2018

Organizational Review & Assessment at State Psychiatric Hospitals

Executive Assessment

August 21, 2018

SUBMITTED BY: New Solutions, Inc.

TO: STATE OF NEW JERSEY DEPARTMENT OF HEALTH

EXECUTIVE ASSESSMENT

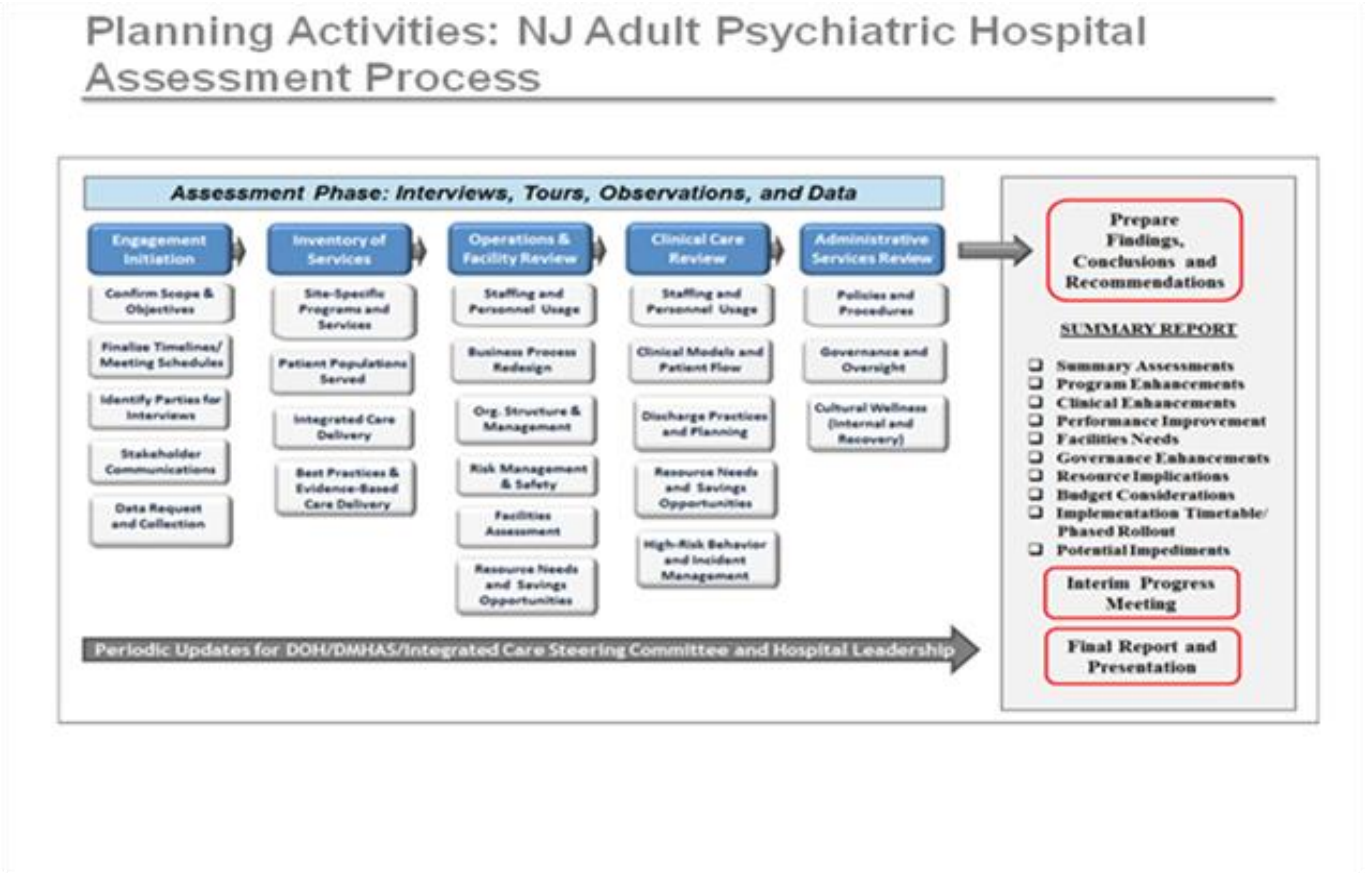
I. INTRODUCTION AND PURPOSE

The New Jersey Health Care Facilities Financing Authority (NJHCFFA) engaged New Solutions, Inc. (NSI) to conduct a comprehensive analysis and make recommendations for the State's four adult Psychiatric Hospitals.

The intent of the analysis was to provide an assessment of the organizational and operational issues affecting the Hospitals and to provide recommendations to meet the challenges with the overall goals of improving the quality of patient care as well as the congruency between Hospital staff and administration. Specific objectives were to assess oversight, management, operations, facilities, staffing, risk management, policies and procedures, as well as clinical, medical and nursing affairs of each Hospital and in doing so to address accountable patient care, the adequacy and appropriateness of the Hospital's organization structure; physical plant issues, employee recruitment, retention and training; workplace safety, governance, delivery of patient care and treatment, discharge practices and planning, and provide recommendations for enhancing the cultural wellness of each facility. This Executive Assessment provides an overview of the assessment and findings. Recommendations have been summarized into six major areas: (1) operate high quality services from a wellness and recovery perspective; (2) operate the 4 State Psychiatric Hospitals as a hospital system; (3) address recruitment and retention of necessary professional, clinical, and nursing personnel; (4) address the issue of patient and staff safety; (5) make operational changes to most effectively utilize State resources; and (6) implement a mental health system approach across the continuum of inpatient, outpatient and community services.

A. APPROACH

To address the specifications of the engagement, a 5-step approach that is depicted on the following figure was developed.



B. HISTORICAL CONTEXT

The history of State Psychiatric Hospitals and, in particular, their development and evolution provide an essential context for the report, its findings and recommendations. Key policy and funding decisions, shifting beliefs about the treatment of the mentally ill, therapeutic and pharmaceutical advances, and perceptions and attitudes toward people with serious and persistent mental illness have impacted care delivery, both nationally and in New Jersey, and provide background for the current state of behavioral health care delivery.

The role of psychiatric hospitals or asylums, as they were first known, in the United States has been flexible in meeting the imminent need of the times. Originally created as a reform in the care of persons with mental illness, in different eras these institutions were utilized for purposes of convalescence, and quarantine, as well as serving the mentally ill. Unfortunately, in some instances, without proper oversight, the care of individuals and the conditions of the institutions became subpar and failed to meet intended goals.[1]

During the first half of the 20th century, State Psychiatric Hospitals served as the nation's primary mental health care system. Beginning in the 1950's, an increase in the public's awareness of inhumane and disturbing treatment of State Psychiatric Hospital patients inspired a movement of deinstitutionalization. At its peak in 1955, state mental hospitals housed greater than 550,000 people

[1] Haupt, M., The Vital Role of State Psychiatric Hospitals. National Association of State Mental Health Program Directors (NASMHPD) Medical Directors Council, (2014), 8.

nationwide; between 1955 and 1965, there was a 15% decline in the number of patients institutionalized, and by 1980 the number had decreased by 75%.[2] A prevailing belief from the time of the establishment of the first State Psychiatric Hospitals through to today was that care of persons with mental illness should remain the responsibility of the State and not the federal government.

New Jersey has made long-term and significant progress in balancing its responsibilities to care for the most severely ill patients while protecting them from unnecessary institutionalization. The reduction of State Psychiatric Hospital census has allowed investment of State dollars into the non-institutional, housing and supportive services in the community where many former patients can now live. Patients admitted to State Psychiatric Hospitals are under civil or legal commitment and are people who suffer with the most severe and persistent mental illness. As outlined above, the vast majority of funding for State Psychiatric Hospitals comes from State taxpayers' dollars, serves a small percentage of the population, most of whom cannot vote or advocate on their behalf. State hospitals have since their development in the 1840's, and remain today, the only safety net available for this population.

II. PROPOSED VISION FOR THE FUTURE

Despite its successes, New Jersey faces continuing challenges and barriers in providing care in its Psychiatric Hospitals. Our study identifies a range of issues including patient care, human resources, staffing, safety, management/governance, operations, facilities, fiscal operations, and cultural wellness that require both immediate, as well as long-term attention. The challenges facing State Psychiatric facilities are neither unique to New Jersey nor are they unsolvable, but they will require additional financial resources, and the political will to effect change over time. Few of the issues can be solved overnight, many will require careful planning and thoughtfulness in execution. Most of all, change will result from strong leadership and dedication to a new vision for the future.

In considering a Vision, we put forward the following for the State's consideration:

> ***The New Jersey State Department of Health will operate a high quality, patient-focused system of inpatient Psychiatric Hospitals dedicated to the Mission of Wellness and Recovery and will be recognized as a leader among State-owned and operated mental health and substance abuse providers.***

While simple in its construct, fidelity to this Vision includes a number of important elements that the Department, DMHAS, and Hospitals will need to embrace, including:

- To consistently provide high quality mental health and addiction services that are rooted in a patient-focused, evidence-based, clinical approach supporting patient/family needs.
- To manage and operate as a unified Hospital system that is clinically and operationally integrated with constructive application of standardized policies, procedures, protocols, and best practices.
- To routinely encourage and support innovation in care delivery and patient care management.
- To support education and training for medical professionals, staff, Fellows, Residents, and students entering the behavioral health field.

[2] Harcourt, B. Reducing Mass Incarceration: Lessons from the Deinstitutionalization of Mental Hospitals in the 1960s Ohio State Journal of Criminal Law Vol 9:1, 54 citing Gronfein, W., Incentives and Intentions in Mental Health Policy: A Comparison of Medicaid and Community Mental Health Programs, 26 J. Health & Soc. Behav. (1985), 192, 196

- To use State resources to cost-effectively provide services in the least restrictive environment.
- To function as a strong collaborative partner in the continuum of inpatient and outpatient behavioral health services and community support agencies that are essential to the reintegration of chronically ill patients into the community.
- To work effectively to optimize patient care and recovery services for individuals with serious mental health conditions with patients, family members, other State agencies, community providers, the court system, advocacy and provider organizations.
- To offer rewarding and attractive professional working environment for health care providers, management and staff.

III. LIMITATIONS, BARRIERS AND CHALLENGES

As mentioned above, there are real and significant barriers and challenges and as well as fiscal limitations to implementing the proposed vision. Such a change can only occur over time, with dedicated leadership, a strong belief in the potential for change and a willingness to challenge the status quo. Throughout this Executive Assessment there is a discussion of challenges and barriers that have contributed to performance deficits, as well as opportunities for improvement. This section deals with three overarching issues: finances including state budgetary constraints, civil service, and cultural wellness.

A. FINANCES

As mentioned within the section on historical context, state psychiatric hospitals provide the only safety net for patients with the most severe and persistent mental health illness in the state. These state-run hospitals serve as institutions of last resort which are funded almost exclusively with state dollars. These funds are allocated through the annual state budget process. Unfortunately, the annual budget process does not lend itself well nor has it kept pace with the Hospitals' long-term operational and capital funding needs. Such deficiencies have led to insufficient workflows and employee utilization as well as quality of care issues because of a lack of automation and IT infrastructure. Facility issues are often addressed with costly interim solutions rather than with necessary long-term capital investment.

While savings from reductions in the census at state hospitals, have been diverted to investments in community-based resources and services, additional resources are needed overall and for "special and hard to place" patients to support their reintegration in to the community at the earliest time.

B. CIVIL SERVICE

Civil service bureaucracy, rules, practices and job titles create significant staffing problems and delays in filling positions. Major problems include.

- Civil service salary levels for key management, leadership, and professional nursing and medical staff positions can make it difficult to hire highly qualified staff.
- Salary levels are not competitive for many positions which are hard to fill due to manpower shortages.
- Civil service specifications do not allow for updating job titles resulting from expanded responsibilities for the position.

- Civil service required testing is not always applicable to the actual job requirements resulting in individuals being hired who scored highest being selected sometimes over more qualified individuals.
- Specifications for jobs are not always consistent or up-to-date causing people to be hired for positions they are unqualified for or at salary ranges not consistent with job functions.

C. CULTURAL WELLNESS

There is a palpable sense of futility that permeates all the institutions that is not compatible with a culture of recovery, hopefulness or empowerment for patients. Nor does this culture of futility offer a rewarding working environment for staff or management and may contribute to the high rates of absenteeism and turnover. New Jersey State Psychiatric Hospitals (NJHSPHs) face a high degree of the scrutiny, which while important in shining a light on real issues, is not always balanced in reporting the underlining barriers or limitations that these hospitals face. Unfortunately, this sets up a dynamic which puts management and staff in a defensive position which inhabits strong/transparent relationships with families, communities, community partners and stakeholders. Changing the culture for patients and staff must occur to affect any forward movement.

IV. POPULATIONS SERVED, PROGRAMS AND SERVICES

A. POPULATIONS SERVED

The mix of patients seen in NJSPHs is often complex to treat and to reintegrate into the community because of a severe and persistent mental illness that is often accompanied by social problems such as poverty and homelessness. These patients have severe mental illness, usually a psychotic thought or mood disorder that impacts their ability to distinguish real from imagined circumstances. It can be challenging to diagnose patients who are unable to give an accurate history because their illness precludes their ability to remember and understand what happened to them. It is often difficult to obtain collateral information from family members. These and other mitigating factors compound caregivers' tasks in treating many of these patients. In cases where psychotic symptoms become severe patients can become a danger to themselves and others; and when they think others are out to harm them, they may pose a threat to staff or others. In fact, the major criterion for civil commitment to a State hospital is that a patient poses a threat to themselves or to others.

Patients at NJSPHs also often present with substance use disorders, which also must be addressed during the admission. To further complicate the presentation, patients under the influence of substances can present with symptoms that mimic psychiatric illness. Only time and abstinence of the substances can distinguish between symptoms due to substance use and symptoms due to other psychiatric illness.

Patients admitted to NJSPHs may be committed due to legal issues. They may be sent for psychiatric evaluation to determine or restore their competency to stand trial and may remain in the hospital pending a court hearing. Some patients are held in the Hospital because they have been found not guilty by reason of insanity (NGRI) and they cannot be sentenced to a regular prison due to mental illness.

Individuals on forensic status who prefer to remain in the Hospital rather than return to jail present challenging acting-out behavior. Although it was reported that the forensic Hospital conducts testing and implements other specific strategies to deal with this issue, it is not clear if the same occurs at the other Hospitals. Others on forensic status in step-down regional hospital environments pose challenges as well, especially when they engage in volitional violence and are mixed in with other populations.

Some patients lack the capacity to make decisions about their own health care and may refuse medications that could help to stabilize them. Many of the patients admitted to NJSPHs have had multiple admissions and have been trialed on many medications with variable results. Once discharged, patients may not carry through with outpatient follow-up for a variety of reasons including wait times to see a psychiatrist in a community mental health center or clinic, or lack of transportation to community providers. They also may discontinue prescribed medication because they cannot tolerate the side effects, cannot afford medication, or decide they don't need it since the symptoms that required medication have gone away. When this occurs, it is not uncommon for patients to self-medicate by using substances, which exacerbates the illness and contributes to recidivism.

State Psychiatric Hospitals are also challenged by the increase in patients who are dually diagnosed with mental illness as well as developmental and/or intellectual disabilities. The lack of the proper space configuration for these patients, as well as the absence of sufficient skilled staff can contribute to the aggression that is associated with this group.

Individuals at substantial risk to harm themselves through self-injurious behavior and/or aggressive behavior toward others are among the most challenging for treatment providers. While known best practices have been implemented with varied degrees of fidelity to effective models, the inadequate overall number and skill level of unit nursing staff significantly hamper consistent implementation.

Even in the absence of self-injurious or aggressive behavior, people with chronic and persistent serious mental illness exhibit negative symptoms which impact their energy and motivation, subsequently limiting their ability to engage in treatment. These individuals require enhanced engagement strategies, implemented by skilled staff, in order to actually participate in the treatment necessary for their recovery and discharge. A major barrier to helping these people envision their own recovery is the absence of peer support services that have been successfully used in other states to promote community reintegration.[3]

The system as a whole should examine the volume and/or characteristics of these or other special populations, in order to determine if effective service delivery can be best achieved through programs that are centralized, regionally based, or involve a mix of the two. It is also a necessary first step in order for Hospitals to determine the best unit level cohorting and staffing.

B. PROGRAMS AND SERVICES

Recognizing the challenging behaviors presented by the populations served, staff training programs have been undertaken to implement a number of best practices with somewhat uneven success across the system. These programs include.

[3] www.samhsa.gov/recoverypeer-supportsocialinclusion.

- Six Core Strategies to Reduce Seclusion and Restraint Use - designed to eliminate seclusion and/or restraint use as well as violence, this program includes such strategies as Personal Safety Plans (PSP), Comfort Rooms, and Sensory Integration modalities. Though most Hospitals referenced these strategies and the use of seclusion and restraints has declined, there was little evidence of consistent implementation.
- Dialectical Behavior Therapy (DBT) – designed for persons who have difficulty regulating emotions and need to change patterns of dangerous behavior such as self-harm and aggression. The program emphasizes personal skill building so that patients can recognize triggers that prompt harmful behavior and develop adaptive coping skills to reduce behaviors that harm self or others. Specially trained staff are required to successfully implement the treatment approach which must be consistent 24/7. Two Hospitals have implemented this practice and others are at beginning stages.
- Positive Behavioral Support (PBS) – designed for persons who present particularly challenging behavior, such as aggression or self-harm or those with developmental and/or intellectual disabilities. PBS is also useful for individuals having difficulty engaging in treatment programs due to negative symptoms, or who need individualized support for community reintegration. All hospitals are using some aspect of this approach. However, program development is severely hampered by the inability to recruit a sufficient number of qualified Behavior Analysts.
- Trauma Informed Care (TIC) – an approach that recognizes the negative physiologic and emotional impact of past and current traumas common in people with mental illness. Successfully implemented, this approach informs everything that occurs in a hospital that impacts patients as well as staff. There was little evidence that this practice was consistently implemented.
- Recovery Orientation (RO) – the foundation of active treatment that consistently seeks to understand and incorporate an individual's own desires and goals, assists the person to mobilize their strengths so that they can recover, and fosters discharge and community reintegration at the earliest possible time. A number of staff members who were observed conducting groups conveyed enthusiasm, engaged individuals, and fostered hope for recovery. However, with the exception of one hospital, most unit nursing staff appeared bored or irritated, were not fully engaged with patients, often described being overwhelmed by paperwork, and expressed fear.
- Co-occurring treatment programs – designed to address the co-occurrence of mental illness and substance use which often contributes to recidivism. Among other strategies, the treatment approach uses Motivational Interviewing, a process that identifies and stimulates stages of treatment readiness to engage individuals. Certified specialists are required to provide treatment. Hospital implementation ranges from minimal to strong. The variability seems related to having an adequate number of certified substance abuse counselors as well as space to conduct programs.
- Treatment Mall - a psychosocial treatment model that requires individuals to leave their living units to attend treatment programs in a centralized treatment area. This promotes reestablishment of a more normal daily rhythm. The model also brings staff from multiple units together, theoretically expanding a hospital's ability to address varied individualized treatment needs through a broad array of offerings in a single area. All Hospitals have implemented treatment malls with a good range of offerings that also include some evening and weekend programs. However, patient engagement in programming is variable.
- Vocational Support - designed to assist individuals to activate or develop new work skills considered essential for recovery and community living. All Hospitals have vocational centers

that offer skill building activities and provide links to supported and other employment. All of these programs are strong.

- Peer Support Services - services and supports that are provided by persons who are in recovery themselves. These services are especially helpful in providing transitional discharge support to enable community reintegration at the earliest possible time. Although two Hospitals have Self Help programs on grounds, and one Peer Support Specialist was involved in a treatment mall program, little to no Peer Support Services exist in the Hospitals, reportedly due to state hiring requirements.
- Culture of Safety - there are many evidence-based models for achieving a culture of safety. Common to all models is the requirement that staff develop therapeutic relationships with the patients. Since nursing unit staff members are with patients 24/7, the quality of their relationships with the patients on the unit is key. With the exception of one Hospital, there was little evidence that RNs or ancillary staff had working relationships with patients. Moreover, the basic structures and processes for doing so were not in place.

While all Hospitals indicated that they integrate the above best practices, the degree to which they do so varies widely due to incomplete baseline training, the absence of ongoing coaching, breakdowns in implementation, and management failure to monitor implementation.

1. Medical, Dental and Ancillary Services

In addition to providing a range of mental health and substance abuse services, each Hospital provides a continuum of medical, dental and ancillary services. While a number of clients at the NJSPHs require off-site care, each of the NJSPHs also provides primary care level medical care on-site, provided by internists, as well as on-site specialty level care and ancillary services in "specialty clinic" facilities. There is no standardization or uniform operational procedures across the Hospitals as pertains to on-site clinic operations, radiology, or provision of outside specialist care.

V. HUMAN RESOURCES

Providing quality patient care and operating the NJSPH is an endeavor requiring the successful marshaling of human resources involving nearly 5,000 FTEs with a diverse set of skills and expertise. These individuals include physicians and other clinical providers, support and ancillary staff as well as members of Hospitals' administrative team.

The management of human resources, however, goes far beyond merely supporting and managing the workforce that provides care to approximately 1,500 patients, 24 hours a day, 365 days a year. It also involves, but is not limited to: recruitment and onboarding of a diverse group of skilled workers; orientation, training and in-service functions; union relations; affiliations with institutions of higher education; working with the Civil Service Commission and complying with related rules; succession planning and promotions; keeping time and attendance for payroll purposes; benefit administration; and managing employee performance and disciplinary actions.

During our assessment of the NJSPHs, human resource issues quickly surfaced as an area that impacts Hospital operations and patient care in a number of significant ways. Issues related to recruitment, onboarding, civil service, promotions, and success planning include:

- Understaffing of some disciplines and areas in one or more of the Hospitals.

- Low levels of compensation for some key positions including some wage compression.
- Ability to select best individuals with the right skill set for some positions.
- Protracted recruitment processes that at times result in loss of qualified candidates.
- Lack of incentives for candidates being recruited for hard to fill positions.
- Difficulties promoting individuals whose performance and scope of responsibility warrant a pay adjustment.
- Limited succession planning for key leadership positions.
- Insufficient levels of workforce training, testing and retraining including access to on- and off-site programs.
- Lack of performance-based manager review and compensation plans.
- Potential expansion of successful educational affiliations for undergraduate and graduate education for psychiatrists, psychologists and other clinical specialties.

Review of Hospital approved positions and FTE Staffing Analysis reports shows unbalanced staffing among the four Psychiatric Hospitals when compared on a FTE per census ratio. There are wide differences in the allocation of FTEs when compared across the Hospitals. Although there may be valid explanations related to type of patients, size of campus, age of buildings, and other operational differences, we suggest further investigation is warranted to realign resources consistent with patient volumes.

External benchmarking would allow for a greater sample size and more specific volume-related ratio measurement, but either there were no comparable benchmarks available for like mental health departments (except for nursing areas and some limited benchmarking for other clinical staff), or comparable department workload statistics were not evident or readily available during the assessment from the Hospitals. We suggest that the Hospitals develop workload statistics and targets unique to each department such as size of square footage cleaned by housekeeping, number of meals served by Dietary, number of sessions for Rehab, etc. Staffing requirements should be used based on workload statistics plus any unique factors (age of building or equipment, etc.).

Overtime usage was observed as being high in all NJSPHs. From our analysis, we conclude overtime is, in part, being used to cover vacant positions. However, the total overtime is over twice the number of vacancies, raising concerns that overtime is excessively used. Use of overtime was attributed to several factors including:

- Coverage for shortage of staff due to delays in getting approvals for vacancies, performance issues dealing with excessive absences, and time and attendance issues.
- Coverage for last minute call-outs.
- Use of overtime in areas not accessible during the day such as deep cleaning of kitchens and hallway floors.
- Staffing compendium was not released to hire nurses and resulted in high amount of overtime.
- Staff required to take patients out into community for socialization and potential placement visits.
- Staff required to “sit” with patients during community hospitalization.
- Overtime due to higher number of “precautions,” which require 1:1, 2:1, or 3:1 supervision of some patients.

Time and attendance issues are prevalent at all the Hospitals and result in a high number of disciplinary actions which impact the ability to staff appropriately. This issue along with high turnover makes it difficult to achieve consistent skill levels.

A. ADVANCED CLINICAL PROVIDER RECRUITMENT

1. Psychiatrists

Recruitment difficulties concerning vacant psychiatrists' positions, were routinely reported as one of the major issues for the four NJSPHs. The most obvious direct impart of inadequate recruiting is chronic psychiatrist understaffing across all NJSPHs.

A number of issues were raised by those interviewed concerning the origins of inability to recruit psychiatrists. These include:

- Non-competitive salary levels.
- Internal compensation level anomalies.
- National psychiatrist manpower shortages.
- Fragmented/Prolonged recruitment procedures.
- Insufficient recruitment incentives.
- Lack of external search firm utilization.
- Physical safety concerns

To deal with the issue of recruitment of psychiatrists, some state hospitals in other states have partnered with public medical schools in their state, to assist with recruitment efforts. One example is in Oregon, where the Oregon State Hospital and the state medical school (OHSU) have collaborated in successfully recruiting almost half of the current psychiatrists working at the Oregon State Hospital.[4]

In these situations, typically the psychiatrist candidate has the choice of being hired by the State or by the public medical school's faculty practice plan. In either case, the psychiatrist works permanently at the state psychiatric hospital. This choice of employer and any adjunct faculty appointment and other benefits, can be very attractive to some candidates who otherwise might not wish to be employed in a civil service capacity. NJSPHs, with their existing relationships with Rowan and Rutgers, may wish to consider pursuing this option to increase their recruiting armamentarium.

2. Medicine (Internists)

Salary levels, prolonged length of recruitment cycle, lack of recruitment incentives and other factors are also barriers to recruiting internists, though not to the same extent as the barriers found in recruiting psychiatrists. While there are vacant internist positions at NJSPHs, shortages of medical physicians are not as acute as shortages of psychiatrists at these hospitals. It was noted that Medical Physician Assistants or medical APRNs are not utilized at the NJSPHs. During interviews, there was resistance to the concept of bringing these two categories of providers into the hospital system.

[4] *State Hospitals Clinical Model Analysis Project*; OTB Solutions; October 31, 2016; Pg. 20.

3. Clinical Psychologist

With the exception of Behavioral Analyst recruitment, barriers to the recruitment of psychologists are less significant than in other disciplines. The only exception to this is in regard to "specialty trained" clinical psychologists, areas where NJSPHs have their greatest needs.

NJSPHs have traditionally had few vacancies in approved positions. Some of this is due to the excellent intern/resident-to-new-hire recruitment pipeline, some of this is due to the supply of clinical psychologists in the Northeast, and some of this is due to a lower NJSPH-to-outside market compensation disparity.

4. Psychiatric Mental Health Advance Practice Nurses

Although there are certified advance practice nurses functioning in a nursing capacity across the NJSPHs, only one Hospital has PMH-APRNs functioning at an advanced practice level. These PMH-APRNs round on patients, write progress notes, prescribe medications and function as regular members of multidisciplinary treatment teams. It is reported that use of APRNs and PMH-APRNs in an advanced nursing role, has been met with fairly strong resistance by medical staffs at the other three NJSPHs.

Any number of state psychiatric hospitals, in other states, utilize PMH-APRNs to work in an interdisciplinary team fashion with psychiatrists and, thus, extend the ability of a combined APRN-psychiatrist dyad to offer more care to more patients. While the supply of PMH-APRNs is currently not expansive, and while many, if not most, PMH-APRNs practice outside of state psychiatric hospitals; currently, there are 13,815 licensed Psychiatric Mental Health APRNs, according to the American Psychiatric Nurse Association.[5]

B. ADVANCED PROVIDER STAFFING

While it is true that defining adequacy of advanced provider staffing at state psychiatric hospitals is somewhat hampered by lack of national benchmarks, comparative staffing data do exist. NSI obtained current staffing data from a number of sources, including other state psychiatric hospitals, staffing benchmarks from a number of reports, best practices and individual hospital benchmarks. Since the data sets represented inpatient psychiatric facilities similar to the four NJSPH facilities, we used them to develop reasonable staffing ratios for psychiatrists, internists, psychiatric advanced practice nurses and clinical psychologists.[6] While the staffing ratios used are not nationally-agreed-upon benchmarks (which do not exist), we believe they are a very useful tool in determining the relative adequacy of staffing across the four advanced practitioner categories.

Each individual Hospital determines its own advanced provider (physician, APRN and clinical psychologist) staffing levels, governed by approved numbers of positions. Every one of the NJSPHs reported current (and chronic) staffing shortages. It appeared that staffing shortages were most critical concerning psychiatrists and specialized clinical psychologists, especially on chronic-level units.

[5] *Psychiatric Shortage – Causes and Solutions*; March 28, 2017; National Council on Mental Health, Pg. 57.
[6] The staffing benchmarks could be applied across the three RSH (APH, GPPH and TPH); however, these have some limitations when applied to the maximum security forensic hospital (AKFC), due to its different model for internist coverage.

- In order to bring psychiatrist staffing levels across all four facilities up to the 1:15 and 1:24 staffing benchmarks for 1st shift, these four facilities, in total, would need to hire additional psychiatrists. These levels could be adjusted if PMH-APRNs were deployed at each facility and integrated with psychiatrists to form "Psychiatry Teams".
- In order to bring clinical psychologist staffing levels across all four facilities up to the benchmarks, these four facilities would need to hire additional clinical psychologists.

A few comments regarding staffing levels and specialized team members:

- Benchmarks are useful, but do not drill down to specific needs of specific programs or units. For example: All Hospitals reported challenges in recruiting psychologists to perform specialized functions such as neuropsychological testing, cognitive remediation therapies, forensic evaluations and behavioral analysis. In particular, there is an urgent need for Behavioral Analysts, who are in short supply nationally, and whose salary expectations have not been met in job offers. Hospitals that use treatment strategies and programs led by Behavioral Analysts have achieved positive outcomes for people with the most challenging behaviors.
- In order to reduce violence and self-harm, as well as improve discharge rates for long stay patients, recruitment of additional Behavioral Analysts, as well as Behavioral Support Technicians per facility, should be rapidly prioritized. As additional psychologists are recruited, priority should be given to hiring psychologists skilled in neuropsychological testing, forensic evaluation, and cognitive remediation for each Hospital.

In order to bring internist staffing levels across all three regional facilities up to reasonable staffing levels on 1st shift (1:30 on acute units; 1:45 on chronic units), these facilities would need to hire additional internists.[7]

1. Division of Time Analysis of Psychiatrists

The amount of time providers spend on direct patient care activities can have significant impact on diagnosing and prescribing patterns as well as the development of a therapeutic relationship necessary to developing trust and the patient's participation in their own recovery. Psychiatric shortages as identified above also will impact the amount of time psychiatrists may have to devote to direct patient care activities.

While there is no formal tracking of the time spent by NJSPHs staff psychiatrists, on the various categories of their activities; we did obtain estimates regarding this issue from several sources within senior Hospital clinical leadership. From this information it is estimated that **only 25% of the average psychiatrist's time is currently reported to be spent on direct one-on-one patient encounters**; while close to half (40%) of psychiatrists' time is spent on treatment team meetings and related activities (reassessments, chartings, etc.). It has been reported that each psychiatrist spends a minimum of 2.5 - 3.0 hours each day on treatment team meetings and related activities. There should be opportunities to reconfigure work schedules to enhance the amount of time available for direct patient care activities.

[7] See discussion of TPH third shift staffing. This could add demand for up to an additional 2 internist to provide 3rd shift staffing at this facility.

C. OTHER DIRECT PATIENT CARE SUPPORT TEAM

In addition to psychiatrists, internists, psychologists, and PMH-APRNs, the direct patient care staff will include Registered Nurses (RNs), Licensed Practical Nurses, Health Services Associates (HSA), Health Services Technicians (HST), Medical Security Officers (MSO), as well as Social Workers, Recreational, Occupational, Music and Art Therapists, Substance Abuse Counselors, Behavioral Support Technicians, and Chaplains. With the exception of Psychiatrists, Behavioral Analysts (specialty trained Psychologists), Behavioral Support Technicians and RNs, the heads of most of the other disciplines thought they had an adequate number of positions.

1. Direct Care Unit Staff

Professional Nursing Staff are primarily RNs, although some LPNs are employed. All hospitals face challenges in both recruitment and retention of nurses due to lack of salary competitiveness within the larger communities, declining interest in behavioral health nursing, and reported unreliability of and instability of the salary compendium. Other obstacles to creation of a strong nursing staff include lack of shift differential, lack of electronic medical records and other systems, persistence of violence, and perceived lack of respect from other disciplines and administration. Paraprofessional Staff (HSA/HST/MSO/RLS) are reportedly easier to recruit and retain, as they are only required to have a high school degree and are paid well by community standards for positions with no college education or experience. There seems to be little requirement for communication skills or knowledge of basic patient physical care for these hires.

There is a number of direct care staffing issues that should be addressed. For example, Direct Care Staffing Models vary among Hospitals. Each facility's staffing plan was compared to Labor Management Institute (LMI) staffing data for mental health units. This comparison clearly demonstrates that facility staffing plans are heavily weighted on the paraprofessional side rather than professional nursing staff, suggestive of an institutional model of care. Whereas there is emphasis on the therapeutic value of other professionals, nursing is not viewed through the lens of therapeutic value.

We also found that there was no acuity system to adjust staffing to patient unit needs. Patient or unit acuity is managed by adding more and more 1:1 staff. Hospitals reported 30-40 patients on 1:1 care on a daily basis. In addition, there is a high level of call-outs in all Hospitals and some policies allow call-outs to occur up to the start of the shift. Temporary staff and exceedingly high levels of overtime are used to manage excessive use of 1:1s, high levels of FMLA, call-outs, escorts off grounds, and sitting with patients during stays in community hospitals.

The staffing plans for direct care unit staffing require a complete and extensive overhaul to migrate the 24/7 unit environment from a custodial to a professional treatment model. Professional nursing ratios are recommended at 1:6 on all shifts (except for 1:8 on night shift at the forensic hospital); paraprofessional ratios are generally recommended at 1:8-10 on day and evening shifts and 1:10-12 on the night shift. Cohorting of patient types would enable these ratios to be determined more specifically to each unit based on acuity.

2. Support Services Staffing

Hospitals are complex organizations which operate 24 hours a day, 365 days a year and employ a wide range of clinical and non-clinical staff which are vitally important to essential operations and services. Non-clinical staff include billers, coders, transcriptionists, human resources personnel, IT, engineering, administrative assistants, dietary staff, escorts, housekeeping, maintenance and laundry personnel. NSI reviewed the staffing levels and needs in each of these areas based on information available from the Hospitals. Based on our analysis we identified areas in which shared staffing at the system level might provide opportunities for more efficient use of personnel as well as areas that will require more in-depth analysis to assess overstaffing or understaffing, and/or the potential for relocation of staff.

D. CULTURE

Within any hospital environment, organizational culture impacts patients, visitors, organizational partners, staff, and managers in different ways. This manifests itself in how empowered staff and patients are, and ultimately the efficiency and effectiveness of the organization. Leadership and communications are critical ingredients in establishing and maintaining a culture but are just some of the more important factors. For example, institutional history and relationships, union relations, benefit and compensation structures, levels of security, adherence to personnel policies, and expectations for accountability all play a role in defining the culture. All these factors ultimately impact the quality of service provided and the satisfaction of patients and family members.

As with any organization, each of the Hospitals has both positive and negative aspects of culture. On the positive side, each of the facilities have many staff members who are dedicated to their work and routinely meet patient care and administrative needs of the organization.

Some of the subjective observations and interview findings that suggest a need to work on improving culture at the Hospitals include, but are not limited to:

- General perceptions of a reactive as opposed to proactive decision-making environment.
- Perceptions of the adequacy of management communications.
- Continuous challenges requiring work-arounds to address resource limitations.
- Reported level of concern and fear among some staff members as it pertains to violence.
- Lack of empowerment of staff, low morale and complacency regarding the ability to personally contribute to meaningful organizational change.
- Level of collaboration between some of the medical staff organizations and their Hospital's leadership that results in ineffectual functions of medical staff organization.
- Over-sensitivity to the potential for litigation that modifies some staff and physician behavior.
- Level of engagement with patients and family.
- Expectations on the ability to positively impact patients' recovery and discharge to suitable community placement options.
- Unflattering reputation and frequency of negative press coverage, some of which is promoted by internal stakeholders.
- Management turnover and challenges of succession planning.

E. EMPLOYEE TRAINING AND IN-SERVICE FUNCTIONS

All Hospitals have a training department with varying numbers of staff that do not necessarily relate to the number or quality of training activities conducted. All are responsible for similar core functions that include new employee orientation, Therapeutic Options training (proprietary program for the prevention and management of behavioral emergencies) and some annual mandatory training. Responsiveness to Hospital-specific identified training needs, as well as recognition of and implementation of contemporary methodologies, varies.

All training is competency based, with examples of good competency measures. Following the general new employee orientation, departments provide their own department specific orientation. Training departments also provide mandated annual training, usually conducted in the form of a competency "fair." Only two facilities described simulation exercises as an integral part of the training. All Hospitals indicated that the lack of availability of computers and established security systems prevent access to a rich array of computer-based learning tools. In many instances, use of these tools would be much more efficient and support enhanced learner outcomes.

There appears to be no organized management or supervisory training that involves all Hospitals, although some state programs are available. All Hospitals indicated that the lack of tuition reimbursement impacted recruitment and retention as well as the quality of care. Although paid time off for continuing education was sometimes available, the approval process was reportedly centralized and slow.

Because of the large number of ancillary staff, Nursing departments require a well-organized education department to provide department-specific orientation, ongoing in-service, and unit-based coaching and training. The organization of, number, and educational preparation level of staff involved in nursing education programs varies considerably and merits review. Increased use of Clinical Nurse Specialists would support baseline training, unit-based coaching, as well as introduction of contemporary nursing practices.

F. UNDERGRADUATE AND GRADUATE CLINICAL TRAINING PROGRAMS

Historically, several of the NJSPHs have hosted their own psychiatry residencies (although none do now) and the Greystone Park Psychiatric Hospital's (GPPH) Predoctoral Clinical Psychology Internship Program has operated continuously for over 50 years. Despite this established track record, there is not an overall "culture of professional training and teaching" that stretches across the medical staffs of NJSPH facilities. Currently, each of the four NJSPHs, operate their own set of clinical training activities; however, there does not appear to be a formal psychologist/medical student/resident/fellow training program strategy at either the DMHAS-level or the individual hospital level.

NJSPH clinical education programs are critical to eventual recruitment of new social workers, clinical psychologists and psychiatrists. When established formal doctoral-level training (and MSW training) occurs within NJSPHs, there is an above average yield in terms of eventual recruitment of former trainees. Many training programs are successful at recruiting up to half (50%) of their former trainees. This fact should be an integral consideration when viewing the offset to the cost of these training programs.

G. CONTINUING MEDICAL EDUCATION (CME) PROGRAMS FOR PHYSICIANS

The level of and support for CME at the NJSPHs is below what we would expect of a specialized US hospital system. Currently, there are a number of barriers that limit offering of physician CME at the NJSPHs, including the following factors:

- There is no identified system-wide CME strategy and no identified meaningful system-wide CME budgetary support.
- It was reported that there are restrictive Departmental and Divisional policies regarding use of pharmaceutical company-sponsored CME and/or CME activities located outside New Jersey.
- There is no reimbursement to physicians for expenses related to their own CME (tuition, travel expenses, etc.)
- Getting approval for paid time-off to attend CME programs is reported to be a difficult and often lengthy process.
- Chronic short-staffing situations, makes it difficult for physicians to plan for or take time off for CME.

As a result, sponsored external CME activities are very poorly supported or not supported at all, even for allowed time off. In addition, in-house CME activities are very limited. Due to the above issues, but mostly due to lack of designated CME funds, the level of CME in past years at each Hospital has been well below that of the average US specialized hospital system.

Moreover, the lack of support for CME (and chronic understaffing) may be negatively impacting physicians' ability to remain clinically "current" and contributing to polypharmacy and non-contemporaneous prescribing patterns.

XI. CLINICAL ISSUES

The clinical issues discussed within the report include the non-staffing related issues of clinical care delivery: diagnosing, documentation, treatment, psychopharmacology, patient flow, clinical models, safety, and discharge planning.

A. MEDICAL RECORD REVIEW

Approximately 12 medical records were pulled at random, and reviewed at each institution to observe diagnosis, documentation, and prescribing patterns.

1. Diagnosing

Diagnosing psychiatric patients who are seriously ill is challenging and often takes time to evolve. These patients are often very poor historians who may not accurately portray the development of their psychiatric symptoms, and who are not always aware of their current symptoms.

NSI psychiatrist's review of charts at the Hospitals noted the following potential diagnostic issues:

- Sufficient diagnostic criteria were not always included to support the diagnosis.
- Diagnoses were sometimes continued from one admission to another without confirming the diagnoses with specific criteria.

- Diagnoses were often made based upon one or two symptoms, rather than meeting full diagnostic criteria.
- Current state intake forms still use DMS-IV criteria which are outdated.

2. Documentation

NJSPHs utilize a paper charting system, which makes reviewing the medical record very difficult and more time-consuming than when reviewing an electronic medical record. We found psychiatric documentation in the chart notes we reviewed, too often be very brief and too often not contain a diagnosis or plan of treatment.

As a general rule, acute patients are only seen weekly and chronic patients seen monthly. This level of patient engagement does not afford the psychiatrist enough time to form a therapeutic relationship, observe, and interact with the patient, all of which are necessary to accurately diagnose and formulate an appropriate plan of treatment.

3. Psychopharmacology

Under-dosing and under-utilization of certain psychiatric medications was noted a number of times in our review of the medical records, particularly in regard to the use of mood stabilization medications. These medications sometimes require labs to determine if the medication level is therapeutic. We noted at times that labs were obtained and doses were not changed. The availability of an EHR would make it easier to keep track of lab results and effect medication changes.

B. PATIENT FLOW AND CLINICAL MODELS

1. Patient Flow

Admissions to all hospitals are coordinated through a Central Admissions Unit (CAU). The unit operates 24/7 to screen all admissions for medical and psychiatric clearance. Efforts are made by the CAU to re-direct persons who can be managed in a less restrictive setting. Although patient assignment to a NJSPH facility was reportedly determined based on county, there were many exceptions, some based on perceived clinical needs and hospital strengths, as well as legal status. When asked about over-census reports, it was indicated that sometimes people are admitted even if they are over-census.

2. Clinical Models

An interdisciplinary team model is used in all Hospitals. This model brings together varied disciplines' expertise to work together with patients to develop a treatment plan that will support the person to return to the community at the earliest possible time. Some teams reportedly function very well together, with strong collaboration reported. However, others were reportedly not cohesive.

Treatment team leadership was reportedly inconsistent in places. While treatment teams at some facilities reported meeting regularly, others meet less frequently. Not all Hospitals' treatment teams distinguish or separate treatment planning meetings from other meetings such as rounds, report, etc. Because of this, meetings reportedly last between 3-4 hours every morning, thus limiting nursing participation because of competing unit duties. With the exception of the forensic hospital,

assessments, re-assessments (evaluation of progress), and treatment plans are developed or refined at three points in time: (1) at the time of admission, (2) on day seven of hospitalization, and (3) every 30 days thereafter.

On admission units, and for some special populations, 30-day reviews do not support timely evaluation of treatment progress and return to the community at the earliest possible time. As discussed above, treatment planning is a variable across all NJSPH facilities. Pharmacy is generally not included in treatment team activities. This is a severe limitation since additional expertise is often helpful when developing a psychopharmacological plan of care.

Treatment is generally reactive rather than proactive. This is especially noted in the excessive use of 1:1 observation. Hospitals' 1:1 use for FY 17 and part of FY 18 averaged 20-37 per day, per Hospital. Some patients were on 1:1 for exceedingly long periods of time, reflecting significant treatment failure. 1:1 is generally seen as an intrusive and ineffective effort to address safety issues that is costly and labor intensive since it requires three staff totally dedicated to one patient every 24 hours.[8] Ironically, it also contributes to unit overcrowding, a known contributor to aggression.

An essential component of risk assessment and risk mitigation involves the completion of a Personal Safety Plan (PSP - a best practice). This plan, completed jointly with the patient, should be completed on admission and updated periodically. The PSP should identify past experience with seclusion or restraint, specific personal triggers, early indicators that a person is becoming agitated, and direction as to what staff can do to help a person de-escalate, and what coping skills the person already effectively uses to manage his emotions and behaviors. It is common practice that these PSPs be incorporated into the treatment plan and that all staff become familiar with the PSPs, to prevent behavioral emergencies. Although such PSPs were reported by some to have been implemented, most staff were not aware that this type of plan existed.

All Hospitals offer treatment programs in centralized Treatment Malls. In addition to programs offered during the day on weekdays, most Hospitals' Treatment Malls provide some evening and weekend program offerings as well. However, patient engagement is generally limited, sometimes resulting from patients' negative symptoms and sometimes because their Level of Supervision does not allow participation at all or requires a staff member to accompany them.

The absence of an electronic health record (EHR), as well as contemporary technology to support safe medication administration, impacts patient safety. Redundant paperwork also impacts staff's ability to spend time providing active treatment rather than searching for or documenting vital information.

C. SAFETY

All Hospitals discussed concerns about safety as well as fear among some of the Hospitals' staff. All NJSPHs have had reported incidences of violence. This is a complicated issue across the nation, especially in settings providing treatment for people similar to those currently hospitalized in New Jersey (NJ). While there is no comprehensive solution to solving violence as a whole, a pragmatic systematic multi-disciplinary approach must be taken to address safety issues and reduction of violence

[8] Ray, R. et al. (2017) The Impact of Nursing Protocols on Continuous Special Observation. *Journal of the American Psychiatric Nurses Association.* 23(1), 19-27.

in a realistic fashion. Currently, NJSPHs are starting to implement a number of best practices that are slowly yielding positive outcomes. As implementation is strengthened, these approaches should support continued progress toward a safer environment for patients and staff.

A review of the data for the last seven quarters (Q1 '16 through Q3 '17) reflected that with some exceptions, assault rates are generally slowly declining in all Hospitals for total assaults, as well as for the subcategory of patient-to-patient assaults. Patient-to-staff assaults are also generally declining, though there is more variability evident. Likewise, with the exception of the forensic facility, seclusion and restraint use rates reflect that Hospitals are under the national benchmarking rate for use of these measures. Taken together, these trends suggest that the Hospitals are having some success in improving safety and reducing violence, as well as seclusion and restraint use rates.

Patient characteristics partially inform violence rates. All Hospitals indicated that in rare instances they receive patients who are totally unmanageable at the level of containment and structure currently provided in the regional hospitals. In these situations, they need to be able to temporarily move a patient to the forensic facility for clinical stabilization. However, with the exception of one hospital, Hospitals do not seem to have a timely and systematic process to ensure that when trends are identified, actions to address trends are taken and evaluated.

While some violence, and subsequent seclusion and restraint use, can be attributed to individual patient characteristics, hospital characteristics have long been known to be key determinants. A number of classic studies have confirmed this finding, some referencing the role as "facility effect."[9,10,11] Staffing numbers and mix, staff training, the physical environment, treatment practices, including psychopharmacology, the degree to which unit staff engage with the patients, and the quality of that engagement, all play a role. Observations at all Hospitals reflected that in order to enhance safety, a number of these issues need to be addressed.

In a number of Hospitals, there are serious environmental contributors to violence. For example, most Hospital units vary in bed count, availability of common space and overall layout. There is overcrowding in some of the patient rooms; having 3-4 patients in a room fosters an environment in which irritability and angry outbursts are more common. Irritability can sometimes escalate into anger and violence. Many units were reported (and observed) to be too crowded for the service population, especially for patients at risk for violence. All Hospitals reported that a serious barrier was the inability to temporarily provide single rooms for persons who cannot safely room with another patient.

Therapeutic relationships are required to create safe environments. Since unit nursing staff members are with patients 24/7, their relationships with the individuals on the unit are key. As reported earlier, with few exceptions, there was no evidence that nursing staff had working relationships with patients or that they knew that this was important. This was not surprising, since there appeared to be no structures or processes in place to support this. Nursing staff members who were interviewed indicated that they are not assigned individual patients with whom they develop a working partnership on a

[9] Busch, A, & Shore, M. (2000). Seclusion and restraint: A review of recent literature. *Harvard Review Psychiatry*, November, 261-270.
[10] Ray, N., & Rappaport, M. (1995). Use of restraint and seclusion in psychiatric settings in New York state. *Psychiatric Services*, 46(10), 1032-1037.
[11] Way, B.B., & Banks, S.M. (1990). Use of seclusion and restraint in public psychiatric hospitals: patient characteristics and facility effects. *Hospital and Community Psychiatry*, 41, 75-81.

regular basis. A review of nursing assignment sheets confirmed this report. Only tasks were assigned. The failure to consistently assign patients to specified staff members represents a significant departure from accepted standards of nursing practice. That said, unit nursing staffing is very unstable and is a real barrier to the consistency necessary for working partnerships between staff and patients. Staff members are regularly pulled from one unit to another due to inadequate staffing levels, excessive 1:1s, and excessive call-outs.

The current level of fear among staff is bringing enormous pressure to increase containment through the use of more physical barriers or hospital security staff to promote safety. Except for certain subpopulations, especially those on forensic status, current best-practices and other benchmark studies have proven that neither of these strategies work over the long-term and often exacerbate the issue. However, there is an urgent need at some facilities to interrupt staff fear. This will likely require attention to both containment and treatment at least on an interim basis until systematic training, culture change, and best practice implementation occurs unit by unit.

D. DISCHARGE PLANNING POLICIES AND PRACTICES

We found an uneven sense of urgency surrounding discharge planning. Timely discharge is impacted by a number of factors including:

- The time-consuming process associated with securing authorization to treat patients who refuse necessary medications, failure to make timely medication adjustment when an individual does not respond, anticipation that housing or services will not be available in the community or acceptable to the patient, understaffing conditions that prevent psychiatrists from spending the amount of direct care to patients that would allow for more timely discharge, and policy requirements that allow teams to conduct treatment plan reviews at 30-day intervals are just some of the influences contributing to sluggish discharge processes at the hospital or treatment team level.
- Medications prescribed during a psychiatric admission are sometimes dependent upon what medications are available in community mental health centers or clinics, patient insurance limitations and what is agreeable to the patient.
- There is sometimes not a consistently clear link between the programs prescribed in the treatment plan and the skills the person needs to successfully live in the anticipated discharge setting. This presents a barrier to returning the patient to the community at the earliest possible time.
- All Hospitals use the Individual Needs for Discharge Assessment (INDA) tool. However, there is very limited information about a person's actual functional status, a necessary element to determine appropriate housing and other services or supports required to meet daily living requirements in the community.
- All regions face challenges in securing housing for patients due to history of eviction, poor or no credit history, legal involvement or substance abuse. Individuals with histories of violence, to themselves or others, often face significant housing barriers. Many staff commented on community provider unwillingness to accept risk. However, Hospital staff could play an important role in helping them do so, if they engaged in a clinically informed dialogue that includes not only the history of violence, but also the presence of protective factors, as well as effective strategies to mitigate risk in the Hospital that could be carried over into the community.

- In an effort to support discharge to the most integrated setting, efforts have been made to think in terms of services and supports rather than "bricks and mortar" that involve congregate living (such as group homes). That said, staff consistently report that even with wrap around services, there are a number of individuals who require a twenty-four-hour supervised living arrangement, along with other services and supports. It is essential that this issue be quantified and addressed.
- Peer Support Services are valuable programmatic additions. These persons in recovery themselves often successfully assist individuals to engage in treatment programs while in the Hospital. Reportedly, Hospitals have much difficulty hiring peer support specialists, because they cannot pass the required criminal background checks. This is unfortunate since the police involvement usually entails minor charges associated with acute exacerbations of the illness.
- Recovery requires the full integration of a patient's support system that could include family members, friends, community providers, members of a faith community or other support networks. There were some reports of barriers to the involvement of families and other supports. However, developing accommodations is critical because the involvement of support persons can open pathways to timely community reintegration that would not otherwise be possible.

VII. OPERATIONAL PERFORMANCE

Effectiveness and efficiency of Hospital operations have a major impact on the quality of patient care, the satisfaction and retention of staff, and the cost of providing services to the patient population. While it is recognized that the job of operating the NJSPHs can be a daunting task, particularly with budgetary and capital limits, an investment approach has the potential to yield significant benefits for all stakeholders. Many operational topics warrant additional evaluation and planning for implementation. Goals should include to:

- Fostering greater accountability for management at all levels using management information and reporting.
- Establishing a labor productivity management system that measures staffing requirements based on units of service and targets defined by productivity standards.
- Improving the operational and capital budgeting process while engaging managers at all levels.
- Undertaking business process redesign for multiple functions.
- Developing a formal information technology strategic plan to guide investment in automation to meet contemporary standards.
- More fully developing clinical information systems and an EMR that achieves Meaningful Use status and reimbursement levels.
- Integrating operational, clinical and financial systems.
- Addressing IT infrastructure assessments and needs for upgrades.
- Ensuring accurate reporting of incidents and follow-up to resolve current and prevent future incidents.
- Optimizing patient accounting and revenue cycle functions.
- Improving purchasing and supply chain functions.
- Addressing problems resulting from deferred capital expenditures and deferred preventative maintenance.
- Exploring potential outsourcing arrangements for non-core functions when they can improve the quality and/or cost of services.

While some initiatives will require resources to implement, there are multiple and significant opportunities to also reduce operating expense.

A. INCREASE MANAGEMENT ACCOUNTABILITY

1. Management Information and Reporting

There are insufficient management information and reporting systems to optimize accountability among Hospital managers. This is in part a result of the fixed state labor and expense budgets, limited revenue generation from patient activities, lack of variable workload measures, and limited automation of general business functions. On a combined basis, this reduces the ability and perceived need for routine management reporting and variance analyses. Generally, department managers are not provided the types of routine reports that would be needed to effectively manage expenses on a current or retrospective basis.

Limited access to management information, limited need to prepare budget variance reports and similar justifications reduces accountability which is found in most large system-focused healthcare organizations.

From a labor management standpoint, more systems and workload measurement are needed for effective productivity management. Daily staffing requirements are based on a fixed budget staffing allocation and do not flex based on patient volume or some other measurement for non-clinical departments. Position vacancy replacement requests and approval are not tied to a departmental productivity measure (e.g., staff per unit of service), but are based on a fixed FTE allocation controlled by Civil Services.

Ideally, management information and reporting should be expanded to the department manager level with monthly management reports of expenses and labor productivity. It would also be advantageous to develop and utilize a productivity management system for expediting informed decisions regarding staff vacancies and addition of new positions thereby reducing overtime and coverage issues for key positions.

2. Operating and Capital Budgeting

The budgeting process does not adequately address the operating and capital needs of the Hospitals and should be more effectively integrated with local management input. Budgets are largely static and unchanged from year to year. Budget salary accounts do increase based on formal union contracts. Capital project approval and the related funding process are lengthy with limited input from the Hospitals as it relates to approval and timing of budgeted items. The Treasury's Division of Property Management and Construction (DPMC) oversees the capital budget process with priority typically given to life safety and compliance issues that often takes most of available capital dollars. It would be beneficial to shift from a largely static budget to a financial performance-focused budgeting process that emphasizes expense and revenue management systems and site-specific targets.

B. RETOOL BUSINESS PROCESSES

In order to improve business processes, the four psychiatric Hospitals should learn and take advantage of successes achieved in each organization. This can be accomplished by sharing and implementing leading practices identified in each of the facilities. Performance Improvement (PI) projects utilizing cross facility teams may be one way to accomplish redesign. As such, each of the four psychiatric Hospitals could establish Process Improvement (PI) teams and utilize common continuous process improvement methodologies. PI teams should be formalized and be accountable for specific results leading to cost improvements, efficiency in work flow, and patient satisfaction.

Automation of select functions that optimize productivity and provide a return on investment should be possible. Provider productivity can be improved through constant attention to matching staffing resources to workloads, aligning required skill sets to positions, optimizing processes through improvements in work flow, automating where financially feasible, and developing a patient-centered culture.

C. IT STRATEGIC PLAN DEVELOPMENT

Lack of an IT strategic plan and insufficient use of electronic tools and interconnectivity reduce the ability to become a data-driven organization. Although there are IT tactical plans at each NJSPH they tend to center on equipment upgrades and do not lay out a more strategic development process necessary to achieve integration of clinical, financial, and operational technology systems. Some of this is driven by the fact that there is limited funding for information technology and there is no budget dedicated to IT development.

Development of an IT strategic plan would define the rationale for developing information technology systems, integrate and standardize the technology across the NJSPHs, determine the funding requirements and timing, and provide the implementation direction needed at each of the Hospitals.

Our findings suggest that clinical systems have been developed piecemeal and are not coordinated across the Hospitals. Different components of an EMR are in place at the NJSPHs. However, there is no comprehensive system that meets current industry standards at any of the four facilities. Additionally, they do not tie to financial systems. Each of the Hospitals have some systems that have been independently developed, but have not been shared or integrated with each other, except on a limited basis. In addition, infrastructure and system upgrades are needed at all NJSPHs which could increase efficiency, productivity, and quality of routine functions. To address operation as a unified psychiatric hospital system, IT systems should be integrated tying together patient care, operations, and financial management functions.

The goal should be to become a data-driven organization by developing a system-wide IT strategic plan that provides for the development of an integrated contemporary information technology solution. Consistent with the IT strategic plan, share and implement information systems technology applications among the NJSPHs.

D. INCIDENT REPORTING AND MANAGEMENT

1. Incident Reporting and Management

Accuracy of reporting of risk management, violence, and related issues is inconsistent across the NJSPHs. The reporting process is inefficient, is suspected by some of under-reporting events, can cause delays in problem resolution, and lacks sufficient follow-up. With the change in reporting relationships, it is unclear as to what the transition plan will be for moving incident reporting systems, or making changes to existing systems, to conform to DOH data collection requirements. Risk Managers have indicated that they are prepared to respond to any new reporting requirements.

There is a need for more uniform reporting of incidents, and that process needs to be standardized and shortened so that there is clear and timely resolution of claims. There also needs to be policies and procedures related to follow-up to ensure sustainable solutions and prevention of future incidents.

2. Safety and Security Services

Environmental safety and security are a major focus at all NJSPHs, but there are some inconsistencies in applicable standards and available resources. Each Hospital has Safety and Security forces that are in place, and follow applicable environmental, fire, anti-ligature, and safety codes. There is wide variation in structure, equipment, systems, and resources to support these efforts.

Staffing for Safety and Security at the NJSPHs is very different and needs better alignment with scope of responsibilities. There is significant variation in security measures and presence from institution to institution – partially based on facility and campus considerations – however, more can be done to implement uniform environmental standards and provide consistent training and testing across the system.

E. PATIENT ACCOUNTS AND REVENUE CYCLE FUNCTIONS

Within all Hospital settings, there is always room for improvement in revenue cycle functions. While it is unclear how much additional third-party payments could be collected, during interviews, some members of the financial leadership indicated they believe that more extensive collection efforts and better trained staff could result in increased reimbursement levels. We were also told that State auditors have reviewed collections efforts at some of the facilities and concluded that additional billing would be possible. Efforts should be applied to all payer categories in an effort to generate revenues and recoup a greater proportion of expense.

Included among the potential opportunities for revenue collection is dealing with out-of-network status with most commercial insurers. Some insurance companies will summarily deny payment based on the "out-of-network" status of the NJSPHs. While the detailed processes used to manage these patient accounts were not analyzed, it is likely that additional denials could be overturned for payment at least at prevailing in-network rates.

There are also reported long-term delays and disputes in collecting payments from New Jersey counties that are obligated to share the cost of hospitalizing residents from their jurisdictions. We understand that Counties are required by legislation to pay for 15 percent of the per-diem cost.

F. PURCHASING AND SUPPLY CHAIN FUNCTIONS

There are opportunities for improving purchasing systems and supply chain processes. All psychiatric Hospitals utilize the New Jersey State Purchasing System and Distribution Center. Purchases must routinely be under State contract. Reportedly, Hospitals are not always notified when State contracts are stopped and/or started and it is sometimes difficult to determine if there is an existing contract for certain items. In addition, we understand that contract management functions including ensuring compliance with contract terms can be a challenge. Purchase orders are entered into multiple systems: Maxi (State), NJ Start (new), E-catalogue which is still in transition to NJ Start, so extra effort is required to complete the process.

The inventory control processes could be improved through more standardized order purchasing. For example, even though there are standardized dietary menus the system does not generate food purchase orders. The Hospitals have already standardized purchases of IT products, through OIT. Ideally, acquisition processes for maintenance stock items should be streamlined. Maintenance frequently does not adhere to purchase order guidelines due to "many items being an emergency acquisition."

VIII. GOVERNANCE AND ADMINISTRATIVE FUNCTIONS

A. GOVERNANCE STRUCTURES AND FUNCTION

Effective governance of the NJSPHs is critical to successful policy formulation, operation of the institution, provision of high quality care, patient safety, and fiscal management. The provision of governance oversight is currently accomplished within two structures: one that has fiduciary level responsibility and one that is advisory in nature.

Fiduciary Responsibility: With the recent restructuring of the reporting relationship of the Division of Mental Health and Addiction Services (DMHAS) to the New Jersey Department of Health (DOH), fiduciary level governance is provided by the leadership of the Department of Health and DMHAS working in concert with on-site executive leadership of each of the Hospitals and their medical staff organizations. Under this arrangement, which is typical of state-owned and operated hospital organizations, both governance and management is provided by State employees and is carried out within a reporting structure established by and within the Department and Division. Prior to the restructuring, this responsibility at the Department level was the purview of the Department of Human Services (DHS).

It is incumbent upon Department and Division leadership to work with the Hospitals' senior management and medical staff organizations to ensure delivery of quality patient care in a safe environment, as well as ensure efficient management of State resources. Policy setting through the issuance of Administrative Bulletins provides guidance to the operating Division relative to key operational requirements. Many of the Administrative Bulletins warrant a review and updating.

Advisory Oversight: In addition to fiduciary governance, NJSPHs have had a tradition involving oversight by voluntary, unpaid "Boards of Trustees". This oversight role was established by legislation 30:4-1 with powers and duties of the Boards highlighted in 30:4-1.1. Boards could be established for each group of,

or class of, institution. Presumably, this would permit the intent of the legislation to be met by a single Board of Trustees overseeing the NJSPHs or retention of individual Boards of Trustees at each Hospital. Member appointments were to be based on recommendations of a State Board of DHS with approval of Board member appointments by the Governor.

Criteria for Board membership included residency within New Jersey without respect to political affiliation or belief. The composition of five to seven Board members also required a minimum number of women to be among appointees. In addition to membership, the original legislation outlined the terms, vacancies, and basis for removal of Board members. Additionally, the Boards have an annual responsibility to elect Chairs and Vice Chairs, and to appoint a Secretary who is an employee of the Department and who will serve without additional compensation. Powers and duties of the "Boards of Trustees" were outlined in legislation 30:4-1.1. The primary duty of the Boards is to advance long-range planning and general oversight of the institutions.

Consistent with the recommended vision elements and operational recommendations as outlined in this Executive Assessment, fiduciary governance functions should be strengthened at the Department and Division levels. This could be accomplished by adopting a shared mission and vision, as well as an overall strategic plan that is sanctioned by leadership and is embraced by Hospital management. Ideally, quality patient care, safety, a culture of recovery, and fiscal responsibility should be emphasized. Greater oversight and control could be accomplished through consolidated, standardized and in some cases centralized functions at the Division level. In addition, engaging the medical staffs in concert with on-site executives to work collaboratively to achieve objectives and continuously monitor quality of care, safety, and fiscal performance should be a priority.

In addition, *advisory governance functions* could be redesigned. Depending on the extent of redesign, it may be necessary to work with the New Jersey legislature to update relevant statutes. There appears to be a fair degree of flexibility in the current statutes, however at least some modification would be beneficial to recognize the absence of a State Board, and the shift of DMHAS to DOH. Goals in any redesign should be to address the advisory nature and role of Boards of Trustees that oversee DMHAS' system of hospitals. A process should also be established for evaluating effectiveness of advisory governance functions on a periodic but at least annual basis, and make continuation of Board membership dependent on constructive involvement. One option is to consider establishing a system-wide advisory Board of Trustees that oversees all NJSPHs and functions in a manner consistent with existing or modified New Jersey regulations. If pursued, use the system-level Board of Trustees to reinforce the shift to a greater system-focused approach to patient care and Hospital management.

B. MANAGEMENT STRUCTURE AND FUNCTION

The psychiatric hospitals function somewhat independently and lack consistency in operating under a uniform vision and strategy. There is evidence of attempts to coordinate operations at the CEO level and at a departmental level for select areas across the NJSPHs. These include monthly meetings of the Business Office managers to discuss items of interest, and similarly, meetings of the Quality Improvement and Risk Management managers. The organization would benefit from a division-led strategy that encompasses coordinated efforts across the NJSPHs, centralization of select functions to achieve standardization and efficiencies, and specific initiatives (such as system-wide policy development and strategic planning) to reinforce a "system" mission and vision.

There are many opportunities to standardize policies and practices across the Hospitals. Some standardization has taken place in select areas such as the patient care practices through affiliation with Rutgers University, the business office function, some standardization of forms and medical records information, and coordination of quality measures. Some functions are coordinated by following State policies and using information systems such as Human Resources applications (PMIS, HRIS, EPAR), Medicaid billing, Dietary menus, purchasing through the State system, standardized position titles through Civil Service, and standardized purchase of IT products through OIT.

Consolidating select functions as part of a transition to an overall System approach to governance, organization and operational management would reduce the size and complexity of each Hospital operation and eliminate policy interpretation variations. It would also facilitate a greater Hospital focus and resources targeted at achieving quality patient outcomes. Assuming a System approach is implemented properly with a clear plan and objectives, it would not create either an unwieldy bureaucracy or burden to the frontline providers and support staff. The purpose would be to improve the quality and consistency of Hospital services. Centralizing functions will also reduce management positions and duplicative work.

Ideally, DMHAS needs to adopt a System management structure that will take maximum advantage of technology, centralization and standardization opportunities. Best results would be possible if managers can be incentivized to achieve a high-performing patient care and recovery operation. The revised management structure for the Hospitals resulting from the change to a 'System" approach would consolidate remaining functions of centralized departments into fewer organizational units, and reduce the number of management levels and positions, thus increasing span of control ratios. As centralization and standardization are implemented, DMHAS will transition organization structures for the System to reflect these changes and achieve a system structure.

To the degree that DOH and DMHAS elect to adopt a "system" vision and strategy for the four-hospital patient care and recovery operation, it will be necessary to restructure the hospital organizations. This restructuring should reflect the consolidations of functions and the "systemization" of DMHAS hospital-related operations. If undertaken, this management structure redesign would also incorporate changes that will improve operations and achieve outcome and efficiency goals.

C. MEDICAL STAFF ORGANIZATION AND FUNCTION

1. Bylaws, Rules and Regulations of the Medical Staffs

Medical Staff Bylaws, Rules and Regulations (MSBR&Rs) collectively define the rights and responsibilities of the professionally-autonomous Medical Staff Organization (the MSO), the MSO's self-governance functions and its accountability to the Hospital's governing body. The formal medical staff organization also has a significant impact on the daily operation of the Hospital.

The purpose of the medical staff organization, in turn, has been described as follows: "The medical staff organization's primary purpose is to hold physicians collectively accountable for patient safety and clinical performance." However, many physicians no longer appreciate this fact. Within the NJSPHs

they tend to view the Medical Staff Organization as a political body whose purpose is to foster physicians' interests that are not necessarily aligned with the hospital's administration. [12]

As such, the MSBR&Rs are at the same time (a) a critically important medical policy document, (b) a self-governance document, and (c) a relationship document. A detailed analysis of the current Bylaws, Rules and Regulations of each of the four NJSPHs was performed. Based on that review, consider revising and streamlining all NJSPHs' Bylaws. This could be accomplished with a single template format across all NJSPHs. This is a practice at many multi-hospital health systems and facilitates: more efficient revisions, sharing of cross-hospital Bylaws best practices, reducing Bylaw revision requirements at the individual hospital level and assure a greater cross-system compliance with JCAHO standards. In addition, look at the number of committees and meeting frequency. Consider an initiative to reduce the frequency of meetings.

D. POLICY AND PROCEDURE REVIEW

A wide selection of clinical and administrative policies, procedures, guidelines, and forms were requested from each of the NJSPHs at the outset of the engagement. The analysis of key clinical polices was augmented by securing copies of the MHAS administrative bulletins, administrative orders, and Title 10 Human Services regulations within the New Jersey Administrative Code. To the degree possible, the objective was to evaluate the consistency of these policies, as well as effectiveness of care management and procedures across NJSPHs.

It should be noted that not all requested policies and procedures were available for review. In some cases, portions of a topic were covered in a broader policy and/or they were embedded in related documents (e.g., treatment manuals, packets of forms). The analysis of the policies in some cases confirmed an absence of key policies/procedures, outdated documents, a variety of formats, and differing approaches to care among the hospitals. The policies for new and existing clinical personnel need to be more readily accessible and consistent across the Hospitals as a system and focused on the patient care that is driven by best practices and patient recovery.

A policy regarding policy formulation and maintenance should be established that would outline how policies are approved, maintained, distributed, periodically reviewed, and conform to system-wide standards while permitting flexibility to the degree needed to meet individual institutional circumstances. This should include standardized formats and a common set of core clinical policies and procedures for the Hospitals.

IX. PHYSICAL PLANT ISSUES

New Solutions Inc., in conjunction with healthcare architect Pomarico Design Studio Architecture, PLLC toured each of the four New Jersey State Psychiatric Hospitals. Facility assessments were performed with regard to:

- Evaluating the site, physical plant, building envelope, infrastructure, life safety systems, life safety building elements and other related building systems.
- Applying 2014 Facilities Guideline Institute (FGI) assessments to the environments of care, functional program and other related features of each hospital.

[12] Medical Staff Organizations: A Persistent Anomaly; Health Affairs, K. Smithson & S. Baker; Jan-Feb 2007; Pg.1.

- Comparing ASHE Patient Safety Risk Assessment criteria to common areas, patient bedrooms and patient toilet and shower facilities.
- Providing a data collection questionnaire to each facility prior to the assessment to assist in the discovery of findings.

Using information obtained through observations and interviews from each site, documented data were organized by facility in the form of notes, checklists, drawing notations and photography. Evaluation of each site was performed relative to applicable codes, guidelines and current accepted state-of-the-art standards. Generally, each facility did not meet requirements required for compliance, with varying degrees of deficiencies.

State-of-the-art standards were established in advance of the assessment process to ensure a thorough and objective review of findings. Established standards and best practice criteria:

- 2012 NFPA 101 Life Safety Code.
- 2014 Facilities Guidelines Institute for Design and Construction of Hospitals and Outpatient Facilities.
- Facilities Guidelines Institute - Common Mistakes In Designing Psychiatric Hospitals: An Update
- ASHE Patient Safety Risk Assessment Checklists.
- NYS Office of Mental Health - Health Manual for Patient Safety Standards, Materials & Systems Guidelines.
- Americans with Disabilities Act, 2010 ADA Standards for Accessible Design/ Accessible and Useable Buildings and Facilities ICC A117.1-2009.
- The Centers for Health Design - Design Research and Behavioral Health Facilities.

A. OVERALL FACILITY FINDINGS

Evaluation of compliance with the 2012 NFPA 101 Life Safety Code was performed through observation of graphical documents provided by each facility and through visual assessment during the building tours. It should be noted that a number of the facilities are in the process of updating their facility Statement of Conditions (SOC) documents, required for Joint Commission accreditation. Visual assessment was limited to spot checking observable elements of fire-rated construction or compartmentation. Inspection of interstitial plenums and inaccessible spaces was not performed. It should be noted that facility Plant Operations teams appeared to be well versed in this assessment criteria and actively work to maintain compliance. In general, all the facilities faired fairly well.

Evaluation was performed comparing the current facilities existing functional program areas to the 2014 FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities, Chapter 2.5 – Specific Requirements for Psychiatric Hospitals. The New Jersey State Department of Health and New Jersey Department of Community Affairs Health Care Plan Review Unit utilize this standard for evaluation of plan review submission and Licensure. In general, all facilities had deficiencies when compared to the 2014 FGI Guidelines.

Overcrowding of patient rooms though discouraged, takes place as demonstrated in data analysis. This practice causes densification of patients on the units. Patients compete for personal space, space for personal hygiene, and space in which to socialize. Best practice standards have been established to create optimum environments for occupancy. Weighted occupancy rates deny patients of acceptable environments of care, increasing potential for adverse patient interactions. Despite the deficiencies

observed, the facilities all offered a wide variety of clinical spaces and programming/therapy spaces for patients.

Patient Safety Risk Assessments were performed to evaluate each facility's patient safety and potential ligature risk issues. Evaluation of current facility's existing spaces was performed using the ASHE Patient Safety and Ligature Risk Checklist and New York State – Office of Mental Health (NYSOMH) manual for Patient Safety Standards, Materials, and Systems Guidelines. Using observations from each site, a comparison of each facility's patient unit Common Areas, Bedrooms, and Toilet Rooms was performed to these standards. It should be noted that Patient Safety and Ligature Risk are variable from facility to facility as staff observation and risk management practices vary.

Handicapped Accessibility was assessed through visual observation. Deficiencies in accessible features begin at parking locations, continue through accessible routes to the facilities and were extensive within the facilities themselves.

B. GROUNDS AND BUILDING

The array of structures that comprise the four separate facilities is broad and diverse. Two of the facilities (GPPH and AKFC) are for the most part self-contained structures of relatively recent construction. Two (TPH and APH) are campus-based multi-building facilities comprised of dormitory structures, treatment malls, dining halls and other support structures. Both TPH and APH contain vacant structures ranging from recently vacated (within two years) to deteriorating shell structures dating back to the 1840's. In all cases, either in whole or part each facility populates a discrete and contained grounds and campus setting.

Site and grounds at each facility/campus are maintained as well as possible within the constraints of budget and staffing. Hospital campus grounds keeping and snow removal is performed by facilities grounds keepers and maintenance staff (including overtime snow removal when needed). This includes certain amounts of tree maintenance to maintain integrity of perimeter fences. Road and parking lot repair in many cases is performed by the facilities, however when broader repair of paved surfaces is required it is contracted to outside vendors; tree maintenance, when beyond staff capabilities is contracted to outside arborists.

Exterior envelope, thermal and moisture protection systems were, with assistance provided by facilities plant operations staff, evaluated for integrity and performance. Each of the buildings encountered indicated some form of thermal and moisture envelope issue. A successful building maintenance program requires evaluation, planning and funding for proper implementation. Ongoing evaluation of new and aging buildings requires a diligent investigative program employing a combination of both internal and external resources. Planning and funding should be coordinated so that operations can budget in advance for preventative maintenance.

C. SYSTEM-WIDE APPROACH TO FACILITY AND BUILDING MANAGEMENT

Consideration should be given to creating a system wide facilities and operations team. This team would involve plant operations leadership at each hospital with additional leadership capable of objectively evaluating the entire system. Long- and short-term goals should be adopted and it would be beneficial to implement a Master Facility Planning process.

Master Planning would assess current care model(s) and physical plant(s) to determine impact on therapeutic programming. Assessment of increasing or decreasing behavioral health volumes and varying patient typologies would be incorporated with best practice strategies. A comprehensive assessment based on short-term goal outcomes would assist in determining which buildings or units are candidates for future investment and which might be considered at the end of their serviceable life. Lastly, a focused approach to patient safety across all facilities would be developed and deployed.

The process of performing a system-wide Facility Master Plan would provide an opportunity to dramatically change the paradigm of the State healthcare system and set forth a plan to become a premier healthcare provider for this patient population.

X. FINANCE AND BUDGETING

A. ANNUAL BUDGETING

The NJSPHs operate on a fixed annual budget comprised of labor and non-salary expenses. The Hospitals' budgets individually and collectively are very heavily weighted to salary costs. Typically, the non-salary budget is the same as the prior years, while salary budgets reflect the approved position levels as of the time the annual budget appropriations. On a year-to-year basis, there will be some modification of labor budgets based on newly approved positions and negotiated union contract provisions that will generate known impacts to the upcoming fiscal year's (FY) labor expense.

The combined total FY 2018 salary and non-salary dollars budgeted for the NJSPHs amounts to approximately $363,000,000. Budget information does not include the cost of employee benefits, depreciation, debt financing, and potentially other categories of typical expense. On the revenue side, the budgets do not address non-operating income, and gains and losses from investments, philanthropy, and potentially other categories of income that are typically found in a freestanding hospital's financial statements. It should also be noted that the Hospitals' budgets also do not include dollars or allocations to cover the costs (salary and/or non-salary expenses) of services received from DMHAS and DOH/DHS. For example, Division leadership, finance, auditing, billing and collection functions, medical direction, etc.

Executives at the Hospital have some limited discretion to work within salary and non-salary budgets to address budget overruns in selected categories of expense and to address repairs and other modest capital requirements.

1. Salary Expense

Labor employed by the State under the Civil Service Commission is the vast majority of expenditures comprising the budget at each of the Hospitals. On a combined basis for FY 2018, the appropriation for labor for the Hospitals amounts to $320,000,000. This does not include the cost of most employee benefits. Assuming benefits amount to 25 percent of direct salary dollars, this could represent an additional $80,000,000 or more, bringing total labor costs of salary and benefits to somewhere near $400,000,000. These numbers actually underestimate the cost of labor due to contract labor being included in some non-salary expense budget categories. In addition, as noted earlier, these numbers do not include budgeted salary amounts for DMHAS and DOH/DHS level employees who in whole or part

support the Hospitals. For FY 2018, the cost of budgeted State-employed staff as a percent of hospital-only operating budgets range from a low of 86.3 percent at APH to a high of 92.5 percent at AKFC. The average for all NJSPHs is 88.2 percent.

2. Non-Salary Expense

For FY 2018 non-salary expenses have been budgeted at the same level as FY 2017 for a combined total of approximately $43,000,000 for the NJSPHs. These expenses are categorized and tracked in numerous accounts. As noted earlier, contract labor is included in some non-salary accounts such as contract physician services, pharmacy services, patient wages, security, advisory and consultative services, technical and professional services, etc. The degree and amounts of contract labor and professional services varies from Hospital to Hospital.

3. Total Operating Expense Budget

The following table provides a summary of the fiscal year 2018 salary and non-salary expense budgets for each of the Hospitals.

NJ State Psychiatric Hospitals' Fiscal Year 2018 Expense Budgets

Expense Category	Greystone Park	Trenton Psychiatric	Ancora Psychiatric	Ann Klein Forensic	Total
Salary (Spending Limit)	$ 100,761,836	$ 81,757,606	$ 95,400,035	$ 42,017,578	$ 319,937,055
Non-Salary	$ 14,409,379	$ 10,043,921	$ 15,122,145	$ 3,412,000	$ 42,987,445
Total	**$ 115,171,215**	**$ 91,801,527**	**$ 110,522,180**	**$ 45,429,578**	**$ 362,924,500**
Percent Salary	87.5%	89.1%	86.3%	92.5%	88.2%

4. Realized Revenue / Revenue Sources

While many of the patients treated within the NJSPHs do not have health insurance benefits, there is some reimbursement that can be collected from New Jersey counties, Medicare Part A and Part B, Medicaid, and private insurance, and recoveries of various types. Medicaid is available for some patients younger than age 21 and older than age 64.

New Jersey counties where Hospital patients originate from are required to fund the equivalent of 15 percent of the per diem cost of care for those residents. This is the largest source of revenues for the Hospitals amounting to just over a combined $58,000,000 in FY 2017. We understand that there are sometimes delays receiving these funds from the counties and reconciling what is owned. It should be noted that 2016 County-based funding realized was approximately $54,000,000 or $4,000,000 less than in FY 2017.

During FY 2017 a combined total of only approximately $23,000,000 was collected from Medicare, Medicaid, private insurance payments, and certain recoveries. In FY 2016, the total for these same revenue sources amounted to approximately $29,500,000, a negative difference year-over-year of approximately $6.5 million. The bulk of the negative difference is in Medicare Part B and Part A for a combined total of more than $6.3 million. The reasons for the change in Medicare related collections should be analyzed. From FY 2016 to FY 2017, there was also a decrease in recoveries of nearly

$500,000 and an increase in Medicaid reimbursement of approximately $270,000, and an increase of $304,000 for private insurance.

The following table provides a summary of the net realized revenue for 2016 and 2017 by category as reported by the New Jersey Department of Human Services, Office of Finance.

Summary of Net Realized Revenue for FY 2016 and FY 2017

NEW JERSEY DEPARTMENT OF HUMAN SERVICES OFFICE OF FINANCE: INSTITUTIONAL REVENUES: NET REVENUE REALIZED	Greystone Park Psychiatric Hospital		Trenton Psychiatric Hospital		Ancora Psychiatric Hospital		Ann Klein Forensic Center		COMBINED FACILITIES	
	FY 2016	FY 2017	FY 2016	FY 2017	FY 2016	FY 2017	FY 2016	FY 2017	FY 2016	FY 2017
Care & Maintenance Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
County Billing	$ 17,182,798	$ 18,562,226	$ 16,098,758	$ 16,932,910	$ 12,459,674	$ 14,144,706	$ 8,068,285	$ 8,518,465	$ 53,809,516	$ 58,158,307
Recoveries	$ 522,520	$ 456,039	$ 41,811	$ 47,502	$ 660,372	$ 453,589	$ 25,266	$ 21,285	$ 1,468,759	$ 988,415
Medicare B	$ 3,369,718	$ 2,458,277	$ 1,907,917	$ 1,873,541	$ 2,980,259	$ 2,430,447	$ -	$ -	$ 8,257,894	$ 6,762,265
Medicare A	$ 4,148,471	$ 2,754,538	$ 4,005,675	$ 2,376,931	$ 4,537,431	$ 2,716,046	$ -	$ -	$ 12,691,576	$ 7,847,515
Medicaid	$ 2,891,094	$ 3,167,581	$ 1,300,383	$ 1,050,519	$ 2,001,372	$ 2,242,449	$ -	$ -	$ 6,192,849	$ 6,460,549
Private Insurance	$ 201,749	$ 218,006	$ 159,570	$ 138,970	$ 300,606	$ 524,364	$ 254,964	$ 339,935	$ 916,889	$ 1,221,275
Total	**$ 28,316,350**	**$ 27,616,666**	**$ 23,514,115**	**$ 22,420,374**	**$ 22,939,714**	**$ 22,511,601**	**$ 8,348,515**	**$ 8,879,685**	**$ 83,337,484**	**$ 81,438,327**
VARIANCE FY 2016 to FY 2017										
Care & Maintenance Contributions		$ -		$ -		$ -		$ -		$ -
County Billing		$ 1,379,428		$ 834,152		$ 1,685,032		$ 450,180		$ 4,348,791
Recoveries		$ (66,481)		$ 5,691		$ (206,783)		$ (3,981)		$ (480,344)
Medicare B		$ (911,441)		$ (34,376)		$ (549,812)		$ -		$ (1,495,629)
Medicare A		$ (1,393,933)		$ (1,628,744)		$ (1,821,385)		$ -		$ (4,844,061)
Medicaid		$ 276,487		$ (249,864)		$ 241,077		$ -		$ 267,700
Private Insurance		$ 16,257		$ (20,600)		$ 223,758		$ 84,971		$ 304,386
Total		**$ (699,684)**		**$ (1,093,741)**		**$ (428,113)**		**$ 531,170**		**$ (1,899,157)**

As part of the annual spending plan, there is approximately $53,000,000 of disproportionate share dollars (DSH) that are allocated to offset some of the budgeted costs of operating the Hospitals. These DSH funds are not included in the net realized revenues noted in this Executive Assessment.

Based on our interviews there appears to be a general consensus among interviewed finance staff at the Department and Division levels that more effective revenue cycle functions could increase net realized revenue, potentially substantially. (For additional detail refer to Section E: Patient Accounts and Revenue Cycle Functions of this Executive Assessment). Charge capture and coding are handled at the hospital level with billing and collections handled by DHS' Office of Finance which also collects funding for State-owned Developmental Disability facilities and services. During some interviews, it was suggested that responsibility for billing and collection functions for the Hospitals may be shifted to DOH at some point in the future.

5. Capital Budgets

Capital budgeting is managed by the Treasury's Division of Property Management and Construction (DPMC). There are numerous capital projects that would ideally be funded at each of the Hospitals. The review of the patient care facilities at the NJSPHs that was conducted as part of NSI's overall assessment confirmed numerous building, infrastructure, and preventative maintenance issues that will require capital to address.

It is recognized that there are limited capital dollars, and requested projects far outstrip the resources presently allocated to meeting the capital needs of the Hospitals. Interviews have also indicated that there are some capital funds available from unused bond proceeds which have some restrictions on their use. Efforts are currently underway to determine the best use of these capital dollars, as well as funds available from more routine sources of capital. There are also energy audits that are exploring the viability of projects that will have a suitable payback in addition to promoting the greener use of energy resources.

All factors considered, there will be a substantial amount of capital needed by the Hospitals to address building, infrastructure, equipment, accreditation, information technology, and code compliance concerns. Ideally, both short- and long-range capital budgets should be established along with justification for a more aggressive use of capital funds.

XI. BEST PRACTICES

There are a number of noteworthy practices and/or strategies that have been implemented successfully and which have yielded positive results at all or some of the Hospitals. In all cases, these "best practices" should be developed uniformly across each facility. Moreover, monitoring the impact of these changes should pay dividends in terms of staff empowerment and job satisfaction. These include:

- Implementation of best treatment practices, as identified in this Executive Assessment.
- Full integration of Psychiatric Mental Health APRNs into the care team, in collaborative practice and functioning at the opt of their license.
- Formal, core medical student rotation and formal affiliation with a medical school.
- Vision of DMHAS Medical Director to create a "culture of clinical education and training".
- Training exposure as a proven tool for recruitment of former trainees (fellowship and clinical psychology programs).
- Leveraging professional and personal relationships to secure free CME conferences.
- Attaining accredited CME provider designation and using it to increase CME offerings.
- Monitoring the use of multiple antipsychotic medications and sending educational emails regarding the subject.
- Contract pharmacists monitor the use of medications and send out recommendations to medical staff regarding drug-drug interactions, polypharmacy, and cost-saving recommendations.
- Medical record staff works to ensure all elements of the chart are completed.
- Unit Treatment Team meetings led by psychiatrist meet regularly to discuss patient progress.
- PBS Unit Team meets regularly to discuss issues and make appropriate changes in patient treatment and address unit issues.
- Transitional living units allow patients to live in supervised setting outside the hospital where they can practice skills needed for community living.
- Innovative strategies to support discharge.
- Adoption of formal performance improvement methodologies to manage organizational success and efficiency.
- Plant Operations Teams adept at managing, in some cases very old buildings and infrastructure, and related issues with limited resources.
- Management's success in controlling operating expenses and salary costs consistent with budget expectations.
- Strong vocational rehab and chaplaincy programs.
- Many long-term committed staff with an interest in supporting positive change.
- Management belief in the wellness concept and eagerness to have data necessary to effect change.

XII. RECOMMENDATIONS

Throughout the report, a number of recommendations were developed for each of the major areas of analysis. While we realize that not all of these recommendations can be adopted simultaneously, and some may need further examination, we believe their planned implementation over time should lead the State to move closer to the Vision we outlined. Overall, these recommendations fall into the following major categories.

1. Consistently provide behavioral health services from a wellness and recovery perspective. This will require the Hospital to utilize professional, clinical and direct staffing levels that are consistent with a therapeutic rather than custodial environment, and that education and training for medical professionals are supported and encouraged. When Wellness and Recovery Principles are kept in the forefront of care delivery, paradigm shifts occur. Treatment becomes evidence-based, patient-focused, and families and other supports are encouraged to participate. The culture shifts from hopelessness and passivity to one in which innovation and empowerment are supported, and success and recovery become the accepted norms. To achieve this cultural shift Hospital leaders must assume the role of "change agent".

2. To facilitate ongoing clinical and operational improvement of NJSPHs must function as a State Psychiatric Hospital System. This means adopting the best practices outlined across all Hospitals, where feasible; consolidating job functions across Hospitals; standardizing policy and procedures; developing standard staffing patterns, treatment models, as appropriate, and developing a System-wide Strategic Plan to achieve system goals. To accomplish this governance, advisory oversight, and key management and planning functions should be centralized, and hospital-specific management structures should be redesigned accordingly.

3. DMHAS should work with the Governor's Office, the Civil Service Commission, Rutgers and other institutions of higher learning to address the barriers to recruitment and retention of necessary professional, clinical, and nursing staff. Develop formal teaching affiliations with colleges and universities. Adopt strong new administrative structures and training to enhance managers' skills and empower staff with performance improvement tools to identify trends, implement change, and improve patient outcomes.

4. Address the issue of patient and staff safety to mediate concerns over violence with a multifaceted approach based on best practices implementation; ongoing staff education regarding de-escalation techniques; enhanced direct patient care involvement with psychiatrists, clinical and nursing staff; strategies to deal with staff burnout and fear; census reduction via greater availability of community resources and diversionary beds; and prudent and selective use of containment strategies. On a system-wide basis, review the overall patient characteristics and treatment needs and determine the best way to cohort patients to reduce risks. Determine if effective service delivery can best be achieved through a centralized approach, a regional approach, or a combination of both. Adjust patient census at each Hospital to create single rooms across the Hospitals consistent with patient needs.

5. Implement cost saving/cost avoidance strategies and operational changes to most effectively utilize State resources including human resource allocation, greater use of IT and automation, and assess possible changes to the capital budget process to more effectively plan for facility and infrastructure needs.

6. Adopt a mental health system approach in which the NJSPHs are one part of a continuum of services for persons with behavioral health needs. This perspective highlights the fact that in order to effectively optimize treatment and recovery services, cooperation and coordination among families, community providers, the court system, peers, advocacy groups and provider organizations is essential.