MMHPI COVID-19 Response Briefings

Projected COVID-19 MHSUD Impacts, Volume 3: Modeling the Effects of Collaborative Care and Medication-Assisted Treatment to Prevent COVID-Related Suicide and Overdose Deaths – August 6, 2020

In late April 2020, the Meadows Mental Health Policy Institute (MMHPI) issued the first in a series of reports analyzing the mental health impacts of the COVID-19 pandemic. Our initial report projected the impact of a COVID-induced economic recession on increases in rates of suicide, illicit-drug-related deaths, and substance use disorders (SUD).[1] Our second report updated the original report with state-level projections.[2] Other studies have estimated comparable levels of morbidity and mortality.[3]

These reports forecasted how COVID-19-driven unemployment could cause potential increases in mortality from suicide and drug overdose as well as increases in SUD. This modeling assumed that treatment availability would remain stable at pre-pandemic levels, an assumption that is now proving to be excessively optimistic.[4] Since those reports, the Centers for Disease Control and Prevention have released updated drug overdose death statistics, including data showing that drug overdose deaths have been increasing year over year[5] and that this trend may be increasing due to COVID-19.[6] Our original projections suggested that for every five-percentage-point increase in the unemployment rate compared to pre-pandemic levels, an additional 4,000 Americans, including 300 Texans and 375 Californians, could be lost to suicide; our updated projections add 5,500[7] American drug overdose deaths to pre-COVID-19 levels, including 425 Texans and 650 Californians.

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[1] MMHPI. (2020, April 28). *Projected COVID-19 MHSUD impacts, volume 1: Effects of COVID-induced economic recession (COVID recession)*. https://www.texasstateofmind.org/uploads/whitepapers/COVID-MHSUDImpacts.pdf

[2] MMHPI. (2020, April 28). *Projected COVID-19 MHSUD impacts, volume 1: Effects of COVID-induced economic recession (COVID recession): Appendix of state-level estimates*. https://www.texasstateofmind.org/uploads/whitepapers/COVID-MHSUDImpacts-StateAppendix.pdf

[3] Patterson, S., Westfall, J. M., & Miller, B. F. (2020, May 8). *Projected Deaths of Despair During the Coronavirus Recession.* https://wellbeingtrust.org/wp-content/uploads/2020/05/WBT_Deaths-of-Despair_COVID-19-FINAL-FINAL.pdf

[4] National Council for Behavioral Health. (2020, April 15). *COVID-19 economic impact on behavioral health organizations.* https://www.thenationalcouncil.org/wp-content/uploads/2020/04/NCBH_COVID19_Survey_Findings_04152020.pdf?daf=375ateTbd56

[5] Ahmad, F. B., Rossen, L. M., & Sutton, P. (2020, July 15). *Provisional drug overdose death counts*. National Center for Health Statistics. https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm

[6] Alter, A. & Yeager, C. (2020, May 13). *The consequences of COVID-19 on the overdose epidemic: Overdoses are increasing.* http://odmap.org/Content/docs/news/2020/ODMAP-Report-May-2020.pdf

[7] Our earlier models suggested that 4,800 Americans would die from drug overdose deaths. These models have been updated to use more current data from the Centers for Disease Control and Prevention and now reflect an anticipated 5,500 drug overdose deaths per 5% increase in the national unemployment rate. State-level estimates were also updated similarly.

In this report, we model the extent to which universal access to evidence-based integrated primary care to treat major depression through the collaborative care model (CoCM) and to medication-assisted treatment (MAT) for persons with opioid use disorders in all healthcare settings could offset a portion of the predicted increases in suicide and drug overdose deaths from the COVID-19 pandemic. In developing these estimates, we coordinated with colleagues at the Steinberg Institute to highlight impacts in both California and Texas.

This model is theoretical in that it assumes universal access to CoCM and MAT, a state that would be very difficult to attain, even with full implementation of the policy recommendations offered later in this report. Nevertheless, we believe that this modeling is useful because it is based on studies of CoCM and MAT in multiple real-world settings, incorporates conservative assumptions about the effects of these proven treatments, and provides policy-makers with a clear picture of the potential gains in health and health equity possible through broader implementation of these proven treatments to reduce mortality from suicide and overdose.

In summary, our modeling suggests the following:

- ***In Texas, universal access to collaborative care to treat major depression could reduce the number of suicide deaths[8] by between 725 and 1,100 deaths per year. In California, universal access to collaborative care to treat major depression could reduce the number of deaths by between 850 and 1,400 deaths per year.***
- ***If all individuals with depression nationwide were treated with collaborative care, between 9,000 and 14,500 suicide deaths would be prevented each year.***
- ***Expanding MAT access to everyone with an opioid use disorder could prevent 24,000 overdose deaths nationwide over the course of a year, including 1,600 drug overdose deaths in Texas and 2,500 such deaths in California.***
- ***Expansion of both collaborative care and MAT has the potential to cause a net decline in suicide and drug overdose deaths greater than the projected increases in suicide and drug overdose deaths resulting from the COVID-19 pandemic.***

While many of these deaths cannot be prevented with existing treatments,[9] there is considerable evidence that increases in the availability and uptake of CoCM and MAT may be

[8] We calculated a range of suicide deaths that could be prevented if CoCM were expanded. The low-end estimate was calculated by assuming that half of deaths from suicide were caused by depression (based on WSIPP, 2019; http://www.wsipp.wa.gov/TechnicalDocumentation/WsippBenefitCostTechnicalDocumentation.pdf), and the high-end estimate was generated under the assumption that as many as 80% of deaths from suicide are caused by depression, based on Beautrais, A. L., Joyce, P. R., Mulder, R. T., Fergusson, D. M., Deavoll, B. J., & Nightingale, S.K. (1996). Prevalence and comorbidity of mental disorders in persons making serious suicide attempts: A case-control study. *American Journal of Psychiatry, 153*(8), 1009–1014. https://doi.org/10.1176/ajp.153.8.1009

[9] Walter, G., & Pridmore, S. (2012, July 6). Suicide is preventable, sometimes. *Australasian Psychiatry, 20*(4), 271–273. https://doi.org/10.1177%2F1039856212449880

able to address the historic increases in deaths of despair[10] that are being accelerated by COVID-related increases in depression,[11] stress,[12] substance use,[13] and unemployment.[14] Results from our updated models suggest that the number of deaths from suicide and drug overdose can be reduced to below pre-COVID levels if everyone with depression had access to CoCM and everyone with an opioid use disorder had access to MAT.

The duration of the COVID-19 pandemic is unpredictable, and our initial projections assumed that access to treatment for depression and SUD would remain stable despite COVID-19. However, there is also evidence that behavioral health care capacity has substantially declined nationwide during the COVID-19 pandemic.[15] Several inpatient mental health services have experienced reduced capacity as psychiatric beds were converted to COVID-19 beds.[16] Emergency psychiatric services have also seen a decline in utilization, with early reports showing psychiatric emergency services volume at 70% of the previous two-year (2018–2019) average.[17]

Substantial gaps in the availability of mental health and SUD treatment existed before the COVID-19 pandemic.[18] Some evidence is beginning to suggest that COVID-19 has exacerbated these gaps in access to care. For example, in April 2020, a national survey highlighted the impact of COVID-19 and its associated financial impact on the United States' mental health and SUD treatment system. Results of the survey suggest that more than 30% of community behavioral health organizations have turned away patients and nearly half have or plan to lay

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[10] Case, A., & Deaton, A. (2017). Mortality and morbidity in the 21st century. *Brookings Papers on Economic Activity, 2017*(1), 397-476. https://data.nber.org/mortality-and-morbidity-in-the-21st-century/casetextsp17bpea.pdf

[11] Panchal, N., Kamal, R., Orgera, K., Cox, C., Garfield, R., Hamel, L., Munana, C., & Chidambaram, P. (2020, April 21). *The implications of COVID-19 for mental health and substance use.* https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/

[12] Rajkumar, R. P. (2020). COVID-19 and mental health: A review of the existing literature. *Asian Journal of Psychiatry, 52*, 1–5. https://doi.org/10.1016/j.ajp.2020.102066

[13] Hutchins Coe, E., & Enomoto, K. (2020, April 2). *Returning to resilience: The impact of COVID-19 on mental health and substance use.* McKinsey & Company. https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/returning-to-resilience-the-impact-of-covid-19-on-behavioral-health

[12] Cuellar, A., Mark, T. L., Sharfstein, S. S., & Huskamp, H. A. (in press). How to mitigate the mental health consequences of the COVID-19 financial crisis. *Psychiatric Services.* https://ps.psychiatryonline.org/pb-assets/journals/ps/homepage/How%20to%20mitigate%20the%20mental%20health%20consequences%20of%20the%20COVID-19%20financial%20crisis.pdf

[15] National Council for Behavioral Health. (2020, April 15). Previously cited.

[16] United Nations. (2020, May 13). *Policy brief: COVID-19 and the need for action on mental health*. https://www.un.org/sites/un2.un.org/files/un_policy_brief-covid_and_mental_health_final.pdf

[17] Goldenberg, M. N., & Parwani, V. (2020, May 27). Psychiatric emergency department volume during COVID-19 pandemic. *American Journal of Emergency Medicine*. https://doi.org/10.1016/j.ajem.2020.05.088

[18] Health Resources and Services Administration. (2020, July 7). *Health professional shortage areas – All HPSA's [Dataset].* https://data.hrsa.gov/data/download

off or furlough employees.[19] In the same survey, 62% of behavioral health centers projected that they would only survive financially for less than three months under the April 2020 COVID-19 conditions. Six out of every 10 clinics stated that they had already closed clinics or initiated mass staff layoffs. A June follow-up survey revealed that nearly three in four (71%) clinics turned away patients in the previous three months, and nearly half (44%) of the organizations believed they could survive for six months or less given the June 2020 financial environment.[20]

For this briefing, MMHPI estimates the number of deaths from suicide and drug overdose that can be prevented through universal access to CoCM and MAT by applying well-established estimates derived from the scientific literature. The underlying studies used in these estimates are specific to the United States and other advanced economies and are recent,[21,22,23,24] building on decades of research on CoCM and MAT.[25,26,27] There is also evidence that conditions are right for substantial expansion of both modalities.[28,29] The goal of this paper is to inform the

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[19] National Council for Behavioral Health. (2020, April 15). Previously cited.

[20] National Council for Behavioral Health. (2020, June 21). *The financial viability of the nation's mental health and addiction treatment organizations is in jeopardy.* https://www.thenationalcouncil.org/wp-content/uploads/2020/06/June_Survey_06.21.2020.pdf?daf=375ateTbd56

[21] Goldstein, E., Prater, L., & Wickizer, T. (2019). Behavioral health care and firearm suicide: Do states with greater treatment capacity have lower suicide rates? *Health Affairs (Project Hope), 38*(10), 1711–1718. https://doi.org/10.1377/hlthaff.2019.00753

[22] Hung, P., Busch, S. H., Shih, Y., McGregor, A. J., & Wang, S. (2020). Changes in community mental health services availability and suicide mortality in the US: A retrospective study. *BMC Psychiatry, 20*(1), 188. https://doi.org/10.1186/s12888-020-02607-y

[23] Thompson, H., Faig, W., Gupta, N., Lahey, R., Golden, R., Pollack, M., & Karnik, N. (2019, April 26). Collaborative care for depression of adults and adolescents: Measuring the effectiveness of screening and treatment uptake. *Psychiatric Services (Washington, D.C.), 70*(7), 604–607. https://doi.org/10.1176/appi.ps.201800257

[24] Ma, J., Bao, Y., Wang, R., Su, M., Liu, M., Li, J., Degenhardt, L., Farrell, M., Blow, F. C., Ilgen, M., Shi, J., & Lu, L. (2019). Effects of medication-assisted treatment on mortality among opioids users: A systematic review and meta-analysis. *Molecular Psychiatry, 24*(12), 1868–1883. https://doi.org/10.1038/s41380-018-0094-5

[25] Press, M. J., Howe, R., Schoenbaum, M., Cavanaugh, S., Marshall, A., Baldwin, L., & Conway, P. H. (2017). Medicare payment for behavioral health integration. *New England Journal of Medicine*, *376*(5), 405–407. https://www.ctc-ri.org/sites/default/files/uploads/NEJMp1614134.pdf

[26] Unützer, J., Harbin, H., Schoenbaum, M., & Druss, B. (2013, May). *The collaborative care model: An approach for integrating physical and mental health care in Medicaid health homes*. Health Home Information Resource Center. http://www.chcs.org/media/HH_IRC_Collaborative_Care_Model__052113_2.pdf

[27] Rosenblatt, R. A., Andrilla, C. H. A., Catlin, M., & Larson, E. H. (2015). Geographic and specialty distribution of US physicians trained to treat opioid use disorder. *The Annals of Family Medicine*, *13*(1), 23–26. https://www.annfammed.org/content/annalsfm/13/1/23.full.pdf

[28] The Path Forward. (2020). *Accelerating the Path Forward during turbulent times: The case for collaborative care during COVID-19.* https://higherlogicdownload.s3.amazonaws.com/NAHPC/3d988744-80e1-414b-8881-aa2c98621788/UploadedImages/The_Path_Forward_Case_for_Collaborative_Care_During_Covid_-19_Final.pdf

[29] Olfson, M., Zhang, V., Schoenbaum, M., & King, M. (2020). Buprenorphine treatment by primary care providers, psychiatrists, addiction specialists, and others: Trends in buprenorphine treatment by prescriber specialty-primary care providers, psychiatrists, and addiction medicine specialists. *Health Affairs*, *39*(6), 984-992. https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2019.01622

efforts of policymakers and health systems charged with providing mental health and SUD care about the potential effectiveness of CoCM and MAT as mitigation efforts to reduce suicide and drug overdose deaths and diminish COVID-related mortality stemming from these two factors.

I. Access to Collaborative Care for Depression and Suicide Deaths

The collaborative care model (CoCM) uses a team-based approach to care[30] that routinely measures both clinical outcomes and patient goals over time to increase the effectiveness of mental health and SUD treatment in primary care settings.[31,32] CoCM is an established evidence-based practice that has been shown to reduce depression, bipolar and anxiety disorders, SUD, suicidal ideation, and suicide completion.[33,34] CoCM is also the only evidence-based medical procedure currently reimbursable in primary care — it has been covered by Medicare since 2017[35] and by nearly all commercial payers since 2019[36] — and it is the only model with strong evidence of cost savings.[37,38,39] Despite its effectiveness, implementation has

[30] Unützer, J., Schoenbaum, M., & Druss, B. (2013, May). Previously cited.
[31] Nafziger, M., & Miller, M. (2013). *Collaborative primary care: Preliminary findings for depression and anxiety* (Doc. No.13-10-3401). Washington State Institute for Public Policy. http://www.wsipp.wa.gov/ReportFile/1546/Wsipp_Collaborative-Primary-Care-Preliminary-Findings-for-Depression-and-Anxiety_Preliminary-Report.pdf
[32] Alford, D. P., LaBelle, C. T., Kretsch, N., Bergeron, A., Winter, M., Botticelli, M., & Samet, J. H. (2011). Collaborative care of opioid-addicted patients in primary care using buprenorphine: five-year experience. *Archives of Internal Nedicine*, *171*(5), 425-431. https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/226781
[33] Bower, P., Gilbody, S., Richards, D., Fletcher, J., & Sutton, A. (2006). Collaborative care for depression in primary care: Making sense of a complex intervention: Systematic review and meta-regression. *The British Journal of Psychiatry, 189*(6), 484–493. https://doi.org/10.1192/bjp.bp.106.023655
[34] Unützer, J., Katon, W., Callahan, C. M., Williams, J. W., Jr, Hunkeler, E., Harpole, L., Hoffing, M., Della Penna, R. D., Noël, P. H., Lin, E. H., Areán, P. A., Hegel, M. T., Tang, L., Belin, T. R., Oishi, S., & Langston, C. (2002, December 11). Collaborative care management of late-life depression in the primary care setting: A randomized controlled trial. *JAMA, 288*(22), 2836–2845. https://doi.org/10.1001/jama.288.22.2836
[35] Center for Medicare and Medicaid Services. (2019, May). *Behavioral health integration services.* https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/BehavioralHealthIntegration.pdf
[36] Alter, C., Carlo, A., Harbin, H., & Schoenbaum, M. (2019, July 3). Wider implementation of collaborative care is inevitable. *Psychiatric News, 54*(13), 6-7. https://doi.org/10.1176/appi.pn.2019.6b7
[37] Unützer, J., Schoenbaum, M., & Druss, B. (2013, May). Previously cited.
[38] Press, M. J., Howe, R., Schoenbaum, M., Cavanaugh, S., Marshall, A., Baldwin, L., & Conway, P. H. (2017, February 2). Previously cited.
[39] Melek, S. P., Norris, D. T., Paulus, J., Matthews, K., Weaver, A., & Davenport, S. (2018, January). *Potential economic impact of integrated medical-behavioral healthcare. Updated projections for 2017*. https://milliman-cdn.azureedge.net/-/media/milliman/importedfiles/uploadedfiles/insight/2018/potential-economic-impact-integrated-healthcare.ashx

been slow.[40] Because CoCM can be effectively implemented with telehealth,[41,42,43] telehealth expansion in response to the COVID-19 pandemic[44] may allow health systems to accelerate CoCM implementation.

To assess the potential utility of CoCM to mitigate both rising baseline rates of suicide death and elevated suicide rates resulting from the COVID-19 recession, MMHPI created projections using a 2019 Washington State Institute for Public Policy (WSIPP) meta-analysis, which suggested that patients who received CoCM experienced significantly less depression when compared to treatment-as-usual, sufficient to reduce overall prevalence of depression by about one-third.[45] Given the number of deaths from suicide that occurred in 2018 and the increase in such deaths that we project to occur because of the COVID recession,[46,47] our models[48]

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[40] Katon, W., Unützer, J., Wells, K., & Jones, L. (2010). Collaborative depression care: History, evolution, and ways to enhance dissemination and sustainability. *General Hospital Psychiatry*, *32*(5), 456–464. https://doi.org/10.1016/j.genhosppsych.2010.04.001

[41] University of Washington AIMS Center. (2017). *Practice-based and telemedicine-based collaborative care.* https://aims.uw.edu/practice-based-and-telemedicine-based-collaborative-care

[42] Fortney, J. C., Pyne, J. M., Kimbrell, T. A., Hudson, T. J., Robinson, D. E., et al. (2015). Telemedicine-based collaborative care for posttraumatic stress disorder: a randomized clinical trial. *JAMA Psychiatry,* 72(1), 58-67. https://pubmed.ncbi.nlm.nih.gov/25409287/

[43] Fortney, J. C., Pyne, J. M., Mouden, S. B., Mittal, D., Hudson, T. J., Schroeder, G. W., et al. (2013). Practice-based versus telemedicine-based collaborative care for depression in rural federally qualified health centers: a pragmatic randomized comparative effectiveness trial. *American Journal of Psychiatry*, *170*(4), 414-425. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3816374/

[44] Powell, A. C., Bowman, M. B., & Harbin, H. T. (2020, May 1). *Tele-behavioral health for employees: Pre-COVID practices and recommendations for a Post COVID path forward.* https://higherlogicdownload.s3.amazonaws.com/NAHPC/3d988744-80e1-414b-8881-aa2c98621788/UploadedImages/Tele-Behavioral_Health_Resource.pdf

[45] Washington State Institute for Public Policy. (2019, December). *Collaborative primary care for depression (general adult population).* https://www.wsipp.wa.gov/BenefitCost/Program/238

[46] MMHPI. (2020, April 28). Previously cited.

[47] We used CDC Wonder to abstract the total number of deaths from suicide in the United States, Texas and California in 2018. These numbers were inflated by 9,000 (nationally), 600 (Texas) and 750 (California) to reflect the number of expected deaths from suicide attributable to the COVID-19 recession. We calculated the number of additional cases of depression that we would expect to occur under two different assumptions: 1) half of deaths from suicide were caused by depression (WSIPP, 2019); and 2) 80% of deaths from suicide were caused by depression (Beautrais, A. L., et al., 1996). Using these inputs, we calculated a range of reductions in the prevalence of depression and associated suicide if all patients received CoCM.

[48] Our models converted WSIPP's effect size (-.258) to a percentage change (-.02262%) using the formulas in 3.2b of the WSIPP technical documentation (available at http://www.wsipp.wa.gov/TechnicalDocumentation/WsippBenefitCostTechnicalDocumentation.pdf). When multiplied by the population size, this number represents the new prevalence rate of depression, assuming that everyone with depression received CoCM. The previous prevalence rate of major depression among American adults was obtained from the National Survey on Drug Use and Health. Given the widely varying proportions of suicide that are attributable to depression in the scientific literature, we assumed that at least half of deaths from suicide are caused by depression (per the Centers for Disease Control and Prevention, referenced in WSIPP technical documentation), but as many as 80% of deaths from suicide are caused by depression: Beautrais, A. L., et al. (1996). Previously cited.

projected that universal access to CoCM among people with depression would result in 7 million fewer Americans with depression, including nearly 500,000 Texans and 800,000 Californians. Informed by the Centers for Disease Control and Prevention, WSIPP researchers assumed that half of deaths from suicide are caused by depression.[49] Under these conditions, we would expect that 9,000 fewer Americans, including 725 fewer Texans and 850 fewer Californians, would die from suicide. If we assume that as many as 80% of deaths from suicide are caused by depression – the upper limit cited in the literature[50] – we would project that 14,500 fewer Americans, including 1,100 fewer Texans and 1,400 Californians, would die from suicide if all people with depression had access to CoCM.

II. Access to Medication-Assisted Treatment (MAT) for SUD and Drug Overdose Deaths

MAT includes the provision of medications such as methadone, naltrexone, and buprenorphine as well as counseling to reduce the symptoms of withdrawal and to support people in their recovery from opioid addiction. The scientific literature is clear that use of MAT reduces relapse and drug overdose death.[51] However, many barriers to universal MAT access remain, especially for rural areas.[52] Rural primary care providers are among the least likely to be trained and authorized to prescribe MAT, leaving 30 million Americans, including millions of Texans and Californians, living in counties without access to MAT.[53,54] In Texas, the under-treatment of opioid use disorder has been called a public health crisis, as only 10% of Texas counties have a provider authorized to prescribe MAT.[55] Training and authorizing more primary care providers to prescribe MAT would increase access to this needed treatment.[56]

Using effect sizes from a 2019 meta-analysis by Ma and colleagues,[57] MMHPI estimated how many drug overdose deaths would be prevented if all people with opioid use disorder had

[49] Washington State Institute for Public Policy. (2019, December). Previously cited.
[50] As many as 80% of deaths from suicide have been attributed to depression, as cited in the literature. The most frequently cited study reporting this effect size is Beautrais, A. L., et al. (1996). Previously cited.
[51] Ma, J., et al. (2019). Previously cited.
[52] Andrilla, C. H. A., Moore, T. E., Patterson, D. G., & Larson, E. H. (2019). Geographic distribution of providers with a DEA waiver to prescribe buprenorphine for the treatment of opioid use disorder: A 5-year update. *The Journal of Rural Health*, *35*(1), 108–112. https://doi.org/10.1111/jrh.12307
[53] Rosenblatt, R. A., Andrilla, C. H. A., Catlin, M., & Larson, E. H. (2015). Previously cited.
[54] Legislative Budget Board Staff. (2019, April). Overview of opioid crisis in Texas. http://www.lbb.state.tx.us/Documents/Publications/Staff_Report/2019/4616_Opioid_Crisis.pdf
[55] Hobby School of Public Affairs, University of Houston. (2018). *The opioid epidemic in Texas: Current policies and possible policy reforms.* https://uh.edu/hobby/_docs/research/the-opioid-epidemic-in-texas.pdf
[56] Korthuis, P. T., McCarty, D., Weimer, M., Bougatsos, C., Blazina, I., Zakher, B., Grusing, S., Devine, B., & Chou, R. (2017). Primary care-based models for the treatment of opioid use disorder: A scoping review. *Annals of Internal Medicine*, *166*(4), 268–278. https://doi.org/10.7326/m16-2149
[57] Ma, J., et al. (2019). Previously cited.

access to MAT compared to baseline levels of access to MAT.[58] The relative risk of overdose, which includes adjustments based on age and other factors, is 8.1 times higher for people with opioid use disorder who did not receive MAT compared to those with access to MAT. When the overdose mortality rate for untreated individuals is applied to the estimated number of Americans, Texans and Californians with opioid use disorder,[59] MMHPI projects that 24,000 of the nearly 50,000 annual deaths from overdose across the United States each year could be prevented, including 1,600 of the more than 3,000 overdose deaths that occur annually in Texas and 2,500 in California. Because overdose rates increase if MAT is not continued over time, though not to the rates seen in untreated populations, the mortality rate could be even lower to the extent that more people remain in treatment over time.

The figures that follow display the projected deaths from suicide and drug overdose that could be prevented if CoCM and MAT were universally accessible to people with major depression and opioid use disorder, as compared to the number of additional deaths from each cause likely to occur due to the effects of COVID-19 on employment.[60] In summary, our projections suggest that expanding access to CoCM and MAT has the potential to prevent more deaths from suicide and drug overdose deaths than we projected to occur as a result of COVID-related unemployment. In other words, universal use of CoCM and MAT has the potential to cause a net reduction in suicide and drug overdose deaths, despite the increases projected because of COVID-19.[61]

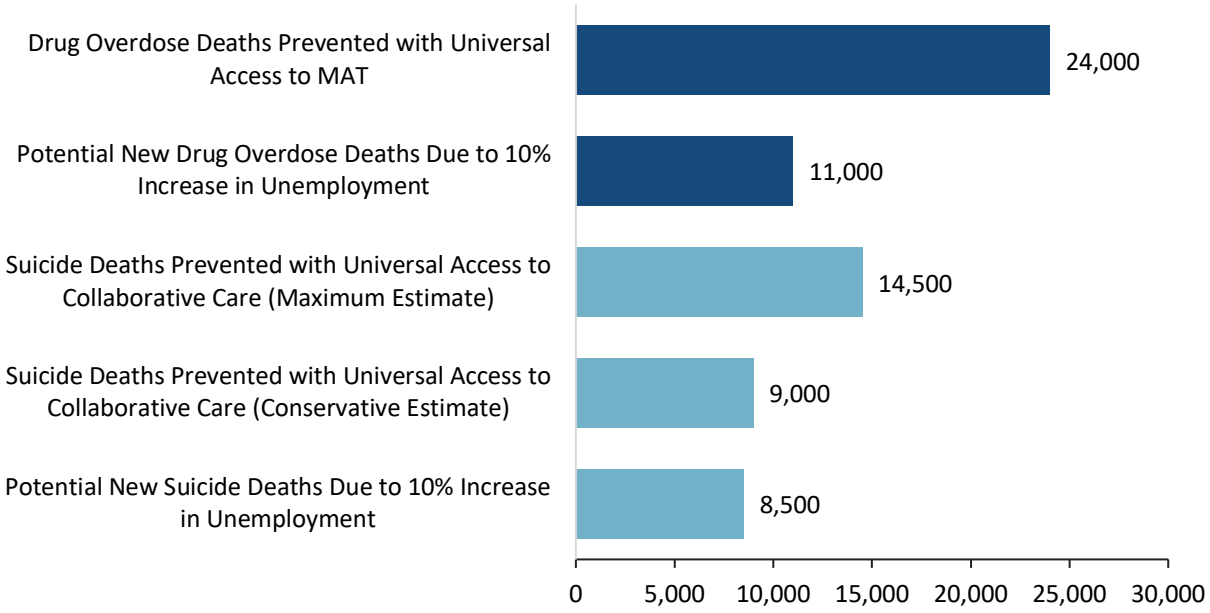
[58] Case management and behavioral therapies are commonly used in conjunction with MAT and may reduce mortality — see Davoli, M., et al. (2007). Previously cited. The vast majority of studies in the Ma et al. (2019) meta-analysis did not reference these additional forms of therapy in conjunction with MAT.

[59] Substance Abuse and Mental Health Services Administration. (2019). *Behavioral health barometer: United States, volume 5: Indicators as measured through the 2017 National Survey on Drug Use and Health and the National Survey of Substance Abuse Treatment Services*. HHS Publication No. SMA–19–Baro-17-US. Substance Abuse and Mental Health Services Administration. https://store.samhsa.gov/product/Behavioral-Health-Barometer-Volume-5/sma19-Baro-17-US

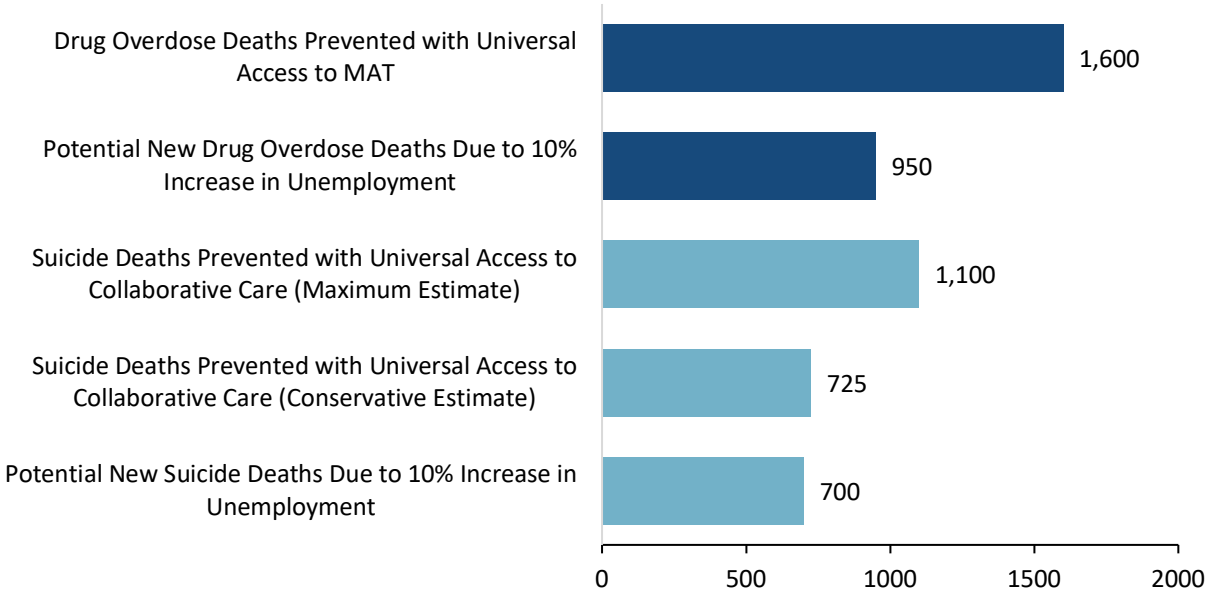
[60] These figures reflect the number of deaths from suicide and drug overdose that we projected to occur under a 10% increase in the unemployment rate. It is possible that sustained unemployment related to COVID-19 could be higher or lower, which would affect the rate of death accordingly. Potential drug overdose deaths saved exceed the number of new drug overdose deaths potentially caused by COVID-19 even if increases in unemployment rates exceed 15% in Texas and California, and 20% nationally compared to pre-COVID levels. The number of deaths from suicide exceed the number of new deaths from suicide potentially caused by COVID-19 even if increases in unemployment rates rise fifteen percentage points (15%) compared to pre-COVID levels.

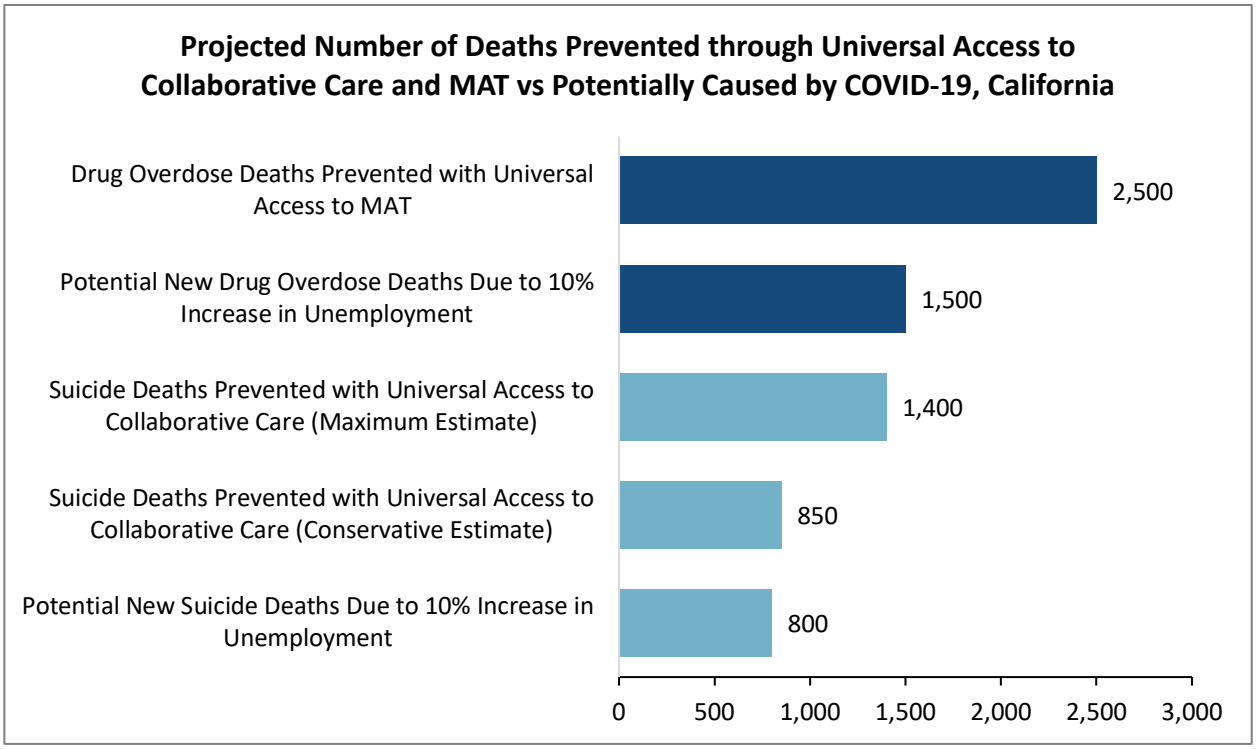
[61] MMHPI. (2020, April 28). Previously cited.

Projected Number of Deaths Prevented through Universal Access to Collaborative Care and MAT vs Potentially Caused by COVID-19, United States



Projected Number of Deaths Prevented through Universal Access to Collaborative Care and MAT vs Potentially Caused by COVID-19, Texas





III. Recommendations for Policy

Given the projected number of lives that could be saved and depression burden reduced through universal access to CoCM and MAT among people who need it, policymakers should prioritize strategies to increase the capacity of primary care practices to provide these services. Two sets of policy changes in particular could help. First, federal restrictions on the capacity of primary care practitioners to prescribe MAT medications should be reduced, and the temporary COVID-19 provisions which allow MAT medications to be prescribed via telehealth should be made permanent. Shatterproof has been at the forefront of advancing thoughtful policy solutions addressing MAT[62] and treatment of substance use disorders more broadly, including the role of CoCM.[63] Second, federal subsidies and expanded coverage under state Medicaid plans should be used to accelerate the development of primary care capacity to offer CoCM, similar to the subsidies used a decade ago to increase electronic health record capacity and use. The American Psychiatric Association has proposed a plan as part of its COVID-19 response[64]

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[62] For additional information on Shatterproof's policy analysis and goals related to MAT, please see: https://www.shatterproof.org/treatment/MAT

[63] Shatterproof and The Path Forward. (n.d.). *Medicaid and collaborative care for substance use disorder and mental health.* https://www.shatterproof.org/sites/default/files/2020-07/Collaborative%20Care%20Model%20for%20SUD%20White%20Paper.pdf

[64] American Psychiatric Association. (2020, April 13). *APA urges Congress to include psychiatric priorities in future COVID-19 supplementals.* https://www.psychiatry.org/File Library/Psychiatrists/Advocacy/Federal/APA-Letter-Congress-COVID19-Priorities-04132020.pdf. Recommendations related to mental health and substance use care are listed on pages 5 and 6.

and this has been endorsed by major employer groups representing many major American businesses.[65] Additionally, expansion of CoCM would be facilitated if the temporary provisions related to COVID-19 that reduced barriers to telehealth were made permanent.

IV. Additional Considerations

Although not specifically modeled in this analysis, CoCM may have other beneficial effects beyond reduction in depression and associated reductions in death from suicide. In particular, it is notable that CoCM also supports expanded access to MAT and other treatments for SUD.[66] Therefore, the number of lives saved from CoCM may be underestimated. Better treatment of depression could also save tens of billions of dollars in annual health costs through reduced burden of co-morbid health conditions such as diabetes and heart disease,[67,68] as well as increased productivity in the workplace.[69] There is also strong evidence that CoCM can improve health equity, including improved depression outcomes for African American and Latino communities[70] and for older adults in minority communities who are at particular risk of COVID-19 and COVID-related social isolation.[71,72]

Our models assume that all people with depression and opioid use disorder would have access to CoCM and MAT if they were available. Universal uptake is an idealized goal worth pursuing, but the substantial decline in outpatient health care utilization during the COVID-19 pandemic may make universal treatment uptake even more challenging to achieve in practice.[73]

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Therefore, our projections should be considered to represent an ideal scenario in which all persons in need of CoCM and MAT services are able to access and use them.

Additionally, some researchers, including the economists who coined the term "deaths of despair," have questioned whether the association between unemployment and death from suicide was causal because suicide rates did not come down when unemployment improved.[74] We believe that such analysis is flawed because it does not take into account the long-term, life altering effects of unemployment and its associated stressors on individuals. For example, toxic stress and trauma have been documented as having long-term, uni-directional effects on the health of individuals generally[75] and suicide specifically.[76,77] Therefore, we believe that this stance is as mistaken as arguing that post-traumatic stress cannot be related to war because symptoms persist after returning home.[78]

In summary, our models suggest that universal access to CoCM and MAT has the potential to reduce deaths from suicide and drug overdose to below pre-pandemic levels. Therefore, we urge policymakers to remove barriers to accessing CoCM and MAT and proactively work to increase the capacity of primary care providers to offer these services, including subsidies to increase availability of CoCM and MAT through future COVID-related legislation given the potential of these treatments to save lives that would otherwise be lost to suicide and drug overdose.

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