Joint Legislative Audit Committee

Office of the Auditor General

DEFICIENCIES IN STATE HOSPITAL STAFFING STANDARDS

California statutes require state hospitals to be staffed according to the 1973 Staffing Standards, or any modified version of the Standards. In fiscal year 1977–78, state hospital staffing cost an estimated $303 million. Approximately 60 percent of the nearly 20,000 positions budgeted in state hospitals are to be determined on the basis of the Standards.

Our review of the 1973 Staffing Standards revealed significant difficulties with their use in determining state hospital staffing needs. As a result, actual staffing does not conform with Standard Staffing and the 1973 Staffing Standards are of questionable effectiveness in assessing state hospital staffing needs.

We recommend specific issues which the Departments of Developmental Services and Mental Health, and the Legislature should consider in modifying or altering the Standards.

REPORT TO THE

CALIFORNIA LEGISLATURE

REPORT 802

REPORT OF THE

OFFICE OF THE AUDITOR GENERAL

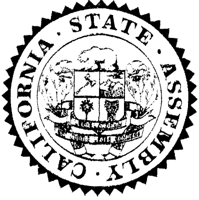
TO THE

JOINT LEGISLATIVE AUDIT COMMITTEE

802

DEFICIENCIES IN STATE HOSPITAL STAFFING STANDARDS

OCTOBER 1978



Joint Legislative Audit Committee

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October 16, 1978

The Honorable Speaker of the Assembly
The Honorable President pro Tempore of the Senate
The Honorable Members of the Senate and the
Assembly of the Legislature of California

Members of the Legislature:

Your Joint Legislative Audit Committee respectfully submits the Auditor General's report on the staffing standards system used to determine treatment staffing in state hospitals.

The report identifies deficiencies in the 1973 Staffing Standards, including unreliable data, failure to update the Standards, and limited applicability. In addition to these deficiencies, the Standards have not been consistently applied throughout the state hospital system. As a result, the 1973 Staffing Standards are of questionable effectiveness in assessing state hospital staffing needs.

The Auditor General recommends specific issues which the Departments of Developmental Services and Mental Health, and the Legislature should consider in modifying or altering the Standards.

The auditors are Harold L. Turner, Audit Manager; David B. Tacy; Robert T. O'Neill; Allison G. Sprader; and Edwin H. Shepherd.

Respectfully submitted,

RICHARD ROBINSON
Chairman

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SUMMARY

California statutes require state hospitals to be staffed according to the 1973 Staffing Standards, or any modified version of the Standards. In fiscal year 1977-78, state hospital staffing cost an estimated $303 million. Approximately 60 percent of the nearly 20,000 positions budgeted in state hospitals are determined on the basis of the Standards.

Our review indicated the 1973 Staffing Standards system could be manipulated to overstate or understate staffing needs because (1) the ratings of patient need are conducted by the hospital staff who have a vested interest in the outcome and (2) the system lacks adequate controls to assure sufficient objectivity. The Department of Health found that ratings of patient needs in 117 of 355 hospital wards were suspect in the 1977 patient survey (see page 15).

In addition to the Standards' susceptibility to manipulation, several other problems contribute to the Standards' inadequacy for use in assessing hospital staffing needs. The Standards have not been updated to reflect important developments in law, administrative policy and treatment practices which affect staffing needs. Finally, the Standards do not apply to all categories of staff necessary to provide adequate patient care as defined by federal Medicaid regulations and state licensing requirements. As a result of these problems, the Staffing Standards are of questionable effectiveness for use in assessing state hospital staffing needs (see page 16).

Instead of correcting these deficiencies in the Standards, the state hospital system has made adjustments to them (see page 20). During most of fiscal year 1977–78, state hospital system headquarters allocated more staff than specified by the Standards to five hospitals and less staff than specified by the Standards to the six other hospitals. Hospital managers and treatment program directors in each facility made additional adjustments to the staffing allocations. Similar inconsistencies occurred in the fourth quarter of fiscal year 1977–78. As a result of these adjustments, there is inconsistency between the staffing pattern prescribed by the Standards and that allocated or actually in existence at the state hospitals (see page 22).

Assembly Concurrent Resolution No. 103 of 1978 requests the state Department of Health Services, in conjunction with the state Departments of Mental Health and Developmental Services, to proceed forthwith to establish standards for the hospitals which will allow for objective evaluation and which can be enforced without extensive negotiating. We recommend that these departments address the problems which we have identified and provide an analysis of alternatives to the Standards (see page 31). We also recommend that the Legislature consider certain principles in evaluating any proposed changes to the Standards (see page 32).

INTRODUCTION

In response to a resolution of the Joint Legislative Audit Committee, we have reviewed the 1973 Staffing Standards, a procedure used to determine state hospital staffing needs. This review was conducted under authority vested in the Auditor General by Section 10527 of the Government Code.

We were asked to review the state hospitals' performance in conducting the Staffing Standards patient surveys and translating the information collected into staffing requirements. We were also requested to determine if the needs assessment process could be manipulated to either understate or exaggerate necessary staffing. Additionally, we were asked to suggest possible alternatives for improvements in the staffing system.

We interviewed personnel at state hospital headquarters and at 6 of the 11 state hospitals. We also reviewed records pertinent to state hospital staffing. The six facilities we visited were Agnews, Camarillo, Fairview, Metropolitan, Patton and Sonoma State Hospitals. This selection was intended to provide a cross section of programs for the mentally disabled and developmentally disabled at hospitals throughout the State.

We appreciate the cordial cooperation provided by all those we contacted during our review.

BACKGROUND

California operates 11 state hospitals. Since July 1, 1978, the Department of Developmental Services has administered the nine state hospitals which care for some 10,000 developmentally disabled patients. The Department of Mental Health operates mentally disabled programs at six hospitals which serve approximately 5,700 mentally disabled patients. Four of these six hospitals receive support services provided by the Department of Developmental Services. An estimated $303 million was budgeted for state hospital staffing in fiscal year 1977-78, representing approximately 85 percent of the total expenditure for state hospitals.

Table 1 (page 5) shows the budgeted number of positions in state hospitals for fiscal year 1977-78. These totals reflect the projected permanent staffing at end of year. Column 1 shows the number of positions originally budgeted in state hospitals, and Column 2 shows the budget adjusted for the additional staffing for which state funds were appropriated by Chapter 71, Statutes of 1978 (AB 2481).* These budget totals include treatment positions which are to be determined on the basis of the 1973 Staffing Standards and administrative and support positions which are not determined on the basis of the Standards. Treatment positions account for approximately 60 percent of total state hospital staff.

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* Chapter 71, Statutes of 1978, in effect authorized an additional 2,962.6 positions in state hospitals to meet federal Medicaid regulations and state licensing requirements.

TABLE 1

BUDGETED POSITIONS* IN STATE HOSPITALS
FISCAL YEAR 1977-78

Hospital	Original Budget	April 1978 Revised** Budget
Agnew	1,292.6	1,310.9
Atascadero	857.9	1,118.2
Camarillo	1,757.3	2,280.3
Fairview	1,833.3	1,995.6
Metropolitan	1,266.5	1,719.2
Napa	2,234.1	2,591.5
Pacific	1,673.2	1,979.6
Patton	1,041.7	1,485.9
Porterville	1,751.4	1,871.3
Sonoma	2,099.2	2,267.5
Stockton	954.0	1,102.0
Totals	16,761.2	19,722.0

* Permanent positions expressed in terms of full-time equivalent positions.

** The revised budget reflects the additional positions provided by Chapter 71, Statutes of 1978 (AB 2481) and temporary adjustments per the fourth quarter allocation.

California's state hospital system has worked since 1947 to develop and refine quantitative assessments of its treatment staffing requirements. Fixed staff-patient ratios were developed for nursing staff in 1947 and for professional staff in 1952. In 1965 the Legislature directed the then Department of Mental Hygiene to develop a new staffing system which became known as SCOPE (Staffing Care of Patients Effectively).

The SCOPE system was designed by industrial engineers to measure the amount of time needed to provide life support* services for state hospital patients. First, patient characteristics such as degree of ambulation and sensory perception were categorized and measurements were made to determine the staff time necessary to serve patients' life support needs, such as feeding, dressing and bathing. Treatment staff at each hospital then completed patient surveys which identified the treatment needs of the current patient population. This data was computer processed to determine the total nursing staff required to provide life support services on each ward. Ward needs were then totaled to prescribe the nursing staff required for each hospital.

In 1971 the then Department of Health established the Program Review Unit, Number 72 (PRU-72) to revise and update the SCOPE system. PRU-72 issued a report in 1974 which is commonly referred to as the 1973 Staffing Standards. These Standards were intended to update the SCOPE standards for nursing personnel and expand

* A basic level of medical care, not including programming to treat a patient's disabilities.

intended to update the SCOPE standards for nursing personnel and expand SCOPE to include treatment services delivered by physicians, psychologists, social workers and rehabilitation therapists.

The Governor adopted the principles of the 1973 Staffing Standards' system in December 1976. The state hospitals were authorized 83 percent of the staffing prescribed by the Standards, except programs for children and adolescents which were budgeted at 100 percent. Chapter 72, Statutes of 1977, mandated the following implementation of the 1973 Staffing Standards:

> All state hospitals for the mentally disabled and developmentally disabled shall be staffed to meet the standards of Program Review Unit, Number 72 1973 Staffing Standards or any modified version of such standards. Such standards or modified version shall be fully implemented by June 30, 1980.

Chapter 72 also required the then Department of Health to report on (1) the adequacy of the Program Review Unit Number 72 standards or any modified version of such standards as they relate to standards adopted by the Joint Commission on Hospital Accreditation for psychiatric facilities and for residential facilities for the developmentally disabled and (2) the action taken to meet the standards of Program Review Unit, Number 72, or modified versions of such standards. The Department submitted two reports on the Standards in 1977 and both attributed an increased quality and quantity of patient care to the implementation of the 1973 Staffing Standards. These reports suggested that the full implementation of the Standards would provide the greatest observable patient benefits.

During fiscal year 1977–78, state hospitals were authorized 88 percent of the Standards for most programs and 100 percent for the children's and adolescent programs. Each of the state hospitals was reviewed by the Licensing and Certification Division of the then Department of Health and was found to be out of compliance with federal Medicaid regulations and state licensing requirements. Chapter 71, Statutes of 1978 (AB 2481), in effect authorized an additional 2,962.6 positions to meet licensing requirements.

In fiscal year 1978–79, the same percentages of Standard Staffing have been authorized as in 1977–78 (i.e., 88 percent for most programs), except where licensing requirements specify higher staffing.

The Conference Committee on the fiscal year 1978–79 Budget Act specified that the Departments of Developmental Services and Mental Health report to the Legislature regarding the feasibility of modifying the 1973 Staffing Standards to incorporate licensing requirements. If the 1973 Staffing Standards cannot be so modified, the departments are required to identify the means to be used to determine staffing needs. In addition, Assembly Concurrent Resolution No. 103 of 1978 requests the Department of Health Services, in conjunction with the Departments of Mental Health and Developmental Services, to proceed forthwith to establish standards for the hospitals which allow for objective evaluation and which can be enforced without extensive negotiating, and to report to the Legislature by January 1, 1979.

Patient Survey Procedure

Both the 1973 Staffing Standards and their SCOPE predecessor relied upon a survey of patient care needs to determine staffing needs. Surveys related to the 1973 Staffing Standards were conducted in 1973, 1974, 1975 (two surveys) and 1977. The 1977 survey process was similar to the previous surveys in that patient care and treatment needs were rated by treatment staff responsible for a given patient's care. These ratings were sample audited by clinical staff selected from state hospitals other than the hospital being audited. Both the rating period and the audit days were announced several months in advance. The audit consisted primarily of a review of sample patient health records for the week preceding the audit, and in 1977, some direct observation of patient condition and treatment. The ratings information was computer processed to determine the staffing required to meet patient care needs. The computer output specified the amount of treatment currently delivered and that prescribed by the Standards for each patient, ward, program and hospital.

Staffing Allocation Process

Once the staffing requirement was determined, the prescribed staffing was allocated to each hospital on a quarterly basis. The quarterly allocations are intended to permit reduction in staff in consort with projected reductions in patient population. (The allocation process is analyzed on pages 20-22.) Staffing allocations for the first three quarters of fiscal year 1977–78 were related to the 1973 Staffing Standards' staff time measurements, the results of two patient surveys conducted in 1975 and a June 1977 patient census. The fourth quarter fiscal year 1977–78

allocation was based on the 1973 Staffing Standards' staff time measurements, a patient survey conducted in 1977 and a patient census conducted in September 1977. The fourth quarter 1977–78 allocation also reflected the budget augmentation provided by Chapter 71, Statutes of 1978 (AB 2481) to meet licensing deficiencies.

Cost of the Staffing Standards

The costs of developing the 1973 Staffing Standards and conducting the related patient surveys have not been identified by the state hospital system. According to a former PRU-72 project director, the estimated cost for developing the 1973 Staffing Standards was approximately $250,000. We estimate that the cost of conducting the most recent (1977) patient survey was $1,450,000 (includes approximately $116,000 to train staff and conduct the patient ratings, and approximately $1,334,000 for time spent preparing documentation and updating patient records), based on an average nursing staff involvement of 25 hours to prepare the ratings and supporting documentation. This average was developed from a survey of hospital nursing staff effort conducted by a Staffing Standards coordinator at one state hospital.

The Department of Developmental Services presently budgets two positions to administer the Standards system. Additionally, staff time is expended at each state hospital to manage the application of the Staffing Standards system.

AUDIT RESULTS

STATE HOSPITAL STAFFING STANDARDS HAVE NOT BEEN APPLIED CONSISTENTLY AND ARE OF QUESTIONABLE EFFECTIVENESS

Chapter 72, Statutes of 1977 requires that state hospitals be staffed according to the 1973 Staffing Standards or any modified version and that such standards or modified version be fully implemented by June 30, 1980. We identified the following problems in using the 1973 Staffing Standards to assess staffing needs:

- The data used to compute Standard Staffing is not sufficiently reliable because the ratings of patient care needs (1) are conducted by hospital staff who are affected by the outcome of the ratings and (2) lack adequate controls to assure sufficient objectivity

- The Standards have not been updated to reflect important changes in the law, administrative policy and treatment practice which affect staffing needs

- The Standards do not apply to all categories of staff necessary to provide adequate patient care as defined by federal and state licensing requirements.

As a result, the 1973 Staffing Standards are of questionable effectiveness in assessing state hospital staffing needs.

Instead of correcting these deficiencies in the Standards, the state hospital system has made adjustments to Standard Staffing. During the first three quarters of fiscal year 1977–78, the state hospital headquarters allocated more staff than specified by the Standards to five hospitals and less staff than specified by the Standards to the six other hospitals. Hospital managers and treatment program directors in each facility made additional adjustments to the staffing allocations. Similar inconsistencies occurred in the fourth quarter of fiscal year 1977–78. As a result of these adjustments, there is little consistency between the staffing pattern prescribed by the Standards and that allocated or actually in existence at the state hospitals.

Table 2 (page 13) shows the Staffing Standards process and identifies some of the prominent weaknesses discussed in the body of this report.

TABLE 2

SUMMARY OF STATE HOSPITAL STAFFING STANDARDS PROCESS

Process	Summary Analysis
1. Patient Survey Conducted	Treatment staff conduct ratings of their patients' care needs during specified period known months in advance. Rating information is used for assessing staffing needs.
2. Patient Surveys Audited	Audits are conducted of sample patient surveys by clinical staff from other state hospitals. Audits rely upon review of treatment documentation prepared for patient survey by treatment staff who prepare survey ratings. Despite the audit procedure, extreme variations occur in the ratings process.
3. Survey Results Applied to Staffing Standards	Results of patient surveys are computer processed with workload data to determine standard staffing factors for a given patient survey. The 1973 Staffing Standards' factors have not been re-evaluated to assure their currency.
4. Standard Staffing Determined	Standard Staffing factors are used in conjunction with current patient census information and budgeted percentage (in fiscal year 1977–78, 88 percent of Standard for most treatment programs) of Staffing Standards implementation to determine Standard Staffing* for each hospital ward.
5. Headquarters Adjusts Standard Staffing	State hospital system headquarters adjusts Standard Staffing in an effort to compensate for some deficiencies in the 1973 Staffing Standards which headquarters has identified. Staffing allocations to hospitals are made only on a hospital-wide basis (despite the Standards' ward-level specifications). Hospitals are informed only of the headquarters revised Standard Staffing.
6. Hospital Executive Directors Allocate Staff	Hospital executive directors receive staffing allocations from system headquarters and distribute the allocation to programs according to executive discretion, independent of the original computation of the Standard Staffing. This allocation process does not include approximately 40 percent of state hospital positions, which are budgeted separately.
7. Program Directors Assign Staff	Program directors further distribute allocated staff to the wards independent of the original computation of the Standard Staffing.
8. Ward-level Staff Allocations	Ward staffing has no necessary relationship to Standard Staffing.

* Includes physicians, nursing staff, social workers, rehabilitation therapists, and psychologists.

Flaws in the Staffing Standards

In 1977 the Department of Health analyzed and reported on the unreliability of the data collected in the patient survey process. We confirmed this problem and identified additional problems regarding the 1973 Staffing Standards, including: the Standards have not been updated to reflect important changes in law and treatment practice affecting staffing needs, and the failure of the Standards to apply to all staff necessary to treat patients. These problems underly the Standards' inadequacy in assessing staffing needs.

Unreliability of Survey Data

The patient survey process used in the Staffing Standards system has not provided sufficiently reliable data necessary to systematically assess patient needs and determine appropriate treatment staffing. We found that the patient survey lacks sufficient objectivity and results in the questionable assessment of staffing needs.

The patient survey is completed by treatment staff who have a vested interest in the survey's results due to the survey's direct input into the staff allocation process. This provides an incentive to exaggerate the amount of patient needs to justify additional staff. Such exaggeration was documented in an evaluation of the 1973 Staffing Standards conducted in 1977 by the then Department of Health. This evaluation reported instances where staff were observed simulating individual entries in patient treatment records and creating documentation in an effort to exploit the system. In addition to the exaggeration of recorded patient

care, the Department's evaluation reported instances where treatment was not being documented, which would result in underestimated staffing needs (see Appendix A).

The patient survey audit is of questionable value because of its heavy reliance upon the review of patient care documentation. The Department of Health's review of the 1977 patient survey conducted by the Chief, Evaluation Methodology Section stated:

> There is an obvious incentive to "load up" the PST through "paper programming" and/or through shortchanging other actual services (such as daily living, housekeeping, recordskeeping, etc.) since it will result in staff enrichment. We had hoped that, through more intensive auditing such as employed this year, we could ameliorate this problem. It is my opinion that the problem has been reduced, but the PST data is still suspect on 117 of 355 wards.
>
> An absolutely extreme case is a Drug Abuse ward which reported 533.3 hours of staff time in face-to-face PST. However, only 398 hours were available in total, based on a 40-hour week, for the 9.95 staff assigned to the ward. Understandably, this ward was calculated to be staffed at 25% of the standard staffing recommendation. Since this ward was audited, I must regretably conclude that a well-documented paper program will slip through the audit process because of the sheer amount of detail.
>
> This leads to two devastating conclusions:
>
> 1. "Paper programs" will profit by their exaggeration. Conversely, the wards which reported their PST honestly will gain little, if anything. Wards which now have little PST will continue to have little PST.
>
> 2. The treatment "opportunity" of patients with similar needs, within the same program type, will vary greatly depending upon how artful the PST was reported on their wards of residence.

The patient survey's dependence upon patient care documentation prepared for the survey by the affected staff provides opportunities for manipulation. Wards which are more highly staffed can devote more staff time to documenting their need for staff, and generate more Standard Staffing; conversely, wards which are not as well staffed cannot devote as much staff time to the survey and therefore generate no more, or even reduced, Standard Staffing.

In an attempt to compensate for the unreliability of the patient surveys, headquarters imposed limits on the amount of treatment programming credited to wards for staffing purposes. These limits were applied to the staffing calculations for the fourth quarter of fiscal year 1977-78. Consequently, limits on maximum and minimum staffing have been substituted for the Staffing Standards' supposed sophistication in measuring staff needs.

Outdated Staffing Standards

The 1973 Staffing Standards do not reflect important changes in law, administrative policy and treatment practice since the Standards were developed. Contrary to the recommendations of the Standards' designers, the 1973 Staffing Standards have not been updated annually to insure relevance. As a result, the Standards in their present form are inadequate for determining required staffing.

The PRU-72 report which specified the Standards' design recommended that the Staffing Standard system be reviewed annually and appropriate adjustments be made to meet the changing patterns of patient

care. Further, the PRU–72 report stipulated that provisions should be made for developing new staffing standards as new programs become established. The 1973 Staffing Standards were designed in a manner to facilitate future adjustment. In practice, the state hospital system has made only minor modifications to the Standards and has not evaluated the need for future adjustment due to major changes in law, administrative policy and treatment practice.

Since the 1973 Staffing Standards were developed, there have been important legal, administrative policy and treatment practice changes affecting the care of the mentally and developmentally disabled. Table 3 (page 18) summarizes some significant changes affecting state hospital staff workload according to treatment specialists and program managers at the six hospitals we visited. Such changes have not been evaluated to determine their impact on the current Staffing Standards.

The relevance of the 1973 Staffing Standards has been further eroded by changes in the criteria used to assign patients to treatment programs. The 1973 Staffing Standards specified certain criteria to be used to assign patients to treatment programs. Each of the six hospitals we visited did not adhere completely to the decision criteria specified.

It is possible that some of the 1973 Staffing Standards for some patient needs are still valid. However, the many important changes in patient care since the Standards were developed suggest the need to fully evaluate all of the 1973 Staffing Standards to determine which are still applicable and which require adjustment.

TABLE 3

SUMMARY OF SELECTED CHANGES
IN LAW, POLICY AND TREATMENT
PRACTICE IN STATE HOSPITALS

	Change	Effective Date	Reported Affect On Workload
1.	Statutory Protection of Patient Rights	1976	More staff effort to monitor patients, assure the maintenance of their rights and document any denial of rights.
2.	Statutory Adoption of Licensing Standards	1975	Formalization of specific requirements for all aspects of patient care which requires more staff effort to assure compliance, compared with previously informal or nonexistent policies.
3.	Implementation of "Problem-Oriented" Patient Health Records	1975	More elaborate and detailed planning, evaluation and documentation of individual patient care.
4.	Federal Requirements for Patient Education	1978	New planning and evaluation of individual patient educational needs and delivery of appropriate teaching services.
5.	Off-Ward Activity	-	To meet the above requirements, more staff effort has been devoted to peripheral treatment activities such as treatment planning and evaluation meetings, staff training, off-ward treatment programs, escorting patients to off-site medical facilities and court proceedings, and staff testimony in the adjudication of patient status.

Staffing Standards Do Not Apply to All Staff

The 1973 Staffing Standards only apply to certain treatment staff and do not apply to support staff, such as laboratory technicians and administrators necessary to the delivery of patient care according to federal and state licensing requirements. As a result of this narrow application, the Standards do not determine all of the staff necessary to provide patient care and treatment in state hospitals.

The 1973 Staffing Standards were designed to cover the nursing care and treatment services delivered by physicians, psychologists, social workers, rehabilitation therapists and nursing personnel. This design deliberately neglected the necessary role of administrative and support staff to the delivery of patient care. This larger definition of necessary staffing is recognized in state licensing requirements. For example, Title 22 of the California Administrative Code requires the adequate provision of many additional services in state hospitals, such as dietetic services, maintenance services, pharmacy services, medical record services, patient trust account services and laundry services.

Since the Title 22 regulations mandate the provision of administrative and support services which the 1973 Staffing Standards do not cover, the present Standards are inadequate to determine necessary staffing to meet all licensing requirements.

Staffing Adjustments in Lieu of Correcting Deficiencies in Standards

Instead of correcting the above deficiencies in the 1973 Staffing Standards, the state hospital system has made adjustments to Standard Staffing. The adjustments occur in the process which the state hospital system uses to allocate budgeted staffing to the hospitals. The following discussion of this process refers to the allocation of Standard Staffing in fiscal year 1977-78. It should be noted that approximately 40 percent of state hospital staffing is exempt from the Staffing Standards, and thus the allocation process. These exempt staff are budgeted annually to specific facilities.

The staffing allocations for fiscal year 1977-78 began with a computer-generated listing of Standard Staffing. Once the listing was prepared, state hospital headquarters adjusted the Standard Staffing before allocating staff to each hospital. In the first quarter allocation for fiscal year 1977-78, headquarters adjusted the Standard Staffing among state hospitals for certain staffing disciplines, such as physicians and nurses, before making allocations. Headquarters made similar adjustments to Standard Staffing for particular hospitals and treatment programs. We identified a total of 727 positions affected by headquarters' adjustments which had a net effect of increasing allocated staffing by 117.6 positions over the Standard Staffing.

In the fourth quarter of fiscal year 1977–78, headquarters limited the maximum and minimum amount of Standard Staffing for each type of treatment program. We did not determine the net effect of these limits because they were built into the Staffing Standards computer model.

Once headquarters completes its adjustments to the Staffing Standards for a particular allocation period, headquarters authorizes a total staff allocation by discipline for each hospital. This is done despite the fact that the Standards specify staffing for the program and ward levels within each hospital. Each hospital is also provided an administratively-revised facsimile of its Standard Staffing listing. The facsimile lists the adjusted Standard Staffing for each staff discipline by treatment program. The hospital's executive director then distributes the allocation according to his discretion, without reference to the original, unrevised Standard Staffing.

Some managers at the hospitals we visited attempted to follow the adjusted Standard Staffing. Other hospitals developed their own decision criteria for distributing allocated staff within the facility. In addition, some program directors are allowed discretion in distributing the allocation among the wards in their program.

This allocation process alters the Standard Staffing at each level of state hospital management. This results in a pattern of allocated and actual staffing which is inconsistent with the Standards and inconsistent among hospitals, treatment programs and staff disciplines.

Inconsistent Treatment Staffing

State hospital treatment staffing does not conform to the staffing pattern prescribed by the 1973 Staffing Standards. In addition, we found inconsistencies between allocated, actual and Standard Staffing. These inconsistencies occur at the hospital and program levels, and among the various staff disciplines.

Hospital Level Inconsistencies

Tables 4 and 5 (pages 24 and 25) illustrate the staffing inconsistencies in the total treatment staffing of the state hospitals. Table 4 shows allocated and actual staffing during the first three quarters of fiscal year 1977–78 for positions which are supposed to be staffed on the basis of the Staffing Standards. Column 1 shows the Standard Staffing computed from patient surveys conducted in 1975. Column 2 shows the staffing allocated by headquarters to each hospital for the first three quarters of fiscal year 1977–78. Column 3 shows the actual staffing according to hospital records as of March 1978 at the six facilities we visited. March was selected because it was the end of the first allocation period and the beginning of the second allocation period for fiscal year 1977–78.

The disparities between the Standard Staffing (Column 1) and the allocated staffing (Column 2) illustrate the deviations from the Standards in staff allocations to state hospitals. Five hospitals received allocations greater than the Standards, while six hospitals received allocations less than the Standards.

The difference between the allocated staffing (Column 2) and the actual March 1978 staffing (Column 3) in the six state hospitals we visited shows further deviations from the Standard and inconsistencies among hospitals. Of the six hospitals we visited, three hospitals had actual staffing higher than their allocation and three hospitals had actual staffing less than their allocation.

Table 5 (page 25) depicts the situation for the fourth quarter of fiscal year 1977-78. It shows that the allocations (Column 2) exceeded the Standard Staffing (Column 1) for all 11 state hospitals. This is due in part to the fact that the fourth quarter allocations include the positions provided by the special budget augmentation to correct licensing deficiencies. Similarly, the actual staffing as of March 1978 (Column 3) exceeded the Standard Staffing (Column 1) in five of the six hospitals we visited.

Both Tables 4 and 5 show the inconsistencies in state hospital treatment staffing patterns for the two allocations made in fiscal year 1977-78. These tables demonstrate that allocated and actual state hospital treatment staffing did not conform to the Staffing Standards and that the staffing is inconsistent among hospitals.

TABLE 4

COMPARISON OF STATE HOSPITAL
STANDARD STAFFING WITH
ALLOCATED AND ACTUAL STAFFING
FIRST THREE QUARTERS OF FISCAL YEAR 1977-78

Hospitals Visited	(1) Standard Staffing*	(2) Allocated to Hospitals	(3) Actual March 1978
Agnew	824	821	893.7
Camarillo	1,323.9	1,251.5	1,273.5
Fairview	1,259	1,252	1,246.9
Metropolitan	760	792	897.2
Patton	705	811	827.9
Sonoma	1,684	1,647	1,610.6
Subtotal	6,555.9	6,574.5	6,749.8
Hospitals Not Visited			
Atascadero	545	630	
Napa	1,527.4	1,542	
Pacific	1,300	1,262	
Porterville	1,381	1,368	
Stockton	527.6	578	
Subtotal	5,281	5,380	
Total	11,836.9	11,954.5	

* Equals 88 percent of the Standards for most programs. Acute psychiatric, children's and adolescent programs are authorized 100 percent of the Standards. For the first three quarters of fiscal year 1977-78, the Standard Staffing was based on two patient surveys conducted in 1975 and a June 1977 census of patient population.

TABLE 5

COMPARISON OF STANDARD STAFFING
WITH ALLOCATED AND ACTUAL STAFFING
FOURTH QUARTER OF FISCAL YEAR 1977-78

Hospitals Visited	(1) Standard Staffing*	(2) Allocated to Hospitals	(3) Actual March 1978
Agnew	663.4	749.7	893.7
Camarillo	1,297	1,404.7	1,273.5
Fairview	1,046.7	1,191.8	1,246.9
Metropolitan	743.5	869.2	897.2
Patton	659.6	873.9	827.9
Sonoma	1,456.8	1,466.1	1,610.6
Subtotal	5,867	6,555.4	6,749.8
Hospitals Not Visited			
Atascadero	559.2	682.0	
Napa	1,480.1	1,641.3	
Pacific	1,159.7	1,254.5	
Porterville	1,252.1	1,266.9	
Stockton	488.1	572.8	
Subtotal	4,939.2	5,417.5	
Total	10,806.2	11,972.9	

* Equals 88 percent of the Standards for most programs. Acute psychiatric, children's and adolescent programs are authorized 100 percent of the Standards. Fourth quarter fiscal year 1977-78 Standard Staffing was based on the 1977 patient survey and a September 1977 census of patient population.

Program Level Inconsistencies

Treatment staffing patterns at the program level further accentuate these staffing inconsistencies. State hospital wards are organized by program such as child, adolescent and acute psychiatric. Our analysis showed that program level staffing is inconsistent among hospitals and when compared to the Staffing Standards.

Table 6 (page 27) shows the Standard, allocated and actual March 1978 staffing for four types of programs at the six hospitals we visited. Using data from 19 programs which we selected for comparison in the first quarter of fiscal year 1977-78, Table 6 illustrates program level treatment staffing inconsistencies in four program types. Similar program level treatment staffing inconsistencies occurred in the fourth quarter of fiscal year 1977-78.

TABLE 6

COMPARISON OF STANDARD STAFFING* WITH ALLOCATED AND ACTUAL STAFFING FOR FISCAL YEAR 1977-78 IN SELECTED PROGRAMS AT SIX STATE HOSPITALS

Program Type	Hospital	Number of Programs Compared	First Three Quarters Standard**	First Three Quarters Allocated	First Three Quarters Actual March 1978
Acute Psychiatric (MD)					
	Camarillo	2	161.	184.5	152.4
	Metropolitan	2	219.9	155.0	164.9
Psychiatric Rehabilitation (MD)					
	Camarillo	2	169.1	164.0	136.6
	Metropolitan	2	167.2	146.0	180.2
	Patton	1	228.7	155.0	127.2
Behavior Development (DD)					
	Agnews	1	138.3	158.0	135.5
	Camarillo	1	136.5	19.5	84.5
	Fairview	1	115.2	111.5	105.0
	Patton	1	52.4	75.5	61.0
	Sonoma	1	142.1	115.0	111.5
Habilitation (DD)					
	Agnews	1	52.2	69.0	81.4
	Camarillo	1	64.9	64.0	60.8
	Fairview	1	87.2	97.0	76.5
	Patton	1	42.6	43.0	38.2
	Sonoma	1	97.1	109.0	97.5
		19			

*For most programs, the Standard Staffing equals 88 percent of the Standards. Acute psychiatric, children's and adolescent programs are authorized 100 percent of the Standards.

**Based on the two 1975 patient surveys and a June 1977 patient population census. The Standard was computed using information provided by state hospital headquarters.

Inconsistencies Among Treatment Disciplines

Our review of programs at the six state hospitals we visited shows that the staffing of the various treatment disciplines is also inconsistent with the Staffing Standards. Table 7 (page 29) identifies the disciplines which are staffed on the basis of the Standards and shows the Standard, allocated and actual staffing in the programs we reviewed.

Table 7 illustrates by discipline the deviation of allocated and actual staffing from Standard. For example, in the 47 programs we compared in the first three quarters of fiscal year 1977–78, nursing Standard Staffing was 4,784.4. However, allocated nursing staff was 4,293.8 and actual nursing staff was 3,889.6 as of March 1978, or 894.8 positions less than Standard. Similar inconsistencies occurred in the fourth quarter of fiscal year 1977–78.

The inconsistencies between Standard and actual staffing among hospitals, programs and treatment disciplines may be partly attributed to advanced hiring for positions provided by the licensing deficiency augmentation. In addition, the inconsistencies between Standard and allocated staffing in the fourth quarter of fiscal year 1977–78 can also be somewhat explained by the licensing augmentation. However, in each of these cases, the overriding consideration is the state hospital system's adjustment of Standard Staffing rather than correction of the deficiencies in the 1973 Staffing Standards.

TABLE 7

COMPARISON OF STANDARD,[1/] ALLOCATED AND ACTUAL STAFFING BY DISCIPLINE FOR FISCAL YEAR 1977-78 IN PROGRAMS[2/] REVIEWED AT SIX STATE HOSPITALS

Discipline	First Three Quarters		
	Standard[3/]	Allocated	Actual March 1978
Physicians	84.0	82.7	78.4
Psychologists	57.5	54.1	52.1
Social Workers[4/]	106.7	122.3	121.0
Rehabilitation Therapists	110.5	111.0	134.1
Nursing[5/]	4,784.4	4,293.8	3,889.6
Teachers	268.6	61.3	92.5
Physiotherapists	10.9	6.5	5.8

1/ Equals 88 percent of the Standards for most programs, except for acute psychiatric, children's and adolescent programs which are authorized 100 percent of the Standards. The Standard was computed using information provided by state hospital headquarters.

2/ Based on 47 selected programs at the six hospitals visited.

3/ Standard Staffing is based on two 1975 patient surveys and a June 1977 patient population census.

4/ Includes psychiatric social workers and social work assistants.

5/ Includes hospital workers, psychiatric technicians, registered nurses, licensed vocational nurses and nurse treatment specialists.

CONCLUSION

Our review of the 1973 Staffing Standards has revealed significant difficulties with using the Standards to determine state hospital staffing needs. These difficulties include:

- Insufficiently reliable patient survey data due to inadequate design for objectivity

- Outdated standards compared to important developments in patient care and staff requirements

- Incomplete coverage of administrative and support staff necessary to provide adequate patient care.

Rather than resolve these weaknesses in the 1973 Staffing Standards, the state hospital system adjusted Standard Staffing. As a result, actual staffing does not conform with Standard Staffing and the 1973 Staffing Standards are of questionable effectiveness in assessing state hospital staffing needs.

RECOMMENDATION

The Conference Committee on the fiscal year 1978–79 Budget Act specified that the state Departments of Developmental Services and Mental Health report to the Legislature regarding the feasibility of modifying the 1973 Staffing Standards to incorporate licensing requirements. In addition, Assembly Concurrent Resolution No. 103 of 1978 requests the state

Department of Health Services, in conjunction with the Departments of Mental Health and Developmental Services, to proceed forthwith to establish standards for the hospitals which allow for objective evaluation and which can be enforced without extensive negotiating, and report to the Legislature by January 1, 1979.

1. In fulfilling these mandates, we recommend that these departments address the following issues:

   - Reliability of the patient care information used as the basis for assessing staff needs
   - Means to regularly monitor and update any staffing standards to account for changes in law, administrative policy and treatment practices
   - Application of staffing standards to all categories of state hospital personnel necessary to provide adequate patient care.

2. We recommend that the departments include in their report to the Legislature an analysis of at least the following alternatives to the 1973 Staffing Standards as a means of determining staffing needs in state hospitals:

   - Single Fixed Ratios -- the expression of all staff needs in terms of a single ratio of staff per patient or other relevant workload unit. This could be a relatively simple and low-cost method of determining staff needs. A disadvantage of this method is that it does not account for the variable staff needs of different types of treatment programs or fluctuations in patient care needs
   - Fixed Ratios for Each Hospital Function-- the use of several types of fixed ratios, each relating to a workload unit for a given hospital function. For

example, allocation of treatment staff based on patient load and allocation of janitors based on facility square footage. This could provide more sophistication than a single fixed ratio; however, this method could be more costly

- Variable Formulas for Each Function -- expansion of the fixed ratio approach to a multi-variable formula for each type of hospital function and perhaps each hospital. This is the approach which SCOPE and the 1973 Staffing Standards employed for nursing and treatment staff. Variables could be developed for each major workload unit in hospitals. For example, treatment staff could be allocated according to numerous variables in patient condition as well as total patient load. Similarly, janitorial staff might be allocated by variables in facility floor plans and grounds, in addition to total square footage. This more complex method of determining staff needs could provide increased sensitivity to hospital staffing needs; however, this could also be more expensive than the first two alternatives

- Modeling -- the development of models for staff needs in each type of treatment program and each hospital's central administration. Such modeling might recognize the need for a minimum core of administrative and treatment staff to maintain a treatment ward or an entire hospital regardless of patient load or other workload. Increments of staffing could be identified to meet workload variations. The advantage of this method is that it could provide sensitivity to each hospital's needs; a disadvantage would be the expense involved in developing and maintaining these models.

3. We recommend that the Legislature consider the following principles in its analysis of proposed modifications of alternatives to the 1973 Staffing Standards system:

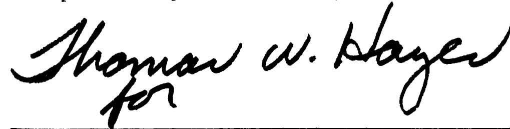
   - Independence -- the staffing standards system would be more objective if the process were independent from those with a vested interest in the results of any staffing standards

- Expertise -- any staffing standards system should be administered and maintained by personnel with knowledge of programs for the mentally and developmentally disabled

- Accountability -- the staffing standards system should incorporate adequate controls to prevent significant manipulation of inputs or results of the needs assessment process. Administrative adjustments to standard staffing should be limited and appropriate justification reported to the Legislature

- Resources -- adequate resources must be provided to assure that the staffing standards are properly administered and updated to meet changes in hospital requirements.

Respectfully submitted,



JOHN H. WILLIAMS
Auditor General

October 10, 1978

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STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY EDMUND G. BROWN JR., Governor

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744 P STREET
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920-6701

October 6, 1978

Mr. John H. Williams
Auditor General
925 L Street, Suite 750
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Dear Mr. Williams:

In response to the request accompanying your report entitled Deficiencies in State Hospital Staffing Standards, October 1978, we outline below our comments. We wish to express our appreciation to your staff for assisting in our continuing evaluation of this complex system and procedure and to thank you for the opportunity to give our reactions to their findings and conclusions.

SYSTEM DEFECTS OVERSTRESSED

As a general comment we feel that the inaccuracies of the current system, the need for more absolute objectivity, and adherence exactly to standard have been given greater significance than is warranted by a methodology dealing so heavily in human service factors.

The allocation of public resources, much less the development and application of staffing standards for human service agencies cannot be an absolutely precise or totally objective undertaking. In manufacturing industries, where work measurement and standards development techniques had their origin, the goal is to achieve accuracy of standards within a range of plus or minus 5%. Industrial engineering textbooks will acknowledge that, because of the human factors of skill, rhythm, manual dexterity and reflexes of operators and observers, performance against standards can be reasonably expected to fluctuate.

By comparison the delivery of human services in an in-patient setting is potentially subject to even more variation. The physical plants and equipment vary from hospital to hospital and even among units within the same hospital. The patients, as well as their care and treatment needs, vary day-by-day, sometimes hour-by-hour. Finally, and probably most importantly, it is an acknowledged fact that in dealing with a patient's mental stress or deficiency, there is no known one best way. We believe, therefore, that considerably more latitude must be allowed in the planning and delivery of patient care. Your report, in several places, implies criticism of variations of much less than 5% from measured performance.

STANDARDS ARE NOT A RIGID FORMULA

The acceptance of reasonable flexibility and variation in the application of staffing standards does not in the least diminish their utility. The standards provide a basis for identifying the source of workload, quantifying the amount and its variation over time, as well as providing a controllable baseline for budgeting and allocating the limited resources of treatment personnel. In that sense, it is a powerful tool for planning and administration, so long as these standards are recognized as guidelines rather than immutable and rigid formulas.

SYSTEM ADOPTED BY OTHER STATES

California has been pioneering the development of engineered staffing standards for the state hospitals since 1966. During this time, many refinements to the standards and data collection methods have been introduced. These efforts reflect a sincere departmental intent to achieve maximum objectivity in the measurement of workload and to assure that every resident in every state hospital is provided an appropriate opportunity for treatment and growth and development.

After careful study, at least five other states have adopted and/or adapted versions of the staffing system developed by California. Additionally, a panel of prestigious experts in staffing methodologies assembled by the National Academy of Sciences recommended in a June 1977 report to Congress that the Veterans Administration adopt the California staffing system and methodology.

MOST DATA ACCURATE, VALID, OBJECTIVE

Because of our methodologies and continuing improvements to the system we are confident that the vast majority of data collected during a staffing survey is accurate, valid, and as objective as possible when dealing with the human equation despite identified aberrations. In fact, on-site audits of client service needs data performed and reported by the Department of Finance in a November 1973 study indicated that overall deviation was well within the industrial standard of + 5%. Two subsequent audits in 1975 and 1977 contributed to further improvement of the system.

AUDITING RESULTS IN SYSTEM IMPROVEMENTS

Your report acknowledges that the Department's staffing survey evaluation report identified the problems associated with auditing. These findings were not intended to discredit the staffing standards system, but rather to alert departmental management to potential problems and recommend corrective action. The auditing process led

AUDITING RESULTS IN SYSTEM IMPROVEMENTS (Continued)

to the conclusion that widely varying data on delivered services by staff in comparable units had to be brought under better control. It was as a result of this report and the deficiencies in the auditing system that the concept of the "prescriptive treatment program model" was developed. This concept was introduced into the staffing budget base for FY 1977-78. It remediated a potential maldistribution of treatment personnel resources, and at the same time, provided greater assurance of equitable staffing among programs and the provision of an equivalent opportunity for treatment of each resident in the state hospital system. On this basis, the auditing process while conceded to be difficult to implement with absolute controls, is a useful tool.

We have been continually searching for more effective ways of collecting survey information without potential bias. A promising prospect in the programs for the developmentally disabled is the proposal to adapt data from an independent instrument which measures client progress and, inferentially, patient needs/deficits. Should this testing prove successful it is possible that a separate staffing survey can be completely eliminated in DD programs. Unfortunately, a similar client progress data base in programs for the mentally disabled is not in immediate prospect, and, therefore, other alternatives will have to be explored.

SYSTEM COSTS OVERSTATED

Costs are noted parenthetically to include time spent updating patient records. In our opinion, this is an inappropriate inclusion which inflates actual costs. Survey data is extracted from patient records which by policy are to be kept current. In at least the one hospital which was the source of the cost estimate policy was apparently not followed and in order to fill survey forms the records had to be updated. This would have had to be done in any event to assure compliance with licensing requirements, therefore, survey costs, we believe, are overstated by more than one million dollars.

MANAGEMENT DISCRETION IS ESSENTIAL TO PROPER CARE

The audit report faults hospital and program directors for exercising discretion in the actual assignment of unit staffing. Local adjustment is entirely consistent with the intent of the designers of the system. As stated previously, staffing standards for the delivery of human services are not precise, the computer in Sacramento cannot respond in a timely fashion to the changes occurring daily on the wards. It is the responsibility of the directors on-site to apply clinical and management judgement to formula applications. The

MANAGEMENT DISCRETION IS ESSENTIAL TO PROPER CARE (Continued)

system permits each director to modify the disciplinary mix of the treatment teams within the approximately 25% limits of the interchangeability factor as well. The designers recognized the need for such flexibility in order to maximize the delivery of effective patient care.

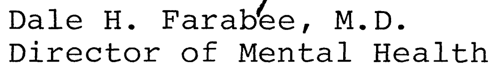
SYSTEM NEEDS ANNUAL UPDATE

The audit report however, rightfully points out that the system designers recommended that the system and standards be reviewed and updated annually and this has not been done. The system does indeed need to be updated to accommodate changes in law, policy, and practice. Planning within our respective departments is currently in process to accommodate such changes.

In conclusion, our staffing system is reviewed and/or audited on a continual and periodic basis by the involved legislative policy committees, legislative fiscal committees, the Legislative Analyst, the State Department of Finance, numerous licensing and accreditation authorities at the state and federal levels, JCAH (Joint Commission on the Accreditation of Hospitals), as well as the Auditor General. We anticipate important legislative dialogue and decisions early next year on ACR 103 and Items 258/262 Budget Act of 1978 reports involving many, if not all, of the parties mentioned above.

Although we can agree that the standards system is less than perfect we do sincerely believe that, in an extraordinarily crucial and complex area, we have made, and will continue to make, significant new progress. Your continuing assistance is welcomed as our State seeks improved procedures for the care, treatment, and habilitation of those entrusted to our care.

Please express our appreciation to your staff for their efforts, their willingness to listen, and cooperation throughout this study.



David Loberg, Ph.D.
Director of Developmental Services

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EXCERPT FROM 1973 STAFFING STANDARDS PILOT PROJECT EVALUATION

By Francis M. Crinella, PhD

Another trend which will be frequently noted in our commentaries is our questioning of "paperwork," "paper programming," and "charting," in particular as it related to the method by which staff are currently allocated, the Staffing Standards Survey (aka SCOPE Survey). In a number of instances, unquestionably positive experimental treatment effects had a .00 correlation with information contained in charts. We tend to look askance at treatment personnel who complain that too much charting, in preparation for the "SCOPE" survey, tends to erode the quality of client or patient contact, the commonly-held upper management notion being that "good clinicians do both; poor clinicians do neither." This does not coincide with our observations or analyses, nor is the converse true; there is simply little or no correlation between charting and observed quality and intensity of treatment activities. One finding, however, is indisputable: There is excessive "paper programming" being done. Often, the ratio of interdisciplinary notes in the clients' charts, in "SCOPE" vs. "NON-SCOPE" months, is 50:1. "Individual" program plans are mimeographed; staff are observed writing a series of "every 15 minute" patient checks, all at shift's end, using several pencils and pens to simulate "individual" entries; and, most pathetically, treatment staff focus on client deficits or "problems" because of the "payoff" in staff assigned. The Evaluation Team observed staff "creating" charts to conform to the latest bureaucratic dictate, while clients and patients were ignored in the interim. The Department has attempted to handle the problem of "paper programming" by guidelines, training and audit, but the

system must somehow be re-oriented towards positive objectives, including growth, independence and humanization of clients and patients. Furthermore, resources must be allocated fairly, in response to the requirements of managers who attempt to move in these positive directions. The current combination of mistrust and "milking the system" heavily detracts from the effectiveness of treatment staff, and it should be emphasized that staffing at the level of the '73 Standards could have the untoward effect of enlisting more personnel in the "paper programming" effort.

Source: 1973 STAFFING STANDARDS PILOT PROJECT EVALUATION, by Francis M. Crinella, PhD.

cc: Members of the Legislature
Office of the Governor
Office of the Lieutenant Governor
Secretary of State
State Controller
State Treasurer
Legislative Analyst
Director of Finance
Assembly Office of Research
Senate Office of Research
Assembly Majority/Minority Consultants
Senate Democratic/Republican Caucus
California State Department Heads
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