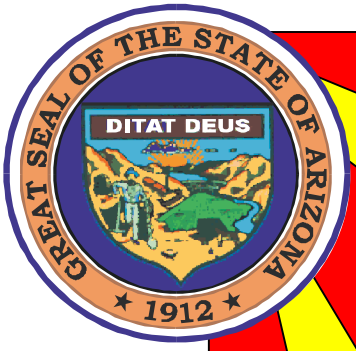

State of Arizona Office of the Auditor General

PERFORMANCE AUDIT

DEPARTMENT OF HEALTH SERVICES

ARIZONA STATE HOSPITAL

Report to the Arizona Legislature
By Douglas R. Norton
Auditor General

May 1999
Report No. 99-9

DOUGLAS R. NORTON, CPA
AUDITOR GENERAL

STATE OF ARIZONA
OFFICE OF THE
AUDITOR GENERAL

DEBRA K. DAVENPORT, CPA
DEPUTY AUDITOR GENERAL

May 18, 1999

Members of the Arizona Legislature

The Honorable Jane Dee Hull, Governor

Dr. James Allen, 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 (ASH). This report is in response to a May 27, 1997, resolution of the Joint Legislative Audit Committee. The performance audit was conducted as part of the Sunset review set forth in A.R.S. §§41-2951 through 41-2957.

This is the third in a series of reports to be issued on the Department of Health Services. We found that the Arizona State Hospital has experienced severe difficulties ensuring that patients live in a safe and therapeutic environment. Specifically, the hospital's patient units are frequently understaffed, limiting the hospital's ability to provide adequate therapy for patients or to intervene in patient disputes. Staffing shortages are long-standing and stem from several conditions, including historically low salaries and a difficult working environment.

In addition, the hospital's current facilities are too small to reasonably accommodate the number of patients currently living at the hospital. The situation is compounded by the hospital's old and deteriorating buildings. Ultimately, the State will need a new hospital facility, since renovations present only a stopgap solution to the multitude of facility deficiencies. However, the hospital has only recently implemented a process to plan for a new facility. Since building a new facility is a long process, the hospital should continue its current efforts to lay the groundwork for a new facility.

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As outlined in its response, the Department agrees with all of the findings and recommendations and reports that it is already in the process of implementing the majority of the recommendations.

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

This report will be released to the public on May 19, 1999.

Sincerely,

Douglas R. Norton
Auditor General

Enclosure

SUMMARY

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 May 27, 1997, resolution of the Joint Legislative Audit Committee. This performance audit was conducted under the authority vested in the Auditor General by A.R.S. §§41-2951 through 41-2957. This is the second in a series of six audits of the Department of Health Services.

ASH is the only state-operated psychiatric hospital in Arizona. Under A.R.S. §§36-201 through 36-207, the hospital is required to provide inpatient care and treatment to patients with mental disorders, personality disorders, or emotional conditions. Its patient population has changed considerably in recent years. Historically, ASH mainly served civil patients, persons who have been committed after a court determines they pose a danger to themselves or others. However, nearly half of its patients are now forensic patients, persons who are either ordered to the hospital to be restored to competency to stand trial, or have been tried and found to be either "guilty except insane" or "not guilty by reason of insanity." The current population in the hospital's patient units is about 300. ASH also has a program for sexually violent persons that was begun in 1997 and currently has about 70 residents.

ASH Has Difficulties Maintaining Sufficient Staff to Care for Patients

(See pages 7 through 17)

ASH's patient units are often insufficiently staffed to provide patients with appropriate treatment and a therapeutic environment. Partly because of these staffing problems, the Federal Health Care Financing Administration denied ASH's 1998 application to participate in the Medicare reimbursement program, a step that eliminates federal, state, and local reimbursements for both Medicare and AHCCCS/Title XIX patients. (See Other Pertinent Information, pages 35 through 41, for further information on the loss of these reimbursements). ASH suffers from high vacancy and turnover levels. As of November 1998, 130.5 of ASH's 587.2 positions (excluding positions allocated to the hospital's sexually violent persons unit) were vacant. Vacancy rates among the various types of nursing staff have been about 15 percent, and turnover rates for nurses have been as high as 47 percent. The effects of ASH's staffing shortages are compounded by problems in the method used to allocate staff among the patient units. This method does not accurately identify the number of staff needed to adequately care for patients.

Inadequate staffing has implications for patient treatment and for safety. A 1998 study conducted by the hospital found that many patients received much less treatment than the

20 hours per week suggested by hospital guidelines. Staff report that an insufficient number of staff can create an unsafe environment with more assaults and verbal altercations involving patients. Health Care Financing Administration officials noted a link between insufficient staffing levels and the hospital's ability to prevent or respond to assaults and similar incidents. To help compensate for the low staffing levels, the hospital uses contract workers and overtime. However, contract staff are much more expensive than regular staff, and, according to ASH staff, are frequently less effective at providing treatment. Increasing staffing levels through overtime work also has limitations, in that staff report burnout from working extra hours.

Low salaries, a difficult working environment, and other factors adversely affect morale and are key factors that contribute to problems in recruiting and retaining qualified staff. The hospital recently received a supplemental appropriation of about $4.4 million, $821,900 of which was for salary increases for nurses and other clinical staff. Additionally, the Legislature provided another $469,000 for Department of Administration special market adjustment salary increases for some of its staff, including security officers and recreational therapists, as well as nurses and psychiatric technicians. According to ASH's Chief Executive Officer, these appropriations increased registered nurse and psychiatric technician salaries to a more competitive level. However, ASH continues to have a need for additional staff. To address this need, ASH needs to continue its efforts to: (1) develop a pool of nursing staff who can fill in on an as-needed basis, (2) fill staff vacancies, and (3) study reasons why staff leave the hospital and attempt to address them. ASH should also modify the method it uses to allocate staff among the patient units to ensure that the method accurately identifies staffing needs.

ASH Facilities Are Inadequate (See pages 19 through 28)

ASH's facilities do not provide an adequate environment for treating patients. As of January 1999, 6 of its 11 patient units had more patients than state licensing standards allow. For example, 1 unit had 14 more patients than its capacity of 24. The overcrowding sometimes forces inappropriate use of space. Seclusion rooms, used to provide a temporary space away from other patients, must frequently be used as patient bedrooms. The design of the units, which were built in the 1950s, is in many ways unsuited for ASH's current patients. The units' long corridors make it difficult for staff to effectively perform their jobs and ensure patient safety. Separate space for individual and group therapy is largely unavailable. As a result, therapy sessions must often be conducted in a room where all the patients in the units spend their daytime hours.

Many of ASH's facilities are old and deteriorating, creating additional hazards that place patients and staff at risk. Staff and patients are often at risk of injuring themselves from facility hazards, such as slippery floors, loose floor tiles, and broken ceiling tiles. For exam-

ple, one patient attacked another patient with a broken ceiling tile. Additionally, ASH's underground tunnel system, which provides electricity, heat, water, and phone lines, has been deemed a hazard because it is lined with asbestos and is collapsing. Deteriorating conditions are compounded by a maintenance and repair process that is sometimes fragmented and inefficient. Repair orders are not adequately prioritized or planned between the groups that perform the repairs. Poor coordination often exists between project planners, hospital management, and outside contractors.

Although a new facility will ultimately be needed, there are some immediate steps ASH can take to improve patients' environments. Several relatively inexpensive enhancements, such as improved patient unit lighting and wall colors, could quickly improve the facilities, as recommended by an architectural firm hired by ASH management. In addition, improvements to the maintenance process could help ensure that repairs are timely and adequate. For example, management could ensure that each repair project is prioritized, planned, and supervised to make sure the correct work is done. Additionally, ASH should continue its efforts to ease patient overcrowding in the units by moving forward with its plans to develop a transitional unit.

Effective Long-Term Planning Process Is Needed (See pages 29 through 34)

ASH currently lacks long-term plans to guide its future, as well as an effective process to develop such plans. The Governor and Legislature have acknowledged that because current facilities do not provide an adequate environment for patients, new facilities will ultimately be needed. Preparing for this possibility requires careful planning in an environment that contains many uncertainties and challenges. For example, the hospital has little control over its patient load and is presented with safety and security needs that are greater than those of most other mental health facilities. ASH does not have a process in place for considering how such characteristics affect the best course of action for future facilities. For example, the hospital has not developed projections of future demand for its services.

Turnover among key leadership positions at the hospital and at the Department of Health Services has contributed to a lack of focus on this issue. However, with leadership positions now filled, the hospital is in a better position to move forward with implementing a long-term planning process. The hospital is beginning to develop a process for creating a strategic plan defining the hospital's goals, as well as a plan to guide future operations. The hospital's long-term planning efforts for a new facility need to include the size of likely future patient loads and the type of facilities that will be needed.

Other Pertinent Information
(See pages 35 through 41)

The audit also presents information on two other subjects: ASH's program for Sexually Violent Persons (SVPs), and the status of its Medicare certification.

SVPs are persons who have been convicted of committing a sexually violent offense, have finished their state prison sentence, and have been determined to have a mental disorder that makes them likely to reoffend. Such a determination involves a process that includes psychological evaluations, probable cause petitions and hearings, and court hearings. SVPs are ordered either to the SVP unit at ASH or to a less-restrictive setting also on the hospital campus. ASH is required to house and treat SVPs until the court rules that their release no longer poses a threat to the community. As of January 1999, the program had 72 residents. According to ASH, the expected growth (5 more residents per month) will mean that the current 120-bed capacity will be filled by November 1999. A study group has recommended building additional facilities on hospital grounds to accommodate the anticipated program growth. The Arizona Department of Administration will soon begin designing an additional 60-bed facility to increase the unit's capacity to 180 beds. The Legislature appropriated $3.8 million in the fiscal year 2000 capital outlay budget for this facility.

ASH's most recent application to participate in the Medicare reimbursement program was denied. Federal inspectors cited deficiencies in six areas, ranging from nursing services to infection control. For example, inspectors cited instances in which patient units were inadequately staffed and patients did not receive the appropriate meals. Because its application was denied, ASH is currently ineligible to receive Medicare and AHCCCS/Title XIX reimbursements for all eligible hospital patients. (The AHCCCS/Title XIX reimbursements are composed of approximately two-thirds federal and one-third state and local monies). For fiscal year 1997, the last full year of eligibility before the denial took effect, these reimbursements totaled over $2 million, of which approximately $1.35 million was for AHCCCS/Title XIX eligible patients and approximately $656,700 was for Medicare-eligible patients. In addition, since ASH is ineligible to collect AHCCCS/Title XIX reimbursements, additional State General Fund monies were needed to fund the hospital's operations. Although the hospital has addressed several of the deficiencies, many remained at the end of audit work in January 1999. ASH management expects that the hospital will be inspected again by October 1999 and will regain certification by December 1999.

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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 May 27, 1997, resolution of the Joint Legislative Audit Committee. This performance audit was conducted under the authority vested in the Auditor General by A.R.S. §§41-2951 through 41-2957. This is the second in a series of six audits of the Department of Health Services.

Hospital Clientele Has Changed in Recent Years

The Arizona State Hospital (ASH) opened in 1887, and is the only state-operated psychiatric hospital in Arizona. A.R.S. §§36-201 through 36-207 requires ASH to provide inpatient care and treatment to individuals with severe mental disorders, personality disorders, or emotional conditions. ASH serves civil patients, who have been ordered by a court to receive treatment at the hospital because they pose a danger to themselves or others; and forensic patients, who are patients that have been ordered to ASH by the criminal courts. Forensic patients are of several types. Some have been ordered to ASH for treatment so that they can be restored to competency to stand trial. Others were either: (1) tried and found to be not guilty by reason of insanity, a verdict that was eliminated from the statutes in 1994; or (2) tried and found to be guilty except insane, the replacement verdict added in its place. ASH is also responsible for treating and housing persons determined by the courts to be sexually violent persons under a 1996 law (see Other Pertinent Information, pages 35 through 41). See the Appendix, pages a-i through a-v, for the categories of patients ASH treats along with the admission and discharge requirements for each category.

The patients admitted to ASH are different from those at private hospitals. Compared to patients receiving treatment in private institutions, ASH's patients have more severe mental impairments, are often more violent, and require much longer hospital stays. Most of ASH's patients have no insurance to cover the costs of a private hospital stay.

The hospital's population has changed in recent years. Historically, ASH served mostly civilly committed patients, but now only slightly over half of its patients are civilly committed. This change can be seen in admission statistics for 1996 and 1998. During 1996, ASH admitted 173 civil, 178 forensic, and 39 adolescent patients. During 1998, the number of civil patients admitted dropped to 119, but the number of forensic patients admitted had grown to 264, and the number of adolescents admitted was 54. ASH established its Sexually Violent Persons program in 1997, which had 59 admissions in 1998. At the same time, the range of functioning levels among civilly committed patients has narrowed, as those who can be

treated in less-restrictive environments now generally receive treatment in community settings, while only those with the most severe impairments receive inpatient care at the hospital.

Several factors contributed to the changes in ASH's patient population:

- First, the number of forensic patients ASH was ordered to restore to competency grew dramatically after a 1995 statutory change that eliminated a requirement that county or municipal courts reimburse the State for treatment to restore competency to a person who was found incompetent to stand trial;

- Second, the 1995 exit stipulation of a lawsuit (Arnold v. Sarn) required the State to limit the number of ASH beds devoted to Maricopa County individuals with serious mental illnesses, and provided funding instead to treatment beds and other services in the community;

- Third, ASH was one of many mental health institutions that transferred a significant number of its civilly committed geriatric patients to receive treatment in a community-based setting; and

- Finally, the 1996 law creating the Sexually Violent Persons program added this type of patient to ASH's responsibilities.

Overview of ASH's Treatment Process

Once admitted to ASH, each patient is assigned a treatment team. The treatment team, which is composed of a psychiatrist, social worker, nurse, psychologist, and rehabilitation workers, evaluates the patient and prepares a treatment plan. Based on their particular needs, patients are then assigned to a particular treatment unit. Currently, ASH has one treatment unit for children aged 13 through 17, two male and two mixed-gender units for civil patients, four male forensic units, and one unit for female civil and forensic patients. ASH also has a unit that houses patients with special medical needs, and a separately licensed facility that houses sexually violent persons. Patients from all units except for the adolescent and the sexually violent person units are allowed to interact with each other provided they have demonstrated appropriate behavior.

Patient treatment at ASH includes medication, therapy, education, and psychiatric rehabilitation. All patients receive individual and group therapy, and most receive medications and medication education. In addition, patients receive specialized treatment based on their needs. For example, patients in the restore-to-competency program receive education on court procedures, and adolescents participate in academic programs. Other treatments

include substance abuse groups, anger management groups, recreational therapy, goal development, individual and group therapy, and interpersonal skills development.

Discharge planning at ASH involves coordination between ASH's social work department and other agencies, including the Regional Behavioral Health Authorities for civil patients, and the courts for forensic patients.[1] The patient's treatment team assesses each patient's progress toward treatment goals and identifies when discharge plans should be finalized. ASH patients can be discharged to an apartment with varying levels of supervision, a group home with varying levels of supervision, or the homes of family members.

Budget, Personnel, and Organization

ASH receives funding from several different sources. As shown in Table 1 (see page 4), General Fund appropriations (including approximately $7.8 million for community placement for discharged patients) account for about 96 percent of the approximately $47 million in funding for fiscal year 1999.

In 1998, after reviewing ASH's operations, the federal Health Care Financing Administration denied ASH's application to participate in the Medicare reimbursement program. This denial meant that the State had to forgo monies it would otherwise have received in Federal Medicare reimbursements and federal, state, and local reimbursements from AHCCCS for Title XIX-eligible patients.[2] In fiscal year 1997, the last year ASH was eligible to receive these reimbursements for new services provided to Medicare and AHCCCS-eligible patients, it received about $1.35 million in reimbursements for AHCCCS-eligible patients and about $656,700 for Medicare-eligible patients. (See Other Pertinent Information, pages 35 through 41, for further information.)

ASH was authorized 587.2 FTEs for fiscal year 1999, including 52.7 FTEs for a new patient unit. This total excludes 76 FTEs allocated to the sexually violent persons unit. This was an increase of 93.7 FTE from the previous year. As of November 1998, ASH had 456.75 filled positions, leaving 130.5 vacancies. ASH's clinical staff includes psychiatrists, nurses, psychiatric technicians, psychologists, social workers, and rehabilitation staff, with a number of psychiatrists employed on a contract basis. In addition, ASH employs support staff that includes clerical, security, and other administrative staff.

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[1] Regional Behavioral Health Authorities (RBHAs) are agencies that provide outpatient behavioral health services to indigent clients throughout the State. The services are paid for through contracts between the RBHAs and the Division of Behavioral Health Services.

[2] AHCCCS is the state agency designated by the federal government as the sole recipient of Title XIX Medicaid assistance in Arizona. The State provides matching monies for federal Medicaid dollars provided to the system. Currently, state and county monies finance about one-third of the expense of Medicaid clients' services.

Table 1

Department of Health Services—
Arizona State Hospital
Statement of Revenues, Expenditures, and Other Financing Sources and Uses[1]
Years Ended or Ending June 30, 1997, 1998, and 1999
(Unaudited)

	1997 (Actual)	1998 (Actual)	1999 (Estimated)
Revenues:			
State General Fund appropriations [2]	$17,354,300	$33,921,400	$44,992,000
Disproportionate Share [3]	27,106,600		
AHCCCS and Medicare reimbursements [4]	1,975,504	225,519	
Patient and insurance reimbursements	713,382	961,813	845,400
Rental	806,631	824,846	882,145
Other	9,324	54,556	237,900
Total revenues	47,965,741	35,988,134	46,957,445
Expenditures:			
Personal services	13,076,235	13,925,063	17,726,087
Employee related	2,892,435	2,811,600	3,950,028
Professional and outside services [5]	6,725,377	9,645,716	11,541,133
Travel, in-state	25,901	26,947	37,251
Travel, out-of-state	3,997	4,844	9,800
Aid to individuals and organizations [9]	5,282,703	6,705,441	7,848,000
Other operating	2,701,647	3,286,790	4,285,348
Capital outlay	35,050	144,096	716,113
Total expenditures	30,743,345	36,550,497	46,113,760 [6]
Excess of revenues over (under) expenditures	17,223,396	(562,363)	843,685
Other financing sources (uses)			
Net operating transfers in	67,669	5,873	
Remittances to the State General Fund	(1,081,639)	(667,417)	(509,400)
Reversions to the State General Fund	(15,324,472) [7]	(38,842)	
Net other financing uses	(16,338,442)	(700,386)	(509,400)
Excess of revenues and other financing sources over (under) expenditures and other financing uses	$ 883,954	$ (1,262,749) [8]	$ 334,285

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1 Excludes the trust activities of the DHS State Hospital Land Earnings Funds.

2 Received additional appropriations in fiscal years 1998 and 1999 to increase number of staff and contract positions, increase staff salaries, fund new programs, and replace Disproportionate Share, AHCCCS, and Medicare revenues lost when the hospital's Medicare certification was voluntarily withdrawn and later denied.

3 The hospital became ineligible for Disproportionate Share monies in fiscal year 1998 and 1999 because it lost its Medicare certification.

4 AHCCCS (a Federal Title XIX, Medicaid Waiver program) reimbursements were received for services provided to AHCCCS-eligible patients. Funding for the program is comprised of federal and state monies under a Federal Title XIX Medicaid Waiver Program. The hospital became ineligible for both AHCCCS and Medicare reimbursements of new services provided to eligible patients after the loss of Medicare certification.

5 Reflects a projected and actual increase in the use of nursing registry services and nonstaff medical doctors due to staffing shortages in fiscal years 1998 and 1999.

6 Estimates for 1999 include increased number of staff and contract positions, increased salaries, and new operational units.

7 Includes approximately $15.1 million of Disproportionate Share monies received that exceeded the legislative spending limit and was, therefore, reverted back to the State General Fund.

8 Deficiency generally covered by $1.4 million carryforward balance of AHCCCS reimbursements received prior to fiscal year 1998, but not authorized to be spent at that time.

9 Payments for community placement of patients discharged from ASH.

Source: The Arizona Financial Information System (AFIS) *Accounting Event Extract File, Status of Appropriations and Expenditures* report, and AFIS *Status of Budget by PCA/Index* and *Cash Control Summary Inquiry* screen prints as of January 20, 1999, for the years ended June 30, 1997 and 1998; and hospital-prepared worksheets of revenues, expenditures, and other financing uses for the year ending June 30, 1999.

ASH has contracted out several administrative services such as dietary, housekeeping, and groundskeeping. Staffing issues are dealt with in more detail in Finding I (see pages 7 through 17).

The hospital is part of the Department of Health Services. ASH's Chief Executive Officer reports to the Assistant Director of the Division of Behavioral Health Services within the Department. There is also an ASH Governing Body, an oversight body composed of the Medical Director of the division of Behavioral Health Services, an ASH physician, and a community representative. This group provides service to the hospital in a variety of ways. For example, it reviews the hospital's budget prior to submission to the DHS Director, and adopts quality improvement programs for the hospital. Additionally, ASH has an Advisory Board, comprised of 13 members appointed by the Governor. The Advisory Board advises hospital management in developing and implementing goals.

Scope and Methodology

Several methods were used to conduct audit work at the hospital. First, hospital management and staff were interviewed, and the hospital's five treatment unit managers and ten psychiatric nurse managers were surveyed to determine their views regarding hospital staffing and facilities. Auditors reviewed treatment unit staffing levels and vacancy rates, and reviewed studies pertaining to staffing and facilities at ASH. These studies included recent Medicare certification reports written by surveyors from the federal Health Care Financing Administration, a report written by a group of five mental health experts who reviewed ASH in late 1997, architectural reports assessing the condition of ASH's facilities, and a report describing various improvements that could be made to ASH's facilities to improve the overall patient environment.

Audit methods included on-site observations and reviews of files. Auditors observed four treatment units to determine the types of treatment patients receive, the number of staff on the unit, and the condition of the facilities. As part of the observations, auditors observed patient therapy groups and conferences to discuss treatment progress and goals. Auditors also reviewed an exploratory sample of 15 patient files to gain a better understanding of other studies that were conducted by ASH's Quality Resource Management department. These studies found that patients were not receiving treatment in accordance with their treatment plans.

Auditors took several approaches to gain comparative information about the operations of mental health facilities. They contacted staff from four other state psychiatric hospitals to obtain information regarding their facilities and staffing conditions.[1] They toured three

[1] Hospitals contacted were the Utah State Hospital in Provo, Utah; the Montana State Hospital in Warm Springs, Montana; the Las Vegas Medical Center at Las Vegas, New Mexico; and the Colorado Mental Health Institute at Pueblo, Colorado. These hospitals were selected based on their comparability with ASH in terms of the types of patients they serve and their budgets.

psychiatric hospitals in the Phoenix area.[1] Additionally, they contacted staff from mental health associations, including the Arizona Alliance for the Mentally Ill, the National Mental Health Association, the National Institute of Mental Health, and the Center for Mental Health Services Knowledge Exchange.

This audit contains findings and recommendations in three areas:

- ASH's inability to maintain an adequate staffing level to provide treatment to patients;
- The inadequacy of ASH's patient treatment facilities; and
- The hospital's need to conduct substantial long-term planning to address problems relating to its facilities and changing patient population.

Additionally, auditors developed information regarding ASH's new Sexually Violent Person (SVP) program, and the status of the hospital's certification by the federal Health Care Financing Administration to participate in the Medicare reimbursement program. (See Other Pertinent Information, pages 35 through 41.)

This audit was conducted in accordance with government auditing standards.

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

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[1] Auditors toured the Maricopa Medical Center Psychiatric Annex, St. Luke's Medical Center, and the Charter Desert Vista Behavioral Health Center.

FINDING I

ASH HAS DIFFICULTIES MAINTAINING SUFFICIENT STAFF TO CARE FOR PATIENTS

ASH's patient units often are inadequately staffed to provide patients with appropriate treatment and a therapeutic environment. Although ASH has received funding for additional positions and, in February 1999, received a supplemental appropriation to increase some of its salaries, high vacancy and turnover rates have limited the hospital's ability to use the positions to provide appropriate levels of treatment and safety. ASH management has tried to compensate by using contract staff and overtime, but these measures are expensive and often ineffective. The effect of low staffing levels is further complicated by the method ASH uses to allocate staff, which does not adequately identify the number of staff each unit needs. To help address these problems, the hospital should continue its current efforts to form a pool of on-call staff, resolve turnover, and improve working conditions. It should also modify its system for allocating staff among units.

Background

Several types of staff provide treatment to ASH patients, including psychiatrists, psychologists, social workers, and rehabilitation workers. However, the majority of ASH's clinical staff are in three positions who work directly with patients in the treatment units. Registered nurses monitor and document patients' treatment and progress, supervise and educate staff and patients, and assess direct patient care. Licensed practical nurses prepare and dispense medications and document and transcribe physicians' orders. Psychiatric technicians, the largest of the groups, conduct therapeutic activities for patients, monitor common patient areas in the units, and intervene in patient disputes.

Within patient units, staffing levels vary depending on the time of day and day of the week. Of the three daily shifts worked by the nurses and psychiatric technicians, the day shifts generally have the most staff, because this is when patients are most active and most treatment is provided. For example, on Friday, January 29, 1999, there were 2 registered nurses, 1 licensed practical nurse, and 5 psychiatric technicians assigned to manage 30 patients on the day shift in Juniper 1, a unit that houses some of the hospital's most violent patients. In contrast, there were 1 registered nurse and 5 psychiatric technicians to manage the same number of patients at night.

Staffing Levels Often Insufficient

ASH's patient units often lack sufficient staff. This lack of staff was a contributing factor in ASH's failure to meet Medicare certification requirements in 1998. Although the number of staff positions authorized for ASH has been increased, high vacancy and turnover rates have kept staffing levels below what is needed.

Treatment units shortstaffed—Several previous reviews have called attention to the lack of staff.

- **Medicare certification review findings—**When the Health Care Financing Administration (HCFA) denied ASH's 1998 application for participation in the Medicare reimbursement program, it cited staffing shortages as one of the reasons (see Other Pertinent Information, pages 35 through 41, for a fuller discussion). Denial of Medicare eligibility meant the hospital had to make up federal, state, and local reimbursements for both Medicare and AHCCCS/Title XIX patients. HCFA inspectors noted that the hospital had only 223 nurses and psychiatric technicians available to care for patients, but the hospital needed approximately 282 to provide an adequate level of treatment. They noted specific instances in which too few staff were available on a treatment unit to adequately monitor and provide treatment to patients.

- **Outside review by mental health experts—**As part of the attempt to address staffing problems that later led to HCFA's denial of ASH's application, five mental health experts reviewed ASH's operations in October 1997 and concluded that the hospital lacked sufficient numbers of treatment staff, including nurses and psychiatric technicians.

Observations at the unit level by Auditor General staff showed similar instances of insufficient staffing. For example, the Juniper 5 unit, which houses civilly committed males and females, had only 2 or 3 of its 9 assigned staff available to care for the unit's approximately 50 patients during the shift observed. According to the Juniper 5 unit manager, the unit should have had several more staff during that shift to adequately monitor and care for patients.

Effect of recent staffing increases is limited by high vacancies and turnover—To help address the problems that led to the denial of Medicare certification, ASH received appropriations for 93.7 additional positions for fiscal year 1999. However, ASH has been unable to hire and retain enough staff to use these higher staffing levels. Hospital-wide, as of November 1998, ASH had vacancies in 130.5 of its 587.2 authorized positions, excluding those assigned to the sexually violent persons unit. ASH data from February 1999 showed that vacancy rates for

registered nurses and licensed practical nurses were 15 percent, and for psychiatric technicians were 14 percent. Auditors' reviews of specific units showed vacancy problems such as the following:

- The Juniper 5 unit, which houses civilly committed men and women, had vacancies in 10 of the 40 staff positions permanently allocated to it.

- The Wick 1 unit, which houses male restoration-to-competency patients, had vacancies in 14 of the 33 staff positions assigned to it.

In a survey of four hospitals in other states, ASH found that its vacancy rates for nursing and psychiatric technician positions were generally higher than those of the other hospitals. As shown in Table 2, ASH had the highest vacancy rates for licensed practical nurses and the second highest rate among registered nurses and psychiatric technicians.

Table 2

Department of Health Services—Arizona State Hospital
Comparison of Vacancy and Turnover Rates[1]
As of September 1998

	Psychiatric Nurse II		Licensed Practical Nurse II		Psychiatric Technician II	
	Vacancy	Turnover	Vacancy	Turnover	Vacancy	Turnover
Arizona State Hospital	6.52%	33%	19.23%	25.0%	7.07%	24.00%
Eastern State Hospital Medical Lake, Washington	5.63	10	7.31	4.0	2.12	10.00
Lake's Crossing Center Sparks, Nevada	0.00	0	N/A[2]	N/A[2]	25.64	8.00
Napa State Hospital Napa, California	36.45	11	0	5.1	36.69	10.00
Utah State Hospital Provo, Utah	0.00	27	6.89	17.0	2.22	55.00

1 Ten state psychiatric hospitals in the western United States were surveyed; however, only 4 responded as of September 10, 1998. Turnover rates were defined as the percentage of staff who left the hospital between July 1, 1997 and June 30, 1998. Vacancies were defined as the percentage of staff positions vacant as of the date surveyed.

2 The Nevada hospital did not report vacancy and turnover rates for Licensed Practical Nurse II.

Source: Western Psychiatric Hospital Clinical Employment Survey conducted by Arizona State Hospital staff, September 10, 1998.

ASH also has high turnover rates. According to the Department of Health Services, turnover rates among certain classes of psychiatric technicians ranged from 9 to 24 percent during

fiscal year 1998 and for registered and licensed practical nurses have ranged from 33 to 47 percent. As Table 2 (see page 9) illustrates, ASH's turnover rates for registered and licensed practical nurses are higher than the four other hospitals surveyed, and the turnover rate for psychiatric technicians is higher than three of the four. High turnover rates have made it crucial for ASH to ensure that new staff are adequately trained and oriented to working in a psychiatric hospital. The Joint Commission on Accreditation of Healthcare Organizations, in its December 1997 inspection, cited ASH with a critical deficiency concerning the adequacy of its new staff training and orientation.

Low Staffing Levels Mean ASH Often Cannot Provide Adequate Treatment and Therapeutic Environment

ASH's difficulty in filling positions has consequences for the hospital's ability to meet treatment requirements and provide a safe environment for patients and staff. Efforts to increase staffing levels by using contract staff from nursing registries and requiring staff to work overtime have been expensive and not always effective.

Treatment guidelines not met—Several reviews besides this one have shown that because treatment units lack adequate staff, ASH patients often receive much less than the 20 hours per week of active treatment called for in hospital guidelines.

- **Internal review findings**—ASH's own studies in December 1997 and February 1998 found that patients consistently received fewer than 20 hours of active treatment per week. For example, the February study found that patients in three forensic units received an average of 1 to 7 hours of active treatment each week. Among other units, patients in the Granada unit, which houses ill and elderly patients, received fewer than 2 hours per week, and patients from the adolescent unit received about 4 hours per week, in addition to 6 hours of schooling;

- **Medicare certification review findings**—During the Medicare certification review, HCFA surveyors observed cases in which many patients did not appear to be receiving treatment, and their review of patient files also failed to find evidence that patients were receiving adequate treatment. For example, surveyors observed 14 patients in the Wick 3 unit who had no interaction with staff for one hour, although they were supposed to be receiving substance abuse and restoration-to-competency classes during this time; and

- **Auditors' review**—Auditors reviewed 15 patient files from 3 different treatment units to verify the results of ASH's internal studies and to gain a greater understanding of the amount and types of treatment patients received. On one unit, the 5 patients whose files were reviewed all received less than half of the treatment called for on their individual treatment plans. On another unit, none of the 5 received any of the called-for treatment.

Insufficient staffing leads to dangerous environment— Insufficient staffing can lead not only to inadequate treatment, but also to an unsafe environment for both patients and staff. According to unit managers and psychiatric nurse managers surveyed during the audit, units that have an insufficient number of staff can create an unsafe environment with more assaults and verbal altercations that include patients. Data collected by ASH's Quality Resource Management department shows that patients committed 31 assaults against other patients in August 1998, and 25 assaults on staff.

HCFA surveyors noted a link between insufficient staffing levels and the ability to prevent such incidents or respond to them. During the Medicare certification review, they noted instances in which ASH's units did not appear to have sufficient staff. They also noted that staff absences and injuries at times leave small numbers of experienced staff who are familiar with the changing needs of patients. Their interviews with staff on all shifts indicated safety concerns for patients and staff due to insufficient experienced staff coverage throughout the hospital.

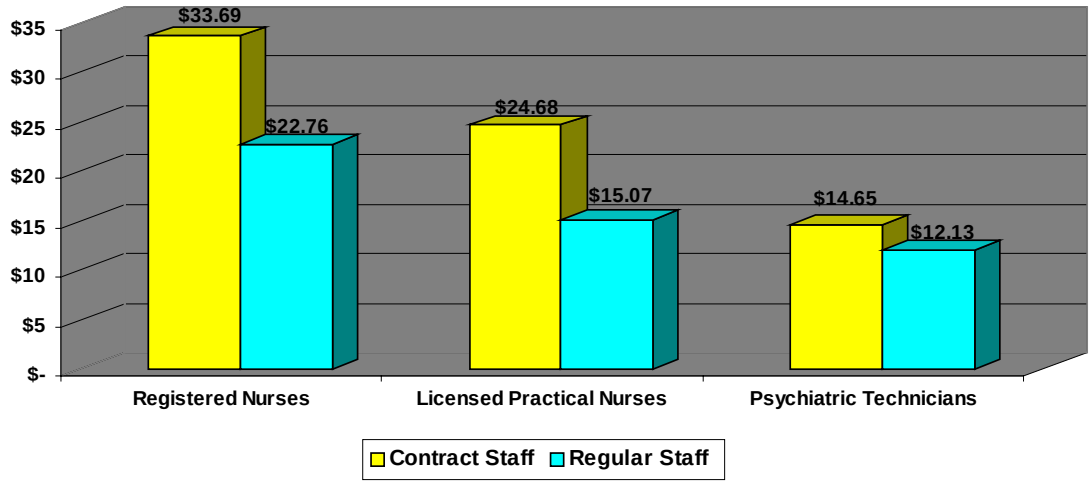
Unit managers and psychiatric nurse managers surveyed during the audit described the effects of insufficient staff on patient treatment and safety. For example, they reported that they were sometimes unable to provide therapy groups to patients because the unit did not have enough staff. They also said that having too few staff on the units contributed to the number of assaults occurring on the units.

Stopgap measures are expensive, not always effective— To help compensate for vacancies on its own staff, ASH uses contract staff and overtime hours worked by its regular staff. ASH spent approximately $1.3 million on payments to contract firms in fiscal year 1998. As shown in Figure 1 (see page 12), contract nurses and psychiatric technicians cost much more than regular staff. Additionally, according to an analysis conducted by Joint Legislative Budget Committee staff, contract staff cost about 48 percent more than permanent full-time staff. Nonetheless, ASH uses contract staff to cover about 1,500 eight-hour shifts during a typical month, mostly to cover psychiatric technician shifts. For example, during one week in October 1998, ASH used contract staff to cover 39 registered nurse shifts, 12 licensed practical nurse shifts, and 239 psychiatric technician shifts. These contract staff were equivalent to about 67 regular ASH staff during this period.

Besides being expensive, contract staff may have limited effectiveness. ASH staff report that the contract staff are often ineffective and cannot fulfill the role of regular staff. Contract staff are often unfamiliar with handling the severely impaired psychiatric patients who need the level of care ASH provides. In addition, ASH cannot assign contract staff to the hospital-wide team that handles medical and psychiatric emergencies. Therefore, when an emergency occurs, only regular ASH staff are allowed to assist, which can add to the problem of units being inadequately staffed.

Figure 1

Department of Health Services – Arizona State Hospital
Comparison of Average Hourly Rates
Contract Staff versus Regular Staff
As of August 20, 1998



Source: Arizona Department of Health Services' analysis of contract staff hourly rates compared to regular staff as of August 20, 1998.

Hospital staff surveyed during the audit said they would rather have regular staff working on the units, since contract staff require significant guidance and assistance to do their jobs. Some also cited frustration with some contract staff who do only a minimal amount of work.

Having regular staff work overtime provides additional staffing resources but also carries additional costs. When staff work overtime, they receive time-and-one-half wages. During one week in October 1998, ASH used about 700 overtime hours, 517 of which were worked by psychiatric technicians. Unit managers and nurse managers also reported that extensive use of overtime can lead to staff exhaustion and burnout.

Salary Levels, Difficult Work Environment, and Other Factors Contribute to Inability to Recruit and Retain Staff

Although the Department of Health Services and the hospital have taken action to fill vacancies, several factors make recruiting and retaining staff difficult. Low salaries, a difficult working environment, and other factors adversely affecting morale are key factors that con-

tribute to problems in recruiting and retaining qualified staff. The hospital has addressed these problems by conducting exit interviews to learn why staff leave, and has established an employee committee to help retain staff.

Factors affecting ASH's ability to maintain adequate staffing include:

- **Difficulties filling positions—** ASH has difficulty attracting qualified applicants who are interested in working at the hospital. According to ASH's human resources director, although ASH advertises its vacancies in several Arizona newspapers and distributes application information at many job fairs, few qualified applicants are interested in the positions. It is difficult to attract qualified candidates due to the demands of the position and the salary offered, factors covered in more detail below.

- **Low salaries—** *S*alaries ASH pays its nurses and psychiatric technicians are low when compared with similar positions elsewhere. ASH's parent agency, the Department of Health Services, found that the Department's salaries for nurses were on average $352 lower per month than salaries paid to nurses working in private hospitals. To be comparable, the study found, would mean increasing nurses' salaries by 13.6 percent. Additionally, a study conducted by Joint Legislative Budget Committee staff found that salaries paid to ASH's clinical positions were about 12 percent lower than those paid to their private sector counterparts.

- **Difficult work environment—** ASH's work environment can be more difficult than other psychiatric hospitals. ASH's patient population includes many severe patients, who can be more unpredictable and violent than other hospitals' patients. Additionally, the hospital's patients sometimes have more medical problems, such as tuberculosis, hepatitis C, and HIV. Although staff interviewed during the audit said they gained satisfaction from helping the patients, staff reported that the patients are one factor that contributes to a more difficult work environment, which in turn contributes to difficulties recruiting and retaining staff.

- **Organizational turmoil—** ASH staff have also undergone significant organizational turmoil over the past several years. According to the 1996 memorandum, the hospital developed a plan to abolish 232.5 positions between April 1, 1996 and July 30, 1997, in anticipation of the planned reduction in civil patients caused by the Arnold v. Sarn lawsuit. At the same time, the Department initiated a process to determine the feasibility of privatizing the hospital. Many staff, fearing that the hospital would close, left. According to many staff interviewed during the audit, staff morale suffered after the privatization study.

- **Frequent transfers between units—** According to many ASH staff interviewed and surveyed during the audit, ASH's practice of temporarily transferring staff from their assigned unit to another unit lowers staff morale and causes frustration. Staff are often opposed to the practice, which occurs several times each day in some units, because they are

often unfamiliar with another unit's patients. According to psychiatric nurse managers and unit managers surveyed during the audit, nurses and psychiatric technicians are frequently afraid to be transferred to units with violent patients. Additionally, when staff are unaware of patients' particular needs and personalities, patients lose some continuity of their care. According to nursing staff, familiarity with a unit's patients is important so staff can recognize individual cues that signal a patient requires attention.

Some steps underway to address pay and other concerns— The hospital received a supplemental appropriation of approximately $4.4 million during early February 1999. The appropriation included $821,900 for salary increases for nurses and other clinical staff. The hospital also received a Department of Administration special market adjustment totaling about $469,000 to provide salary increases for some of its staff, including security officers and recreational therapists as well as nurses and psychiatric technicians. According to ASH's Chief Executive Officer, these appropriations increased registered nurse and psychiatric technician salaries to more competitive salary levels. However, ASH continues to have a need for additional staff. The staffing study conducted by the former psychiatrist concluded that the hospital needed an additional 135 authorized clinical FTEs to provide patients with an adequate level of treatment. However, from fiscal years 1998 to 1999, the hospital was authorized 93.7 additional positions. Additionally, the Department has proposed reclassifying the psychiatric technician and certain nursing positions, a step that would improve the pay scale. To attract some new employees, the hospital now offers special entrance salaries.

The hospital has also begun several actions designed to identify and address other factors adversely affecting morale. To gain a greater understanding of the reasons why staff leave, the hospital has begun to conduct exit interviews with staff. Thus far, these interviews have indicated that employees' decisions to leave are affected by many factors. For example, some staff cited personal reasons; others cited financial reasons or the work climate. Some staff indicated that better salaries would have encouraged them to stay. ASH's Human Resources Department plans to continue surveying former staff to gain a better understanding of the factors that affect staff decisions to stay or leave. To help improve staff morale and working conditions, the hospital has taken steps such as forming an employee recognition program to recognize outstanding staff performance and to coordinate special events for staff.

Method of Allocating Staff Among Units Exacerbates Staffing Shortages

The effects of ASH's staffing shortages are compounded by problems in the method used to allocate staff among the patient units. This method, known as an acuity system, does not accurately identify the number of staff needed to work on the units. The method allocates a combination of nurses and psychiatric technicians to each unit based on the patients' functioning levels and care needs. However, the method does not account for several important factors that determine a unit's staffing needs.

- **Off-site appointments**—ASH patients routinely require staff escorts to appointments such as dentists or eye doctors. These appointments often last over two hours each. During August 1998, over 236 staff hours were spent escorting patients to these appointments.

- **Constant monitoring**—The system does not take into account whether patients need temporary one-on-one monitoring by staff. Although ASH's past acuity system considered whether patients required a high level of monitoring, its current system does not. According to some staff surveyed during the audit, this is a problem since many patients require one-on-one monitoring.

- **Other staff duties**—The system does not take into account other staff duties, such as dispensing medications and attending patient conferences. A consultant hired to assist ASH in its efforts to gain HCFA recertification noted that even when staff are assigned to units appropriately, they are often unavailable to attend to patients due to other tasks. For example, auditors observed one unit allocated 10 staff to manage 57 patients. However, 1 of the staff was dispensing medications to patients, another was attending patient conferences, and 4 others were accompanying patients to appointments, leaving 4 staff to attend to approximately 56 patients left in the unit.[1]

ASH Should Continue Steps to Ensure Adequate Staffing in Units

ASH should take a number of steps to ensure that its patient units are adequately staffed. First, the hospital should continue its efforts to implement a pool of nursing staff to call on when the units are insufficiently staffed. Second, it should continue to address staff turnover and improve working conditions. Third, it should modify its acuity system to ensure that it assigns each treatment unit a sufficient number of staff.

ASH nursing pool proposal could help ensure adequate staffing on units—To ensure that its treatment units are adequately staffed, ASH has proposed the use of a pool of nursing staff who are not assigned to a particular unit. According to hospital management, the pool would consist of a group of individuals who would work for ASH on an as-needed basis, and who would be available to work during a particular shift. A pool could provide staff for such tasks as escorting patients to off-unit appointments or watching patients who need constant monitoring. Three of the state hospitals contacted during the audit use such a pool.

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[1] Patients often require psychiatric and other medications, which the nurse must prepare and dispense. Because many of these medications must be taken several times per day at scheduled times, units must designate a nurse to spend an entire shift dispensing and documenting medications given to each patient.

ASH received approval from the Department of Administration to implement the pool January 1, 1999. The pool consists of temporary employees who would not be assigned to a particular unit but would fill the units on an as-needed basis. Potential benefits from such a pool include using pool personnel to assist staff with completing tasks, and providing better continuity of patient care. The proposal would also save money when compared to using contract staff, in that pool staff would be paid an estimated $11 to $25 per hour, compared with the rate of $35 to $38 currently paid to agencies that supply contract staff. Even though costs to ASH would be less, pool staff would earn more than they would at a contract firm, because they currently are paid less than $25 of the $35-to-$38 rate charged by the contract firm. ASH will face challenges in developing a pool, since it already faces difficulties in hiring and retaining its current staff. Although pool staff would not be full-time hospital employees, retaining them may prove to be difficult if the hospital's staff environment, including working conditions, salaries, and morale issues, is not addressed.

***ASH should continue efforts to resolve turnover problems and improve working conditions*—**Hospital management should continue to make filling staff vacancies and reducing turnover a high priority. The hospital has taken action by posting job advertisements in newspapers and publicizing hospital positions at job fairs. However, since many vacancies remain, the hospital needs to speed up and strengthen its recruiting process.

To help address staff turnover, ASH should continue to use exit interviews to study the reasons why staff leave. ASH should also continue its efforts to use the information it learns from the interviews to make changes that could improve staff morale. Finally, ASH should continue to request additional funding for staff salary increases to make its salaries more competitive with other hospitals.

Since the hospital's staffing problems are long-standing and complex, they will likely take a long time to resolve and require steps beyond those discussed here. Finding III (see pages 29 through 34) presents a more detailed discussion of the long-term planning aspects of staffing issues.

***ASH should modify its acuity system*—**To better allocate existing staff among the treatment units, ASH should modify its acuity system. ASH should ensure that the acuity system takes into account all major tasks that staff perform throughout the day. Other state hospitals' acuity systems account for such activities. For example, the Utah State Hospital's system accounts for patients who need constant monitoring, as well as off-grounds escorting. Additionally, the Colorado Mental Health Institute's system accounts for patients who need to be monitored on an hourly as well as a 15-minute basis, and also considers whether new patients are admitted or transferred to the unit.

Recommendations

1. ASH should move forward with its plans to implement a pool of nursing staff.

2. ASH should continue to fill its vacant positions by conducting ongoing recruiting efforts.

3. ASH should continue its efforts to reduce staff turnover by conducting exit interviews with staff who leave ASH, and making appropriate changes based on what it learns.

4. ASH should modify its acuity system to take other staff activities into account. Specifically, the acuity system should consider additional staff time needed to:

   - Dispense medications to patients;
   - Escort patients to appointments;
   - Process admissions and discharges;
   - Perform one-on-one monitoring of patients; and
   - Attend patient conferences.

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FINDING II

ASH FACILITIES ARE INADEQUATE

The facilities ASH uses to house mentally ill patients do not provide an appropriate and therapeutic environment for the hospital's patients. ASH's buildings are old and deteriorating, and many require constant repair. In addition, some buildings are overcrowded. Furthermore, the size and design of the facilities are inappropriate for the type of patient the hospital currently serves. Therefore, ASH management should take some immediate steps to improve the facilities in the short-term, such as initiating inexpensive renovations, improving maintenance procedures and contract monitoring, and constructing a transitional unit for patients. However, these improvements will not address problems arising from the overall design of the facilities. In the long run, new hospital facilities will be needed to provide patients with an appropriate and safe environment.

ASH Provides Poor Environment for Patients and Staff

ASH's patient treatment units are crowded and not in compliance with state licensing standards intended to ensure patients live in a safe and comfortable environment. The facilities place staff and patient safety at risk and interfere with patient therapy, in that they provide insufficient space for treatment and lack design features found in newer hospitals. The limited space means that patients must sometimes be housed together inappropriately, or placed in space intended for other uses.

Figure 2. Seven patients are housed in this bedroom in Juniper unit 5.

Patient units overcrowded— ASH is not compliant with licensure standards regarding the amount of space each patient has available to occupy. ASH is routinely inspected by the Department of Health Services, Division of Assurance and Licensure, which evaluates hospitals using standards designed to ensure that patients live in a safe, comfortable, and therapeutic environment. In many of ASH's units, the number

of patients substantially exceeds what the standards would allow. Table 3 shows the number of patients in each of ASH's units as of January 1999 and the number of patients by which the units exceeded licensure standards. Following are examples of ways in which ASH does not meet specific standards:

- Patient rooms must have at least 50 square feet for each patient. By this standard, 6 of ASH's 11 patient treatment units exceeded their patient capacity. All 4 of the Juniper units, which house civilly committed patients, were over capacity. In fact, one mixed-gender unit had 14 patients over its capacity of 24.

Table 3

Department of Health Services—Arizona State Hospital
Number of Patients by Unit
January 20, 1999

Unit	Patient Type	Current Number	Number Permitted[1]	Number in Excess
Juniper 1	Civil male	30	24	6
Juniper 2	Civil male	28	24	4
Juniper 4	Civil male and female	38	24	14
Juniper 5	Civil male and female	48	44	4
Granada	Co-ed adult medical and psychiatric patients	36	43	0
Adolescent	Adolescent	12	16	0
Wick 1	Forensic—restore to competency, male	21	24	0
Wick 2	Forensic—restore to competency, male	0[2]	24	0
Wick 3	Forensic—restore to competency, male	21	21	0
Wick 4	Forensic Civil—female	27	22	5
Wick 5	Forensic—guilty except insane, not guilty by reason of insanity, male	46	42	4
Total		307	308	37[3]

1 Number authorized by Department of Health Services, Division of Assurance and Licensure.

2 Normally 12 patients are housed on Wick 2. However, on January 20, the unit's patients were temporarily reassigned to the Wick 1 and 3 units so the Wick 2 unit could be cleaned.

3 Although the hospital does not exceed the overall number of patients authorized by licensure standards, (308 patients) it does exceed these standards on a per-unit basis.

Source: Arizona State Hospital report *Treatment Unit Current Census and Arizona State Hospital Ward Overview.*

- Although standards prohibit assigning more than 4 patients to a bedroom, several units at ASH that would comfortably house 4 patients routinely house 6 to 7 patients per room because no alternative space is available.

- Although standards call for a shower for every 8 patients and a toilet for every 6 patients, several units do not meet standards. For example, the Juniper 5 unit has only 4 showers, or 1 for every 12 of its 48 mixed-gender patients.

One reason for the overcrowding is that the amount of space available to the hospital has decreased even as patient loads have begun to rise. Although ASH at one time housed over 1,500 patients, closure of some buildings and conversion of others to different uses has left the hospital with insufficient space for its current census of over 300 patients. The hospital's census is now increasing from its low of 288 patients in 1997. At the same time, as Table 4 (see page 22) shows, several buildings that were used to house patients prior to 1994 are now closed or used for other purposes, compressing patients into the remaining Wick, Juniper, and Granada units. ASH currently leases out 163,588 square feet of buildings to other state agencies, while housing ASH patients in only 135,193 total square feet. The Cholla Building, which previously housed patients with severe behavioral problems, now houses SVPs. In addition, the Kachina unit, which was used to house approximately 100 patients, was closed in 1996 due to the costly repairs necessary to fix its roof and cooling system and bring it into compliance with life safety codes. This accounted for a loss of 62,372 square feet of usable patient space. No new patient facilities have been built since 1954.

Figure 3. ASH has closed the Kachina unit, which has contributed to patient overcrowding in other units.

Staff and patient safety often at risk—Staff and patient safety are often compromised due to patient overcrowding. For example, disputes between patients in overcrowded units occur more frequently than if patients were not so cramped. According to staff surveyed during the audit, when psychiatric patients do not have sufficient privacy, it often leads to verbal or physical altercations with other patients.

The design and condition of the old facilities make it difficult for staff to effectively perform their jobs and ensure patient safety. Long hallways create areas that cannot be monitored by staff in the nursing station. For example, the Granada unit, which houses patients with

special medical problems that may require IVs and post-operative treatment, has patient rooms up to 137 feet away from the only nurse's station in the unit. Patient rooms located so far away from staff assistance can lead to unsafe conditions if patients need immediate help.

Table 4

Department of Health Services—Arizona State Hospital
Hospital Space No Longer Used for Hospital Patients

Building	Current User	Square Feet
Hawk Unit	Sexually Violent Persons Unit	1,827
Alamo Hall	Sexually Violent Persons Unit	5,744
Encanto Hall	Dept. of Juvenile Corrections	13,712
Birch Hall	Dept. of Health Services, Administration	17,477
Aspen Hall	Dept. of Corrections	26,059
Cholla Hall	Sexually Violent Persons Unit	27,776
Flamenco Hall	Dept. of Corrections	38,564
Kachina Hall	Closed	62,372
Alhambra Complex	Dept. of Corrections	67,776
Total		261,307

Source: DWL Architects, Arizona State Hospital Master Plan and Arizona State Hospital Building Statistics.

Deteriorating conditions often create additional hazards that place patients and staff at risk. According to staff surveyed, staff and patients are often at risk of injuring themselves from facility hazards such as slippery floors, loose floor tiles, and broken ceiling tiles. In one case, a patient used a broken piece of ceiling tile to assault another patient, and adolescents have access to unprotected fluorescent lightbulbs, which they have broken and used to inflict injuries upon themselves.

Figure 4. High fences and razor wire give the Wick 1 unit a prison-like appearance.

Patient therapy adversely affected— There are significant contrasts between the therapeutic environment provided by ASH's facilities and those provided by other psychiatric hospitals that auditors visited in the Phoenix area. In one ASH

unit, a patient shares a room with 5 other patients and shares 4 showers with 38 patients, whereas a patient in these other hospitals typically shares a room with 1 or 2 patients and has private shower and toilet facilities. These other hospitals have central nurses' stations to monitor patients, spacious corridors and patient rooms, and well-lit and colorful facilities.

Environments like those in other hospitals are important because they can affect treatment outcomes. Research indicates that home-like patient environments result in more effective and rapid treatment. According to one article, "Therapeutic environments require more freedom of movement and staff interaction than traditional correctional settings. A therapeutic environment also requires attention to interior design. It is important to avoid long corridors as they may have a disorienting effect on the mentally ill."[1] A suitable environment is largely absent at ASH.

ASH's facilities have an even more immediate adverse effect on treatment, in that treatment units lack any dedicated space for group or individual therapy. The units' dayrooms are often the only areas available to conduct such therapy. Therefore, most treatment has to be given to all patients at the same time. Other psychiatric hospitals that auditors toured had more space available for patient treatment. For example, each unit had more than one room where patient groups or individual therapy could occur.

Facility inadequacies force inappropriate housing arrangements— The limited amount of space often forces the hospital to use space inappropriately. For example, ASH houses different patient types too closely to each other. ASH has two adult units with both male and female patients and houses all children aged 10 through 17 together. Additionally, the current configuration of the patient units does not comply with the law requiring a sight and sound barrier between children and adults.

The adolescent unit is particularly problematic because of the many types of patients it mixes. It not only mixes patients of both genders, but these patients include both children and teenagers, some of whom are also forensic patients. Mixing children with teenagers and mentally ill patients of different genders can lead to inappropriate behaviors and disputes. In contrast to ASH, the Utah State Hospital separates forensic and civil patients, adult patients from youths, and children from adolescents.

Some overcrowded units are forced to house patients in rooms that are needed for other purposes. For example, the Wick 5 unit, which houses patients judged "guilty except insane" or "not guilty by reason of insanity," has been forced to use its seclusion room to house excess patients. However, this practice limits the availability of seclusion rooms for their intended use, which is to provide areas for violent or suicidal patients who require security and protection.

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[1] Carp, Scarlett V., and David, Joyce A., *Corrections Today*, April 1991. 100-104.

ASH's Buildings Are Deteriorating, Inefficiently Maintained, and Not Designed to Meet Current Needs

ASH's facilities are old, deteriorating, and require constant repair. The hospital's maintenance process is often ineffective, which adds to the problem. The facilities were originally built in the 1950s to house a different type of patient population, and while several buildings have been renovated to accommodate younger, more violent patients, renovations cannot overcome the problems of generally inappropriate design and deteriorating infrastructure.

ASH buildings and infrastructure are old and deteriorating— ASH has been serving patients at its current site since 1887 and the infrastructure that supports its buildings is old and deteriorating. For example, the underground tunnel system throughout ASH, which was constructed in 1909, provides phone lines, steam, hot and cold water, and electrical utilities to ASH units. The tunnels are insulated with asbestos and are collapsing. Assessments by an architectural firm and Sodexho/Marriott, the firm ASH has contracted with to provide maintenance services, have determined that the tunnel system is hazardous. In fact, Sodexho/Marriott has refused to allow its staff to provide any further service to the tunnels for fear of their employees' safety.

All of ASH's patient units were constructed in the 1950s, and due to their age, require constant repair. During October 1998, ASH facilities needed an average of over 47 routine repairs each day. Routine repairs include only items that can be repaired for under $500, such as repairing door locks, unclogging sinks and toilets, replacing ceiling tiles, and patching and painting holes. The facilities also regularly need special projects, such as renovations and remodeling, and larger repairs that require more time and money to complete. For example, during the audit the patient rehabilitation center was remodeled into a patient unit to relieve overcrowding in other units.

Even with renovation, there is a limit to which improvements can be made. For example, the central system that provides the heating and cooling to ASH buildings provides only limited control over building temperatures. The antiquated two-pipe system can provide either cold or hot air, but cannot mix them to moderate building temperatures. This often results in extremely uncomfortable building temperatures for patients and staff in the spring and fall. Also, because the water boilers are located across campus from the patient units, shutting off some patient showers during colder months results in a delay of 30 minutes to 1 hour for warm water. Therefore, the Juniper 5 co-ed patient unit continuously runs one of its showers during the winter months to ensure hot water for the patients.

Maintenance process is ineffective— ASH's procedure for repairs exceeding $500 requires coordination within several groups of people and often with several agencies. This procedure is often fragmented and inefficient. The hospital contracts with Sodexho-Marriott for all routine maintenance services and employs a two-person maintenance crew supported by

female Department of Corrections inmates for most facility renovations. It also uses other contractors for projects that neither Sodexho-Marriott nor the ASH crew can complete. ASH lacks an effective procedure for prioritizing projects and informing the maintenance crews of their responsibilities. This problem is made worse by a lack of communication among the various groups responsible for completing the projects. As a result, projects often reflect inadequate planning and coordination. For example, an outside contractor was hired to complete a special project to build a storage room off of a patient unit. However, the greater need on the unit was for an activity room, but this was not determined until the storage room was complete. As a result, due to lack of communication, proper planning, and proper contract monitoring, ASH's maintenance staff had to redo the contractor's work.

Even when repairs to the facilities are completed, they are frequently delayed from a few days to several months. For example, one project request was initiated in February 1998, but as of December 1998 the project had not yet been started. Additionally, one unit waited over one month for installation of plumbing and electrical hookups in order to connect a new washer and dryer.

Renovation offers only limited help in overcoming design limitations— ASH's patient units were designed for a different type of patient than ASH currently serves. In the 1950s, ASH's patients were typically older and lived permanently at the hospital. In contrast, current patients are younger, more violent, and stay a shorter length of time. As a result, ASH has had to renovate its buildings to make them more secure. When forensic patients first began to come to ASH, they routinely bent the security bars, tore out window frames, and escaped by climbing over the roofs. ASH has made certain units more secure by installing additional fencing, modifying ceilings and light fixtures, and providing upgraded security measures.

Such renovations are only a stopgap measure to enhance the environment and security of the patient units. For example, in fiscal year 1993-1994 ASH renovated Wick units 3, 4, and 5 at a cost of $2.2 million. Similarly, in 1998, ASH renovated Juniper 1 at a cost of $79,078. While these renovations improved the unit's security and aesthetic qualities, they did not change the overall design and infrastructure of the facilities, or the long hallways. For example, Juniper 1 has had leaking water pipes in the walls repaired since its renovation. Likewise, patient rooms are still over 130 feet away from the nurse's station, which makes monitoring patients difficult.

The design also contributes to several problems that are difficult to overcome even with renovation. For example, the long and narrow hallways in the patient units contribute to a lack of adequate airflow and cause patients' bedrooms to receive insufficient ventilation, often leading to stuffy, uncomfortable living conditions. The Department of Administration recently conducted a study that identified high levels of carbon dioxide in patient units. Although these levels were not high enough to constitute a health hazard, they may contribute to uncomfortable conditions.

ASH Could Undertake Several Short-Term Improvements

Although the hospital's facilities have many deficiencies, there are some immediate steps ASH management could take to improve patients' environments. Most of these steps involve relatively inexpensive enhancements, such as painting and lighting. Improving the hospital's maintenance and repair process could enhance the adequacy and timeliness of repairs. Other short-term steps, such as development of a transitional living facility for patients who are nearly ready to be discharged, can also help. Nevertheless, in the long run a new facility is needed if the hospital is to continue.

***Improvement through inexpensive enhancements*—**Several inexpensive renovations could quickly improve the environment for ASH patients. A recent assessment of ASH's patient facilities describes the need for improvements, such as better lighting and the paint color of the patient facilities. The cost for these enhancements is projected to be $305,000 for the Wick and Juniper units. The report, prepared by an architectural firm, states, "There is increasing evidence that light and color relate to more than just illumination or aesthetic value. They influence sleeping, wakefulness, emotions, and health, and can play a major role in the treatment of behavioral health."[1] This report recommends improvements including:

- **Repainting units**—with soothing colors such as blue, turquoise, and green, using white for ceilings and overhead structures. Currently, patient units are white or cream colored.

- **Installation of fluorescent lighting**—throughout units to provide a more therapeutic atmosphere.

- **Installation of skylights**—in dayrooms to provide patients with a better sense of time.

- **Installation of acoustic ceilings and floors**—in seclusion rooms and patient rooms to reduce echoes and hollow sounds.

- **Improved seating and flooring**—in the patient dining room. Currently, the Juniper dining room has institutional group seating arrangements that are bolted to the floor.

- **Increased artwork**—throughout the units to provide a more residential quality.

These improvements will be submitted to the Department of Administration by the Department of Health Services as a component of its fiscal year 2000 building renewal project request. ASH is also taking other steps to determine what short-term improvements might be appropriate. For example, ASH has developed an inspection process for the patient units. This process involves ASH employees making facility walkthroughs in teams using a

[1] DWL Architects and Planners, "Arizona State Hospital Refurbishing of Wick and Juniper Wings," August 10, 1998. 1.

guideline with specific standards to routinely evaluate facilities. According to management, this process should aid in periodically reviewing and determining routine repairs and special projects on patient units.

Repair procedure improvement to speed repairs— By improving its maintenance process, ASH could enhance its ability to complete repairs adequately and efficiently. First, ASH management should ensure that the maintenance process involves adequate communication and planning. For example, management should require regular meetings among all maintenance groups involved in special projects. In addition, all special projects should be planned cooperatively by the appropriate administrative officials, maintenance groups assigned to the project, and the party requesting the project.

In addition to its maintenance and repair process, ASH needs to improve its maintenance contract monitoring to ensure problems get resolved. Its current practice of contract monitoring is inadequate. However, Sodexho/Marriott has agreed to fund a position for one year that will monitor their contract. ASH has requested funding in its 2000-01 budget for a position to monitor all the hospital's contracts. State hospitals in New Mexico, Utah, and Colorado devote at least one staff member to solely oversee contract compliance. To properly monitor maintenance projects that are contracted out, ASH should continue its efforts to create a position whose sole function would ensure sufficient compliance with building codes and the proper completion of projects.

ASH patient transitional unit to ease overcrowding— ASH should continue to move forward with its plans to construct a transitional living facility for patients who are nearly ready to be discharged. The program will focus on enhancing patient skills for more independent functioning in society while integrating patients into community-based programs. In early February 1999, ASH received $1.1 million in funding to develop and operate the program. This unit is planned to house 16 to 20 patients who are the most ready to be discharged from ASH.

New facility is only long-term solution— Although short-term changes can produce temporary improvements, the only long-term solution is to build a new hospital facility. Short-term improvements do not address the problems inherent in the design and age of the patient units. Finding III (see pages 29 through 34) presents information regarding the hospital's need to plan future facilities.

Recommendations

1. ASH should complete the therapeutic improvements so that the environment of the patient units is more like that recommended by DWL Architects and Planners.

2. ASH should continue the patient unit inspection process and use it as a tool in periodically evaluating facility needs.

3. ASH management should ensure that all groups performing special projects adequately communicate throughout the process. For example, special projects meetings should be held before each major renovation through which ASH officials appropriate maintenance staff, and special project requesters jointly decide documented project details.

4. ASH should continue its efforts to implement a position solely responsible for the contract monitoring of facility renovations.

5. ASH should continue its efforts to construct the patient transitional unit that it has proposed to house those patients most ready for discharge.

FINDING III

EFFECTIVE LONG-TERM PLANNING PROCESS IS NEEDED

ASH currently lacks long-term plans to guide its future and an effective process to develop such plans. The Governor and Legislature have acknowledged that because current facilities do not provide an adequate environment for patients, new facilities will ultimately be needed. ASH's ability to translate this commitment into a plan for the future is made more difficult by the kinds of patients it is now treating. The hospital has little control over its patient load and is presented with safety and security needs that are greater than those of most other mental health facilities. ASH does not have a process in place for considering how such characteristics affect the best course of action for future facilities. Turnover in key leadership positions at the hospital and at the Department of Health Services has contributed to the lack of focus on this issue. With leadership positions now filled, however, the hospital needs to move forward quickly. Key areas that need to be addressed are the size of likely future patient loads and the type of facilities that will be needed.

Unacceptable Facility, Unique Population Heighten Need for Long-Term Planning

ASH faces an acknowledged need for a new facility, and its role presents challenges in planning for the future. ASH now focuses on forensic patients and on civil patients with needs that may not be met in community settings. Because of statutory and other requirements, ASH has limited control over the number of patients it admits or how long they stay. The hospital also needs to plan facilities that will take into account the additional security and safety concerns associated with its patients, as well as developing projections that take into account patients whose lengths of stay vary from a few months to many years. These and other uncertainties heighten the need for an effective long-term planning process.

New hospital needed— While inexpensive enhancements and improving maintenance practices will alleviate some of ASH's facility-related problems, the State ultimately will need to build a new hospital. As discussed in Finding II (see pages 19 through 28), the facilities do not meet current psychiatric hospital design standards, and lack sufficient space to accommodate the hospital's patient population. This need has been acknowledged by both the Governor and the Legislature. Staff from the Joint Legislative Budget Committee and the Governor's Office of Strategic Planning and Budgeting recently studied ASH and presented

a number of options for a new facility, including serving forensic patients exclusively. Efforts are underway to identify monies that can be used to construct a new ASH facility.

Major questions remain about what kind of facility should be built. At a minimum, the State needs to build hospital facilities of sufficient size to appropriately treat its existing population of about 300 patients, not including individuals in the SVP program. If the patient population grows beyond the current level, a larger hospital will be required. Therefore, the hospital needs to determine its future needs regarding the size and design of a new facility.

Little control over size of patient population— ASH's need to carefully study these future needs is heightened because, unlike other mental health facilities in the State, it has little control over its patient population. Unlike other facilities that can turn away patients when their beds are full, ASH cannot refuse to admit a court-ordered patient. Moreover, ASH has only limited impact on patient discharges. Civil patients must remain at ASH until their treatment team determines they can function in a community setting and that a suitable placement is available. According to ASH, current community placements for civil patients are very limited. As a result, patients must wait at ASH until a placement becomes available. Similarly, if patients are sent to ASH because they have received a verdict of guilty except insane or not guilty by reason of insanity, they remain until the Psychiatric Security Review Board or the court determines they are ready for discharge and a suitable placement is available. Placements can be difficult to locate. In these cases, patients can wait several months or longer for an opening.

Characteristics of unique patient population affect facility requirements— ASH should plan facilities that can meet needs that are different from those of most other mental health facilities. The forensic proportion of ASH's patient population, now about 130 of the present population of 300, tends to be young and active, and has very different needs for treatment, supervision, and security than the civil mental health patients. Further, many of ASH's civilly committed patients also require a more secure environment because of behavioral problems or because they need substance abuse treatment.

ASH's patient population size is complicated by the wide variance in the length of time patients stay at the hospital. Restoration-to-competency patients have short stays comparable to patients in other psychiatric facilities, but many ASH patients stay much longer. For example, ASH civil patients stay, on average, 202 days. Some patients have been at ASH for over 20 years. Many ASH patients often have severe impairments that prevent them from reaching their treatment goals without an extended stay.

Other issues also merit attention— In addition to facility planning and the size of ASH's patient populations, several other issues should be considered in long-term planning. For example, the kinds of treatment provided to ASH patients must continually change in accordance with developments in psychiatric standards. Patients already benefit from improvements in psychotropic medications, and receive more active therapy, compared to patients in the past. However, effective treatments have not yet been identified for sexually

violent persons, and efforts are underway nationwide to develop treatments that will eventually allow such patients to live in the community. To ensure the hospital has appropriate staff and other resources to provide appropriate treatment for all its patients in the future, ASH should incorporate these issues into its long-term plans.

Other issues will also affect the hospital's future. The deinstitutionalization movement that began in the 1970s continues to have a significant impact on the hospital and its patients, creating a need for better coordination with community-based service providers and for preparing patients to live more independently. In fact, some advocates continue to assert that in the long run, all civil patients should be treated in the community, although others emphasize the need for an institution that can provide long-term care to severely impaired individuals.

ASH Has Not Adequately Planned for the Future

ASH does not have an adequate planning process for meeting these pressing challenges. The hospital has not developed projections of future demand for its services, even though it has had unexpectedly high numbers of certain types of patients and has experienced overcrowding of certain patient units. It has responded with stopgap measures that do not address long-term space shortages and other facility problems the hospital is likely to face in the future. Although there is widespread agreement that a new facility is needed, ASH's most recent capital master plan was prepared in 1995 and was not based on an analysis of future needs. ASH has only recently initiated a planning effort that may contribute to policy makers' future facility decisions.

ASH does not project future patient numbers— Despite the impact of the patient census on ASH's day-to-day operations, and the importance of future patient population size to planning a new facility, the hospital has not developed projections of future demand for its services. Its projection efforts are limited to preparing population estimates to help determine current operating budget requests. In contrast, the Utah State Hospital prepares estimates of expected patients every time state population projections are prepared. Similarly, the Colorado Mental Health Institute at Pueblo also projects future patient numbers whenever special projects, such as building requests, are initiated. Utah has projected future patient numbers up to the year 2005, while Colorado's projections generally are one to two years into the future. Similarly, Montana projects patient population every two years in conjunction with the state budgeting process.

In Arizona, the Department of Corrections prepares projections of estimated future prison populations, and in fact has developed projections for ASH's use regarding the number of residents it expects to send to the SVP program.

Even in the short term, this lack of attention to patient trends has caused problems at the hospital. For example,

- In 1998, ASH experienced severe overcrowding in its units that house restore-to-competency patients. The hospital had designated two units, Wick 1 and Wick 2, for male restore-to-competency patients. These two units had a capacity of 48 patients, but by June 1998, the two units had a total of 66 patients. After an unsuccessful attempt to turn away patients being referred by the courts, ASH opened an unused facility to relieve overcrowding. Even an unsophisticated planning or projection method would likely have signaled the effects of the upward trend in numbers of such patients, but no such process was in place.

- To adjust overcrowded units, ASH has transferred patients from unit to unit, sometimes moving them several times before finally settling them in a permanent location. To accommodate the June 1998 overflow of restore-to-competency patients, ASH temporarily moved some patients into another building intended to house sexually violent persons. Eventually, it moved the overflow of male restore-to-competency patients into another unit that formerly housed female patients.

ASH needs to develop plans for new facility— Although state policy makers, including the Governor and some legislators, have acknowledged that a new hospital facility is needed to adequately treat and house patients, ASH has not yet adequately developed options for meeting this need. Its most recent capital master plan, prepared in 1995, included a new facility that would house only 152 patients, which would be too small to accommodate half of ASH's current population. According to a 5-person panel of mental health experts, who reviewed ASH's operations in October 1997 as part of the attempt to address problems that later led to HCFA's denial of Medicare certification (see Finding I, page 8), ASH's current hospital facility does not provide the therapeutic environment all of its patients need. ASH has recently initiated a new planning process to identify options regarding facility needs. Others, such as staff from the Joint Legislative Budget Committee and the Governor's Office of Strategic Planning and Budgeting, have also begun to identify alternatives for the number of beds the facility could have and the types of patients it could serve. Until ASH makes more progress in its own planning efforts, it will be limited in its ability to provide needed information to state decision makers.

ASH efforts have been limited in scope— ASH has initiated several ad hoc projects to address problem areas identified by staff and outside reviewers, but so far none encompass any long-term planning. For example, ASH has put into place an assault prevention team and a program that focuses on training staff to prevent assaults from occurring. ASH has also initiated some efforts directed toward improving staff morale; for example, by rewarding outstanding employees and raising money for staff social events. Finally, in response to its loss of HCFA certification, ASH developed some projects directed toward resolving the specific deficiencies cited by the HCFA inspectors. While important, none of these efforts goes beyond meeting the immediate need to solve a specific problem.

Past Leadership Challenges Affected ASH's Ability to Develop Long-Term Plans

Vacancies and turnover in key management positions at ASH and the Department of Health Services have contributed to the difficulty in developing long-term planning efforts. As of 1999, the management positions have largely been filled.

- ASH went six months without a Chief Executive Officer. In June 1997, the former Chief Executive Officer was involuntarily dismissed. Controversy surrounding this dismissal left the position unfilled until January 1998.

- In less than one year, the hospital lost several key management positions, including the Chief Executive Officer, the Chief Medical Officer, and the Director of Quality Management Resources. Although the hospital has since filled these positions, the replacements will need time to become accustomed to the hospital and its processes.

- At the department level, the Assistant Director of Behavioral Health Services, the position to which ASH's Chief Executive Officer reports, resigned in June 1998. The position was filled soon after. The Director's position was also vacant from June 1997 to February 1998.

ASH Should Take Steps to Plan for the Future

Now that the hospital's management team is fully staffed, ASH's Chief Executive Officer should initiate long-term action to guide the hospital's operations in the future. As part of this process, the management team should ensure that the patient census is regularly reviewed and analyzed, and that future patient numbers are projected. Additionally, the process should include costs of the hospital's long-term facility needs.

Specifically, ASH management should:

- **Project future patient numbers**—ASH should, as part of its strategic planning process, analyze the numbers of patients it currently serves, and project numbers of patients it expects to serve at the hospital. A thorough analysis of current and expected numbers of patients would assist the hospital in planning and ensure that patient units are not unexpectedly overcrowded. Additionally, such a review could help to identify particular patient types that can increase quickly, such as the restore-to-competency population, which increased dramatically and contributed to severe overcrowding during June 1998.

- **Plan a new hospital facility**—ASH should begin the planning process for a new hospital facility that would provide a more therapeutic environment for patients. Before de-

veloping a request for proposals from architects on designing the new facility, ASH should *clarify its needs in a conceptual plan document*. For example, as well as projecting future patient population numbers, ASH should identify the treatment and security needs for both civil and forensic patients. Further, ASH's plan should incorporate current best practices in psychiatric hospital design, including dedicated therapy rooms, central nursing stations, and patient bedrooms sized to be shared by an appropriate number of patients. Once the conceptual plan is complete, ASH should work with the Governor's Office of Strategic Planning and Budgeting and the Joint Legislative Budget Committee staff to *identify funding sources* for the design and eventual construction of the new facility. As of the conclusion of the audit in January 1999, the Governor's Office expected to designate a portion of the funds to be received in settlement of the State's lawsuit against tobacco companies for this purpose. Finally, ASH should consider requesting legislative approval to *hire an expert or convene an advisory group* to assist hospital clinicians and administrators in developing requests for design and, later, construction proposals; preparing a detailed schedule and budget; and overseeing the architecture and construction contractors to ensure the new facility meets the current and future needs of ASH and its patients.

According to ASH's Chief Executive Officer, a strategic planning process is underway and is expected to be implemented by September 1999. The process is intended to produce a plan defining the hospital's goals, as well as an operational plan to help ASH achieve its goals. At the audit's end in January 1999, this process was in a preliminary stage.

Recommendations

1. To help effectively plan for the future, ASH should project future numbers of patients.

2. ASH management should begin planning a new hospital facility by identifying its needs in a conceptual plan document. For example, the plan should:

   - Identify the treatment and security needs for civil and forensic patients.

   - Incorporate best practices in psychiatric hospital design.

3. Once its conceptual plan for a new hospital facility is finalized, ASH should work with staff from other agencies, such as the Joint Legislative Budget Committee, to identify funding sources for the new facility.

4. ASH should consider requesting legislative approval to hire an expert or to initiate an advisory body to assist in developing a request for proposal, preparing a detailed schedule and budget, and overseeing contractors to ensure the new facility will meet the hospital's needs.

OTHER PERTINENT INFORMATION

During the audit, auditors developed information on two other issues. The first, ASH's Sexually Violent Person (SVP) program, is a recent addition to ASH's responsibilities and is currently the focus of capital planning discussions involving millions of dollars. The second, the status of ASH's Medicare certification, involves ASH's problems in qualifying for federal Medicare reimbursement amounting to hundreds of thousands of dollars a year.

New SVP Program at the Hospital

ASH is responsible for the treatment and housing of SVPs until they no longer pose a threat to the community. SVPs are housed in the Arizona Community Protection and Treatment Center, which is located in the Cholla Building on the ASH grounds. A.R.S. §§13-4601 through 13-4618 defines the commitment process for persons adjudicated SVPs. These statutes define an SVP as a person who has been convicted of or found guilty but insane of committing a sexually violent offense, or who has been charged with such an offense and found incompetent to stand trial, and who has a mental disorder that makes him or her more likely to re-offend. Sexually violent offenses include sexual conduct with a minor, sexual assault, molestation of a child, and other specific felonies if they were sexually motivated. The statute became effective July 1, 1996, but was not applied due to concerns that the law was unconstitutional on the grounds that SVPs were required to serve two sentences for the same crime. However, on June 23, 1997, the U.S. Supreme Court upheld a challenge to a similar law in Kansas, and as a result, during September 1997 the first SVP was committed to ASH.

ASH was appropriated approximately $3.3 million and 76 FTEs for the SVP program for fiscal year 1999. While the largest proportion of the staff consists of 47 residential counselors, the program also includes 15 security officers, 6 nurses, 2 recreational therapists, 1 social worker, 3 psychologists, and 2 administrative staff. Additionally, the Cholla Building was renovated and a new building will be constructed adjacent to Cholla Hall. Funding of $1,950,000 was provided for the renovation and new construction. Currently, Cholla has 60 beds. When the new building is completed in June 1999, the SVP program will have 120 beds.

Civil commitment process— A state prison inmate nearing the end of his or her sentence for a sexually violent offense receives a psychological screening conducted by a psychiatrist or psychologist employed with or under contract with the Department of Corrections. If the screening suggests the inmate may be an SVP, the county attorney may file a petition alleging probable cause that the person is an SVP. If a judge determines that probable cause does exist, the person is detained at ASH to await a probable cause hearing. If, at the probable

cause hearing, the court affirms the first judge's decision, the person receives an additional evaluation as to whether he or she is a sexually violent person.

Within 120 days after the county attorney files the petition, a trial must be held to determine whether the person is a sexually violent person. While awaiting trial, the detainee is housed at ASH's SVP unit but does not receive treatment. If the judge or jury determines beyond a reasonable doubt that the person is an SVP, the court can order the person to either remain in the ASH SVP unit or be moved to a less-restrictive alternative, which is located in the Alamo Building on the ASH grounds.

As of January 1999, there were 72 residents in the SVP program. Of these, 58 were awaiting trial, meaning there was probable cause to believe these people are SVPs, and therefore they were under the jurisdiction of the Department of Health Services. However, since their SVP status had not yet been determined by a jury, the Department could not provide treatment for them. The remaining 14 residents who were receiving treatment through the program had either waived their right to a trial or had had their trial and had been determined to be SVPs.

Treatment and release—If a person either waives his or her right to a trial or has been committed through the trial process to ASH's SVP unit, he or she undergoes a comprehensive evaluation, and a treatment plan is developed. To develop its treatment program, ASH researched programs in other states and consulted with an expert from the University of Arizona. The program's main goal is to teach techniques to avoid engaging in sexually victimizing behaviors. For example, counselors work with residents to help them learn to recognize and avoid inappropriate situations. However, although ASH's treatment program is based on best current practices in the field of treating sexually violent persons, experts believe it may be impossible to fully rehabilitate individuals with the mental disorders that make them likely to commit sexually violent offenses.

To obtain unconditional release from the program, or conditional release to a less-restrictive environment, the person must petition the court. He or she can do this annually without permission, or at any time if the superintendent of ASH or the director of the Department of Health Services determines the person's mental disorder has changed and that he or she is not likely to commit sexually violent offenses. At the discharge hearing, the State must prove that the person's mental disorder has not changed, and that he or she remains a danger to others and is likely to engage in acts of sexual violence, and if the State cannot do so, the person must be released. As of January 1999, no persons have been released after entering the program.

If a resident successfully passes extensive psychological evaluations, he or she may be approved to live in the program's less-restrictive alternative environment. He or she will be assisted in finding employment during the day, and will be electronically monitored until the treatment team recommends that the person has progressed far enough in treatment that he or she can safely leave the facilities without the need for external monitoring. At the

time the audit ended in January 1999, four residents had been approved to live in the program's less-restrictive alternative.

Other states have similar programs—Several other states have similar programs that provide civil commitment in mental institutions for certain types of sex offenders. According to a recent article,[1] eight other states have similar programs, and many other states have initiated similar legislation. For example, Washington, Kansas, and Florida have statutes that confine certain types of sex offenders to a housing and treatment program.

Future of Arizona's SVP program—ASH's SVP program has grown rapidly since the first admission in September 1997. In January 1999, the program had grown to over 70 residents. According to the Arizona Department of Corrections, ASH's SVP program should continue receiving about 5 new admissions per month. Unless an effective treatment is found so that residents can be released, ASH projects that the program will likely exceed its 120-bed capacity during November 1999. The Arizona Department of Administration received legislative approval in April 1999 to begin designing an additional 60-bed facility to increase the unit's capacity to 180 beds. The Legislature appropriated $3.8 million in the fiscal year 2000 capital outlay budget for this facility.

A study group, called the Long Term Housing Options Team, with representatives from ASH, the Attorney General's Office, and the Departments of Health Services and Corrections, was charged with analyzing a variety of options for housing persons in the program, including keeping the program at ASH, moving it to the Perryville Prison, or privatizing it. The study group developed a three-phase capital construction process, beginning with building renovations, which accounts for 120 beds. It consists of the 60-bed Cholla Building on the ASH campus and the 60-bed addition to Cholla, which should be completed in June 1999. In the second phase, the Aspen Building on the ASH campus, which is currently occupied by the Department of Corrections, will be vacated and renovated to provide an additional 85 beds by April 2000. The Aspen renovation is projected to cost $4.1 million.

For the third phase, to bring the program's capacity up to the projected 300 by October 2001, the study group prepared four options:

- **Option 1**—Continue the program at ASH. Construct a new 100-bed building, renovate Birch Hall as a treatment and support facility (this building is currently rented out to other Department of Health Services offices), and build a modular education building for treatment and support. This option would provide 305 total beds at a total cost of $14.1 million including the renovations at Cholla and Aspen.

- **Option 2**—Same as Option 1, except build a new support and education building instead of renovating Birch Hall and building a modular education building. This would also provide 305 total beds, at a total cost of $14.2 million.

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[1] Gordon, Dianna. Keeping Sex Offenders Off the Streets. *State Legislatures*, March 1998.32-33.

- **Option 3**—Move the program to the Perryville Prison in West Phoenix. This would require construction of a new 300-bed facility at the prison. The total cost for 300 beds would be approximately $35.3 million, since the program would not use renovated ASH buildings.

- **Option 4**—Move the program to a new 300-bed facility, to be operated by a private contractor. The estimated cost of locating a site and building a new facility is $21 to $40 million. Annual operating fees would also be incurred under this option, but the Committee did not estimate the amount of these fees.

This study group recommended Option 1 to the Governor. The Governor's fiscal year 2000-01 budget recommends allocating approximately $76 million of tobacco settlement monies received from fiscal years 1999 through 2003 for ASH improvements and construction. In addition, legislation has been introduced that would appropriate some tobacco settlement monies for hospital construction. While the largest portion of that money would be for a new hospital, some of the money is intended to build additional facilities to accommodate SVP program growth.

Regardless of the option selected, the future costs of this program will be substantial.

Medicare Certification

The Health Care Financing Administration (HCFA), in the federal Department of Health and Human Services, oversees hospitals that receive Medicare reimbursements. To receive reimbursement for services to eligible patients, all hospitals must meet Medicare's Conditions of Participation, a comprehensive list of standards covering management, facilities, quality assurance, food services, and infection control practices. In addition, psychiatric hospitals must meet special conditions regarding patient treatment records and staffing. To receive AHCCCS/Title XIX reimbursements, hospitals must be Medicare certified.

ASH is currently ineligible to receive reimbursement for providing services to patients who are eligible for Medicare and AHCCCS/Title XIX reimbursements. According to ASH, over 200 patients were eligible for Medicare reimbursement, and 9 patients would have been eligible for AHCCCS/Title XIX reimbursements. If ASH were certified by HCFA, the Medicare reimbursements would have been remitted to the State General Fund. However, as a result of the hospital not being certified, the State General Fund revenue is reduced by the amount of the reimbursements that the hospital would have been eligible to receive. For fiscal year 1997, reimbursements totaled approximately $656,700 for Medicare reimbursement and about $1.35 million for AHCCCS/Title XIX reimbursements. The AHCCCS/Title XIX reimbursements are funded by federal, state, and local dollars. The State and counties finance about one-third of the reimbursements, and the remaining two-thirds are funded by the federal Medicaid program. In addition, since ASH is ineligible to collect AHCCCS/Title

XIX reimbursements, additional State General Fund monies were needed to fund the hospital's operations.

Certification voluntarily suspended—In January 1997, officials from HCFA warned the Department of Health Services that ASH risked losing its Medicare certification due to deficiencies relating to its medical records and staffing. Both of these deficiencies were cited during an inspection that took place December 18, 1996. Specifically, HCFA surveyors determined that ASH failed to adequately document patients' progress in their medical records. Additionally, surveyors found little evidence that the hospital was providing patients with adequate active treatment. Finally, surveyors determined that ASH had an inadequate number of qualified staff to care for patients. On June 3, 1997, the Department of Health Services temporarily withdrew ASH from the Medicare program for 90 days, rather than risk being decertified by HCFA. Voluntary suspension allowed ASH to reapply as soon as it was ready. If HCFA had formally decertified ASH, the hospital would not have been allowed to reapply for one year.

Reapplication denied—ASH applied for re-certification on September 30, 1997, but was unable to meet HCFA standards in inspections that took place during April 1998. The Arizona Department of Health Services, HCFA, and the State Fire Marshal's Office jointly conducted the inspection. Federal and state inspectors focus on different areas when reviewing a hospital. Federal reviewers identify problems involving active treatment and staffing, and rely upon state reviewers to determine a hospital's compliance with facility standards such as cleanliness.

ASH failed to meet standards in six areas—Despite ASH's efforts to bring its performance up to standards, ASH failed its April 1998 inspection in six areas, as follows:

- **Governing Body**—HCFA inspectors determined that the hospital did not have an effective governing body responsible for general oversight of the hospital. For example, HCFA standards require hospitals to update their policies and procedures every two years. However, ASH's governing body did not ensure that the policies were updated. Additionally, the inspection determined that the governing body did not ensure that contract staff were adequately monitored and evaluated by hospital staff. Further, the inspection determined that ASH did not maintain a list of all contracted services at the hospital, as called for by HCFA.

- **Quality Assurance**—Survey inspectors concluded that ASH did not have an effective quality assurance program. First, inspectors determined that ASH's governing body failed to ensure that ASH had a quality assurance program or a plan to implement one. For example, although the hospital had planned to develop a tool to measure patients' diabetes levels, its plans were not followed through. Second, inspectors determined that ASH's governing body failed to evaluate services provided by contract personnel. Several contracts reviewed (including nurses, a speech therapist, and a psychologist) had no documentation that ASH reviewed or evaluated their work. Additionally, although ASH

had planned to monitor progress and take follow-up action in areas such as assaults, restraint usage, drug utilization, and others, there was no evidence that ASH had implemented any of these actions.

- **Nursing Services**—Survey inspectors cited several deficiencies related to ASH's nursing program. First, inspectors found that ASH failed to provide adequate numbers of nursing staff to patients. Surveyors observed several occasions where duties were not performed. Additionally, ASH did not ensure that its nurses had valid credentials and that contract personnel followed hospital policies and procedures regarding immunizations and fingerprinting. For example, several personnel files reviewed did not have documentation of current licensure credentials. Also, inspectors found that ASH failed to ensure that drugs were prepared and administered in accordance with physicians' orders. Several medical records reviewed lacked documentation that patients' medications were administered according to doctors' orders.

- **Special Staff Requirements for Psychiatric Hospitals**—Inspectors determined that ASH did not have adequate staffing to provide patients with adequate treatment. For example, inspectors observed one unit that had only 4 staff available to care for 45 patients. Although the unit was supposed to have 8 staff that day, 4 staff members were assigned to other tasks. Further, surveyors cited frequent staff absences, injuries due to patient assaults, and the reassignment of staff to other tasks as factors leading to insufficient staff on the treatment units.

- **Food and Dietetic Services**—This standard requires that the hospital's dietary service be staffed by adequate personnel. The survey inspectors determined that ASH's dietary services had inadequate staff, and that its meals did not adequately meet patients' dietary and nutritional needs. Inspectors determined that ASH's dietary department had several vacancies on each shift. Additionally, some patients who were supposed to receive special diets, such as low sodium or low calorie, were not receiving them. Instead, patients in certain units frequently received the same food.

- **Infection Control**—This standard requires the hospital to provide a sanitary environment to avoid transmitting infections and communicable diseases. However, inspectors found deficiencies in this area. For example, inspections of ASH's facilities were supposed to occur regularly but did not. Many dirty linens and equipment were noticed, as were problems with food storage. For example, food was uncovered and could have been used after its expiration date. Further, while all ASH employees are required to undergo screening or vaccination for diseases such as tuberculosis and hepatitis B, several files reviewed indicated no such screening.

Additionally, inspectors from the State Fire Marshal's Office made some recommendations relating to ASH's compliance with life safety codes. First, they found that facility doors were not always kept closed as standards require, and that some doors are hollow rather than solid. Several doors had doorstops inserted into them, even though life safety codes require they be kept closed. Inspectors also found that not all of the facility doors were self-closing in case of a fire. Self-closing doors help prevent smoke from penetrating rooms and corridors. Further, the inspectors cited problems with ASH's sprinkler system, emergency lighting system, exit signs, evacuation plan, and fire alarm.

Health care monies now unavailable—Since ASH is not Medicare certified, it is not eligible to collect AHCCCS/Title XIX and Medicare reimbursements. Consequently, the State General Fund no longer receives reimbursements to provide services to Medicare patients. Although the amount forgone in 1998 and 1999 cannot be readily calculated since it depends on individual patient eligibility, as well as hospital certification, ASH has received significant amounts in the past. ASH received Medicare reimbursements for fiscal year 1996 totaling $556,547, and $656,706 for fiscal year 1997. Additionally, ASH received about $1.35 million in AHCCCS/Title XIX reimbursements for fiscal year 1997.

In addition to AHCCCS/Title XIX and Medicare reimbursement in the past, ASH has received federal Disproportionate Share (DSH) funding as a HCFA-certified institution. DSH funding is paid to hospitals that serve a significant proportion of indigent clients. For fiscal year 1997, ASH received $27.1 million in DSH funds, of which approximately $15.1 million was remitted to the State's General Fund. However, hospitals must be certified by HCFA to be eligible to receive the DSH funding. Although the State continued to receive the full amount of DSH payments to which it was entitled, it could not provide DSH funds to ASH.

Corrective actions underway but not completed—Since the April inspection, ASH has made progress toward addressing the deficiencies. However, a number of outstanding items remained at the end of audit work in January 1999. These items pertain to staffing, and staff and patient safety. In addition, the hospital needs to continue working to correct deficiencies related to its governing body requirements.

According to hospital management, HCFA inspectors are expected to return no later than October 1999 and to be re-certified by December 1999. To help it prepare for re-certification, ASH has hired consultants to conduct mock surveys of the facility. While some of the remaining deficiencies, such as updating its policies and procedures, will be relatively simple to correct, others, such as meeting the standards for nursing staff, will require more substantial efforts.

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Agency Response

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Office of the Director

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JANE DEE HULL, GOVERNOR
JAMES R. ALLEN, MD, MPH, DIRECTOR

Mr. Douglas Norton, CPA
Auditor General
Office of the Auditor General
2910 North 44th Street
Phoenix, Arizona 85004

Dear Mr. Norton:

Thank you for the opportunity to review the report of the Performance Audit, conducted as part of the Sunset Review set forth in A.R.S. §41-2951 through 41-2957, of the Arizona Department of Health Services (ADHS), Arizona State Hospital (ASH).

The findings and recommendations contained in your report have been carefully reviewed by the staff of ADHS, and in accordance with the instructions contained in your letter of May 5, 1999, the enclosed report is provided.

ADHS greatly appreciates the hard work and professionalism shown by your staff during the conduct of their audit. We also appreciate the insights provided by your staff during the audit process and as part of the findings and recommendations. The knowledge gained as a result of your audit will enable us to continue to improve operations and services provided at Arizona State Hospital. As a result, we will be better able to serve our patients, their families and the citizens of the State of Arizona.

Sincerely,

James R. Allen, M.D., M.P.H.
Director

JRA:ah

Arizona Department of Health Services
Response to the Performance Audit on the
Arizona State Hospital

Overview:

The Arizona Department of Health Services (ADHS) agrees in general with the findings and recommendations of the audit team.

We feel it important to underscore several matters at the outset of this response. As recently as two years ago the State of Arizona was in the process of downsizing the Arizona State Hospital (ASH). As noted in the report, plans were set in motion to reduce the Hospital's workforce by over 230 positions. In addition to the turmoil caused by the ensuing layoff process, patients were consolidated onto ten wards resulting in overcrowded conditions which had a significant negative impact on the treatment environment. Conditions at the facility deteriorated to such an extent that, as noted in the report, the Hospital no longer complied with the minimal standards established by the Federal Health Care Financing Administration. The Hospital's inability to implement a successful plan of correction resulted in the decision to relinquish certification voluntarily.

As noted by the Audit team the Hospital has been engaged in a rebuilding process since early 1998. The audit was initiated about nine months into this process, and field work was completed prior to the passage of H.B. 2477 in February 1999. This bill is significant because it authorized significant pay increases for direct care staff, and provided funding for two additional patient care units. During the Legislative hearing and review process, ADHS underscored that staff vacancies and overcrowded units were major barriers to regaining Medicare certification.

It is also important to mention that in the midst of coping with decisions which led up to the loss of certification, and the turmoil resulting from the loss of certification, the Hospital was charged with opening a new program for civilly committed sexually violent offenders. ADHS believes it is important to cite this recent history because it provides a perspective against which to better understand the findings and recommendations contained in the Auditor General's Report.

Finding 1 - "ASH has Difficulties in Maintaining Sufficient Staff to Care For Patients"

As is noted in the report, the Hospital has historically had a difficult time recruiting and retaining staff. As reflected in information gathered in exit briefings with terminating staff, the challenge of recruitment and retention is a result of: low pay scales compared with similar positions within Maricopa County; a patient population that is more complex and difficult to manage and treat than found in other inpatient psychiatric facilities**;** the age, condition and physical layout of the facility; negative public perception**;** and the ready availability of similar staff positions in the private and public sector.

The single most important ingredient in treating psychiatric patients (beyond psychiatric medications) is the patient's trust in their treatment staff. Building this "trust" is a product of both the skill of the staff and their familiarity with the patients for whom they are entrusted to provide care and treatment. It has been very difficult to establish this trust given the transient nature of the staffing situation over the past few years. With the high number of vacancies, the high staff turnover, and a patient population that is significantly more disabled and in need of supervision than in the past, a major emphasis during the recent transition phase was devoted simply to meeting basic coverage requirements. This, as noted in the report, was accomplished through the employment of registry staff and the use of overtime.

Finding I Recommendations

1. ASH should move forward with its plan to implement a pool of nursing staff.

   The finding of the Auditor General is agreed to and the audit recommendation is being implemented.

   A number of seasonal Registered Nurse, Licensed Practical Nurse and Mental Health Program Specialist positions have been created. Continuation funding is contained in the FY 2000 appropriation. Hourly rates have been established which are competitive with the local market, and do not exceed the average paid to FTE employees (i.e., hourly rate and fringe). Recruitment has been initiated and 12 pool staff have been hired to date. Pool staff are used to reduce reassignment of staff to cover unit deficiencies, to escort patients to medical appointments, both on-grounds and off-grounds and to provide one-on-one coverage. The use of pool staff in this manner permits regular staff to maximize their involvement in carrying out the treatment plan and care needs of the patients.

2. ASH should continue to fill its vacant positions by conducting ongoing recruitment efforts.

   The finding of the Auditor General is agreed to and the audit recommendation is being implemented.

   In December 1998, a Medical Recruiter position was established and filled within the Human Resources (HR) Department. This position is fully devoted to direct recruitment efforts and related supportive activities to assist hiring managers to select the most qualified candidates for their positions. Since the enactment of H.B. 2477 the Hospital has filled more than 100 previously vacant positions. If the success of the past three months continues, and if measures to retain staff are successful, ADHS believes that the staffing situation will be stabilized.

3. ASH should continue in its efforts to reduce staff turnover by conducting exit interviews with staff who leave ASH, and making appropriate changes based on what it learns.

The finding of the Auditor General is agreed to and the audit recommendation is in the process of being implemented.

A standardized exit interview instrument has been developed to gather reliable and valid information. It is currently difficult to sustain the exit interview process due to limited staffing in the HR Department. The primary current focus in HR is on recruitment and processing of applicants. Further, we have found that staff frequently are reluctant to participate in an exit interview process. ASH management has identified the resources necessary to create an Employee Relations position. The key area of focus for this staff person will be increasing retention. As part of this focus, this staff member will be responsible for the exit interview process.

4. ASH staff should modify its acuity system to take other staff activities into account. Specifically the acuity system should consider additional staff time needed to:

- Dispense medications to patients
- Escort patients to appointment
- Process admissions and discharges
- Perform on-on-one monitoring of patients; and
- Attend patient conferences

The finding of the Auditor General is agreed to and a different method of dealing with the finding may be implemented.

The acuity system developed by the Hospital is performed manually and is time-consuming to administer. Given deficiencies in required FTEs and the large number of staff vacancies over the past two years, the Hospital rarely has been able to provide the numbers of staff required by the units on a shift by shift basis. Even the best acuity system under these trying conditions would be mostly an academic exercise.

As an element of the current operational planning process a "zero based staffing" analysis has been conducted to determine if the Hospital has sufficient staffing assets to meet the patients' treatment, care and supervision requirements. We believe that with the addition of the 90 new FTE positions contained within the FY 2000 appropriation, unit-by-unit staffing requirements can be met.

The Nurse Executive Officer is in the process of selecting an expert in the area of acuity systems. The goal is to develop a computer supported acuity system designed to address the staffing management requirements of the facility. As part of the analysis process key staffing elements and a weighting system will be created.

Finding II - "ASH Facilities Are Inadequate"

The report chronicles the current challenges of operating in a facility that is nearly 50 years old, poorly designed for current patient and staff needs, and deteriorating. In the early to mid-1950s, the emphasis was on custodial care rather than on active treatment and rehabilitation. Indeed, the first effective anti-psychotic medications were not perfected and placed in use until the mid-to-late 1950s.

While many parts of the facility have been renovated and retro-fitted over the years to address changes in life and safety regulations and treatment requirements, the efforts in many respects at this point in time are like attempting to make the proverbial "silk purse out of a sow's ear." As the Auditor General concludes, a new facility is necessary.

As noted in the report, in addition to planned renovations and repairs, a considerable number of new and urgent repairs are necessary on a daily basis just to maintain the status quo. Since the receipt of this report on May 6th, for example, the main hot water line serving the patient care areas developed a major leak and needed emergency repair. Addressing these ongoing problems of the basic infrastructure taxes limited maintenance staff resources and causes delays in completing other desired but not essential projects, such as constructing the necessary plumbing and electrical connections in order to have an *additional* washer and dryer on a unit.

ASH exists within a governmental structure, one complete with procedures, checks and balances. While internal procedures must be continually challenged to ensure that they support operational demands, external approval and coordination (e.g., procurement, selection and scheduling of outside vendors) is often required by agencies and personnel outside of the Hospital's span of control.

Finding II Recommendations

1. ASH should complete the therapeutic improvements so that the environment of the patient units is more like that recommended by DWL Architects and Planners.

   The finding of the Auditor General is agreed to and the audit recommendation will be implemented if necessary funds are granted.

   As noted in the report, DWL was engaged by the Hospital for the purpose of making low cost recommendations that would have the most impact on improving the therapeutic environment for patients. Subsequent to receiving the DWL report, unit-by-unit plans were developed. The composite of these plans are being submitted to the Department of Administration for consideration for FY 2000 Building Renewal funding.

2. ASH should continue the patient unit inspection process and use it as a tool in periodically evaluating facility needs.

The finding of the Auditor General is agreed to and the audit recommendation is being implemented.

3. ASH management should ensure that all groups performing special projects adequately communicate throughout the process. For example, special project meetings should be held before each major renovation through which ASH officials, appropriate maintenance staff, and special project requesters jointly decide documented project details.

The finding of the Auditor General is agreed to and the audit recommendation is being implemented.

It is important to differentiate between repair requests and renovation or capitol projects. The former are primarily performed internally by either the ASH Work Crew or Sodexho-Marriott. Repair requests are logged into a computerized data base and monitored. An internal standard is to complete all repairs within two days, with the exception being the availability of parts. Renovation and capitol project requests are submitted to ADHS Procurement. Because two or more agencies and often outside vendors are involved in these activities, coordination is a greater challenge than is required for repairs.

The recommended meeting process has been implemented and regular attenders include Hospital management, unit managers, ASH Work Crew Manager, Sodexho-Marriott representatives, the facility Safety Officer, and, as required, representatives of ADHS procurement, DOA and outside vendors.

4. ASH should continue it efforts to implement a position solely responsible for contract monitoring of facility renovations.

The finding of the Auditor General is agreed to and the audit recommendation is being implemented.

As noted in the report, Hospital management negotiated with Sodexho-Marriott to fund the initial 12 months of a contract monitoring specialist. This position was filled on March 15, 1999. Continuation funding has been identified within the FY 2000/2001 appropriation. This position monitors all aspects of the contract (i.e., facilities, dietary, engineering, and grounds). Additionally, the Hospital is in the process of establishing a facilities specialist position that will be under the supervision of the Chief Operating Officer. The target date for filling this position is no later than August 1999. This position will be responsible for overseeing planning, implementation and coordination of all major facilities projects as well as providing oversight regarding fire, life, and safety regulations.

5. ASH should continue its efforts to construct the patient transitional unit that has been proposed to house those patients most ready for discharge.

The finding of the Auditor General is agreed to and the audit recommendation has been implemented.

The Transitional Living Center ("self care unit") opened April 12, 1999 after one of the existing buildings was refurbished with funds from the supplemental appropriation (H.B. 2477). Twenty patients are currently being served in this program.

Finding III - "Effective Long-Term Planning Process is Needed"

ASH is the largest inpatient psychiatric facility in the State. As noted by the Auditor General, it treats the most challenging and treatment-resistant population (i.e., patients that cannot be adequately treated by other specialized inpatient facilities). As a key provider within the public mental health system, ASH must coordinate and integrate care services with each of the Regional Behavioral Health Authorities, other public provider and funding agencies, and a large number of direct care, community-based provider and advocacy agencies. Further, it is the only facility in the State that provides a secure treatment environment for patients committed through the criminal justice process.

We agree with the Auditor General that a facility of this size and complexity must maintain a proactive and accurate planning process. It is important to ensure that planning not occur in a vacuum and that it is integrated with, and has achieved consensus from, a broad array of governmental and community partners and stakeholders. In essence the Hospital's strategic plan must be a component of a comprehensive state mental health plan.

Finding III Recommendations

1. To help effectively plan for the future, ASH should project numbers of patients.

The finding of the Auditor General is agreed to and the audit recommendation is being implemented.

It is important to note that population projections in mental health are complex. While one can project future trends based on past demand (adjusted for population size), there are a myriad of factors that must be considered. Among these are: state legislation (e.g., new populations such as the program for the sexually violent persons); public policy (e.g., role of the state hospital); legal considerations (e.g., Arnold v Sarn, and the current case being considered by the U.S. Supreme Court regarding the right to community-based treatment); the capacity and priorities of the community system; and demands of other public agencies (e.g., restoration to competence) among others. These factors change over time, and, therefore population estimates and the underlying assumptions must be

reviewed on a regular basis. In addition to a minimum of biennial population projections as a component of the budget development process, we believe that patient population impact should be calculated any time legislation is considered that may impact hospital size.

2. ASH Management should begin planning a new hospital facility by identifying its needs in a conceptual plan document. For example, the plan should:

   - Identify the treatment and security needs for civil and forensic patients
   - Incorporate best practices in psychiatric hospital design

The finding of the Auditor General is agreed to and the audit recommendation will be implemented in accordance with the overall direction of the Task Force established by H.B. 2477.

3. Once its conceptual plan for a new facility is finalized, ASH should work with staff from other agencies, such as the Joint Legislative Budget Committee, to identify funding sources for the new facility.

The finding of the Auditor General is agreed to and the audit recommendation will be implemented in accordance with the overall direction of the Task Force established by H.B. 2477.

4. ASH should consider requesting legislative approval to hire an expert or to initiate an advisory body to assist in developing a request for proposal, preparing a detailed schedule and budget, and overseeing contractors to ensure the new facility will meet the hospital's needs.

The finding of the Auditor General is agreed to and the audit recommendation will be implemented in accordance with the overall direction of the Task Force established by H.B. 2477.

APPENDIX

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Appendix

Table 5

Department of Health Services—Arizona State Hospital
Patient Type, Admission and Discharge Requirements, Number of Patients, and Length of Stay in Days
January 1999

Patient Type	Admission Requirements	Discharge Requirements	Number of Patients[1]	Length of Stay [2]
Civil: Court Ordered	A filed civil court petition alleges the person to be suffering from a mental disorder and is one of the following: ■ A danger to him/herself ■ A danger to others ■ Persistently and acutely disabled and/or ■ Gravely disabled After a civil court hearing and court-ordered evaluation, a person determined to be persistently and acutely disabled may receive treatment in the community for at least 25 days. The person is committed only if the petition is substantiated and community-based treatment does not improve his/her condition.	After a patient achieves his/her treatment goals, and can likely function in an appropriate placement, he/she will be discharged. Discharge planning is performed throughout a patient's stay. The patient's treatment team identifies when discharge plans should be finalized.	103	Median 202 days (121 patients)
Civil: Voluntary	When a patient's court order expires, he/she may sign voluntary papers to remain in the hospital and receive treatment. The patient must be competent enough to understand what he/she is signing.	The patient must give written notice stating his/her desire for release. The treatment team reviews the request along with the patient's records to determine if discharge is appropriate. If they determine that release is appropriate, the patient will be discharged. If the team believes discharge is inappropriate, the patient will be re-petitioned, usually resulting in a longer stay.	37	3,144 (1 patient)

1 Number of patients at hospital as of January 1999.

2 Length of stay based on patients discharged in the year ended December 31, 1998. Number of patients discharged indicated in parentheses.

Appendix (Cont'd)

Table 5

Department of Health Services—Arizona State Hospital
Patient Type, Admission and Discharge Requirements, Number of Patients, and Length of Stay in Days
January 1999

Patient Type	Admission Requirements	Discharge Requirements	Number of Patients [1]	Length of Stay [2]
Civil: Placed by a Guardian	A person's guardian may request their ward's admission to the hospital's Medical Director and provide documentation from the patient's psychiatrist justifying the reason for admission.	■ The psychiatrist determines that the person is stabilized, or ■ The patient achieves his/her treatment goals. Upon permission from the patient's guardian, the patient will be placed in an appropriate community setting.	29	Range 154 to 1,544 days (8 patients)
Forensic: Restoration to Competency	■ A court has declared a pretrial defendant to be incompetent to start trial. ■ The court orders the patient to receive treatment at ASH for restoration-to-competency services.	The psychiatrist determines that the patient is competent to stand trial, and the person is returned to the county jail, or the psychiatrist determines that the patient is unrestorable, and the person is returned to court for disposition. He or she may be civilly ordered to the Arizona State Hospital.	55	Median 81 days (234 patients)
Forensic: Not Guilty by Reason of Insanity	■ Person declared not guilty by reason of insanity for a crime committed prior to 1/2/94 is committed by the court to ASH for an indefinite period of time.	The patient petitions the court to grant release. The release may be unconditional or conditional.	30	Range 359 to 3,675 days (5 patients)
Forensic: Guilty Except Insane	■ A person declared guilty except insane for a crime committed after 1/2/94 serves a sentence either at ASH or a state prison facility.	If the crime did not result in death, physical injury, or threat of the same, the court holds a hearing to determine whether the patient is mentally impaired and dangerous. If not, the patient is released.	44	Range 34 to 1,036 days (11 patients)

1 Number of patients at hospital as of January 1999.

2 Length of stay based on patients discharged in the year ended December 31, 1998. Number of patients discharged indicated in parentheses.

Table 5

Department of Health Services—Arizona State Hospital
Patient Type, Admission and Discharge Requirements, Number of Patients, and Length of Stay in Days
January 1999

Patient Type	Admission Requirements	Discharge Requirements	Number of Patients [1]	Length of Stay [2]
Forensic: Guilty Except Insane (concl'd)		If the crime resulted in death, physical injury, or threat of the same, the patient's release is controlled by the Psychiatric Security Review Board. After a 120-day confinement, the court holds a hearing to determine whether the patient is unimpaired and dangerous. If not, the patient is granted a conditional release.		
Forensic: Transfer of Prisoner	The Department of Corrections files a petition for a state prison inmate to receive treatment at ASH. If, during the court hearing, the judge agrees, the inmate is sent to ASH.	Inmates can be transferred back to a Department of Corrections facility when their prison sentence expires or their psychiatric condition stabilizes.	1	Median 76 days (7 patients)
Forensic: Death Row Inmate	Inmate who suffers from a mental disability which makes him/her incompetent to be executed.	Inmate must understand that he/she has been convicted of the crime, that the sentence is death, and that they will be executed.	0 ASH intervened and the inmate has been transferred to the Department of Corrections Baker Unit. The Department of Corrections indicates at the present time two additional inmates are likely incompetent to be executed.	

1 Number of patients at hospital as of January 1999.

2 Length of stay based on patients discharged in the year ended December 31, 1998. Number of patients discharged indicated in parentheses.

Table 5

Department of Health Services—Arizona State Hospital
Patient Type, Admission and Discharge Requirements, Number of Patients, and Length of Stay in Days
January 1999

Patient Type	Admission Requirements	Discharge Requirements	Number of Patients [1]	Length of Stay [2]
Sexually Violent Persons (SVP)	A psychiatric professional evaluates certain prison inmates for SVP status near the end of their state prison terms. Based on the evaluation results, the county attorney may file a Probable Cause Petition with the court. If the court determines that probable cause exists, the inmate may be admitted for detention pending a trial, for treatment, or for less-restrictive treatment.	The patient must successfully pass a variety of psychological examinations and tests to indicate that he/she no longer poses a threat to the community. If no threat is posed, the Department of Health Services Director or the Arizona State Hospital Chief Executive Officer may release the patient to a less-restrictive setting or to the community with supervision.	72	None discharged in 1998
Civilly Committed Adolescent	■ Parent/or custodian applies to ASH to have the child committed. ■ ASH Medical Director evaluates child, makes determination.	The patient achieves his/her treatment goals as determined by his/her treatment team.	10	Range 24 to 366 days (10 patients)

1 Number of patients at hospital as of January 1999.

2 Length of stay based on patients discharged in the year ended December 31, 1998. Number of patients discharged indicated in parentheses.

Appendix (Concl'd)

Table 5

Department of Health Services—Arizona State Hospital
Patient Type, Admission and Discharge Requirements, Number of Patients,
and Length of Stay in Days
January 1999

Patient Type	Admission Requirements	Discharge Requirements	Number of Patients [1]	Length of Stay [2]
Forensic Adolescent	The juvenile court may order either an inpatient or an outpatient evaluation. Depending on the evaluation results, the juvenile may be admitted to ASH for treatment.	The patient achieves his/her treatment goals and the psychiatrist determines that the juvenile has satisfied his/her legal criteria (e.g. has been restored to competency).	3	Range 3 to 253 days (39 patients)

1 Number of patients at hospital as of January 1999.

2 Length of stay based on patients discharged in the year ended December 31, 1998. Number of patients discharged indicated in parentheses.

Source: Arizona State Hospital Information Office and Social Work Department. Length of stay in days is calculated as the number of days between the admission date and the discharge date for patients in the category who were discharged between January 1, 1998, and December 31, 1998.