Mental Health Assessment and Service Agency (MHASA)
Hospital Utilization Monitoring Project Report

Colorado Department of Human Services
Children's Collaboration
February 2004

Executive Summary

Adolescent inpatient bed utilization at the Colorado Mental Health Institute at Pueblo and the Colorado Mental Health Institute at Fort Logan has decreased substantially in the past eight years. Average bed utilization at both institutes from 1984 to 1994 was 91.14% of existing capacity. The average bed utilization of both institutes for FY's 1995-2003 was 75.11%, in spite of significant reduction in bed availability over those eight years[1].

Since the Divisions of Youth Corrections and Child Welfare have a significant percentage of their populations in need of enhanced mental health services, including acute inpatient psychiatric care, this reduction in bed utilization and total numbers of beds was alarming. Under the sponsorship of the Colorado Department of Human Services, Children's Collaboration, this study was undertaken to identify, define and address issues related to availability of acute inpatient psychiatric beds.

The Mental Health Assessment and Service Agencies (MHASAs), in their responses to the Request For Proposals (RFP# IHA NC 003045 CMHI) for mental health services in the State of Colorado, provided criteria by which consumers would be considered in need of psychiatric hospitalization. Appropriate and clinically relevant utilization of those criteria during emergency evaluations became a question eligible for further inquiry.

The following MHASAs/Community Mental Health Centers (CMHCs) were surveyed:

- Jefferson Center for Mental Health
- Access Behavioral Care (MHCD, Denver Health, and The Children's Hospital)
- Northeast Behavioral Health (Centennial MHC);
- SyCare Options CO Health Networks (Southeast MHC); and
- West Slope Options CO Health Networks (Colorado West MHC).

The Colorado Department of Human Services is highly appreciative of the cooperation provided in the course of this study.

File reviews and interviews were completed over three months, with 53 files reviewed by nine different staff. Twenty-nine evaluators and 4 families were interviewed. The vast

[1] The total percentage of Child and Adolescent bed reduction from 1994 to 2003 was 74.23%.

majority of the Evaluators that were contacted during this project were highly motivated and involved with the children they served, and committed to considering what was in the child's best interest and wanting to ensure the child's safety. They are an enormous asset to their agencies and communities.

The following is a demographic breakdown of the youth whose services were reviewed:

- Males = 64%
- Females = 36%
- Caucasian = 33.2%
- Hispanic= 23%
- African American= 3.4%
- Native American= 8.2%
- Other or unknown = 30%

The following summarizes key study results:

- 64.6% indicated utilization of MHASA hospitalization criteria, as determined by chart review; most of the problem was with sparse documentation.
- 80.5% utilization of MHASA hospitalization criteria, as determined by evaluator interview.
- Training was generally reported as sparse.
- Supervision or consultation was sparse (50% of cases).
- Evaluator qualifications were sometimes open to interpretation.
- Availability of community alternatives, distance from Mental Health Institutes and other hospitals, and individual needs of children influenced decisions on use of hospitalization.
- The vast majority of emergency evaluators contacted were highly motivated and committed to the children they served.

Recommendations

MHASAs

1. Review the requirements and procedures for documentation of emergency evaluations and consider using a uniform, written protocol to assist the emergency clinicians in their assessment process and related documentation.
2. Develop minimum academic and post-graduate qualifications for emergency service evaluators.
3. Establish training curriculum specific to emergency services for children and adolescents, in conjunction with other relevant community agencies.
4. Review the specific criteria for hospitalization with each emergency clinician prior to their start of direct service.
5. Involve the family in the evaluation process where possible.
6. Obtain and document consultation with another professional in the evaluation process.

Mental Health Institutes

7. Establish a forum to facilitate direct and ongoing communication with MHASAs and CMHCs regarding conflict resolution and regular evaluation of consumer and customer needs.
8. Develop initiatives to increase consumer and customer awareness of the Institutes as providers of expert care. Such initiatives might include sponsored workshops, symposiums, or trainings, or loaning staff experts in various areas for consultation, board or panel membership, or training.

Children's Collaboration Group

9. Dialogue with all youth care providers in the state to promote increased understanding of the trends in and barriers to Institute bed utilization, and the role of hospitalization in systems of care.
10. Research the issue of Institute and other hospital utilization from a demographic, epidemiological, and outcomes perspective to investigate possible age, population, service use, and effectiveness issues.
11. Explore alternative methods of quality measurement for children's mental health services. Possible options include the CDHS "Monitoring without Boundaries" approach, which uses an integrated and interagency approach to monitor 24-hour facilities; approaches such as those in Utah and Delaware which utilize family members as part of the review team assessing care under the mental health managed care systems (Armstrong, 2003); and the tracer methodology developed by the Joint Commission on the Accreditation of Healthcare Organizations, which focuses on specific clients, using their clinical record as a roadmap to assess the quality of care provided by an organization.
12. Promote interagency training on emergency services and related aspects of systems of care for children and families, to include MHASAs, CMHCs, and county departments.

Project Purpose and Overview

Crisis and emergency services serve an essential function within systems of care . Stroul and Friedman (1986) define such services as

> an important set of services that serve both youngsters who are basically well-functioning but experience periodic crises, and youngsters with longer-term, more serious problems who are prone to acute episodes at which time they require special services. (p. 51)

The goal of crisis and emergency services is to assist the child and family in resolving the crisis situation and avoiding hospitalization (Kutash & Rivera, 1996). However, hospitals are a key treatment resource, particularly when integrated with an array of community-based services (Jacobson & Cervine, 2001). Over the past decade, the census of state hospitals across the country has shrunk considerably; despite this, the resulting impact on state-operated facilities for children has not been addressed in the mental health services literature (Nierman & Lyons, 2001).

Adolescent inpatient bed utilization at the Colorado Mental Health Institutes at Fort Logan and Pueblo has decreased substantially in the past eight years. Average bed utilization at both institutes for fiscal years 1984-1994 was 91.14% of existing capacity. The average bed utilization of both institutes for fiscal years 1995-2003 was 75.11%, in spite of significant reduction in bed availability over those eight years[2].

This is concerning from several perspectives, including the question of whether youth are receiving needed services, the impact on the the Institutes themselves, and the fact that the Divisions of Youth Corrections and Child Welfare have a significant percentage of their population in need of enhanced mental health services, including acute inpatient psychiatric care traditionally provided at the Institutes. The Colorado Department of Human Services, Children's Collaboration group, identified this issue as one in need of further scrutiny.

The Mental Health Assessment and Service Agencies (MHASAs), in their responses to the Request For Proposals (RFP# IHA NC 003045 CMHI) for Medicaid-funded mental health services in Colorado, provided criteria by which consumers would be considered in need of psychiatric hospitalization. Appropriate and clinically relevant utilization of those criteria during emergency evaluations became a question for further inquiry.

To that end, a work group was formed to explore the issue of utilization of hospitalization criteria during emergency psychiatric evaluations of Medicaid eligible children and adolescents. Staff with clinical experience from Mental Health Services, the Colorado Mental Health Institute at Fort Logan, the divisions of Child Welfare and Youth Corrections, Colorado Health Networks, and Jefferson Center for Mental Health reviewed files and interviewed emergency clinicians and consumer families.

[2] The total percentage of Child and Adolescent bed reduction from 1994 to 2003 was 74.23%.

This report provides overall information resulting from the study. Information specific to the MHASAs that participated in the study is being provided to them individually.

Methods

A primarily descriptive study was developed. A significant amount of effort was devoted to discussion of bias, validity, reliability and protocol of the inquiry. To minimize bias, and to enhance the reliability, several members of the team collaboratively developed three structured protocols to guide record reviews, and interviews of emergency service evaluators and families.

The project was designed to focus on the circumstances and context of emergency evaluations. Key clinical aspects of each evaluation, including mental status assessment, evidence of threat to self or others, mitigating or aggravating circumstances or contexts, elapsed time from the point of request to initiation of the evaluation, and outcome information, were captured through the chart review protocol.

In addition, structured interviews were conducted with the clinicians completing the emergency evaluations. The intent was to understand the thinking of the evaluator, including clinical judgment, other variables that may have influenced decisions, the degree to which the MHASA criteria entered into the decision to hospitalize or not, perspectives regarding systemic factors that may influence whether a child is ultimately hospitalized, and level and frequency of training regarding CRS 27-10 criteria and other hospitalization-related procedures. Anticipating that some evaluators had performed evaluations in more than one of the charts selected for review, the researchers attempted to focus on one evaluation specific to each clinician. Unfortunately, it was not possible to contact clinicians working for or contracted by mental health agencies in all of the settings reviewed. Confidentiality and research concerns were cited for two of the three sites. One agency consented to allow contact with the clinicians after the data gathering was completed. Subsequently, there is no data related to the clinician perspectives from those sites.

To augment the information available, an attempt was made to contact 25% of the families to assess their degree of satisfaction with the emergency evaluation process and outcome, role in the location of the hospitalization, and in the decision to hospitalize.

Sites Visited. Five sites were chosen to provide a sample of urban, surburban, and rural settings. Where employees of MHASAs or Community Mental Health Centers were included in the site review teams, care was taken to avoid having them review charts from their agencies.

Various combinations of team members visited seven sites and reviewed a total of 53 charts over four months. Those sites visited were: Centennial Mental Health Center, Sterling, Colorado (Northeast Behavioral Health); Southeast Mental Health Services, La Junta, Colorado (SyCare Options Colorado Health Networks); Colorado West Mental

Health Center, Grand Junction, Colorado (West Slope-Options Colorado Health Networks; Jefferson Center for Mental Health, Arvada, Colorado (Jefferson Center for Mental Health); Denver Health Medical Center, Denver, Colorado (Access Behavioral Care); Children's Hospital, Denver, Colorado (Access Behavioral Care) and Mental Health Corporation of Denver, Denver, Colorado (Access Behavioral Care). The Colorado Department of Human Services is highly appreciative of the cooperation provided in the course of this study.

Results

Demographic Variables. Demographic variables of youth whose clinical records were reviewed are captured in the following chart:

Gender

Male	64%
Female	36%

Ethnicity

Caucasian	33.2%
Hispanic	23%
African American	3.4%
Native American	8.2%
Other or unknown	30%

Client Status at Time of Evaluation

Open	45%
Not Open	42%
Could not be determined	13%

Chart Reviews. The most salient aspects of the results of the chart reviews are presented here in aggregate, statewide form. Each item below was rated in chart reviews as Satisfactory, Unsatisfactory or Not Applicable. The percentage of satisfactory ratings per item is presented below.

Item	**Overall Average of Satisfactory Ratings**	**Overall Range of Satisfactory Ratings**
Administered Thorough Mental Status Exam	50.60%	09-92%
Thoroughly Assessed Danger to Self	72.40%	36-100%
Thoroughly Assessed Danger to Others	40.60%	00-100%
Thoroughly Assessed Grave Disability	42.20%	09-100%
Provided DSM-IV Diagnosis	60.40%	00-92%
Sought Consultation	45%	13-75%
Documented Co-occurring Disorders/Disabilities	61.40%	27-100%
Documented Rationale for Decision	54.80%	36-83%
Rationale Reflects Use of Contractual Criteria	64.60%	36-100%
Documented Consideration of Family/Custodian Hospital Preference, if Any	5.40%	00-27%
Disposition Plan Addressed Referral Behaviors	62%	32-100%

Evaluator Interviews. Parallel items from the Evaluator interviews, along with other salient items, are presented here in aggregate, statewide form. Again, each item below was rated by the interviewers as Satisfactory, Unsatisfactory or Not Applicable. Percentage of Satisfactory ratings per item are presented below.

Item	**Overall Average of Satisfactory Ratings**	**Overall Range of Satisfactory Ratings**
Thoroughly Assessed Danger to Self	98.25%	93-100%
Thoroughly Assessed Danger to Others	77%	75-80%
Thoroughly Assessed Grave Disability	55.75%	00-80%
Family's Input Considered in Evaluation	75.25%	40-100%
Disposition Plan Addressed Referral Behaviors	83.50%	50-100%
Followed MHASA Admission Criteria	85.25%	75-100%
Assessment of Family/Custodian Opinion of Disposition when Pt. Not Hospitalized	81.25%	75-100%
Utilized Consultation During Evaluation Process	56.60%	21-80%
Followed MHASA Protocol For Hospital Selection	80.50%	67-100%
Note: These results are not based on self-report questions, but rather on ratings assigned by reviewers based on questions asked of the evaluators.		

Training Types and Frequency. The various types and relative frequency of training and supervision reported by evaluators are shown below.

Item	Totals for All Evaluators Interviewed N=28
Shadowed Others-On the Job Training	7
Supervision Back-up as needed (PRN)	8
Weekly Supervision	8
Weekly Meeting Consultation/Review of Cases/ Training	3
Monthly Meeting Consultation/Review of Cases/Training	4
Review CRS 27-10	5
Regular Training (e.g., 1/month- 1/year)	11
Written Materials for Reference	6
Rely on Degree, Licensure, or Previous Experience	6
Training when Hired	9
Enough Information Yes/No/Maybe	Yes-7 No-3 Maybe-1

- Note: It is interesting that within the same Community Mental Health Center Evaluators had very different experiences with training. It varied from CRS 27-10 review to weekly supervision, and was not consistent within the same Community Mental Health Center.

Systemic Factors Influencing Hospitalization - Cited by Evaluators. The systemic factors that influence hospitalization, cited by evaluators during the evaluator interviews, are presented below.

Item	Totals for All Evaluators Interviewed N=27
Disagreement between MHC & Hospital	7%
Environmental Factors in Home	30%
Disagreement with Emergency Room Doctor or Colleagues	7%
Substance Abuse	7%
Insurance Issues	18%
Fiscal Concerns	18%
Pressure from community (e.g., DSS, Schools, RTCs, GALs)	14%
System Conflict	7%
Lack of Beds at Hospital	4%
Needs of Child or Adolescent	11%

Notable Specific Feedback Regarding Systemic Factors Influencing Hospitalization - Cited by Evaluators

- "Always trying to avoid hospitalization and instead look at community options because of fiscal concerns."
- Hospital staff are more likely to hospitalize a child or adolescent if they have private insurance; in such instances the Community Mental Health Center is not involved.
- Sometimes there is pressure from hospital staff to hospitalize. The (private hospital) sometimes advocates for hospitalization even when the Community Mental Health Center is able to contract for safety.
- Problems with hospital having "staffing inadequacies" (specific hospital not identified).
- Often do not need to hospitalize because we work with the residential treatment center (RTC) staff to decrease behavioral problems
- The (private hospital) has often released a child or adolescent on a 72-hour hold within 2 or 3 hours of admission when individual is indigent.
- Lack of options on Western Slope.
- Eastern Slope is too far to transport child or adolescent.

- Concern about one specific school that had many suicides within the year. May have looked at those evaluations differently because of that school.
- Sheriff refuses to transport child or adolescent.
- Pueblo is too far to transport child or adolescent.
- The criteria for hospitalization changes, depending upon bed availability.

Family Interviews. An attempt was made to interview 25% of the families involved in this study. Having completed 53 chart reviews, roughly 13 families were selected for interviews. Of those 13, only 4 families were actually contacted and thus no representative information can be reliably aggregated from those interviews. Attempts were made to locate the families through telephone number information services and re-contacting the Community Mental Health Center to gather forwarding addresses or phone numbers. However, all nine of the families had apparently moved with no forwarding address and no additional contact with the Community Mental Health Center.

Best Practices. Although the study did not include a focus on best practices, per se, emergency evaluators were asked to comment on the use of hospital alternatives in the community, and hospital preferences when inpatient care was required. Both of these questions resulted in useful information about emergency and crisis services, and innovative efforts to provide an array of community-based options.

Hospital alternatives in the communities included the use of a sub-acute care in a residential treatment center (RTC); respite care, including use of family members or friends to provide such services; acute treatment units (ATU) run by a community mental health center or an RTC; a general hospital; respite or foster care if the county department was involved with the child; a small community-based residential program that is jointly supported by local agencies; shelter programs; and a specialized program that assists children making the transition to home or to foster care.

Preferences for hospitals included the use of a Mental Health Institute, unless a child needs medical care, in which case a general hospital is used; a community-based acute treatment unit due to its closeness; a community-based youth treatment center; and a private hospital because it is close, has a good reputation, and also has a drug and alcohol treatment component. There were also preferences expressed for use of hospitals that specialized in the care of children. In a few instances, concern was expressed about hospitalization in a Mental Health Institute due to the significant distance from the child's home community.

Although not specifically mentioned in the interviews with evaluators, other crisis and emergency service alternatives discussed in the literature include crisis teams; mobile outreach; intensive in-home services such as Multisystemic Therapy (MST); and brief hospitalization followed by continued outpatient care for up to one year (Kutash & Rivera, 1996; Jacobson & Irvine, 2001; Schoenwald & Rowland, 2002).

Discussion

Chart Review Findings. It should be stressed that the level and quality of documentation played a large and confounding role in this attempt to evaluate the use of contractual criteria for hospitalization. The question of compliance with MHASA criteria for hospitalization was frequently complicated by the absence of adequate documentation. As reflected in the differences between the Chart Review Results and Evaluator Interview Results tables above, evidence of adherence to contractual criteria in the chart reviews was considerably lower than evidence of such adherence when speaking directly to evaluating clinicians (64.60% vs. 85.25%, respectively).

Notable differences were found among the Community Mental Health Centers, or those entities contracted to provide emergency evaluations, regarding the quality of the documentation. If there was one single finding from this study that could be forwarded as a constructive criticism, it would be that the documentation of the emergency services provided was, in some cases, significantly limited.

In some cases the structure of the evaluation was pre-formatted and contained comprehensive prompts for necessary information. In those instances, the documentation was exceptional and the determination of utilization of criteria was very clear and uniformly positive. In the absence of documentation, adherence to criteria could not always be determined and in many cases had to be rated as unacceptable.

Emergency evaluations require substantial documentation. Lack of proper documentation could have disastrous consequences in the event of a self-inflicted fatality or homicide by a person who had just recently been evaluated on an emergency basis.

Evaluator Interview Findings. In a related finding, many evaluators did not document that they had sought or received any kind of consultation or supervision on the cases being reviewed. In those cases where hospitalization is possible but not essential, such documentation could prove to be invaluable. When a specific space was provided on the documentation form for a supervisor to sign off or review the case, that signature line was frequently blank.

Questions regarding training of the evaluators brought a wide variety of responses. Only one third of the evaluators reported receiving any training when they were hired, and 11 of 28 evaluators reported regular training, e.g., every month or once per year, provided by the Community Mental Health Center. Similarly diverse was the background, training and licensure status of the evaluators. Some agencies employ bachelor's level clinicians with minimal training in emergency evaluation. Some clinicians with Master's degrees had never seen a copy of the MHASA hospitalization criteria. Some had extensive and consistent training in emergency evaluation and the criteria used by the Community Mental Health Center/MHASA, while others had little training in their degree program or through in-service.

When evaluators were asked what additional factors influenced the decision to hospitalize, fiscal or insurance issues were second-most frequently mentioned. Various types of pressure from the community, e.g., Social/Human Services, schools, a residential

treatment center (RTC), or a guardian ad litem, also influenced the decision to hospitalize, but the evaluators did not cite them as frequently. The needs of the child or adolescent rated a fourth place factor in the decision making process. Compared to that factor which most frequently influenced the decision (Environmental Factors in the Home), it would appear that a systemic perspective of the problem was more influential than the individual in question. This is not necessarily a negative finding. If the family can adequately provide for the child in crisis, disruption of the family interaction is not necessary. Sometimes disruption of the family interaction and safety issues provides the persuasive variable to hospitalize.

Of note was whether the family's input was considered in the evaluation. Some Community Mental Health Centers captured that information in documentation, and others did not. The evaluator interview results suggest that the evaluators consider the input of the family far more frequently than is documented. Moreover, when the decision was to not hospitalize, the opinion or need of the family was considered much more frequently. Perhaps, once the issue to not hospitalize is decided, the family's role in providing care is more salient to the evaluator.

It is interesting that while the capacity of the family or the environmental factors in the home contribute significantly to the decision of hospitalization, the expressed opinion of the family is not as heavily considered until the decision to not hospitalize has been made. The clinical utility of this approach is unclear. At least one member of the reviewing team, who is a seasoned clinician, was very much concerned about the lack of family input into the decision to hospitalize or not.

The vast majority of the Evaluators that were contacted during this project were highly motivated and involved with the children they served. During the course of discussing their evaluations they repeatedly made reference to considering what was in the child's best interest and to wanting to ensure the child's safety. They are an enormous asset to the Community Mental Health Centers where they work and the communities that they serve.

Overall Findings. In answer to the primary question of whether the MHASAs are using the criteria set forth in their responses to Medicaid Mental Health Capitation request for proposals, the answer would have to be that, based on the documentation available, the criteria is not being applied uniformly. From the chart review, 64.6% of the charts reflected a satisfactory result in this category. However, the range for the MHASAs was from 36% to 100%. The variability in education, training and exposure to the MHASA criteria reported by evaluators would also tend to support the hypothesis that this finding is not solely due to scant documentation. In some cases, adherence to the RFP criteria was clearly positive and uniform. The finding of adherence to contractual criteria improved when evaluators were interviewed, rather than relying on the documentation. However, the adherence rate increased to only 85% with a range of 75% to 100%.

Hospital alternatives in the community and distance from the hospital(s) may be driving a significant number of decisions whether or not to hospitalize. The context for

consideration is likely skewed by these factors in advance of any clinical information. When transportation is an issue and optional community resources are marginally adequate but available, the decision may be be tipped in the direction of community resources. Interviews of evaluators indicated some use of innovative community-based alternatives to hospitalization. Further, evaluators discussed hospital preferences based on the individual needs of children, including concerns about the distance of the hospital from the community. This area requires further examination to better understand the availability, effectiveness, and comparative costs of various options.

In those situations in which hospitalization was decided against, documentation related to the disposition plan reflected rather sparse consideration of the referral behaviors. Only one of the MHASAs had sufficiently clear and consistent documentation that showed the disposition plan addressed the referral behaviors. That MHASA rated a 100% Satisfactory on that particular question.

The actual impact of these findings on the utilization of available psychiatric hospital beds, particularly at the Mental Health Institutes, is not entirely clear. It appears that community alternatives and distance to the hospitals are a primary factor in rural areas. The urban issue is less clear. The systemic factors which influence hospitalization for each MHASA or Community Mental Health Center as well as evaluators' reported hospital preferences shed some light on the matter. For instance, the state institutes appear to be competing with other hospitals that have distinct reputations for very good care. However, it is important to acknowledge that the variables involved in hospitalization decisions are numerous and complex.

Recommendations

MHASAs

1. Review the requirements and procedures for documentation of emergency evaluations and consider using a uniform, written protocol to assist the emergency clinicians in their assessment process and related documentation.
2. Develop minimum academic and post-graduate qualifications for emergency service evaluators.
3. Establish training curriculum specific to emergency services for children and adolescents, in conjunction with other relevant community agencies.
4. Review the specific criteria for hospitalization with each emergency clinician prior to their start of direct service.
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