



MARYLAND STATE PSYCHIATRIC INPATIENT FACILITIES

STAFFING STANDARDS UPDATE:

**Reviewing Established Standards for Clinical Staff through
Staff Interviews and Patient Needs Assessments**

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Abstract

For the last twenty years, the Mental Hygiene Administration (MHA) has used staffing standards to determine the staffing patterns required to provide active treatment in its inpatient facilities. The original standards, established by MHA Human Resource Development Unit in 1986, were derived from an extensive process. A second study which focused on patient needs was conducted in 1998; at that time, no significant changes in patient needs could be identified. The MHA commissioned this update to determine whether existing standards had to be revised. As a first step, MHA headquarters staff, inpatient facility CEOs, clinical directors, and chiefs of nursing, psychology, social work and rehabilitation were interviewed to obtain qualitative information regarding changes within the facilities over the past ten years. As in past studies, a subset of this group served on a steering committee and provided methodological and interpretative advice. A patient needs assessment instrument nearly identical to that used in each of the earlier studies was developed; instructions used for the completion of the forms were refined. Data regarding units and subunits within each facility were assembled. A brief, very general survey form to assess staff time utilization was also prepared. Units were grouped into seven unit types and minimum sample sizes needed for reasonably certainty of results were established. Forms and instructions were circulated to facility CEOs. Mail delays and inclement weather resulted in data being collected over a two week period.

Quantitative results of the patient needs assessment indicated that the overall level of patient need had not changed significantly since the 1998 study. Need areas had shifted away from the functioning areas and into the resource areas, probably reflecting continuing decline in the number

of patients who have been in the facilities for long periods and the increase in the short term acute care population. Except for a significant decrease at Clifton T. Perkins, the relative level of clinical staffing has not changed greatly since the 1998 study. The study did not however examine vacancies and licensure status of current staff; qualitative information indicated that there are fewer licensed individuals working because of difficulties in recruitment and retention. Based on the current standards, MHA inpatient facilities would need an additional 400 clinical staff to serve its current population. Examined from another viewpoint, beds would have to be reduced by nearly 250 in order for the current staff patterns to meet standards.

With respect to staff activity, based on a very small sample, on the whole 51% of staff time is spent in direct patient care activity, 36% is spent in indirect patient care activity, and 13% is spent on activity which is not related to patient care. Certified Nursing Assistants, rehabilitation workers, and mental health associates spend the highest percentage of time in direct patient care.

It should be noted that the number and percentage of patients involved with the legal system continues to increase across all inpatient facilities. Staff perceptions are not always in line with the findings of this study. Major issues in addition to and affecting recruitment and retention are staff perceptions of safety, cultural issues, lack of training, clinical supervision, the geographical diversity of facility patients, and the transfer of duties such as housekeeping and dietary functions to direct care staff.

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Introduction

For the last twenty years, the Mental Hygiene Administration (MHA) has used staffing standards to guide and support the numbers and types of positions assigned to hospitals and residential treatment centers to provide clinical services. The MHA Human Resource Development Unit developed the initial standards in 1986. They were derived from an extensive process that included a needs assessment of the entire institutional population and documentation of the distribution of staff time, including on-site validation of staff logs. A panel of national experts was convened to review and provide feedback on the 1986 standards. Representatives of the chiefs of the clinical disciplines including nursing, rehabilitation services, social work, psychiatry and psychology served on a steering committee and provided advice on the process, including the interpretation of the data.

In 1998, the MHA Division of Staff Development and Training performed a study to review and determine whether staffing needs had changed given the changes in hospital operations and populations since the 1986 standards had been computed. In this case the patient needs assessment was repeated with about two-thirds of the patient population. The staff time distribution study was not repeated. An advisory group consisting of the clinical discipline chiefs and facility administrators, as well as consumers of mental health services and members of their families, provided input for the study and reviewed the results. The primary finding of the 1998 update was that there had been no significant increase in the level of patient need. The need category with the greatest increase in need was that related to somatic problems. As was noted in the 1998 study, surveying patient needs can identify areas where increases or decreases in the level of patient needs suggest a par-

allel need for adjusting levels of clinical staffing.

The current study was requested by MHA to update the level of patient need in the state facilities and review the related staffing standards. During the last decade there has been progressive change in the theory and practice of public sector mental health services, including the role of inpatient and residential programs. One especially noteworthy change is the increasing proportion of service recipients who are also involved with the legal system. Increasing numbers of patients in the non-forensic hospitals and the Regional Institutes for Children and Adolescents (RICAs) are there for court related reasons. In addition there is an increased emphasis in the mental health field on providing evidence-based services, a requirement that has implications for staff mix. Although the primary focus of this study, as was the case with its predecessors, is on patient need, other current, pertinent issues related to staffing will also be raised. A small sample of facility staff was asked to provide data regarding the distribution of their work time to provide additional information about the current status of services provided by the facilities.

It is important to note that staffing standards represent a benchmark for the number of staff that are needed to provide active treatment services for a particular patient population. They cannot account for the whole range of situations that present themselves in real life patient care units. Depending on circumstances administrators may find that it is necessary to redistribute staff to meet current needs. However given the needs identified for the patient population being served by the Mental Hygiene Administration facilities the recommended staffing standards should

provide resources sufficient to meet the needs of the majority of patients. It is also important to note that there are other conditions that affect availability of clinical staff. For instance, problems with recruitment and retention of staff are not addressed by staffing standards but in a highly competitive environment may make it extremely difficult to meet the standards. Additionally, leave availability and usage also affect staff availability. Many of the pool of stable staff are now eligible for extensive annual leave each year. Many newer employees appear to be using leave without pay more frequently than they have in the past. Such factors would make it difficult to assess the amount of time available even if vacancy figures had been available.

Trends and Issues Related to Staffing Standards

One aspect of the staffing study update included a review of national issues related to staffing in behavioral health settings. A literature review was conducted. As in the past there was little information published regarding staffing standards or guidelines. One study was identified that explored hours of care provided to patients in general adult, geriatric, intensive care, medical-psychiatric and dual diagnosis units of psychiatric hospital settings under a contract from the Federal Centers for Medicare and Medicaid Services.¹ Cromwell and Maier surveyed 40 facilities, only 3 of which were state or county operated. They calculated the number staff hours per patient provided by nurses, mental health specialists (nursing assistants), psychiatrists, medical physicians, resident physicians, caseworkers, therapists, psychologists and clerks in each of these settings. Because it is not possible to determine the case mix of the facilities studied and all of the other variables that affect staffing, because of the small number of public sector facilities included and because of the over sampling of the geriatric population due to the focus on Medicare recipients, the study team determined that the results were of limited use for MHA facilities.

In addition the websites of professional associations, governmental agencies and trade associations were consulted. None addressed behavioral health facility staffing.

One source that is of special value in considering staffing issues in Maryland, as they relate to more pervasive issues in the United States, is the recently released report and action plan of the Annapolis Coalition on the Behavioral Health Workforce.² The report summarizes issues

related to the workforce as follows: “The issues encompass difficulties in recruiting and retaining staff, the absence of career ladders for employees, marginal wages and benefits, limited access to relevant and effective training, the erosion of supervision, a vacuum with respect to future leaders, and financing systems that place enormous burdens on the workforce to meet high levels of demand with inadequate resources.” The study team heard most of these concerns echoed by the discipline chiefs from the MHA facilities. Without addressing these issues actual implementation of staffing sufficient for active treatment becomes difficult if not impossible.

Group interviews were held with the leadership group of each of the clinical disciplines, including nursing, psychology, psychiatry, rehabilitation services and social work. For the most part the groups expressed similar concerns about the challenges faced in providing clinical services in State facilities. Recruitment and retention are issues in all parts of the State. Salaries that are not competitive with the private sector and federal agencies were cited as the major barrier to recruitment. Most of the disciplines have not received salary scale adjustments in many years. As a result, State salaries fall further and further behind and the facilities’ ability to compete for a scarce workforce is more and more compromised. The workforce is growing smaller related to the aging of the current group of workers and the difficulty that educational programs are having in recruiting a new generation of workers.

Salaries also affect retention of the current workforce as do, in some cases, limited career ladders. The latter problem is especially found in rehabilitation services

where unlicensed staff members quickly reach the highest job classification available to them.

Working conditions were also addressed. An important issue for nursing and rehabilitation services is the need to provide an adequate number of staff daily and on multiple shifts. For nursing this sometimes results in the use of mandated overtime assignments, which undermine staff morale. Low staff numbers also make it difficult, if not impossible, to provide staff with the standard one half-hour lunch and two shorter breaks. Shortage of other staff such as housekeeping and dietary staff was cited as a further distraction from patient care as many of these functions are now completed by clinical staff.

Staff safety was identified as a concern by all of the disciplines. This was related to low numbers of staff, high demands on the staff who are at work, and the acuity level of patients. They also cited the recent efforts to eliminate the use of seclusion and restraint as a stressor that raised staff concerns about their safety. The discipline chiefs were clear that they were in support of the initiative but wanted it to be recognized that this change in practice could affect staffing needs and retention.

Training was addressed in terms of potential value for staff retention as well as its impact on quality of care. The groups cited limited availability of training on the worksite. This is a particular issue for those disciplines that require continuing education for continued licensure. When training is offered they are not always convinced that it is on the most relevant topics. Most identified a need for staff training in cultural competence as a more diverse patient population is occurring. The need for skills in treating patients who have co-occurring mental health and substance abuse problems was also discussed. In

addition, low staff numbers frequently make it impossible for staff to attend whatever training is offered.

The need for additional clinical supervision was also cited as an issue related to staffing. This is related to the difficulty in finding time for staff to receive supervision on a regularly scheduled basis as well as the frequent need to use senior staff for direct clinical services rather than the provision of supervision. At least one clinical director is required to carry a caseload; yet he is also responsible for the overall quality of care in the facility. It is impossible to meet both of those demands. A nursing example is the inability to recruit or retain clinical nurse specialists. These nurses have advanced practice preparation and influence the quality of nursing care by providing clinical supervision to staff. The groups were also concerned by what they identified as progressive deprofessionalization of the facility staff. They were referring in particular to the tendency, especially in nursing, to reclassify licensed staff positions to unlicensed ones. Some rehabilitation services positions had been reclassified to support services within the facility.

Issues were also raised related to changing roles for clinical staff. Social workers, psychologists and psychiatrists all cited a steady increase in demand for the performance of other tasks, frequently patient-related, that diminished the time that they have available for direct clinical treatment. In particular they have noted an increase in the time required to attend to forensic issues. This decreases the quality of the services that are provided to the patients and is also frustrating to the staff members who most often entered behavioral health care with the goal of intervening directly with patients. Rehabilitation services and nursing leaders identified increasing accreditation and certification demands as distracting staff from direct patient services. This

is occurring at a time when accreditation and certification standards are placing increased emphasis on active treatment. Documentation of care is cumbersome and time-consuming because the facilities are still largely dependent on the use of paper records. The lack of technology not only makes documentation more difficult, it also hampers recruitment. Younger professionals are less likely to go to work in an environment that does not take advantage of technological advances.

Finally, the geographic diversity of current hospital populations in conjunction with an emphasis on rapid discharge was a source of concern. Trying to work with jurisdictions statewide reduces the level of familiarity among the hospital and community mental health staff. It is more difficult to maintain links between patients and their families and to involve families in discharge planning. Patients admitted from distant communities also increase travel and transportation times and sometimes complicates the processes associated with successful discharge.

The study team would like to express our appreciation for the candid and complete responses that we received from the discipline chief groups. They are to be commended for their dedication to their very difficult jobs and their perseverance in doing all that they can to provide the best possible service to patients frequently under very difficult circumstances.

- 1 Cromwell, J. Maier, J: Variation in staffing and activities in psychiatric inpatient units. *Psychiatric Services* 57:772-74, 2006.
- 2 Hoge, M.A. Morris, J.A. Daniels, A.S. Stuart, G.W. Adams, N: Action Plan for Behavioral Health Workforce Development. U.S. Substance Abuse

Methodology

The current effort was intended to build upon past staffing studies. The primary purpose of the effort was to determine whether staffing requirements of Maryland State psychiatric inpatient facilities had changed since the last staffing study was completed in 1998. To that end and given the methodologies of the previous studies, any changes in the needs of the residents of these facilities over the last ten years was seen as the essential determination of the study. It was decided that to the extent possible, the previous methodologies should be used and modified as necessary.

Major considerations in designing this study included making the results comparable to the earlier studies and assuring that the data collection provided the minimum possible burden to the direct care staff of the facilities that would have to complete patient needs assessments.

As a first step in the process, the study team met with facility leaders. This included meetings with the CEOs, the clinical directors, and the directors in each of four disciplines, nursing, psychology, social work, and rehabilitation. During these meetings, changes in facility residents under treatment and policies and procedures were qualitatively explored. As was done in past studies, a steering committee was convened consisting of representatives of each of the clinical chief groups. The steering committee was charged with reviewing the patient needs assessment instrument used in the previous study and the instructions for the completion of the instrument and making suggestions for changes to these items. The steering committee was convened again following preliminary data analysis to provide their insights about the findings of the patient needs assessment.

One result of the discussions with the discipline chiefs was a strong indication that additional administrative and documentation requirements had eroded the amount of time available for patient care. This circumstance had the potential for increasing the staff needed to maintain hospital service. Consequently, a decision was made to assemble a short, simple survey to be administered to a small number of direct service providers within each discipline; for nursing, three levels of direct care staff, Registered Nurses (RN), Licensed Practical Nurses (LPN), and Direct Care Worker/Certified Nurse Assistants (DCA/CNA) were included. This instrument collected the discipline and job title of the respondent, and the number of hours which the individual worked on average each day in direct patient care, in patient related activities, and in administrative and other tasks. The instrument used for collecting these data is contained in Appendix A.

Simultaneously, CEOs were asked to submit information regarding their facilities. This information included the name of the facility, the numbers of units and subunits, current actual Average Daily Population (ADP) and budgeted population for FY 2008, numbers of FTE state employees and contractual staff, method of delivery of somatic services, and a listing of the units and sub-units in the hospital along with the number of direct care staff assigned to the unit, the number of beds in the unit, and a description of the type of service provided on the unit. The data collection instrument is shown in Appendix B. Information regarding the units and subunits in each facility are displayed in Appendix C.

In order to minimize the number of patients on whom treatment teams would have to report data, the study team worked with the steering committee to determine

the most logical categorizations for unit types. In the first study, nine unit types were described and studied. In the second study, this number was reduced to eight. Based on the similarities in the staffing patterns recommended in previous studies for certain unit types, this number was reduced further to seven unit types. While most unit types were collapsed, recommendations for Perkins units were expanded. Previous studies had divided the population at Clifton T. Perkins Hospital Center, a forensic psychiatric facility, into maximum security units and minimum security units. The current effort divided this population into an admission population, a residential population, and a population being prepared for discharge. Because of the special security requirements for these groups, their needs were analyzed separately from other facility patients. Table 1 on the next page displays the unit types used in each of the three studies; it also displays the number of patients within each of these unit types which were surveyed in each of the three studies.

To determine the sample size required to provide reasonable assurance that the findings were representative of the hospital population, the services of a professional biostatistician were employed. By combining those unit categories with very similar staffing requirements, it was possible to combine unit types from earlier studies and thereby reduce the sample size needed to about 54%, which represented a marked reduction from the earlier studies. In 1998, a 67% sample was deemed necessary. In 1986, the needs of the entire inpatient and residential population were assessed.

In the 1986 study, a needs assessment instrument was validated by the steering committee for that effort and by an external expert panel. It measured twenty-three areas of need on a five point intensity scale. In 1998, the instrument was modi-

fied slightly by dropping two areas of need (level of responsibility and orientation) and using a scale of intensity from one to four. The steering committee determined that the 1998 instrument contained the essential areas of patient needs for determining necessary staffing patterns. While the steering committee was in agreement that the need areas were appropriate, they did recommend a more expanded set of instructions and scoring criteria. The data collection instrument, which also collected selected demographic, diagnostic, and legal status items, is shown in Appendix D; instructions for the determination of need intensity are shown in Appendix E.

Unfortunately, there was an inconsistency between the instructions and the data collection form. The instructions indicated that the intensity of the need should be

determined on a scale from one to four; the form had numbers from one to five for each need. While this resulted in inconsistency across hospitals, individual treatment

Table 1

**Comparison of Sampling Frames
Unit Type and Survey Year
Mental Hygiene Administration Inpatient Facilities**

	<u>1986</u>	<u>1998</u>	<u>2007</u>
Acute	945	346	206
Brief Stay		50	
Acute Adult	402	263	
Mixed Geographic	464		
Adolescent Inpatient	79	16	
Deaf		17	
Continuing	1,454	429	232
Extended		259	
Continuing Care Adult	237		
Long-term Adult	850		
Geriatric Ambulatory	222	101	
Geriatric Infirmary	145		
Domiciliary		69	
Medical Surgical	156	58	67
RTC-Adolescent Residential	178	97	111
Perkins		104	156
Maximum Security		36	108
Minimum Security		68	48
Total	2,733	1,034	772
Census	2,733	1,550	1,433
Pecent Sample	100.0%	66.7%	53.9%

teams selected and used either the four or five point scale to rate all patients on a given unit. Teams indicated whether they used a four or a five point scale in the determination of needs. A mathematical adjustment was made to convert all need intensities to the four point scale.

Intensities which were rated on a five point scale were divided by five and multiplied by four to make the four and five point scales comparable. Because the data analysis was to occur generally using grouped data, this change in methodology was not expected to affect the conclusions drawn from the data.

In order to accomplish the actual collection of the data, CEOs were asked to provide a facility coordinator for the staffing study effort. The CEO received a packet of information including copies of the two data collection forms (patient needs and staff time analysis), instructions for the completion of the patient needs assessment forms, and the units from the facility which had been selected to participate in the study. CEOs were given the option of exchanging units of the same unit type and of a similar size if there were good reason to do so. This option might allow the hospital to provide better data in the event that some situation existed that was unknown to the survey team. Several situations might have resulted in such exchanges. Such situations included significant treatment team staff vacancies on a given unit or a unit that was staffed with a number of newly hired individuals. CEOs received instructions regarding the distribution and collection of the forms. Once completed, forms were put into a return envelope and sent to the data entry unit.

As a result of inclement weather and mail delays, data collection occurred between February 12 and February 20, 2007. Each hospital completed needs assessment forms for individuals in the sample units

for that hospital on a given day; the forms may have been completed after the date selected depending upon when the treatment team met.

Analyses were then made comparing current need intensities with those from earlier studies. Because raw data were not available from those studies, current comparisons are sometimes limited by the aggregate data which are available from those studies. In some instances, mathematical adjustments have been made to make past data as comparable to current data as possible.

Results

Intensity of Patient Needs. As a first step in the analysis of needs data, average need intensities were calculated across the patient population and within each unit type. The mean need intensities for each need area are presented in Table 2 for all three observations points, 1986, 1998, and 2007. Based on the total means in all years, the intensity of need of hospital patients in Maryland State inpatient psychiatric facilities has not changed greatly over the past twenty years. What clearly has changed is the distribution of those needs. Need intensity in the most basic skill areas, activities of daily living such as personal hygiene, feeding, mobility, and leisure activity, decreased from the 1998 observations. Most of these are at a relatively low level of intensity. Physical and somatic problems appear to be on the increase, and have increased in each observation. Needs which have had consistently high intensities include social adjustment, stress tolerance, and judgment. Community living needs, many of which were not included in the original assessment, have increased a good deal from 1998 levels. Community resource utilization, financial and entitlement support, housing assistance, and legal assistance have all increased and are now among the higher areas of need. This may reflect the emphasis on treating and discharging patients quickly as well as the changing of the population within the facilities. Many of the long term, less involved patients have been discharged over the past twenty years. There is a much greater expectation that patients will be discharged at some point and will not spend the remainder of their lives in the facility. These data are presented graphically in Figure 1 on page 18.

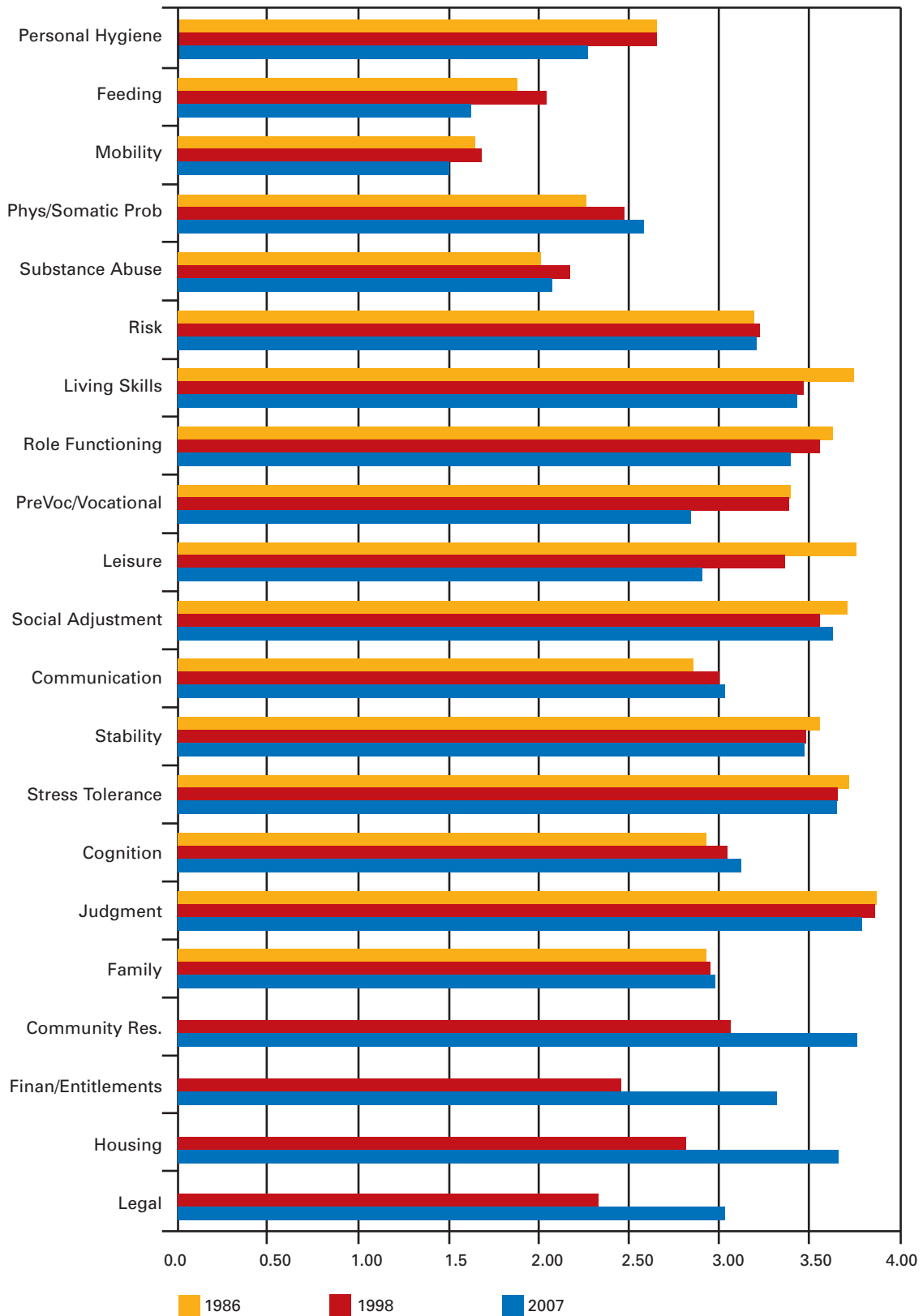
Table 2

**Patient Needs Intensities-All Facilities, All Unit Types
Mental Hygiene Administration Inpatient Facilities**

	<u>1986</u>	<u>1998</u>	<u>Change 86 to 98</u>	<u>2007</u>	<u>Change 98 to 07</u>
Functioning					
Personal Hygiene	2.40	2.39	-0.01	2.05	-0.34
Feeding	1.69	1.84	0.15	1.46	-0.38
Mobility	1.48	1.51	0.03	1.35	-0.16
Physical/Somatic Problems	2.03	2.23	0.20	2.32	0.09
Substance Abuse	1.81	1.96	0.15	1.87	-0.09
Risk	2.88	2.91	0.03	2.89	-0.02
Living Skills	3.37	3.12	-0.25	3.10	-0.02
Role Functioning	3.27	3.20	-0.07	3.06	-0.14
PreVocational/Vocational	NA	3.05	NA	2.56	-0.49
Leisure	3.38	3.02	-0.36	2.63	-0.39
Subtotal		2.52		2.33	-0.19
Psychosocial					
Social Adjustment	3.34	3.21	-0.13	3.27	0.06
Communication	2.57	2.70	0.13	2.73	0.03
Stability	3.20	3.15	-0.05	3.13	-0.02
Stress Tolerance	3.36	3.29	-0.07	3.29	0.00
Cognition	2.64	2.74	0.10	2.80	0.06
Judgment	3.49	3.47	-0.02	3.41	-0.06
Subtotal		3.09		3.11	0.01
Resources					
Family	2.63	2.65	0.02	2.68	0.03
Community Resources	NA	2.76	NA	3.38	0.62
Financial/Entitlements	NA	2.21	NA	3.00	0.79
Housing	NA	2.53	NA	3.30	0.77
Legal	NA	2.09	NA	2.72	0.63
Subtotal		2.45		3.02	0.57
Overall		2.67		2.71	0.04

Figure 1

Patient Needs Intensity Mental Hygiene Administration Inpatient Facilities



In addition to examining overall need, it was necessary to determine whether needs within the unit types had undergone any substantial change. Table 3 examines the overall need intensity scores by the unit types. The largest changes which are observed are those for Clifton T. Perkins units. For all other unit types, need intensity has decreased or remained the same. Because the need intensities from the 1998 study were determined using a different grouping of units, these differences are somewhat overstated. However, for Perkins as a whole, it would appear that the intensity of patient needs may have increased and redistributed across the facility.

In Table 4 on the next page, average needs in each area are displayed by unit type. Several clear patterns can be observed in this table. While needs in the area of activities of daily living have decreased overall, they are still high on medical/surgical units. Community services needs, which have increased throughout the facilities, are low in the Perkins admission unit. This most probably reflects the expectation that the individuals in this unit are not likely to be discharged soon and their needs in these areas are therefore minimal.

Table 3

**Average Need Intensity by Unit Type
Mental Hygiene Administration Inpatient Facilities**

	<u>2007</u>	<u>1998</u>	<u>Change</u>	<u>Percent</u>
Acute	2.62	2.59	0.03	1.2%
Continuing	2.67	2.94	-0.27	-10.1%
Medical Surgical	3.13	3.19	-0.06	-1.9%
Perkins Adm	1.82	2.62*	-0.80	-43.6%
Perkins Disch	2.69	2.48**	0.21	7.9%
Perkins Resid	2.94	2.62*	0.32	10.8%
RTC	2.59	2.61	-0.02	-0.9%
Total	2.71	2.67	0.04	1.7%

*1998 calculation based on Maximum Security Units

**1998 calculation based on Minimum Security Units

Table 4

**Patient Needs Assessment
Average Intensity of Need by Need and Unit Type
Mental Hygiene Administration Inpatient Facilities**

	<u>Acute</u>	<u>Continuing</u>	<u>MedSurg</u>	<u>PerkAdm</u>	<u>PerkDisc</u>	<u>PerkRes</u>	<u>RTC</u>	<u>Total</u>
Personal Hygiene	1.95	2.15	3.23	1.92	1.81	1.46	2.02	2.05
Feeding	1.15	1.62	2.32	1.23	1.86	1.18	1.44	1.46
Mobility	1.17	1.43	2.23	1.31	1.10	1.20	1.21	1.35
Physical Problem	2.21	2.25	3.04	1.38	2.00	2.70	2.01	2.32
Substance Abuse	2.00	1.68	1.34	1.54	1.90	2.58	1.55	1.87
Risk	2.76	2.72	3.39	2.54	3.00	3.30	2.72	2.89
Living Skills	3.23	3.02	3.67	1.00	2.76	3.27	2.81	3.10
Role Functioning	3.05	2.94	3.38	2.31	3.67	3.36	2.80	3.06
PreVocational/Vocational	2.54	2.12	2.15	2.31	2.76	3.32	2.95	2.56
Leisure	2.64	2.52	3.08	2.15	2.24	2.67	2.64	2.63
Social Adjustment	3.09	3.30	3.55	2.38	2.86	3.48	3.31	3.27
Communication	2.40	2.76	3.26	1.62	2.52	2.96	2.86	2.73
Stability	3.02	3.14	3.45	2.31	2.29	3.38	3.11	3.13
Stress Tolerance	3.25	3.30	3.51	2.62	2.71	3.36	3.35	3.29
Cognition	2.46	2.86	3.30	1.62	2.76	3.24	2.68	2.80
Judgment	3.38	3.42	3.75	2.54	2.67	3.52	3.37	3.41
Family	2.67	2.50	3.22	2.08	2.52	2.34	3.24	2.68
Community Resources	3.31	3.47	3.84	1.00	3.76	3.61	2.99	3.38
Financial/Entitlements	2.82	2.95	3.41	1.00	3.67	3.56	2.68	3.00
Housing	3.18	3.50	3.91	1.00	3.81	3.72	2.45	3.30
Legal	2.76	2.46	2.72	2.46	3.86	3.48	2.16	2.72
Total	2.62	2.67	3.13	1.82	2.69	2.94	2.59	2.71
<i>1998 Totals</i>	<i>2.59</i>	<i>2.94</i>	<i>3.19</i>	<i>2.62*</i>	<i>2.48**</i>	<i>2.62*</i>	<i>2.61</i>	<i>2.67</i>
Change 98 to 07	0.03	-0.27	-0.06	-0.80	0.21	0.32	-0.02	0.04

*1998 calculation based on Maximum Security Units

**1998 calculation based on Minimum Security units

Intensity of each need by facility is displayed in Table 5. Average need intensities for the facilities varied from a low of 2.51 to a high of 2.84, about 5% above and below the cross facility mean of 2.71. While these differences are not very large, it is noteworthy that the highest need inten-

sity levels were reported at Upper Shore, Clifton T. Perkins and Spring Grove. It is also noteworthy that while substance abuse is often identified as an issue externally, needs in the substance abuse areas were seen to be less intense than in other areas. Facilities with the lowest reported need

Table 5

**Patient Needs Assessment
Average Patient Need by Facility and Need Type
Mental Hygiene Administration Inpatient Facilities**

	<u>Eastern Shore</u>	<u>Perkins</u>	<u>RICA Balto</u>	<u>RICA Gildner</u>	<u>RICA South</u>	<u>Springfield</u>	<u>Spring Grove</u>	<u>Finan Center</u>	<u>Upper Shore</u>	<u>Carter Center</u>	<u>Total</u>
Pers Hyg	2.10	1.55	1.95	2.12	1.80	2.50	2.07	1.93	2.28	1.88	2.05
Feeding	1.45	1.27	1.21	1.74	0.92	1.76	1.35	1.46	1.32	1.24	1.46
Mobility	1.36	1.20	1.10	1.32	1.08	1.53	1.41	1.36	1.42	1.12	1.35
Phy/Somatic	2.44	2.50	1.67	2.23	2.07	2.40	2.36	2.01	2.58	2.06	2.32
Subs Abuse	1.53	2.41	1.56	1.51	1.69	1.46	2.06	1.90	2.26	2.18	1.87
Risk	2.61	3.20	2.74	2.63	3.01	2.78	2.98	2.73	2.47	3.29	2.89
Living Skills	3.18	3.02	2.85	2.74	2.96	3.20	3.18	3.02	3.53	3.47	3.10
Role Func	3.17	3.31	2.59	2.86	3.15	3.15	2.82	2.92	3.58	3.53	3.06
PreVoc/Voc	1.55	3.16	2.77	2.95	3.40	2.30	2.69	2.06	1.84	2.29	2.56
Leisure	2.51	2.57	2.77	2.54	2.67	2.66	2.71	2.43	3.16	2.47	2.63
Soc Adj	3.12	3.30	3.38	3.32	3.09	3.20	3.36	3.04	3.53	3.59	3.27
Commun	2.78	2.79	3.10	2.74	2.72	2.85	2.66	2.14	2.95	2.24	2.73
Stability	2.89	3.14	3.33	3.02	2.91	3.09	3.30	2.96	3.11	3.41	3.13
Stress Tol	3.04	3.21	3.51	3.26	3.25	3.24	3.48	3.19	3.37	3.65	3.29
Cognition	2.89	3.04	2.69	2.65	2.80	2.79	2.82	2.48	3.42	1.47	2.80
Judgment	3.34	3.33	3.62	3.23	3.27	3.47	3.45	3.32	3.58	3.82	3.41
Family	2.46	2.35	3.33	3.21	3.08	2.70	2.87	2.07	3.16	2.59	2.68
Comm Res	3.17	3.41	3.03	3.02	2.79	3.41	3.62	3.34	3.79	3.35	3.38
Fin/Entitle	2.75	3.36	2.69	2.76	2.33	3.11	3.02	2.55	2.68	3.18	3.00
Housing	3.09	3.51	2.77	2.31	2.08	3.48	3.58	3.36	3.42	2.65	3.30
Legal	2.56	3.45	2.46	1.85	2.52	2.34	3.06	2.54	2.21	2.18	2.72
Overall	2.57	2.81	2.63	2.57	2.55	2.73	2.80	2.51	2.84	2.65	2.71

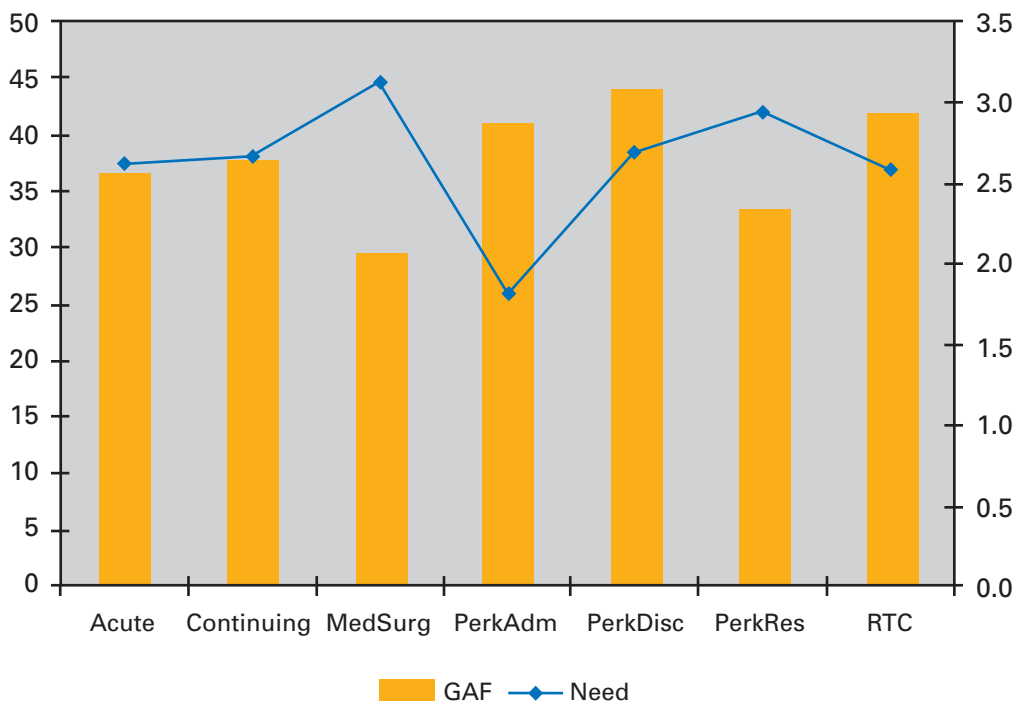
intensities were the Finan Center, Eastern Shore, and the RICAs. Such differences are strongly related to the mix of patient and unit types within each facility.

Patient needs and GAF Scores. In addition to need intensities, demographic and diagnostic characteristics were also collected on the patient sample. Global Assessment of Functioning (GAF) scores were collected as Axis V of the DSM IV diagnoses. GAF scores were not reported or reported incorrectly on 60 (7%) patient needs assessment forms. It must be noted that the percentage of missing GAF scores was much higher in certain unit types. GAF scores were missing from 11 of the 67 forms (16%) from Medical/Surgical units, 5 of 13 forms (38%) of the Perkins Admissions unit forms, and 18 of the 104 forms (15%) from Perkins residential units.

Given those caveats, Figure 2 displays the relationship of GAF scores to need intensities. Generally, there would be an expectation of an inverse relationship between GAF score and need intensity. That is, as the GAF score decreased, it would be expected that need intensities would increase. As shown in this display, the data do generally follow the expected pattern. While there is not a strong relationship between the two variables, the calculation of a correlation between these two items shows a significant inverse relationship between them.

Figure 2

**GAF Scores and Need Intensity by Unit Type
Mental Hygiene Administration Inpatient Facilities**



Patient Needs and Length of Stay.

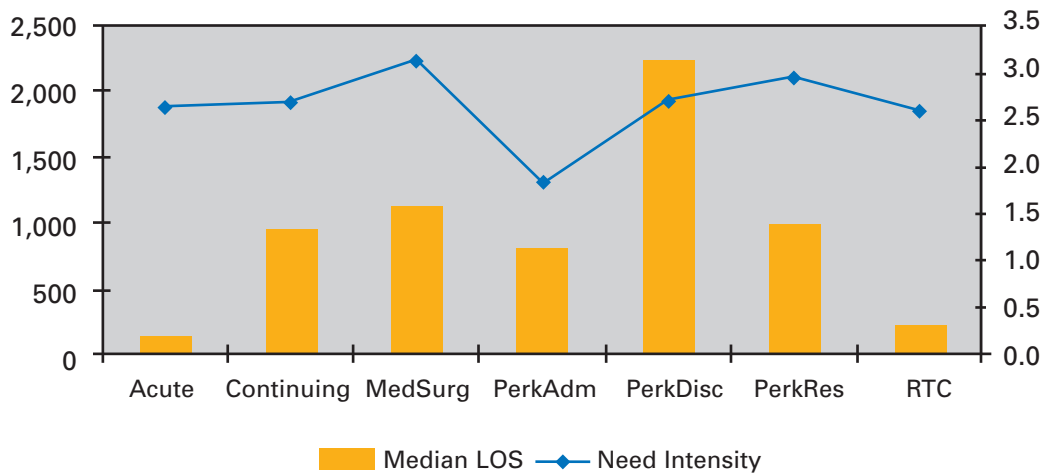
Another data element which was collected that is likely relevant to patient need intensities is date of admission. This item was correctly reported in all but two cases.

Figure 3 below details the relationship between median length of stay (LOS) in the facility and need intensity by unit type. The relationship between these variables would be expected to be complex.

Individuals admitted very recently would be expected to have high needs, as would individuals who have remained in the facilities for long periods without being discharged. Figure 3 details this relationship.

Figure 3

**Median LOS (days) and Need Intensity By Unit Type
Mental Hygiene Administration Inpatient Facilities**



Patient Needs and Legal Status. It is clear that the number of individuals who have court involvement has increased in both number and total percentage of population over the past ten years. To investigate the effect of this shift in patient population, the legal status of the individual was included with the demographic data collected on patient participants. The relationship between the individual's legal sta-

tus and the intensity of his/her needs is examined in Table 6. Of the patient participants surveyed, slightly fewer than half were in the facility as a result of court action. Highest mean need intensity was observed among those committed to the facilities. Lowest mean intensities were observed for those who were in the facilities voluntarily or who were receiving court ordered treatment.

Table 6

**Mean Need Intensity by Legal Status and Unit Type
Mental Hygiene Administration Inpatient Facilities**

	<u>Not Reported</u>	<u>Certificate</u>	<u>Court Ordered Evaluation</u>	<u>Court Ordered Treatment</u>	<u>Voluntary</u>	<u>Total</u>
Mean Need Intensity Scores by Legal Status and Unit Type						
Acute	2.73	2.84	2.66	2.60	2.59	2.65
Continuing	2.85	2.91	2.78	2.65	2.69	2.72
MedSurg		3.36	3.28	3.03	3.17	3.22
PerkAdm		1.65	2.15	1.85	1.60	1.84
PerkDis				2.73		2.73
PerkRes	2.94	3.65	3.05	2.87	3.02	2.95
RTC	2.66	3.31		2.77	2.57	2.64
Total	2.86	3.02	2.82	2.70	2.69	2.76
Number of cases						
Acute	2	38	43	58	65	206
Continuing	6	36	9	74	107	232
MedSurg	0	23	3	9	32	67
PerkAdm	0	1	1	10	1	13
PerkDisc	0	0	0	21	0	21
PerkRes	12	5	29	72	4	122
RTC	3	4	0	22	82	111
All Units	23	107	85	266	291	772

The results of the patient needs assessment support the conclusion that while the locus of patient needs may have shifted in the past ten years, there is no evidence for an overall increase in the intensity of the needs of patients since 1998. That result supports maintaining the current staffing standards using a collapsed definition of unit types outside of Clifton T. Perkins. The data that were collected at the outset of the study were combined with the data that were available from previous studies to determine available staff by unit type which is presented in Figure 4. The figure indicates that acute, continuing and Perkins units achieved increased staffing ratios between 1986 and 1998 while medical surgical unit ratios decreased slightly. Between 1998 and 2007, however, there was very little change except at Perkins. The ratio of direct care staff to patients in units at Clifton T. Perkins decreased dramatically between 1998 and 2007, regressing close to the 1986 ratio which was nearly one direct care staff FTE per bed.

Staffing Standards and Current Staffing. This analysis of course raises the question as to how current facility staffing compares with staffing standards. These data are

analyzed in Figure 5 which compares currently available direct care staff to recommended staff in 2007.

Figure 4

Staff Levels (FTEs) per 25 Bed Unit by Type

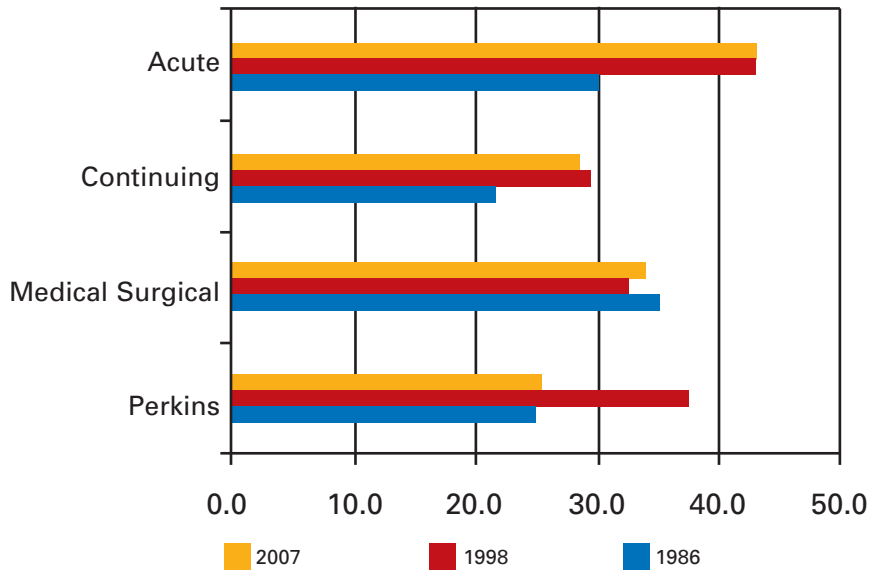


Figure 5

Available and Recommended Staff

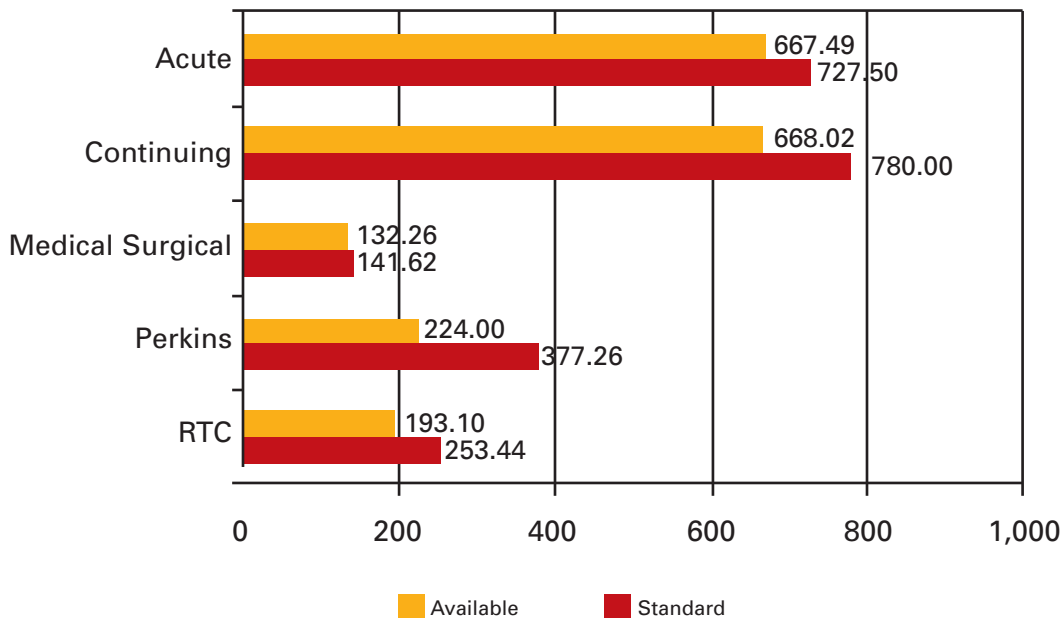


Table 7 below displays a summary of differences between the current staffing levels and the levels recommended by the standards for each unit type; Perkins have been combined into a single category. This

shows a need for nearly 396 additional positions in the facilities required to meet the standards. This is a shortfall of over 20%. This information is detailed by facility and individual unit in Table 8.

Table 7

Unit Type	Beds	Recommended	Available	Shortfall	Percent
Acute	387	727.56	667.49	-60.07	-9.00%
Continuing	587	780.58	668.02	-112.56	-16.85%
Med Surg	97	141.62	132.26	-9.36	-7.08%
Perkins	218	377.26	224.00	-153.26	-68.42%
RTC	144	253.44	193.10	-60.34	-31.25%
Total	1,433	2,280.46	1,884.87	-395.59	-20.99%

Further compounding the current analysis is a lack of information about current vacancy levels. The data that have been presented on available staff actually indicate currently available positions, whether the positions are filled or vacant. Given

the qualitative input from the leadership groups, recruitment and retention are significant issues in all areas of direct care. In the absence of concrete vacancy data, one must assume that the 20% shortfall understates the current staffing shortfall.

Table 8

<u>Facility</u>	<u>Unit Name</u>	<u>Unit Type</u>	<u>Staff</u>	<u>Beds</u>	<u>Standard</u>	<u>Variation</u>
Finan	Cottage 1	Acute	29.00	22	41.36	-12.36
Finan	Cottage 2	Acute	28.50	22	41.36	-12.86
Springfield	Salomon A	Acute	43.59	21	39.48	4.11
Springfield	Salomon B	Acute	36.36	21	39.48	-3.12
Springfield	Salomon C	Acute	37.03	21	39.48	-2.45
Springfield	Salomon D	Acute	36.04	24	45.12	-9.08
Walter P Carter	7E	Acute	44.00	17	31.96	12.04
Walter P Carter	6E	Acute	44.00	17	31.96	12.04
Eastern Shore	Nanticoke	Acute	37.00	20	37.60	-0.60
Finan	Cottage 6	Acute	30.50	13	24.44	6.06
Spring Grove	Dayhoff D	Acute	33.50	23	43.24	-9.74
Spring Grove	White B	Acute	34.50	22	41.36	-6.86
Spring Grove	White D	Acute	34.00	22	41.36	-7.36
Spring Grove	Dayhoff A	Acute	35.50	23	43.24	-7.74
Spring Grove	Dayhoff C	Acute	33.50	23	43.24	-9.74
Spring Grove	Dayhoff B	Acute	39.00	18	33.84	5.16
Springfield	Muncie	Acute	26.72	20	37.60	-10.88
Upper Shore	Brown	Acute	28.50	19	35.72	-7.22
Upper Shore	Red	Acute	36.25	19	35.72	0.53
Acute			667.49	387	727.56	-60.07

continued

Table 8 continued

Facility	Unit Name	Unit Type	Staff	Beds	Standard	Variation
Eastern Shore	Wicomico	Continuing	25.00	20	26.80	-1.80
Eastern Shore	Choptank	Continuing	30.00	20	26.80	3.20
Finan	Cottage C	Continuing	31.50	23	30.82	0.68
Spring Grove	Home Run	Continuing	15.50	25	32.00	-16.50
Spring Grove	Bridge Unit	Continuing	16.50	25	32.00	-15.50
Spring Grove	Red Brick 1	Continuing	34.50	34	45.56	-11.06
Spring Grove	Red Brick 2	Continuing	35.50	34	45.56	-10.06
Spring Grove	Red Brick 3	Continuing	35.00	34	45.56	-10.56
Spring Grove	Red Brick 4	Continuing	32.50	34	45.56	-13.06
Spring Grove	Noyes	Continuing	31.50	30	40.20	-8.70
Spring Grove	Tawes A	Continuing	29.50	24	32.16	-2.66
Spring Grove	Tawes B	Continuing	28.50	24	32.16	-3.66
Springfield	STARR	Continuing	20.90	25	32.00	-11.10
Springfield	Gateway	Continuing	13.82	25	32.00	-18.18
Springfield	Hitchman A	Continuing	28.90	25	33.50	-4.61
Springfield	Hitchman C	Continuing	32.75	25	33.50	-0.75
Springfield	Hitchman D	Continuing	29.55	24	32.16	-2.61
Springfield	McKeldin A	Continuing	34.56	21	28.14	6.42
Springfield	McKeldin B	Continuing	33.01	21	28.14	4.87
Springfield	McKeldin C	Continuing	25.04	22	29.48	-4.44
Springfield	McKeldin D	Continuing	31.86	22	29.48	2.38
Springfield	C-3	Continuing	38.33	25	33.50	4.83
Springfield	C-4	Continuing	33.79	25	33.50	0.29
Continuing			668.02	587	780.58	-112.57
Eastern Shore	Manokin	Med Surg	26.00	20	29.20	-3.20
Spring Grove	White C	Med Surg	32.50	22	32.12	0.38
Spring Grove	Smith	Med Surg	42.00	31	45.26	-3.26
Springfield	Hitchman B	Med Surg	31.76	24	35.04	-3.28
Medical Surgical			132.26	97	141.62	-9.36

continued

Table 8 continued

Facility	Unit Name	Unit Type	Staff	Beds	Standard	Variation
Clifton T. Perkins	2 West	Perkins Adm	24.00	29	49.88	-25.88
Clifton T. Perkins	1 West	Perkins Adm	33.00	16	27.52	5.48
Perkins Admission			57.00	45	77.40	-20.40
Clifton T. Perkins	1 East	Perkins Res	28.00	28	49.28	-21.28
Clifton T. Perkins	2 East	Perkins Res	27.00	28	49.28	-22.28
Clifton T. Perkins	1 South	Perkins Res	32.00	26	45.76	-13.76
Clifton T. Perkins	2 South	Perkins Res	30.00	28	49.28	-19.28
Clifton T. Perkins	1 North	Perkins Res	19.00	21	36.96	-17.96
Clifton T. Perkins	4 North	Perkins Res	15.00	21	36.96	-21.96
Perkins Residential			151.00	152	267.52	-116.52
Perkins PreDisch	2 North	Perkins PreDis	16.00	21	32.34	-16.34
RICA Baltimore		RTC	64.50	44	77.44	-12.94
RICA John Gildner		RTC	96.60	71	124.96	-28.36
RICA Southern		RTC	32.00	29	51.04	-19.04
RTC			193.10	144	253.44	-60.34
Total			1,884.87	1,433	2,280.46	-395.60

Meeting Standards by Reductions in Census. Given the current environment, the likelihood of obtaining nearly 400 new positions to bring hospital staffing up to standards does not appear likely. Another method to improve current staffing ratios is to reduce current hospital populations. To that end, Table 9 examines, by facility and unit type, current number of beds, current staff, number of beds supported by the current staff, and the reduction in beds that would be required to move current staffing ratios to the standards. The analysis is performed separately for Clifton T. Perkins.

As expected, Clifton T. Perkins would have would require the largest census reduction in

order to reach staffing standards. The facility would have to decrease by 89 beds, or by about 40%. Spring Grove would require a reduction of 87 beds, a reduction of nearly 20% of its current capacity. Springfield's required reduction would be 27 beds, nearly 7% of its current capacity. Upper Shore and the Finan Center would each have to reduce by 10%, and the RICAs would have to reduce by about one third. As a result of a recent unit closure, Walter P. Carter Center is currently operating above standards; current staff could support an additional 13 beds, not a full unit for that facility.

With respect to unit types, Perkins units would require the greatest reduction, 89

beds or 40% of current capacity at Perkins in order to meet staffing standards. Acute units would have to be downsized by 31 beds, or 8%, in order to meet standards. Seventy-seven beds, or 13% of current capacity, would have to be reduced in order to achieve staffing at the level of the standards in Continuing Care units. Medical

Surgical units are only slightly understaffed and would require a reduction of 6 beds (6% of capacity) to meet standards. Residential Treatment Centers for Children and Adolescents would have to be reduced by 45 beds, or 31% of existing capacity, in order for current staff to meet standards.

Table 9

Beds Supported by Current Staff at Standards

Beds	Acute	Continuing	Med Surg	RTC	Total
Eastern Shore	20	40	20		80
Finan	57	23			80
Spring Grove	131	264	53		448
Springfield	107	260	24		391
Upper Shore	38				38
Carter Center	34				34
RICA-Baltimore				44	44
RICA-Gildner				71	71
RICA-Southern				29	29
Total	387	587	97	144	1,215
Available Staff					
Eastern Shore	37.00	55.00	26.00		118
Finan	88.00	31.50			120
Spring Grove	210.00	259.00	74.50		544
Springfield	179.74	322.52	31.76		534
Upper Shore	64.75				65
Carter Center	88.00				88
RICA-Baltimore				64.50	65
RICA-Gildner				76.60	77
RICA-Southern				32.00	32
Total	667.49	668.02	132.26		1,468

continued

Table 9 continued**Beds Supported by Current Staff at Standards**

<u>Beds</u>	<u>Acute</u>	<u>Continuing</u>	<u>Med Surg</u>	<u>RTC</u>	<u>Total</u>
Beds Supported by Staff					
Eastern Shore	20	42	18		80
Finan	47	24			71
Spring Grove	112	198	51		361
Springfield	96	246	22		364
Upper Shore	34				34
Carter Center	47				47
RICA-Baltimore				37	37
RICA-Gildner				44	44
RICA-Southern				18	18
Total	356	510	91	99	1,056

Required Bed Reduction to Meet Staffing Standards

Eastern Shore	0	-2	2	0	0
Finan	10	-1			9
Spring Grove	19	66	2		87
Springfield	11	14	2		27
Upper Shore	4				4
Carter Center	-13				-13
RICA-Baltimore				7	7
RICA-Gildner				27	27
RICA-Southern				11	11
Total	31	77	6	45	159

continued

Table 9 continued

Beds Supported by Current Staff at Standards

Clifton T. Perkins Analysis

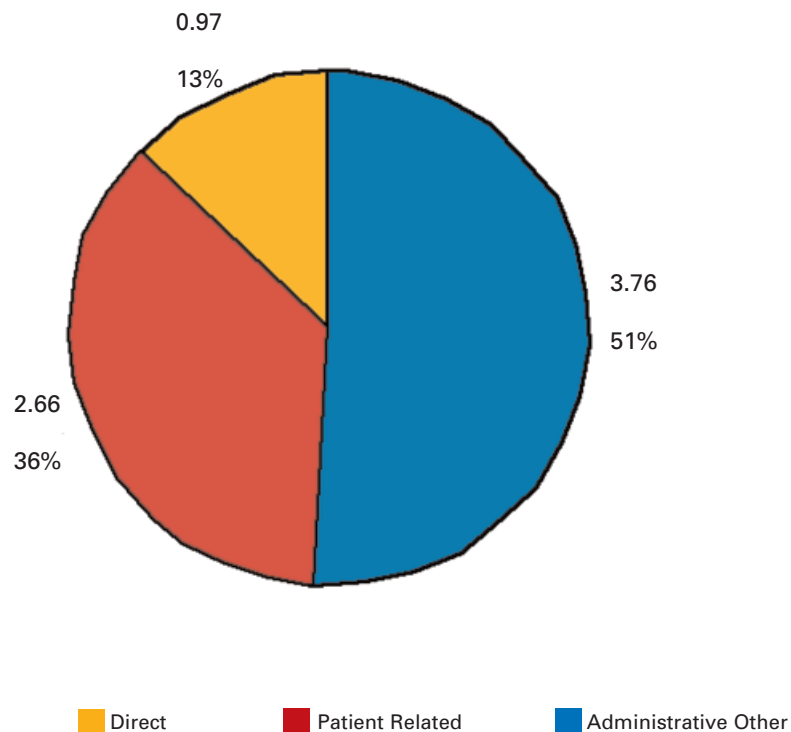
	<u>Current Beds</u>	<u>Current Staff</u>	<u>Beds Supported</u>	<u>Required Reduction</u>
Admission	45	57	33	12
Residential	152	151	86	66
Discharge	21	16	10	11
Total	218	224	129	89

Staff Time Available for Patient Care. The final area of analysis was the amount of time spent by staff in three types of activity: direct patient care, patient related activi-

ties, and other and administrative activities. The results for all staff are presented in Figure 6.

Figure 6

Activity Hours per 8 Hour Day

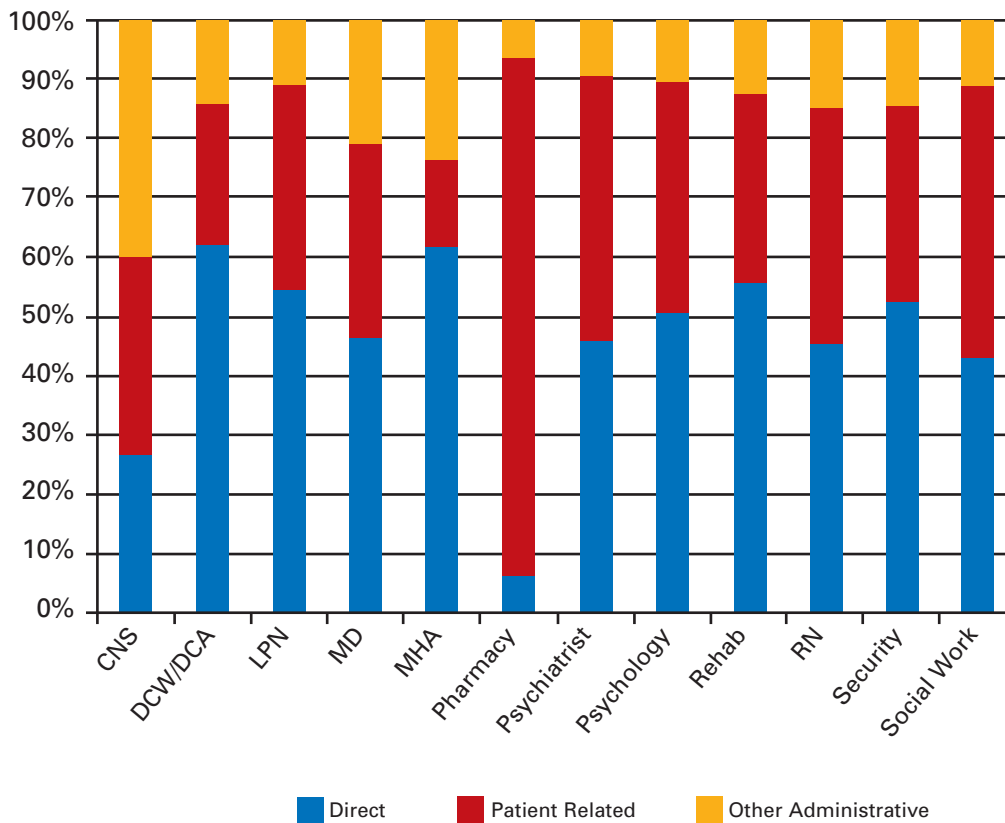


As indicated, the average non-supervisory employee or contractor involved in direct patient care generally spends about three hours and forty-five minutes, or about 51% of the time reported, in direct patient care activities. Another two hours and forty minutes, or 36% of the day, is spent in patient related activities. The remaining hour or so, 13% of the day, is spent in administrative and other activities. This means that, on average, nearly seven hours a day are spent in patient care; only one hour is spent in administrative tasks. Unfortunately, no historical data exist with which to compare this.

Finally, Figure 7 examines distribution for each discipline. Those spending most time in administrative and other activities are clinical nurse specialists who primarily provide clinical supervision to staff and somatic physicians who generally deal with physical care. Mental health associates, who generally work with children and adolescents in the RICAs, also spend more time than most other groups in non-patient related activity. Generally, others involved in patient care spend nearly 4 hours a day working directly with patients and another 3 hours a day in activities on behalf of the patients.

Figure 7

Percent of Time Spent By Activity and Discipline



Conclusions

The following is a summary of the conclusions drawn from the staffing study process:

- The over all level of patient need in the MHA facilities has remained stable since 1998.
- The emphasis of patient needs has shifted reflecting relatively lower needs in the functioning category and relatively higher needs in the resources category. Psychosocial needs have remained relatively the same.
- The total number of clinical staff at Clifton T. Perkins Hospital Center has decreased markedly in the last ten years, declining almost to the level of twenty years ago.
- Although staff perceive that they are spending a disproportionate amount of time on non patient-related activities, that was not supported by the time distribution reported by a small sample of staff.
- In general staff allocations do not meet the levels recommended in the existing staffing standards. The actual deficit is undoubtedly larger than was determined by comparing standards to FTE positions because vacancies were not factored in.

Recommendations

The study team makes the following recommendations related to staffing in MHA facilities:

- Trends in staffing levels need to be monitored routinely and frequently at each facility with reports provided at the monthly CEO meetings.
- Facilities should be discouraged from reclassifying clinical positions to support or administrative classifications.
- Consideration should be given to modifying the staffing standard to incorporate one additional social worker and one additional rehabilitation services worker in units that show increased patient needs for services related to community reintegration.
- MHA should initiate a process with the Personnel Services Administration (PSA) to conduct a routine annual comparison of State salaries for clinical staff to comparable private sector and federal government salaries.
- MHA discipline chiefs and CEOs should communicate regularly with the PSA regarding strategies for recruitment and retention of staff.
- Staff should be encouraged and enabled to pursue continuing education whether within or outside of the workplace, with particular emphasis on evidence-based practices, cultural competence and services for special sub-populations of patients.
- Consideration should be given to more extensive use of paraprofessional staff within some disciplines. Social workers and licensed rehabilitation professionals could use their skills more effectively and be more actively involved in treatment if provided with paraprofessional workers who could perform less skilled tasks. Use of psychiatric nurse practitioners and physicians assistants could ease some of the pressure caused by difficulties with physician recruitment.

- Increasing the numbers of consumer support specialists in the system would bring into the system a new source of staff and assist with difficulties related to recruitment of traditional staff.

There are factors that affect inpatient and residential staffing that are beyond the scope of this study which was to set standards for adequate numbers of clinical staff needed to provide active treatment to the current population being served by the Mental Hygiene Administration. Some of these issues were raised in the interviews with the leaders of the clinical disciplines. Issues that deserve further study include:

- Factors affecting recruitment and retention of staff.
- Amount of time spent by clinical staff on activities that are not identified as active treatment.
- Analysis of the treatment modalities provided and the quality of the treatment received, including measurement of outcomes.
- Additional analysis of the specific challenges presented by patients who are involved with the legal system.

Unit Type Definitions

Acute Units are admission and evaluation units in which intensive intervention takes place to plan further treatment and discharge. The units included in this category were identified as Brief Stay Acute, Traditional Acute, Inpatient Adolescent, and Deaf unit types in the 1998 study.

Continuing Care Units are continuing care units in which nursing and rehabilitation services are provided to individuals who require inpatient care beyond the acute phase of their mental illness. The units included in this category were identified as Geriatric, Extended Care, and Domiciliary Care units in the 1998 study.

Medical/Surgical Units are hospital units designed to provide medical and nursing services for co-occurring acute and chronic physical illness in addition to hospital level mental health treatment. The designation of these units did not expand from the 1998 study.

Residential Adolescent Units provide long-term mental health care for children 17 years of age or under. Services which are emphasized in this setting include rehabilitation services, educational services, and services to families.

Perkins Admission Units are maximum security acute units at the Clifton T. Perkins Hospital Center. Individuals are admitted for pre-trial and post-trial evaluations and for treatment following a court adjudication of an individual as “Not Criminally Responsible”, or may be transferred from penal institutions or other state psychiatric hospitals.

Perkins Residential Units are both maximum and medium security units at Clifton T. Perkins Hospital Center treating and housing those members of the population

identified in Perkins Admission Units whose service needs are similar to individuals treated in Continuing Care non-Perkins units.

Perkins Discharge Units are minimum security units at Clifton T. Perkins Hospital Center treating and housing those members of the populations identified in Perkins Admission Units whose legal status and mental health needs allow for imminent planning for discharge.

Staffing Standards by Unit Type and Discipline

All standards are presented as Full-Time Equivalent (FTE) staff based on a 25 bed patient care unit.

<u>Unit Types</u>	<u>Discipline</u>	<u>Number of Staff</u>		
Acute Care	Nursing	35		
	Psychiatry	3		
	Psychology	2		
	Rehabilitation	4		
	Social Work	3		
	Total	47		
Continuing Care (Assisted Living)	Nursing	25		
	Psychiatry	1.5		
	Psychology	0.5		
	Rehabilitation	4		
	Social Work	1		
	Total	32		
Continuing Care	Nursing	25		
	Psychiatry	1.5		
	Psychology	1		
	Rehabilitation	4		
	Social Work	2		
	Total	33.5		
Medical/Surgical	Nursing	30		
	Psychiatry	1.5		
	Psychology	1		
	Rehabilitation	2.5		
	Social Work	1.5		
	Total	36.5		
Residential Adolescent	Nursing	35		
	Psychiatry	1		
	Psychology	2		
	Rehabilitation	4		
	Social Work	2		
	Total	44		
Perkins		Adm	Res	Pre-Disc
	Nursing	35	35	30
	Psychiatry	2.5	1	1
	Psychology	1	1	1
	Rehabilitation	2.5	5	4
	Social Work	2	2	2.5
Total	43	44	38.5	

List of Appendices

Appendix A: Instrument for Direct Care Staff Survey

Appendix B: CEO Data Collection Instrument

Appendix C: Listing of Wards by Facility and Type

Appendix D: Instrument for Patient Needs Assessment

Appendix E: Need Intensity Coding Instructions

Appendix A: Instrument for Direct Care Staff Survey

Staffing Study

Staff Time Distribution

Directions: Please think about your activities during a typical 8 hour workday. Enter below the amount of time that you spend on each item during a typical day.

Direct Patient Care (face to face): Hours: _____ Minutes: _____

Patient-Related Care (such as documentation, phone calls, errands, meetings, etc.) Hours: _____ Minutes: _____

Other activities (please list below) Hours: _____ Minutes: _____

During a typical workweek, on how many days are you assigned to a hospital unit other than your assigned area? _____

Discipline: Please check the category that best describes your job category.

- RN
- LPN
- DCW/DCA
- LCSW
- LGSW
- Rehabilitation Assistant/Associate
- OTR
- Licensed Recreational Therapist
- Licensed Expressive Therapist
- Psychologist
- Psychology Associate
- Psychiatrist
- Other Physician
- Other (please specify)

Appendix C: Listing of Wards by Facility and Type

<u>Facility</u>	<u>Unit Name</u>	<u>Staff</u>	<u>Beds</u>	
Finan	Cottage 1	29	22	Acute
Finan	Cottage 2	28.5	22	Acute
Springfield	Salomon A	43.59	21	Acute
Springfield	Salomon B	36.36	21	Acute
Springfield	Salomon C	37.03	21	Acute
Springfield	Salomon D	36.04	24	Acute
Walter P Carter	7E	44	17	Acute
Walter P Carter	6E	44	17	Acute
Eastern Shore	Nanticoke	37	20	Acute
Finan	Cottage 6	30.5	13	Acute
Spring Grove	Dayhoff D	33.5	23	Acute
Spring Grove	White B	34.5	22	Acute
Spring Grove	White D	34	22	Acute
Spring Grove	Dayhoff A	35.5	23	Acute
Spring Grove	Dayhoff C	33.5	23	Acute
Spring Grove	Dayhoff B	39	18	Acute
Springfield	Muncie	26.72	20	Acute
Upper Shore	Brown	28.5	19	Acute
Upper Shore	Red	36.25	19	Acute
Acute		667.49	387	
Eastern Shore	Wicomico	25	20	Continuing Care
Eastern Shore	Choptank	30	20	Continuing Care
Finan	Cottage C	31.5	23	Continuing Care
Spring Grove	Home Run House	15.5	25	Continuing Care
Spring Grove	Bridge Unit	16.5	25	Continuing Care
Spring Grove	Red Brick 1	34.5	34	Continuing Care
Spring Grove	Red Brick 2	35.5	34	Continuing Care

continued

<u>Facility</u>	<u>Unit Name</u>	<u>Staff</u>	<u>Beds</u>	
Spring Grove	Red Brick 3	35	34	Continuing Care
Spring Grove	Red Brick 4	32.5	34	Continuing Care
Spring Grove	Noyes	31.5	30	Continuing Care
Spring Grove	Tawes A	29.5	24	Continuing Care
Spring Grove	Tawes B	28.5	24	Continuing Care
Springfield	STARR (M&S)	20.9	25	Continuing Care
Springfield	Gateway (M&S)	13.824	25	Continuing Care
Springfield	Hitchman A	28.895	25	Continuing Care
Springfield	Hitchman C	32.75	25	Continuing Care
Springfield	Hitchman D	29.55	24	Continuing Care
Springfield	McKeldin A	34.56	21	Continuing Care
Springfield	McKeldin B	33.01	21	Continuing Care
Springfield	McKeldin C	25.04	22	Continuing Care
Springfield	McKeldin D	31.86	22	Continuing Care
Springfield	C-3	38.333	25	Continuing Care
Springfield	C-4	33.793	25	Continuing Care
Continuing		668.015	587	
Eastern Shore	Manokin	26	20	Med Surg
Spring Grove	White C	32.5	22	Med Surg
Spring Grove	Smith	42	31	Med Surg
Springfield	Hitchman B	31.76	24	Med Surg
Medical Surgical		132.26	97	
Clifton T. Perkins	2 West	24	29	Perkins Admission
Clifton T. Perkins	1 West	33	16	Perkins Admission
Perkins Admission		57	45	

continued

<u>Facility</u>	<u>Unit Name</u>	<u>Staff</u>	<u>Beds</u>	
Clifton T. Perkins	1 East	28	28	Perkins Residential
Clifton T. Perkins	2 East	27	28	Perkins Residential
Clifton T. Perkins	1 South	32	26	Perkins Residential
Clifton T. Perkins	2 South	30	28	Perkins Residential
Clifton T. Perkins	1 North	19	21	Perkins Residential
Clifton T. Perkins	4 North	15	21	Perkins Residential
<i>Perkins Residential</i>		151	152	
<i>Perkins Pre Discharge</i>	2 North	16	21	Perkins Pre Discharge
RICA Baltimore			44	RTC
RICA John Gildner			71	RTC
RICA Souther			29	RTC
<i>Residential Treatment Center</i>			144	

Appendix D: Instrument for Patient Needs Assessment

Treatment Team Patient Needs Assessment: Score Sheet

It is important that a multidisciplinary team complete the Patient Needs Assessment. Please record the number of staff in each category that participated in the Patient Needs Assessment:

Nursing: Licensed ____ Unlicensed ____ **Psychology:** PhD ____ MA ____
Psychiatry: ____ **Rehabilitation:** Licensed ____ Unlicensed ____
Social Work: LCSW ____ LGSW ____ Other: (specify) ____

I. Patient Demographics (Write in answer or check as indicated).

DO NOT make entries in CODE column except for item 10.

CODE

- | | |
|--|---------------------|
| 1. Institution/Facility: _____ | 1. _____ |
| 2. Ward/Unit: _____
(ward/unit name) | 2. _____ |
| 3. Patient gender: Male (1) ____ Female (2) ____ | 3. _____ |
| 4. Race/Ethnicity: (please check all that apply)
(1) Caucasian ____ (2) Black/African American ____
(3) American Indian or Alaskan Native ____ (4) Asian ____
(5) Native Hawaiian/Other Pacific Islander ____ | 4. _____ |
| 5. Is the patient of Hispanic/Latino origin: Yes (1) ____ No (2) ____ | 5. _____ |
| 6. Date of Birth: ____/____/____ | 6. _____ |
| 7. Commitment Status as of current date: (please check one)
(1) Voluntary ____ (2) Certificate ____
(3) Court Ordered Evaluation ____ (4) Court Ordered Treatment ____
(includes NCR/NGBRI) | 7. _____ |
| 8. Date of Admission to this facility: ____/____/____ | 8. _____ |
| 9. County of Jurisdiction: _____
(patient residence when admitted) | 9. _____ |
| 10. Most Recent Psychiatric Diagnoses:
(please enter DSM-IV-TR or ICD codes in right-hand column) | |
| | Axis I 11a. _____ |
| | Axis I 11b. _____ |
| | Axis II 11c. _____ |
| | Axis III 11d. _____ |
| | Axis III 11e. _____ |
| | Axis III 11f. _____ |
| | Axis III 11g. _____ |
| | Axis IV 11h. _____ |
| | Axis V 11i. _____ |

continued

II. Patient Characteristics (circle appropriate number to rate patient on Degree of Service Need)

	<i>(minimal)</i>			<i>(intensive)</i>		<u>Code</u>
A. Functioning						
11. Personal Hygiene	1	2	3	4	5	11. _____
12. Feeding	1	2	3	4	5	12. _____
13. Mobility	1	2	3	4	5	13. _____
14. Physical/Somatic Problems	1	2	3	4	5	14. _____
15. Substance Abuse Problem	1	2	3	4	5	15. _____
16. Risk	1	2	3	4	5	16. _____
17. Community Living Skills	1	2	3	4	5	17. _____
18. Role Functioning	1	2	3	4	5	18. _____
19. Pre-Vocational/Vocational Skills	1	2	3	4	5	19. _____
20. Leisure	1	2	3	4	5	20. _____
B. Psychosocial						
21. Social Adjustment	1	2	3	4	5	21. _____
22. Communication	1	2	3	4	5	22. _____
23. Stability	1	2	3	4	5	23. _____
24. Stress Tolerance	1	2	3	4	5	24. _____
25. Cognition	1	2	3	4	5	25. _____
26. Judgment	1	2	3	4	5	26. _____
C. Resources						
27. Family	1	2	3	4	5	27. _____
28. Community Resources	1	2	3	4	5	28. _____
29. Financial/Entitlements	1	2	3	4	5	29. _____
30. Housing	1	2	3	4	5	30. _____
31. Legal	1	2	3	4	5	31. _____

Using the above codes, list the five highest priority needs as of today. 1. _____

2. _____

List only the codes (11-31 above) in the CODE column. 3. _____

4. _____

Appendix E: Need Intensity Coding Instructions

State of Maryland Mental Hygiene Administration

Patient Service Needs Assessment February 2007

Scoring Instructions

I. Patient Demographics – Items 1-10.
Refer directly to score sheet and complete as indicated.

II. Patient Characteristics – Items 11 - 31. Read the definitions and scoring guidelines of each characteristic or need element. Rate the patient by circling the appropriate number on the Score Sheet.

The intention of the current survey is to determine patient need by estimating the amount of staff time that is required to meet the needs of each patient in each of the areas indicated below. Needs including monitoring and interventions and are expressed in levels ranging from 1 to 4. Scoring begins with level 1, an area in which the patient requires an absolute minimum of monitoring and intervention. This may result from the patient being independent in this area or from the patient's stage of illness precluding the patient's ability to need monitoring or to accept interventions in a given area. Level 4 represents the greatest need for monitoring and intervention. This level again may be appropriate for patients at both end of the acuity continuum. Some patient's stage of illness may be such that they require very intensive and extensive interventions in an area. Other patients who are very high functioning preparing for discharge may require intensive and extensive interventions in preparation for community life. If the patient's level of need falls between

these two extremes, then a judgment must be made as to whether that need is closer to level 1, in which case a level 2 is assigned, or closer to level 4, in which case a level 3 is assigned.

Some of the factors which should be considered assigning the need score are the intensity of the monitoring or intervention, its complexity, the frequency with which it must be performed, and the length of time which it takes. It should also be noted that this is a point in time survey which should reflect the current level of patient need, the patient's need right now; it should not anticipate the needs as the patient going forward. Differences in acuity will be reflected by the nature of the sample of patients being selected, and the breadth of current need across the patient sample will be generalized to account for all needs throughout their hospital stays.

Definitions of the need areas are detailed below along with and some more specific instructions regarding assessing the needs level on the functioning domain.

A: Functioning

11) Personal Hygiene: The degree of service required by a patient in areas of personal cleanliness and grooming.

12) Feeding: The degree of service needed by a patient to eat appropriately and adequately. *continued*

13) Mobility: Patient's ability to move from place to place.

14) Physical Problems: The degree of service needed by the patient related to physical problems.

15) Substance Abuse: The degree of service needed in terms of service provision related to substance abuse.

16) Risk: Potential for danger to self or others (suicide, homicide, intimidation of others, combativeness, arson, rape, elopement, psychotic unpredictable behavior, etc.).

17) Community Living Skills: Planning, organizing and executing daily life activities, including budgeting, time management, transportation, nutritional planning and use of community resources.

18) Role Functioning: The degree of service needed by a patient to understand and respond to organizational/ community/cultural demands as both recipient and contributor.

19) Vocational Skills/Prevocational: The degree of need for services to participate in socially purposeful and productive activities in the home, employment setting or school.

20) Leisure: The degree of services needed related to the use and planning of leisure time and social interaction.

B: Psychosocial

21) Social Adjustment: The degree of services needed by a patient to be socially acceptable to others and consistently maintain satisfying interpersonal relationships.

22) Communication: The degree of services needed by the patient related to the

ability to convey ideas, thoughts, feelings and needs.

23) Emotional/Behavioral Stability: The need for services related to a patient's consistency in behaviors.

24) Stress Tolerance: The degree of services needed by a patient related to capacity to cope with situational stress.

25) Cognition: The degree of services needed by a patient related to perception including orientation, thinking, learning.

26) Judgment: The degree of services needed by a patient related to decision-making and impulsivity.

C. Resources

27) Family: The degree of services required by a patient to establish and/or maintain appropriate interactions with family/significant others.

28) Community Resources: The degree of services required by a patient related to accessing, negotiating, obtaining and using community resources.

29) Financial Resources: The degree of services required by a patient related to applying for and obtaining financial support services (including entitlements) and utilization of those services; money management and budgeting.

30) Housing: The degree of services required by a patient related to locating and securing an appropriate place to live.

31) Legal: The degree of services required by a patient related to involvement with the legal system (guardianship, custody, immigration, detainers, civil law issues such as competency, forensic issues).

Specific Instructions for Functioning Items

12) Personal Hygiene Degree of service required by a patient in areas of personal cleanliness and grooming	Independent	Some assistance; verbal cues	Moderate assistance; some physical assistance; constant reminders; redirection; demonstration	Totally dependent; staff must perform care
13) Feeding Degree of service needed by a patient to eat appropriately/adequately	Independent, including understanding recommended diet	Verbal cues; reminders	Constant reminders and monitoring; some assistance	Totally dependent; staff must feed
14) Mobility Patient's ability to move from place to place	Independent with or without appropriate assistive devices	Requires reminders about safety and environmental hazards	Needs protection from falls; some physical assistance	No independent mobility
15) Physical Problems Degree of service needed by the patient related to physical problems	Adherent with recommended health services; no additional services needed	Requires encouragement and reminders	Often refuses treatment; multidisciplinary physical needs; requires scheduled physical interventions	Intensive needs; complex treatments; multiple physical disorders
16) Substance Abuse Degree of service needed in terms of service provision related to substance abuse	No known history of substance abuse	History of substance abuse; not currently actively involved; attends addictions programs	History of substance abuse; refuses interventions	Detoxification; withdrawal
17) Risk Potential for danger to self or others (suicide, homicide, intimidation of others, combativeness, arson, rape, elopement, psychotic unpredictable behavior, etc.)	No history of risk related behavior; no current threats	Occasional preventive intervention needed; may need de-escalation	Regularly scheduled monitoring; frequent checks; day hall or unit restriction	Active threat; requires constant intervention
18) Community Living Skills Planning organizing and executing daily life activities, including budgeting, time management, transportation, nutritional planning and use of community resources	Requires no community living skills intervention due to acuity of illness Or Performs independent activities of daily living (IADL)	Needs verbal cues and reminders	Requires treatment intervention in IADL; living skills classes in groups	Direct supervision in living skills; 1:1 intervention
19) Role Functioning Degree of service needed by a patient to understand and respond to organizational/ community role expectations as both recipient and contributor	Complies with scheduled activities	Participates in planned treatment and interventions related to roles	Seldom participates in role-related treatment and interventions Or Reconnects with community and family	Community reintegration; needs assistance to readjust to role expectations, e.g., reality testing

continued

Specific Instructions for Functioning Items

<p>20) Vocational Skills/ Prevocational Need for services to participate in socially purposeful and productive activities in the home, employment setting or school</p>	<p>No intervention required because of lack of readiness for employment</p> <p>Or</p> <p>Has job waiting; good work/school history</p>	<p>Needs vocational or prevocational training; can tolerate limited group activities</p>	<p>Daily prevocational or school programming</p>	<p>Preparation for specific job or educational setting</p>
<p>21) Leisure Degree of services needed related to the use of leisure time, planning and social interaction</p>	<p>Initiates, plans and participates in leisure activities</p>	<p>Participates in leisure activities with encouragement</p>	<p>Participates in structured leisure activities with constant monitoring and encouragement</p>	<p>Refuses leisure intervention; does not engage. 1:1 leisure activity (including escorting to community activities)</p>

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