The Jail Population with a Serious Mental Illness (SMI)

Understanding the issue and working towards addressing the needs in Maricopa County.

Dawn Noggle, PhD., Ryan Cotter, PhD., & Marisol Cortez, MSW, MAS
17th Annual Summer Institute
July 20, 2016
Marisol Cortez, MSW, MAS
Research Analyst
Justice System Planning and Information (JSPI)
The Problem...

Individuals with a mental illness:

- are 3x more likely to have a co-occurring/substance abuse disorder,
- experience a longer stay in jail or prison,
- lack affordable housing,
- have limited access to health care, and
- have higher recidivism rates.
In Calendar Year 2015

- Of all bookings, 5% had an SMI flag – among them 65% were unique individuals.

- At the time of booking the majority (66%) were active with the RBHA (Mercy Maricopa).
In Calendar Year 2015

Characteristics of the jail population with an SMI in Maricopa County:

- More likely to be booked on warrants.
- Often in jail on a city court charge.
- Longer length of stay compared to the general jail population.
- More likely to be homeless.
Booking Reason

* Last known reason as recorded in the Jail Management System (JMS).
Adjudicating Agency

City Court
- General: 40%
- SMI: 51%

Justice Court
- General: 36%
- SMI: 29%

Superior Court
- General: 24%
- SMI: 20%

* According to recorded highest charge in JMS, some could have multiple courts in one booking.
Average length of stay was about 9 days higher among the SMI compared to the general jail population.
What is the Proxy (RRS) score?

Among individuals booked in CY15 with a proxy and an SMI about a third were low-risk.
  - 31% among active
  - 30% among inactive
Homelessness

- Twice more likely to be homeless compared to the general jail population.

- Within the SMI, homelessness among the inactive population was higher.
Dawn Noggle, Ph.D.
Mental Health Director
Correctional Health Services (CHS)
Stepping Up Initiative

A national movement . . .

- Aim to reduce the number of individuals with a mental illness in jails.
- 274 counties in 41 states have passed resolutions to support the movement.
- 8 of 15 Arizona counties.
National Stepping Up Summit Highlights

Video

https://stepuptogether.org/events
How Did We Get Here?

• 1960’s De-Institutionalization Movement

• Social and economic changes/disruptions:
  – Tide of increased Substance Abuse (estimated 75% – higher in Maricopa County; lack of comprehensive policy/programs )
    • President Obama’s Initiative regarding opioids
      – De-centralization of the system- fragmentation
      – Arnold v Sarns
    – Noncompliant individuals or nonresponsive systems
    – Criminalization of mental illness
Maricopa County

- Signed the Stepping Up Proclamation on May 4, 2015.

- Public Safety Goals

- One of 50 to attend the National Stepping Up Summit on April 2016.
National Stepping Up

• Leadership commitment
• Conduct timely screenings/assessments
  – Definition of mental illness
  – Standardized tools
• Baseline data
• Conduct a comprehensive process analysis/inventory services
• Priority policy, practice and funding improvements
• Track progress
Maricopa County: A Leader in Stepping Up!

- Data sharing (jail data link)
- Screening and health assessment: early identification SMI, continuity of care and release planning.
- Community release: “warm transfer” and navigation upon release.
  - MCSO allowing forensic peers access
- CHS mental health staff are “Boundary Spanners”.
- Latest program: SW Behavioral Health Criminal Justice Team; SMI releases at IA court
- Lower than national average suicide rate for jails.
Sequential Intercept Mapping
Through their transition from jail to community efforts, between Jan 1\textsuperscript{st} – June 8\textsuperscript{th} of this year, CHS has made 803 referrals for 725 individuals \textbf{booked}.

- SMI Evaluations Referrals
- Connection to Providers
- Courtesy Releases (Warm-Handoffs)

* Based on on-going data collection by the Community Transition Team. Estimates provided according to bookings not unique individuals.
Warm-Handoffs

Among the 725 bookings, most received at least one referral.

- **85%** received exactly one referral.
- **12%** received exactly two referrals.
- **1%** received exactly three referrals.
- **2%** received more than three referrals (TBD).

- **32%** of referrals were to Females.
- **68%** of referrals were to Males.
Ryan Cotter, Ph.D.
Director of Research
Justice System Planning and Information (JSPI)
SECTION OUTLINE

- RISK-NEEDS-RESPONSIVITY MODEL
- PRETRIAL DETENTION – KENTUCKY STUDY
- PRETRIAL DETENTION – MARICOPA COUNTY
- TRACKING OUTCOMES BEYOND THE CJS
RISK-NEEDS-RESPONSIVITY MODEL
THE RNR MODEL

- RNR was developed in the 1980s by Bonta and Andrews.

- RISK Principle identifies *who* should be treated.

- NEEDS Principle identifies *what* should be treated.

- RESPONSIVITY Principle identifies *how* to provide treatment.
<table>
<thead>
<tr>
<th>RISK PRINCIPLE</th>
<th>Intensity of treatment should match offender risk level.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Targeting <em>moderate-to-high</em> risk offenders reduces recidivism.</td>
</tr>
<tr>
<td></td>
<td>Targeting <em>low risk</em> offenders can increase recidivism.</td>
</tr>
<tr>
<td>NEEDS PRINCIPLE</td>
<td>Interventions should target the central eight criminogenic risk/need factors:</td>
</tr>
<tr>
<td></td>
<td>- Criminal history</td>
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<td></td>
<td>- Anti-social personality</td>
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<tr>
<td></td>
<td>- Anti-social attitudes and values</td>
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<td></td>
<td>- Anti-social associates</td>
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<tr>
<td></td>
<td>- Family dysfunction</td>
</tr>
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<td></td>
<td>- Poor self-control or problem solving skills</td>
</tr>
<tr>
<td></td>
<td>- Substance abuse</td>
</tr>
<tr>
<td></td>
<td>- Lack of employment or employability skills</td>
</tr>
<tr>
<td></td>
<td>Recidivism reduction is maximized when multiple criminogenic needs are targeted</td>
</tr>
<tr>
<td>RESPONSIVITY PRINCIPLE</td>
<td>Treatment is most effective if:</td>
</tr>
<tr>
<td></td>
<td>- It employs a cognitive-behavioral approach, and</td>
</tr>
<tr>
<td></td>
<td>- It tailors treatment to the specific learning style and attributes of the offender.</td>
</tr>
</tbody>
</table>
LOW RISK OFFENDERS

- Research suggests:
  - Targeting **LOW RISK** offenders can increase recidivism.
    - Creating counter-productive obstacles
    - Exposing them to negative influence from high-risk peers in group intervention
KENTUCKY

THE HIDDEN COSTS OF PRETRIAL DETENTION
Lowenkamp, VanNostrand, Holsinger
In 2013, Lowenkamp et al., examined the relationship between pretrial detention and recidivism.

Sample data: 153,407 defendants booked into a Kentucky jail in FY2010.

All bookings in FY2011-12 were used to develop measures for NCA.
Detaining low risk defendants, even just for a few days, is strongly correlated with higher rates of new criminal activity.

As length of pretrial detention increases up to 30 days, recidivism rates for low risk defendants also increases.

For example:

- Low risk defendants held 2-3 days were
  - 39% more likely to be arrested before trial
  - 16% more likely to recidivate within 12 months post-disposition

- Low-risk defendants held for 8-14 days are:
  - 56% more likely to be arrested before trial
  - 45% more likely to recidivate within 12 months post-disposition
<table>
<thead>
<tr>
<th>PRETRIAL NEW CRIMINAL ACTIVITY</th>
<th>PRETRIAL NCA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exp b (95% CI)</td>
</tr>
<tr>
<td>Low Risk</td>
<td></td>
</tr>
<tr>
<td>2 to 3 Days</td>
<td>1.39 (1.27, 1.52)</td>
</tr>
<tr>
<td>4 to 7 Days</td>
<td>1.50 (1.30, 1.72)</td>
</tr>
<tr>
<td>8 to 14 Days</td>
<td>1.56 (1.33, 1.85)</td>
</tr>
<tr>
<td>15 to 30 Days</td>
<td>1.57 (1.26, 1.95)</td>
</tr>
<tr>
<td>31 or more Days</td>
<td>1.74 (1.39, 2.18)</td>
</tr>
</tbody>
</table>
PRETRIAL NEW CRIMINAL ACTIVITY

PRETRIAL INCREASE IN RECIDIVISM
LOW-RISK DEFENDANTS

** STATISTIICALLY SIGNIFICANT AT THE .01 LEVEL OR LOWER
## POST-DISPOSITION NEW CRIMINAL ACTIVITY

<table>
<thead>
<tr>
<th>Low Risk</th>
<th>2 to 3 Days</th>
<th>Exp b (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Risk</td>
<td>2 to 3 Days</td>
<td>1.16 (1.10, 1.23)</td>
<td>0.00</td>
</tr>
<tr>
<td>4 to 7 Days</td>
<td>1.32 (1.21, 1.43)</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>8 to 14 Days</td>
<td>1.45 (1.33, 1.59)</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>15 to 30 Days</td>
<td>1.43 (1.28, 1.61)</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>31 or more Days</td>
<td>1.09 (0.98, 1.21)</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>
POST-DISPOSITION NEW CRIMINAL ACTIVITY

POST-DISPOSITION INCREASE IN RECIDIVISM
LOW-RISK DEFENDANTS

LIKELIHOOD OF RECIDIVISM AS COMPARED TO DEFENDANTS DETAINED 1 DAY OR LESS

% INCREASE

- 2-3 DAYS**: 16%
- 4-7 DAYS**: 32%
- 8-14 DAYS**: 45%
- 15-30 DAYS**: 43%
- 31+ DAYS: 9%

** STATISTICALLY SIGNIFICANT AT THE .01 LEVEL OR LOWER
Sample data: 105,397 individuals released from MCSO jail in CY2014.

Isolated low risk (proxy 0-2) pretrial defendants released.

All bookings in CY2015 were used to develop measures for NCA.
1 DAY vs 2-3 DAYS

- There was no statistically significant difference in recidivism between individuals detained for 1 day vs 2-3 days (p = 0.76).
# Logistic Regression

## 1 Day vs 2-3 Days

<table>
<thead>
<tr>
<th>Low Risk</th>
<th>2 to 3 Days</th>
<th>B (RSE)</th>
<th>Exp b (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Risk</td>
<td>2 to 3 Days</td>
<td>-0.05 (0.15)</td>
<td>0.95 (0.71, 1.29)</td>
<td>0.76</td>
</tr>
</tbody>
</table>

(Reference = 1 day)
Used R (MatchIt) program to conduct multivariate propensity score matching.

Method used was nearest neighbor \((k\text{-NN matching})\).

Covariates:
- Proxy Score
- Age
- Gender
- Ethnicity
- Target Felony
- Target Drug

Balanced matched sample = 2,728
PROPENSITY SCORE MATCHING

MATCHING OUTCOMES

<table>
<thead>
<tr>
<th></th>
<th>Unmatched Data</th>
<th>Matched Data</th>
<th>t or $x^2$ p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reference $\bar{x}$ or %</td>
<td>Comparison $\bar{x}$ or %</td>
<td>Reference $\bar{x}$ or %</td>
</tr>
<tr>
<td>Proxy Score 0</td>
<td>0.21</td>
<td>0.15</td>
<td>0.21</td>
</tr>
<tr>
<td>Proxy Score 1</td>
<td>0.35</td>
<td>0.32</td>
<td>0.35</td>
</tr>
<tr>
<td>Proxy Score 2</td>
<td>0.45</td>
<td>0.53</td>
<td>0.45</td>
</tr>
<tr>
<td>Age</td>
<td>38</td>
<td>40</td>
<td>38</td>
</tr>
<tr>
<td>Male</td>
<td>0.60</td>
<td>0.65</td>
<td>0.60</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.23</td>
<td>0.19</td>
<td>0.23</td>
</tr>
<tr>
<td>African American</td>
<td>0.13</td>
<td>0.16</td>
<td>0.13</td>
</tr>
<tr>
<td>White</td>
<td>0.57</td>
<td>0.59</td>
<td>0.57</td>
</tr>
<tr>
<td>Other</td>
<td>0.07</td>
<td>0.06</td>
<td>0.07</td>
</tr>
<tr>
<td>Target Felony</td>
<td>0.51</td>
<td>0.65</td>
<td>0.51</td>
</tr>
<tr>
<td>Target Drug</td>
<td>0.16</td>
<td>0.21</td>
<td>0.16</td>
</tr>
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</table>
**RISKS OF PRETRIAL DETENTION**

- Equivalent pretrial low risk defendants detained four or more days had greater odds of new criminal activity.

- Compared to low risk defendants detained 1-3 days, individuals detained:
  - 4-7 days were 49% more likely to recidivate within 12 months of release
  - 8-14 days were 54% more likely to recidivate within 12 months of release
  - 15-30 days were 84% more likely to recidivate within 12 months of release
  - 31+ days were 78% more likely to recidivate within 12 months of release
## Multivariate Logistic Regression

**Rebooked within 365 days**

<table>
<thead>
<tr>
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<th>B (RSE)</th>
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<th>p-value</th>
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<tr>
<td><strong>Low Risk</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 7 Days</td>
<td>0.40 (0.12)</td>
<td>1.49 (1.18, 1.89)</td>
<td>0.00</td>
</tr>
<tr>
<td>8 to 14 Days</td>
<td>0.43 (0.11)</td>
<td>1.54 (1.24, 1.92)</td>
<td>0.00</td>
</tr>
<tr>
<td>15 to 30 Days</td>
<td>0.61 (0.14)</td>
<td>1.84 (1.40, 2.43)</td>
<td>0.00</td>
</tr>
<tr>
<td>31 or more Days</td>
<td>0.58 (0.14)</td>
<td>1.78 (1.35, 2.36)</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Proxy Score 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.33 (0.12)</td>
<td>1.39 (1.10, 1.75)</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Proxy Score 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.48 (0.11)</td>
<td>1.61 (1.30, 2.00)</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*Reference = 1-3 days*
MULTIVARIATE LOGISTIC REGRESSION

INCREASE IN RECIDIVISM
LOW-RISK DEFENDANTS

** STATISTICALLY SIGNIFICANT AT THE .01 LEVEL OR LOWER

<table>
<thead>
<tr>
<th>Days</th>
<th>Percentage Increase</th>
<th>Likelihood of Recidivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-7 days**</td>
<td>49%</td>
<td>84%</td>
</tr>
<tr>
<td>8-14 days**</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>15-30 days**</td>
<td>78%</td>
<td></td>
</tr>
<tr>
<td>31+ days**</td>
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</tbody>
</table>
TIME-TO-EVENT ANALYSIS

- TTE analysis supports the findings that defendants detained 1-3 days have lower recidivism rates.
LOW RISK SURVIVAL

survival probabilities

survival time in days

1-3 days
4-7 days
9-14 days
15-30 days
31+ days
CONCLUSIONS

- Low risk pretrial defendants detained 1-3 days have similar recidivism outcomes.

- Low risk pretrial defendants detained four or more days have increased odds of recidivism as compared to low risk pretrial defendants detained 1-3 days.

- Increasing the proportion of low risk non-violent defendants released in 1-3 days will, in theory:
  - Increase public safety by reducing recidivism
  - Preserve finite reentry resources
Collaboration between community providers and criminal justice practitioners is key.

The ability to model the effects of programs initiated in jail depends on the ability to track adherence to treatment in the community and dosage.