

Data Primer

March 2013

Overview: "To Measure is to Know¹"

Gone are the days when juvenile justice, or any field, can meet its mission, serve its clients, responsibly manage tax dollars and support its staff without data – specific facts, statistics and quantifiable information about daily operations and services. Advances in technology over the past two decades have made computers and the Internet not only accessible but part of the job; electronic communications and information are expected. Data-driven decision-making, risk management and quality assurance approaches are part of juvenile justice agencies across the country and increasing.

Performance-based Standards (PbS) is a tool for juvenile justice professionals to continually improve the quality of life and services in residential programs using data – collecting, analyzing and monitoring. PbS sets national standards for facility management and trains participating facility staff and leadership to collect data that is accurate, comprehensive, valid and reliable to measure progress meeting the standards. PbS trains and coaches participants to analyze the data and use it to best serve youths, their families, staff and communities.

PbS has been collecting data from more than 200 participating facilities for nearly 20 years. Now PbS is one of the largest juvenile justice databases and provides a unique national picture of facility life, practices and programs. PbS data measures performance- what happens to youths and staff - and numerically reflects facility culture and activities. PbS data is both quantitative and qualitative, from administrative forms, youth records, incident reports and surveys of youths, staff and families. All participants view PbS reports on-line twice year that show how they are progressing to achieve PbS' standards of excellence in seven areas of



States shown in blue have participating corrections, detention or communitybased programs. States highlighted in red have new sites joining in October 2012.

facility management: safety, order, security, justice, health/mental health, programming and rehabilitation services. In December 2012 PbS will launch a new area, standards and outcome measures dedicated to family engagement.

Data quality is the foundation of PbS. PbS has established a layered approach to ensuring information is accurate, comprehensive, meets PbS definitions and reporting requirements. However the heart of PbS is helping participants use good data to create change, reform and better conditions of confinement. PbS trains and supports participants not only to collect high-quality data but also to analyze the results to make decisions and changes that affect youths' lives. PbS empowers leaders and staff by demonstrating with data what is happening in facilities and how using the data and PbS' improvement process can result in better outcomes.

PbS won the 2004 Innovation in American Government Award for uniquely and effectively addressing conditions of confinement.

¹ William Thomson, 1st Baron Kelvin, (26 June 1824 – 17 December 1907), an Irish-born British mathematical physicist and engineer at the University of Glasgow who did important work in the mathematical analysis of electricity and formulation of the first and second laws of thermodynamics and did much to unify the emerging discipline of physics in its modern form.



"If you cannot measure it, you cannot improve it.²"

PbS' High Quality Data is the Foundation for Change and Improvement

In order to be included in the PbS database, all information reported undergoes a multi-layered data quality process that involves state-of-the-art technology, training participants, internal accuracy checks and external on-site verification.

Technology

PbS' website provides immediate feedback to users on data quality. Specifically:

- PbS has data quality checks that prevent data entry mistakes, such as dates, times and numerals;
- PbS does not accept incomplete forms and requires critical information to submit a form;
- The website conducts internal consistency checks, comparing data entered from different sources (ie what youths or staff say with incident reports and administrative data); and
- After every data collection, PbS generates automatic reports on data outliers and data outside the standard deviation; the data flagged are sent to the participants for correction or confirmation; any questionable data is withheld from the PbS field average calculations.

Training

All participants are trained to collect and report data that meets PbS definitions, reporting requirements and maintain the integrity of the PbS improvement processes. Comprehensive and specific definitions are listed in the PbS glossary. PbS requires complete definitional compliance in order to ensure information can be accurately aggregated and compared.

Due to the critical health and safety issues included in the PbS incident report, all participants must complete and sign an incident report definitional compliance and comprehensive reporting form (IRDCCR) verifying that they have met PbS definitions for the following incident report data: assaults, contraband, fights, injuries, isolation restraints and suicidal behavior.

PbS Internal Data Quality Checks

The PbS Help Desk staff also reviews data before final reports are released, looking for data quality issues, problematic data (illogical dates and times of events; outcome measures that appear to be aberrant to the projected field average) and reports of critical events (suicides and forced sexual activity). The PbS Help Desk notifies participants and requests corrections/ modifications before final reports are released. All questionable data is withheld from the PbS field average calculations.

On-Site Verification

All PbS programs have an assigned a PbS coach who maintains constant contact via phone and email and conducts an annual site visit. The visit verifies data quality, adherence to PbS processes and provides any needed training and improvement planning guidance. The on-site verification includes interviews with youths, staff and administrators, a tour of buildings and grounds and reviews of:

- Original documentation of strategically selected incident reports,
- Records and logs from medical and living units,
- Confidentiality and consent process for surveys of youths and staff, and
- Policies and definitions verified by IRDCCR.

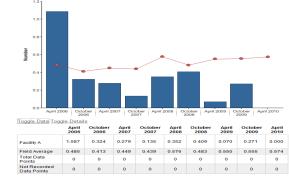
² Same as above.



The PbS Field Average

The PbS field average is calculated by dividing the average of the numerators by the average of the denominators and is a statistically solid measure of what a typical youth or staff member experiences. It is not a benchmark but indicator and tool for analysis.

- This is mathematically equivalent to the sum of the numerators divided by the sum of the denominators;
- It is not an average of each facility's score; an average of each facility's score would exaggerate the importance of small or anomalous facilities and be more volatile; and



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 The PbS field average with its standardized definitions and data collections is a unique tool for facilities to better understand local practices compared to other like facilities.

Rates

A rate is a standard form of measurement that allows for the comparison of a quantity or amount of one thing across multiple, different situations. A rate sets a common denominator to be able to compare the facilities on equal ground.

In PbS, rates are used to statistically compare the results at small [less than 50 beds], medium [between 50 and 99 beds] and large facilities [over 100 beds]. The most commonly used rates to compare outcome measures in PbS are: "100 person-days of youth confinement" and "100 person-days of staff employment." Simply stated, they mean:

- 1 person-day of youth confinement = 1 youth in facility care for 24 hours
- 1 person-day of staff employment = 1 staff member working an 8 hour shift

Sample Size

PbS participants must meet the following sample size requirements each data collection period:

- All incidents that occur during the data collection period must be reported³.
- A minimum random sample of 30 youth climate surveys,
- A minimum random sample of 30 staff climate surveys;
- A minimum random sample of 30 youth records; and
- Exit interviews with all youths who leave to return to the community.

PbS family surveys will begin December 2012.

Random Sampling

PbS requires facilities to select a minimum random sample of 30 youths, staff and youth records for each data collection period. The sample size 30 allows for inferential statistics, however PbS strongly encourages facilities to survey all youths and staff and review all youth records and many facilities do.

PbS provides an on-line random number generator to statistically select a subpopulation that accurately reflects the full population.

³ PbS defines incident as an event or crises the may compromise the security of the facility or safety of staff or youths. All instances of assaults, fights, suicidal behavior, contraband and escapes are incidents; instances of failure to comply or inappropriate behavior that result in restraint, confinement or injury must be reported



FAQs About PbS Data

Purpose

To provide timely and meaningful information to juvenile justice leaders and professionals for decision-making, risk management and monitoring the quality of life and services within facilities. A secondary purpose is to analyze aggregate data to identify and promote best practices for youth residential facilities and programs.

Strategy

PbS collects information two times a year, using the months of April and October as data collection periods. PbS aligns its data collection strategy to existing national surveys, such as the US Census and Survey of Youths In Residential Placement (SYRP), which seek an accurate reflection at a specific moment in time. However unlike the other national surveys that are conducted every two years or more, PbS adopted a semi-annual cycle to support its unique improvement process. PbS:

- Provides immediate feedback to participants on practices, services and quality assurance measures and
- Reflects the impact of changes or reforms in a timely fashion.

Reliability

PbS has been collecting, analyzing and improving outcome data for nearly 20 years and reported consistent results, demonstrating its ability to reliably reflect facility conditions and services. Each individual participant has built-in reliability checks looking at its data twice a year and over time. Any significant change is flagged for review quickly after reporting.

Additionally, PbS cross-references data from both qualitative and quantitative sources, such as incident report information with staff and youth surveys; administrative data with youth record data to ensure are results are reliable.

Validity

PbS' data elements and data sources were first identified by a national advisory board of experts from all related fields, including advocates and legal experts and pilot tested for about two years to ensure they are valid, the questions asked are eliciting the responses intended. Following two years' piloting testing, revision and re-testing, the PbS surveys were launched for the field and are tested by thousands of participants twice a year.

PbS' youth climate survey shares common questions with national surveys, especially the SYRP, to allow for cross-checking. PbS and SYRP consistently report the same responses from youths about safety, conditions, staff and contacts. PbS compares its responses to other national surveys and research findings to continually check validity and contribute to the larger discussions based on data. PbS surveys also share data elements with state and local systems and conduct local validity checks.

Lastly PbS internally checks data validity by triangulating similar questions on different surveys (youth climate and youth exit interview, for example) and comparing qualitative and quantitative results for internal consistency measurements.

For more information, please visit: http://pbstandards.org.