Masterclass in Prison Mental Health Services

Roland Jones, Michael Martin, Tonia Nicholls, Sandy Simpson

With thanks to: Andrew Forrester + Jenny Shaw and international colleagues

Forensic Faculty, RCP; Vienna, March 7 2019
In Madrid in 2017

• We presented the international context of prison mental health (UN Declarations, Mandela Rules, WPA position)

• A “Gold Standard” Approach to health services in prisons generally, the Offender Health Research Network

• The STAIR model
  • Describe this as an organizing approach to delivery of defined service elements
  • The measurement of clinical need and quantification of required service levels
In Vienna in 2019

• We will present elements of the **STAIR model**. Particularly we will flesh out 4 themes:

  • Current best knowledge on **Screening and Triage** (TN)
  • **Innovations** in systems of assessment and measurement (RJ)
  • Profile of **intervention need and service responses** (MM)
  • How to **quantify required service levels** and simple measures of **rates under care** (SS)
• Key elements required for jail/prison mental health services
• To serve persons with serious mental illness (psychotic illness, bipolar disorder, current major depression) and persons with disabling disorders resulting in major burden to correctional settings.
• Links function to epidemiologically derived access and intervention target rates
Centrality of Implementation science

“The future has arrived, it is just not very evenly distributed”
  • After William Dixon (probably)

• We have known the elements for perhaps 30 years, have failed to learn how to implement effective prisons systems well.
• We need to make the frameworks readily implementable; including how to manage and evaluate the implementation
• We hope our presentation today will give you tools to improve care provision
Screening and Triage

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CIHR Foundation Scholar
Professor, Psychiatry, University of British Columbia
Distinguished Scientist, Forensic Psychiatric Services Commission
BC Mental Health and Substance Use Services, PHSA
STAIR

Screening  Triage  Assessment  Intervention  Reintegration
Screening

• Objective

AIM: To identify subpopulation or individuals who have a target problem, pose a threat to themselves or others; determine need for emergency tx - mitigate false negatives (Rosenfeld et al., 2017)

• Mental illness, SUD
• Suicide, NSS
• Violence, Victimization
• Disrupt institution (gang involvement)

(APA, 2016; Grubin, 2010; NICE, 2017; Nicholls et al., 2018)
Rationale for Screening

Vulnerable populations:
- Can reduce victimization, violence, improve QoL, health
  - Martin et al. (2018)
  - Evans, Forrester et al. (2017)

Staff/Administrators:
- Caring for inmates with MH concerns is considered particularly stressful (unpredictable, dangerous)
  - Kropp et al, 1989; Ruddell, 2006

Community:
- Missed opportunity increases risk of deterioration/exacerbate problems; higher level of tx rqrd ($)
  - NICE 2017
- Tx of offenders is associated with reduced recidivism
  - Dvoskin et al., 2015; NICE 2017
  - McKenna et al 2015 (trends for new prison MH program)

Mental Health Professionals:
- Potential for litigation/class action exposure

Scenario: Risk
- Classification officer reports index offence involved aiding in kidnapping and sexual assault of child. The offence/arrest has been the focus of considerable media attention
  - E.g., Farnam & Underwood RCP 2019 (i.e., Wednesday!)
Screening

• Methods

Evidence based practice:
• Records & Collaterals
• Observation + Structured inquiry → Documentation
• Using psychometrically sound tools
• A referral mechanism following investigation by trained mental health workers

(APA, 2016; Grubin, 2010; NICE, 2017; NCCHC,m2018; Nicholls et al., 2018)
Be prepared to prompt beyond the measure

National Commission on Correctional Health:
• Clinicians need to be prepared to prompt beyond the scope of institutionally adopted instruments

Scenario: Gang / “Muscling”
• A male Inmate works in the kitchen and is being pressured to provide ingredients to gang members to make “hooch”/alcohol
  • Victimization
  • Suicide
  • Depression/MH deterioration

Gang-affiliated prisoners in federal penitentiaries

- Street Gangs: 1,185
- Aboriginal Gangs: 594
- Motorcycle Gangs: 368
- Prison Gangs: 123
- Traditional Organized Crime: 110
- Asian Gangs: 46
- White Supremacist Groups: 39
- Terrorist Organizations: 21
- Other*: 15

*Includes: Cults (4), Other (4), Eastern European organized crime (3), Racial extremist organizations (2), Extremist organizations (1) and Jamaican gangs (1)

CBC NEWS
Source: Correctional Service Canada
Screening

• **Timing**

  - **NICE** (2017): carry out a health assessment for every person at reception.
  - **American Psychiatric Association** (2000): Reception MH Screening and referral for all newly admitted inmates within 4 hours of arrival at a facility.
  - **National Commission on Correctional Health Care** (2008): receiving screening is performed on all inmates on arrival no longer than 2-4 hrs “as soon as possible” on arrival (ideally w/in mins); inmates should not leave admissions.
  - **Mental Health Strategy for Corrections in Canada** (2012): screening is conducted with all inmates upon arrival.
Screening

• **Staffing**

  - **NICE (2017):** a health professional or trained health care assistant under the supervision of a nurse
  - **American Psychiatric Association (2000):** in small facilities may be health-trained correctional officers; larger facilities may use registered nurses or other healthcare professionals
  - **National Commission on Correctional Health Care (2008):** qualified mental health professionals or health-trained correctional officers
  - **Mental Health Strategy for Corrections in Canada (2012):** trained staff member - trained according to the requirements of the mental health screening protocol being used
Screening in Pretrial

Remand Centres

- Direct admission
  - intoxication
- More acute distress
  - Suicidal depression, anxiety, psychosis
  - Suicides: ¼ in 24 hrs; ½ in 2 wks
- Short stay population
  - less investment in the environment and relationships
  - Lack of collateral information
- Diverse inmate population
  - Mix of different ages, sexes, levels of security
  - Pathology varies accordingly
- Abrupt incarceration
  - Considerable social disruption, confusion for the inmates around the time of coming into custody

According to US data: 62-86% of newly admitted jail detainees are under the influence of alcohol, stimulants or other drugs and 6% are psychotic (Dvoskin & Brown, 2015)

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Current use OR Abuse</th>
<th>Past Abuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>48.3%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>38.3%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Heroin</td>
<td>18.5%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>20.4%</td>
<td>22.2%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>19.9%</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

BC data: 86% of newly admitted provincial inmates use any drugs, misuse any prescription medications or other substances such as glue or solvents (Butler & Nicholls, in prep)
Screening: Essential Components

- Universal
- Immediate
  - on arrival (Fazel et al. 2016); at reception, prior to placement (NICE, 2017); w/in 4 hrs (APA, 2016)
- Efficient
  - volume, rate, resources
- Private/Confidential
  - Private space; auditory vs. visual
- Standardized and Valid
  - clear definitions /criteria
- Procedures/policies
  - Communication / documentation
- Appropriate staff
  - Recruitment, orientation, CE

Additional AGENCY considerations: Workplace culture; Accessibility, Feasibility, Resources (implementation - forms, training, staff)
Screening Measures

• Martin et al. (2013)
  • Systematic Review (up to 2011):
    • 22 tools identified

• Concluded 5 appear to be most promising
  • Brief Jail Mental Health Screen (BJMHS)
  • Correctional MH Screen (CMHS-M)
  • Correctional MH Screen –Women (CMHS-W)
  • English MH Screen (Grubin EMHS)
  • Jail Screening Assessment Tool (JSAT)
## Screening Guidelines: **Scope:**

<table>
<thead>
<tr>
<th>NICE First stage assessment</th>
<th>BJMH</th>
<th>CMHS</th>
<th>CMHS-W</th>
<th>EMHS</th>
<th>JSAT</th>
<th>NCCHC Receiving screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offence/sentence</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
<td>Health conditions-requirements</td>
</tr>
<tr>
<td>Medications</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>Health; appearance; gait; skin</td>
</tr>
<tr>
<td>Injuries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√*</td>
<td>Other health</td>
</tr>
<tr>
<td>Other Health (LD, STIs)</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√*</td>
<td>Current/hx pregnancy</td>
</tr>
<tr>
<td>Questions for women (custody, pregnant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>Health conditions; hospitalizations</td>
</tr>
<tr>
<td>Living arrangements, diet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>Drug use/withdrawal</td>
</tr>
<tr>
<td>Contact with health services</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td>√</td>
<td>Drug use/withdrawal</td>
</tr>
<tr>
<td>Alcohol and substance misuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hx /current MI; hospitalization</td>
</tr>
<tr>
<td>Problematic use of medications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>Suicidality</td>
</tr>
<tr>
<td>Mental health</td>
<td>✓</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>Observations -appearance; behavior-delusions/hall; withdrawal</td>
</tr>
<tr>
<td>Self-harm Suicide risk/hopelessness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>

*In BCC system, a general nurse completes a complimentary health assessment*
STAIR

Screening  Triage  Assessment  Intervention  Reintegration
Triage

• **Objective**

  • A strategy for *prioritizing* MH resources (i.e., for assessment, treatments) to those with greatest need and/or urgency

  • A more **comprehensive appraisal**

    • *functioning* and *level* of mental health need, includes use of a **validated tool** and *allocation to appropriate levels of mental health care*

(Martin et al., 2016; Nicholls et al., 2018; Ogloff et al., 2007; Rosenfeld et al., 2017)

(Forrester et al., 2018; Nicholls et al., 2018)
BC Corrections: Transition, Continuity of Care and Discharge Planning

ADMISSION TO INSTITUTION

Classification Officer

Screening

Nurse
- Physical health
- Infectious disease
- Medication
- Falls assessment

MH Screener
- Offence/CJS hx
- MH hx /Current sx
- Psychosocial
- SU
- Suicide/ NSSI
- Violence/

Referrals

MH Screener

Triage

Assessment & Intervention

Psychiatry
- Acute MH needs
- SUD/Concurrent
- Chronic disorders

Psychology
- Individual
- Group

Interprofessional Integrated Team: Health Promotion, Mental Health, Primary Health, SUD, Concurrent Disorders

Reintegration

CTTs
- Peer worker
- Case manager

Mental Health Coordinator
- Acute MH needs
- SUD/Concurrent
- Chronic disorders

GP
- Acute Physical Health Needs;
- Infectious Disease;
- Chronic Disease Management

Psychiatry
- Acute MH needs
- SUD/Concurrent
- Chronic disorders

Psychology
- Individual
- Group
Triage

• **Rationale**

- 25–30% of incarcerated individuals will be in need of additional mental health evaluation
  - E.g., Martin et al. (2013); Senior et al. (2013)

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**Scenario: Index Offence**

- Inmate seen at screening reports offence involved gun, threats to kill ex-wife. Presents as calm, well spoken, logical. Settled. Reports Psyc hx. Denies current problems, claims index is ‘misunderstanding’
- Despite no apparent immediate tx needs unclear psychiatric hx & minimization of index offence suggest further inquiry
Triage

• **Timing**

**NICE (2017):**
ALL inmates undergo 2nd Stage health screening within 7 days

**American Psychiatric Association (2000):**
Inmates who screen positive undergo
1. Brief MH assessment within 72 hrs of positive screening (reception MH screen may refer directly to comprehensive)
2. **comprehensive** Mental health screening & Referral of Every New Inmate w/ 14 days

**BC Correctional Health:**
Inmates who screen positive on admission MH screens are seen the next day (business day) by a mental health coordinator
Triage

• Staffing

NICE (2017): A health professional such as a registered general nurse

American Psychiatric Association (2000):  
1. Brief MH Assessment: ALL inmates undergo further comprehensive mental health screening within 72 hrs by trained and privileged MH professionals  
2. comprehensive Mental health screening & Referral win 14 days by a “qualified MH professional” someone privileged for independent assessment on the basis of discipline specific professional standards and state statutes

BC Corrections: Mental health coordinators typically have a master’s degree /(psychiatric) nurse
Triage

Essential Components

- Review the **actions** and **outcomes** from the first stage (health) assessment.
- APA 2016: Mental status exam; diagnostic formation; recommendations; tx plan if indicated

Triage assessments should be conducted by **trained mental health professionals** and include a **detailed assessment** of an offender’s **functioning** and **psychiatric needs** (Simpson et al., 2017).
- APA suggests this should be a “comprehensive examination”
## Guidelines to Inform Evidence Base Practice

### NICE (2017)

**2nd stage Assessment (7 days)**

<table>
<thead>
<tr>
<th>NICE 2017</th>
<th>BCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review actions &amp; outcomes of 1st assessment</td>
<td>MH coordinator</td>
</tr>
<tr>
<td>- Measure &amp; record the person’s Height weight, pulse, blood pressure &amp; temperature &amp; carry out urine analysis</td>
<td>Nurse</td>
</tr>
<tr>
<td>- Date of last sexual health screen</td>
<td></td>
</tr>
<tr>
<td>- Family history of serious illness</td>
<td></td>
</tr>
<tr>
<td>- Expected release date, for planning of the pre-release health assessment</td>
<td></td>
</tr>
<tr>
<td>- Whether they have a had a screening test (cervical screening test or mammogram)</td>
<td></td>
</tr>
<tr>
<td>- have/had any gynaecological problems</td>
<td></td>
</tr>
</tbody>
</table>

### APA (2016)

**Brief Assessment MH (72 hrs)**

<table>
<thead>
<tr>
<th>APA 2016</th>
<th>JSAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgent cases receive immediate evaluation</td>
<td>✓</td>
</tr>
<tr>
<td>Occurs in Private</td>
<td>✓</td>
</tr>
<tr>
<td>Findings are documented in mental health record</td>
<td>✓</td>
</tr>
<tr>
<td>Assessments are conducted by a trained mental health professional</td>
<td>✓</td>
</tr>
<tr>
<td>Mental status exam</td>
<td>✓</td>
</tr>
<tr>
<td>Diagnostic formation</td>
<td>✓</td>
</tr>
<tr>
<td>recommendations;</td>
<td>✓</td>
</tr>
<tr>
<td>tx plan, if indicated</td>
<td>MH coordinator</td>
</tr>
</tbody>
</table>

### APA (2016)

**Intake MH screen & Referral (14 days)**

<table>
<thead>
<tr>
<th>APA 2016</th>
<th>JSAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use a standardized procedure</td>
<td>✓</td>
</tr>
<tr>
<td>document observations &amp; responses in the permanent health record</td>
<td>✓</td>
</tr>
<tr>
<td>Policies/Procedures specify required actions &amp; time frames after positive screening observations</td>
<td>✓</td>
</tr>
<tr>
<td>Inmates are given details on how to access MH services</td>
<td>✓</td>
</tr>
</tbody>
</table>
Evidence of **Benefits** of Screening/Triage

• “The rate of suicide is high, but has fallen dramatically in the past 3 decades”  Roskes & Vanderpool, 2015, p. 351; Hayes, 2010; Hughes & Metzner, 2015, p. 237

<table>
<thead>
<tr>
<th></th>
<th>JAILS: 43/ 100,000</th>
<th>STATE PRISONS: 16/ 100,000</th>
<th>GENERAL POP: 12/100,000</th>
</tr>
</thead>
</table>

Ruiz v. Estelle established min rqr for MH tx in prisons  Hayes, 2010
Some studies report as few as 20% of offenders screening positive have documented follow up on file (Hayes et al., 2014; Schilders & Ogloff, 2014)

Another reported an increase in inmates receiving treatment from 5.6% - 9.8% for (Pillai et al. 2016)
STAIR

- Screening
- Triage
- **Assessment**
- Intervention
- Reintegration
Assessment and Measurement

Dr Roland Jones  PhD, MB.ChB, MRCPsych
Forensic Psychiatrist & Clinician Scientist
Centre for Addiction and Mental Health (CAMH)
Assistant Professor, University of Toronto
Types of Assessment

- Standard Clinical Interview
- Clinical Assessment Tools
- Decision making Tools
Types of Assessment

Assessment

- Standard Clinical Interview
- Clinical Assessment Tools
- Decision making Tools

- Comprehensive Diagnostic
- Symptom Scales
- Global Measures
Types of Assessment

- Standard Clinical Interview
- Clinical Assessment Tools
- Decision making Tools
- Comprehensive Diagnostic
- Symptom Scales
- Global Measures
### 1. Comprehensive Diagnostic Instruments

Purpose – Research

<table>
<thead>
<tr>
<th>Name of Instrument</th>
<th>How long does it take?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SCID</strong> – Structured Clinical Interview for DSM</td>
<td>Up to 2 hours</td>
</tr>
<tr>
<td><strong>MINI</strong> - Mini International Neuropsychiatric Interview</td>
<td>Approximately 15-20 mins</td>
</tr>
<tr>
<td><strong>SADS-L</strong> – Schedule for Affective Disorders and Schizophrenia</td>
<td>45 Mins</td>
</tr>
<tr>
<td><strong>SCAN</strong> Schedules for clinical assessment in Neuropsychiatry</td>
<td>4 days training, approx 75 mins</td>
</tr>
<tr>
<td><strong>DIS</strong> – Diagnostic Interview Schedule</td>
<td>Intensive training, 1-3 hours</td>
</tr>
<tr>
<td><strong>Mini-SCAN</strong></td>
<td>Approximately 45 mins</td>
</tr>
</tbody>
</table>
2. Symptom Measures – Clinician Rated

Mainly not specific to criminal justice settings – but applicable

Purpose
- Clinical or research purposes
- Measure severity
- Measure change

<table>
<thead>
<tr>
<th>Name of Tool</th>
<th>How long does it take?</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPRS – Brief Psychiatric Rating Scale</td>
<td>24 items, takes 10-20 mins</td>
</tr>
<tr>
<td>PANSS, SAPS, MDQ, BD-I, HAM-A, GAD-7, ADHD-RS, MMSE, MOCA etc, etc.</td>
<td>Approximately 10-30 mins</td>
</tr>
</tbody>
</table>
2. Symptom Measures – Self Rated

Mainly not specific to criminal justice settings – but applicable in some circumstances, and have been used in prison settings

Purpose
- Clinical or research purposes
- Measure severity
- Measure change
- Service satisfaction surveys

<table>
<thead>
<tr>
<th>Name of Tool</th>
<th>How long does it take?</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAI, PSS, MADRS-S, GAD-7, etc, etc.</td>
<td>Usually around 10-20 mins</td>
</tr>
</tbody>
</table>
2b. Service satisfaction surveys

There are approximately 2.5 million people incarcerated worldwide at any time in English native speaking countries.

How many people have ever been surveyed about satisfaction with mental health service?
2b. Service satisfaction surveys

Less than 1000 people
## 2b. Service satisfaction surveys

Systemic review - Manetsch, Jamal, Sandhu, Jones and Simpson

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Authors</th>
<th>Country</th>
<th>N completed</th>
<th>Completion rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Health Association of America Consumer Satisfaction Survey</td>
<td>Brodey et al (2000)</td>
<td>USA</td>
<td>43</td>
<td>97%</td>
</tr>
<tr>
<td>Semi-Structured Interview</td>
<td>Vaughan (2002)</td>
<td>UK</td>
<td>50</td>
<td>84%</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>Spudic (2003)</td>
<td>USA</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>MHSIP (adapted from CSQ)</td>
<td>Way (2007)</td>
<td>USA</td>
<td>613</td>
<td>?</td>
</tr>
<tr>
<td>CSQ</td>
<td>Morgan (2008)</td>
<td>USA</td>
<td>186</td>
<td>?</td>
</tr>
<tr>
<td>CSQ</td>
<td>Batastini (2016)</td>
<td>USA</td>
<td>49</td>
<td>?</td>
</tr>
</tbody>
</table>
2. Symptom Measures – Prison Officer Rated

Purpose - Research
(Informal information gathering is common clinically, but rarely formalised)

<table>
<thead>
<tr>
<th>Name of Tool</th>
<th>What is it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORFFI – Officers Rating Form for Inmates</td>
<td>13 items, 4-point scale, aggression</td>
</tr>
</tbody>
</table>
3. Global Measures

Purpose
Brief measure of overall functioning / severity
For research and clinical assessment

<table>
<thead>
<tr>
<th>Name of Tool</th>
<th>What is it?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GAF</strong> Global Assessment of Functioning</td>
<td>Phased out with DSM-IV</td>
</tr>
<tr>
<td><strong>CGI-C</strong> Clinical Global Impression-Corrections</td>
<td>Overall severity - 1-5 mins</td>
</tr>
</tbody>
</table>
The Clinical Global Impression – Corrections (CGI-C)
Jones, Patel, Moscovici, McMaster, Glancy & Simpson

What is it?
Assessment tool based on overall severity of mental disorder.

How is it rated?
Overall severity of mental disorder on a 7-point scale

Ratings are made on clinical presentation over past 24 hours, and based on:
- Clinical interview and / or observation
- Collateral information from correctional staff
- File information where available
Development of CGI-C

Developed CGI-C guide to benchmark scores

Developed 21 case vignettes, spanning full range of severity

5 forensic psychiatrists rated – measured interrater reliability on 3 separate occasions

11 Clinicians Rated vignettes

60 joint patient ratings by psychiatrists and clinicians
<table>
<thead>
<tr>
<th>Rating</th>
<th>Collateral</th>
<th>Interview / observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No mental disorder</td>
<td>Participating fully in available programmes / roles / employment opportunities. Socialising appropriately. No behaviour or conduct issues. No evidence of mental disorder. May have history of mental disorder, but no current symptoms.</td>
</tr>
<tr>
<td>2</td>
<td>Borderline mental disorder</td>
<td>Functioning well. Issues unlikely to impair functioning so as to come to the attention of correctional staff. Generally functioning well. May not have previously received psychiatric diagnosis / treatment. Very mild or occasional symptoms that do not fully reach criteria for a diagnosis of any mental disorder, or only minimally cause distress or impairment in functioning.</td>
</tr>
<tr>
<td>3</td>
<td>Mildly ill</td>
<td>Generally functioning well. Unlikely to come to the attention of correctional staff on account of mental disorder. Clear but mild symptoms of a mental disorder. Maybe receiving treatment but have residual (mild) symptoms or may have borderline intellectual disability.</td>
</tr>
<tr>
<td>4</td>
<td>Moderately ill</td>
<td>Some dysfunction. May be reported by correctional officers as exhibiting “odd” or “unusual behaviour” but not particularly disruptive. May be mild self-harm behaviour, intermittent shouting or banging in cell, but no physical violence. Hygiene maybe poor. Functioning may be impaired by physical manifestations of withdrawal from substances. Generally cooperative with correctional officers. Obvious symptoms of mental disorder. Significant level of distress with possible suicidal ideation, significant self-harm and/or psychotic symptoms. Eating and drinking adequately. Neglecting hygiene. May require hospitalisation, if not already in hospital.</td>
</tr>
<tr>
<td>Rating</td>
<td>Collateral</td>
<td>Interview / observation</td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>5</td>
<td>Impaired functioning, may be significant verbal aggression, repetitive self-harm, uncooperative with officers, shouting or banging in cell for a significant part of the day. Minimal appropriate interaction with others. Likely under some “special handling” precautions within the facility if demonstrating risk to others.</td>
<td>Severe and constant symptoms of a mental disorder. Patient has significant distress which grossly impairs ability to function. Markedly abnormal mental status examination, but likely too ill to participate meaningfully in assessment.</td>
</tr>
<tr>
<td>6</td>
<td>Severe dysfunction. Will come to the attention of correctional officers. Likely disruptive in day to day activity, significant risk of, or actual physical aggression, smearing faeces, urinating on floor, attempting to assault, requiring physical containment. Impulsive and unpredictable. Under some “special handling” precautions within the facility and/or lockdown if posing risk to others.</td>
<td>Very severe and constant symptoms of a mental disorder. Patient has significant distress which grossly impairs ability to function. Markedly abnormal mental status examination, but likely too ill to participate meaningfully in assessment.</td>
</tr>
<tr>
<td>7</td>
<td>Cannot function day to day. May be physically violent, attempting lethal self-harm or not eating/drinking. Very impulsive and unpredictable. Under “special handling” precautions within the facility or full lockdown if posing risk to others.</td>
<td>Extremely severe and constant symptoms, maybe catatonic, or very severely agitated, engaging in highly disturbed behaviours such as very severe, potentially lethal self-harm, and/or ingesting bodily waste.</td>
</tr>
</tbody>
</table>
Inter-rater reliability of CGI-C

Very good inter-reliability

Vignettes

• Psychiatrists 0.85, (95% CI 0.81-0.90, p<0.001), Clinicians 0.87, (95% CI 0.83-0.91, p<0.001)

Inmate assessment

• 57 joint face-to-face assessments of inmates showed Gwet’s AC coefficient of 0.93 (95% CI 0.88-0.97).

German version (Carola Billen & Michel Schulte)

• 19 raters. Gwets’s AC coefficient 0.85 (0.81-0.89)
3. Decision Making Tools

DUNDRUM -1 Triage Security Items

(Items rated 0-4)
1. Seriousness of violence
2. Seriousness of self-harm
3. Immediacy of risk of violence
4. Immediacy of risk of self-harm
5. Specialist forensic need
6. Absconding / eloping
7. Preventing access
8. Victim sensitivity / public confidence issues
9. Complex risk of violence
10. Institutional behaviour
11. Legal Process

DUNDRUM-2 Triage Urgency Items
(Items rated 0-4)

1. Current Location
2. Mental Health
3. Suicide Prevention
4. Humanitarian
5. Systemic
6. Legal Urgency
<table>
<thead>
<tr>
<th>Name of Tool</th>
<th>Author</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUNDRUM 1</td>
<td>Flynn (2011)</td>
<td>AUC = 0.79 (0.67-0.90)</td>
</tr>
<tr>
<td></td>
<td>Freestone (2015)</td>
<td>AUC = 0.79 (0.72-0.85)</td>
</tr>
<tr>
<td></td>
<td>Jones (In press)</td>
<td>AUC = 0.75 (0.63-0.88)</td>
</tr>
<tr>
<td>DUNDRUM 2</td>
<td>Flynn (2011)</td>
<td>AUC = 0.76, (0.63-0.88)</td>
</tr>
<tr>
<td></td>
<td>Jones (In press)</td>
<td>AUC = 0.84, (0.74-0.94)</td>
</tr>
</tbody>
</table>
## Conclusion

<table>
<thead>
<tr>
<th>Type of Tool</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive diagnostic</td>
<td>SCID (2h), MINI (15-30 min)</td>
</tr>
<tr>
<td>Symptom Measures</td>
<td>Clinician rated - not specific to prisons</td>
</tr>
<tr>
<td></td>
<td>Self rated (mood disorders, anxiety, anger)</td>
</tr>
<tr>
<td></td>
<td>Officer rated – ORFFI</td>
</tr>
<tr>
<td>Client Satisfaction</td>
<td>CSQ</td>
</tr>
<tr>
<td>Global Measure</td>
<td>CGI-C</td>
</tr>
<tr>
<td>Decision Making</td>
<td>DUNDRUM 1 and 2</td>
</tr>
</tbody>
</table>
STAIR

Screening  Triage  Assessment  Intervention  Reintegration
Intervention

Michael Martin, PhD
Correctional Service of Canada
University of Ottawa
mmart007@uottawa.ca
@mmartdouble07
Treatment targets

• Severe mental illness and self-harm
• Common mental illness
• Substance use?
• Most evidence of treatment effectiveness focuses on criminal justice outcomes rather than health outcomes
  • E.g. meta-analysis of 25 studies resulted in 13 effect sizes measuring symptoms, versus 37 effect sizes measuring justice outcomes
Integration

• Parallel vs sequential treatment of health and criminogenic need
  • Best practice according to various principles and new programs
    • Co-occurring mental illness and substance use
    • Trauma-informed care
    • Recent programs (e.g. START NOW, Changing Lives Changing Outcomes) emphasize and treat similar factors as underlying mental illness and criminality (e.g. impulsivity, emotion regulation)
  • Concerns about role conflict / therapeutic alliance
WHO Optimal Mix of Services

- **Screening and self-care**: No symptoms of mental disorder
- **Drop-in primary care**: Brief treatment to address situational stressors among those experiencing symptoms causing little or no impairment (i.e., below the diagnostic threshold)
- **Planned primary care**: Sustained treatment led by Family Physician to manage common mental illness
- **Intermediate/Secondary Care**: Intensive treatment of severe mental illness (e.g., FACT, inpatient units, healthcare wings, etc.) in prisons
- **Acute/Tertiary Care**

Prevalence

Increasing intensity of treatment for fewer inmates

- 70% with symptoms
- 35% mental illness
- 15% severe mental illness
Stepped care

Level of distress / symptoms

<table>
<thead>
<tr>
<th>Impairment in functioning</th>
<th>Highest</th>
<th>Self-care, watchful waiting, etc.</th>
<th>Common disorder</th>
<th>Severe</th>
<th>Complex / comorbidities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Distress</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
STAIR

Screening  Triage  Assessment  Intervention  Reintegration
Reintegration / Release planning

• Relatively under-implemented and evaluated, however, the importance of through the gate services seems well supported
  • Discharge planning in the institution (alone) has little impact on re-offending
  • Pre-release linkage to community mental health staff reduces re-offending, and increases access to health care
  • Interventions delivered both in the institution and in the community (i.e. continuity built into the service model) had roughly double the impact on re-offending (d = 0.33) than services provided in the institution alone (d = 0.19) or in the community alone (d = 0.16)
• Critical Time Intervention
• Engager trial
Calculating resource needs and crude performance targets

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Associate Professor, University of Toronto
Sandy.Simpson@camh.ca
@DrSandySimpson

• And many colleagues who have contributed to these ideas
Few studies of overall models

- Pillai et al 2016; McKenna et al, 2018; Rouse et al, under review demonstrated that an explicit model of care can focus existing resources on improving key performance measures.

- O’Neill et al (2016) demonstrated the effectiveness of a 2 stage screening/triage process to achieve defined care outcomes for a male remand population in Ireland.
Putative measures employed by O’Neill and Pillai studies

- % of new referrals screening positive
- Numbers entering case load
- Diagnostic breakdown of caseload
- Severity of illness, relative to expected level of need
- Timeliness of services
- Access to appropriate care level

- In custody incident rates
- Pre-release community engagement
- Time to access community care
- Recidivism
STAIR Care Pathway

SCREENING (e.g., BJMHS) → TRIAGE (JSAT) → ASSESSMENT (interdisciplinary Team) → INTERVENTION (e.g., acute care, intermediate care, general mental health care) → RE-INTEGRATION (e.g., release plan)

- 25 to 30% referred for further evaluation
- 15% referred for assessment
- Refer to appropriate level of mental health care
- Refer to general jail/prison population
- Release into Community
Part I: Screening

- Should take place as soon as possible after admission
- Trained mental health staff, using valid screening tools
- Given that numbers are known, and the time taken for a triage interview is known, staffing requirements can be calculated.
- KPI: % of new receptions referred for triage

- 25 to 30% referred for further evaluation
- 15% referred for assessment

- Refer to appropriate level of mental health care

- INTERVENTION (e.g., acute care, intermediate care, general mental health care)

- RE-INTEGRATION (e.g., release plan)

- Refer to general jail/prison population

Release into Community
Part II: Triage

- Second stage of evaluation by trained mental health staff
- JSAT probably the only validated tool for this purpose
- Inmates requiring no further assessment sent to general prison population
- 25% to 30% will require further evaluation (Martin et al., 2013; Senior et al., 2013)
- KPI: % of positive screens that result in secondary level access to care
Part III: Assessment

- In-depth assessment with psychiatrist
- Development of a detailed treatment plan dependent on level of need
- 15% will require assessment (Fazel & Seewald, 2012; may vary locally)
- KPI: % of standing prison muster in receipt of secondary level MH care
Part IV: Intervention

- Comprehensive range of mental health services that effectively respond to varying levels of illness acuity (e.g., acute care, intermediate care, and general prison mental health services)
- Culturally competent services
- Needs-based treatment (Morgan et al., 2012)
Part V: Re-integration and Release

Planning must occur well in advance of release date

- Referral to community mental health services
- Address housing, employment, and income needs
- Appropriate supports must be in place prior to release with services spanning the “gate” (e.g., FACT)

SCREENING (e.g., BJMHS) → TRIAGE (JSAT) → ASSESSMENT (interdisciplinary Team) → INTERVENTION (e.g., acute care, intermediate care, general mental health care) → RE-INTEGRATION (e.g., release plan) → Release into Community

- 25 to 30% referred for further evaluation
- 15% referred for assessment
- Refer to appropriate level of mental health care
“Knowns”

- However we measure it, 15%-20% of a standing prison ppn require secondary level (Psychiatrist, MDT) intervention (Fazel meta-analyses)
- They vary in intensity of need, but @7% need ACT level input, and the rest, CMHC level care (evidence weakest here, prevalence studies often do not report distress or disability level)
- ACT level staffing can be calculated using the SAMHSA (2008) recommendations
- If we do not actively seek these people, we only see 1/3-1/2 of those we should see (US, UK, NZ studies).
- So we should screen: Likely 25-30% screen positive (Martin et al 2013) so need also to triage
- We know how long it takes to perform these tasks
How to calculate resource needs?

<table>
<thead>
<tr>
<th>Population</th>
<th>New Admissions per Year</th>
<th>Number of Inmates Requiring Triage per Year(^1)</th>
<th>Number of Inmates Requiring Physician Assessment per Year(^2)</th>
<th>Average Length of Stay (days)(^3)</th>
<th>Ongoing Caseload per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remand Males</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Sentenced Males</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Remand Females</td>
<td></td>
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<td>0.00</td>
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<td>0.00</td>
</tr>
<tr>
<td>Sentenced Females</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
</tr>
</tbody>
</table>

1. Approximately 30% of newly admitted remand or sentenced inmates regardless of gender will require a triage interview (Evans, Brinded, Simpson, Frampton, & Mulder, 2010; Senior et al., 2013).

2. Approximately 15% of newly admitted remand or sentenced inmates will require a physician assessment (Fazel & Seewald, 2012).

3. Represents the average length of stay of inmates in prison/jail. To be determined from local jail/prison data.
<table>
<thead>
<tr>
<th></th>
<th>Duration of assessment (mins)</th>
<th>Number of Assessments</th>
<th>Total Number of Hours per Year</th>
<th>Total Number of Hours per Week (using 47 weeks/working year)</th>
<th>Number of FTEs per Week (using 40 hours/week)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Remand Males</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health Nurse</td>
<td>75</td>
<td>0.00</td>
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</tr>
<tr>
<td>(Triage)</td>
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</tr>
<tr>
<td>Psychiatrist</td>
<td>120</td>
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<td>0.00</td>
</tr>
<tr>
<td>(Assessment)</td>
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<td></td>
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<tr>
<td>Psychiatrist</td>
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<td>(Assessment)</td>
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<tr>
<td>(Assessment)</td>
<td></td>
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</tr>
</tbody>
</table>

1. As per the Forensic Early Intervention Service staffing model (Simpson & McNamee, 2012).
Resources: ongoing case load

<table>
<thead>
<tr>
<th></th>
<th>ACT Staffing Model</th>
<th>50% of Ongoing Caseload per Day to Receive ACT Level of Care</th>
<th>CMHT Staffing Model</th>
<th>50% of Ongoing Caseload per Day to Receive CMHT Level of Care</th>
<th># FTEs Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>0.5 FTE per 50</td>
<td>0.00</td>
<td>0.25 FTE per 50</td>
<td>0.00</td>
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</tr>
<tr>
<td>Manager</td>
<td>0.25 FTE per 50</td>
<td>0.00</td>
<td>0.125 FTE per 50</td>
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</tr>
<tr>
<td>Nurse/Nurse Practitioner</td>
<td>0.5 FTE per 120</td>
<td>0.00</td>
<td>0.25 FTE per 120</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Cultural Worker/Consumer</td>
<td>0.5 FTE per 50</td>
<td>0.00</td>
<td>0.25 FTE per 50</td>
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</tr>
<tr>
<td>MDT Case Worker</td>
<td>5 FTE per 50</td>
<td>0.00</td>
<td>2.5 FTE per 50</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td><strong>Females</strong></td>
<td></td>
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<tr>
<td>Psychiatrist</td>
<td>0.5 FTE per 50</td>
<td>0.00</td>
<td>0.25 FTE per 50</td>
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<td>0.00</td>
</tr>
<tr>
<td>Manager</td>
<td>0.5 FTE per 50</td>
<td>0.00</td>
<td>0.25 FTE per 50</td>
<td>0.00</td>
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<td>0.00</td>
<td>2.5 FTE per 50</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>


2. Estimate that CMHT staffing model is approximately half of the ACT staffing model.
Summary

Table 4. Total FTE Requirements for Screening, Triage, Assessment, and Ongoing Caseload

<table>
<thead>
<tr>
<th>-role</th>
<th>Male Population</th>
<th>Female Population</th>
<th>Total FTEs Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiartist</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Manager</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Nurse/Nurse Practitioner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Mental Health Triage Nurse</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Cultural Worker/Consumer</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>
So, if you know

• Your number of new receptions to your correctional facility; and

• The average daily muster (or average length of stay)

• We can calculate for you the resources you need to meet the standards of practice we have discussed, and you can simply measure three simple KPIs which will tell you how you are doing.

• Any takers?
So lets have a try....
Performance measures

• The three simplest performance measures: rates under care

• Percentage of new receptions screening positive:
  Target: 25-30% depending on ppn
  *Toronto: 32% male; 50% female*

• Percentage of positive screens who require secondary level care
  Target: Needs development:
  *Toronto: 72% male; 65% female*

• Daily case load, as percentage of standing prison muster:
  Target: 15%
  *Toronto: 6% for serious disorder*
Final thoughts

• Please contact us if you would like to collaborate with us in any of these projects

• We are very aware of major knowledge gaps in our current knowledge and practice

• Improving measurement of practice is crucial for our ability to drive progress.

• Thank you