

IN 4/50.9/17

c.1

17

COLORADO STATE PUBLICATIONS LIBRARY  
IN4/50.9/17 local  
/Need assessment : preliminary report on



3 1799 00009 4094

17

# EVALUATION

# REPORT

NEED ASSESSMENT:  
PRELIMINARY REPORT  
ON HIGH RISK POPULATIONS

November 27, 1976

Robert B. Abelson, Ph.D.  
Director,  
Statistical Analysis & Research

J. Paul Myers, Jr., M.S.  
Senior Research Assistant

Nancy C. Wilson, R.N., M.A.  
Researcher III

STATE OF COLORADO

DEPARTMENT OF INSTITUTIONS

DIVISION OF MENTAL HEALTH

NEED ASSESSMENT:  
PRELIMINARY REPORT  
ON HIGH RISK POPULATIONS

November 27, 1976

The purpose of this report is to provide a preliminary estimate of the number of persons in Colorado who represent a high risk in terms of their need for mental health services. These are the individuals who would be considered as being "severely disturbed," and are either currently being treated or are in need of such treatment.

The estimates reported herein were developed by the Statistical Analysis and Research Section of the Division of Mental Health, in conjunction with the Need Assessment Task Force of the Evaluation Advisory Committee. It is anticipated that in the next six months, the estimates reported here will be refined further, as well as a break-out of these estimates into the specific catchment areas.

Table 1 shows the estimated number of severely disturbed people in Colorado needing mental health services. The remainder of this report explains how these estimates were arrived at.

Table 1		
ESTIMATED NUMBER OF SEVERELY DISTURBED PEOPLE NEEDING MENTAL HEALTH SERVICES		
1. Served in the state MH system during FY 1975-76		44,000
2. Unmet need		
a. currently in nursing or boarding homes, or other residential facilities	5,400	
b. whereabouts unknown	4,600	
c. total unmet need		10,000
3. Total		54,000

1. Served in the State MH System during 1975-76

The table above (Table 1) shows that an estimated 44,000 "high risk" clients are currently being served by the state mental health system. This figure was arrived at by applying two different methods.

Method A: Treatment Intensity. For this method, the following working definition of "high risk" was used: High risk clients are:

- (a) hospital inpatients;
- (b) other 24-hour care clients;
- (c) partial care clients; and
- (d) outpatients who, if they were not receiving outpatient care, would require treatment in a more intensive setting.

This definition is basically the same as that used by Youlon Savage in a September 20, 1976 memo to the Program Specialists regarding budget request reviews for centers and clinics. Using existing workload data, it is possible to obtain estimates of the number of clients meeting the criteria in the working definition given above. These estimates were obtained using the following methodology:

- (a) Obtain the average number of open cases by intensity at the end of each month for FY 1975-76.
- (b) Determine the percent of open cases attributed to each intensity.
- (c) Apply this percent to the total number of clients served during the year.
- (d) Determine the number of high risk clients in each intensity.

According to the working definition, the number of high risk clients includes all (100%) inpatients, other 24-hour care clients, and partial care clients. As for outpatients, the Need Assessment Task Force estimated that 15 percent of these clients have been in more intensive programs, and an additional 30 percent would have been if an outpatient program did not exist. These estimates were checked with the Needs and Priorities Task Force of the Center and Clinics Association (CACMHCC), who agreed the estimates were reasonable. Thus, 45 percent of the outpatient clients were regarded as being in the "high risk" group.

Table 2  
HIGH RISK CLIENTS IN COMMUNITY PROGRAMS  
(Method A)

	<u>Inpt</u>	<u>Oth-24</u>	<u>Part</u>	<u>Outpt</u>	<u>Total</u>
Average # of cases at end of month	315	233	1050	21476	23074
Percent of the distribution	1.4	1.0	4.6	93.0	100.0
Percent times total # of clients served	945	675	3105	62777	67503
Percent who are High Risk	100	100	100	45	49
Number of High Risk clients	945	675	3105	28250	32975

Table 2 shows the figures for community programs. To the community total of 32,975 can be added all the clients served by the hospitals, 10,023, for a grand total of 42,998. This represents 1.6 percent of the estimated 1976 Colorado population (2,717,627). The use of these figures in arriving at the final estimate will be discussed after the second method is presented.

Method B: Disruption Profile/Diagnosis. The second method utilized an estimate of the number of severely disturbed served during FY 1975-76, obtained using a combination of Disruption Profile ratings and diagnosis. Each admission was placed in a group using the following scheme:

<u>Diagnostic Criteria</u>	<u>Disruption Profile Criteria*</u>			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Psychotic	x	x	x	
Neurotic & Similar Disorders	x	x		
Other	x	x		(excludes involuntary-civil & criminal code)

\*A = Level IV on any dimension

B = Level III on any dimension, but no Level IV ratings

C = Level II ratings or combination of II's and I's

D = Level I ratings on all dimensions

The "x's" indicate the types of clients who are considered to be severely disrupted. To these, we can add all persons with a legal status of "involuntary-civil" or "criminal code," regardless of Disruption Profile rating or diagnosis, because these clients must be served by legal mandate.

Table 3 shows that the number of severely disturbed clients, by Method B, is an estimated 45,439. This represents about 54 percent of those clients served by centers and clinics, and about 93 percent of the hospital clients. Expressed another way, these 45,439 clients represent 1.7 percent of the estimated 1976 population of Colorado, while the system served a total of 77,526 clients, or 2.9 percent of the population.

Table 3  
ESTIMATED NUMBER OF SEVERELY DISTURBED CLIENTS  
(Method B)

	<u>Total Clients Served</u>	<u>% Severely Disturbed</u>	<u># Severely Disturbed</u>
Community Agencies	67,503	53.5	36,097
Hospitals	10,023	93.2	9,342
Total	77,526	58.6	45,439

Comparison of Methods A and B. It can be seen that by applying two different criteria and methodologies to existing data concerning clients who utilized the public mental health system in FY 1975-76, we arrive at strikingly similar figures. These are shown in Table 4. By taking an average of the two methods as our best estimate, we can be relatively confident that about 44,000 of our current clients are severely disturbed, and can be considered to be a part of the high risk population

Table 4  
COMPARISON OF METHODS A AND B ESTIMATES

	<u>Method A</u>	<u>Method B</u>
Number of High Risk Clients	42,998	45,439
Percent of Total Case Load	55.5	58.6
Percent of Colorado Population	1.6	1.7

in the state. This then is the rationale for the 44,000 figure which appears in Table 1; i.e. the estimated number of severely disturbed people currently being served in the state mental health system.

## 2. Unmet Need

(A) Persons Currently in Nursing or Boarding Homes, or Other Residential Facilities. In addition to the estimated 44,000 persons already receiving mental health care in the state system, we know there are a significant number of other severely disturbed persons in other facilities who are the same type of persons as those we have been considering. There are three general types of facilities for which we can make estimates: Nursing Care Facilities (NCF), Intermediate Health Care Facilities (IHCF), and Personal Care Homes (PCH). The location by catchment area, and number of beds in these types of facilities is shown in Table 5. Estimates of the number of persons in each of these types of facilities who are in need of mental health services were made as follows:

NCF's and IHCF's: Turning to national figures, Joan Van Nostrand, Chief of the Long-Term Care Statistics Branch at the National Center for Health Statistics, reports that 12.8 percent of the people residing in nursing homes across the country have a mental disorder as their primary diagnosis (personal communication with Nancy Wilson). According to the Directory of Colorado Health Facilities (1976), there are approximately 18,000 people in nursing and intermediate care homes in Colorado. Using the 12.8 percent national figure, 2304 would carry a primary diagnosis of mental disorder. This figure is a low estimate of those actually in need of mental health services for two reasons:

- (a) Colorado is ahead of many states in moving previously hospitalized patients into nursing and boarding homes;
- (b) The 12.8 percent refers to primary diagnosis only, and one could assume that a comparable (or even higher) percent have a secondary diagnosis of mental disorder.

Therefore, 25 percent would be a conservative estimate of the percent of residents in these facilities who are in need of mental health services.

PCH's: Pitifully little is known about this population, even to the number of people in the homes or where they are. The exception is the

Table 5  
DISTRIBUTION OF LICENSED ALTERNATIVE 24-HOUR BEDS

	NCF		IHCF		PCH*		TOTAL	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Adams	821	6.5	362	6.5			1183	6.2
Arapahoe	499	4.0	348	6.3			847	4.4
Aurora	353	2.8	59	1.1			412	2.2
Bethesda	712	5.6	274	4.9	75	8.0	1061	5.6
Boulder	956	7.6	24	0.4			980	5.1
Colorado West	663	5.3	122	2.2			785	4.1
Northwest Denver	460	3.6	472	8.5	789	83.8	1721	9.0
East Central	35	0.3	185	3.3			220	1.2
Jefferson	1782	14.1	972	17.5			2754	14.4
Larimer	1070	8.5	139	2.5			1209	6.3
Park East	508	4.0	564	10.1	77	8.2	1149	6.0
Midwestern	374	3.0	133	2.4			507	2.7
Northeast Colorado	488	3.9	331	5.9			819	4.3
Pikes Peak	1035	8.2	394	7.1			1429	7.5
San Luis	90	0.7	90	1.6			180	0.9
Southeast Colorado	148	1.2	415	7.5			563	2.9
Spanish Peaks	755	6.0	353	6.3			1108	5.8
Southwest Colorado	337	2.7					337	1.8
Southwest Denver	357	2.8	20	0.4			377	2.0
Weld	687	5.5	271	4.9			958	5.0
West Central	474	3.8	40	0.7			514	2.7
TOTALS	12604	100%	5568	100%	941	100%	19113	100%

\*excludes facilities for special groups thought to have few unmet mental health needs

Denver area, where personal care homes are licensed, and sketchy information is available concerning the residents. Thirty-six personal care homes, eleven room and board homes, and two alcoholismhalfway houses are licensed to operate in Denver, according to the latest figures from the Department



of Health and Hospitals. Several of these meet the needs of special groups, e.g. Eastern Star Home, and it is doubtful that ex-hospital patients reside there.

People working with many of these facilities\* estimate that between 55 and 60 percent of the residents are ex-hospital clients\*\* and about 90 percent of all residents are in need of mental health services. Table 6 presents estimates regarding the PCH population.

Table 6  
ESTIMATES OF PERSONAL CARE HOME POPULATION

Total Beds	1,399
Special Programs	- 423
Remaining Beds	976
Fort Logan Programs	- 35
Total Relevant Population	941

On the basis of the 25 percent estimate for NCF's and IHCF's, and the 90 percent estimate for PCH's, estimates can be made regarding the number of persons in these facilities who need mental health services by applying these percentages to the data shown above in Table 5. The results of these computations are shown in Table 7; approximately 5,400 such persons are estimated. This is the source for the figure originally presented in Table 1.

Table 7  
POPULATION IN CERTAIN RESIDENTIAL FACILITIES

	<u>NCF</u>	<u>IHCF</u>	<u>PCH</u>	<u>Total</u>
Total Beds	12,604	5,568	941	19,113
Est. % Needing MH Services	25	25	90	28
Est. No. Needing MH Services	3,151	1,392	847	5,390

\*Lorraine Hager, Team Leader, TAP Team, FLHHC, and Doris Jay, Team Leader, HIP III Project, FLHHC

\*\*In February, 1975, the HIP III Project, FLHHC, interviewed 295 residents in 16 PCH's. Seventy-two percent of them reported previous psychiatric treatment; 58% were ex-hospital patients .

(B) Other Persons in Need of MH Services, Whose Whereabouts Are Unknown. This is obviously a difficult figure to estimate. However, a method was devised to make a guess.

First, let us consider a statement made by a recognized authority in the field. In a recent article,\* Dr. Morton Kramer, former chief of the Division of Biometry, National Institutes of Mental Health, stated that "no health agency has as yet developed a mechanism for the systematic periodic collection of morbidity data on the mental disorders which can be used to provide reliable current estimates of the total incidence and prevalence of these disorders in the population of a state, city, county, or other geographical subdivision" (p. 189). However, recognizing that administrators need data, even estimates, in order to guide planning and evaluation efforts, he uses three varying levels of need based on various community surveys: 2%, 10%, and 20%. The "20%" figure can be taken to represent "some degree" of mental health need, and the "10%" figure represents a "moderate" estimate of need, which was also suggested by Pasamanick, et al, in a frequently quoted prevalence study.\*\* The "2%" figure would represent an estimate of those persons at the far end of a normal distribution of cases along a severity of impairment dimension, and would include all those fitting our definition of the severely disturbed.

The estimated population of Colorado in 1976 was 2,717,627; two percent is a little over 54,000. Therefore, we are estimating a total need of 54,000. If 44,000 are currently being served, and 5,400 are in NCF's, IHCF's, and PCH's, then 4,600 remain to be identified. This then represents the basis for the remaining figures shown in Table 1.

A certain degree of support for this figure comes from a recent study done by Buzzy Gibson of the Department of Institutions. In the process of locating adjudicated former hospital clients, she enlisted the help of the Department of Social Services. Of the 7,296 names furnished by the hospitals, Social Services was able to identify 1,761 as receiving some form of aid. Most of these were in nursing or personal care homes. This leaves about 5,500 ex-hospital patients unaccounted for. In the light of this figure, our 4,600 estimate seems entirely reasonable.

Further efforts to identify the whereabouts of these persons, as well as refining the estimate, will be occurring over the next six months. In these efforts, the Need Assessment Task Force will work in conjunction with Noel Nesbitt, DMH Alternative Care Program Specialist, and with others involved in her activities.

---

\*Kramer, M. Issues in the development of statistical and epidemiological data for mental health services research. Psychol. Med., 1976, 6, 185-215.

\*\*Pasamanick, B., et al. A survey of mental disease in an urban population. Amer. J. Pub. Health, 1957, 47, 923-929.