addiction and implications for employers. *Benefits Quarterly, 33*(1), 33.

<sup>105</sup> An act relative to substance use, treatment, education and prevention. 2016 Mass. Acts Ch. 52. Retrieved from https://malegislature.gov/Laws/SessionLaws/Acts/2016/Chapter52

<sup>106</sup> An act for prevention and access to appropriate care and treatment of addiction. 2018 Mass. Acts Ch. 208. Retrieved from https://malegislature.gov/Laws/SessionLaws/Acts/2018/Chapter208