BJS’ Efforts to Measure Health and Health Care in Corrections

Laura M. Maruschak and E. Ann Carson
Bureau of Justice Statistics
UMASS Correctional Health Conference
Atlanta, Georgia
March 22, 2012
# Health status indicators currently used by BJS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Probation</th>
<th>Jail</th>
<th>Prison</th>
<th>Parole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance Abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injuries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator</td>
<td>Probation</td>
<td>Jail</td>
<td>Prison</td>
<td>Parole</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------</td>
<td>------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Height/weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescription medication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income/employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminal history</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Health delivery indicators currently used by BJS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Probation</th>
<th>Jail</th>
<th>Prison</th>
<th>Parole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance abuse screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance abuse treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide prevention</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevention education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Health delivery indicators currently used by BJS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Probation</th>
<th>Jail</th>
<th>Prison</th>
<th>Parole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility function</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health care staffing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-spec. chronic dis. treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infectious disease screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infectious disease treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Routine medical exams</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescription medication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost/payment for health care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immunization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elder care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
New and proposed measures of health care by BJS

- National Inmate Survey (PREA)
  - Replace substance abuse module with health modules
  - Include physical and mental health modules to measure prevalence and treatment
  - Include disabilities module using disability measures defined by the Washington Group on Disabilities

- Survey of Prison Inmates (SPI), Survey of Inmates in Local Jails (SILJ)
  - Redesigned mental health module includes new measure of SMI
  - Physical health module cut back from PREA module
New and proposed measures of health care by BJS

• National Survey of Prison Health Care (NSPHC)

• National Prisoner Statistics (NPS)
  – Redesign AIDS questions to measure testing policies
  – Prevalence of chronic and infectious diseases in the prison population, flow of inmates with infectious diseases

• Deaths in Custody Reporting Program (DCRP)
  – One-time module to measure efforts to prevent death and existing mental health treatment programs in local jails

• Health care cost study??
Prevalence of specific medical problems in incarcerated populations

Percent of inmates in —

<table>
<thead>
<tr>
<th>Current medical problem</th>
<th>State prison</th>
<th>Federal prison</th>
<th>Local jail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthritis</td>
<td>15.3%</td>
<td>12.4%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Asthma</td>
<td>9.1</td>
<td>7.2</td>
<td>9.9</td>
</tr>
<tr>
<td>Cancer</td>
<td>0.9</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Diabetes</td>
<td>4.0</td>
<td>5.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Heart problems</td>
<td>6.1</td>
<td>6.0</td>
<td>5.9</td>
</tr>
<tr>
<td>Hypertension</td>
<td>13.8</td>
<td>13.2</td>
<td>11.2</td>
</tr>
<tr>
<td>Kidney problems</td>
<td>3.2</td>
<td>3.1</td>
<td>3.7</td>
</tr>
<tr>
<td>Liver problems</td>
<td>1.1</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Paralysis</td>
<td>1.4</td>
<td>1.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Stroke</td>
<td>2.6</td>
<td>1.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>5.3</td>
<td>4.2</td>
<td>2.6</td>
</tr>
<tr>
<td>HIV</td>
<td>1.6</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>STD</td>
<td>0.8</td>
<td>0.4</td>
<td>0.9</td>
</tr>
<tr>
<td>TB</td>
<td>9.4</td>
<td>7.1</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Source: SPI, 2004; SILJ, 2002
Prevalence of specific medical problems over the last year among P&P and general populations

Source: Analysis of NSDUH data, 2008/2009
Deaths in Custody Reporting Program

• Deaths in Custody Reporting Act of 2000 (P.L. 106-297) – jail, state prison, arrests
• 2,755 jail facilities participated in 2009 DCRP (97.5%)
• 9,832 deaths in jail between 2000 and 2009
• All 50 state departments of corrections report
• Does not include legal executions
• 28,776 deaths in prison between 2001 and 2009
## Leading causes of death among jail inmates, 2000-2009

<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide</td>
<td>28.9%</td>
</tr>
<tr>
<td>Heart disease</td>
<td>21.6%</td>
</tr>
<tr>
<td>Other illnesses</td>
<td>14.5%</td>
</tr>
<tr>
<td>Unknown</td>
<td>7.4%</td>
</tr>
<tr>
<td>Intoxication</td>
<td>6.7%</td>
</tr>
<tr>
<td>AIDS</td>
<td>4.7%</td>
</tr>
<tr>
<td>Cancer</td>
<td>3.5%</td>
</tr>
<tr>
<td>Accident</td>
<td>2.7%</td>
</tr>
<tr>
<td>Homicide</td>
<td>2.1%</td>
</tr>
</tbody>
</table>
Frequency of death and mortality rate for local jail inmates, 2000-2009

[Graph showing the frequency of deaths and the rate per 100,000 jail inmates from 2000 to 2009. The frequency of deaths shows a slight increase from 2000 to around 2004, followed by a decrease. The rate per 100,000 jail inmates also shows a slight increase from 2000 to 2005, followed by a decrease to 2009.]
### Leading causes of death among prison inmates, 2009

<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>26.7%</td>
</tr>
<tr>
<td>Other illnesses</td>
<td>25.9%</td>
</tr>
<tr>
<td>Heart disease</td>
<td>25.5%</td>
</tr>
<tr>
<td>Liver disease</td>
<td>7.6%</td>
</tr>
<tr>
<td>Suicide</td>
<td>5.9%</td>
</tr>
<tr>
<td>AIDS-related</td>
<td>2.8%</td>
</tr>
<tr>
<td>Homicide</td>
<td>1.6%</td>
</tr>
</tbody>
</table>
Frequency of deaths and mortality rate for state prison inmates, 2001-2009
Rates of death per 100,000 persons in US general, state prison, and local jail populations by cause of death, 2009

Death rate per 100,000 US residents/inmates

Heart disease
Cancer
Suicide
Accdnt
Liver
Percent of deaths in custody attributable to AIDS-related causes, 2001-2009
Percent of all deaths in jails and prisons deemed suicides, 2001-2009

The graph shows the percentage of deaths in prisons and jails deemed suicides from 2001 to 2009. The percentage for prisons (blue line) remains relatively stable, while the percentage for jails (red line) shows a trend of decrease followed by an increase.
Jail decedents and medical care

• 95% of jail inmates who died from an illness entered the facility with this medical condition.
• Between 2000 and 2009, 51% of jail inmate deaths occurred in medical facilities outside of jail facilities.
• 12.0% of jail decedents in 2009 had spent at least one night in a mental ward or facility.
Estimated time served by entering cohorts of jail admissions, for jails with ADP greater than or equal to 1000 ADP (splined time served, linear decay within intervals)
Median time served by jail decedents by cause of death, 2000-2009

- AIDS
- Intoxication
- Accident
- Suicide
- Homicide
- Heart disease
- Cancer
- Cerebrovascular disease
- Respiratory disease
- Liver disease
- Influenza
- Cirrhosis
<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Mean Age at Death (Range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide</td>
<td>34.8 years (18 - 78 years)</td>
</tr>
<tr>
<td>Heart disease</td>
<td>47.8 years (18 - 88 years)</td>
</tr>
<tr>
<td>Other illnesses</td>
<td>44.7 years (18 - 92 years)</td>
</tr>
<tr>
<td>Intoxication</td>
<td>36.7 years (18 – 68 years)</td>
</tr>
<tr>
<td>Cancer</td>
<td>51.6 years (18 – 86 years)</td>
</tr>
<tr>
<td>Accident</td>
<td>39.1 years (18 – 77 years)</td>
</tr>
<tr>
<td>Homicide</td>
<td>36.7 years (18 – 71 years)</td>
</tr>
<tr>
<td>AIDS-related</td>
<td>41.8 years (20 – 78 years)</td>
</tr>
</tbody>
</table>
Racial/ethnic distribution of jail decedents by cause of death, 2000-2009
Median total time served in state prison by decedents by cause of death, 2001-2009
Mean age of decedents in state prison by cause of death, 2001-2009

- Cancer
- Heart disease
- AIDS
- Liver disease
Median total time served in prison prior to death, by admission status of medical condition causing death, 2001-2009

- **Pre-existing condition**
- **Developed after admission**
Percent of state prison decedents who received correctional health care services prior to death, 2001-2009

- Evaluated by medical staff: 70%
- Diagnostic tests: 60%
- Received medication: 60%
- Received treatment other than medication: 50%
- Surgery: 10%
- Confined in special medical unit: 50%
Racial/ethnic distribution of prison decedents by cause of death, 2001-2009
Mean age at death for state prisoners by race, 2001-2009

- White, non-Hispanic
- Black, non-Hispanic
- Hispanic/Latino
- Other/Multi race, non-Hispanic
Median time served by decedents in state prison by race, 2001-2009

- White, non-Hispanic: 5 years
- Black, non-Hispanic: 4 years
- Hispanic/Latino: 3 years
- Other/Multi race, non-Hispanic: 3 years
CONTACT INFORMATION

PRISONS:
E. Ann Carson, Ph.D.
Statistician
Bureau of Justice Statistics
810 Seventh Street, NW
Washington, DC 20531
202-616-3496
Elizabeth.Carson@usdoj.gov

JAILS:
Margaret Noonan, M.A.
Statistician
Bureau of Justice Statistics
810 Seventh Street, NW
Washington, DC 20531
202-353-2060
Margaret.Noonan@usdoj.gov
National Survey of Prison Health Care

• Development of a survey to measure health care delivery in prisons
• Information gaps and data needs identified
• Additional development activities
• Survey design
• Pilot study
• Next steps
Development of a survey to measure health care delivery in prisons

- BJS recognized the need for data on health care service delivery in prisons.
  - Most of what we have collected has been designed to capture services delivered in response to specific health problems
  - Have not collected data on the delivery system as a whole from admission to discharge and the array of services that inmates could receive
  - BJS has not collected data to measure the overall structure of health services delivered in prison
Development of a survey to measure health care delivery in prisons

- Collaboration with NCHS
  - BJS enters an IAA with NCHS to develop and implement a survey of prison health care delivery.
    - BJS can draw on NCHS’ expertise on health and health care delivery
    - NCHS could better understand how to expand the focus of its National Health Care Surveys to institutional populations and establish next steps for the routine collection of data on prison healthcare.
Development of a survey to measure health care delivery in prisons

- In June 2010, BJS/NCHS convened the meeting, “Correctional Health and Healthcare: Identifying and Prioritizing Data Needs”
  - Short-term goal was to identify priority data elements to be included in a new administrative data collection on health care delivery in prison
  - Long-term goal was to define a strategy for the development of future health and health care data collections.
Development of a survey to measure health care delivery in prisons

– Attended by health care administrators, practitioners, and researchers
  • Experts presented on topics of health and healthcare
  • Discussions of data needs revolved around the topics of:
    – Global structure
    – Health services
      » Intake
      » Post intake
      » Chronic care (outpatient and inpatient, on and off-site)
      » Episodic care (on and off-site)
      » Medication management
      » Discharge
Data needs identified

• Global structure
  – Number and credentials of various health care staff and who employ them
  – Inventory of services
    • Coverage and capacity
    • Utilization by sex, race, age, and disability status
  – Scope of services by contractors
    • Level and type of services provided by DOC and contractors
  – Litigation
  – Court order and settlement agreements
  – EMR and telemedicine
Data needs identified

• Intake
  – Inventory of screenings/test (infectious, chronic, and mental health)
  – Timeliness of screenings
  – Credentials of those performing screenings
  – How inmates are processed based on results of intake screening
  – Existence of medical reconciliation program
Data needs identified

• Post-intake (disease prevention)
  – Inventory of routine screening and other health maintenance during incarceration
  – Heart-healthy menu
    • Specifics about calorie counts, and the percent of calories from fat and salt in prison meals
    • Standard or provided solely on a physician’s order.
  – Smoking policy
Data needs identified

• Chronic care
  – Outpatient (on- and off-site)
    • Presence of organized chronic care programs or clinics
    • Understand capacity for disease surveillance system (documentation)
  – Inpatient (on- and off-site)
    • Capacity – number of beds or units
    • Specialized services
      – Surgery
      – Geriatric care (long term nursing and hospice)
      – Radiology
      – Dialysis
      – Surgical aftercare
    • Frequency at which nurses/medical health professionals make rounds
Data needs identified

– Episodic care
  • Inventory and utilization of services (on and off-site) and utilization
    – 24-hour RN coverage
    – ER
  • Quality
    – CPR trained staff on-site
    – Ambulance response time
    – Credentials of workers responding to emergencies
    – Practitioner review of off-site emergency care
Data needs identified

– Medication management
  • Pharmacy
    – Counts and allowances for stocking medications
    – Eligibility for 340b pricing
    – Availability of medications during sick call
    – Use of electronic tracking systems by health care workers dispensing or administering medication
  • Formularies
    – Presence
    – Credentials of health care workers dispensing or administering drugs from the formularies.
Data needs identified

– Discharge/Compassionate release
  • Designated discharge unit
  • Number of full-time equivalent staff providing discharge planning services
  • Existence of health-benefit-restoration policies for inmates
  • Extent of formal arrangements between facilities and other agencies to link inmates to care and treatment
  • Systems use of compassionate release and the details of that policy.
Additional development activities

• Site visit to the PA State Correctional Facility in Camp Hill to see first hand where and how health services are delivered in prison

• Roundtable discussion with correctional administrators and researchers regarding NSPHC content and burden

• Solicited feedback from meeting participants on draft survey instrument
Survey design

• Our objective was to design an administrative prison system level survey that would address BJS and NCHS information gaps and the needs in the field.

• Concepts:
  – Measure the structure of prison health care delivery
  – Identify a range of health care services delivered throughout confinement
  – Understand who delivers services (contractors or DOC staff) and where services are delivered (on-site, off-site, by telemedicine)
  – Measure utilization of health care services
  – Understand extent of systems use of EMRs.
Survey design

• Structure, capacity, and utilization of health care services
  – Contract agreements and employed FTEs by type (mental health, pharmaceutical, dental and other medical)
  – Identify services provided, who provides and where provided and for some the capacity prison systems have to provide and utilization

• General Services
  – Medical and mental inpatient healthcare
  – Medical and mental outpatient health care
  – 24 hour physician or nurse coverage
  – Emergency department care
  – Surgery
  – Long-term/nursing care/hospice
Survey design

• Specialty Services
  – Cardiology psychiatry, preventive dental care, oral surgery, gynecology, obstetrics, optometry, ophthalmology, orthopedics, oncology

• Diagnostic tests
  – Cardiac catheterization, colonoscopy, ECG (EKG), mammography, MRI, ultrasound, plain X-ray

• Therapies
  – Restorative/rehabilitation
  – Physical/occupational therapy

• Organ transplantation
  – Heart, liver, kidney, bone marrow, corneal
Survey design

• Health care services provided upon intake
  – Screens/tests and how many completed
    • Infectious disease
      – Hepatitis A, B and C, gonorrhea, chlamydia, syphilis, TB, HIV
    • Other medical screens/tests
      – Illicit drug use, pregnancy, elevated lipids, high blood pressure, routine dental, ECG (EKG), chest x-rays
    • Mental health screens (screen, how many, screening tool used, and minimum credentials)
      – Mental health screening, suicide risk screen, TBI
Survey design

• Disease prevention services and policies
  – Vaccinations (administered and how many)
    • Hepatitis A and B, Neisseria meningitides, Pneumococcal, Influenza
  – Nutritional guidelines
    • Limit calories, fat, and salt
    • Special meals
  – Smoking policies
Survey design

• Discharge planning
  – Supply of medication or prescription (days)
    • HAART, insulin, diabetic medication, anti hypertension, antipsychotic, and antidepressant
  – Assistance with medicaid enrollment
  – Medical and mental health appts. in community

• Medical records
  – Format by type (screening, MH, meds, lab results)
Pilot study

• Pilot test in October/November 2011
  – Pilot tested with 6 states
    • Feasible and relatively low burden
    • Some confusion over “intake” should replace with “admission”
    • Thought it would be more informative to know which inmates were being screened/tested at admission
    • Days supply of meds didn’t vary by type
    • Missing chronic care clinics.
OMB and next steps

• OMB feedback
  – Need process to identify respondents and understanding the capacities for systems to provide the data in the survey

• Next steps
  – Working with NCHS’ QDRL to inform on respondents and capacities
  – Semi-structured interviews
Enhancing Statistics on Serious Mental Illness

Funded by the National Institute of Mental Health (NIMH) and the Bureau of Justice Statistics (BJS)

Principle Investigators and final report written by Robert Trestman Ph.D., M.D. and Deborah Shelton Ph.D., RN, NE-BC, CCHP, FAAN
Overview

- Past BJS efforts to measure mental illness among the incarcerated population
- Prevalence of mental health problems
- Need to enhance mental health statistics
- Plan to enhance mental health statistics
- Developing the SMI assessment tool
- BJS follow-up work
- Upcoming BJS omnibus surveys
BJS efforts to measure mental illness among the incarcerated population

• Omnibus surveys
  – 1989 Survey of Inmates in Local Jails (SILJ)
• Measures of mental illness
  – Since admission taking prescription meds for an emotional or mental problem
  – Before admission had an overnight stay in a mental hospital/treatment program
BJS efforts to measure mental illness among the incarcerated population

- 1996 Survey of Inmates in Local Jails (SILJ)
- 1997 Surveys of Inmates in State and Federal Correctional Facilities (SISFCF)
  - Measured mental illness
    - Used 2 criteria to measure mental illness:
      » self-reported mental health/emotional problem and
      » overnight stay in a mental hospital/treatment program
BJS efforts to measure mental illness among the incarcerated population

- 2002 Survey of Inmates in Local Jails (SILJ)
- 2004 Surveys of Inmates in State and Federal Correctional Facilities (SISFCF)
  - Used criteria in the DSM-IV to measure mental illness.
    - DSM-IV provides a baseline indication of mental health problems rather than a clinical diagnosis of mental illness
  - Addressed behaviors or symptoms related to major depression, mania or psychotic disorders that occurred in the 12 months before the interview
  - Surveys did not assess severity or duration of the symptoms; no exclusions were made for symptoms due to medical illness, bereavement or substance abuse
BJS efforts to measure mental illness among the incarcerated population

Symptoms
• Major depressive or mania symptoms
  – Persistent sad, numb, or empty mood
  – Loss of interest or pleasure in activities
  – Increased or decreased appetite
  – Insomnia or hypersomnia
  – Psychomotor agitation or retardation
  – Feelings of worthlessness or excessive guilt
  – Diminished ability to concentrate or think
  – Ever attempted suicide
  – Persistent anger or irritability
  – Increased/decreased interest in sexual activities
BJS efforts to measure mental illness among the incarcerated population

• Major depressive disorder
  – To meet the criteria inmates had to report a persistent sad, numb or empty mood or decreased interest or pleasure in activities, along with 4 additional symptoms

• Mania disorder
  – To meet the criteria inmates had to report a persistent anger or irritability or 3 other symptoms
BJS efforts to measure mental illness among the incarcerated population

• Psychotic disorder symptoms
  – To meet the criteria inmates had to report any one sign of delusions or hallucinations
    • Delusions characterized by belief that other people were controlling their thoughts, could read their mind, or were spying on them
    • Hallucinations include reports of seeing things others said they did not see or hearing voices others did not hear
BJS efforts to measure mental illness among the incarcerated population

Recent history

– To meet the criteria inmates had to report any one of the following in the past 12 months:

  • Told had disorder by a mental health professional
  • Had an overnight hospital stay
  • Used prescribed medications
  • Had professional mental health therapy
Prevalence of mental health problems in prisons (1997) and jails (1996)

<table>
<thead>
<tr>
<th></th>
<th>Percent of inmates in —</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>State prison</td>
<td>Federal prison</td>
<td>Local jail</td>
<td></td>
</tr>
<tr>
<td>Mental or emotional condition</td>
<td>10.1 %</td>
<td>4.8 %</td>
<td>10.5 %</td>
<td></td>
</tr>
<tr>
<td>Overnight stay in a mental hospital</td>
<td>10.7</td>
<td>4.7</td>
<td>10.2</td>
<td></td>
</tr>
<tr>
<td>Estimated to be mentally ill</td>
<td>16.2</td>
<td>7.4</td>
<td>16.3</td>
<td></td>
</tr>
</tbody>
</table>

*Reported either a mental or emotional condition or an overnight stay in a mental hospital or program.

<table>
<thead>
<tr>
<th></th>
<th>State prison</th>
<th>Federal prison</th>
<th>Local jail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any mental health problem</td>
<td>56.2 %</td>
<td>44.8 %</td>
<td>64.2 %</td>
</tr>
<tr>
<td>Recent history</td>
<td>24.3</td>
<td>13.8</td>
<td>20.6</td>
</tr>
<tr>
<td>Symptoms</td>
<td>49.2</td>
<td>39.8</td>
<td>60.5</td>
</tr>
</tbody>
</table>
Need to enhance mental health statistics

• Problem:
  – Measurement of prevalence changed between the mid to late-90s to the early to mid 2000 surveys
  – Measures used in 2002 and 2004 lead to misinterpretation of the prevalence of mental disorders and mental health researchers raised questions about the quality of the survey data used to describe mental health disorders.
    • Measures were too broad
    • Indicators of mental health problems but further follow-up would be necessary to determine severity
Plan to enhance mental health statistics

• Addressing the problem: Initial steps
  – NIMH researchers initiated efforts to better understand BJS data
  – NIMH initiated contact with SAMHSA, whose interests were in better data for planning for service delivery
  – BJS brought knowledge of the corrections system, access to inmates through planned surveys, and an opportunity to test new measures
  – SAMHSA hosted (in February 2008) “Mental Health Data Collection in Jails and Prisons,” a day-long meeting consisting of practitioners and mental health researchers to discuss:
    • BJS goals and purposes for its inmate surveys
    • Information needs for service delivery planning (federal level), of practitioners, advocates, and other consumers of statistical data
    • Methodological issues in measuring mental health disorders in prisons and jails
Plan to enhance mental health statistics

• Addressing the problem: NIMH/BJS collaboration with Bob Trestman
  – Objective: To develop and test in a correctional setting an instrument that will be an efficient, valid and reliable tool to screen for serious mental health disorders in BJS’ omnibus inmate surveys (BJS inmate surveys cover 10 domains; about 8 minutes for mental health issues)
    • Bob Trestman was already working with NIMH through their Interventions and Practice Research Infrastructure Program
    • NIMH could support the effort through the existing grant with Bob Trestman; BJS contributed financially to the work
    • Bob Trestman and Deborah Shelton were the Principal Investigators on the project
Developing the SMI assessment tool

- Primary goal: identify inmates with SMI
- Secondary goal: identify inmates with specific psychological disorders
  - Designed study to address specific psychological disorders that are prevalent and of clinical and operational significance in correctional settings:
    - Major depression
    - Bipolar Depression
    - Generalized Anxiety Disorder
    - Panic Disorder
    - Serious Phobias
    - Post Traumatic Stress Disorder
    - Borderline Personality Disorder

Psychotic disorders such as schizophrenia were not included because of the difficulty of accurate assessment in a brief ACASI survey format.
Developing the SMI assessment tool

• Considerations for development of the assessment tool:
  – Non-clinician screener format administered using ACASI format in a single session within 8 minutes
  – No more than 65 items in the pilot instrument with a target of no more than 3 items per diagnosis in the final instrument
  – Designed based on input from experts
  – Validated against SCID (Structured Clinical Interview for DSM-IV_TR)
Developing the SMI assessment tool

• Worked with experts in the field to develop a 62 item questionnaire
  – 43 items made up the 7 subscales of specific psychological disorders were pulled from existing instruments:
    • Composite International Diagnostic Interview (CIDI)
    • National Inmate Survey (Correctional Service of Canada, 1995)
    • Structured Clinical Interview for DSM-IV (SCID) screening module
    • Primary Care PTSD Screener
    • Iowa Personality Disorder Screen (IPDS)
    • K6
    • Structured Clinical Interview for DSM-IV-TR
    • Structured Clinical Interview II for DSM-IV (Borderline Personality Disorder)
Developing the SMI assessment tool

• Scope of pilot study
  – 307 participants (males - 100 in jail and 107 in prison; females - 50 in jail and 50 in prison) from 3 state prisons and 3 jail facilities in CT
  – Included those aged 18 or older, able to understand informed consent process, not currently withdrawing from drugs or alcohol, not currently psychotic
  – Excluded those who did not understand aims and procedures described in the informed consent, inability to comprehend the interview questions, inability to understand English, experiencing drug or alcohol withdrawal symptoms or active psychotic symptoms
Developing the SMI assessment tool

• Analysis and results
  – Correlated items from the 7 subscales with the SCID diagnosis
  – Items that were significant at the .05 threshold were included in a Forward Stepwise Regression analysis to reduce the subscale items to those that determine the best model that predicts an occurrence of a diagnosis
  – 16 items, with at least 2 but no more than 3 items within each of the 7 subscales were found to be the best predictors of an occurrence of a diagnosis
Developing the SMI assessment tool

• Conclusions and recommendations
  – BJS could use this 16-item screener as an efficient way to identify severe psychological disorders among prison and jail inmates
  – Additional research in other states could be done to assess the reliability and validity of the screener
BJS follow-up work

– Replicate results of the pilot
– Develop the criteria for an overall measure of SMI using the items in the 7 subscales
– Develop a plan to present and report the data in meaningful ways
  • Will continue to work with and obtain feedback from experts in the field
Upcoming BJS omnibus surveys

- SMI
  - Prevalence
    - Validated 16 item SMI screener
    - Psychological distress (K6 scale)
      » 30-day and past 12 month scales
      » Validated and proven to differentiate between SMI and non-SMI
    - Mental health condition diagnosed by a mental health professional (ever)
    - Impairment (difficulty doing daily activities because of a mental or emotional problems); amount of difficulty
  - Treatment
Upcoming BJS omnibus surveys

- Substance abuse
  - Prevalence and treatment
- Physical health and disabilities
  - Prevalence and treatment for chronic and infectious disease
  - Measures of disabilities modified from the Washington Group on Disabilities measures
- Demographics
- Current offense
- Criminal History
- Social support
- Facility programs
CONTACT INFORMATION

Laura M. Maruschak
Statistician
Bureau of Justice Statistics
810 Seventh Street, NW
Washington, DC 20531
Laura.Maruschak@usdoj.gov

Lauren E. Glaze
Statistician
Bureau of Justice Statistics
810 Seventh Street, NW
Washington, DC 20531
Lauren.Glaze@usdoj.gov