Psychiatric Hospital Services
for
Children and Adolescents

Connecticut

General Assembly

LEGISLATIVE
PROGRAM REVIEW
AND
INVESTIGATIONS
COMMITTEE

January 1987
The Legislative Program Review and Investigations Committee is a joint, bipartisan, statutory committee of the Connecticut General Assembly. It was established in 1972 as the Legislative Program Review Committee to evaluate the efficiency and effectiveness of selected state programs and to recommend improvements where indicated. In 1975 the General Assembly expanded the committee's function to include investigations and changed its name to the Legislative Program Review and Investigations Committee. During the 1977 session, the committee's mandate was again expanded by the Executive Reorganization Act to include "Sunset" performance reviews of nearly 100 agencies, boards, and commissions, commencing on January 1, 1979. Review of the original schedule of sunset entities was completed in 1984. Review of the list will begin again in 1988.

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PSYCHIATRIC HOSPITAL SERVICES
FOR
CHILDREN AND ADOLESCENTS

LEGISLATIVE PROGRAM REVIEW AND INVESTIGATIONS COMMITTEE
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PSYCHIATRIC HOSPITAL SERVICES
FOR
CHILDREN AND ADOLESCENTS

EXECUTIVE SUMMARY

The Legislative Program Review and Investigations Committee study of psychiatric hospital services for children and adolescents was undertaken to determine the adequacy of the current supply of inpatient beds for those under age 18. The goal of the 10-month review was to compare the number of children and youth in need of psychiatric hospitalization with the number of beds available for these clients. Two major factors prevented the committee staff from meeting the study goal:

1) Existing techniques for estimating need for hospital services by children and teenagers are not methodologically sound; and

2) A service delivery system model that defines the roles of inpatient as well as less intensive services has not been established for Connecticut.

Initially, the committee attempted to apply current methodologies for determining bed need to Connecticut as a means of assessing adequacy of supply. Several problems were encountered in this effort. Estimates of the incidence and prevalence of mental illness among the 0 to 18 population vary considerably and there is no consensus estimate. There is even more variation in the assumptions about how many children in need of mental health care should be treated in hospitals. The hospitalization rates included in bed need methodologies reflect the service system envisioned when the method was developed. As the committee analysis showed, applying current bed need methodologies to Connecticut indicates that this state has anywhere from 402 too many hospital beds to 420 too few psychiatric inpatient beds for children and youth. These methodologies, therefore, proved of little use in evaluating adequacy of existing hospital services.

The committee also intended to use numbers of referrals as one measure of demand. While information on the numbers and types of referrals to state facilities is available through a DCYS computerized data base, similar demand data has not been collected for the private sector providers of inpatient psychiatric services. Thus, it was not possible to obtain a complete picture of demand for private psychiatric, general hospital, and state hospital services.

Furthermore, demand for and utilization of inpatient services are not necessarily true indicators of need. If hospital beds are available and there is a lack of alternatives (e.g., residential
treatment, intensive outpatient counselling or crisis stabilization), children and adolescents with serious mental health problems will be admitted to inpatient settings rather than to less restrictive programs that might be more appropriate to their needs. High utilization, therefore, cannot be interpreted as a need for more beds without an assessment of the adequacy of alternative services.

Another issue that complicates analysis of hospital bed adequacy is the fact that utilization of hospital services is affected by reimbursement policies. Since third party payers cover hospitalization more frequently than the alternatives, need for inpatient services may be inflated if only measured by utilization. For these reasons, it was not possible for the committee to determine if Connecticut's 149 state hospital beds and 376 private and general hospital beds designated for children and adolescents are more or less than what is needed by the population under 18.

The committee did find great demand for existing hospital services, as indicated by high utilization rates, waiting lists and sheer numbers of referrals. It was also found that certain segments of the under 18 population--the medically indigent, the very violent or aggressive, and those with special needs such as the hearing impaired--have difficulty accessing existing inpatient hospital services and that there are geographic disparities in the availability of services.

At the committee's October 31 public hearing, parents of hearing impaired children with emotional disturbances presented a compelling plea for specialized inpatient services. The unique needs of the deaf concern communication, the essence of mental health treatment. At present, there is no inpatient psychiatric program in Connecticut staffed by individuals with a mastery of sign language and training in the special problems of deafness as they affect children and adolescents. The deaf and hearing impaired are but one example of a target group that DCYS should be identifying for mental health services as required by statute.

In addition, mental health professionals testifying at program review committee hearings cited instances of temporarily placing children and youth in need of hospitalization in adult psychiatric wards, pediatric units, or medical/surgical beds because more appropriate programs had no openings or would not accept the type of patient being referred. Analysis of general hospital discharge data appears to demonstrate this practice. Almost two-thirds (64 percent) of the 1,426 patients under 18 with psychiatric diagnoses that were discharged from general hospitals during FY 85 had been in facilities without specialized children and adolescent programs, and some (66) had been admitted to hospitals that have no psychiatric program at all.

Psychiatric service providers further noted that when there are no inpatient options, emotionally disturbed youngsters may
remain at home, sometimes in the dysfunctional family situations that are contributing to their problems. The extent of inappropriate placement of children and adolescents requiring intensive psychiatric care underscores the need for comprehensive service planning.

Thus, a primary finding of the study is that the Department of Children and Youth Services has not met its statutory mandate for planning a comprehensive mental health system for those under 18. The committee believes that a comprehensive plan and service system model are the essential first steps toward assuring that children and youth who require psychiatric hospitalization receive appropriate services in a timely manner, that children with special needs are not overlooked, and that geographic and economic barriers to services are addressed. Therefore, the program review committee’s recommendations are designed to establish a planning process that will enable the state to determine mental health needs and to direct development of services to meet these needs.

Recommendations aimed at clarifying the role of the state psychiatric hospitals are also included. These stem from findings that the supply of state hospital beds may not be optimally utilized. In addition, it appears that the current allocation of state hospital beds among regions and types of programs does not provide equal access to DCYS services for all residents under 18.

Committee recommendations would also strengthen the referral system to promote the timely and appropriate placement of children and adolescents in need of hospitalization. A final recommendation addresses problems in the reporting of hospital utilization data to the Department of Children and Youth Services. The specific recommendations made by the program review committee are summarized below.

Recommendations Summary

To improve psychiatric hospital services for children and adolescents, the Legislative Program Review and Investigations Committee recommends the following:

1. The Department of Children and Youth Services should meet the statutory requirement for a comprehensive children’s mental health plan by developing and submitting such a plan to the legislature’s Human Services Committee by July 1, 1988. The plan, at a minimum, should include:
   
   • an inventory of public and private mental health resources currently available;
   
   • a detailed service delivery model that describes the types of services that should be available, the type of client that should be served by each component of the system, and the amount of
services, by type, the department estimates would be needed to serve the target population;

- an analysis of the gaps that exist between the current and desired service systems;

- an identification of any special populations (e.g., deaf/hearing-impaired, substance abusers, violent/aggressive clients) that have distinctive service needs; and

- objectives designed to move toward the optimal model of service delivery.

Any additional resources needed by DCYS to complete the plan should be earmarked specifically by the legislature for mental health planning to prevent diversion of new resources to other departmental planning activities.

2. The Department of Children and Youth Services, in conjunction with the comprehensive planning effort discussed earlier, should reassess the role of its psychiatric hospitals in terms of allocation of beds among open and closed units and among age groups served. As part of this reassessment, DCYS should address the regional disparities in accessibility of services both in terms of numbers of beds and types of treatment programs.

3. As part of the reassessment of the role of the state hospitals, DCYS should explore with hospital staff the reasons why full census is so rare given the seemingly great demand for services by the mental health community.

4. The Department of Children and Youth Services should develop and maintain a statewide telephone clearinghouse on public and private inpatient bed openings.

5. DCYS should establish emergency psychiatric service programs that provide crisis intervention as well as triage services to those under 18 in each region of the state by July 1, 1988.

6. The Commission on Hospitals and Health Care, as part of its rate approval process, should review the performance of hospital in providing the data required by C.G.S. Section 17-424a.

7. The Department of Children and Youth Services, as part of its comprehensive planning recommended above, should develop a mechanism for collecting information on emergency room utilization by children and adolescents with psychiatric problems.
CHAPTER I
INTRODUCTION

In February 1986, the Legislative Program Review and Investigations Committee (LPR&IC) voted to undertake a performance audit of psychiatric hospital services for children and adolescents in Connecticut. The goal of the study was to determine if the existing supply of beds in state, private, and general hospitals meets the needs of those under age 18 for inpatient psychiatric services.

The committee review was prompted by statistics that showed state psychiatric hospitals for children and youth receiving at least twice as many referrals as patients admitted, and the existence of waiting lists for beds at public and private psychiatric facilities that serve those under 18. National data indicating a growing demand for inpatient services for severely emotionally disturbed children and teenagers also influenced the committee's decision to study this subject.

The committee focused on inpatient services, although it was recognized that the demand for psychiatric hospital beds depends in part on the availability of other types of mental health services for children. For example, the lack of specialized day treatment, intensive outpatient counselling or other community based services for children and teenagers may make hospitalization the only placement option. In addition, hospital stays may be prolonged if suitable discharge placements, such as beds in residential treatment programs, are unavailable. The committee felt that the importance of hospital services merited a study of supply and demand despite the limitations inherent in looking at only one component of the entire mental health care system.

Methods. A variety of research methods were used to collect and analyze the information contained in this report. Program review committee staff compiled data on the supply of inpatient services for those under 18 through site visits and interviews with providers. Hospital utilization data were also gathered through field interviews and from computer data bases maintained by DCYS and the Connecticut Hospital Association. The committee also reviewed a sample of state hospital referrals that were rejected or withdrawn to determine if and where youngsters were referred when they were not admitted to the state facilities.

DCYS planning and budgeting documents, annual reports, and other department records were reviewed by the committee. Interviews were conducted with DCYS officials, representatives of other state agencies (e.g., Department of Mental Health, Commission on Hospitals and Health Care, Children's Commission),
available to work with DCYS regional office staff who are responsible for abuse and neglect cases.

Responsibility for DCYS mental health services is dispersed throughout the organization, as Figure 1 indicates. The three psychiatric hospitals and the residential and day treatment programs come under the supervision of the director of institutions and facilities. Mental health programs funded by department grants, such as child guidance clinics and emergency services, are overseen by the division of planning and community development. The agency’s chief psychiatrist serves primarily as a consultant on mental health policy and issues.

Private sector and other services. All six of the private psychiatric hospitals in Connecticut provide inpatient treatment services to those under 18. Most facilities have separate units for children and/or adolescents and all six designate beds by age categories, although the categories differ.

Psychiatric services for children and youth are also available through emergency rooms, adult psychiatric units, pediatric units or child and adolescent psychiatric units at the state's 36 general hospitals. However, only four of the state's general hospitals have units or beds designated solely for psychiatric treatment of those under 18.

Less intensive mental health services are available for emotionally disturbed children and youth at residential and day treatment facilities and partial hospitalization programs in Connecticut. At present, there are 28 residential treatment facilities with a total of 1,110 beds licensed to operate in Connecticut. Less information is available on the supply of the other types of facilities but there are at least 20 day treatment and partial hospitalization programs operated by private and non-profit organizations in the state.

In addition, there are a number of privately operated specialized foster homes, group homes, and outpatient clinics that provide mental health services to those under 18. Furthermore, many local schools and some private organizations have established special education programs to serve emotionally disturbed children and adolescents. Finally, the service system includes psychiatrists, psychologists, psychiatric social workers and other private therapists that treat emotionally disturbed children and teenagers.

**Psychiatric Hospital Services**

Specialized psychiatric hospital services for children and adolescents are a relatively recent development. Prior to the 1970s, children in need of hospitalization were often placed on pediatric wards while adolescents were usually admitted to adult units or facilities. Development of specialized services was fostered by several national studies released during the 1970s.
Figure 1. Department of Children and Youth Services Organization

Note: Shaded areas indicate major mental health responsibilities

Source: Department of Children and Youth Services
CHAPTER II
SUPPLY AND UTILIZATION OF HOSPITAL SERVICES

To evaluate the adequacy of the current level of psychiatric hospital services for those under 18, the program review committee first gathered information on the supply of beds in both the public and private sectors. The availability and accessibility of existing hospital services were analyzed in terms of admission policies, geographic location, and types of treatment programs offered.

Demand for existing psychiatric hospital services was also examined by the committee. Utilization information, including occupancy rates, waiting lists, and numbers and types of referrals and admissions, was collected and analyzed for the state, general and private hospitals that serve emotionally disturbed children and adolescents. The committee recognized that demand, as measured by utilization, is not necessarily equivalent to true need for psychiatric beds since patients may be inappropriately referred or admitted for a variety of reasons. However, the extent to which current hospital services are sought and used by those under 18 is one indication of the need for this most intensive level of mental health treatment.

The supply and utilization of child and adolescent hospital services in Connecticut was also compared to national statistics and data from other states. Data limitations, however, prevented extensive comparative analysis.

Supply of Hospital Services

The number of psychiatric beds available to those under 18 in Connecticut is difficult to determine. Currently, there are 525 beds that are designated for children and/or adolescents in state, private and general hospitals. For the purposes of the review, the committee considered designated beds to be those in programs specifically designed for children and/or adolescents and which include an education component. The facilities providing these designated services, their locations, ages served and bed capacities are listed in Table 1. A new 15-bed adolescent program located in a general hospital also was approved but had not begun operating during the course of the committee review.

The supply of designated child and adolescent beds is summarized by type of facility and age group served in Table 2. As Table 2 shows, the majority of designated beds, nearly 80 percent, serve adolescents while 20 percent are available to children under age 14. Over half of all designated beds, 59 percent, are located within private psychiatric hospitals while 28 percent are in DCYS-operated facilities and 12 percent are in general hospitals.
Table 1. Child and Adolescent Inpatient Hospital Programs.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Location</th>
<th>Ages Served</th>
<th># Beds for Under 18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riverview</td>
<td>Middletown</td>
<td>6-13*</td>
<td>57</td>
</tr>
<tr>
<td>Altobello</td>
<td>Meriden</td>
<td>14-17</td>
<td>57</td>
</tr>
<tr>
<td>Housatonic</td>
<td>Newtown</td>
<td>14-17</td>
<td></td>
</tr>
<tr>
<td>Brief Treatment</td>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Long Term Treatment</td>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elmcrest</td>
<td>Portland</td>
<td>9-17*</td>
<td>63</td>
</tr>
<tr>
<td>Hall-Brooke</td>
<td>Westport</td>
<td>13-17*</td>
<td>26**</td>
</tr>
<tr>
<td>Inst. of Living</td>
<td>Hartford</td>
<td>13-17</td>
<td>111</td>
</tr>
<tr>
<td>Natchaug</td>
<td>Mansfield</td>
<td>12-17</td>
<td></td>
</tr>
<tr>
<td>Crisis Treatment</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>Silver Hill</td>
<td>New Canaan</td>
<td>13-21</td>
<td>24 (ages 13-21)</td>
</tr>
<tr>
<td><strong>General Hospital</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mt. Sinai</td>
<td>Hartford</td>
<td>0-17</td>
<td>6</td>
</tr>
<tr>
<td>Crisis Treatment</td>
<td></td>
<td>14-17</td>
<td>26</td>
</tr>
<tr>
<td>Newington Child.</td>
<td>Newington</td>
<td>6-13</td>
<td>14***</td>
</tr>
<tr>
<td>St. Raphael</td>
<td>New Haven</td>
<td>12-17</td>
<td>2</td>
</tr>
<tr>
<td>Crisis Treatment</td>
<td></td>
<td>0-11</td>
<td>5</td>
</tr>
<tr>
<td>Yale-New Haven</td>
<td>New Haven</td>
<td>0-14</td>
<td>12</td>
</tr>
</tbody>
</table>

* May admit younger than lower limit.
** An additional 13 beds are available for adolescents with substance abuse problems.
*** The hospital also operates a 4-bed eating disorder program, which because of its specialized clientele, is not included in the committee's supply analysis.

Source: Legislative Program Review and Investigations Committee.
Table 2. Designated Children and Adolescent Psychiatric Hospital Beds by Type Facility and Age Served.

<table>
<thead>
<tr>
<th>Type Facility (No.)</th>
<th>Children (Approx. 0-13)</th>
<th>Adolescent (Approx. 14-18)</th>
<th>Both (0-18)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen. Hosp. (4)</td>
<td>31</td>
<td>28</td>
<td>6</td>
<td>65 (12%)</td>
</tr>
<tr>
<td>Private (6)</td>
<td>15</td>
<td>296</td>
<td>-</td>
<td>311 (59%)</td>
</tr>
<tr>
<td>State (DCYS) (3)</td>
<td>57</td>
<td>92</td>
<td>-</td>
<td>149 (28%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>103 (20%)</strong></td>
<td><strong>416 (79%)</strong></td>
<td><strong>6 (1%)</strong></td>
<td><strong>525 (100%)</strong></td>
</tr>
</tbody>
</table>

Source: Legislative Program Review and Investigations Committee.

In addition to these designated beds, general hospitals without specialized psychiatric services for those under 18 may use beds on adult psychiatric units, pediatric wards, or medical/surgical units to serve children and adolescents with psychiatric problems. The extent of such utilization is difficult to determine.

However, according to a recent survey by one of the state’s regional health planning groups, the Health Systems Agency of Region II, 12 general hospitals will admit adolescents to their adult psychiatric units and at least 2 have set aside a small number of beds for these younger patients. A new general hospital adult unit established during FY 86 also planned to admit adolescents. Although these hospitals serve psychiatric patients under 18, none have accredited school programs or the range of special children and adolescent services found in designated bed programs. Some private psychiatric facilities also occasionally admit adolescents to adult program beds if their designated beds are full.

The regional distribution of designated psychiatric beds by ages accepted and type of facility is shown in Table 3. The regions used for this analysis are the five DCYS service regions, which also correspond to the state’s five health systems planning regions. As the table shows, DCYS facilities are statewide or multi-regional resources. Riverview hospital serves children from all five regions of the state, Altobello is designated to serve adolescents from Region II, III, and IV, while Housatonic serves adolescents from Regions I and V.
Table 3. Regional Distribution of Psychiatric Beds Designated for Children and Adolescents.

<table>
<thead>
<tr>
<th>Regions</th>
<th>I South West</th>
<th>II South Central</th>
<th>III East</th>
<th>IV North Central</th>
<th>V North West</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen. Hosp.</td>
<td>0</td>
<td>17</td>
<td>0</td>
<td>14*</td>
<td>0</td>
</tr>
<tr>
<td>Private</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>State</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td><strong>Adolescents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen. Hosp.</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>26*</td>
<td>0</td>
</tr>
<tr>
<td>Private</td>
<td>50</td>
<td>59</td>
<td>76</td>
<td>111</td>
<td>0</td>
</tr>
<tr>
<td>State</td>
<td>b</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>b</td>
</tr>
</tbody>
</table>

* Does not include 6 beds available to 0-18.

a = 57 beds at Riverview hospital serve children from all 5 regions
b = 35 beds at Housatonic serve adolescents from regions I and V
c = 57 beds at Altobello serve adolescents from regions II, III and IV.

Source: Legislative Program Review and Investigations Committee.

Table 3 indicates that supply varies significantly among the five health planning regions in the state. Two regions, I and V, have no designated children's beds located within the region. Similarly, resources for adolescents in Region V are limited; only the 35-bed DCYS facility in Newtown is located within the region and it also serves Region I.

Most facilities serve residents from surrounding regions, or may even be a statewide resource for certain types of patients. Furthermore, while a facility may be located in one region, its services may be equally or more accessible geographically to other regions. Elmcrest, a private psychiatric hospital in Region III, actually admitted more children and adolescents from Region IV than from eastern Connecticut in 1985-86.

Geographic accessibility, therefore, must also be considered in analyzing the supply of psychiatric services for children and adolescents. A map showing the location of each facility designated for those under 18 is presented in Figure 3. It can be seen from
Figure 2. Geographic Distribution of Child and Adolescent Psychiatric Hospital Programs.

Source: LPR&IC
The figure that the majority of programs are most accessible to the Hartford and the New Haven areas. Nine (69 percent) of the 13 hospitals and 412 (78 percent) of the 525 designated beds lie within 10 miles of Interstate 91 between New Haven and Hartford.

Conversely, individuals in the eastern and northwestern sections of the state must travel significant distances to any designated child and adolescent program. Given the fact that many programs encourage or even require family participation in treatment, geographic accessibility to hospital services becomes an even more important issue in analyzing adequacy of supply.

The supply of designated hospital beds also varies by type of service. The majority of beds for children and adolescents are intended to be used for brief to intermediate treatment periods, 30 to 90 days. Only 8 beds at 2 general hospital facilities and 6 beds at one of the private hospitals are reserved for crisis intervention and stabilization, a process that may last up to two weeks but usually is accomplished in several days. Placement options for children and adolescents in need of long-term hospitalization, (generally considered over 90 days) are similarly limited. In general, only the state facilities and two to three private facilities provide beds for treatment periods of one year or more.

Technically, all beds at two of the three state psychiatric hospital facilities, Riverview and Altobello, are available for a variety of treatment lengths and purposes–acute emergencies, brief treatment and long-term treatment. However, 20 of the 35 state adolescent beds that serve Regions I and V are reserved for a specialized 5-to 9-month treatment program for youths that have failed in other programs. Thus, only 15 beds at Housatonic are available to acute emergency adolescent patients in those regions.

Beds for acute emergency admissions at the DCYS adolescent hospital that serves the remainder of the state are also limited for a different reason. Due to physical plant restrictions, only 40 of Altobello's 57 beds are located in the secure setting to which patients must initially be admitted. For similar reasons, only 27 of the 57 beds at the state children's hospital can be used for emergency admissions.

Accessibility to services is additionally dependent upon financial resources. For children and adolescents covered by Title XIX (Medicaid), the private sector supply of hospital beds is very small. Five of the six private psychiatric hospitals limit admissions of Medicaid patients and three facilities don’t accept any Title XIX admissions. Of the 311 private hospital beds for children and youth, which account for 59 percent of all designated beds for those under 18, only 46 are accessible to Medicaid patients. Among the reasons cited by private hospitals for restricting Medicaid patients are the Medicaid reimbursement rate, the length of time to be reimbursed, and the process for being approved as a Medicaid provider.
Two child and adolescent programs at the general hospitals set limits on Medicaid admissions. Of the 65 designated beds at general hospitals, 36 are accessible to Title XIX patients. The three state hospitals are open to all patients who meet the admission criteria regardless of ability to pay. Thus, the 149 state beds are a primary resource for Medicaid families, those without health insurance, and those whose insurance benefits are exhausted. Overall, only 231 (44 percent) of the total supply of 525 designated child and adolescent beds are accessible to Medicaid or medically indigent patients.

Facility admission criteria also limit bed availability for certain categories of children and adolescents. Policies regarding admission of mentally retarded, physically handicapped, substance-abusing, or violent and dangerous patients vary widely. For example, only the state facilities and one private hospital will treat children or adolescents with a firesetting background. Even the crisis services, which generally treat any type of psychiatric problem, do not admit firesetters or extremely violent teenagers. Most child and adolescent programs will not accept violent patients, with violent being described as extremely aggressive, out-of-control, extremely assaultive, or homicidal, depending on the facility.

For the most part, the state hospitals will accept any type of patient as long as the patient meets age and residency requirements, community resources have been exhausted, and the problem is severe enough to meet the statutory commitment criteria (i.e., the child or youth is dangerous to him or herself or others). DCYS officials have pointed out that the admission criteria of state facilities are restrictive and intentionally so because: 1) the limited supply of state beds should first serve those who have no alternatives (e.g., firesetters, extremely violent patients, Medicaid patients, patients without medical insurance); and 2) the principle that children and adolescents should be treated in the community whenever possible. Thus, state beds are really only accessible to the most severely disturbed children and adolescents without alternatives for treatment.

**Utilization of Hospital Services**

Information available on utilization of hospital services by children and adolescents varies by type of facility. For the state hospitals, DCYS maintains an extensive computerized data base that includes detailed demographic and treatment information on referrals and admissions to its institutions. The committee obtained a copy of this data base and used it to analyze utilization of state hospital services.

Since 1981, all licensed psychiatric hospitals and general hospitals that provide psychiatric care to children and youth have been required to report statistical information to DCYS on a quarterly basis. The required information includes the date and reason for admission, diagnosis, date of birth, sex, town of
residence and date of discharge of all patients under 18 who have been admitted and treated for a psychiatric illness at these facilities (C.G.S. Section 17-424a). DCYS has established another computerized data base containing the information it receives from the private and general hospitals, but because compliance with the statutory reporting requirement is weak, the data collected are incomplete.

Therefore, complete and accurate information on utilization of general hospital services was obtained by the committee from the Connecticut Hospital Association (CHA). The data obtained from CHA provided a more precise profile of general hospital service utilization and an indication of unmet service needs, since it was possible to estimate utilization of adult psychiatric and non-psychiatric services at general hospitals by children and adolescents. DCYS is currently making arrangements to utilize the hospital association data base in the future rather than continue to require general hospitals to report to the department.

Since the CHA data base does not include information from the six private psychiatric hospitals in Connecticut, the committee staff conducted field visits of these facilities to collect utilization as well as program information. The general hospital facilities that have specialized programs for children and adolescents were also visited by the committee staff. Information obtained through the visits as well as from several recent studies of psychiatric services for children and adolescents is also summarized below.

Utilization of state hospitals. A summary of state fiscal year 86 utilization data for each of the 3 DCYS hospitals is presented in Table 4. The table shows bed capacity, average daily census, utilization rates, average length of stay, and numbers of patients served for the two adolescent facilities, Altobello and Housatonic, and the state's children's hospital, Riverview.

At each facility during FY 86, the annual average daily census was below bed capacity. At Altobello, 48 out of 57 beds were filled on average as were 29 out of 35 at Housatonic and 46 out of 57 beds at Riverview. Since average daily census fluctuates, information on the monthly range is also presented in the table. The number of beds filled on average at each of the facilities on a monthly basis ranged from 40 to 52 at Altobello, 27 to 32 at Housatonic, and 42 to 50 at Riverview.

Annual utilization rates at all three facilities, as shown in Table 4, are between 81 and 84 percent, with monthly ranges from about 70 to over 90 percent. Health planners consider 85 percent utilization a high rate for hospital programs, given patient turnover and the fact that a certain number of beds need to be kept available for emergency admission purposes.
Table 4. Utilization of State Hospitals for Children and Adolescents, State FY 86.

<table>
<thead>
<tr>
<th></th>
<th>Altobello</th>
<th>Housatonic</th>
<th>Riverview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity (No. Beds)</td>
<td>57</td>
<td>35</td>
<td>57</td>
</tr>
<tr>
<td>Av. Daily Census</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual</td>
<td>47.9</td>
<td>29.1</td>
<td>46.2</td>
</tr>
<tr>
<td>Monthly Range</td>
<td>39.6-52.1</td>
<td>26.5-32.1</td>
<td>41.8-49.7</td>
</tr>
<tr>
<td>Utilization Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual</td>
<td>84%</td>
<td>83%</td>
<td>81%</td>
</tr>
<tr>
<td>Monthly Range</td>
<td>69.5-91.5%</td>
<td>75.9-91.6%</td>
<td>73.4-87.3%</td>
</tr>
<tr>
<td>Av. Length of Stay</td>
<td>85 days</td>
<td>108 days</td>
<td>130 days</td>
</tr>
<tr>
<td>No. Served</td>
<td>214</td>
<td>127</td>
<td>184</td>
</tr>
</tbody>
</table>

Source: Department of Children and Youth Services Annual Hospital Reports, FY 86.

Average length of stay among the hospitals shows a wider variation, ranging from 85 days at Altobello to 130 days at Riverview. Young children, the population served by Riverview, tend to require longer lengths of stay than adolescents because evaluation and diagnosis of children is more complex and time-consuming. Thus, a higher average length of stay is to be expected at Riverview than at the adolescent facilities.

The fact that Housatonic had a higher average length of stay than Altobello can be explained by the influence of Housatonic’s long-term treatment program, Adam House. In FY 86, the average length of stay at Adam House was 187 days, while at Housatonic’s Brief Treatment Unit, a program comparable to Altobello’s services, the average stay was 59 days.

As shown in Table 4, the total number of patients served during FY 86 was 214 at Altobello, 127 at Housatonic, and 184 at Riverview. If this is compared in terms of patients served per bed annually, the figure is about the same for the 2 adolescent hospitals (3.8 for Altobello and 3.6 for Housatonic), while Riverview is slightly lower (3.2).

Given the high demand for state hospital beds, the committee further explored why average census statistics for each of the three DCYS facilities are below capacity. Hospital staff pointed out that this may occur in part because of a policy keeping one to two beds
open for emergency admissions whenever possible. It was also noted that available beds may be on open (unlocked) units and thus cannot be used for admission of patients requiring secure settings. Thirty percent of the beds at Altobello, 57 percent of those at Housatonic and 53 percent of the Riverview beds are located in open units. Utilization by unit, therefore, was analyzed to determine the impact of open units on the hospital-wide census. The results of this analysis are summarized in Table 5.

Table 5. Utilization of DCYS Psychiatric Hospitals by Unit, FY 86

<table>
<thead>
<tr>
<th>Unit</th>
<th>No. Beds</th>
<th>No. Days at 100+% Occup.</th>
<th>% of FY 86 at 85+% Occup.</th>
<th>Av. Annual Occup. Rate</th>
<th>Average No. Beds Available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Closed Units</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altobello</td>
<td>40</td>
<td>9</td>
<td>73%</td>
<td>86.5%</td>
<td>5.4</td>
</tr>
<tr>
<td>Housatonic</td>
<td>15</td>
<td>10</td>
<td>28%</td>
<td>74.0%</td>
<td>3.9</td>
</tr>
<tr>
<td>Riverview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 5-11</td>
<td>14</td>
<td>49</td>
<td>79%</td>
<td>87.1%</td>
<td>1.8</td>
</tr>
<tr>
<td>Age 12-13</td>
<td>11</td>
<td>87</td>
<td>52%</td>
<td>87.1%</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Open Units</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altobello</td>
<td>17</td>
<td>0</td>
<td>39%</td>
<td>78.2%</td>
<td>3.7</td>
</tr>
<tr>
<td>Housatonic</td>
<td>20</td>
<td>15</td>
<td>74%</td>
<td>93.9%</td>
<td>1.2</td>
</tr>
<tr>
<td>Riverview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 5-11</td>
<td>14</td>
<td>30</td>
<td>82%</td>
<td>87.1%</td>
<td>1.8</td>
</tr>
<tr>
<td>Age 12-13</td>
<td>16</td>
<td>5</td>
<td>19%</td>
<td>72.5%</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Source: Department of Children and Youth Services.

As Table 5 shows, beds were available on closed units as well as on open units for significant portions of fiscal year 86 at all three hospitals. Housatonic's closed unit averaged only a 74 percent annual occupancy rate and was at least 85 percent occupied less than one-third of the year. The secure unit at Altobello experienced higher utilization; its average annual occupancy rate was about 86 percent and its occupancy rate was 85 percent or more nearly three-quarters of the year. Riverview's 2 admitting units both had high average annual utilization rates (87.1 percent) and were more frequently at 100 percent occupancy than the closed adolescent units.

The unit utilization analysis also revealed that while the total bed capacity for Riverview hospital is reported as 57, the facility actually operates at a 55-bed capacity. This is because
two beds on the closed unit for 12 and 13 year olds have been eliminated through conversion of one bedroom to a dayroom and one double room is used as a single. Hospital officials noted that one to two beds have, on occasion, been temporarily added to meet the need for emergency admissions. However, the total number state hospital beds, for practical purposes, is 147 rather than 149 cited in the previous supply analysis.

Information on the numbers of admissions and referrals to each state hospital in FY 86 is presented in Table 6. All three facilities received more than twice as many referrals as patients admitted. Analysis of FY 85 data indicates that of all referrals not accepted at state facilities, more were withdrawn by the referral source (64 percent) than rejected for admission by hospital staff (36 percent).

The most common reasons referrals were withdrawn were that other facilities or services were located for the client (32 percent) or that the referrer did not follow up on the admission request (44 percent). The most common reasons that referrals were rejected were that facility admission criteria (e.g., age, residence or severity of problem) were not met (71 percent) or that community resources had not been exhausted (16 percent).

<table>
<thead>
<tr>
<th></th>
<th>Altobello</th>
<th>Housatonic</th>
<th>Riverview</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Referrals</td>
<td>445</td>
<td>244</td>
<td>301</td>
</tr>
<tr>
<td>No. Admissions</td>
<td>166</td>
<td>99</td>
<td>134</td>
</tr>
<tr>
<td>Percent Referrals Admitted</td>
<td>37%</td>
<td>41%</td>
<td>45%</td>
</tr>
<tr>
<td>Referrals/Bed</td>
<td>7.8</td>
<td>7.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Admissions/Bed</td>
<td>2.9</td>
<td>2.8</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Source: DCYS Annual Hospital Reports, FY 86.

Table 6 also shows the number of referrals per bed, a comparative statistic developed by the committee as an indicator of demand for state hospital beds. Housatonic and Altobello are similar in terms of this indicator, with Altobello (7.8) slightly higher than Housatonic (7.0). The lower figure for Riverview (5.3) may reflect the reluctance of professionals to recommend hospitalization of young children while hospitalization is considered more appropriate for adolescents. In addition, small children, unlike teenagers, can often be controlled in a home or school environment thus lessening the need for a hospital referral.

The number of admissions per bed is also included in Table 6. This figure was developed as another way of looking at utilization. Since admissions per bed reflects length of stay, it is not
surprising that Altobello, which has the shortest average length of stay, has the highest admissions-per-bed rate (2.9) while Riverview with the longest average length of stay has the lowest rate (2.4).

Table 7 shows who used services at the 3 state facilities during FY 86 in terms of the sex, ethnicity and age of those admitted. Males accounted for 58 percent of admissions at Altobello and 52 percent at Housatonic. In contrast, three-quarters of Riverview's admissions were male, which is typical among programs that serve young children. This is due to the fact that severe emotional disturbances are more prevalent among boys than girls in this age group.

Table 7. Demographic Profile of Hospital Admissions, FY 86.

<table>
<thead>
<tr>
<th></th>
<th>Altobello</th>
<th>Housatonic</th>
<th>Riverview</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Admissions*</td>
<td>161</td>
<td>91</td>
<td>132</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Male</td>
<td>58</td>
<td>52</td>
<td>74</td>
</tr>
<tr>
<td>% Female</td>
<td>42</td>
<td>48</td>
<td>26</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Caucasian</td>
<td>67</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
<td>% Black</td>
<td>17</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>% Hispanic</td>
<td>16</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>% Other/unknown</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% 4-6</td>
<td>-</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>% 7-9</td>
<td>-</td>
<td>-</td>
<td>21</td>
</tr>
<tr>
<td>% 10-12</td>
<td>-</td>
<td>-</td>
<td>34</td>
</tr>
<tr>
<td>% 13</td>
<td>-</td>
<td>-</td>
<td>36</td>
</tr>
<tr>
<td>% 14</td>
<td>34</td>
<td>19</td>
<td>-</td>
</tr>
<tr>
<td>% 15</td>
<td>32</td>
<td>34</td>
<td>-</td>
</tr>
<tr>
<td>% 16</td>
<td>18</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>% 17</td>
<td>16</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>% Other/missing</td>
<td>-</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

* Patients admitted more than once during the year counted only once.

Source: DCYS Annual Hospital Reports, FY 86.
The ethnic breakdown of admissions is nearly the same at all three hospitals. About 70 percent of admissions at each facility were Caucasian, while Black and Hispanic patients accounted for between 15 to 17 percent and 11 to 16 percent respectively. In terms of age, the majority of admissions to the adolescent hospitals were age 14 and 15. These two age groups accounted for 66 percent of Altobello and 53 percent of Housatonic admissions in FY 86.

At Riverview, over one-third (36 percent) of FY 86 admissions were age 13, the maximum age admitted to the facility. Patients at the lowest ages served by Riverview, ages 6 and under, accounted for 9 percent of total admissions. Hospital officials have noted that admissions among these ages, although small in number, have been increasing over the past several years.

Type of admission, whether voluntary or ordered by a court or a physician, provides another indication of what types of patients are using state hospital services. Patients admitted under a physician's emergency certificate, for example, must have been determined to be dangerous to themselves or others and, therefore, tend to have the most severe types of psychiatric problems. Table 8 contains a breakdown on the types of admissions to the 3 state hospitals in FY 86.

<table>
<thead>
<tr>
<th>Type of Admission (%)</th>
<th>Altobello</th>
<th>Housatonic</th>
<th>Riverview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary</td>
<td>2</td>
<td>23</td>
<td>31</td>
</tr>
<tr>
<td>Court-ordered</td>
<td>30</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Physician Emergency Certificate</td>
<td>67</td>
<td>58</td>
<td>48</td>
</tr>
<tr>
<td>Other*</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

* Includes probate court commitments and serious juvenile offender placements.

Source: DCYS Annual Hospital Reports, FY 86.

As Table 8 shows, the physician emergency certificate is the most common type of admission at all three state facilities.
Almost half to over two-thirds of the patients at Altobello, Housatonic, and Riverview were admitted through this process in FY 86.

Court-ordered admissions for either psychiatric evaluations or competency determinations are also common at the state facilities. Almost one-third of the admissions to Altobello are court-ordered while this admission status is less frequent—about one-fifth of admissions—at Housatonic and Riverview.

The voluntary admission status is the type of admission that varies most among the three facilities. Voluntary admissions were only 2 percent at Altobello in FY 86 but accounted for 23 percent of Housatonic and 31 percent of Riverview admissions. The reason for the large difference between the two adolescent hospitals’ voluntary admissions is that voluntary admission is generally a requirement for Housatonic’s Adam House program. When type of admission is examined separately for the two programs at Housatonic (see Table 9, below), the proportion of voluntary admissions for the Brief Treatment Unit (5 percent) and Altobello (2 percent) are similar. Riverview’s high proportion of voluntary admissions is explained by the fact that the facility serves children 13 and under, an age group that can be voluntarily admitted by parents.

Table 9. Type of Admission by Housatonic Hospital Program, FY 86.

<table>
<thead>
<tr>
<th></th>
<th>Brief Treatment Unit</th>
<th>Adam House</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Admissions</td>
<td>77</td>
<td>22</td>
</tr>
<tr>
<td>Type Admissions (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary</td>
<td>5</td>
<td>86</td>
</tr>
<tr>
<td>Court-ordered</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Physician Emergency Certificate</td>
<td>74</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: DCYS Annual Hospital Reports, FY 86.

Utilization of private hospitals. As noted above, information on private psychiatric hospital services for children and adolescents was gathered through field visit interviews. Among the data requested from the private facilities were the most recent annual statistics on referrals, admissions, occupancy rate, and average length of stay. Demographics on patients, breakdowns on referral sources, reasons for referral/admission, the facility’s daily charge, and details about admission policies were also requested.
The extent of available utilization data varied widely among the six private psychiatric hospitals. Admission statistics are kept by all the hospitals, some hospitals have demographic data for admissions but few private facilities maintain any hard data on referrals. In addition, some figures provided, including several length-of-stay averages and occupancy rates, were based upon estimates of the hospital officials interviewed.

Selected utilization information based on the staff interviews at the private psychiatric hospitals is presented in Table 10. Information from a recent survey conducted by the Health Systems Agency of Region II has also been included in the table.

<table>
<thead>
<tr>
<th>Facility</th>
<th>FY</th>
<th>#Beds</th>
<th>Est. No. Admissions</th>
<th>Est. Occup. Rate</th>
<th>Est. ALOS (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elmcrest</td>
<td>86</td>
<td>63</td>
<td>342</td>
<td>100%</td>
<td>60-70</td>
</tr>
<tr>
<td>Hall-Brooke*</td>
<td>85</td>
<td>39</td>
<td>194</td>
<td>94%</td>
<td>55</td>
</tr>
<tr>
<td>Institute of Living</td>
<td>86</td>
<td>111**</td>
<td>255</td>
<td>94%**</td>
<td>174</td>
</tr>
<tr>
<td>Natchaug</td>
<td>85</td>
<td>6</td>
<td>117</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td>Crisis</td>
<td></td>
<td>22</td>
<td>153</td>
<td></td>
<td>67</td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver Hill***</td>
<td>86</td>
<td>24</td>
<td>56</td>
<td>95%</td>
<td>91</td>
</tr>
<tr>
<td>Yale Psychiatric Institute</td>
<td>86</td>
<td>25-30</td>
<td>24</td>
<td>92%</td>
<td>430</td>
</tr>
</tbody>
</table>

* Includes 13-bed adolescent substance abuse unit data.
** Number of beds designated for adolescents since 6/86; previously adolescent and adults beds not separated so utilization rate is for all beds in facility.
*** Includes data for some patients over age 18.

Source: LPR&IC staff interviews and HSA II survey results.

Table 10 shows that all 6 facilities had occupancy rates of at least 92 percent during their most recently completed fiscal year. As a result, waiting lists are common at the private hospitals. During interviews with committee staff, all facilities noted they had waiting lists for their child and adolescent beds during most of the year. Average waiting times for admission,
according to the Region II Health Systems Agency survey results, ranged from 0 days at Hall-Brooke to 28 days at Elmcrest during FY 85.

Average length of stay among the private hospitals varied widely, reflecting the differences in types of treatment programs offered at the facilities. For example, at the short-term crisis unit at Natchaug Hospital the average length of stay was 15 days while at Yale Psychiatric Institute, a facility that specializes in patients needing long term treatment, it was over 400 days.

Utilization of general hospitals. The committee gathered utilization information during visits to the four general hospital programs designed specifically for children and youth. In addition, FY 85 discharge data for all general hospitals were obtained from the Connecticut Hospital Association (CHA) for patients under 18 with a psychiatric diagnosis.

Through site visits, the committee found that the extent of information on utilization at the four general hospital programs varied and the occupancy rates and lengths of stay provided were often based on estimates. Selected information gathered during the field visits is presented in Table 11. Data from the field visits are considered to be a better reflection of the four specialized programs than the CHA data, which include psychiatric patients under 18 that may have been admitted to a pediatric or adult psychiatric bed within the hospital.

Table 11. Utilization of General Hospital Child and Adolescent Psychiatric Programs.

<table>
<thead>
<tr>
<th>Facility</th>
<th>FY</th>
<th>#Beds</th>
<th>Est. # Admissions</th>
<th>Est. Occup. Rate</th>
<th>Est. ALOS (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mt. Sinai</td>
<td>85</td>
<td>6</td>
<td>153</td>
<td>N/A</td>
<td>6-8</td>
</tr>
<tr>
<td>Crisis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td>26</td>
<td>130</td>
<td>98%</td>
<td>65-70</td>
</tr>
<tr>
<td>Newington Child.</td>
<td>85</td>
<td>14</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
<td>82</td>
</tr>
<tr>
<td>St. Raphael</td>
<td>86</td>
<td>2</td>
<td>68*</td>
<td>N/A</td>
<td>7</td>
</tr>
<tr>
<td>Crisis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crisis/treatment</td>
<td></td>
<td>5</td>
<td>35</td>
<td>82%</td>
<td>54</td>
</tr>
<tr>
<td>Yale New-Haven</td>
<td>86**</td>
<td>12</td>
<td>36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Includes consultations in emergency room as well as inpatient admissions.
** Program opened 12/30/85.

Source: LPR&IC staff interviews.
All but one of the general hospital programs listed in Table 11 reported an occupancy rate approaching 100 percent for the most recently completed fiscal year. Except for the crisis services, which by their nature do not have waiting lists, every facility reported having waiting lists and at certain times of the year, the waiting time for admission could be up to one to two months.

As with the private facilities, the average length of stay at the general hospital programs varies depending on the type of service offered. For the two crisis programs included in Table 11, the average length of stay was similar, about one week. The remaining programs all have an intermediate length of stay of under 90 days on average.

Data obtained from CHA indicated that there were 1,426 general hospital discharges of patients under 18 with psychiatric diagnoses during FY 85. General hospital discharge data are presented in Table 12 by three categories of hospitals: those with a specialized child/adolescent psychiatric program; those with an adult psychiatric service; and those without any type of psychiatric service. As can be seen in the table, the average number of admissions and length of stay increases with the sophistication of available services.

Table 12. FY 85 General Hospital Discharges of Patients Under 18 with Psychiatric Diagnoses.

<table>
<thead>
<tr>
<th>Hospital Group</th>
<th>No. of Hospitals</th>
<th>No. of Admissions</th>
<th>Avg. No. of Admissions</th>
<th>Avg. Length of Stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child/Adolescent Psych. Program</td>
<td>3*</td>
<td>516</td>
<td>172.0</td>
<td>34.7</td>
</tr>
<tr>
<td>Adult Psych. Service</td>
<td>20</td>
<td>844</td>
<td>42.2</td>
<td>16.9</td>
</tr>
<tr>
<td>No Psych. Service</td>
<td>12</td>
<td>66</td>
<td>5.5</td>
<td>2.6</td>
</tr>
<tr>
<td>Totals</td>
<td>35**</td>
<td>1,426</td>
<td>40.7</td>
<td>22.7</td>
</tr>
</tbody>
</table>

* Yale-New Haven's program was not operating in FY 85.

** Only hospitals with at least one admission were included in the analysis.

Source: Connecticut Hospital Association.
In Table 13, the general hospital data are presented by the Health Systems Area of the hospitals (not the HSA of the patients, which was unavailable). The first two columns present information for all general hospitals while data in the last three columns exclude programs specifically geared to children and youth. Since specially designed programs draw patients from a wide geographic area, the location of the hospital is not a reliable proxy for the HSA of the patient. The committee had expected general hospital admission rates might be higher in regions I, III, and V because of the limited availability of specialized services in these areas. As can be seen in the last column of Table 13, however, no such clear pattern emerges from the CHA data.

### Table 13. FY 85 General Hospital Psychiatric Discharges Under 18 by Health Systems Area.

<table>
<thead>
<tr>
<th>HSA</th>
<th>All General Hospitals</th>
<th>Excluding Specialized Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avg. No. of Admissions</td>
<td>Length of Stay</td>
</tr>
<tr>
<td>I</td>
<td>200</td>
<td>14.1</td>
</tr>
<tr>
<td>II</td>
<td>230</td>
<td>25.8</td>
</tr>
<tr>
<td>III</td>
<td>84</td>
<td>14.3</td>
</tr>
<tr>
<td>IV</td>
<td>694</td>
<td>27.6</td>
</tr>
<tr>
<td>V</td>
<td>202</td>
<td>15.8</td>
</tr>
<tr>
<td>Other*</td>
<td>16</td>
<td>2.3</td>
</tr>
<tr>
<td>Totals</td>
<td>1,426</td>
<td>22.7</td>
</tr>
</tbody>
</table>

* HSA not identifiable for these admissions.

Source: Connecticut Hospital Association

### National Admission Statistics

The National Institute of Mental Health (NIMH) publishes estimates of psychiatric hospital admissions of children and youth. NIMH develops the estimates by projecting data obtained from a sample of psychiatric hospitals and general hospitals with psychiatric services. Although these figures are only an estimate and are based on five-year-old data, they represent the best
available national information on admission rates. The national admission rate for 1980 was estimated to be 128.1 per 100,000 under 18 population. Table 14 illustrates the estimated admissions by age, sex, race, and type of facility.

Table 14. 1980 U.S. Rate Per 100,000 Population of Psychiatric Admissions Under Age 18.

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Total (under 18)</th>
<th>State/County Hospital</th>
<th>Private Hospital</th>
<th>General Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>128.1</td>
<td>26.1</td>
<td>26.3</td>
<td>75.7</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 10</td>
<td>11.7</td>
<td>2.5</td>
<td>2.2</td>
<td>7.1</td>
</tr>
<tr>
<td>10-14</td>
<td>125.5</td>
<td>27.2</td>
<td>26.8</td>
<td>71.5</td>
</tr>
<tr>
<td>15-17</td>
<td>442.8</td>
<td>87.6</td>
<td>89.9</td>
<td>265.3</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>53.0</td>
<td>69.2</td>
<td>56.1</td>
<td>46.4</td>
</tr>
<tr>
<td>Female</td>
<td>47.0</td>
<td>30.8</td>
<td>43.9</td>
<td>53.6</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>82.1</td>
<td>74.8</td>
<td>88.0</td>
<td>82.5</td>
</tr>
<tr>
<td>Other</td>
<td>17.9</td>
<td>25.2</td>
<td>12.0</td>
<td>17.5</td>
</tr>
</tbody>
</table>

Source: National Institute of Mental Health.

Estimated admission rates for Connecticut for the three fiscal years for which data are available exceed the 1980 national rate, as depicted in Table 15. The admission rate for state hospitals has declined by 14 percent while general and private hospitals' rates have increased 41 and 90 percent, respectively, from FY 81 to FY 85. It should be noted that the Connecticut general hospital admission rates shown in the table only reflect admissions to psychiatric services designed specifically for children and youth since this was the only data available for two of the three years. If complete data were available, the state's admission rates would be even higher.

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Total</th>
<th>State/County Hospital</th>
<th>Private Hospital</th>
<th>General Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. (1980 est.)</td>
<td>128.1</td>
<td>26.1</td>
<td>26.3</td>
<td>75.7</td>
</tr>
<tr>
<td>Connecticut (est.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 81</td>
<td>200.9</td>
<td>62.8</td>
<td>82.2</td>
<td>55.9</td>
</tr>
<tr>
<td>FY 83</td>
<td>203.3</td>
<td>61.5</td>
<td>97.1</td>
<td>44.6</td>
</tr>
<tr>
<td>FY 85</td>
<td>289.2</td>
<td>54.1</td>
<td>148.6</td>
<td>78.6</td>
</tr>
</tbody>
</table>

Sources: National Institute of Mental Health, Connecticut Hospital Association, LPR&IC.

The availability of psychiatric hospital beds obviously affects the number and rate of admissions. As discussed in Appendix B, Connecticut has a relatively large number of beds per 100,000 population when compared with a sample of other states. This may partially explain the difference between admission rates for Connecticut and the nation as a whole.
CHAPTER III
PLANNING AND NEEDS ASSESSMENT

In attempting to identify the need for psychiatric hospital beds, the committee examined DCYS planning efforts to see how the department had assessed need and planned the future supply of mental health services. The committee also looked at needs assessments done by the department's regional advisory councils and other regional health planning groups. Needs identified during the committee's public hearings were considered and certificate of need applications for new hospital services were examined to see how applicants justified the need for new inpatient beds to the Commission on Hospitals and Health Care. Relevant literature was reviewed and other states were contacted to identify methodologies that might be used to determine the need for beds in Connecticut.

DCYS Planning Efforts

The Department of Children and Youth Services is required by C.G.S. Section 17-412 to develop a master plan, including long-range goals, funding priorities, and a description of current services. The statute also requires that the plan include a detailed forecast of the service needs of current and projected target populations and a comprehensive mental health plan for children and adolescents. The plan had been mandated annually, but Public Act 86-15 made the plan a biennial requirement. Since the state health plan and the state mental health plan do not specifically address mental health services for children and youth, the primary responsibility for planning these services rests with DCYS.

The statutory requirement for an annual plan resulted from a recommendation of the Legislative Program Review and Investigations Committee, which conducted a study of DCYS in 1978. In recommending that a comprehensive mental health plan be included in the master plan, the committee found "that the DCYS has neither surveyed the needs nor developed a comprehensive plan to meet the known needs for inpatient and outpatient mental health services to children and youth and their families."[1]

The committee specifically recommended that the mental health plan "should include an assessment of the need for more hospital-based psychiatric services to relieve admission pressures at Riverview Hospital and to provide short term intensive treatment alternatives to residential programs." [2]. The


committee stated at that time that "bed space is badly needed by DCYS as inpatient psychiatric services for children and adolescents are in short supply throughout the state." [1]

Since the committee's report and enactment of the statutory planning requirement in 1979, DCYS has produced six Master Rolling Plans. These plans, while including some objectives that address specific mental health needs, have not included a comprehensive mental health plan that inventories current services, assesses current and future needs, and specifies how services should best be delivered.

DCYS efforts to develop a children's mental health plan were initiated in August 1980 with the appointment of the Children's Mental Health Task Force. The task force was created to develop a planning document and it concentrated on two tasks: developing a "Continuum of Care Model" to describe the levels of children's mental health services; and surveying existing services and needs assessments to describe the current mental health services system and service gaps. The work of the task force was incorporated by DCYS in an initial draft report titled Connecticut Children's Mental Health: A Plan for Action. (September 1983). This document was to have gone through revised and final draft versions before presentation to the DCYS commissioner for final approval, but these steps never occurred. DCYS staff who drafted the initial document left the department and the plan was never finalized.

In subsequent Master Rolling Plans, DCYS has included updating and completion of the mental health plan as an objective. In the 1986-1991 plan, however, this objective was retired because the activity is to be merged into another objective, the development of a comprehensive service delivery model for all DCYS services. Completion of the service delivery model, originally scheduled by DCYS for December 1986, is now expected in December 1989. Table 16 illustrates the progress of the mental health plan as indicated in each year's Master Rolling Plan.

Needs Assessment

The department has contracted with Yale University to conduct an epidemiological study of children's mental health needs in New Haven. This study will assess the emotional and behavioral problems and service utilization patterns of a sample of New Haven school children aged 6-11. This project will also explore the cost, feasibility, and instrumentation for alternative needs assessment models. Subsequent phases of the project are designed to yield an ongoing needs assessment instrument that can be

Table 16. DCYS Mental Health Planning Progress As Indicated in the Master Rolling Plans.

<table>
<thead>
<tr>
<th>Plan Year</th>
<th>Plan Objectives</th>
<th>Progress/Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>Children’s mental health plan to be released 7/1/81</td>
<td>Six months behind legislative deadline of 1/1/81</td>
</tr>
<tr>
<td>1982</td>
<td>By 4/1/82 develop a comprehensive children’s mental health plan</td>
<td>Fifteen months behind legislative deadline</td>
</tr>
<tr>
<td>1983</td>
<td>By 7/1/83 develop a comprehensive children’s mental health plan</td>
<td>Thirty months behind legislative deadline</td>
</tr>
<tr>
<td>1984</td>
<td>By 12/1/85 develop a section in the Master Rolling Plan that presents a conceptual model for the three major service delivery systems (child welfare, mental health, and juvenile delinquency)</td>
<td>Initial draft of children’s mental health plan released September 1983</td>
</tr>
<tr>
<td>1985</td>
<td>By 12/1/86 further refine and develop the continuum-of-care model such that basic services needed at each level of the continuum are identified and defined; use this expanded model to establish optimal numbers and location of services by region</td>
<td>Plan remains in initial draft form</td>
</tr>
<tr>
<td></td>
<td>By 9/85 finalize the children’s mental health plan</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>By 12/1/89, further refine and develop the continuum-of-care model such that basic services needed at each level of the continuum are identified and defined; use this expanded model to establish optimal numbers and location of services by region</td>
<td>Objective to finalize children’s mental health plan retired since activities will be included in the comprehensive service system objective. Updated plan is to be released for review and comment in spring of 1986</td>
</tr>
</tbody>
</table>

31
administered in other communities to generate prevalence estimates and service needs. While the Yale study appears promising in the long term, it will not address the needs of the 0-5 and 12-17 age groups. Since prevalence of mental illness has been found to increase with age (See Table 14), application of the study's findings to other age groups is problematic. In addition, the sampling frame used in the Yale study, school registration lists, does not include the institutional population, resulting in an underestimation of children with severe problems. This will diminish the utility of the study results in planning for hospital services.

Regional Advisory Councils. DCYS has five Regional Advisory Councils (RACs) composed of consumers and service providers. The RACs have input into the DCYS Master Rolling Plan and the department budget. In addition, RACs may focus on specific concerns in their region. In 1984, the RAC for the southwest portion of the state became involved in a survey of the need for emergency psychiatric services conducted by the Lower Fairfield County Planning Coalition. As a result of this survey, DCYS has budgeted a grant of $125,000 to begin an emergency psychiatric program in the region and programs for other regions without an emergency service may be started in future years.

Staff of the program review committee met with the chairpersons of the Regional Advisory Councils to elicit their views on the need for psychiatric hospital services for children and youth. The perceived need for hospital services varied by region. The three regions with relatively few existing services cited the need for both short-term and long-term inpatient treatment programs. The two regions with a higher level of existing services cited needs for programs to serve specialized populations (e.g., very young children, firesetters).

All of the regions felt a need to have better coordination among service providers to promote optimal utilization of existing resources. In general discussions, the RACs emphasized the importance of having a full continuum of care available to ensure that treatment can be provided in the most appropriate setting. There was also concern about the lack of national data on children's mental health needs and what services are appropriate to meet those needs.

Other regional planning efforts. DCYS staff also participated in a study of mental health services conducted by the Health Systems Agency of South Central Connecticut. In a report titled Mental Health Services to Children and Youth: A Blueprint for Change, the HSA advocated increased emphasis on prevention of mental illness and better coordination among existing services. The report cited a need for acute care beds, intermediate care beds, beds reserved for Medicaid patients, beds for the working poor, beds for 10-13 year olds, and beds for clients who are excluded from existing programs for some reason (e.g.,
firesetters, mentally retarded, violent-aggressive patients). The specific number of beds needed in these categories was not addressed in the report.

Public hearing testimony. Witnesses at the committee's two October public hearings cited a variety of hospital services that they felt were needed. Psychiatrists from Newington Children's Hospital and Elmcrest Psychiatric Institute expressed a need for more state-funded, long-term hospitalization since insurance benefits usually only cover 60 days of inpatient care. Representatives of the Connecticut Council of Child Psychiatrists, Elmcrest Psychiatric Institute, and the Health Systems Agency of South Central Connecticut all felt emergency/crisis intervention services should be developed further. The Association of Mental Health Clinics for Children stated a need for more community-based psychiatric beds while Elmcrest testified that additional state-supported beds (located either in dcys facilities or other hospitals through contract) should be created. The Connecticut Council of Child Psychiatrists felt that any new services should be located in public or general hospitals rather than private psychiatric facilities.

In addition to inpatient care, several speakers cited other gaps in mental health services for those under 18, including residential care and day hospitals. The Commission on the Deaf and Hearing Impaired, among others, cited the dearth of mental health services, including inpatient care, for the deaf and hearing-impaired children and adolescents.

Estimating Bed Need

There is no single widely accepted method of estimating the number of psychiatric beds needed in a geographic area. A variety of different estimation methods have been developed for planning purposes and to justify applications for certificates of need for additional beds. Limitations with each of these methods, however, have prevented universal acceptance of an optimal way to estimate bed need.

Many methods of estimating need are based on information gathered from the community to be served. A sample of the population may be surveyed to determine their utilization of and need for mental health services. Provider agencies and other actors in the mental health system can also be canvassed to determine the type and volume of services provided, the type of client served, and any unmet need they perceive in the current service system. Community forums can also be held to gather input from the consumers of mental health services and the general public. These community information-gathering techniques can be combined to provide several types of needs data. In the absence of resources to conduct extensive public health surveys to determine the prevalence of mental health problems, prevalence estimates from research studies or national sources may be used.
A second approach to needs estimation is to convene a group of experts in the mental health field and, with the benefit of their collective knowledge and experience, estimate the prevalence of mental illness and/or the need for mental health services. National data, prior prevalence studies, and local conditions are typically considered by expert panels in arriving at their need estimates.

Social indicators can also be used to identify mental health needs. Various socio-economic characteristics (e.g., percent below poverty level, percent minority, overcrowding) have been shown to be highly correlated with mental health problems. By analyzing these characteristics for different geographic areas, the relative need for services can be examined and compared with the existing allocation of resources among areas.

A final method for estimating need is to project current service utilization to the target population that will exist at some future date. All of these methods of estimating need can be applied to adult or children’s mental health services. There are several problems, however, that plague all of the methods. The first is defining what constitutes mental illness or a person in need of mental health services. Prevalence studies have used a number of different definitions, thus making comparison of estimates more difficult. A related methodological issue is determining which diagnostic instrument should be used to measure mental health and what level of expertise is needed to administer it properly, so that valid and reliable results are obtained.

A second issue is the translation of prevalence estimates to specific service needs. Again, there is no consensus on what constitutes an ideal mental health service system. Existing service systems vary widely and utilization of each component of the system is affected by the availability of alternative forms of care. For example, an area without residential treatment programs will probably have a higher rate of hospitalization than an area where such services are available. Some consensus on the configuration of the service system must be obtained before estimates of the prevalence and severity of mental illness can be transformed into a desired mix of services to treat those in need. As discussed in the following section, DCYS has a continuum-of-care model of services that describes four general levels of care, but the department has not developed a detailed mental health service delivery model. Thus, even if precise prevalence data for Connecticut were available, the amount and types of mental health services needed to treat those under 18 would still be unresolved.

Need estimates based on prevalence rates generally tend to overstate need somewhat. A certain amount of need will always fail to be expressed as a demand because of the existence of barriers to seeking treatment (e.g. language, transportation, social stigma, etc.). On the other hand, utilization-based estimates may understate need if existing service systems do not have the capacity to meet current needs or they may overstate need.
if hospital services are inappropriately used due to the lack of treatment alternatives or reimbursement considerations.

The committee examined certificate of need applications for new psychiatric services to see what methodologies were used by Connecticut hospitals to justify the need for additional inpatient beds. The Commission on Hospitals and Health Care (CHHC) is the state agency responsible for reviewing new or expanded hospital services, including an examination of the need and cost for such services. The committee found that applicants used a variety of need estimating techniques with a wide range in level of sophistication. The CHHC, in reviewing the need methodologies, often pointed out flaws in the techniques and sometimes denied applications due to faulty need estimates. The commission does not, however, have a recommended or required methodology for applicants to use in determining the need for psychiatric beds. The only methodology routinely used by the CHHC is a utilization based formula that, for new psychiatric services, requires numerous adjustments that are subject to the methodological problems discussed previously.

Since problems are inherent in the available methods of estimating service needs, many experts advocate the use of multiple methods and synthesis of the various results. In the following section, several estimating methods will be applied to Connecticut to establish a range of estimates for psychiatric bed need for persons under 18.

Utilization-based estimate. A simple approach to estimating bed need is to project past utilization rates onto the future target population. This method assumes that treatment practices, prevalence rates, and the configuration of the service system are static. If adjustments are made for anticipated changes in any of these factors, care must be taken to ensure that the changes are probable and the rationale for the adjustments is sound. Application of a utilization-based estimate for Connecticut is presented in Table 17.

Based on the utilization in FY 85, it can be estimated that 559 beds will be needed in 1990. Bed need estimates based on utilization assume that service usage accurately reflects the need for service; in fact, utilization is two steps removed from need. Need must first be expressed as a demand for service and then that demand must be met. Need that is not expressed as a demand for service and demand that is not met will not be reflected in utilization figures. Conversely, utilization may overstate need to the extent that inappropriate hospitalizations occur.

Estimates based on national data. There are a number of estimating methods that use national prevalence or utilization data. The Graduate Medical Education National Advisory Committee (GMENAC) convened a panel of experts that estimated that 8.62 percent of the under-18 population are in need of mental health
care and .68 percent of the population needs hospital or institutional care. [1]


<table>
<thead>
<tr>
<th></th>
<th>FY 85 Estimated</th>
<th>1990 Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-17 Population Use Rate*</td>
<td>246 days per 1,000 population</td>
<td>246 days per 1,000 population</td>
</tr>
<tr>
<td>** Average Daily Census**</td>
<td>497</td>
<td>475</td>
</tr>
<tr>
<td>** Bed Need***</td>
<td>585</td>
<td>559</td>
</tr>
</tbody>
</table>

* Use Rate = FY 85 Estimated Patient Days/0-17 pop. in thousands = 181,666/738.037

** Average Daily Census = (Use Rate x pop. in thousands/365 = (246 x 738.037)/365 = 497
(246 x 705.108)/365 = 475

*** Bed Need = Average Daily Census/.85 (85% desired occupancy rate

Source: LPR&IC staff analysis.

Applying these estimates to Connecticut's 1990 projected 0-17 population results in 60,639 children and youth in need of service and 4,809 in need of hospitalization. If an average length of stay of 61 days (the estimated average stay statewide for FY 85) and an occupancy rate of 85 percent are assumed, 945 beds would be needed to serve 4,809 clients. Connecticut currently has 525 psychiatric beds dedicated for persons under 18. The large bed need estimated by the GMENAC method reflects the service system assumed by the committee. The service model used by the advisory committee consisted of three modes of service: outpatient, special programs (e.g., partial hospitalization, special education, group foster homes), and inpatient hospitalization. The committee estimated that 98.5% of children in need of mental health care will require outpatient treatment, 7.9% will need inpatient hospitalization, and 7.2% will be served through special programs.

In contrast to the inpatient/outpatient orientation of the GMENAC model, a service model developed in Texas in 1976 assumes that there should be 10 alternative residential beds for each hospital bed. A panel of experts in Texas developed age-specific prevalence rates for mental illness and then estimated the percentage of those in need that would require treatment in specific service settings. Table 18 applies the Texas prevalence and hospitalization estimates to Connecticut's 1990 under-18 population projections.


<table>
<thead>
<tr>
<th>Age Group</th>
<th>Connecticut 1990 Population Projection</th>
<th>Prevalence Estimate</th>
<th>No. in Need of Service</th>
<th>Hospitalization Rate</th>
<th>No. in Need of Hospitalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>160,024</td>
<td>3%</td>
<td>4,801</td>
<td>1%</td>
<td>48</td>
</tr>
<tr>
<td>4-12</td>
<td>344,954</td>
<td>10%</td>
<td>34,495</td>
<td>1%</td>
<td>345</td>
</tr>
<tr>
<td>13-17</td>
<td>200,130</td>
<td>11.5%</td>
<td>23,015</td>
<td>1%</td>
<td>230</td>
</tr>
<tr>
<td>Totals</td>
<td>705,108</td>
<td></td>
<td>62,311</td>
<td></td>
<td>623</td>
</tr>
</tbody>
</table>

Source: LPR&IC staff analysis.

If a 61-day average length of stay and 85 percent occupancy are assumed, 122 beds would be needed in Connecticut to serve the 623 persons in need of hospital care. Though the number of children in need of hospitalization estimated by the Texas model is small in comparison to the GMENAC figure, the service system envisioned by the Texas panel must be considered. Application of Texas estimates for residential care indicate that 5,847 Connecticut residents under 18 need this less medically intensive form of 24-hour care. Thus the Texas model estimates a total of 6,470 in need of some type of 24-hour care, while the GMENAC model projects 4,809 requiring hospitalization while giving only minimal consideration to alternative 24-hour care settings.

The state of Tennessee has a bed need formula that has been mandated by statute. Using 1975 service utilization data developed by the National Institute of Mental Health, the formula estimates that 2 percent of the population has severe disorders and 19 percent of this group will require hospitalization. The formula assumes an average length of stay of 80 days and a utilization rate of 85 percent. If this formula is applied to Connecticut's 1990 projected 0-18 population, 691 beds would be needed to serve the 2,679 children in need of hospitalization.[1]

[1] \( \left( \frac{705,108 \times 0.02 \times 0.19 \times 80}{365} \right) / 0.85 \)
Virginia has recently developed a methodology for determining hospital bed need for children and youth. This methodology, presented in the state health plan, was developed to provide guidance to the certificate of need agency in evaluating child and adolescent inpatient psychiatric projects where the average length of stay is less than 120 days. The method uses a planning standard of 102 days of inpatient care per 1,000 population ages 5-18. This planning standard is then reduced if the amount of alternative services available within a health systems area is greater than the statewide average.

In addition to meeting the Virginia planning standard, applicants must provide (either directly or through contracts) a full range of services including residential, group home care, partial hospitalization, and outpatient services. The applicant must also reserve 10 percent of its patient days for indigent clients (exclusive of Medicaid patients) and establish that utilization of existing hospital services in their area is at least 85 percent. Using this methodology, Virginia projected a 1990 statewide bed need of 366; the state currently has 994 psychiatric hospital beds for children and adolescents. Applying the Virginia planning standard to Connecticut's 5-18 population for 1990 results in a total bed need of 166.[1] Table 15 summarizes the bed need estimates developed for Connecticut based on the sample methodologies.

Table 19. Summary of Bed Need Estimates.

<table>
<thead>
<tr>
<th>Source</th>
<th>Basis of Estimate</th>
<th>Number in Need of Hospitalization</th>
<th>Number of Beds Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various</td>
<td>Utilization</td>
<td>Not applicable</td>
<td>559</td>
</tr>
<tr>
<td>GMENAC</td>
<td>Prevalence</td>
<td>4,809</td>
<td>945</td>
</tr>
<tr>
<td>Texas DMH</td>
<td>Prevalence</td>
<td>623</td>
<td>122</td>
</tr>
<tr>
<td>Tennessee Statutes</td>
<td>Utilization</td>
<td>2,679</td>
<td>691</td>
</tr>
<tr>
<td>Virginia Health Plan</td>
<td>Utilization</td>
<td>not applicable</td>
<td>166</td>
</tr>
</tbody>
</table>

Source: LPR&IC staff analysis.

[1] [(505.078 x 102)/365]/.85
As shown in the table, the bed need estimates vary widely, due largely to the differences in perception of the role of the hospital in the service delivery system. If agreement on the total number of beds needed could be reached, the distribution of beds (by geographic area, type of provider, length of program) would then need to be determined.

Comparison with Model Systems and Other States

The Department of Children and Youth Services had adopted a four-level continuum-of-care model as its conceptual framework for planning and delivering services. Although this model was developed by the Children's Mental Health Task Force in 1981, DCYS also uses the model for its child welfare and delinquency services. The continuum consists of the following levels of care:

- **Level I** - youth and community development services designed to promote healthy functioning of youngsters who are at risk of abuse, neglect, mental illness, or delinquency;

- **Level II** - support services provided to children, youth, and families in their homes and communities to prevent abuse/injury and removal of children from their families and to allow reunification of children with their families;

- **Level III** - supplementary services designed to restore the functioning of children and youth and develop the ability of parents to cope with problems through an extended day program outside the home environment; and

- **Level IV** - substitute services to protect or restore the child so that he/she may return home or to a family-like placement.

Generally speaking, as one moves up the continuum, the number of persons served decreases and the intensity, restrictiveness, and cost of service increases. Within Level I, DCYS provides or funds prevention projects, education and information, pre-school intervention, and parent support programs. Level II mental health services include early childhood screening, emergency psychiatric units, outpatient services, independent living arrangements, the wilderness school, and juvenile diversion programs. Level III services consist of day treatment and partial hospitalization while Level IV care includes group homes, inpatient hospital, and other types of residential care.
Service delivery models. There are a variety of other service delivery models that may be used for mental health systems. The National Institute of Mental Health model consists of six components:

- consultation and education services;
- diagnosis and evaluation;
- emergency treatment;
- outpatient services;
- day treatment/partial hospitalization; and
- inpatient/residential.

The service model used by the Connecticut Department of Mental Health varies slightly from the NIMH model, combining emergency and diagnostic screening services as one component and including specialized services (for children, the elderly, substance abusers, and the chronically disabled) and aftercare as additional components.

In addition to general mental health service delivery models, there have been models designed specifically for children's services. The New England Children's Mental Health Task Force developed a proposed set of community mental health services for those under 18 in 1978. The task force recommended nine levels of care, including:

- consultation and education;
- pre-care (screening and evaluation);
- emergency services;
- outpatient services;
- day treatment and partial hospitalization;
- 24-hour treatment (inpatient and residential);
- transitional services (foster care, group homes, shelters, halfway houses);
- follow-up; and
- substance abuse services.

Information about service models used in other states was obtained by the committee staff through a survey of 13 states. (Survey responses from the sample states are compared to
Rhode Island has recently outlined a model that describes 12 levels of mental health services for children, including 5 types of residential/inpatient care that should be available. The model also sets out the criteria patients should meet before each level of service is accessed. Implementation of the system calls for use of a uniform "severity range scale" to assess the degree of a client's disturbance. Results from the "severity range scale" evaluation and the client's age and living situation are the prime criteria in determining the service level appropriate for each client.

Virginia also developed a service delivery model for children in 1985. This model consists of 11 types of services including prevention, case management, respite care, and 4 levels of residential/inpatient care. Ohio, North Carolina and Tennessee have also developed children's service models that contain 17, 7, and 8 types of services, respectively.

Information on children's mental health planning efforts and needs assessment was also gathered from the 13-state sample. Eleven of the states surveyed had some sort of mental health plan, but in two cases the plan did not specifically address the needs of children and youth. Five states had plans that dealt exclusively with children's mental health needs. Nine of the 13 states had begun or completed some assessment of the need for children's mental health services.

Although the 13 states were also surveyed regarding their current mental health services for children and adolescents, data on beds and utilization were difficult to obtain. Like Connecticut, no central inventory of information on the supply and utilization of children's psychiatric beds in public, private, and general hospitals exists in any of the states surveyed. Availability of psychiatric beds varied among the states, with several experiencing rapid growth in the number of private psychiatric hospital beds for children. Officials in some states expressed concern that too many resources are being invested in hospitals at the expense of alternative service delivery settings that are less restrictive and costly. New Jersey and Kentucky currently have a moratorium on the approval of new beds while state mental health officials in Tennessee and Wisconsin are actively opposing the creation of beds for children in private psychiatric hospitals.
CHAPTER IV
FINDINGS AND RECOMMENDATIONS

The Legislative Program Review and Investigations Committee attempted to assess the adequacy of the supply of psychiatric hospital beds for those under 18. The committee was unable to judge the sufficiency of supply due to the lack of an acceptable methodology for estimating bed need and the absence of a detailed service delivery model that would define the role of hospital services in the mental health care system.

The committee found that DCYS has not met its statutory mandate to complete a comprehensive children's mental health plan. The committee believes completion of this plan is the crucial first step needed to provide a detailed service delivery model that defines the role of various types of mental health services. Once service roles are properly defined, the need for each type of service can begin to be assessed. A primary recommendation, therefore, is a comprehensive planning process that emphasizes development of a model service system and initiates a department response to the unmet needs identified by the committee review.

Committee analysis also revealed a need to review the role of the state hospitals. All state residents do not have equal access to state hospital care because of geographic disparities in the services DCYS offers. The large proportion of nonsecure units at DCYS facilities restricts admission of severely disturbed clients, the group that state hospitals are designed to serve. DCYS hospital census figures also revealed an apparent paradox: admitting beds are frequently available, despite the reported inability of referrers to get children admitted to the state hospitals. Thus, the committee recommended a reassessment of the DCYS hospitals' role to address each of these issues.

Finally, the committee identified improvements needed in the referral system to help assure that youngsters in need of hospitalization are placed in a timely and appropriate manner. Problems in reporting of hospital utilization data are also addressed by the following committee recommendations.

Comprehensive Planning

The Department of Children and Youth Services has a five-year Master Rolling Plan (MRP) that includes goals for all types of services provided by the department (i.e., child welfare, juvenile delinquency, and mental health). Some of the objectives in the plan address individual service areas while others cut across all three service mandates. As a framework for planning and delivering services, the department has developed a continuum of care model of services. The model defines four levels of services
ranging from the least intensive, (i.e., youth and community development activities) to the most restrictive (i.e., children served outside their natural homes).

C.G.S. Section 17-412 mandates the inclusion of a comprehensive mental health plan for children within the Master Rolling Plan. Although the current MRP contains several objectives related to mental health, the plan does not assess the full spectrum of mental health needs or the resources available to meet those needs. As discussed previously, the department has not completed a comprehensive mental health plan despite a January 1, 1981 statutory deadline. Development of the mental health plan has been an objective in the MRP but the completion dates have been pushed back in each plan. The current MRP contains an objective to develop refined service delivery models for the three major service delivery systems, including mental health, by December 1989.

In examining existing methodologies for determining the need for inpatient psychiatric beds, the committee found that a well-defined service delivery model is a prerequisite to any assessment of the need for hospital services. A determination of who should and should not be served in various treatment settings, including hospitals, must be made before the need for inpatient services can be estimated. Since the availability and accessibility of alternative services impacts demand for hospital services, the service delivery model must encompass the entire spectrum of services, from prevention and outpatient services to hospitalization and other residential programs.

The continuum-of-care model and the department’s philosophy of serving children in the least restrictive setting possible provide the framework for developing a detailed service delivery model. DCYS has recognized the need for a better-defined service delivery model, as evidenced by its MRP objective to identify and define the basic services needed at each level of the continuum and then use this expanded model to establish optimal numbers and location of services by region. In this objective, DCYS states that its present continuum-of-care model "...does not measure the current level or adequacy of available services nor does it establish optimal numbers and locations of service. It also does not speak to the particular service needs of the various target populations that the Department is mandated to serve."

The Legislative Program Review and Investigations Committee recommends that the Department of Children and Youth Services meet the statutory requirement for a comprehensive children’s mental health plan by developing and submitting such a plan to the legislature's Human Services Committee by July 1, 1988. The plan, at a minimum, should include:

- an inventory of public and private mental health resources currently available;
a detailed service delivery model that describes the types of services that should be available, the type of client that should be served by each component of the system, and the amount of services, by type, the department estimates would be needed to serve the target population;

an analysis of the gaps that exist between the current and desired service systems;

an identification of any special populations (e.g., deaf/hearing-impaired, substance abusers, violent/aggressive clients) that have distinctive service needs; and

objectives designed to move toward the optimal model of service delivery.

Any additional resources needed by DCYS to complete the plan should be earmarked specifically by the legislature for mental health planning to prevent diversion of new resources to other departmental planning activities. DCYS should solicit participation from public and private mental health service providers in developing the plan, as well as involving affected state agencies (e.g., the Children's Commission, Department of Income Maintenance, Connecticut Alcohol and Drug Abuse Commission, and Judicial Department) in the process.

Objectives from the comprehensive mental health plan should be incorporated into subsequent Master Rolling Plans, thereby allowing biennial tracking of progress. The plan should also prove useful as a guideline for the Commission on Hospitals and Health Care (CHHC) in evaluating certificate of need applications to establish new services. Currently, CHHC reviews applications on a case by case basis in the absence of any DCYS plan or policy statement about the type or amount of new services that are needed in the state.

The committee is concerned that the resources needed to complete the mental health plan may be used for other planning purposes, thus delaying development of the service delivery model and completion of the comprehensive plan. As discussed earlier, DCYS has continually postponed completion dates for mental health planning objectives. Any additional resources to be appropriated by the legislature to implement this recommendation should, therefore, be restricted for mental health planning. Since the process of hiring new staff is often lengthy, the department should consider using a consultant to help develop the service delivery model in order to complete the entire plan by the July 1, 1988 deadline. Given the fact that establishing a service model is a one-time effort, it appears that supplementing agency resources with consultant services would be an efficient way to accomplish the task.
DCYS has five regional networker/planners that staff the Regional Advisory Councils and address regional planning concerns. These networker/planners could be used to compile the inventory of existing mental health services as well as to solicit the participation of mental health service providers in the planning process. Since Public Act 86-15 changed the MRP from an annual to a biennial document, some DCYS planning resources should be available to devote to the mental health planning effort. In addition, DCYS has submitted an FY 88 budget option requesting three additional planning positions, including a mental health planner.

DCYS is currently involved in several mental health planning activities that should continue. The department has contracted with Yale University to study children's mental health in New Haven and develop a diagnostic instrument to assess mental health problems. Data from the New Haven study and an instrument that could be used to assess need in other parts of the state will be extremely useful in future mental health planning. The program review committee believes, however, that design of the service delivery model can and should occur before extensive prevalence data are developed through the Yale effort. It will be several years before the instrument developed by Yale could be applied in enough communities to provide prevalence data for planning purposes, and funding for such an effort is not assured. Adjustments to the desired number and location of services can be made when the Yale study information becomes available.

The department's Master Rolling Plan currently contains a number of objectives related to mental health that could continue until the mental health plan is complete. The committee found the MRP to be a well-designed plan in that it sets measurable objectives and timetables, defines needed resources, assigns responsibility for required activities, and accurately tracks progress. The committee believes, however, that the lack of a detailed service delivery model to serve as a framework for developing new services has resulted in a piecemeal approach to identifying and addressing unmet mental health service needs.

Role of the State Hospitals

Through strict admission criteria, the Department of Children and Youth Services has defined the role of its three psychiatric hospitals as serving the most severe types of emotional disturbances. Department facilities, because they accept patients regardless of ability to pay for services, are a primary service provider for the medically indigent with severe psychiatric problems. Several factors, however, led the committee staff to question whether the state hospital programs for those under 18 as currently structured are fulfilling their stated role.
Upon admission, virtually all state hospital clients require secure, closed treatment settings because of the severity of their problems. However, only 55 percent of the 149 state hospital beds for those under 18 are located in closed units. Open units in the state hospitals are generally used for patients who still require hospitalization but whose conditions have stabilized enough to allow treatment in a less restrictive setting. While it is recognized that varying levels of care should be provided in a hospital setting, the large proportion of open unit beds limits the state facilities' responsiveness to the emergency admission needs of children and youth with no alternatives for placement.

Testimony at committee hearings indicated that as a result of limited availability of admitting beds at DCYS hospitals, emotionally disturbed youngsters are maintained in inappropriate settings until admission or a suitable alternative can be arranged. Information on admission waiting times supported this testimony, showing that many of the children and adolescents whose disturbances are severe enough to meet state hospital criteria must wait several days, sometimes in emergency rooms or other unsuitable situations, before they can be placed on a secure unit at a DCYS hospital. During fiscal year 85, almost 60 percent of Riverview admissions and nearly one-quarter of admissions to each adolescent hospital waited 5 or more days from the time of referral to the time of admission.

Another factor that raises questions about the role of the DCYS psychiatric hospitals is the regional distribution of beds. As previous analysis revealed, the supply of admitting and open unit beds per population varies for the regions served by each adolescent hospital. Twice as many open unit beds are available to teenagers served by Housatonic as by Altobello (28.0 per 100,000 population ages 14 through 17 versus 13.6). Altobello provides one-third more secure beds for the 14 through 17 year old population it serves than does Housatonic (32.0 versus 21.3). In tracing the development of DCYS hospital services, the committee found that the number and location of beds were determined largely through budgetary, staffing, and physical plant considerations rather than an analysis of the amount of services needed in each part of the state.

In addition to the differences in the numbers of admitting and open unit beds among the two hospitals, there is also a programmatic difference. Housatonic hospital, through its Adam House program, offers a long term, voluntary admission treatment service for 14 through 17 year olds from Regions I and V who have failed in other placements. Adolescents from Regions II, III, and IV are not eligible for admission to Adam House and Altobello hospital does not offer a similar program. Furthermore, it does not appear that DCYS intends to establish a comparable program for
the youths served by Altobello; the plans for the new Altobello facility, which is scheduled for construction in the fall of 1987 do not include an Adam House type service.

Overall, the committee found that the department has not assessed the demand for its existing services to determine if the supply of state beds is appropriately allocated among age groups and treatment needs, as well as among regions. For example, analysis presented earlier showed that utilization varies considerably, although with no clear pattern, among DCYS hospital units. Housatonic adolescent hospital’s open unit had the highest average annual occupancy rate (93.9 percent) while its admitting unit was only 74 percent occupied, on average, during FY 86. At Altobello adolescent facility, the closed unit had a higher occupancy rate (86.5 percent) than the open unit (78.2 percent). Both types of units for those aged 5 through 11 at Riverview children’s hospital experienced high average annual occupancy rates in FY 86--87.1 percent for each--while the rate was lower for the 12 and 13 year old open unit (72.5 percent) than for the counterpart closed unit (87.1 percent).

During the analysis of utilization rates, the program review committee learned that Riverview hospital was operating at a 55-bed rather than it official 57-bed capacity. Since Riverview is the only state hospital serving 12 and 13 year olds, the elimination of 2 beds reduced the state’s admitting beds for this age group by 15 percent.

From the committee’s initial examination, it is clear that the department needs to conduct similar types of analyses to determine whether the limited supply of state hospital beds is being optimally utilized. The high demand for Riverview’s services for 5 to 11 year olds indicates there may be a need for expansion in these areas. The different utilization patterns between the two adolescent hospital admitting units may indicate a need to review admission policies or could reflect regional differences in the need for acute hospital services. The committee also questions the department allowing Riverview hospital, which experiences great demand for its services, to operate below its rated capacity.

Therefore, the Legislative Program Review and Investigations Committee recommends that the Department of Children and Youth Services, in conjunction with the comprehensive planning effort discussed earlier, reassess the role of its psychiatric hospitals in terms of allocation of beds among open and closed units and among age groups served. As part of this reassessment, it is further recommended that DCYS address the regional disparities in accessibility of services both in terms of numbers of beds and types of treatment programs. The committee believes that state services should be equally accessible to all residents. This is particularly important for psychiatric hospital services since the state is a primary resource for the medically indigent as well as others who have few or no other alternatives.
The department also needs to consider future demands on state hospital resources. Given the fact that third party payers (e.g., insurance companies, health maintenance organizations, etc.) are seeking to limit coverage and length of stay, it is likely that more children and adolescents will be referred to DCYS hospitals because they lack insurance or their insurance coverage has run out. The department must also consider what impact the development of new hospital services, such as the intermediate adolescent treatment program recently approved at one of the general hospitals, will have on the role of state psychiatric hospitals for those under 18.

Finally, the committee is concerned over the paradoxical situation that despite high demand for DCYS hospital services, the three facilities frequently have admitting beds available. During the review, it became evident through interviews with mental health providers and testimony at public hearings that it is difficult to get children admitted to the state hospitals. This is due, in part, to DCYS's strict admission criteria, which require that youngsters be dangerous to themselves or others before admission is considered. High demand for the limited number of beds at the DCYS hospitals was also commonly cited by professionals as a reason they found it difficult to get clients admitted to the state facilities.

DCYS census data, however, indicate that the hospitals are rarely full (i.e., census equal to capacity). During FY 86 the closed admitting units at Altobello and Housatonic adolescent hospitals were full only nine and ten days, respectively. (See Table 5.) The two admitting units at Riverview hospital for children were full more frequently but still only 49 and 87 days, respectively, during the same year.

The committee's analysis of unit utilization further showed that while admitting units were rarely at full capacity, some units were also below 85 percent occupancy, a figure state health planners consider well-utilized, for significant portions of the year. For example, the Housatonic secure admitting unit was at 85 percent capacity just over one-quarter of the year (28 percent). What was most surprising, given the complaints about the availability of state hospital beds, was that the admitting units at the 3 DCYS hospitals had, on average during the past fiscal year, from 1.4 to 5.4 beds open.

The committee was unable to pinpoint the cause of this paradoxical situation of available admitting beds and the reported inability of referrers to get clients admitted. Several possible reasons for this situation were identified:

- census may be held below capacity due to hospital staffing limitations;
- beds may be held open in anticipation of emergency
admissions;

- the referral may not match the hospital bed opening (e.g., female bed open and male referrals would be rejected);

- DCYS hospital admission criteria may be overly strict; and

- capacity figures may not reflect the actual number of beds available (e.g., as found at Riverview Hospital).

The strict admission criteria used by the hospital was evident in a staff review of 183 referrals to state hospitals that were rejected or withdrawn. Of the 104 cases where hospital staff recommended an alternative placement, 30 clients were advised to seek hospitalization at a general or private psychiatric hospital. In these cases, clients appeared to be in need of inpatient services, but their problems were not severe enough to warrant admission to a DCYS hospital.

As part of the reassessment of the role of the state hospitals, the Legislative Program Review and Investigations Committee recommends that DCYS explore with hospital staff the reasons why full census is so rare given the seemingly great demand for services by the mental health community. If, for example, the practice of holding beds open for emergencies is preventing full utilization, DCYS should examine the frequency and duration of emergency admissions and weigh that against the number of potential clients turned away to maintain the emergency capacity. Adjustments to staffing patterns and admission criteria could be made if those factors are found to be keeping census below capacity.

Refferral System

The lack of information on psychiatric hospital services available to children and adolescents was immediately identified as a problem when the committee initiated its study. No state or private agency maintains a listing of the number of psychiatric hospital beds for those under 18 either in total or by facility. Similarly, there is no single source of information on types of services provided, ages admitted, or problems not accepted at each facility that serves children and youth. In order to collect the bed supply data included in the this report, the committee had to contact each facility that operates a hospital program specifically for children and adolescents.

While the absence of centralized information on the supply of services is a hindrance to planning and evaluation efforts, it also has a direct impact on the efforts of service providers to find appropriate placements for children and adolescents in need of hospitalization. Interviews of mental health professionals and
public hearing testimony revealed that clinical staff in emergency rooms or outpatient clinics can spend hours telephoning various providers trying to find an available bed for a particular client. This situation not only results in a poor use of professional time but delays the delivery of services to youngsters in crisis.

In its report on mental health services for children and youth in south central Connecticut, the Health Systems Agency of Region II recommended the establishment of a statewide 24-hour clearinghouse hotline with information on inpatient bed openings to make the referral system more efficient. One option offered by the report was to have such a hotline operated by "Infoline", an already existing telephone clearinghouse of medical and social services information.

The program review committee endorses this concept and recommends that DCYS develop and maintain a statewide telephone clearinghouse on public and private inpatient bed openings. Under the committee recommendation, the department would be responsible for overseeing the collection of bed opening information but could contract out the actual operation of the telephone clearinghouse to an organization such as "Infoline". In addition, it may be possible for the department to collaborate with the Connecticut Hospital Association in collecting bed availability data.

It is recognized that such a hotline would not eliminate the need for referral sources to personally contact facilities to discuss issues related to admission. However, calls to programs that have no available beds or do not accept certain types of patients could be avoided.

Another factor that impedes the hospital referral process is the lack of a statewide network of programs that provide emergency services to children and adolescents in psychiatric crisis. For adults in Connecticut, the Department of Mental Health has recently established five regional emergency service programs to aid in the timely placement of persons experiencing psychiatric crises. These programs provide crisis counseling, psychiatric advice to emergency room staff, and short-term inpatient placements when needed. Emergency service staff are also responsible for quickly arranging admission to other inpatient settings when appropriate.

The advantages to such a system are many--more efficient referral processing, concentrated professional expertise, and timely response to the need for hospital services. Another benefit to emergency services programs is that the crisis intervention component is sometimes able to stabilize clients to the point where hospitalization is not necessary.

The Department of Children and Youth Services currently funds two regional emergency service programs that provide crisis intervention services including a "triage" function of assessing and referring clients to other services when appropriate. The
agency is in the process of funding a third emergency services program and the establishment of similar programs in the two remaining regions is included as an objective in its current Master Rolling Plan.

The committee believes that implementation of emergency services programs for those under 18 in all regions of the state will improve the efficiency of the psychiatric hospital referral process. Therefore, the Legislative Program Review and Investigations Committee recommends that the department establish emergency psychiatric service programs that provide crisis intervention as well as triage services to those under 18 in each region of the state by July 1, 1988. With such a network in place, youngsters in crisis will be seen by staff trained in children's mental health problems and knowledgeable about treatment resources for those under 18, thus permitting timely and appropriate assessment and referral.

At present, children and adolescents may be referred for hospitalization from any number of sources ranging from general hospital emergency rooms to school systems to parents. Hospital admission coordinators, especially at the state facilities, often must attempt to assess the appropriateness of a referral from information obtained over the telephone and recommend alternative placements when referrals appear to be inappropriate for admission to their facilities. The burden now placed on psychiatric hospital intake staff should be diminished as most inappropriate referrals should be screened out by the emergency programs.

The committee further believes the department, in developing the service system model recommended earlier, should consider centralized entry points for the delivery of all types of mental health services to children and youth. In several other states surveyed by the committee staff, community mental health centers appear to provide a regional focus for assessment and referral as well as treatment of children and adults. One state, North Carolina, has additionally established a "single port-of-entry" system for admission to its state hospitals for those under 18; children and adolescents must be referred from local community mental health centers to be considered for admission. Since Connecticut's community mental health center system does not cover those under 18, alternative mechanisms, such as emergency programs, for focusing delivery of mental health services for children and adolescents need to be explored by DCYS.

Hospital Utilization Data

C.G.S. Section 17-424a requires psychiatric and general hospitals providing psychiatric care to children and youth to provide DCYS with quarterly information about the youngsters admitted for care. The hospitals are required to report the date and reason for admission, diagnosis, birthdate, sex, town of residence, and discharge date for each such patient. When the committee examined the data reported by the hospitals, they
were found to be incomplete. Reporting by several of the hospitals appeared to be sporadic, with good reporting in some months and no reporting in others.

The Department of Children and Youth Services has recognized the erratic reporting by the hospitals. To partially address the problem, the department has negotiated an agreement with the Connecticut Hospital Association that will provide the needed data from general hospitals through the Connecticut Health Information and Management Exchange (CHIME) reporting system.

Private psychiatric hospitals, however, do not currently participate in CHIME and thus the completeness of data from these facilities could continue to present a problem. During visits to private psychiatric hospitals, committee staff found hospital personnel to be very cooperative in providing data for this study. The Department of Children and Youth Services stated that hospitals are reminded and encouraged to submit the required data, but that the department lacks any rewards or sanctions that would motivate the hospitals to provide complete data.

The Legislative Program Review and Investigations Committee recommends that the Commission on Hospitals and Health Care, as part of its rate approval process, review the performance of hospitals in providing the data required by C.G.S. Section 17-424a. Complete psychiatric hospital utilization data will enhance planning capability as well as facilitate certificate of need reviews by the Commission on Hospitals and Health Care.

DCYS has an extensive computerized data base on psychiatric service utilization at its own facilities. With improved reporting by private psychiatric and general hospitals, the department will be able to monitor use of nearly all psychiatric hospital services by those under 18. However, one gap, treatment in emergency rooms, remains. The committee found that accurate data are not available on the number of children and adolescents treated for psychiatric problems in emergency rooms.

Information on emergency room utilization would be valuable to the department in assessing the need for inpatient as well as other mental health services. The Department of Mental Health, working with the Connecticut Hospital Association, has established a system for collecting data regarding the use of emergency rooms by adults with psychiatric problems. Therefore, the Legislative Program Review and Investigations Committee recommends that the Department of Children and Youth Services, as part of its comprehensive planning recommended above, develop a mechanism for collecting information on emergency room utilization by children and adolescents with psychiatric problems.
APPENDICES
APPENDIX A

ADMISSION PROCESS

Two statutory procedures, one for persons under age 16 and one for those age 16 and over, have been established to guide admissions to psychiatric facilities in Connecticut. Although separate, the procedures contain parallel provisions that specify the criteria for admission, timeframes for the admission process and other safeguards against unnecessary hospitalization. Connecticut law also outlines the rights of mental patients, covering such areas as treatment plans, medication and treatment, use of restraints, and communication and visitors.

Under both admission procedures, there are two types of admissions: involuntary and voluntary. Involuntary admission of either adults or children essentially requires evidence that a person is dangerous to one's self or to others. The commitment criteria for adults (age 16 and older) require that the person is mentally ill and dangerous to the self or others, or is "gravely disabled". Similarly, commitment of a person under the age of 16 requires that the child suffers from a mental disorder, is in need of hospitalization for treatment, and that hospitalization is the least restrictive alternative available. Such evidence for children must meet a clear and convincing standard of proof.

Involuntary admissions can be ordered by physicians under emergency certificates or through the courts. Under an emergency certificate, any physician can order that a person be confined to a hospital for up to 15 days if that person needs immediate hospitalization for evaluation or treatment of a mental disorder. One court commitment process, generally conducted by a probate court, requires a psychiatric examination and hearing prior to the ordering of an involuntary admission.

Connecticut law also permits courts to commit certain types of individuals involved in criminal or delinquency proceedings to psychiatric facilities for evaluation and/or treatment. Under C.G.S. Section 46b-140, juvenile courts can order children (those under age 16) to a psychiatric hospital for up to 30 days for evaluation and recommendation regarding treatment. Persons 16 and older whose competency to stand trial is in question may be ordered by the superior court to a psychiatric facility for a competency review under C.G.S. Section 54-56d. In addition, such individuals may be committed to a facility for treatment until they are competent to stand trial. Another statute (C.G.S. Section 17-244) permits courts to commit adults (age 16 and over) and juveniles found guilty of certain serious crimes or sex offenses to a psychiatric institution for evaluation and recommendations regarding sentencing.
A diagram of the admission process for persons under age 16 is presented in the following figure. The primary difference from the adult (over age 16) process is that a parent or legal guardian can voluntarily admit a child under age 16 without the child's consent. However, a child 14 or older can request a probate court hearing to review his or her status as a voluntary patient.
Appendix A. Admission Process for Under Age 16 (C.G.S. Sec. 17-205b - 17-205j).

**VOLUNTARY**
- **Under 14**
  - Parent
  - Request, in Writing, Admission
    - Not Admitted → Hospitalized
      - If w/o parental consent, notify parents
      - If 14-16 and hospitalized at parents request, may request hearing
        - Hearing by Probate Court
          - Order Cont. Release Hospital.

  - 14-16
    - Parent
    - Child
    - Request, in Writing, Admission
      - Not Admitted → Hospitalized
        - If w/o parental consent, notify parents
        - If 14-16 and hospitalized at parents request, may request hearing
          - Hearing by Probate Court
            - Order Cont. Release Hospital.

**EMERGENCY**
- **Under 16**
  - M.D. Certifies Need for Immediate Hospitalization
    - Hospitalized for up to 15 days
      - Examined w/i 24 hrs. by Psychiatrist
        - Discharged (at any point find emerg. hospital unnecessary) → Initiate Commitment or Voluntary Process

**IN VOLUNTARY**
- **Under 16**
  - Written Application to Probate Court
    - w/i 10 days appt. 3 judge panel
      - Notify:
        - Parents
        - Child
        - Hospital
        - Anyy
      - Examine child w/i 10 days of hearing
        - Submit Report to Panel
        - Panel Holds Hearing
        - Vote Not to Commit
        - Agreement to Voluntary Admission
          - Vote to Commit for up to 6 mos.

**COMMITMENT**
- **Under 16**
  - Written Application to Probate Court
    - w/i 1 day appt. 3 judge panel
      - Notify:
        - Parents
        - Child
        - Hospital
        - Anyy
      - Examine child w/i 10 days of hearing
        - Submit Report to Panel
        - Panel Holds Hearing
        - Vote Not to Commit
        - Agreement to Voluntary Admission
          - Vote to Commit for up to 6 mos.

Source: LPR&IC
APPENDIX B
CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN OTHER STATES

Information on children’s mental health planning efforts and needs assessment was gathered from a sample of 13 states. Eleven of the states surveyed had some sort of mental health plan, but in two cases the plan did not specifically address the needs of children and youth. Five states had plans that dealt exclusively with children’s mental health needs. Nine of the 13 states had begun or completed some assessment of the need for children’s mental health services.

Although the 13 states were also surveyed regarding their current mental health services for children and adolescents, data on beds and utilization were difficult to obtain. Like Connecticut, no central inventory of information on the supply and utilization of children’s psychiatric beds in public, private, and general hospitals exists in any of the states surveyed. Availability of psychiatric beds varied among the states, with several experiencing rapid growth in the number of private psychiatric hospital beds for children. Officials in some states expressed concern that too many resources are being invested in hospitals at the expense of alternative service delivery settings that are less restrictive and costly. New Jersey and Kentucky currently have a moratorium on the approval of new beds while state mental health officials in Tennessee and Wisconsin are actively opposing the creation of beds for children in private psychiatric hospitals.

The committee attempted to compare the supply of psychiatric hospital beds for those under 18 per 100,000 population. The number of state hospital beds was generally available, but this data only represents one part of the supply. As can be seen in the following table, the number of state hospital beds varies widely, even when controlling for population differences. The committee was able to estimate the total bed supply for seven of the 13 states surveyed. Connecticut falls in the high range of the survey states in total beds per 100,000 under 18 population.
### Appendix B. Legislative Program Review and Investigations Committee Survey of Other States.

<table>
<thead>
<tr>
<th>State</th>
<th>Type of Plan</th>
<th>Children's Service Model</th>
<th>Status of Needs Assessment</th>
<th>Estimated No. of State Hospital Beds</th>
<th>State Hospital Beds per 100,000 0-17 Population</th>
<th>Total Psych. Hospital Beds 100,000 0-17 Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>Mental Health Plan w/children's section</td>
<td>None</td>
<td>None</td>
<td>390</td>
<td>5.8</td>
<td>Not available</td>
</tr>
<tr>
<td>Colorado</td>
<td>Mental Health Plan w/children's section</td>
<td>None</td>
<td>None</td>
<td>150</td>
<td>17.5</td>
<td>Not available</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Children's Multi-Service Plan</td>
<td>4 levels of care</td>
<td>Underway (ages 6-11)</td>
<td>149</td>
<td>19.9</td>
<td>68.9</td>
</tr>
<tr>
<td>Kentucky</td>
<td>State Health Plan (no child's mental health section)</td>
<td>None</td>
<td>Underway</td>
<td>52</td>
<td>5.0</td>
<td>32.1</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>Children's Mental Health Plan</td>
<td>None</td>
<td>Complete</td>
<td>126</td>
<td>9.2</td>
<td>24.5</td>
</tr>
<tr>
<td>Michigan</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>400</td>
<td>16.1</td>
<td>38.2</td>
</tr>
<tr>
<td>New Jersey</td>
<td>None</td>
<td>None</td>
<td>Underway</td>
<td>140</td>
<td>7.5</td>
<td>Not Available</td>
</tr>
<tr>
<td>New York</td>
<td>Mental Health Plan (no child's mental health section)</td>
<td>None</td>
<td>Underway</td>
<td>721</td>
<td>16.4</td>
<td>Not Available</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Children's Mental Health Plan</td>
<td>7 Types of Service</td>
<td>Complete</td>
<td>193</td>
<td>12.1</td>
<td>30.3</td>
</tr>
<tr>
<td>Ohio</td>
<td>Children's Mental Health Plan</td>
<td>17 Types of Service</td>
<td>Underway</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Children's Mental Health Plan</td>
<td>12 Types of Service</td>
<td>Complete</td>
<td>6</td>
<td>2.6</td>
<td>26.5</td>
</tr>
<tr>
<td>Tennessee</td>
<td>Mental Health Plan w/children's section</td>
<td>8 Types of Service</td>
<td>Complete</td>
<td>353</td>
<td>28.3</td>
<td>78.4</td>
</tr>
<tr>
<td>Virginia</td>
<td>Mental Health Plan w/children's section</td>
<td>11 Types of Service</td>
<td>Complete</td>
<td>172</td>
<td>14.9</td>
<td>86.1</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>Children's Mental Health Plan (ages 3-5)</td>
<td>None</td>
<td>None</td>
<td>122</td>
<td>9.5</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
The Honorable John Atkin  
The Honorable Christopher Shays  
Chairmen, Legislative Program Review  
and Investigations Committee  
18-20 Trinity Street  
Hartford, Connecticut 06106

Dear Senator Atkin and Representative Shays:

Thank you for the opportunity to make an agency response for inclusion in the published report, Psychiatric Hospital Services for Children and Adolescents, as formulated under the 1986 membership of the Legislative Program Review and Investigations Committee.

Due to the complexity of the issues and the time restriction of one week imposed upon us for response, we are requesting that our two previous written communications to the Committee (marked Attachment A and B) be incorporated in the published report and considered an integral and permanent part of this letter. With this understanding, the following reflects, in brief, agency reaction to the report's seven recommendations.

Recommendation 1. . . .a comprehensive children's mental health plan...by July 1, 1988. The Department will comply by developing a free-standing document; additional resources as noted in attachments are needed.

Recommendation 2. . . .reassess...allocation of beds among open and closed units...accessibility of services. The Department concurs as evidenced by its ongoing plans for RiverView, Altobello and Housatonic hospitals as noted in attachments; additional resources are needed.
Senator Eaton, Representative Giles and Members of The Program Review and Investigation Committee

October 3, 1986
Page Two

Role of State Hospitals:

Psychiatric hospitals including the three operated by DCYS for children are certainly intended for the most severe cases which require the most restrictive setting. Our hospitals are all JCAH accredited and intended to give quality treatment services regardless of the family's economic status.

The existing hospitals are indeed a function of DCYS planning - past, present and future. The addition of buildings (the school, the cottages) at RiverView took intensive planning and action. Several years have gone into the planning for a new Altobello Hospital on the RiverView campus - the feasibility study, the architectural plans, the bonding, etc. The Altobello plan is currently before the Commission on Hospitals and Health Care. We have now initiated a feasibility study of Housatonic Hospital.

All of this has required intensive planning and execution.

The issue of the number of open beds versus closed beds really relates to the treatment milieu and the appropriateness of moving youngsters as quickly as they are able from a locked situation to a more open setting. You may wish to hear from one of our superintendents on this point.

Adequacy of Bed Supply:

Contrary to the Briefing Packet Issues statement, DCYS has both developed and adopted a service system model, the continuum of care model. The priority of the agency has been the development of services in the first three levels of care. This, again, is demonstrated and verified in the master rolling plan, and in the agency's budget requests. This is also a reflection of the reality that our state hospital services for children are strong. Community-based, less restrictive services needed to effect the agency's major goal of keeping children with their families and in their communities continues to require additional planning, development and financing, both public and private.

We concur with the staff findings which address the issues of measuring and projecting mental health service needs and resources. There is a need for an accurate and empirically-based method to make such determinations for Connecticut and, indeed,
nationally. For this reason, the Department commissioned Yale University to develop such an instrument. Assuming the successful development of this instrument, it could likely serve as a national model.
The Honorable Rick Eaton
The Honorable Abraham L. Giles
Chairmen, Program Review and
Investigations Committee
State Capitol
Hartford, Ct. 06106

Dear Senator Eaton and Representative Giles:

During the public hearing on October 3, 1986, you requested that we forward to you the agency's various priorities and requests for psychiatric services for children and adolescents. To that end, we have compiled as addenda to this letter, the appropriate pages from the various documents (DCYS Master Rolling Plan, Statewide Facility and Capital Plan, DCYS Budget Option Request FY 1987-88) which denote our needs in several areas.

As we emphasized in our testimony, the department views psychiatric services as an integrated part of all aspects of programming for children served by the agency. You will find this philosophy embodied within the agency's five goals (Addendum A).

Current agency proposals and requests which are in various stages of both planning and implementation are noted below:

1. Capital Improvements and Institution Personnel/Equipment (Addendum B, C, and D)

A replacement facility for Altobello Hospital has been designed, and will hopefully receive Certificate of Need approval from the Commission on Hospitals and Health Care. It will require additional bonding approval from the 1987 Legislature for the construction phase.
Housatonic Adolescent Hospital, originally built in the 1930's to house adult psychiatric hospital patients, is outmoded and lacks adequate space for programming. Bonding monies have been requested for a feasibility study to determine whether renovation or new construction should be proposed. Either alternative would require bonding in the future.

Also, there are plans for completion of the RiverView Hospital. The administration building currently houses patients. This was intended to be short-term pending the addition of a residential wing. Bonding funds for architectural plans are in place. Bonding for the construction phase will be requested at a future date.

Additional staff and equipment has been requested as priority #5 in the Budget Option package for FY 1987-88.

2. Community Support Services (Addendum E and F)

Emergency Psychiatric Services: The Department has been consistent in requesting funding for community based emergency psychiatric services, including short-term in-patient services, that will evaluate, stabilize and treat children and youth in psychiatric crisis at the local level. Programs have been established in Hartford and New Haven which will need continued additional support. A new program will be implemented in Region I (Bridgeport Area) this fiscal year. The Department will be making future funding requests for similar programs to be established in Regions III and V, in order to provide a state-wide system of such services.

Mental Health Services: i.e. out-patient, day treatment and partial hospitalization programs need continued support, especially as these programs serve to prevent in-patient admissions and provide transitional services upon return to the community after completion of in-patient treatment. The Department intends to seek continued support for these programs. An issue to be examined is the level of third party reimbursement for these programs. Limited funding coupled with limited reimbursement currently inhibits development and enhancement.
DCYS has requested additional appropriations to enhance Child Guidance and Youth Service Bureau counseling services and to transfer services previously paid through Federal Funds to the State general fund.

In addition, the department has requested monies to be appropriated for a new demonstration program in Home Based Treatment Services designed to prevent unnecessary separation of children from their parents by providing intensive in-home services including intensive family and individual counseling.

3. Mental Health Substitute Services/Private Sector Programs (Addendum G and H)

During 1985 a Departmental Task Force was convened to identify and articulate service needs for seriously emotionally disturbed youth in the care of the Department of Children and Youth Services. The work of this task force resulted in a budget option for FY 87-88 to establish an in-state, long term, secure, psychiatrically oriented residential program operated by the private sector. If funded, this will be a small, but much needed beginning in specialized programming for the seriously emotionally disturbed. Future budget requests will include special programs to meet the needs of seriously emotionally disturbed children, as well as expansion of services to accommodate all identified children and youth in this category.

DCYS has also requested monies for additional 30 day residential treatment beds for substance abuse.

4. Mental Health Needs Assessment: (Addendum I)

In previous testimony we referenced the contract the Department of Children and Youth Services has with Yale University to develop a model for the collection of empirical data which does not currently exist on children and youth in Connecticut.
Senator Eaton and Representative Giles

October 28, 1986

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The model will need continued and additional financial support to assess mental health needs on a state-wide basis. The epidemiological data obtained from this model will provide us with the necessary information to better plan mental health services in the future.

Thank you for this opportunity to address these items once more. If you have any questions, please call.

Sincerely,

Mark J. Marcus
Commissioner

MJM:BBK/w

cc: Jill Jensen