



# Assisted Outpatient Treatment: Improving Outcomes and Saving Money

## WHAT IS AOT?

Assisted outpatient treatment (AOT) is a tool in the toolbox for civil courts and mental health systems to work collaboratively to help individuals with serious mental illness caught in a cycle of repeat hospitalizations, homelessness and incarcerations. Individuals who benefit from AOT have a history of inconsistent engagement with treatment often due to diminished awareness of the need for treatment. AOT aims to motivate and assist individuals with serious mental illness to engage in treatment and ensure that the mental health system is attentive to their needs.

## HOW DOES AOT WORK?

A judge usually orders AOT upon discharge from a hospital or jail, but in many states, a judge can order it for individuals who are living in the community if they have a recent history of cycling in and out of the hospital or jail. The AOT participant is court-ordered to follow an individualized treatment plan in the community for a specific period and the local mental health system monitors adherence to the treatment plan. If the AOT participant does not adhere to treatment, the court has several options including modifying the treatment plan, ordering the participant to appear in court, and ordering the participant to be evaluated for possible hospitalization. Once the participant demonstrates voluntary engagement in treatment, the court dismisses the AOT order or allows it to expire and care continues.

## IS AOT EFFECTIVE?

Studies show that AOT can dramatically improve treatment outcomes and substantially reduce the likelihood of repeat hospitalization and criminal justice involvement for its target population. Following is a summary of those findings.

## AOT RESEARCH HIGHLIGHTS



**Hospitalizations**  
**DOWN 77%** in New York<sup>1</sup>

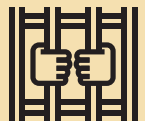
**Length of hospital stays**  
**DOWN 43%**

in Florida<sup>2</sup>



**Incidence of arrests**  
**DOWN 83%**  
in New York<sup>3</sup>

**Incarceration rates**  
**DOWN 87%** in New York<sup>4</sup>



**Homeless nights**  
**DOWN 49%**  
among AOT participants Nationwide<sup>5</sup>

**Violent behavior**  
**DOWN 47%** in New York<sup>6</sup>



**Victimization rates**  
**DOWN 52%** in North Carolina<sup>7</sup>

**40% Cost Savings**

in Summit County, Ohio<sup>8</sup>



**Illegal substance use**  
**DOWN** Nationwide<sup>9</sup>

**92% satisfied with AOT services**

Nationwide<sup>10</sup>





## HOSPITALIZATIONS



- ▶ In New York:
  - AOT recipients saw a 77% decrease in the incidence of psychiatric hospitalizations for current AOT recipients compared to the three-year period prior to joining AOT.<sup>11</sup>
  - In a 6-month study period, AOT recipients were hospitalized at a rate less than 50% compared to the six-month period prior to AOT.<sup>12</sup>
  - Intensive outpatient services combined with long-term AOT reduced hospital admissions by 57% compared to individuals receiving services without AOT.<sup>13</sup>
    - For individuals with schizophrenia and other psychotic disorders, long-term AOT plus intensive outpatient services reduced hospital admissions by 72%.<sup>14</sup>
- ▶ In Summit County, Ohio:
  - During the first 12 months of AOT, recipients experienced reductions in:
    - Hospital admissions – decreased from an average of 1.5 admissions pre-AOT to .4 admissions during AOT.
    - 24-hour emergency psychiatric services – decreased from an average of 2.4 visits pre-AOT to .7 visits during AOT.<sup>15</sup>
- ▶ In Washington:
  - AOT decreased hospitalizations for recipients by 30% over two years.<sup>16</sup>
- ▶ Nationwide:
  - AOT program participants who reported spending at least one day in the hospital for mental health care in the past 30 days decreased from 65.3% at intake down to 9.8% at the most recent reassessment.<sup>17</sup>
  - AOT program participants who reported spending at least one day in the emergency department for a psychiatric or emotional problem in the past 30 days decreased from 33.2% at intake down to 7.3% at most recent reassessment.<sup>18</sup>



## LENGTH OF STAY



- ▶ In Seminole County, Fla.:
  - AOT reduced hospital length of stay by 43%, from 64 days to 37 days, over 18 months for AOT recipients.<sup>19</sup>
- ▶ In New York:
  - Of AOT participants hospitalized for psychiatric reasons, the average length of hospitalization decreased from 18 days prior to AOT to 11 days during first 6 months of AOT. The length of stay decreased to 10 days for months 7-12 of AOT participation.<sup>20</sup>
  - Intensive outpatient services combined with long-term AOT reduced the length of hospital stay by 20 days compared to individuals receiving the same services without AOT.<sup>21</sup>
    - For individuals with schizophrenia and other psychotic disorders, long-term AOT reduced length of stay by 28 days compared to services alone.<sup>22</sup>
- ▶ In Summit County, Ohio:
  - During the first 12 months of AOT, recipients experienced reductions in length of stay, down from an average of 133 days to 44.3 days.<sup>23</sup>
- ▶ In Tucson, Ariz.:
  - AOT recipients' length of inpatient hospital stay decreased from 21 days down to 8 days.<sup>24</sup>



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## ARREST RATES



- ▶ In New York:
  - There was an 83% reduction in the incidence of arrest for current AOT recipients compared to three-year period prior to joining AOT.<sup>25</sup>
  - For current AOT participants, the odds of arrest were almost two-thirds lower compared to individuals not receiving AOT.<sup>26</sup>
  - For AOT recipients with multiple hospitalizations, arrests and/or violence in the past year, long-term AOT reduced the risk of arrest by 74% compared to individuals who did not receive AOT.<sup>27</sup>



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## INCARCERATION RATES AND DAYS INCARCERATED



- ▶ In New York:
  - There was an 87% decline in incarceration for current AOT recipients compared to the three-year period prior to joining AOT.<sup>28</sup>
- ▶ In Seminole County, Fla.:
  - AOT reduced days spent in jail for recipients from 16.1 days to 4.5 days.<sup>29</sup>
- ▶ Nationwide:
  - AOT program participants who reported spending one or more nights in a correctional facility in the past 30 days decreased from 12.7% at intake down to 7.1% at most recent reassessment.<sup>30</sup>



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## HOMELESSNESS



- ▶ Nationwide:
  - AOT program participants who reported spending one or more nights homeless in the past 30 days decreased from 13.6% at intake to 7% at most recent reassessment.<sup>31</sup>
- ▶ In New York:
  - There was a 74% decline in the incidence of homelessness for current AOT recipients compared to the three-year period prior to joining AOT.<sup>32</sup>
  - Just 6% of AOT recipients experienced homelessness in the past six-months while on AOT compared to 13% of individuals not on AOT.<sup>33</sup>



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## VIOLENT BEHAVIOR



- ▶ In New York:
  - Following six months of AOT:
    - 55% fewer recipients engaged in suicide attempts or harm to self,
    - 47% fewer recipients physically harmed others,
    - 46% fewer recipients damaged or destroyed property, and
    - 43% fewer recipients threatened physical harm to others.<sup>34</sup>
  - Over a three-year period, AOT recipients were four times less likely to commit acts of serious violence compared to the non-AOT control group, despite being historically more violent than the control group.<sup>35</sup>
  - Just 10.4% of AOT recipients engaged in violent behavior in the past six-months while on AOT compared to 15.7% of individuals not on AOT.<sup>36</sup>
- ▶ In North Carolina:
  - Among individuals labeled as seriously violent, 63.3% of those not in long-term AOT repeated violent acts, compared to 37.5% of those in long-term AOT.<sup>37</sup>



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## VICTIMIZATION



- ▶ In North Carolina:
  - Individuals with severe mental illness not receiving AOT were almost twice as likely to be victimized compared to participants in AOT.<sup>38</sup>



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## COSTS



- ▶ In Summit County, Ohio:
  - The state saw an average of about 40% in cost savings:<sup>39</sup>
    - The mean cost per person for all services were \$35,103.98 before, \$26,136.93 during and \$17,540.43 after AOT participation.
    - For a sample of 45 AOT participants, there was a decline in total costs over the span of their participation. For the period of pre-AOT to during AOT, total costs declined by 25% and for the period of pre-AOT to post-AOT, total costs declined by 50%.
- ▶ In New York City:
  - Average costs per person, including cost of mental health services, medical treatment and criminal justice involvement, declined 50% the first year after assisted outpatient treatment began and an additional 13% in the second year.<sup>40</sup>
- ▶ In New York State:
  - Average costs declined 62% in the first year and an additional 27% in the second year.<sup>41</sup>
- ▶ In Nevada County, Calif.:<sup>42</sup>
  - AOT resulted in a net savings of \$503,621 over 31 months of the program.
  - For every dollar spent on AOT, the county saves \$1.81 in reduced hospitalization and incarceration costs.
- ▶ In Washington:
  - AOT decreased hospital costs over two years by \$1.3 million.<sup>43</sup>
- ▶ In Seminole County, Fla.:
  - Over an 18-month period, AOT reduced hospital costs by an average of \$4,463 per patient.<sup>44</sup>



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## ILLEGAL SUBSTANCE USE



- ▶ Nationwide:
  - AOT program participants who reported using illegal substances in the past 30 days decreased from 33.3% at intake to 25% at their most recent reassessment.<sup>45</sup>



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## PARTICIPANT SATISFACTION



- ▶ Nationwide:
  - 91.8% of AOT program participants agreed or strongly agreed with the statement “I liked the services I received here” at their most recent reassessment.<sup>46</sup>
- ▶ In New York:
  - 90% of recent AOT participants perceived AOT to be effective compared to 60% of those surveyed who had not recently participated in AOT.<sup>47</sup>

## References

- 1 New York State Office of Mental Health. (2005). Kendra's law: Final report on the status of assisted outpatient treatment.
- 2 Esposito, R., Westhead, V., & Berko, J. (2008). Florida's outpatient commitment law: Effective but underused (letter). *Psychiatric Services* 59(3), 328.
- 3 New York State Office of Mental Health. Kendra's law.
- 4 New York State Office of Mental Health. Kendra's law.
- 5 Substance Abuse and Mental Health Services Administration. (2020). 2018 Report to Congress Section 224 of the 2014 Protecting Access to Medicare Act Assisted Outpatient Treatment Grant Program. *US Department of Health and Human Services*.
- 6 New York State Office of Mental Health. Kendra's law.
- 7 Hiday, V. A., Swartz, M., Swanson, J., Borum, R., & Wagner, H. R. (2002). Impact of outpatient commitment on victimization of people with severe mental illness. *American Journal of Psychiatry* 159, 1403-1411.
- 8 Ritter, C., Munetz, M. R., & Teller, J. L. S. (2014). Final report to the Treatment Advocacy Center: Assisted outpatient treatment cost savings study.
- 9 Substance Abuse and Mental Health Services Administration. 2018 Report to Congress.
- 10 Substance Abuse and Mental Health Services Administration. 2018 Report to Congress.
- 11 New York State Office of Mental Health. Kendra's Law.
- 12 Swartz, M. S., Swanson, J. W., Steadman, H. J., Robbins, P. C., & Monahan, J. (2009). New York State assisted outpatient treatment program evaluation. *Duke University School of Medicine*.
- 13 Hiday, V. A. & Scheid-Cook, T. L. (1987). The North Carolina experience with outpatient commitment: A critical appraisal. *International Journal of Law and Psychiatry* 10, 215-232.
- 14 Hiday et al. The North Carolina experience with outpatient commitment.
- 15 Munetz, M. R., Grande, T., Kleist, J., & Peterson, G. A. (1996). The effectiveness of outpatient civil commitment. *Psychiatric Services* 47, 1251-1253.
- 16 Zanni, G. & Stavits, P. F. (2007). The effectiveness and ethical justification of psychiatric outpatient commitment. *American Journal of Bioethics* 7, 31-41.
- 17 Substance Abuse and Mental Health Services Administration. 2018 Report to Congress.
- 18 Substance Abuse and Mental Health Services Administration. 2018 Report to Congress.
- 19 Esposito, R. et al. Florida's outpatient commitment law.
- 20 Swartz, M. S. et al. New York State assisted outpatient treatment program evaluation.
- 21 Hiday et al. The North Carolina experience with outpatient commitment.
- 22 Hiday et al. The North Carolina experience with outpatient commitment.
- 23 Munetz, M. R. et al. The effectiveness of outpatient civil commitment.
- 24 Van Putten, R. A., Santiago, J. M., & Berren, M. R. (1988). Involuntary outpatient commitment in Arizona: A retrospective study. *Hospital Community Psychiatry* 39(9), 953-8.
- 25 New York State Office of Mental Health. Kendra's Law.
- 26 Gilbert, A. R., Moser, L. L., Van Dorn, R. A., Swanson, J. W., Wilder, C. M., Robbins, P. C., Keator, K. J., Steadman, H. J., & Swartz, M. S. (2010). Reductions in arrest under assisted outpatient treatment in New York. *Psychiatric Services* 61, 996-999.
- 27 Swanson, J. W., Borum, R., Swartz, M. S., Hiday, V. A., Wagner, H. R., & Burns, B. J. (2001). Can involuntary outpatient commitment reduce arrests among persons with severe mental illness? *Criminal Justice and Behavior* 28, 156-189.
- 28 New York State Office of Mental Health. Kendra's Law.
- 29 Esposito, R. et al. Florida's outpatient commitment law.
- 30 Substance Abuse and Mental Health Services Administration. 2018 Report to Congress.
- 31 Substance Abuse and Mental Health Services Administration. 2018 Report to Congress.
- 32 New York State Office of Mental Health. Kendra's Law.
- 33 Swartz, M. S. et al. New York State assisted outpatient treatment program evaluation.
- 34 New York State Office of Mental Health. Kendra's Law.
- 35 Phelan, J. C., Sinkewicz, M., Castille, D., Huz, S., & Link, B. G. (2010). Effectiveness and outcome of assisted outpatient treatment in New York State. *Psychiatric Services* 61, 137-143.
- 36 Swartz, M. S. et al. New York State assisted outpatient treatment program evaluation.
- 37 Swanson, J. W., Swartz, M. S., Borum, R., Hiday, V. A., Wagner, H. R., & Burns, B. J. (2001). Involuntary outpatient commitment and reduction of violent behaviour in persons with severe mental illness. *British Journal of Psychiatry* 176, 224-231.
- 38 Hiday, V. A. et al. Impact of outpatient commitment on victimization.
- 39 Ritter, C. et al. Final report to the Treatment Advocacy Center.
- 40 Swanson, J., Van Dorn, R., & Swartz, M. (2013). The cost of assisted outpatient treatment: Can it save states money? *American Journal of Psychiatry* 170, 1423-1432.
- 41 Swartz, M. S. et al. New York State assisted outpatient treatment program evaluation.
- 42 Quanbeck, C., Tsai, G., & Szabo, K. (2012). Cost-effectiveness analysis of assisted outpatient treatment implementation in California's civil sector. *Nevada County Government*.
- 43 Zanni, G. et al. The effectiveness and ethical justification of psychiatric outpatient commitment.
- 44 Esposito, R. et al. Florida's outpatient commitment law.
- 45 Substance Abuse and Mental Health Services Administration. 2018 Report to Congress.
- 46 Substance Abuse and Mental Health Services Administration. 2018 Report to Congress.
- 47 Swartz, M. S. et al. New York State assisted outpatient treatment program evaluation.