# **Economics of Mental Healthcare: Is It Cost Effective To Treat Mental Health?**

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#### **INTRODUCTION**

Total healthcare spending in the United States was \$2.7 trillion in 2016, with mental disorders representing 6.68% or \$180 billion in spending of that total amount.¹ While this may seem like a significant portion commensurate with the outsized challenge that mental health presents to society, there is still a large gap in access with over half of adults (54.7%) reporting that they have not received treatment for their symptoms.² Some investigators have in fact attempted put a price on the total cost of untreated mental illness, with conservative calculations weighing in at \$113 billion annually for the United States, although there has been insufficient research on this subtopic.³ In terms of the overall cost to society of mental illness, there has been several attempts to undertake the difficult process of quantifying the reduced economic activity and increased disability costs that are compounded with traditional healthcare expenditures.⁴

In addition, there are vast non-healthcare costs and indirect economic costs associated with mental illness that have been underexplored to date and represent the greater true burden on society. These indirect costs include criminality, lost wages, and premature death (not to mention homelessness and disability benefit costs).

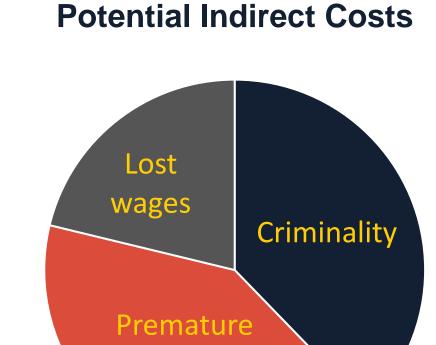
> Our objective put forth in this literature review is to better understand these indirect costs and the potential benefits of expanding mental healthcare access.

# **RESULTS** (cost analysis)

- **Indirect costs:** In terms of determining the overall cost to society of mental illness criminal behavior, premature death, and lost wages are robust enough to be altered into costs per year, per mentally ill induvial and adjusted for inflation to 2023 dollars. (Figure 1)
- **Premature death:** A major indirect cost driver that is calculated by determining the lost years of economic activity from the time of death until the life expectancy point. Suicide is a dominant force mathematically.
- Lost wages / lowered productivity: Mental illness impeding careers or productive work has been calculated for both mild and serious mental illness.
- **Criminality:** Costs were calculated for each mentally ill individual found to be committing a violent crime. These included costs to the criminal justice/penal system, physical and mental harm to victims, and loss of productivity of the victims.
- **Direct costs/savings with expanded mental healthcare:** Not accounting for any preventative healthcare benefit that would run beyond a 7-year study period, it was calculated that combined federal and state direct costs would rise by \$1,388 to \$1,827 per person per year when expanding Medicaid coverage to the mentally ill.<sup>5</sup>

Figure 1a&b: Compiled results providing valuation for select indirect mental health cost categories [4,6-10]

Indirect cost category	Averaged cost per individual, per year (2023 dollars):
Criminality	\$25,699.70
Premature death	\$27,925.43
Lost wages / lowered productivity	\$14,440.30
Total potential indirect cost:	\$68,065.42



### **METHOD**

A literature review of major research databases including Embase, Google Scholar, and Cochrane library was performed searching for the indirect costs of mental illness and the benefits of expanded mental healthcare access. Pertinent findings were compiled and analyzed to generate conclusions.

# RESULTS (actionable findings)

### Mental healthcare access and criminality:

- Mental health services in an outpatient setting for juveniles improves outcomes and reduces subsequent arrests in the judicial system<sup>11</sup>
- Addition of 10 outpatient mental health practitioners in a single county reduced per capital costs to society by 2.3% to 2.6%
- Loss of access to mental healthcare increased subsequent criminality in demographics with psychiatric disorders 12
- Greater access to addiction mental health services specifically led to an economically significant reduction in crime <sup>13</sup>

#### Elasticity of demand for mental healthcare:

- This high elasticity of demand refers to the sudden doubling of mental healthcare utilization rates when 40% copays were eliminated for cohorts of patients, as observed by investigators in Denmark.<sup>14</sup>
- This re-emphasizes the fact that front line affordability of mental healthcare for patients is paramount to access and treatment

Figure 2.: Savings associated with the expansion of Medicaid at the State level

Benefit	Quantities
Mental health and substance abuse savings <sup>15</sup>	14-30% of the cost of expansion
Saving to providers from reduced uncompensated costs <sup>16</sup>	41% of total uncompensated costs
Decreased rate of rural hospital failure <sup>17</sup>	61% reduction in fail rate
Premature death reduction <sup>18</sup>	39-64% reduction in premature death
Reduction in medical debt accumulation <sup>19</sup>	11% net over non-expansion states

### CONCLUSIONS

- Providing access to mental health services has the potential to be of great economic benefit to US society and
- Immediate affordability of care plays a large role in access for patients. Lack of healthcare access is a critical area that drives increased criminality.
- There is still an overall lack of robust quantitative research on the specific associated costs of untreated mental illness in the United States;<sup>20</sup>
- This should be a research priority for the psychiatric field as well as governmental bodies and healthcare economists.
- The consumption of mental healthcare services carries great positive externalities for society:

  These externalities far outweigh the small increase in direct costs (\$1,388 to \$1,827 per person per year)<sup>5</sup>

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