

Mental Health Interventions by the Durham Police

By: Tatyana Bidopia, Matthew Rose, Joyce Yoo, and Project Managers Bryce Bartlett and Simon Brauer

Background:

In 2007, Durham County adopted the Crisis Intervention Team (CIT), a program that trains law enforcement officers to recognize mental health issues and respond to them by referral to treatment instead of incarceration. CIT-trained officers are trained in areas like suicide risk assessment, de-escalation, and mental illness. Durham County leaders also engaged with the Stepping Up Initiative. This program intervenes for patients with mental illness from arrest through parole.

Objective:

Determine if the CIT has been effective in reducing recidivism rates in Durham County, specifically for inmates who have been diagnosed with severe mental illness (SMI).

Our Data:

We looked at the Durham County Sheriff's Jail Data from 2002-2017. During this time, there were 435,752 total incarcerations, 61,044 unique individuals, and 47,522 alerts. The alerts include mental illness, registered sex offender, and etc. However, the SMI tag was only applied to inmates incarcerated between 2014 - mid 2015. We also examined the nature of over one million incident reports from patrol officers from 2002-2017.

Conclusion:

Since 2012, recidivism rates have decreased for all individuals (*Fig. 2,3*). Furthermore, our analyses indicate an inverse relationship between the number of CIT trained officers and the probability of individuals tagged with SMI being reincarcerated after 2012 (*Fig. 2*). In addition, there is an increase in patrol incidents being attributed to SMI after 2007, potentially suggesting a greater recognition of mental illness among trained officers (*Fig. 4*).

Table 1. Proportion of Total Cases by Race

Race	Total Cases	Proportion of Total Cases
Black	35,969	59%
White	21,573	35%

Table 2. Proportion of Total Cases by Sex

Sex	Total Cases	Proportion of Total Cases
Female	14,324	23%
Male	46,717	77%

Recidivism Analysis

Table 3. Distribution of the # of Incarcerations Per Person

Min.	1st Qu.	Median	Mean	3rd Qu.	Max
1	1	1	3	3	104

Table 4. Distribution of # of Incarcerations for Inmates with SMI

Min.	1st Qu.	Median	Mean	3rd Qu.	Max
1	3	8	11	15	64

From our analysis, the data suggests that recidivism rates have decreased since 2012 despite increases in population density.

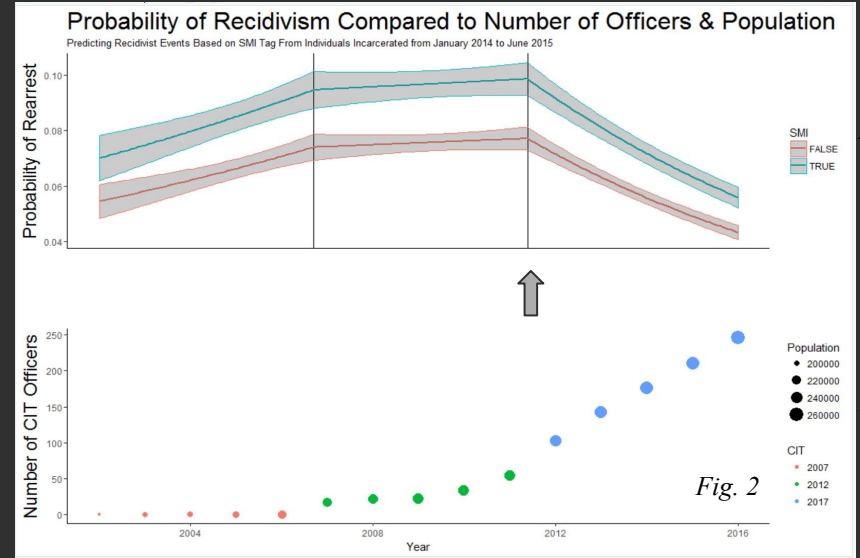
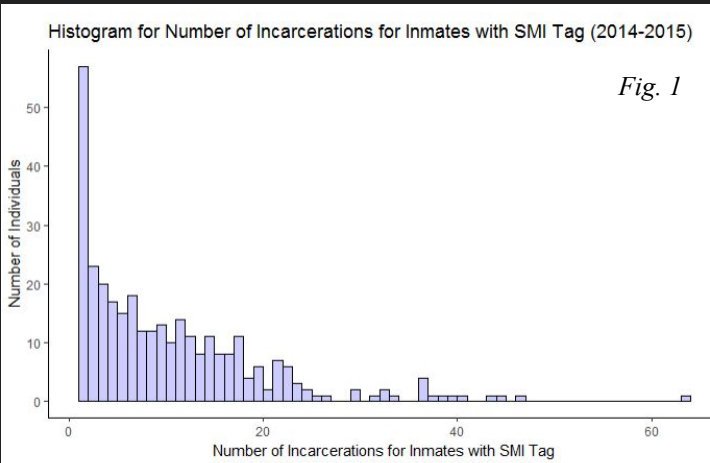


Fig. 1

Fig. 1 shows the number of incarcerations for inmates with an SMI tag from 2014-2015. Compared to the general prison population, those with an SMI tag have, on average, eight more incarcerations.

Fig. 2

Fig. 2 predicts the probability of a recidivist event for an inmate by month (top) in relation to the number of CIT trained officers and the city population (bottom). It was created from a sample of 834 individuals who were incarcerated from January 2014 to June 2015 to ensure the validity of the SMI tags. This figure indicates that this decline in the probability of a recidivist event after 2012 coincides with an increase in the number of CIT trained officers. However, due to confounding variables such as decreasing crime rates in Durham County, we cannot assume causation.



Recidivism Analysis (cont.)

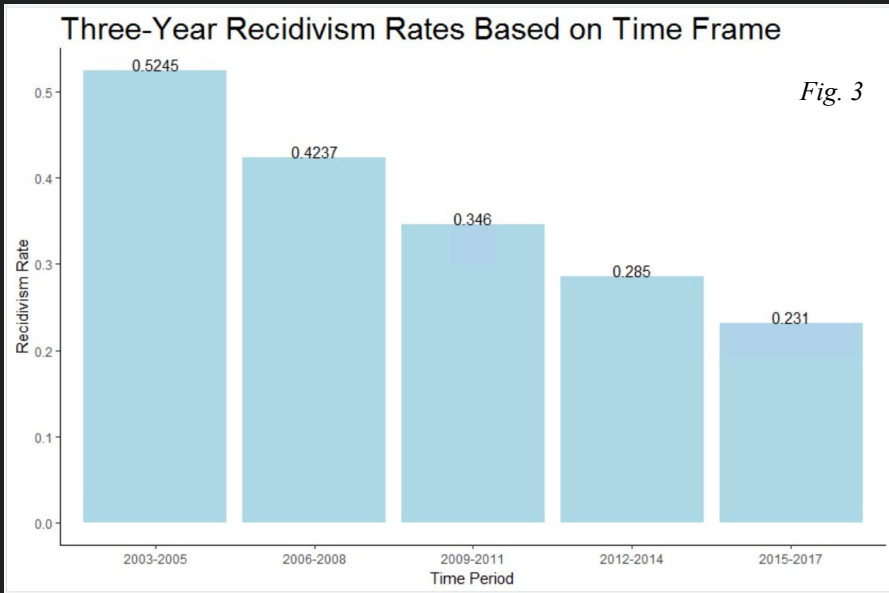


Fig. 3

Fig. 3 shows the three-year recidivism rates divided into distinct three-year time frames spanning 2003 to 2017. In general, recidivism rates decrease for all individuals as time goes on. Overall, recidivism rates decreased by 29.35% from 2003-2005 to 2015-2017. Despite Durham's continuous population growth, recidivism steadily decreases. While we cannot conclude that the CIT and Stepping Up initiatives caused the decrease in recidivism, these programs have certainly helped in lowering the recidivism rate down to 23%.

Incident Report Analysis

Fig. 4 shows the number of patrol incident reports with a nature related to mental illness in relation to the year and number of CIT trained officers. As time goes on and more officers are trained, more incidents are identified as relating to mental illness. While this could indicate an increase in activity in the mentally ill population, it more likely indicates an increase in awareness among officers about mental illness.

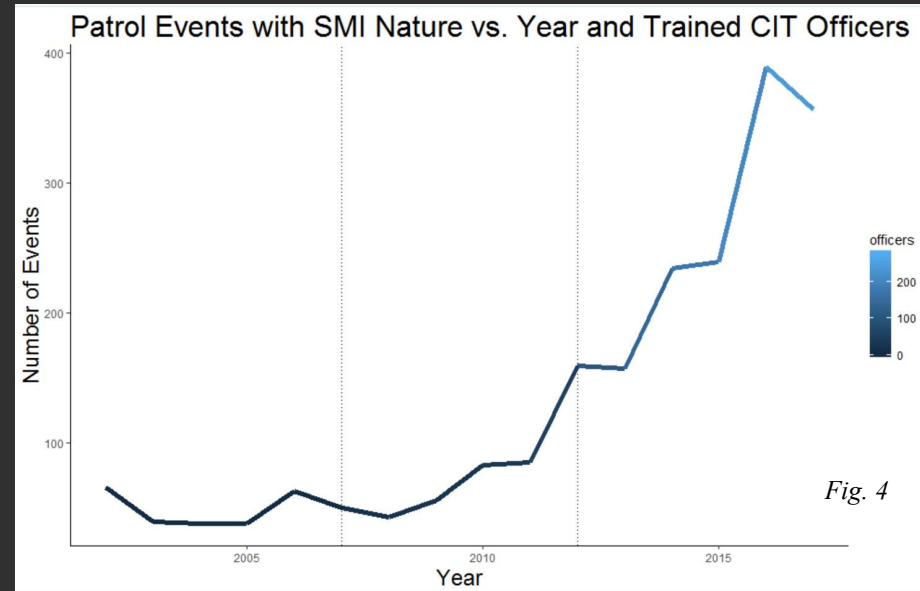


Fig. 4