

Beyond the Standard: The Value of
Knowledge-Based Management in
Correctional Healthcare



Unprecedented Challenges

Today's correctional healthcare system faces extraordinary challenges. The system is tasked with providing a complete range of medical and mental health services for an aging inmate population with complex medical conditions, substance abuse, and mental illness.

Compounding the problem are troubling variables: the rate of incarceration continues to grow and the financial burden on correctional agencies remains high.

Although the correctional system has been delivering safe, efficient and effective services for decades, correctional facilities now face the additional burden of providing these services in the midst of the worst economic downturn in the last seventy-five years. Most state and local budgets are strained, increasing the odds that correctional resources will face even greater scrutiny. This fact highlights the need for an improved operational management approach to correctional healthcare: knowledge-based management.



The knowledge-based management approach allows facilities to streamline operational processes, increase management efficiencies, and decrease overall cost. Information derived from data guides the management decisions more effectively. This knowledge enables program administrators to effectively manage the healthcare program while also providing corrections management with the facts needed to defend program operations, ensure the healthcare vendor's compliance with the contract, and substantiate requests for resources that may be required to carry out the facility mission.

The Current State of Correctional Healthcare Management

The day-to-day demands on correctional healthcare managers are intense. There are urgent operating problems to address, continuous recruiting needs, financial pressures, vital initiatives to tackle, and looming deadlines to meet. The demanding nature of the healthcare environment may be a necessary function of the role, but it also tends to compel healthcare administrators to focus attention on immediate concerns, rather than evaluating and improving the overall management process for long-term benefit. Knowledge-based management allows for long-term planning and allocation of resources because healthcare administrators are able to anticipate the need based on data patterns.

Historically, healthcare has utilized three basic management tools: strategic plans, financial reports, and operational reports. This system has often proven unsuccessful for a number of reasons. For example, it is critical that the reports collect relevant data, identify the key metrics, and analyze those methods. However, data is collected by different departments and reviewed in different periods—often by different managers—leading to poor execution of the management process.

Knowledge-Based Management

Data collected from different departments can include financial data, utilization data, and employee output. The process of knowledge-based management consolidates these data elements, or operating indicators, from the different departments to accomplish an improved management process.

These performance measurements assist in the vital task of evaluating processes to determine what is working and what is not. In this way, administrators gain solid and concrete evidence to support crucial decisions, instead of basing decisions on arbitrary or anecdotal information.

Knowledge-based management is simply identifying the appropriate data to collect, analyzing the data, implementing actions for improvement based on the resulting information, and initiating follow-up actions as needed.



A knowledge hierarchy illustrates how data, information and knowledge relate to each other. It begins with collecting the key data points, which when analyzed reveal patterns that provide the user with an understanding of the meaning behind the data. That understanding can be subsequently used in the decision-making process.



Figure 1.0: The Knowledge-Based Management Process

Practical Applications

There are numerous examples of how knowledge-based management can greatly improve the overall operation of healthcare services within a correctional facility.

When the costs are rising, whether for medication, specialized services, or other unforeseen reason, the finance department may choose to issue a mandate to reduce costs by a certain percentage each month until the costs return to baseline. Correctional facility leadership may request a written explanation of the cost change, and will expect such requests to be fulfilled promptly.

To answer such a request, healthcare service administrators may look to the correctional physicians for the answers. This process of searching for answers continues down the chain of command with a great sense of urgency, even if a data audit cannot be realistically produced in the timeframe. The cost figures themselves only offer raw data and cannot provide the comprehensive rationalization for the increase.

The full explanation for medication cost increases can be found by reviewing cost data, encounter data and demographic data. The value and insight for management is established through data analysis of these data sources.

A likely scenario will show the cost increase is attributable to a variety of interrelated factors, most of which cannot be gleaned from a quick view of the raw data. Factors such as wholesale price increases from the manufacturers, a recent surge in inmate population due to a new crime sweep, and poor health of new inmates, all may contribute to the overall medication cost increase. To discover the root cause or causes, it is necessary to combine various data sources such as site demographics, drug costs, and type of illnesses.

Although the example above offers support and justification for the cost increase, it also offers the opportunity to discover instances of waste and unnecessary allocation of resources. In either case, specific, targeted and thorough actions can be made to address the situation. Without this relevant data and the ability to analyze the data, the healthcare administrator is left to speculate or rely on past experience to make decisions.

Utilization Review: A Critical Tool for Efficiency

Another important component of efficient healthcare management in correctional facilities is utilization management. Utilization management is a critical component of how knowledge-based management may be used for appropriate allocation of resources. The table that follows (figure 1.1) is an example of a data set obtained from Utilization Reviews conducted over a one month time period for an infirmary unit. The review is designed to determine if patients being cared for in the infirmary met criteria necessary to justify the allocation of resources. An infirmary usually has the highest staffing concentrations of both medical and security staff, so it is important to ensure that these resources are being distributed appropriately.



Figure 1.1: Utilization Review of Infirmiry Resource Allocation

Primary Review Summary							
Infirmiry Unit							
Week	Reviews	Open Beds	Cases in Med. Obsv.	Criteria Met	% Met Crit.	Criteria Not Met	% Not Met
1	28	4	19	23	82%	5	18%
2	28	4	20	22	78%	6	22%
3	26	6	18	20	77%	6	23%
4	32	0	27	29	91%	3	9%
Sub-Total	114			94	82%	20	18%



The utilization management process is conducted to assess the medical necessity and level of care needed. For example, bed availability in an infirmiry may be a concern, so it is critical that patients are continually evaluated for the medical necessity of that particular level of care, and discharged in a timely manner so that beds are available as needed.

Applying knowledge-based management techniques to the process of collecting and analyzing this information adds a new dimension to the process. This new dimension redirects the view from a single-patient perspective to the group perspective; it now yields an analysis of how this particular unit is functioning not only as a cost center but also in terms of clinical efficiency and effectiveness.

The data above illustrates two things. First, that for the first few weeks of the month between 20% to nearly 25% of the patients did not need the higher intensity of care. It can be clearly seen that the resources were not being used efficiently. Second, as the staff became aware of the overall functioning of their unit, actions were taken to more appropriately manage the resources.

A Sustainable Solution

Measuring healthcare performance by collecting and analyzing statistical data to more efficiently manage systems and processes used to deliver care is not a luxury or unattainable ideal. It is a necessity. Reliance on intuition, past experience, inadequate data or anecdotal information leads to poor execution of strategy. Knowledge-based

management can be applied at any facility, with the recognition that each facility has different needs.

In addition, this process can be implemented without the high cost of extensive technical equipment or sophisticated software. It uses sound and practical management tools to deliver high-quality service and minimize risk for correctional facilities. Though the process of measuring, evaluating, and adjusting procedures may seem daunting, in reality, it provides the efficient measures correctional facilities need to keep pace with a changing environment. When implemented correctly by a team of skilled administrators, healthcare providers and managers, it will result in improved patient care, improved resource allocation, and better value for the facility and taxpayers.



About the Authors

***John Trageser – Business Development Manager,
Correctional Healthcare***

John Trageser has 29 years of experience in the correctional healthcare field. For 14 years, he managed a statewide program, which is supported by his 15 years as clinical provider of direct care services. Mr. Trageser is dedicated to meeting the goals and expectations of clients and preserving the integrity of providers. Mr. Trageser holds a Bachelor of Arts degree from Duquesne University and Masters of Arts degree in Clinical Psychology from Middle Tennessee State University.

***Mary Jo Cheuvront BSN, MA, CCHP– Executive Director,
Correctional Healthcare***

Ms. Cheuvront has 20 years of nursing management experience in various clinical settings. She earned a Bachelor of Science in Nursing from the College of St. Scholastica in Duluth, Minnesota and a Master of Arts in International Commerce and Policy from George Mason University in Virginia. Ms. Cheuvront holds a Certified Correctional Health Professional (CCHP) designation through the National Commission on Correctional Health Care.

© 2010 STG International, Inc.

The white paper is published for informational purposes and not to provide substantive medical advice.

Readers are welcome to copy articles for educational purposes. We request only that full credit be given to STG International, Inc.

Please contact Mary Cheuvront at Mary.Cheuvront@stginternational for more information about STGI's Correctional Healthcare capabilities.