Temporal Patterns of Arrest in a Cohort of Adults Receiving Mental Health Services: The Massachusetts Mental Health / Criminal Justice Cohort Study

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Temporal Patterns of Arrest in a Cohort of Adults Receiving Mental Health Services: The Massachusetts Mental Health / Criminal Justice Cohort Study

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The Five Trajectories: A Thumbnail Sketch
Mix of Offenses

Trajectory Models: What Are They?

- Derived from the “growth curve” methodology
- Technically “Zero-Inflated Poisson” models
- Statistically — An iterative process which attempts to derive a solution consisting of a set of groups whose members have temporal activity patterns in common

The solution represents the optimal mathematical fit of the model to the data
- Operationally, somewhat akin to cluster analysis in creating a set of groups, membership in which can be modeled

Examining Temporal Patterns of Arrest: Trajectory Analysis

- 2,704 (% of arrestees) were arrested once; 1,112 (% of arrestees) two or more times
- For those with multiple arrests (i.e., 2 xor more), 1,112 we attempted to identify temporal patterns over the observation period
- Examined 1,112 arrest patterns individuals who had 2 + arrests; obtained a solution in which five trajectories (and thus five groups of individuals reflecting these) proved to be the mathematically optimal model

Five-Group Trajectory Model

Implications

- Arouses receiving mental health services display varying patterns of offending over time
- Those patterns likely reflect different system management problems
- Simple demographic and diagnostic data do not predict group membership well
- To make these useful to service system planners, more data that would predict individuals’ likely trajectories is needed
- This critical is understanding how service use patterns are associated with these trajectories

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