The Escalation of the Opioid Epidemic Due to COVID-19 and Resulting Lessons About Treatment Alternatives

Marcelina Jasmine Silva, DO; and Zakary Kelly, MBA

he arrival of the coronavirus disease 2019 (COVID-19) pandemic has provided an unanticipated haven for the already formidable opioid epidemic. COVID-19-related protective shelter-in-place orders have pushed individuals battling sobriety into isolation and have decreased access to treatment and opportunity for distraction from addictions.¹ The addiction community is raising alarms that the current epidemiological climate alone is a risk factor for substance abuse relapse, prompting the *New York Times* to label the coronavirus pandemic "a national relapse trigger."² Thus, social distancing is potentially concealing a surge of opioid abuse, and resulting morbidity and mortality, larger than any we saw before.

In the United States, the opioid epidemic has caused pathology and morbidity beyond the level of bodily health for the individual and the collective. Like other epidemics throughout history, causational loss and disability can be seen in public and private economies, as well as in our collective societal cache. We are seeing this reflected in astronomically inflated managed care costs, decreased productivity in the labor market, and opportunity costs in the greater body of public resources.³⁻¹³

An oversimplified view of this situation may lead some to believe that simply refusing opioid prescriptions and/or coverage is the effective response to both the health and managed care costs of the opioid epidemic in the United States. However, the gestalt of data presented here suggests that the solution to the individual and societal problems inherent in this epidemic is more complicated and that there is a clear need for a new treatment and payer paradigm to reverse this trend on all fronts.

Even in terms of physical health, simply refusing opioid access and coverage has not been a highly effective tactic. In 2010, the CDC began to note that the average American life span was declining in correlation with an astounding increase in opioid-related deaths, causing the CDC to call for an "urgent" response.¹⁴ Since that time, the CDC drafted the widely adopted 2016 opioid guidelines to limit opioid access, dose, and time exposure.¹⁵ However, only minimal positive impact has been seen from years of nationwide pre–COVID-19 regulations and efforts from the medical and managed care sectors

TAKEAWAY POINTS

We offer an alternative approach to the opioid epidemic that can improve both health and financial outcomes. This commentary:

- builds upon "Deaths, Dollars, and Diverted Resources: Examining the Heavy Price of the Opioid Epidemic," a supplement of *The American Journal of Managed Care*[®];
- includes additional data demonstrating the financial stakes of managed care institutions in the opioid epidemic; and
- contains a graphic showing the trajectory of those financial stakes in the context of the current opioid epidemic treatment approach.
 Insights learned from the worsening opioid epidemic due to coronavirus disease 2019, along with necessary social distancing recommendations, suggest an ultimate path to successful treatment by investing in modalities that promote emotional resiliency building and help address the factors that made patients susceptible to opioid reliance in the first place.

to comply with these guidelines. Although US life expectancy finally stopped declining in 2018 for the first time since 2014, the success of these large-scale access-reduction efforts has been measured as only a 0.1-year increase in life expectancy from 2017 to 2018.¹⁶ This is still an overall decrease from the peak length of US life expectancy in 2014. Thus, the United States still holds the dubious distinction of being the lowest-ranked nation in life expectancy among developed nations due to the opioid epidemic, a statistic usually depreciated by factors such as civil war or lack of access to safe water or basic vaccinations.^{17,18} Further, the meager tide shifts from these massive efforts are remnants from an antiquated, pre-COVID-19 world, as the medical community has recently had to compromise some former CDC standards on risk assessment behaviors via forgoing tools such as random urine drug sampling and in-person patient screening for opioid misuse by shifting to telemedicine to comply with social distancing measures.¹⁹

More subtle than increased mortality rates, disturbing correlations between injury recovery trajectories and opioid use are being seen in occupational injuries. Studies have shown that patients with

COVID-19 Effects Inform Strategy Against Opioids

opioid dependence disorder in the setting of occupational spinal disorders are less likely to improve vocational and social function and have longer lengths of disability by 3-fold.⁶ They are also 2.5 times more likely to have had pretreatment surgery, 1.7 times more likely to engage in health care utilization with new providers, and 1.5 times more likely to be represented by an attorney.²⁰ These costs and inefficiencies were not seen in case-controlled subjects with similar spinal pathologies who did not become dependent on opioids.

Corresponding to the trend of increased disability severity and length associated with opioid use, private insurance medical charges for patients with opioid abuse or dependency are more than 550% higher than the average annual per-patient charge.⁸ This data point

encompasses the costs of related comorbid conditions (eg, other substance use, psychiatric, and pain-related diagnoses) and increased hospitalizations and emergency department visits. These are not simply the costs of opioid prescriptions, and they do not go away with decreased prescription coverage.

Still, solution attempts are focused on restriction of opioid prescription access and coverage. Industrial insurers, for example, have been holding a hard line toward this effort. And although the actualization of decreasing coverage is documented,²¹ it is notable that the years of decreasing coverage intersect with the still-rising all–health care cost associated with opioid use. In other words, simply denying coverage for opioid prescriptions has improved neither the dismal health trends from opioid use nor the rising fiscal cost of opioids to health care systems (**Figure**^{8,21,22}).

Private insurances are not alone in bearing this inflated price tag for health care in the opioid epidemic: Almost one-third of patients who receive treatments for substance use disorder are covered by Medicaid.¹¹ A model of data analysis and extrapolation of a 17-state sample showed disturbing trends that, when generalized to the entire US Medicaid population, estimated that state Medicaid costs associated with the opioid epidemic totaled more than \$8.4 billion in 2013.¹¹ Further, as the population of opioid users ages, Medicare can be assumed to be similarly affected, which will eventually hit home even for industrial insurers in the form of Medicare setasides. Note that these inflated price tags were tallied before the opioid crisis reached its full depreciative impact on the American life span after 2014.

Beyond the sectors of managed care, a recent collection of data by investigators at Pennsylvania State University found that in the United States between 2000 and 2016, opioid misuse reduced state tax revenue by more than \$11 billion, including approximately \$10 billion in lost income tax revenue and almost \$2 billion in lost sales tax revenue.¹⁰ This translates into "opportunity cost," as using resources for the opioid epidemic reduces or eliminates



the ability to use those resources for different purposes, such as transportation infrastructure and public education, both budget priorities that help distinguish the United States as a developed country.²³ Lost opportunity costs from opioid-related transgressions and associated resource diversions are also abundantly found in the criminal justice, foster care, and educational systems.^{4,5,9,11-13}

A review of the increasing physical and institutional costs of the opioid epidemic-despite adequate trials of time, scale, and effort to combat it-confirms the need for a tactical change. The data have overwhelmingly shown that the years of focusing an attack on limiting opioid access for patients who have become dependent upon opioid use are not improving outcomes in the United States. Simultaneously, COVID-19 has offered some painful learning opportunities. Valuable insights learned from factors related to social distancing that are worsening the opioid epidemic point to opportunities to combat the problem via novel treatment approaches to effect change that invest in the antithesis of social distancing. If social distancing bolsters the opioid epidemic, the opposite behaviors strengthen our attack on it: emotional resiliency building, stress reduction techniques, health education, facilitated human connection via group treatment (when epidemiologically safe), abundant access to classic opioid alternatives like buprenorphine, integrated interdisciplinary modalities, and promotion of appropriate and sustainable physical activity. To obtain different outcomes, a novel treatment approach is needed: one that invests an early and robust bolus of health care resources to help patients address the factors that made them susceptible to opioid reliance and dependency in the first place.

Author Affiliations: IPM Medical Group (MJS, ZK), Walnut Creek, CA. Source of Funding: None.

Author Disclosures: The authors report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

Authorship Information: Concept and design (MJS); analysis and interpretation of data (MJS, ZK); drafting of the manuscript (MJS, ZK); critical revision of the

COMMENTARY

manuscript for important intellectual content (MJS); administrative, technical, or logistic support (MJS, ZK); and supervision (MJS).

Address Correspondence to: Marcelina Jasmine Silva, DO, IPM Medical Group, 450 N Wiget Ln, Walnut Creek, CA 94598. Email: mjsilvado@gmail.com.

REFERENCES

 Briquelet K. Don't forget the other pandemic killing thousands of Americans. Daily Beast. May 3, 2020. Accessed May 4, 2020. https://www.thedailybeast.com/opioid-deaths-surge-during-coronavirus-in-americas-overdose-capitals 2. Hoffman J. With meetings banned, millions struggle to stay sober on their own. *New York Times*. March 26, 2020. Accessed April 29, 2020. https://www.nytimes.com/2020/03/26/health/coronavirus-alcoholics-drugsonline.html

 Fassbender L, Zander GB, Levine RL. Beyond rescue, treatment, and prevention: understanding the broader impact of the opioid epidemic at the state level. *Am J Manag Care*. 2019;25[suppl 13]:S239-S240.
 Crowley DM, Connell CM, Jones D, Donovan MW. Considering the child welfare system burden from opioid misuse: research priorities for estimating public costs. *Am J Manag Care*. 2019;25[suppl 13]:S256-S263.

5. Kawasaki S, Sharfstein JM. The cost of the opioid epidemic, in context. *Am J Manag Care.* 2019;25(suppl 13):S241-S242.

6. Savych B, Neumark D, Lea R. Do opioids help injured workers recover and get back to work? the impact of opioid prescriptions on duration of temporary disability. *Ind Relat (Berkeley)*. 2019;58(4):549-590. doi:10.1111/irel.12243
7. Zajac G, Nur SA, Kreager DA, Sterner G. Estimated costs to the Pennsylvania criminal justice system resulting from the opioid crisis. *Am J Manag Care*. 2019;25(suppl 13):S250-S255.

8. The impact of the opioid crisis on the healthcare system: a study of privately billed services. FAIR Health. September 2016. Accessed March 9, 2020. https://s3.amazonaws.com/media2.fairhealth.org/whitepaper/asset/ FH%20White%20Paper%20-%20The%20Impact%20of%20the%200pioid%20Crisis%20on%20the%20Healthcare%20System%20-%20Sept%202016-5972407510d1f.pdf

9. Segel JÉ, Shi Y, Moran JR, Scanlon DP. Opioid misuse, labor market outcomes, and means-tested public expenditures: a conceptual framework. *Am J Manag Care.* 2019;25(suppl 13):S270-S276.

10. Researchers estimate societal costs of the opioid epidemic. News release. Pennsylvania State

University. July 30, 2019. Accessed March 9, 2020. https://news.psu.edu/story/581779/2019/07/30/research/ researchers-estimate-societal-costs-opioid-epidemic 11. Leslie DL, Ba DM, Agbese E, Xing X, Liu G. The economic burden of the opioid epidemic on states: the case of Medicaid. *Am J Manag Care*. 2019;25(suppl 13):S243-S249.

12. Morgan PL, Wang Y. The opioid epidemic, neonatal abstinence syndrome, and estimated costs for special education services. *Am J Manag Care*. 2019;25[suppl 13]:S264-S269.

 Plough AL. The opioid epidemic: the cost of services versus the cost of despair. Am J Manag Care. 2019;25[suppl 13]:S232-S233.

 Rudd RÅ, Seth P, David F, Scholl L. Increases in drug and opioid-involved overdose deaths — United States, 2010-2015. MMVR Marb Mortal Wkly Rep. 2016;65(50-51):14:45-1452. doi:10.15585/mmwr.mm655051e1
 Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain — United States, 2016. MMVR Recomm Rep. 2016;65(11):1-49. doi:10.15585/mmwr.mn6501e1er. Published correction appears in MMVR Recomm Rep. 2016;65(11):295. doi:10.15585/mmwr.mn65011a6

16. Xu J, Murphy SL, Kochanek KD, Arias E. Mortality in the United States, 2018. NCHS data brief 355. January 2020. Accessed May 8, 2020. https://www.cdc.gov/nchs/data/databriefs/db355-h.pdf

17. United States of America. World Health Organization. Accessed March 9, 2020. http://www.who.int/countries/usa/en/

 Wylie J. Life expectancy down in US compared to other countries. AARP. September 21, 2018. Accessed March 9, 2020. https://www.aarp.org/health/healthy-living/info-2018/Life-expectancy-down.html
 Considerations for the care and treatment of mental and substance use disorders in the COVID-19 epidemic. Substance Abuse and Mental Health Services Administration. March 20, 2020. Updated May 7, 2020. Accessed May 8, 2020. https://www.sambaa.gov/sites/default/files/considerations-care-treatment-mental-substanceuse-disorders-crivid19 ndf

 Dersh J, Mayer TG, Gatchel RJ, Polatin PB, Theodore BR, Mayer EAK. Prescription opioid dependence is associated with poorer outcomes in disabling spinal disorders. *Spine*. 2008;33(20):2219-2227. doi:10.1097/BRS.0b013e31818096d1

 King L. A reversal of the opioid trend in California. MEDVAL. May 15, 2019. Accessed March 9, 2020. https://www.medval.com/2019/05/15/a-reversal-of-the-opioid-trend-in-california/

 Young B, Hayes S. California workers' compensation prescription drug utilization & payment distributions, 2009-2018: part 1. February 2019. Accessed March 12, 2020. https://www.cwci.org/document.php?file=4190.pdf
 Scanlon DP, Hollenbeak CS. Preventing the next crisis: six critical questions about the opioid epidemic that need answers. *Am J Manag Care*. 2019;25(suppl 13):S234-S238.

Visit ajmc.com/link/4635 to download PDF