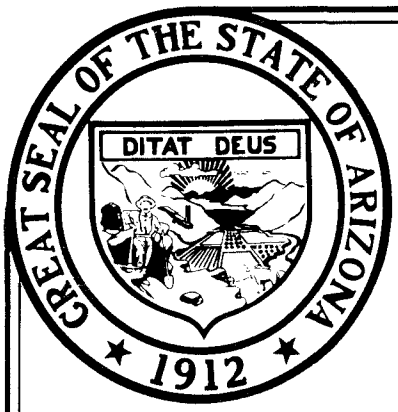

PERFORMANCE AUDIT

DEPARTMENT OF HEALTH SERVICES

ARIZONA STATE HOSPITAL

Report to the Arizona Legislature
By the Auditor General
October 1989
89-9

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October 27, 1989

Members of the Arizona Legislature
The Honorable Rose Mofford, Governor
Mr. Ted Williams, Director
Department of Health Services

Transmitted herewith is a report of the Auditor General, A Performance Audit of the Department of Health Services, Arizona State Hospital. This report is in response to a June 2, 1987, resolution of the Joint Legislative Oversight Committee. The performance audit was conducted as a part of the Sunset Review set forth in Arizona Revised Statutes §§41-2351 through 41-2379.

This is the sixth in a series of reports to be issued on the Department of Health Services. The report addresses the effectiveness and efficiency of the Arizona State Hospital (ASH) in providing care and treatment to its patients. Specifically, we found that because of extreme staffing problems, ASH has difficulty providing adequate staff on its treatment units. In addition, the report suggests that ASH consider restructuring its treatment program and unit positions to improve supervision and program management. Further, we found that ASH needs to improve its dietary services to its patients. Finally, we found that although ASH has improved the use of its transitional living unit, other units within the hospital need to be made more aware of the program's functions.

My staff and I will be pleased to discuss or clarify items in the report.

Sincerely,

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SUMMARY

The Office of the Auditor General has conducted a performance audit of the Arizona Department of Health Services, Arizona State Hospital, in response to a June 2, 1987, resolution of the Joint Legislative Oversight Committee. This performance audit was conducted as part of the Sunset Review set forth in Arizona Revised Statutes (A.R.S.) §§41-2351 through 41-2379.

This is the sixth in a series of reports to be issued on the Arizona Department of Health Services (DHS). The report focuses on the functions of the Arizona State Hospital under the Division of Behavioral Health.

Because of Extreme Staffing Problems, ASH Has Difficulty Providing Adequate Staff on Its Treatment Units (see pages 5 through 17)

Arizona State Hospital (ASH) has difficulty providing adequate staff on its treatment units. Because of the type of seriously ill patients the hospital is caring for, it is important to have adequate staff. However, hospital staff believe the current levels are inadequate and unsafe. For example, one supervisor noted that only 2 staff are available to awaken, clean, diaper, and dress 31 chronically mentally and physically ill patients, within the allotted two hours. Another supervisor noted that the two staff assigned to her unit at night are not sufficient if an emergency should occur among the 25 patients. Staffing concerns were also noted in a recent survey by the Department of Health and Human Services, Healthcare Financing Administration (HCFA). HCFA reported that despite recent increases in staff, the hospital still only marginally meets staffing standards for licensed nurses.

Staff shortages stem from the hospital's high turnover and extended vacancies. Not only does the hospital have a turnover rate of nearly 50 percent, but it can take as long as 75 days to fill vacancies. Further, ASH's efforts to cover the shortages caused by the vacancies actually increase the problem. To cover vacancies ASH frequently has to pull or "float" staff from one unit to another. In order to avoid being floated,

staff frequently call in sick, causing further shortages. Some staff become so dissatisfied with floating that they quit, causing still more vacancies.

Turnover is further aggravated by staff dissatisfaction with the work environment. Staff are dissatisfied with supervision at ASH, as well as with salaries and promotional opportunities. Psychiatric technicians, the largest segment of the nursing staff, are particularly dissatisfied with the salaries and promotional opportunities because beginning salaries are only $13,660, and there are few opportunities for promotions or advancement.

ASH Needs to Consider Restructuring Its Treatment Program and Unit Positions to Improve Supervision and Program Management (see pages 19 through 26)

ASH needs to consider restructuring its treatment program and unit management. Each unit is staffed with individuals from various disciplines such as nursing, social work, and psychology. However, ASH's current structure lacks an individual at the unit or program level that has overall responsibility for all disciplines working on the units.

To improve unit and program supervision, ASH should evaluate the need for program managers, head nurses, and lead psychiatric technicians. Program management positions could provide overall administration for ASH's treatment by handling such responsibilities as coordinating therapies for patients, planning activities, budgeting, implementing program policies and procedures, and providing for the hiring, orientation, and training of staff. Establishment of a head nurse position would provide increased clinical supervision of nursing staff, and the use of lead psychiatric technicians on each unit could assist in the supervision of technical staff.

ASH Needs to Improve the Food Service For Its Patients (see pages 27 through 34)

ASH needs to improve the dietary services provided for its patients. We analyzed both patient menus and the meals served to patients and found that the foods are high in cholesterol, fat, and sodium. For example,

according to an analysis of ASH menus, meals planned for patients on regular diets had a cholesterol content as high as 203 percent above the recommended level. Because nutritious meals are important for proper patient treatment, patient care is being compromised by inadequate food service. ASH's failure to provide nutritious meals is due to inadequate menus, lack of standard recipes, and poor purchasing planning.

ASH's method of serving foods is also inefficient and problematic. Frequently, only one person serves patients coming through a serving line. This causes delays in serving patients, and, in addition, servers don't always have time to ensure patients are getting the foods prescribed on their diets. For example, we observed a server attempting to serve hot dogs to patients on vegetarian diets. Finally, the servers do not always serve the correct portions of food.

ASH Has Improved the Use of Its Transitional Living Unit Program; However, Other Units Within the Hospital Need to Be Made More Aware of the Program's Functions **(see pages 35 through 43)**

ASH has improved the use of its transitional living unit (TLU). However, the functions of TLU have not been communicated to units outside of the program. In 1984 the Legislature, recognizing the need for a program to provide graduated steps of care between the hospital treatment unit and the community living situation, established a line item designating funding for a transitional living unit (TLU). Although only 12 spaces were available on the unit for the more than 550 discharges a year, between September 1984 and October 1988, TLU had rarely operated at capacity. In addition, the average patient length of stay was longer than projected, and relatively few patients were discharged from TLU. In November 1988, ASH reorganized TLU. Since its reorganization, ASH has been able to increase TLU's patient census, reduce the average length of stay in the program, and discharge more patients.

TABLE OF CONTENTS

TABLE OF CONTENTS Con't

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION AND BACKGROUND

The Office of the Auditor General has conducted a performance audit of the Department of Health Services, Arizona State Hospital (ASH) in response to a June 2, 1987, resolution of the Joint Legislative Oversight Committee. This performance audit was conducted as a part of the Sunset Review set forth in Arizona Revised Statutes (A.R.S.) §§41-2351 through 41-2379.

Hospital Mission and Programs

The Arizona State Hospital (ASH), publicly funded since 1887, serves as the sole State operated mental hospital in Arizona. ASH's treatment facilities are located in Phoenix. A.R.S. §36-202 requires ASH to provide inpatient care and treatment of individuals with mental disorders, personality disorders, or emotional conditions. ASH receives patients on both a voluntary and involuntary basis. Approximately 20 percent of the patients are voluntarily admitted. The remaining 80 percent are committed by courts that have determined them to be a danger to themselves or to others, or gravely disabled, and who are unwilling or unable to undergo a voluntary evaluation. During fiscal year 1987-88, ASH provided treatment to 1,242 patients, and had an average daily census of 528 patients.

ASH has developed separate care and treatment programs in order to accommodate varying patient clinical needs. Each treatment program is staffed by psychiatrists, medical specialists, psychologists, nurses, psychiatric technicians, social workers, rehabilitation therapists, and auxiliary clinical staff. The treatment programs are as follows:

- **General Adult Program** - Treats approximately 100 patients and provides admission and diagnostic assessment services. Patients in this program are expected to have lengths of stay of 90 days or less.
- **Psycho-Social Rehabilitation Program** - Provides care for approximately 100 patients with chronic, longer term mental disorders. Patients in this program tend to have longer periods of hospitalization (90 to 365 days) and require more structured aftercare.

- **Behavior Management Program** - Serves approximately 75 patients with recent histories of dangerous behavior, those believed to be dangerous with a high-escape risk, and those patients committed by the courts for observation and/or treatment because they were determined to be not guilty by reason of insanity.

- **Youth Services Program** - Designed for children and adolescents ages 6 to 17 who require intermediate term care as a result of a substantial mental disorder. There are approximately 24 patients in this program.

- **Gero-Psychiatry Program** - Provides treatment to meet the special needs of approximately 125 elderly patients with severely disabling mental and physical disorders.

- **Extended Care Program** - Provides care to approximately 100 patients who require a lengthy hospitalization of 180 days or more. Emphasis is placed on daily life skills as many patients suffer from coexistent organic mental disturbances such as a head injury, mental retardation, or stroke.

Progress in recent years - During our audit, we identified several noteworthy improvements made at ASH over the past few years.

- Establishment of a Children's Treatment unit in 1987 provided beds for 8 children. Previously, children under the age of 12 could not obtain inpatient treatment at ASH.

- Initiation of a program for the dually diagnosed mentally ill/developmentally disabled patients in January 1988. As a result of this program, previously "undischargeable" patients have been placed into community settings.

- Expansion of the hospital's Chemical Dependency Inpatient Program for fiscal year 1987-88. This program provides intervention and treatment for any individual identified as suffering from a substance abuse problem as well as a mental disorder.

- ASH took a leadership role in the implementation of Psychiatric Health Facilities (PHFs). These facilities provide acute short-term treatment in non-hospital settings. Such facilities allow individuals to receive treatment in their local area, reinforce family involvement in patient care, and approach alternatives to hospitalization in a more cost efficient manner. Currently, there are two PHFs open in northern Arizona, each with a 5-bed capacity. Two additional PHFs will be open in early FY 1989-90, also in northern Arizona.

- ASH, in conjunction with community behavioral healthcare programs, developed a new concept for those clients who have been at ASH, but who require a more structured environment than established residential programs. These Reentry Facilities (REFs) will allow

clients to reenter the community and progress in their treatment program in a more individualized and client oriented residential setting. There are currently 47 REF beds available in Arizona, 32 in Maricopa County and 15 in Pima County.

Staffing and Budget

ASH was allocated 945.25 full-time equivalent employees (FTEs) for fiscal year 1988-89. ASH's current staffing increased by 72 positions from fiscal year 1987-88. The additional positions were allocated as part of a special appropriation in an effort to regain medicare certification, and to provide better service to patients. Nearly 70 percent of those specially appropriated positions were direct care nursing staff. In addition, ASH has been able to increase its contracted medical staff. The number of psychiatrists was increased to 16 from 9 in previous years. Further, there are currently 6 non-psychiatric medical physicians compared to 4.5 in 1987.

ASH receives funding from several different sources. ASH received $33,330,390 in funding for fiscal year 1988-89. General fund appropriations account for over 80 percent of ASH's revenues. Additional operating funds are received from special appropriations, service agreements with other State agencies, rental income, endowment earnings, patient benefit fund, and donations. The hospital's statement of FTEs and actual and budgeted expenditures for fiscal years 1986-87 through 1988-89 are shown in Table 1 (see page 4).

Scope and Methodology

The audit contains findings in four major areas:

- ASH's ability to staff its treatment units with existing staff
- The adequacy of the current management structure of treatment programs and units at ASH
- The adequacy of food service planning and serving at ASH and
- The utilization of ASH's Transitional Living Unit

TABLE 1

DEPARTMENT OF HEALTH SERVICES - ARIZONA STATE HOSPITAL
STATEMENT OF FTEs AND ACTUAL AND BUDGETED EXPENDITURES
FISCAL YEARS 1986-87 THROUGH 1988-89
(unaudited)

	1986-87 (Actual)	1987-88 (Actual)	1988-89 (Budgeted)
FTEs	926.00	874.25	945.25
Personal services	$16,670,947	$17,101,726	$18,744,806
Employee-related	4,397,050	4,341,227	5,041,600
Prof. & outside services	1,986,933	2,026,907	3,044,939
Travel, in-state	36,273	43,195	49,400
out-of-state	1,102	-0-	4,326
Food	1,858,270	1,905,003	1,920,400
Aid to individuals	4,270	14,635	1,165
Other operating	2,614,774	2,565,051	3,122,175
Capital outlay	306,342	94,089	232,900
TOTAL	$27,875,961	$28,091,833	$32,161,711

Source: Arizona Financial Information Systems and Department of Health Services Budget Performance Reports

In addition, we conducted an organizational climate survey of all current ASH nursing staff to determine their satisfaction with employment. Four hundred seventy surveys were mailed out. We received 235 responses, resulting in a response rate of 50 percent. Detailed information about the survey is found in the appendix.

Due to time constraints, we were unable to address three potential issues identified during our audit work. Additional information regarding these areas is provided in the section Areas for Further Audit Work (page 51).

This audit was conducted in accordance with generally accepted governmental auditing standards.

The Auditor General and staff express appreciation to the Director of the Department of Health Services, and to the Superintendent and staff of the Arizona State Hospital for their cooperation and assistance throughout our audit.

FINDING I

BECAUSE OF EXTREME STAFFING PROBLEMS, ASH HAS DIFFICULTY PROVIDING ADEQUATE STAFF ON ITS TREATMENT UNITS

Arizona State Hospital (ASH) has difficulty providing adequate staff on its treatments units due to its extreme staffing problems. Shortages of staff are a common occurrence on the treatment units. These shortages stem from the hospital's high turnover and extended vacancies. In its efforts to ensure sufficient staff on the units, ASH has actually perpetuated the shortages. Further, the work environment also takes a toll on staff leading to turnover. Because some of these problems are deep-rooted and complex, the hospital cannot be expected to resolve them quickly; however, ASH should begin taking corrective actions.

Staff Shortages Exist on Treatment Units

ASH's treatment units are frequently short of staff. Because of the types of patients the hospital is dealing with, it is important to have sufficient numbers of staff on the treatment units. We attempted to analyze ASH's staffing levels, but no national standards exist for comparison purposes. However, hospital nursing staff have commented that current staff levels do not provide for employee safety.[1] In addition, our analysis of the hospital's internal staffing guidelines indicates that the units are frequently staffed with only the minimum levels of staff required.

Hospital cares for difficult-to-manage patients - Adequate staff on the treatment units is important because of the types of patients that are cared for at ASH. By law, ASH treats patients who are a danger to themselves, a danger to others, or who are gravely disabled. Thus, staff are dealing with individuals who may have suicidal or homicidal tendencies, who may have hallucinations, who may have difficulty understanding reality, and who may have difficulty attending to

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(1) Nursing staff at ASH includes psychiatric nurse managers (PNMs), psychiatric nurse shift supervisors (PNSS), registered nurses (RNs), psychiatric licensed practical nurses (LPNs), psychiatric nurses (PNs), and psychiatric technicians (PTs).

activities of daily living, such as grooming, bathing, and dressing.

No national staffing standards are available - During our audit, we contacted several professional associations for their recommendations concerning nursing care staffing.[1] However, we discovered no national standards to use for comparison. The requirements from the Department of Health and Human Services, Health Care Financing Administration and the Joint Commission on the Accreditation of Health Care Organization (JCAHO) are, according to a national expert, that staffing be "minimally acceptable for safe care." However, these requirements do not give specific guidance to staffing needs. Although there have been some court cases that have specified staffing ratios, those cases are specific to their state mental health care systems and may not be applicable for other state hospitals.

Hospital staff believe staffing levels are inadequate - Nursing staff have stated that staffing on the treatment units is not sufficient. The psychiatric nurse managers (PNMs) have 24-hour administrative responsibility over nursing staff on their units. During our interviews with PNMs, frequent examples were provided regarding the need for more staff. Examples of concerns expressed by PNMs in interviews include:

- One PNM complained that with only 6 staff working on the unit, one RN is kept busy all day doing staffings (patient conferences), one LPN is kept busy all day with medications and orders, and two to three of the psychiatric technicians are frequently off the unit on escorts, which may leave only two psychiatric technicians to monitor the unit with a census of 32 patients.

- Another PNM indicated that her staffing level of 6 was adequate for a patient census below 30; however, her census range is 41 to 47. The patients on this unit are still being evaluated and stabilized and thus still display wide ranges of psychotic behavior.

Additionally, staffing levels on the night shifts appeared to be a major concern of the PNMs. The following examples highlight these concerns:

- One PNM of a geriatric psychiatric unit of difficult-to-manage patients stated that two persons cannot get 31 chronically mentally

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(1) Among the professional organizations contacted were: The American Hospital Association, the American Psychiatric Association, the National Alliance for the Mentally Ill, the American Nursing Association, and the National Institute of Mental Health.

and physically ill patients up, cleaned, diapered, and dressed in the allotted two-hour timespan. Our observations of the geriatric psychiatric units found that many of these patients were totally dependent on staff for complete care. For example, many of the patients require lifting from their beds into a wheelchair.

- A PNM of a general adult unit with 25 patients stated that two staff is not enough to handle a medical or a psychiatric emergency.

- Another PNM stated that using two people to staff a patient unit is dangerous. During our observations, we noted that because of the physical design of many units, staff are frequently out of each others eyesight. This could make it difficult for staff to know that another staff member is in need of assistance. Further, with only two staff on a unit, if a patient became violent we agree that it would be difficult to both restrain the patient and call for assistance.

Unit staff have also indicated that shortages exist, and that these shortages cause unsafe working conditions. In a survey conducted by our office, 71 percent of the respondents disagreed with the statement that staffing on their unit was adequate to provide safety for employees.[1] Further, in response to the question "What do you consider the biggest problem on your job?," the most common answer was inadequate staffing on the units. In addition, during the period of June 1987 through November 1988, 204 complaints were sent to the superintendent from nursing staff regarding unsafe working conditions due to staff shortages.

Finally, the Department of Health and Human Services, Healthcare Financing Administration (HCFA) surveyors noted that the hospital's staffing needs are only marginally met. HCFA is responsible for overseeing hospitals that receive Medicare reimibursements. To ensure that hospitals meet minimum standards, HCFA conducts periodic surveys. In a recent survey of the hospital, it was noted that although the hospital had increased its staff, the current number of licensed nurses only marginally meets minimal staffing standards. The surveyors stated that they had to combine all classes of RN's (permanent, limited, and seasonal) in order to bring the hospital into compliance with the standards.

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(1) We surveyed all existing nursing staff employed at ASH as of February 8, 1989. Of the 470 surveys mailed, we received 235 surveys (50 % response rate). See Appendix for results.

Hospital is often staffed only at minimum levels - Although the hospital has developed minimum guidelines for staffing the units, these guidelines aren't considered adequate. Minimum guidelines were established by nursing administration in September 1988 to represent the staffing necessary to provide for the care of patients. The minimum guidelines suggest the least number of nursing staff which should be assigned to each unit by shift in order to provide patient care. The staffing office uses these guidelines in its daily staffing of the units. However, during our interviews, many nursing staff at all levels commented on the inadequacy of the guidelines. A majority of the PNMs stated that the minimum guidelines were inadequate and, as previously mentioned, nursing staff felt that the current staffing levels did not provide safe working conditions.

While the guidelines were meant to give only minimum levels of staff needed, the hospital is staffed at or below these levels two-thirds of the time. Based on our analysis of actual staff worked for January 1989, we found that ASH just met the guidelines 57 percent of the time, and fell below their own minimum standards almost 8 percent of the time. Further review showed that 7 units were staffed below their minimum over 10 percent of the time with one unit staffed below its minimum as much as 23 percent of the time.

Shortages Stem From Turnover and Vacancies

Staffing shortages on the units exist due to excessive turnover and lengthy vacancies. The turnover rate among nursing staff at ASH is extreme. Based on a review of nursing staff terminations for a recent 6-month period, we estimated an annual turnover rate of nearly 50 percent for both licensed (RN and LPN) and nonlicensed (psychiatric technician) nursing staff.[1] The turnover rate for one group, LPNs, was

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(1) We collected nursing staff termination data for the period of August 2, 1988 to January 27, 1989. The data was annualized for comparison purposes. Other studies have also found high turnover. The Department of Administration's State service turnover report for the period of July 1988 - December 1988, revealed an annualized turnover rate of 45 percent for Psychiatric Technician I's, 21 percent for Psychiatric Nurse II's and 38 percent for Psychiatric Nurse shift supervisors.

estimated to be as high as 75 percent.

Vacancies also remain open for extended periods. An analysis of nursing positions becoming vacant in the current fiscal year (283 total) showed that RN positions remained vacant for an average of 40 calendar days and LPN positions were vacant an average of 75 days.[1] The psychiatric technician positions remained vacant for an average of 35 days before being filled.

As a result of high turnover and extended vacancies, the hospital operates with a large number of unfilled positions. For example, an April 7, 1989, vacancy report shows that of the 488 nursing positions, 79 (or 16 percent) were unfilled.

Efforts to Ensure Sufficient Numbers of Staff Contribute to Turnover

In its efforts to ensure that the units are staffed at their minimum levels, ASH has actually perpetuated its shortages. Because ASH has problems with its scheduling, permanent nursing staff are pulled from their regularly assigned units to cover for staff needs on other units. In order to avoid being floated, staff frequently call in sick, thus causing more staffing shortages. Further, some staff become so dissatisfied with floating that they quit, causing still more vacancies.

ASH has problems with scheduling nursing staff - The responsibility for scheduling is divided between the treatment units and the staffing office. The PNMs of each unit are responsible for preparing monthly schedules and submitting them to the staffing office. When submitted, these schedules should deploy staff to provide at least the minimum coverage on each shift. However, the schedules prepared by the PNMs do not ensure all shifts are covered. For example, in January 1989, the 16 units averaged 12 shifts where the numbers of staff scheduled fell below the minimum guideline.

One reason for uncovered shifts is the attempt to give staff at least one

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(1) We analyzed all nursing positions that became vacant between July 1, 1988 and March 24, 1989.

weekend day off. As a result, more staff are scheduled to work on Tuesday, Wednesday, and Thursday than on the other days. Fewer staffare scheduled on Monday and Friday and only minimal staff on the weekends in attempts to give staff a Friday/Saturday, Saturday/Sunday, or Sunday/Monday combination of days off. In addition, some shifts are more frequently understaffed than others. For example, one unit we reviewed had a total of 35 shifts scheduled below the minimum levels - 9 on days, 2 on evenings, and 24 on nights.

Another problem is the submission of incomplete schedules. One unit's night shift schedule was submitted with only the first 15 days assigned. The remainder of the month was left incomplete. Another unit had no nurse coverage scheduled for Fridays or Saturdays. The staffing coordinator explained that when schedules are submitted with such blanks, it may be due to unfilled vacancies, extended leave, or bad scheduling.

Staff are frequently floated to cover shortages - Once schedules are submitted, the staffing office is responsible for finding coverage for shifts which do not have enough staff to meet their minimum guidelines. This is frequently done by floating staff.[1] Floating is a term frequently used at ASH to describe the pulling of staff from their regularly assigned unit to another unit where additional staff are needed. Based on our analysis of the staffing pattern for January 1989, floating is a frequent occurrence. For example, an average of 12 staff per day were floated during January. (However, an improvement was seen in April, with an average of 8 staff floated per day.) Specific units may be particularly impacted by floating. Nine of the 17 units floated 20 or more staff to other units during January, and one unit floated as many as 62 staff. ASH management has recognized that floating is a problem and has established a committee to recommend solutions to reduce the level of floating.

Frequent floating causes sick leave abuse - To avoid being floated, staff frequently call in sick, thus increasing the unit shortages.

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(1) While the staffing office has alternatives available, such as an in-house pool and nursing registry funds, floating is the most commonly used method to cover for nursing shortages.

Several nurse managers have stated that frequent floating results in sick leave abuse. Nursing officials report that staff have become too ill towork after being told that they would have to float. A nursing administrator reports that staff will look at the schedule to determine when their unit is staffed above the minimum, and call in sick to avoid floating. During March 1989, there were 797 sick calls, with a high of 41 calls in one day. Such heavy use of sick leave can significantly affect staffing needs.

Frequent floating contributes to turnover - According to a nursing staff employee survey conducted by our office, nearly 90 percent of the respondents indicated that floating negatively impacts turnover. Further, 96 percent of the respondents indicated that floating has a negative impact on morale at ASH.[1] Our survey indicated that staff resent having to float to other units. In fact, 79 percent of the survey respondents indicated that they would not be willing to float to other units on a regular basis, and nearly 20 percent stated that they would be unwilling to float even in emergency situations.

Staffs' strong negative reaction to floating is likely due to the impact of floating on their work. When floated, staff become less effective than regularly assigned staff. Staff who have been pulled from their regular unit to work on another unit may not know the patients and are less likely to recognize changes in patient behavior quickly enough to intervene before a serious episode occurs. Moreover, since procedures vary by treatment program, floated staff may be unfamiliar with procedures used on the unit. Staff members have stated that "when you float, you don't know what to do," and that "we do not know the schedule or the routine." Further, patients on two units suffer when staff are floated to a different unit. A staff person has assigned duties and patients on their regular unit. However, when that staff person is floated, those patients do not have a primary care provider. As a result, other staff, who have their own responsibilities, must attempt to cover. In addition, special assignments, patient privileges, and programs may be cancelled when staff are floated.

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(1) In addition, approximately 80 percent of the survey respondents disagreed with the statement that morale at ASH is high.

Work Environment Leads to Staff Turnover

Turnover is further aggravated by the work environment to which staff are subjected. Survey results and additional written comments from staff indicate that there may be supervisory problems at ASH. Further, ASH lacks adequate salaries and promotional opportunities to entice staff to stay.

Many staff dissatisfied with supervisors - Results of our survey indicate that ASH may have problems with some of its staff supervisors. Nearly 30 percent of the respondents indicated a lack of confidence in their superiors' abilities. Further, 87 of the 235 employees who responded to the survey provided written comments indicating supervisory problems on the treatment units. These comments were specific to poor management, fear of retaliation by their supervisors, unfair hiring and evaluations, and favoritism shown by supervisors to certain staff.

Staff dissatisfied with salary and promotional opportunities - In addition to problems with supervision, many nursing staff commented that ASH provides limited salary increases and lacks promotional opportunities. Approximately 69 percent of the survey respondents disagreed that their salaries were adequate, and nearly 40 percent listed inadequate pay as a primary cause of turnover. In addition, 45 percent disagreed with the statement that there are opportunities for advancement at ASH.

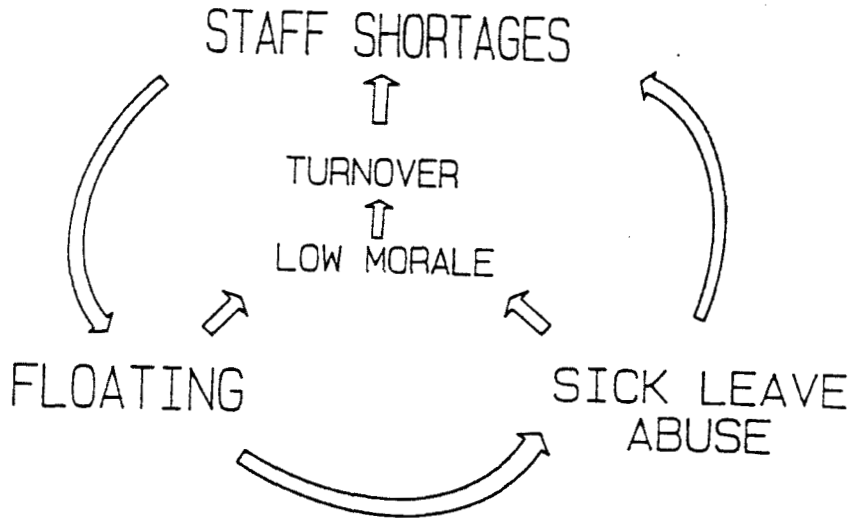
ASH Needs to Take Actions To Address Staffing Problems

Because some of these problems are deep-rooted and complex, the hospital cannot be expected to resolve them quickly; however, ASH should begin taking corrective actions. Immediate actions need to be taken to address problems with floating, supervision, and salary/promotional opportunities. Further, ASH should consider a study to determine its long-term staffing needs.

ASH's problems are deep rooted and complex - During our audit, we found it difficult to separate ASH's staffing problems and address them individually. This is because of the complex interrelationship of the staffing problems. Figure 1 details the complexity of the staffing problems. This emphasizes the need for ASH to take an overall look at its staffing problems, rather than attempting to implement corrections on a piecemeal basis.

Figure 1

INTERRELATIONSHIP OF STAFFING PROBLEMS AT ASH



ASH needs to take immediate actions - In order to address its staffing problems, ASH needs to take actions to reduce floating, improve supervision, and to provide salary increases and promotional opportunities for its employees.

- **Floating** - ASH can reduce floating by centralizing the scheduling process into one area of responsibility and implementing an automated scheduling system. By centralizing the scheduling process, ASH could eliminate duplicated effort on the part of the PNMs, allowing them more time in the direct supervision of their units. It would also prevent the staffing office from reworking 17 different schedules in order to ensure adequate staff throughout the hospital. According to area hospitals we contacted, automated scheduling systems which can be used for centralized scheduling can be purchased for approximately $25,000.

  In implementing a new scheduling process, ASH should consider expanding the use of flexible scheduling of staff for hard to cover shifts. For example, one PNM stated that additional help is needed during the early mornings from 5:00 to 7:00. Implementation of 10-hour shifts could assist those units. In addition, 12-hour shifts, as used in other hospitals, might be considered for weekend coverage when staffing is minimal and sick calls can result in use of expensive registry time or use of the demoralizing floating.

- **Supervision** - ASH can improve supervision by providing additional training for its supervisors. ASH supervisors have suffered from a lack of supervisory training. Although 14 supervisory training classes[1] are provided to ASH supervisors, a review of class attendance sheets[2] revealed that not all nursing supervisors have attended all classes. For instance, 13 of the 17 PNMs attended 8 or fewer of the 14 classes available. Only 19 of the 32 shift supervisors attended the supervisory training.

- **Salary and Promotional Opportunities** - ASH can improve morale by providing salary increases and promotional opportunities. Our survey results showed that the psychiatric technician positions were most dissatisfied with their salaries. Currently, according to a DOA official, the salary for an entry level psychiatric technician is $13,660, and a psychiatric technician II's beginning salary is $14,862. Although State Personnel reviewed the ASH psychiatric

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(1) Supervisory training classes are offered through the Certified Public Manager program that is conducted by the DHS-Staff Development and Training section. These classes generally last all day and may cover two to three subjects per class.

(2) We reviewed attendance sheets for the Certified Public Manager program for the period of August 4, 1988, through May 8, 1989.

technician salaries last spring and found the salary ranges were adequate, the Director of DHS notes that the lack of merit pay or cost of living increases over the past few years has resulted in many staff being "frozen" at the lower end of these salary ranges.

ASH also lacks adequate promotional opportunities for its psychiatric technicians. Currently, there are four psychiatric technician levels and 346 psychiatric technician positions hospital-wide. However, approximately 50 percent of the positions are level I's, and nearly 30 percent are level II's. Further, opportunities for promotion to higher levels are limited. Promotion to a level II position is limited to when a vacancy occurs. Promotion to a level III position generally requires a transfer to a forensic unit - something many staff may not be willing to do. Promotion to a level IV is particularly limited because only 8 such positions exist in the hospital.

ASH could reclassify its psychiatric positions to provide more of a career ladder. According to the director of nursing, in practice, there is very little difference between the functions of a level I and a level II. He said that the main difference is that a level II has more experience than a level I. Furthermore, the director of nursing felt that if ASH could provide more level II positions, staff morale would improve and staff could promote within their own unit or program. According to a DOA personnel specialist, ASH could reclassify its psychiatric technician positions, thus providing more of a career ladder.

ASH needs to conduct a study of its staffing needs - In order to overcome the problem of chronic shortages of staff on the treatment units, ASH should conduct a comprehensive study to determine its staffing needs. As mentioned previously, ASH relies on minimum guidelines to staff its units, and these guidelines are felt to be insufficient by most nursing staff. Currently, ASH does not have a valid method to determine its overall staffing needs.

A lack of national standards was, in part, the impetus for several states to undertake their own staffing studies. We obtained information from both Florida and Maryland which have recently conducted staffing studies for their state hospitals. The Florida study was conducted under a 5-month contract for the Florida Department of Health and Rehabilitative Services. The $80,000 contract provided for staff from the University of Florida and for part-time national consultants. The Maryland Department of Health and Mental Hygiene obtained a $100,000 federal grant and utilized state employees during a two-year staffing study. Both studies considered such factors as:

- An assessment of patient needs,
- A computation of the tasks performed by each discipline of staff,
- A measurable statement of what patient treatment is supposed to achieve,
- A survey of any barriers that would prevent patients from being discharged, and
- Time and motion studies to determine the length of time usually taken to accomplish patient related activities.

ASH conducted its own study in 1987. However, the study was not sufficiently comprehensive to fulfill the hospital's needs. Although information was gathered, this study did not include critical components for a comprehensive study such as an analysis of postcoverage requirements, patients' needs, and staff roles.

Although ASH has hired a consultant to review its current staffing, the type of study needed may again require more time and resources than ASH has committed. The consultant's report is to be completed in late October or early November 1989. Included in the request for proposal for the consultant's services is the development of staffing models for all clinical care, support and administrative staff, as well as specific recommendations for the automation of staff scheduling, the monitoring of staff utilization, and specific staffing standards. The total cost of the study will be $8,950. Although this report will provide information to hospital administration regarding staffing needs, given the time and money committed for this study, we are not sure that it will provide the comprehensive information needed to make long-term staffing decisions. As noted earlier, other states have expended considerably more monies to hire consultants to conduct comprehensive studies of their needs, and these studies were not as broadly defined as what ASH is proposing.

RECOMMENDATIONS

1. ASH should centralize the scheduling function within the staffing office.

2. ASH should determine the system needed to automate its scheduling function, and request funds for this purpose. The system should take into account the acuity on the units, the units' census, and activities scheduled on the units in order to ensure adequate staff on all shifts.

3. ASH should expand the use of flexible scheduling to provide staff for problem shifts and heavy workload periods.

4. ASH should ensure that all nurses in supervisory positions attend the courses available to improve supervisor/employee relations.

5. ASH should consider expanding promotional opportunities for its nursing staff by:

   - Allowing flexibility in the number of levels of staff, thereby eliminating a cap on the number of psychiatric technician II positions available,
   - Providing additional psychiatric technician III positions to allow the staff to promote on units outside the Behavior Management program, and
   - Requesting additional funding from the Legislature for this purpose.

6. ASH should conduct a comprehensive study to determine its staffing needs. This study should consider such factors as:

   - The goals of the hospital
   - Expected outcomes of its treatment programs
   - Patient demographics
   - Patient needs assessment
   - A role and task analysis

   If ASH lacks sufficient resources to perform a comprehensive staffing analysis, it should seek additional funds to fulfill the need for a comprehensive study.

FINDING II

ASH NEEDS TO CONSIDER RESTRUCTURING ITS TREATMENT PROGRAM AND UNIT POSITIONS TO IMPROVE SUPERVISION AND PROGRAM MANAGEMENT

The Arizona State Hospital needs to consider restructuring its treatment program and unit management. The current structure is fragmented, which may lead to inadequate supervision and a lack of coordination. ASH should evaluate its current structure and consider adding program managers similar to those used by other hospitals. It should also consider designating head nurses and lead psychiatric technicians.

Current Structure - As shown in Figure 2 (page 21), ASH has 17 treatment units which are organized into 6 treatment programs. Patients are assigned to a treatment program based on their treatment needs, level of functioning, chronicity of illness, and age. Each treatment program is under the general direction of a psychiatrist. ASH currently has 16 psychiatrists, all of whom are on contract. The psychiatrists are considered to be the multidisciplinary team leaders who, along with the psychologists, have the responsibility to ensure that the patients have an individualized, specific, and current treatment plan.

As shown in Figure 3 (page 22), each unit is staffed with individuals from various disciplines such as nursing, social work, and psychology. In addition, ASH has medical specialists and rehabilitation therapists that work with the patients on a daily basis. Currently, units are headed by a psychiatric nurse manager (PNM) who has 24-hour per day administrative responsibility over the nursing services and treatment program.[1] In addition, the PNM is responsible for the unit's budget and for program evaluation and planning. Reporting to the PNM is the psychiatric nurse shift supervisor (PNSS) who has responsibility for

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(1) The hospital's psychiatrists have clinical responsibility over the treatment programs. Thus, under their direction, the PNMs assist in implementing patient treatment plans.

supervising the psychiatric and medical nursing services for a work shift. The other nursing staff on the unit are responsible for providing professional medical/surgical nursing care to patients and generally report to the PNSS. Finally, each unit is staffed with psychiatric technicians (PTs) who provide a variety of paraprofessional psychiatric rehabilitative duties. These PTs report to and are supervised by the licensed nursing staff on the unit.

However, as illustrated in Figure 3 (page 22), while there are other disciplines working on the units, each reports to their own supervisor or director. Thus, there is no one individual at the unit or program level that has overall responsibility for all disciplines working on the units.

ASH Should Evaluate Current Structure and Consider Changes

ASH should evaluate the need for program managers, head nurses, and lead technicians. Program manager positions could be established to provide overall administration of the treatment programs. In addition, a head nurse could provide the daily clinical supervision of nursing staff. Moreover, a lead technician could be responsible for ensuring technician activities are undertaken. Finally, to structure programs with these positions, ASH would need to implement a dual reporting system.

Overall administration could be provided by a program manager - Establishment of program manager positions could provide overall administration for ASH's treatment programs. We contacted other State and local hospitals to determine the structure of their programs and found that all of the hospitals utilized a position similar to a program manager. The basic concept of such a position is to provide overall coordination of the program and to ensure that quality care is provided. Some of the functions that are carried out by the program manager include coordinating therapies for patients, planning activities, budgeting, implementing program policies and procedures, and providing for the hiring, orientation, and training of staff. Additionally, some of the

FIGURE 2

CURRENT STRUCTURE OF ASH
TREATMENT PROGRAMS AND UNITS

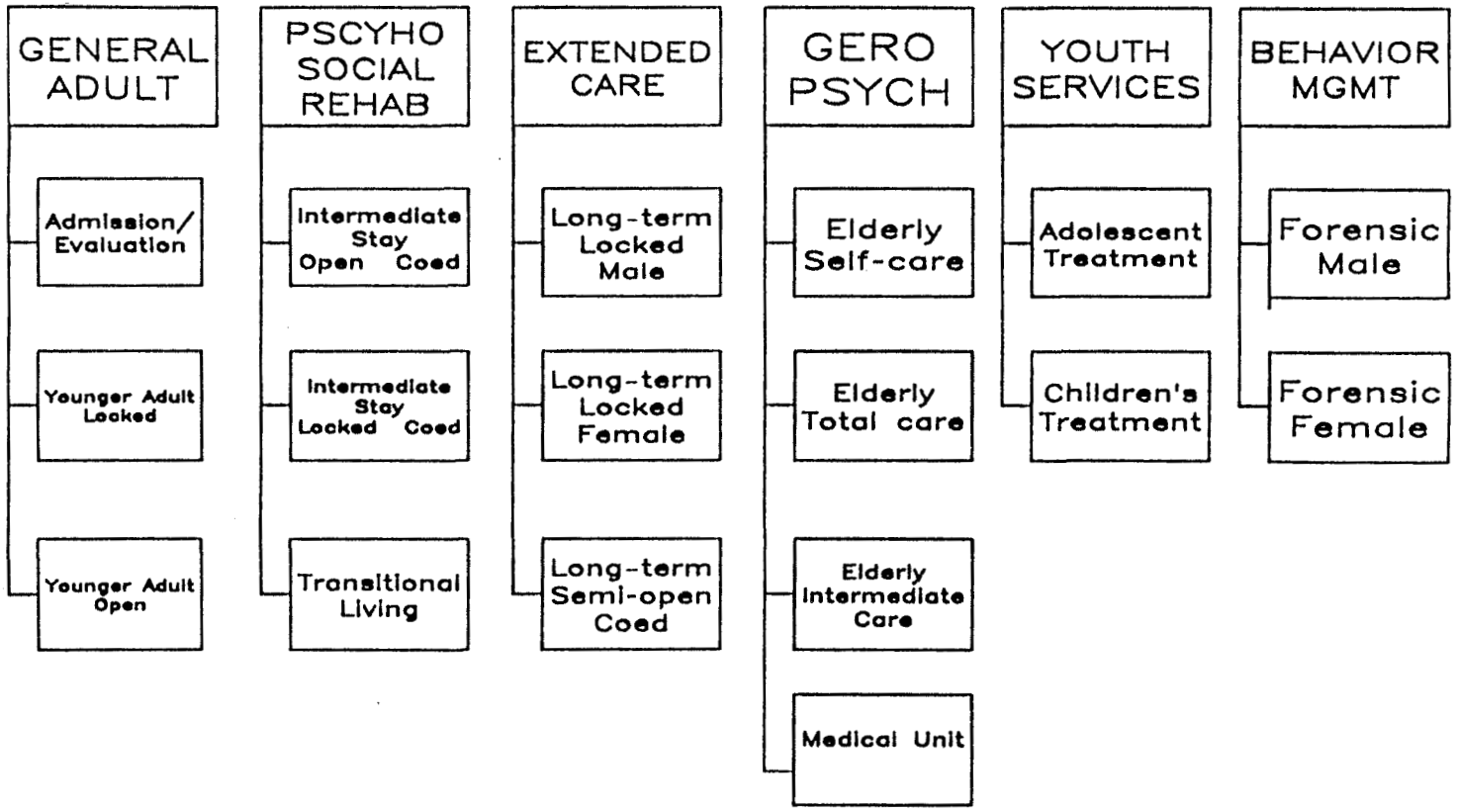
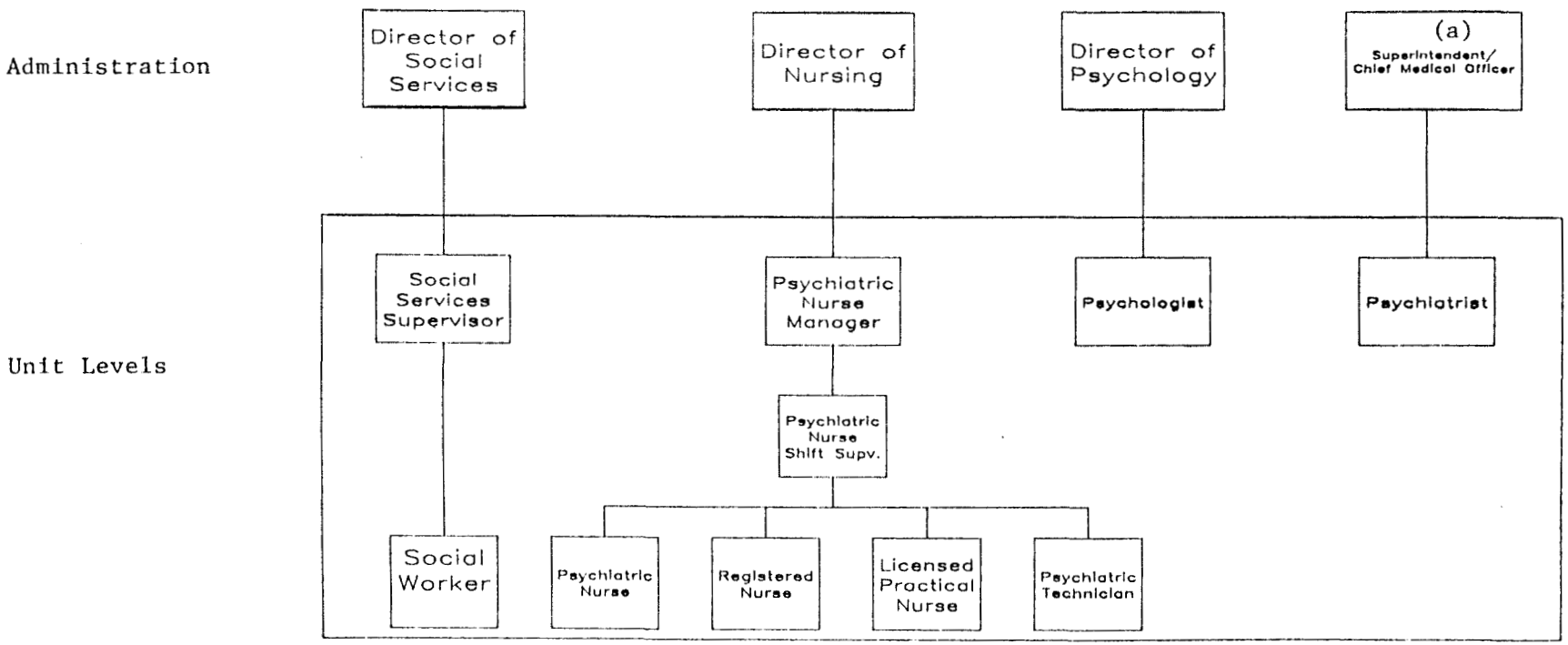


FIGURE 3

CURRENT REPORTING STRUCTURE OF ASH
TREATMENT UNITS



(a) Currently, the superintendent also acts as the hospital's chief medical officer. However, ASH is currently in the process of recruiting for a chief medical officer.

hospital representatives we interviewed stated that a program manager position could be held by an individual from any discipline (i.e. nursing, social services, psychology, or psychiatry).

Although ASH currently utilizes psychiatric nurse managers to perform some of the above mentioned functions, based on our work and the practices of other hospitals, we see the need for a program manager to improve coordination of all the units within a treatment program. ASH's superintendent agreed that a program manager position would be beneficial in bringing the units within a program together administratively. However, ASH would need 6 additional positions to establish program managers for each of its treatment programs. The Southern Arizona Mental Health Center within DHS utilizes similar positions with a salary range of $32,284 to $48,559. Using these figures and including an employee related expense allowance of 25 percent, ASH would require an estimated $242,000 to $364,000 to fund the six positions.

Head nurse could provide clinical supervision - Establishment of a head nurse position would provide increased clinical supervision of nursing staff. Our contacts with other hospitals utilizing a program manager position revealed that these hospitals also had head nurses to provide for the clinical supervision of the nursing staff. ASH currently has PNMs that are responsible for the day-to-day operations of the units. However, because they are so heavily involved with the administrative aspects of their positions (most state they spend 75-90 percent of their time on these functions), according to several staff surveyed, they are often not available to provide clinical supervision for their staff. However, with the establishment of a program manager, the PNM position could be replaced with a head nurse. Therefore, ASH would not need to allocate new positions, but could designate existing staff for the head nurse position.

Lead technicians could assist in the supervision of technical staff - Lead technicians on each unit could assist in the supervision of technical staff. Although nurses are responsible for supervising the psychiatric technicians, they also have many other duties that take them

away from direct contact with both the staff and the patients. For example, their duties include providing general nursing to patients, observing patients and reviewing medical records, transcribing physicians' orders, and participating in the implementation and evaluation of patient care treatment plans. As a result, there may be no one in charge to provide supervision in the absence of the licensed nursing staff. The following case examples illustrate this point:

- In observing one unit throughout the day, the auditor found it difficult sometimes to locate the psychiatric technician (PT) staff. At one point, the auditor was alone in the dayroom for approximately 20 minutes with no staff in sight. During that time, three patients became very agitated and verbally abusive, trying to provoke a fight. During this incident, the auditor noted two PTs walking through the dayroom, but they made no attempt to redirect the patients.

- During another unit observation, 23 patients were out on the patio without any supervision by unit staff for several minutes. During that time, two patients began to argue. One patient threatened to hit the other patient. However, a third patient persuaded one of the two arguing patients to move to another picnic table. Although 12 of the patients were participating in an outdoor activity with a recreational therapist, the therapist was not within earshot of the argument; thus, the argument was not observed by any staff from that unit.

- Another unit was observed in the patient cafeteria during the lunch meal. Four PTs accompanied approximately 25 patients to the cafeteria. During the meal, the auditor observed the staff sitting at one of the tables talking with one another; they did not appear to be monitoring the patients. At the end of the meal, the auditor observed one patient rummaging through the trash and eating food that had been discarded by the other patients. However, because the staff were seated at a table, away from the trash area, this incident was not observed by anyone other than the auditor.

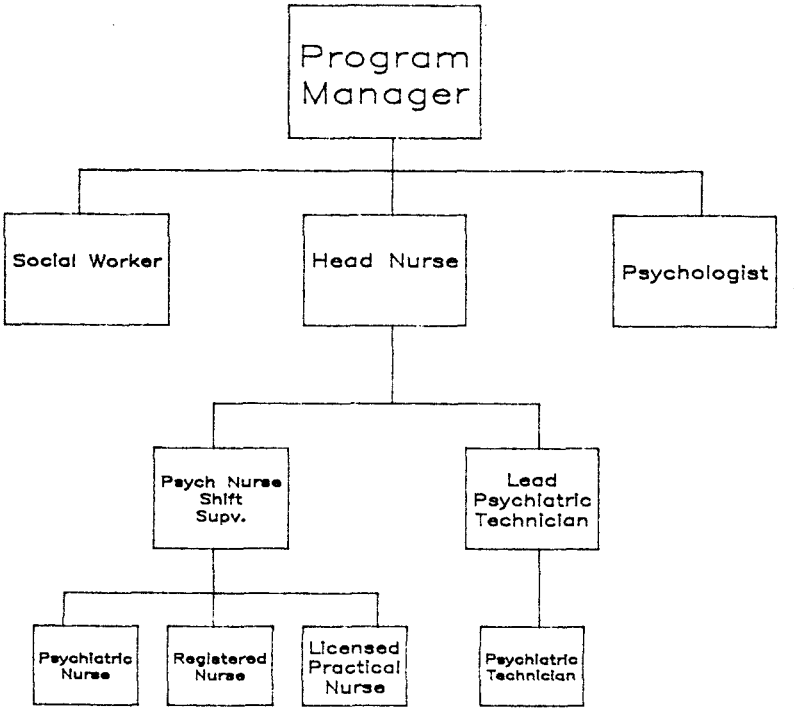
Although ASH currently has lead technician positions, most units only have one such position, which is not enough to cover even one shift for a full week. Unit supervision could be improved if ASH provided more lead technician positions for all units. Similar to the head nurse position, this would not require additional positions. Therefore, ASH would only have to designate existing staff as lead techs. However, if additional position upgrades are necessary, the salary increase per person would range from $2,128 - $3,585.

Figure 4 illustrates our proposed structure of ASH treatment programs using program managers, head nurses, and lead technicians. Within this structure, the lead technician would report to the head nurse on the day shift, and to the psychiatric nurse shift supervisor on the evening and night shift, when the head nurse is not available.

Dual reporting system - With the establishment of program managers, head nurses, and lead technicians, ASH would need to implement a dual reporting system. Although the program manager would have overall responsibility for the program and handle all administrative functions, there would still be a need for clinical direction from the various disciplines. Most of the hospitals that we contacted had a dual reporting system in which the staff reported to the program manager and to the director of their respective discipline (i.e, director of nursing, director of social work, director of psychology). Thus, each hospital had head nurses and lead social workers responsible for supervising staff and preparing performance ratings and who also reported to both the program manager and to their department directors.

FIGURE 4

PROPOSED STRUCTURE OF ASH TREATMENT PROGRAMS



RECOMMENDATIONS

1. ASH should evaluate the current structure of its treatment programs and units, and consider adding program managers, head nurses, and lead technicians.

2. The Legislature should consider funding the program manager positions.

FINDING III

ASH NEEDS TO IMPROVE THE FOOD SERVICE FOR ITS PATIENTS

ASH needs to improve its dietary services to its patients. Although nutritious meals are important to psychiatric patients, ASH's meals do not meet recommended standards. ASH's failure to provide nutritious meals is due to poor planning. Further, the manner in which food is served is inefficient and problematic.

ASH meals are prepared at the main kitchen within the hospital. Meals are prepared for both patients and employees at the hospital as well as Department of Correction (DOC) inmates in the Phoenix area. In total, approximately 5,450 meals are prepared daily - 1,750 patient meals, 100 employee meals, and 3,600 inmate meals. The hospital has four dining halls where patients are served their meals.

Foods Served to ASH Patients Are Not Nutritious

Although nutritious meals are important to psychiatric patients, meals served to State hospital patients do not meet recommended standards. We analyzed both patient menus and the meals served to patients and found that the foods served to ASH patients are high in cholesterol, fat, and sodium. The failure of the hospital to provide proper diets can impact patient care.

An analysis of ASH menus reveals that ASH has not planned foods to meet patients dietary needs. ASH has a master menu which contains all meals to be served within a four-week cycle for each type of patient diet. The Office of Nutrition Services within DHS conducted an analysis for our office of the menus for regular and modified diets for the third week of ASH's master menu. The results of the analysis showed cholesterol, sodium, and total fat exceeded recommended amounts for all menus. For example, meals planned for patients on regular diets had a cholesterol content as high as 203 percent above the recommended level, a sodium

content as high as 230 percent above recommended levels, and total fat content as high as 44 percent above recommended levels.

Further, a laboratory analysis of foods served to patients also reveals that foods served are not meeting recommended daily guidelines. The Dietary Guidelines for Americans recommends that 50 to 60 percent of total calories come from complex carbohydrates, 15 to 20 percent from protein, and 20 to 30 percent from fat. We collected an example of each of the meals served for patients on regular diets and on mechanical soft diets for the week of April 24 through April 28.[1] These foods were sent to a laboratory for analysis. The results of the analysis showed that the meals were too high in fat, and too low in complex carbohydrates, as shown in Table 2.

TABLE 2

RESULTS OF ANALYSIS OF
REGULAR AND MECHANICAL SOFT DIETS
SERVED TO ASH PATIENTS DURING THE WEEK
OF APRIL 24-28, 1989

	Recommended Standard (% of Total Daily Calories)	ASH Regular Diet (% of Total Daily Calories)	ASH Mechanical Soft Diet (% of Total Daily Calories)
Protein	15-20%	22%	19%
Carbohydrates	50-60%	30%	39%
Fat	20-30%	48%	42%

Source: Analysis performed by Northview Laboratories, Illinois

Because nutritious meals are important for a healthy lifestyle, patient care is being compromised by inadequate food service. A healthy diet is important for all individuals in preventing serious illness. Research has shown that diets high in fat and cholesterol can contribute to coronary heart disease. Further, diets with high sodium levels can lead to high blood pressure. Although nutritious meals are important for all

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(1) The mechanical soft diet is one of nine of the special diets for ASH patients. It is provided for patients who have difficulty chewing solid foods.

individuals, nutrition is especially important to psychiatric patients. According to the chief of the Office of Nutrition Services at DHS, "As diet therapy is a critical component in the medical management of a patient, inappropriate dietary intake can adversely affect the nutritional and medical status of the patient." She further stated that psychiatric patients often require modified diets as part of their treatment, and that "inappropriate dietary intake can alter blood values and interfere with expected medication action."

ASH's Failure To Provide Nutritious Meals Is Due To Poor Planning

ASH's failure to provide nutritious meals is due to poor planning. First, the menus used to plan meals are inadequate. Also, ASH lacks standardized recipes for food preparation. Further, because of poor purchase planning, food items are frequently substituted.

ASH menus do not meet patients' dietary needs - ASH has ten different menus - one for patients on regular diets and nine for patients on special diets. However, as indicated earlier, the menus do not contain nutritious meals for the patients. In addition, according to the Office of Nutrition Service's analysis of ASH menus, the menus contain errors for patients on special diets. For example, menus for patients on vegetarian diets contain items such as red meat, poultry, and fish. The low cholesterol diet has a fat content of 30 to 40 percent of total calories, although it should not exceed 20 percent. The menus for low cholesterol diet contained such items as french fries, gravy, burritos, sour cream, and hot dogs; all of which are inappropriate items.

The menus also contained other deficiencies. First, menu items were frequently repeated. For example, in the fourth week of the menu cycle, hamburger is used in five of the week's meals. Further, the menus do not always specify the portion of food to be served. Also, the menus are not always specific enough about the type of food item being served. For example, the menu may state that fruit is to be served, but it may not specify what type of fruit, or whether the fruit is to be fresh or canned.

ASH's existing menus were not developed to meet the nutritional needs of ASH patients, but instead were designed to facilitate food production. ASH prepares meals for Department of Corrections inmates in the Phoenix area prisons.[1] As a result, ASH prepares approximately 3,600 meals daily for inmates. According to ASH's food service manager, when ASH obtained the DOC contract, the previous food service manager along with the DOC dietitian developed a new master menu to serve both the patients and the inmates. However, the new menu did not contain menus for the patients on special modified diets. Thus, the cooks were preparing meals for the ASH patients on modified diets from the old ASH menu, and meals for ASH patients on regular diets as well as the inmates from the new menu. This was causing production problems. Therefore, the food service manager adjusted the menu to include the modified diets. However, the menus currently used at ASH have resulted in meals which are deficient in meeting ASH's patients' needs.

In order to eliminate the menu deficiencies, ASH has contracted with a consultant to develop new menus. ASH currently has two registered dietitians on staff, but because of their already large workload, ASH contracted with a consultant to redo its menus.

ASH lacks standardized recipes for meal preparation - In addition to lacking adequate menus, ASH lacks standardized recipes for food preparation. Lack of standard recipes has several impacts. First, lack of standard recipes could result in cooks preparing meals based on their preferences or based on ingredients available. For example, one cook may include tomatoes in stew, while another may not. Further, lack of standard recipes makes it difficult to assess the nutritional value of the food served. For example, if cooks use varying amounts of meat when preparing spaghetti sauce, the protein value of the food would also vary. Finally, without standard recipes, food purchases cannot be accurately estimated because the amount and types of ingredients needed

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(1) These prisons include the Alhambra Reception and Treatment Center, the Arizona Center for Women, the Aspen Correctional Center, the Flamenco Mental Health Center, and the Alamo Unit.

to prepare an item would not be available. In connection with redevelopment of the menus, ASH also plans to use the contract consultant to prepare standard recipes for the items on the menus.

Poor planning causes excessive substitutions - ASH frequently makes substitutions to its menus. ASH's food service manager prepares weekly menus from the master menu. However, these menus deviate substantially from the master menu.[1] For example, we compared the menu developed for the week of March 5-11, 1989 against the master menu and found that the menu had 21 items which varied from the master menu. Further, the actual meals served weekly frequently deviate from the weekly menus. For example, during a 5-day period in which we observed the food service, three of the breakfast meals contained substitutions to the weekly menu. According to the food service manager, the most frequent cause of substitutions is shortages of the food item.

To decrease substitutions, ASH needs to develop reliable estimates of food needs. Currently, because ASH does not track the number of patients on each type of modified diet, it cannot estimate the needs of these patients for future purchases. However, an average of nearly 50 percent of ASH patients are on special diets. ASH's lack of standardized recipes also complicates purchases because ingredients cannot be estimated. Finally, ASH incorporates past usage when ordering nonperishable food items. However, according to an official in procurement, past usage figures are often skewed by substitutions and other problems. Thus, they may perpetuate old problems rather than reflect future food needs.

ASH Does Not Provide Adequate Service of Foods

ASH's method of serving foods is inadequate. The food serving process is inefficient and does not ensure that patients get the foods they need.

Method of serving patients is inefficient - Currently, the hospital frequently uses only one person to serve patients coming through a

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(1) According to the food service manager at ASH, he sends a copy of the master menu to the ASH warehouse each week. The warehouse informs him what foods aren't available. Based on the shortages, he prepares a weekly menu from the foods which are available.

serving line. This causes delays in serving patients due to the many duties involved in serving the patients. The server is confronted with the task of serving anywhere from 20 to 55 patients who are only given 20 minutes to receive their food and eat. During our observations we noted that while serving, the server is responsible for:

- Locating the patient's diet card to review what type of foods the patient is allowed to eat
- Monitoring the cold line selections made by the patient to see if it is in line with the diet card
- Serving the hot food items in accordance with the diet (this can get complicated since there are 10 different menus for any given meal)
- Locating special items for patients
- Controlling the condiment selections

According to the food service manager, only 2 of the 17 units are routinely assigned more than one food service worker on the serving line. The reason for assigning only one person to serve food is that ASH lacks enough staff to be able to provide more than one person for this task. However, if kitchen staff are unavailable, ASH may want to consider requiring staff from the units to assist the servers while the unit's patients are being served.

In addition to delays in being served, patients are not assured of getting the foods prescribed. Nearly 50 percent of the hospital patients are on special diets. However, both regular and special diets are sometimes violated by either the server or the patients themselves. We performed observations of the cafeteria serving lines at various meals during two separate weeks and noted the following problems.

- During one afternoon meal, a server was observed attempting to serve hot dogs to two vegetarian patients.
- During a breakfast meal, a server reviewed a patient's diet card and then searched for peanut butter to give the patient. However, the card clearly stated that the patient had a food allergy to peanut butter. After an extensive search to find peanut butter, the server then offered the peanut butter to the patient.
- During a breakfast meal, the server forgot to give cereal to several patients.

- During one lunch, the diet cards for two units did not arrive. The servers served these patients without the cards.

- During our observations, we noted that the condiments, including butter and salt, are located at the end of the serving line and are not routinely controlled. Thus, those patients on low sodium and low fat diets are able to take these items.

In addition, during our observations we noted servers utilizing incorrect serving equipment and serving incorrect portions.

Other hospitals have a check person who is responsible for seeing that patients are served their prescribed diets. The food service manager at the Maricopa Medical Center indicated that the food service supervisor checks each tray at the end of the serving line to ensure it contains the appropriate menu items. The chief of dietetic services at the Veteran's Administration Hospital in Phoenix indicated that the service line has a checker at the end of the line who is responsible for checking that each tray contains the items specified on the diet card. This position is always filled by a high level experienced food service worker. ASH occasionally uses the diet clerks to monitor the cafeteria serving lines, but their use is limited because of other responsibilities.

RECOMMENDATIONS

1. ASH should ensure that the menus developed by its contracted consultant meet the recommended daily guidelines.

2. Once standard recipes are developed by ASH's contracted consultant, ASH should monitor food preparation to see that all cooks follow the recipes.

3. ASH should improve its procurement process for food items by basing the food survey estimates on the menus and recipes developed by the consultant, and by tracking the number of patients served special diets to be able to estimate future needs.

4. ASH should improve its service of foods by:

   - Adding servers to the food service lines to assist in serving patient meals,
   - Having a food service worker check food trays to see that patients received only foods prescribed on their diet cards, and
   - Providing training to food service workers in portion control and in reading diet cards.

FINDING IV

ASH HAS IMPROVED THE USE OF ITS TRANSITIONAL LIVING PROGRAM; HOWEVER, OTHER UNITS WITHIN THE HOSPITAL NEED TO BE MADE MORE AWARE OF THE PROGRAM'S FUNCTIONS

ASH has improved the use of its transitional living unit (TLU), however, the functions of TLU have not been communicated to other units outside of the program. Historically, TLU has been underutilized. Although a recent reorganization of the program has improved its use, other units within the hospital do not seem to be aware of TLU's functions.

In 1984, the Legislature, recognizing the need for a program to provide graduated steps of care between the hospital treatment unit and the community living situation, established a line item designating funding for a transitional living unit (TLU). Prior to that time, there was no such program. TLU treatment is aimed at bridging the chronically mentally ill client between the inpatient unit and the community placement. It is designed to meet the needs of those patients who are either unprepared to enter the community, or who have such significant social skills deficits as to make community reentry difficult. To facilitate the transition, TLU provides a wide range of therapeutic, educational, and practical skills to its patients, such as, cooking, cleaning, shopping, community transportation, and personal safety. Patients are expected to be ready for discharge within 60 to 90 days of placement on the unit.

From its implementation in September 1984 through March 31, 1989, TLU expenditures totaled over $1.4 million. TLU is the most expensive adult treatment unit operating at the hospital. According to the 1987-88 annual report, other adult units' average daily costs per patient range from $121 to $203, TLU costs $212 per patient per day.

TLU Has Been Underutilized

Historically, TLU has been underutilized. Since its inception, the TLU rarely operated at capacity. In addition, the patient length of stay (LOS) in the program was longer than projected for many patients, and TLU had relatively few discharges. Finally, the role of the TLU had not been clearly defined.

During its first four years, TLU was not efficiently utilized - Because TLU provides an important function by assisting patients in preparing for living in the community, the unit should provide services to as many patients as possible. However, although only 12 spaces were available on the unit for the more than 550 discharges a year, the spaces were not kept filled. Based on our review of daily census records for TLU between September 1984 and October 1988, we found that TLU achieved maximum occupancy only 55 of the 1,512 days it was in operation, or only 3.6 percent of the time.[1] As shown in Figure 5 (page 37), although the unit had a capacity for 12 patients, the average monthly census ranged between 8 and 10 patients for much of the unit's existence.

Some patients remained in the TLU program longer than projected - While TLU often operated below capacity, some patients who were in TLU stayed longer than projected. According to the former unit supervisor, patients were expected to be discharged within 90 days of placement on the unit. However, as depicted in Table 3 (page 38), 42 percent of the discharges in 1985-86 and 50 percent of the discharges in FY 1986-87 stayed on TLU longer than 90 days. In FY 1987-88, 64 percent of the discharged patients stayed longer than 90 days; in fact, they averaged 130 days on the unit. Some patients' stays have been extremely lengthy; for example, one patient remained on the unit for 313 days. A July 14, 1987, TLU report noted that TLU had experienced an increase in patient length of stay, and attributed the increase to two "probable" factors: 1) the unit's acceptance of lower functioning patients, and 2) staff shortages.

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(1) The census dropped to four patients during June and July 1988. According to the ASH superintendent, continued funding was uncertain, and ASH was preparing to close the unit. However, funding was continued, and the census was eventually increased.

FIGURE 5

TRANSITIONAL LIVING UNIT
AVERAGE MONTHLY CENSUS
SEPTEMBER 1984 THROUGH OCTOBER 1988

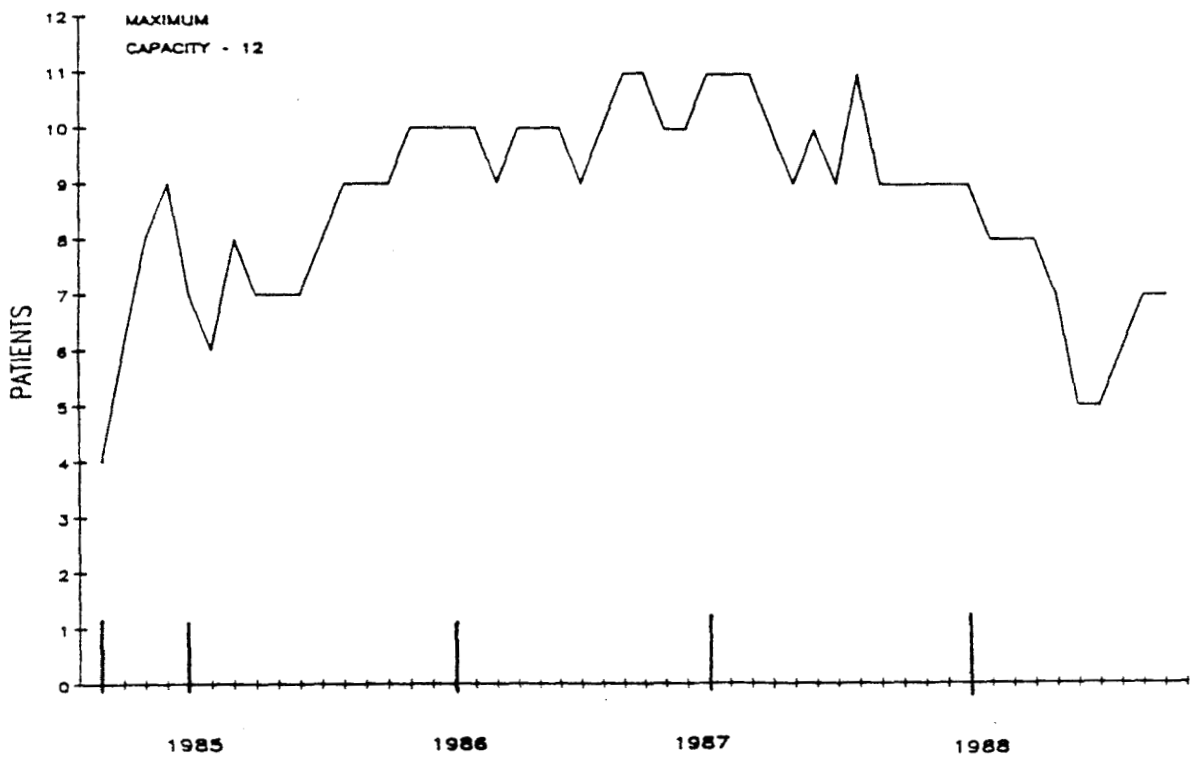

TABLE 3

TRANSITIONAL LIVING UNIT
LENGTH OF STAY
FISCAL YEARS 1984-85 THROUGH 1988-89
(BASED ON PATIENTS DISCHARGED FROM HOSPITAL)

Length of Stay (In Days)	Number of Patients Discharged				
	(a) FY 1984-85	FY 1985-86	FY 1986-87	FY 1987-88	(d) FY 1988-89
1 - 30	4	6	1	1	6
31 - 60	6	7	4	6	7
61 - 90	3	1	4	2	7
91 - 120	4	3	2	4	1
121 - 150	1	2	3	3	1
151 - 180	1	3	1	1	0
181 +	0	2	3	8	2
Total Discharged	19	24(b)	18(c)	25	24

(a) Covers September 1984 through June 30, 1985.
(b) Does not include two discharges with unknown admission dates or one patient who was discharged on day of admission.
(c) Does not include two discharges with unknown admission dates.
(d) Covers July 1988 through March 1989.

Source: Auditor General analysis of TLU Patient Census Records, Data Control Section, ASH

TLU discharged relatively few patients in its first four years - The combination of a lower census and longer than projected length of stay resulted in relatively few patient discharges during TLU's first 50 months of operation. Through October 1988, TLU discharged 100 patients from the hospital. Based on TLU's capacity of 12 patients and the 90-day projected length of stay, TLU could have discharged 4 patients per month, or as many as 188 patients between December 1984 and October 1988.[1] Thus, TLU discharged only about one-half of its potential. The low discharge rate was a result of lengthy patient stays on the unit and the inability to maintain a higher patient census.

In past years, the role of TLU may have been unclear - The underutilization of TLU may be due, in part, to the need for a clearly defined program role. In a July 1987 annual report to the ASH superintendent, the TLU supervisor stated, "TLU's role within the hospital organization continues to seem somewhat unclear to much of the hospital staff." Based on our interviews of some personnel in the two units which most often referred patients to TLU, uncertainty as to TLU's role was evident. The current TLU psychiatrist acknowledged his lack of understanding of what objectives were in place on the unit prior to his appointment to TLU in November 1988. Another psychiatrist expressed his belief that anyone outside the TLU program had limited knowledge about it and that few psychiatrists and staff were interested in using TLU.

Use of the TLU Has Improved

A recent reorganization of TLU has improved its utilization. Since the reorganization of TLU, ASH has been able to increase its patient census, reduce the average length of stay in the program, and discharge more patients.

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(1) ASH estimates patients should stay on the unit 90 days. Further, TLU maximum capacity was 12 patients (until November 1988). Thus, taking into account a three-month preparation time for patients assigned to TLU in September 1984, TLU could have discharged as many as 188 patients between December 1984 and October 1988. (90-day length of stay per bed = 4 discharges per year; 12 bed capacity x 4 = 48 discharges per year or 4 discharges per month. 4 discharges/month x 47 months = 188.)

ASH reorganized the TLU program - Recently, ASH reorganized its TLU in order to increase its capacity and to provide a safer environment for the patients and staff and to provide a full-time psychiatrist. Prior to November 1988, TLU occupied two cottages just outside the fenced hospital grounds. In November 1988, ASH closed the two cottages and moved the program to a building within the hospital grounds. A main factor in the move was safety of patients and staff. According to the ASH superintendent, the cottages had electrical wiring problems which made them a safety hazard to patients. Further, he stated that the location of the cottages outside of the fenced grounds did not provide a safe environment for staff who were required to inspect the cottages and make rounds during the night. The move provided additional benefits, however, in that ASH was able to increase the capacity to 16 patients from 12 without any additional increase in funding for the program.

Another aspect of the reorganization was positioning the unit under the direction of nursing services and devoting a full-time psychiatrist to the unit. Prior to the move, TLU was under the direction of the social services unit, and the program had a part-time psychiatrist who spent only four to six hours per week on the unit. According to the current psychiatrist assigned to TLU, when TLU was reorganized, the superintendent directed him to increase the unit's census and discharge patients in a more timely manner.

In recent months, TLU's performance has improved - For the period November 1, 1988, through March 31, 1989, TLU's census has risen. Figure 6 (page 41) shows that TLU's census has steadily increased since November 1988. The average daily census on TLU increased from 7 in November 1988, to 14 in March 1989.[1]

While the average census has increased on TLU since November 1988, the average patient LOS has declined. As previously noted, the average

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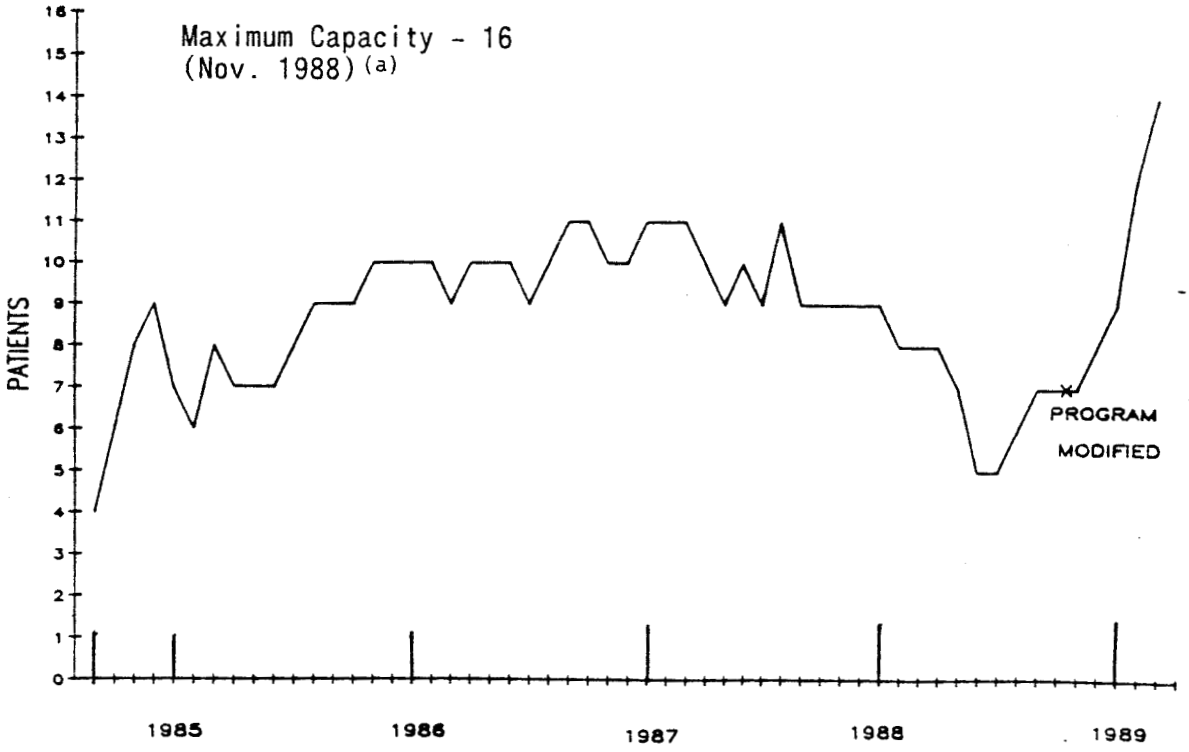
(1) Although ASH's capacity for TLU patients has been increased to 16, TLU currently maintains an available bed for patients in Reentry Facilities (REFs) who may require readmission to ASH. Thus, the unit may often be limited to only 15 patients to accommodate any possible REF readmissions.

FIGURE 6

TRANSITIONAL LIVING UNIT
AVERAGE MONTHLY CENSUS
SEPTEMBER 1984 THROUGH MARCH 1989



(a) The maximum capacity was 12 prior to November 1988.

length of stay during FY 1987-88 was 130 days. However, for patients admitted since mid-November 1988, the average length of stay has dropped to 48.2 days.

Finally, since its reorganization in November 1988, TLU has been able to discharge more patients. For the 5-month period of November 1988 through March 1989, TLU discharged 15 patients or an average of 3 patients a month. Moreover, the monthly discharge rate appears to be increasing. In March 1989, TLU discharged 5 patients.

ASH Needs to Communicate TLU's Functions to Its Other Hospital Units

ASH needs to make other units within the hospital more aware of its TLU functions. Since its reorganization, the types of patients targeted for the program have been changed. However, hospital personnel within other units of the hospital have expressed uncertainty as to TLU's role.

Types of patients targeted for TLU has changed - Since its reorganization, the types of patients admitted to TLU have changed. According to the TLU psychiatrist and ASH's superintendent, TLU is to target more patients from the Psycho-Social Rehabilitation Program (PSRP). Patients within this program tend to have chronic, longer term mental disorders. Since its reorganization, a much larger portion of the admissions to TLU are coming from the PSRP. We reviewed admission records for the 12-month period of April 1, 1988, through March 31, 1989. From April 1, 1988, until its reorganization in November 1988, TLU had 18 admissions, of which 5 admissions or 28 percent of the patients came from the PSRP. However, between November 1988 and March 31, 1989, TLU has had 17 of 24 admissions or 71 percent of the patients coming from PSRP.

TLU's role is still unclear - Despite the improvements made in the TLU program, its role at ASH remains unclear. Some of the hospital personnel are still not knowledgeable of TLU's goals and program objectives. Interviews with several social workers as well as two psychiatrists and a psychologist indicated a lack of knowledge or understanding regarding either TLU's goals, objectives, or patient criteria. Moreover, although

a new TLU program description was developed, it seems to have had little exposure to other staff outside of the transitional living program. Of those individuals interviewed, no one acknowledged having a copy of, or even reading, the new TLU program description. As a result, they are unable to effectively determine which patients to refer to the program because they are unsure of its purpose.

RECOMMENDATIONS

1. ASH needs to provide more information to the other treatment program units to educate the employees as to TLU's role at the hospital.

2. ASH needs to ensure that TLU is efficiently utilized by maintaining a full census and discharging patients within TLU's guideline of 90 days whenever possible.

OTHER PERTINENT INFORMATION

During the course of the audit we developed information regarding ASH's Medicare certification and the condition of its physical plant.

Medicare Certification

Background - The Department of Health and Human Services, Health Care Financing Administration (HCFA) is responsible for overseeing hospitals that receive Medicare reimbursements. In order to receive reimbursement, hospitals must meet Medicare's Conditions of Participation. There are also two Special Conditions of Participation that must be met by psychiatric hospitals in order to receive Medicare reimbursement. The first condition includes following special medical records requirements for psychiatric hospitals. This requires a facility to maintain records on all patients in order to determine the degree and intensity of the treatment provided to individuals served by the institution. The second condition includes utilizing special staff requirements for psychiatric hospitals. This requires a facility to meet staffing requirements as the Secretary of the Department of Health and Human Services finds necessary for the institution to carry out an active program of treatment.

According to the superintendent, the Arizona State Hospital is eligible to receive medicare reimbursement for approximately 200 of its patients. These reimbursements are not part of the hospital's budget, but are deposited into the State's general fund. In the past, Medicare reimbursements have totaled approximately $1.8 million annually.

ASH was decertified by HCFA in early 1988 - As a result of a survey conducted in October 1987 and a follow-up survey in February 1988, HCFA determined that ASH no longer met the requirements for participation as a provider of services under Medicare. The results of the surveys found that the two Special Conditions of Participation for Psychiatric Hospitals were not met. Although ASH submitted a corrective action plan to HCFA to address the noted deficiencies and a follow-up survey was conducted, according to a HCFA official, "the existing deficiencies

continue to seriously limit the hospital's capacity to furnish an adequate level or quality of care or services." Specifically, ASH did not meet the following standards:

- **Psychiatric Evaluation** - Although psychiatric evaluations for newly admitted patients were usually complete and timely, the annual psychiatric reviews still showed major deficiencies. These deficiencies included delays in charting evaluations (none of the charts reviewed contained a medical history during the course of hospitalization), inadequate mental status exams, and the lack of inventories of patients' assets in some charts reviewed.

- **Treatment Plan** - In the majority of the 43 medical records reviewed, there was no documented evidence that patients were involved in active treatment. According to the HCFA surveyor, the registered nurses, activity therapists, and social workers were not involved in writing treatment notes.

- **Progress Notes** - The progress notes by physicians were usually done in a timely manner, but they lacked content. In addition, the progress notes recorded by nurses and social workers were not documented with the frequency required.

- **Personnel** - The number of psychiatrists was not sufficient to provide care for the patients. In addition, although the number of RNs was adequate, there was not documented evidence that the patients were receiving nursing care. Finally, the standard specifying the need for a director of inpatient psychiatric services and medical staff was not met.

ASH made attempts to regain certification - After ASH's Medicare agreement was terminated on February 16, 1988, it prepared for an administrative appeal in an attempt to regain certification. In October 1988, ASH officials attended an administrative appeal at the HCFA Regional Office in San Francisco. However, after reviewing the documents submitted at that time, HCFA stated that the evidence provided did not support a change in the conclusion made at the time of the follow-up visit conducted in February 1988. Therefore, the termination of Medicare certification remained in effect.

Medicare certification regained - According to the hospital superintendent, ASH made several improvements in its continued efforts to regain Medicare certification. First, it increased both nursing and contracted medical staff. In addition, ASH increased the frequency of chart documentation to bring the patients' medical records up to HCFA

standards. Further, the treatment planning process was amended again to meet HCFA requirements. Finally, ASH has attempted to increase the availability of occupational therapists for its patients.

In mid-February 1989, HCFA surveyors visited ASH again. The purpose of this visit was to determine if ASH was now in compliance with the two Special Conditions of Participation for Psychiatric Hospitals. During their visit, the surveyors noted some areas where ASH was still deficient, but they were not of sufficient importance to affect the two special conditions. For example, treatment goals and objectives were frequently stated in general terms, and there were insufficient numbers of therapeutic staff (i.e. recreational and occupational therapists) and a lack of a chief medical officer. While there were still some deficiencies noted, the surveyors indicated that in their opinion ASH was in compliance. This opinion was confirmed in a June 1, 1989, letter to the director of Health Services from the HCFA regional office. The letter stated that ASH was again certified retroactive to March 26, 1989.

ASH Facilities

Background - The Arizona State Hospital encompasses approximately 97 acres with approximately 60 structures in the complex. While there are 460,953 sq. ft. of usable building area, only 241,681 sq. ft. are usable for patient treatment. The remaining footage is utilized for warehousing, engineering, office space, food preparation, and other support space for the hospital. Most of the buildings used for patient treatment were constructed in the 1950s. The following table identifies the buildings currently being used for patient treatment and the year they were constructed:

PATIENT TREATMENT FACILITIES

Patient Treatment Building	Year Constructed
Cholla	1963
Juniper	1954
Granada	1954
Kachina	1954
Encanto	1949

Other buildings vital to the operation of the hospital are also quite old. For example, the power plant, which contains three boilers and provides central heating and cooling for most of the hospital complex, was constructed in 1909. Likewise, the utility tunnel system located under the facility was also constructed in 1909. Furthermore, there are presently three vacant buildings within the fenced perimeter of the hospital that were constructed in the early 1900s. According to a hospital official, one of the buildings has been vacant for more than 15 years, and a second building has been vacant for approximately 10 years.

Current condition of the physical plant - Based on observations, interviews, and a number of hospital reports, the physical plant at ASH presents some problems for patient safety and efficient treatment. As noted in the ASH strategic plan, facilities and equipment are outdated, deteriorated, and in need of repair. Similar concerns are also cited in the 1987 ASH Advisory Board Annual Report. Some of the deficiencies which need to be addressed include:

- Overcrowded conditions. Some units have a census in excess of established capacity. Additionally, some units have limited dayroom area for patient use.

- Problems with broken sewer lines and seepage into the tunnel area under the facility. Since the tunnel area contains pipes wrapped with asbestos, the asbestos has to be removed prior to repairing the lines.

- Asbestos in hospital structures and in the tunnel system under the hospital. Continued asbestos containment and minor abatement had been planned for FY 1988-89.

- Three vacant buildings in the hospital complex which pose a potential hazard to patients who are able to secure unauthorized entry.

- Breaks in water lines. On two occasions during the audit, the hospital experienced breaks in main water lines which interrupted the water supply. Bottled water had to be made available for patient and staff use.

ASH seeks a Master Plan - In FY 1988-89 the Department of Health Services set aside $90,000 for an architectural study of ASH. DHS solicited proposals from qualified architectural/planning firms for

development of a master plan for a 500-bed State mental hospital with a 100-bed expansion capability.[1] Additionally, the requested proposals were to include "a comprehensive report on existing facilities, appropriate renovations and/or demolition of existing facilities, and construction of new facilities." A contract was entered into on February 17, 1989, with the firm of Anderson, DeBartolo, and Pan, Inc. The firm completed a plan for the Hospital in July 1989. The plan recommends constructing all new patient treatment units, and utilizing existing facilities for 89 percent of all other hospital functions. The plan recommends six major phases of construction, each centered around construction of a patient treatment program. Although the plan allows phased construction of the hospital dependent on construction fund availability, the total cost of implementing the plan is estimated at $80,337,400, with a completion date of mid 1996.

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(1) The current hospital capacity as noted in the Arizona State Hospital Strategic Plan, 1988-1997, is 515 patients.

AREAS FOR FURTHER AUDIT WORK

Do ASH's Laundry Facilities and Services Meet the Hospital and Patients' Needs?

ASH's laundry facility provides laundry services for most of the hospital. The facility was constructed in 1950 and, according to a recent ASH study, contains obsolete equipment which frequently breaks down and is worn to a point of disrepair. ASH developed three options for its laundry operations: 1) continue current operations, however, there may be potential for liability due to the poor condition of the equipment; 2) replace the existing laundry equipment and refurbish the laundry building at an estimated cost of nearly $1.4 million; or 3) continue limited operations, such as patient clothing, and contract for "flatwear" services (sheets, towels, pillowcases, etc.).

In addition to concerns with the laundry's equipment, concerns were expressed about the laundry operation's accountability for patient clothing. Several treatment unit personnel indicated that patient clothing is sent to the laundry, but often is not returned. One employee commented that her unit does its own laundry because if it was sent to the central laundry, "it doesn't come back."

Further audit work is needed to determine to what extent ASH should continue its laundry services, and whether accountability for patient clothing can be improved.

Would Increased Automation Improve Hospital Efficiency and Effectiveness?

Currently, ASH does many of its operations without the aid of computers. For example, patient dietary information, treatment charting, and patient status reports are kept manually. In some cases, information transmitted between units is done by hospital personnel via the use of a golf cart. Further audit work is needed to determine if increased automation could improve hospital operations.

Should ASH Continue To Provide Food Services To The Department of Corrections?

ASH entered into a contract with DOC in 1987 to provide meals and other services for inmates and prison employees in the Phoenix area prisons. ASH currently prepares an estimated 3,600 meals a day for the Department of Corrections (DOC), representing approximately 66 percent of the meals prepared in the ASH kitchen. According to ASH's food service manager, the meals served to the hospital patients and the prison inmates are virtually the same, except the inmates receive larger portions. Menus were coordinated to facilitate food production. However, our analysis of the foods being served to ASH patients found that the patient's nutritional needs were not being met appropriately. In addition, although DOC provides inmates to assist in preparing meals, ASH personnel commented on the difficulties of using inmate labor - high turnover, need for frequent training, and difficulty in supervising the inmates work. Further audit work is needed to determine whether: 1) the hospital has the means to provide dietary services to both the hospital as well as the prison (adequate facilities and personnel), 2) the hospital should continue to use inmate labor, and 3) the contract with DOC should be continued.

ARIZONA DEPARTMENT OF HEALTH SERVICES

Office of the Director

ROSE MOFFORD, GOVERNOR
TED WILLIAMS, DIRECTOR

October 24, 1989

Mr. Douglas Norton
Auditor General
2700 North Central, Suite 700
Phoenix, AZ 85004

Dear Mr. Norton:

We have reviewed the second draft of the performance audit on the Arizona State Hospital (ASH). This draft, dated October 17, 1989, appears to be essentially unchanged from that developed on October 3, 1989. Our previous commentary, provided to your staff on October 13, 1989, therefore continues to reflect our response to this audit. It is unclear to us why our input regarding staff development, supervision, improved food services and increased Transitional Living Unit utilization were not incorporated into the report's text.

Two additional issues were noted subsequent to the October 13th conference:

1. Page 5 refers to nursing staff commentary that "current staff levels do not provide for employee safety". This concern has not been recently raised by either the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO), the Health Care Finance Administration (HCFA) or State licensure. ASH management believes that while additional staff may be needed for therapeutic reasons, there has not been any evidence that current staffing guidelines are below the "safe" level for patients or staff.

2. The reported progress in recent years (page 2) does not reference any of the advancements made in regards to increased medical care available to patients or the active Quality Assurance program now in place at the facility. The increased number of physicians (including four new Board certified non-psychiatric medical providers) now deliver a more advanced level of health care that is consistent with community standards. The Hospital-wide Quality Assurance program allows for increased accountability and timely corrective action for identified areas of potentially inadequate care.

We request that you consider inclusion of the above points, as well as our previous commentary, in your final report.

Thank you for your willingness to review this response.

Sincerely,

Ted Williams
Director

ARIZONA DEPARTMENT OF HEALTH SERVICES

Office of the Director

ROSE MOFFORD, GOVERNOR
TED WILLIAMS, DIRECTOR

October 11, 1989

Mr. Douglas R. Norton
Auditor General
2700 N. Central Avenue, Suite 700
Phoenix, AZ 85004

Dear Mr. Norton:

The Department of Health Services and the administration at the Arizona State Hospital have reviewed the preliminary report draft from the performance audit completed at the Arizona State Hospital during 1988-89.

Our responses to the recommendations are attached. They have been reviewed with the State Hospital's Administration, as well as Boyd Dover, Assistant Director of the Division of Behavioral Health Services.

Thank you for the opportunity to review the preliminary draft and affording us the opportunity to discuss these issues with you.

Sincerely,

Ted Williams
Director

TW:jl

Attachment

FINDING ONE

BECAUSE OF EXTREME STAFFING PROBLEMS, ASH HAS DIFFICULTY PROVIDING ADEQUATE STAFF OF ITS TREATMENT UNITS

RECOMMENDATION #1 ASH should centralize the scheduling function within the staffing office.

RESPONSE ASH nurse staff scheduling could be centralized and this issue is now being considered by Nursing Administration.

RECOMMENDATION #2 ASH should determine the system needed to automate its scheduling function and request funds for this purpose. The system should take into account the acuity on the units, the units' census and activities scheduled on the units in order to ensure adequate staff on all shifts.

RESPONSE ASH scheduling should be automated. While the current manual scheduling method takes census, acuity and staff availability into consideration, a computerized approach would be preferable. ASH will complete a cost analysis and implementation schedule. This will be submitted to the DHS Director by April 1, 1990 to seek additional funding.

RECOMMENDATION #3 ASH should expand the use of flexible scheduling to provide staff for problem shifts and heavy workload periods.

RESPONSE The ASH Nursing Department initiated a "task force" to address the "floating issue". The recommendations of this process (see Attachment 1) include limiting floating to within each program, increasing orientation to each unit and encouraging units to provide for their own coverage (rather than to depend on registry or floating). Psychiatric Nurse Managers must also share schedules before implementation.

RECOMMENDATION #4 ASH should ensure that all nurses in supervisory position attend the courses available to improve supervisory/employee relations.

RESPONSE ASH is finalizing a Hospital specific supervisory training program. This program will be a prerequisite to enrollment in the Certified Public Manager (CPM) program. This program will orient training to the level of each supervisor's responsibility and is being developed with input from each discipline.

RECOMMENDATION #5 ASH should consider expanding promotional opportunities for its nursing staff by:

- Allowing flexibility in the number of levels of staff, thereby eliminating a cap on the number of psychiatric technician II positions available.
- Providing additional psychiatric technician III positions to allow the staff to promote on units outside the Behavior Management program, and
- Requesting additional funding from the Legislature for this purpose.

RESPONSE

ASH does not determine individual employee salaries. Efforts to obtain upgrades or reclassifications have been hampered by projected budgetary deficits. Any reorganization in the Psychiatric Technician classification must be done only after a comprehensive evaluation of the Hospital's staffing needs. Further, the creation of more Psychiatric Technician II positions or even III positions is only a temporary solution for the promotional issue. The State and Hospital need to provide cross training into other specialties (i.e., Nursing) or fields (i.e., Fiscal Services), thus allowing employees greater job satisfaction and opportunity.

RECOMMENDATION #6 ASH should conduct a comprehensive study to determine its staffing needs. This study should consider such factors as:

- The goals of the Hospital
- Expected outcomes of its treatment programs
- Patient demographics
- Patient needs assessment
- A role and task analysis

If ASH lacks sufficient resources to perform a comprehensive staffing analysis, it should seek additional funds to fulfill the need for a comprehensive study.

RESPONSE

The Arizona State Hospital (ASH) has contracted with Hamilton/KSA, a nationally recognized health care planning firm, to complete an analysis of the Hospital's current staffing needs. The analysis, due to be completed by the end of October 1989, will provide a staff-to-patient ratio for each population of patients treated at ASH. Both direct care and support staff needs will be determined.

The process to obtain this evaluation was initiated in June 1989. The fact that Hamilton/KSA had previously been involved in the Hospital's Master Planning process will allow for their use of previously obtained program information. This prior knowledge has allowed for a more cost effective evaluation process. Existing budgetary limitations created the impetus to provide the most cost efficient mechanism for obtaining the information in a timely fashion.

FINDING TWO

ASH NEEDS TO CONSIDER RESTRUCTURING ITS TREATMENT PROGRAM AND UNIT POSITIONS TO IMPROVE SUPERVISION AND PROGRAM MANAGEMENT

RECOMMENDATION #1 ASH should evaluate the current structure of its treatment programs and units and consider adding program managers, head nurses and lead technicians.

RESPONSE Any proposals for reorganization must take into consideration the entire needs of a treatment program, not just nursing services. Several organizational structures have been previously considered and, in fact, they have been utilized at ASH over the past two decades. The need for a separation between administrative functions and clinical care has merit, however, the current limitations placed on the Hospital's budget prohibit the implementation of this or any significant increases in non-direct care positions.

RECOMMENDATION #2 The Legislature should consider funding the Program Manager positions.

RESPONSE

1. Program Managers may be of some help and should be considered only after thorough investigation of the implications of reporting to two supervisors.

2. Psych Nurse Shift Supervisors (PNSS) are assigned exclusively to the PM and Night Shifts. The Psychiatric Nurse Manager (PNM) currently supervises the entire nursing day shift staff as well as the 2 PNSS's.

3. JCAHO Standards (NR4.3) as well as State standards dictate that "a registered nurse plans, supervises, and evaluates the care of each patient". Psych techs need a career ladder but they cannot be on a level with the PNSS, but must report to the PNSS. The current structure for psych techs, which ranges from I through IV, provides a career ladder, but will be evaluated by Nursing Administration in terms of definition and provision of tech leadership on all shifts.

4. All such evaluations will be completed by April 1, 1990.

FINDING THREE

"ASH NEEDS TO IMPROVE THE FOOD SERVICE FOR ITS PATIENTS"

RECOMMENDATION #1 ASH should ensure that the menus developed by its contracted consultant meet the recommended daily guidelines.

RESPONSE ASH has made arrangements with a contract dietician to develop master menus which meet the recommended daily guidelines for nutrition. The master menu for the fall/winter cycle was implemented by a contract Registered Dietician on a monthly basis.

RECOMMENDATION #2 Once standard recipes are developed by ASH's contracted consultant, ASH should monitor food preparation to see that all cooks follow the recipes.

RESPONSE Standard recipes have been developed by a contract dietician for the fall/winter menu. These recipes have been implemented effective October 1, 1989. The food preparation is being monitored by a Chief Cook to ensure all cooks follow the standard recipes.

RECOMMENDATION #3 ASH should improve its procurement process for food items by basing the food survey estimates on the menus and recipes developed by the consultant, and by tracking the number of patients served special diets to be able to estimate future needs.

RESPONSE The food survey estimates for the menus and recipes developed by the contract dietician were used as the basis for purchasing food for the new master menus which took effect October 1, 1989. This process will be used in the future for all master menus developed for Dietetic Services.

RECOMMENDATION #4 ASH should improve its service of foods by:

- Adding servers to the food service lines to assist in serving patient meals,
- Having a food service worker check food trays to see that patients receive only food prescribed on their diet cards, and
- Providing training to food service workers in portion control and in reading diet cards.

RESPONSE A new policy has been implemented which requires at least two servers to be available in each food service line to assist in serving patient meals. In addition, a food service worker is now available to check food trays to ensure that patients are receiving only foods prescribed on their diet cards. An ongoing training program has been developed for food service workers in the areas of portion control, reading diet cards, sanitation, nutrition and other related areas. See Attachment 2.

FINDING FOUR

ASH HAS IMPROVED THE USE OF ITS TRANSITIONAL LIVING (TLU) PROGRAM; HOWEVER, OTHER UNITS WITHIN THE HOSPITAL NEED TO BE MADE MORE AWARE OF THE PROGRAM'S FUNCTION

RECOMMENDATION #1 ASH needs to provide more information to the other treatment program units to educate the employees as to TLU's role at the Hospital.

RESPONSE Since the TLU reorganization (in November, 1988) the unit psychiatrist is actively involved in the Hospital's Patient Movement Committee. This forum allows for the review of all patients that require transfer between units. The TLU census has consistently been over the estimated level of twelve patients as a result of this involvement.

RECOMMENDATION #2 ASH needs to ensure that TLU is efficiently utilized by maintaining a full census and discharging patients within TLU's guideline of 90 days whenever possible.

RESPONSE The current TLU census has an on-unit average length of stay of approximately 77 days. This reflects the continued efforts of the TLU and the Hospital to create opportunities, such as the re-entry facilities, for patients to transfer from the Hospital to the community. The current TLU program is averaging 4.5 discharges per month which is consistent with the auditors estimate of patient movement through the program (see page 39).

AREAS FOR FURTHER AUDIT WORK:

ISSUE #1 Do ASH's laundry facilities and services meet the Hospital and patient's needs?

RESPONSE The ASH administration submitted a laundry utilization plan to the Department of Health Services Director in October, 1988. That plan calls for the use of an outside laundry contract service to handle all of the flat wear for the Hospital. Patient clothing will still be cleaned by the Hospital's laundry staff. The current equipment and staffing pattern is sufficient to manage that workload. The laundry began this process by contracting with a blanket cleaning service in August, 1989. Full implementation is expected by January, 1990.

The laundry is now utilizing a new clothing labeling process to better identify patient clothing. This process is intended to decrease the number of misplaced items.

ISSUE #2 Would increased automation improve Hospital efficiency and effectiveness?

RESPONSE Yes, increased automation would improve efficiency and effectiveness. The Hospital is involved with the development of the PACE (Patient Accounting and Clinical Evaluation) System. The progress in implementing this program, which would eventually automate the clinical record, automate the pharmacy and allow for electronic mail service has been hampered by fiscal constraints and historical recruiting difficulties associated with attracting the expertise required to develop such a system.

ISSUE #3 Should ASH continue to provide food services to the Department of Corrections?

RESPONSE ASH Administration agrees that this issue must be evaluated based on the results of the current Hamilton/KSA staffing analysis. Further review of this item is planned. Any planning will be in coordination with the Arizona Department of Corrections.

ATTACHMENT 1

ARIZONA DEPARTMENT OF HEALTH SERVICES

Inter-Office Memorandum

TO: Floyd Crawford, Manager
DHS Personnel

DATE: August 28, 1989

THRU: Glenn Lippman, M.D.
Chief Medical Officer/Superintendent
Arizona State Hospital

FROM: Jim Mitchell, R.N., DON
Chairman, Task Force on Floating

RE: Summary, Task Force on Floating

For some time the issue of staff floating from one unit to another has been problematic. In order to address the problem and come up with some viable solutions, a task force was formed. The task force consisted of representatives from nursing staff on all treatment units.

The Task Force began its work on March 10, 1989. Because the size of the group was unwieldy, it was decided at that first meeting that each unit may select two or more representatives, but that only one representative from each unit should attend the meetings. However, those selected were expected to represent the majority view of their units.

During the course of several meetings, various subjects were discussed: floating within treatment units vs. floating between units in programs, incentives for floating, the issue of use/abuse of sick time, overtime.

Many opinions were expressed and several solutions were offered.

Due to the great diversity of opinions, and the vast numbers of employees, it was decided that the Task Force would send out a questionnaire seeking input on the most critical issues raised. (Attachment #1)

Two hundred five (205) questionnaires were returned, a rather good return rate for a questionnaire at ASH. A meeting was held on August 15 to discuss the results of the questionnaire and to make final recommendations. (Attachment #2 is a summary of answers and comments.)

The Task Force would like to make the following recommendations:

1. Pay differential for weekends.

2. Pay differential for floating. (This would be similar to doing a time adjustment sheet like that used when a non-forensic staff member works on a forensic unit.)

NA8/FloatRecs

3. Staff agreed that days off should not be based on seniority. The majority of staff felt the "prime" days off should be shared equally.

4. Calloffs should be absorbed by programs rather than individual units. This involves PNM's working together to come up with schedules in which staff are shared within programs.

5. Change the work week so that it begins on Sunday rather than the current system of beginning on Saturday. This would help considerably in that staff who want a weekend off would not be forced to work a long stretch in order to get a weekend.

Items #1, 2, and 5 require actions and support from you. As we discussed in our meeting of August 21, I am respectfully requesting your assistance in implementing these recommendations. Numbers 3 and 4 are internal to ASH and will be implemented by Staffing Office and Management.

Many thanks to the Task Force members for all their input. Because there are still many issues to monitor, we will continue to meet for a while.

Thank you for your input.

JM:sd

ATTACHMENT 2

CHRONOLOGY OF EVENTS DURING THE PAST YEAR IN ASH DIETETIC SERVICES

The following chronology summarizes the action taken by ASH regarding the Dietetic Services program over the past 15 months.

1988

o	September	Reorganization of Dietetic Services. Established training and inspection functions. Weekly in-house sanitation inspections initiated. Food acceptance surveys for patient and staff also started at this time.
o	October 6	Staff training in dealing with patients.
o	October 13	Food handlers Training for Staff and ACW Workers.
o	October 14	Food handlers Training for Staff and ACW Workers.
o	October 27	Food handlers Training for Staff and ACW Workers.
o	November	Equipment maintenance training for staff using newly revised maintenance manual.
o	December	First draft of consultant contract to develop new master menu.

1989

o	Feb 28-29	Training of staff in the reading and use of special diet cards.
o	March 9	New procedures for diet training.
o	March 15	Training "Games Inmates Play" by DOC.
o	March 21-22	Food for Safety - Staff training conducted by ADHS Sanitarian.
o	March 28-30	Food Handlers Training, conducted by Maricopa County Health Department.
o	April 18-22-29	Material Safety Data Review and Training for Staff.
o	April 23-28	Accident Prevention/Safety Training.
o	April 27	Contract with Focus on Nutrition to develop the fall/winter master menu, provide nutritional analysis of same, and training for staff in portion control and food presentation techniques.
o	May 20-23	Material Safety Data Review and Training.
o	May 23	Back Safety/Accident Prevention.

o	June 12	"Food is no Mystery" - staff training presentation.
o	June 15	Team Building - Supervisory Staff.
o	June 28-29	In-service on portion control by consultant dieticians.
o	June 28	Fall/Summer menus completed and presented to ASH administration.
o	July	Contracts submitted for the services of dieticians to develop the spring/summer menu cycle. Contract submitted for the services of dietician consultant.
o	July	The first 4 ASH employees were enrolled in the Certified Diet Manager (CDM) program at Central Arizona College.
o	July	Further organizational changes to establish a new Food Service Manager II Position and recruit for an incumbent who is a Registered Dietitian. Position announced on Aug 7, and Sept 18. Recruitment action is in process.
o	July-Aug	New menus reviewed by Chief Cook and used in the food procurement surveys to allow for implementation of new menus effective Oct 1, 1989.
o	August 17	"Sexual Harassment in the Work Place" training session.
o	August 20	Hospital Electrical Safety Class.
o	September 7	"Sexual Harassment in the Work Place" training session.
o	September 20	Contract for spring and summer menus signed and first meeting with Dieticians conducted. Work currently ongoing - completion date is 10/30/89.
o	September 21	Training in "Working with Female Offenders".
o	September 26	Food handlers training conducted by Maricopa County Health Department for Staff and ACW workers.
o	September 29	Consultant contract signed to provide services.
o	October 1	The new master menu is established and implemented at ASH.
o	October 5	Consultant dietician met with Non-Psychiatric Physicians to discuss Nutrient analysis of new master menus, and develop background for spring and summer menu/project.

APPENDIX

ASH EMPLOYEE SURVEY RESULTS

Methods

Our survey population consisted of all 470 ASH nursing employees assigned to patient units. Their names were compiled from DHS payroll records as of February 8, 1989. Questionnaires were mailed to home addresses to encourage anonymity and confidentiality of responses. Two hundred and thirty-five employees returned the questionnaires, for a response rate of 50 percent.

Scales for questions were coded:

1 = Agree Strongly
2 = Agree Somewhat
3 = Not sure/Unfamiliar
4 = Disagree Somewhat
5 = Disagree Strongly

A frequency distribution run on the responses indicated in percentage terms the amount of agreed with and disagreed with responses. For purposes of analysis, the agree statements include the agree strongly and the agree somewhat responses, and the disagree responses include the disagree somewhat and disagree strongly responses.

Analysis

The questionnaires were studied from several analytical perspectives, including frequency distribution, cross tabulations, and qualitative inspection of open-ended questions.

The following issues emerged as major areas of concern to ASH employees: lack of staff, lack of confidence in ASH management, and concerns with floating of staff. It should be noted that although the staff were vocal in the problem areas, 81.2 percent responded that they enjoy working at ASH, and 67.8 percent responded that they are satisfied with their job. However, 78.5 percent believe that morale at ASH is not high.

Lack of Staff

Respondents felt strongly about the issue of staffing. Respondents feel that the staffing at ASH is unsafe for employees (71.4 %) and is not adequate to provide quality patient care (70.9%). Staffing was listed as the number one problem at ASH, and increasing staff was the most often listed suggestion for improvement of ASH performance.

Management

Another problem area at ASH is management. Although 63.8 percent of the respondents are satisfied with their superiors' ability, and 66.6 percent believe that they can talk to their supervisors, only 30.7 percent indicate that management is fair, and only 33.7 percent believe that top management listens to them. Of the 115 employees who made written comments to the questionnaires expressing dissatisfaction in various areas, 36 felt that management by PNMs and supervisors was poor. Twenty-six indicated that communication was poor and 21 expressed feelings of fear or paranoia in the work place. Additionally, 19 complained of unfairness in hiring and evaluations, and 11 complained about favoritism at ASH.

Floating

Floating was identified by ASH as a problem; therefore, specific questions addressed floating. In the survey questions, 79 percent of staff stated that they would not float regularly, and 19.7 percent stated that they would not float in an emergency. Approximately 92 percent felt floating negatively impacts patient care; 95.9 percent believe that floating negatively impacts morale; and 90.1 percent indicated that floating negatively impacts turnover.

Responses to Survey Questions

	SURVEY QUESTIONS	% AGREE	% DISAGREE	% NOT SURE/ UNFAMILIAR
1	I enjoy working at ASH.	81.2%	12.8%	6.0%
2	I feel my salary is adequate for the job I hold.	26.6%	68.7%	4.7%
3	I am satisfied with my current work schedule.	73.8%	23.2%	3.0%
4	I received sufficient training prior to beginning my current duties.	58.0%	31.3%	10.7%
5	I receive adequate in-service training for my needs.	50.4%	42.3%	7.3%
6	I believe there are opportunities for advancement at ASH.	42.7%	44.9%	12.4%
7	I am kept aware of career opportunities within the Hospital.	38.2%	48.9%	12.9%
8	I believe staffing on my unit is adequate to provide safety for employees.	25.6%	71.4%	3.0%
9	I believe staffing on my unit is adequate to provide quality pt. care.	24.0%	70.8%	5.2%
10	I believe that ASH provides quality care to its patients.	46.2%	42.7%	11.1%
11	I am willing to float to other units in emergency situations.	75.5%	19.8%	4.7%

SURVEY QUESTIONS		% AGREE	% DISAGREE	% NOT SURE/ UNFAMILIAR
12	I am willing to float to other units on a regular basis.	14.6%	79.0%	6.4%
13	If I have a complaint to make, I feel free to talk to a supervisor.	66.5%	27.1%	6.4%
14	I believe top management listens to recommendations of qualified staff.	33.6%	45.7%	20.7%
15	Management encourages our suggestions & complaints.	47.0%	40.1%	12.9%
16	ASH's grievance procedures are adequate to handle my my problems or complaints.	34.3%	36.1%	29.6%
17	I have confidence in the fairness & honesty of mgt.	30.7%	47.6%	21.7%
18	I have confidence in my superior's knowledge and ability to perform the job.	63.8%	27.6%	8.6%
19	In general, I am satisfied with the job I have at ASH.	67.8%	23.2%	9.0%
20	Administration is doing its best to give us good working conditions.	44.2%	38.2%	17.6%
21	Morale at ASH is high.	8.2%	78.5%	13.3%

DEMOGRAPHICS OF RESPONDENTS

TYPE:		PROFESSION:		SHIFT WORKED	
Perm FT	97.8%	PNM	5.6%	Days	47.1%
Perm PT	.9%	PNSS	7.5%	Evenings	27.4%
Temp	.9%	RN	18.1%	Nights	23.3%
Other	.4%	LPN	3.7%	Other	2.2%
		PT	65.1%		

WORK PROGRAM

GAP	22.9%
TLU	2.3%
Psy/Soc Rehab	16.1%
Ext. Care	12.1%
Gero-Psych	20.2%
Behav Mgt	16.6%
Adolescent treatment	6.7%
Child treatment	3.1%

LENGTH OF EMPLOYMENT

Less than 6 months	16.0%
6 months - 2 years	25.3%
2 - 5 years	32.5%
More than 5 years	24.9%
No longer employed	1.3%