

PERFORMANCE AUDIT

DEPARTMENT OF HEALTH SERVICES

DIVISION OF DISEASE PREVENTION

Report to the Arizona Legislature
By the Auditor General
May 1989
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May 24, 1989

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

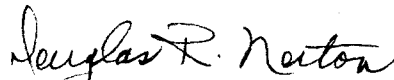
Transmitted herewith is a report of the Auditor General, A Performance Audit of the Department of Health Services, Division of Disease Prevention Services. This report is in response to a June 7, 1987, resolution of the Joint Legislative Oversight Committee. The performance audit was conducted as a part of the Sunset Review set forth in Arizona Revised Statutes §§41-2351 through 41-2379.

This is the fourth in a series of reports to be issued on the Department of Health Services. The report addresses ways the department can improve reporting of sexually transmitted disease from private physicians. Although public health professionals recognize that underreporting by private physicians is a problem, the department has not effectively used laboratory reports or other information to identify unreported cases or to encourage compliance with Arizona's reporting requirements.

The audit also found that the department has not complied with the Open Meeting Law in holding meetings of the Governor's Task Force on AIDS because it failed to provide notice for any meetings of working groups associated with the AIDS Task Force.

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

Sincerely,



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SUMMARY

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

The Arizona Department of Health Services, Division of Disease Prevention Services coordinates disease prevention activities throughout the State of Arizona. The division provides very few direct services but does assist county health departments, as well as private providers, with many disease prevention functions. In addition, the division monitors Arizona's progress in preventing disease, compiles reports of infectious disease throughout the State, and reports Arizona's disease prevention status to the U.S. Centers for Disease Control (CDC). This information is used by the CDC and Disease Prevention to evaluate the State's overall effectiveness in addressing disease prevention.

Our audit was conducted to evaluate the effectiveness of DHS' Division of Disease Prevention Services efforts to control disease in Arizona. Our audit scope was limited because we chose not to review any documents containing names or other identifying information of persons reported to have sexually transmitted diseases or AIDS.

Department of Health Services Needs to Improve Reporting of Sexually Transmitted Diseases (see pages 7 through 12)

DHS should take additional steps to improve reporting of sexually transmitted diseases (STDs). Although underreporting of STDs is widely recognized, more active follow-up on positive laboratory reports, increased contacts with health providers, and stronger reporting regulations, may help improve STD reporting.

Because sexually transmitted diseases usually have serious health consequences, reliable data are essential to identify efforts needed to interrupt and/or prevent their transmission and spread. Although private health providers are a necessary source of this data, many cases treated in the private sector go unreported. CDC estimates the underreporting of some STDs may be as high as 50 percent. Some reasons cited for the low reporting percentage include desire to maintain confidentiality, unawareness of the legal reporting requirements, insufficient time to report, and failure to understand the reasons for reporting.

States have adopted differing strategies to address the underreporting problem. One strategy consists of greater follow-up on laboratory reports. By law laboratories must report positive test results to DHS. However, Arizona has only investigated certain types of STDs identified by positive laboratory reports. A recently developed computer system appears capable of identifying positive laboratory reports that lack corresponding physician reports so that DHS staff can follow up on them. However, the department has not fully evaluated the system's impact on workload and staffing. For example, more than 10,000 laboratory test results may now be entered into the system. As a result, DHS may lack the capability to effectively utilize its new system.

Increased contact with health providers is another strategy. Some states have found that direct contact with health providers, working through medical associations, and mass mailings have helped to improve STD reporting. A Colorado study found that periodic telephone contacts could more than double the number of cases reported.

Although DHS officials assert that limited resources and other priorities prohibit them from addressing the underreporting problem, we identified three actions that can be taken to improve reporting with a limited impact on resources. First, DHS should further test its automated system and develop a complete data base of laboratory reports to assess the extent of underreporting and to identify physicians who are not reporting. Second, DHS could emphasize the importance of STD reporting in their bimonthly bulletin which is sent to every provider in

the State. Finally, DHS could contact randomly selected health providers throughout the State to ensure consistency in reporting. All three of these activities would require minimal staff time and no additional resources.

Division of Disease Prevention Services Needs to Change Practices to Comply with Open Meeting Law (see pages 13 through 14)

The Division of Disease Prevention Services has not complied with Arizona's open meeting law in holding meetings of the Governor's Task Force on AIDS.

Work groups of the AIDS Task Force met without providing proper notice to the public. Since October 1988, committee members have held numerous working sessions without proper public notification. According to DHS officials, their failure to comply with the open meeting law was not intentional but an administrative oversight.

The Attorney General's Open Meeting Law Enforcement Team and DHS' Assistant Attorney General Representative both maintain that the Governor's Task Force on AIDS and their working groups are subject to the State open meeting law. As a result, decisions made by the group at those meetings may be invalid. More importantly, it may also contribute to public distrust of official motives and actions.

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INTRODUCTION AND BACKGROUND

The Office of the Auditor General has conducted a performance audit of the Arizona Department of Health Services, Division of Disease Prevention Services in response to a June 2, 1987, resolution of the Joint Legislative Oversight Committee. The performance audit was conducted as a part of the Sunset Review set forth in Arizona Revised Statutes §§41-2351 through 41-2379.

Division's Role

The Division of Disease Prevention Services coordinates disease prevention efforts throughout the State of Arizona. While the division provides very few direct services, it does assist county health departments, as well as private providers, with many disease prevention functions. For example, the division provides expertise to the counties regarding contagious disease surveillance. Also, Disease Prevention provides training for all sanitarians working in the State and develops standard inspection procedures. The division provides an immunization program for all school-age children. Health educators from the division coordinate wellness seminars with major State employers and the public at large. The division also administers federal and State grants, and contracts. These monies assist county, local, and private providers conducting disease prevention activities.

In addition, the division monitors Arizona's progress in preventing disease. For example, in the area of disease surveillance, the Office of Infectious Disease Services receives reports from counties, private physicians, and other medical sources to identify and monitor infectious disease outbreaks and problems. The numbers are compiled and sent to the U.S. Centers for Disease Control (CDC). Disease Prevention and CDC use the information to track and monitor disease prevention activities and evaluate the State's effectiveness in controlling disease.

Organization and Staffing

The Division of Disease Prevention Services is divided into five offices: Risk Assessment and Investigations, Chronic Disease Epidemiology, Infectious Disease Services, Health Promotion and Education, and a Business Office. In addition, the assistant director of the Department of Health Services for the Division of Disease Prevention Services has five employees, who perform a variety of duties to support division activities. The division has a total of 88 State funded and 29.5 federally funded positions. Below is a brief description of each office.

Office of Risk Assessment and Investigations - The Office of Risk Assessment and Investigations evaluates environmentally related health problems facing Arizona. In the past, this office has conducted a voluntary screening program for young children to determine their blood lead levels. The office assisted the Department of Health Services' Division of Environmental Health Services (now the Department of Environmental Quality) in setting standards and performing epidemiological investigations of adverse health effects associated with drinking water. In addition, the office provides information and conducts investigations, inspections, and surveillance of health effects related to environmental contaminants. This office has 18 employees.

Office of Chronic Disease Epidemiology - This office directs the Birth Defects Monitoring Program and the Arizona Cancer Registry. The office collects data to identify various birth defect trends, high-risk populations, and high-risk locations. The program is modeled after those of California and the CDC. The Arizona Cancer Registry receives, processes, and analyzes data concerning cancer patients. The office collects the information from participating hospitals and records it in the central registry. Physicians and hospitals use the information to monitor the progress of their patients and to implement improved treatment modalities. The office also participates in drowning prevention activities and analyzes drownings in Arizona. The information is used to identify causes of drowning and may lead to a reduction of such preventable accidents. The office has 19 employees.

Office of Infectious Disease Services - The Office of Infectious Disease Services administers a variety of programs with the purpose of decreasing public risk for diseases transmitted through unsanitary and unhealthy conditions. Risk reduction is achieved through detecting, monitoring and diagnosing diseases, and providing treatment to prevent further transmission. In addition, the office uses surveillance and investigation techniques to monitor all infectious diseases for which special controls have not yet been established. Because of the wide variety of ways in which diseases can be transmitted and prevented, there are a number of specialized programs within the office. The programs

include AIDS, Sanitation, Sexually Transmitted Diseases, Tuberculosis Control, Immunization, Vector-borne and Zoonotic Diseases, and Infectious Disease Epidemiology. The office employs 56 staff in six different programs.

Office of Health Promotion and Education - The Office of Health Promotion and Education is responsible for statewide health promotion and education. The office develops programs to inform the public about health problems and actions necessary to alleviate them. For example, the office has conducted programs to prevent childhood drowning (similar to the drowning program offered by the Office of Chronic Disease Epidemiology), conducted a prevalence survey of health risk behaviors of Arizona adults, provided smokeless tobacco education materials for junior and senior high school students, and cosponsored a physical fitness walking program for older adults. In addition, in coordination with the AIDS section of the Office of Infectious Disease Services, the Office of Health Promotion and Education has developed an AIDS risk reduction project. The program's activities focus on increasing the public's knowledge about AIDS and its prevention. The office has 12.5 positions.

Business Office - The Business Office provides administrative support for division activities in areas such as procurement, budget preparation, and contracting. The office is staffed by seven FTEs.

Budget

The Division of Disease Prevention Services receives operating money from the federal government, a general fund appropriation, and an interagency service agreement with the Arizona Department of Environmental Quality (ADEQ). State funding was approximately \$5.7 million in fiscal year 1988-89. The division receives money from the federal government in the form of grants to operate disease prevention programs statewide. Grant monies are used by the division to fund its activities and to assist county health departments and community based programs in providing services. In 1988-89, the division received more than \$4.6 million in federal grant monies; the bulk of which went to the Office of Infectious Disease Services. See Table 1 (page 5) for a listing of federal grants the division received for fiscal year 1988-89. The ADEQ agreement will provide approximately \$244,000 during 1988-89.

The division's general fund expenditures for fiscal years 1986-87 and 1987-88, and appropriations for fiscal year 1988-89 are shown in Table 2 (see page 6).

Audit Scope

This audit was conducted to evaluate the effectiveness of the Division of Disease Prevention Services efforts to control disease in Arizona. The audit addresses issues in these two specific areas:

- Methods the Division of Disease Prevention Services can use to improve compliance with requirements for reporting sexually transmitted diseases.
- The Division of Disease Prevention Services' adherence to the open meeting laws.

Our audit scope was limited because we did not review any documents which contained the names (or other identifying information) of persons reported to have sexually transmitted diseases or AIDS. The lack of identifying information prevented us from testing and verifying the accuracy of data reported by the division. We originally planned to compare names of individuals listed on positive laboratory reports with the names shown in the division's records of sexually transmitted disease. However, division officials expressed concern that individuals might not seek treatment if they saw our review as a breach of confidentiality by the department. Therefore, we attempted to use records without identifying information for our audit work but found that such an approach did not allow us to reliably determine the accuracy of the division's records.

This report also contains a section regarding AIDS and the Maryvale Cancer Cluster entitled Other Pertinent Information.

The section Area For Further Audit Work addresses issues we identified during the course of the audit but were unable to research due to time constraints.

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

TABLE 1

DIVISION OF DISEASE PREVENTION SERVICES LIST OF
FEDERAL GRANTS RECEIVED FOR FISCAL YEAR 1988-89

<u>Grant</u>	<u>Office</u>	<u>Total Amount of Grants</u>
AIDS	Infectious Disease/ Health Promotion	\$2,295,200 ^(a)
Preventive Health Block	Dept. Wide Activities	1,031,700
STD	Infectious Disease	515,900
Az. Immunization Project	Infectious Disease	463,300
AIDS Drug Reimburse. Program	Infectious Disease	137,200
Food and Drug Inspections	Infectious Disease	80,100
Behavior Risk Factor	Health Promotion	21,400
TB Cooperative Agreement	Infectious Disease	63,500
Total for All Division Federal Grants		<u>\$4,608,300</u>

(a) A portion of this grant is allocated to the Division of State Laboratory Services.

Source: DHS Budget Documents, fiscal year 1988-89

TABLE 2

DIVISION OF DISEASE PREVENTION SERVICES
 APPROPRIATED FUNDS—STATEMENT OF
 ACTUAL AND ESTIMATED EXPENDITURES
 FISCAL YEARS 1986-87 THROUGH 1988-89
 (unaudited)

	<u>Actual 1986-87</u>	<u>Actual 1987-88</u>	<u>Estimated 1988-89</u>
Expenditures:			
Personal services	\$1,513,336	\$1,634,772	\$1,648,500
Employee related	337,027	353,464	409,500
Professional and outside services	167,256	54,512	133,000
Travel:			
In-state	45,453	50,156	98,700
Out-of-state	5,749	6,787	8,400
Aid to organizations	1,259,540	1,057,867	1,885,500
Other operating	1,572,935	1,784,661	14,900
Capital outlay	176,964	47,475	1,686,400 ^(a)
Special line items	<u> </u>	<u> </u>	<u> </u>
TOTAL	<u>\$5,078,260</u>	<u>\$4,989,694</u>	<u>\$5,884,900</u>

(a) Expenditures of funds in this category will be charged to line items such as aid to organizations or personal services.

Source: Arizona Financial Information System

FINDING I

DEPARTMENT OF HEALTH SERVICES NEEDS TO IMPROVE REPORTING OF SEXUALLY TRANSMITTED DISEASES

DHS should take additional steps to improve reporting of sexually transmitted diseases (STDs). Although underreporting of STDs is a national problem, several options to improve reporting in Arizona exist. Limited resources may determine the extent of DHS' action; however, some efforts to improve reporting can be taken using existing resources.

Sexually transmitted diseases can have serious health consequences, including infertility, ectopic pregnancy, increased risk of cancer, and death. Consequently, reliable STD data are essential to identify where prevention and intervention efforts are needed and to interrupt and/or prevent the transmission and spread of STDs.

Even though accurate reporting is essential for effective surveillance and intervention, it is widely recognized that not all STD cases treated in the private sector are reported. Although Arizona statutes, rules, and regulations direct physicians, laboratories, and others to report certain STDs to local and State health departments, virtually all federal, State, and local health officials contacted acknowledge that STDs are underreported.⁽¹⁾ The Centers for Disease Control (CDC) estimates that the underreporting of certain STDs may be as high as 50 percent nationwide. Reasons for underreporting are varied. A survey of Arizona medical association representatives found several reasons why physicians do not report STDs. Reasons cited by these representatives for not reporting included: desire to maintain confidentiality of data,

(1) In 1988, cases reported by the private sector accounted for less than 20 percent of all reported STD cases in Arizona.

unawareness of the legal reporting requirement, lack of time to report, and failure to understand the reason for reporting.⁽¹⁾

Various Methods to Improve Sexually Transmitted Disease Reporting Are Available

DHS could take additional steps to improve private sector reporting of STDs by implementing various methods used in other states. Laboratory reports provide an important source of information that can be used to identify unreported STDs and monitor doctors who fail to report. In addition, methods emphasizing the importance of reporting STDs can be implemented.

Laboratory information not fully utilized - Efforts to investigate positive laboratory report information have been limited in Arizona. Other states make extensive use of laboratory report information to identify new STD cases. In addition, positive laboratory reports can be used as a tool to monitor physicians compliance with reporting.

Laboratories are a valuable source of information for identifying new STD cases. Laboratories are legally required to report positive laboratory findings for syphilis, gonorrhea, and chlamydia to the Arizona Department of Health. During 1988, laboratories reported 5,394 positive chlamydia tests, 5,346 positive syphilis tests, and 1,520 positive gonorrhea tests to DHS.⁽²⁾ Department regulations require local health agencies to investigate each reported case or suspected case; thus, local health agencies need to investigate every positive laboratory test in order to comply with legal requirements. Until recently, however, not all

(1) Auditor General staff contacted representatives of several medical associations, including the Arizona Medical Association, Maricopa County Medical Association, Arizona Association of American College of Obstetrics and Gynecology, Tucson and Phoenix Obstetrics and Gynecology Societies, Arizona Chapter of the American College of Physicians, and the Arizona Urology Association.

(2) An additional 3,271 positive gonorrhea tests for public sector cases were reported directly to and investigated by Maricopa County.

reported positive tests were investigated.⁽¹⁾

In April 1989, DHS implemented a computerized information system intended to facilitate staff review of all laboratory and morbidity reports. DHS and county health department staff will input reports of positive STD tests submitted by laboratories and reports of STDs diagnosed by private physicians (morbidity reports). The automated system will allow DHS to match laboratory and morbidity reports. Matching is used in several states to enhance STD reporting.⁽²⁾ DHS plans to use the system to periodically compare the laboratory and morbidity reports to identify unreported STD cases and physicians who fail to report STD cases. DHS staff will then follow up on unreported cases.

However, Arizona's system is new and has not been in use long enough to adequately assess its full capabilities or potential problems. Specifically, DHS has not evaluated the system's impact on staff resources and generally expects the system's increased efficiency to allow existing staff to match reports and conduct needed follow-up. For example, if the system had been in use during 1988, DHS staff would have had to input results from an additional 12,000 laboratory tests. Although the system appears to increase the division's ability to track STDs, the division may still lack staff. Therefore, the system's impact on the division's ability to promote compliance with STD reporting requirements remains unknown.

Additional efforts emphasize importance of reporting - In addition to investigating laboratory reports, other states have developed a variety of methods for improving STD reporting. Those methods primarily consist of increased contacts with health providers. DHS could also work with medical licensing boards to obtain their assistance in enforcing the reporting requirements.

(1) Until April 1989, DHS positive laboratory tests were turned over to the counties to investigate. Syphilis and resistant gonorrhea tests are followed up to various degrees; however, chlamydia and nonresistant gonorrhea tests were not usually pursued.

(2) We contacted several states to obtain information on how to improve STD reporting. Texas, Utah, Colorado, and California were contacted because of their proximity to Arizona. Florida was contacted because of its strict STD reporting requirements.

Other states have attempted to address underreporting by periodically contacting health providers, working through medical associations, and mass mailings. Three nearby western states (Texas, Utah, and California) and Florida have implemented various measures to stress the importance of reporting, including visiting or phoning targeted physician groups and laboratories. These states consider periodic contact with providers and laboratories critical to ensure consistency in reporting. In fact, a study conducted by independent researchers in Colorado showed that periodic telephone contact more than doubled the number of gonorrhea cases previously reported by private physicians. In addition, some states distribute information through medical association newsletters and mass mailings.⁽¹⁾

Although underreporting is prevalent, most states, including Arizona, do not penalize doctors for not reporting. A more effective method of enforcing STD reporting requirements may be for DHS to work with medical licensing boards. According to the Board of Medical Examiners (BOMEX) executive director, the board could use its existing authority to discipline a physician who consistently fails to comply with STD reporting requirements.⁽²⁾ A.R.S. §32-1401.12(a) defines failure to comply with State or federal laws and regulations as "unprofessional conduct." However, BOMEX would require that DHS show that it attempted to inform the physician about the reporting requirement, and the physician refused to comply before BOMEX could take action. Florida health officials plan to pursue the use of such disciplinary action with the assistance of their medical board.

Even with Limited Resources DHS Can Take Steps to Improve Reporting

DHS recognizes the importance of accurate STD reporting, but health officials assert that limited resources and other priorities prohibit them from taking corrective action. However, at least two actions can be taken to improve reporting with limited impact on resources.

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- (1) In California, physicians can receive continuing education credit (CPEs) for attending biannual meetings of the STD Control Association. Their June 1989 meeting will address STD reporting requirements due to recent changes in the law.
- (2) DHS has previously worked with BOMEX on a case involving a physician who failed to report hepatitis cases.

First, DHS could make greater use of mass mailings directed to health-care providers emphasizing the importance of reporting. For example, DHS publishes a bimonthly bulletin which is sent to many providers in the State.⁽¹⁾ However, the bulletin has not addressed sexually transmitted disease reporting requirements since January 1987. Although one medical association representative praised DHS for keeping them abreast of new STD diagnosis and treatment regimens, representatives of other medical organizations indicated little effort is directed toward educating doctors on the importance of reporting. DHS' Prevention Bulletin provides a way to emphasize reporting requirements with little or no impact on current resources. Further, DHS might also be able to place information in newsletters and bulletins published by other organizations such as BOMEX and the medical associations.

Second, DHS could attempt to periodically contact randomly selected health providers throughout the State to ensure consistency in reporting. Contracting individuals responsible for STD reporting at providers' offices would allow DHS to review requirements and procedures used to report STDs. Such contact is especially important to ensure consistency when there is staff turnover in these offices. DHS officials claim that periodic contact with physicians and laboratories is not emphasized at the State program level in Arizona due to lack of staff. However, at least one county program in Arizona contacts targeted clinical settings quarterly using three investigators who also have other responsibilities. DHS may be able to contact randomly selected providers on a limited basis with its existing STD staff. For example, even a few periodic telephone contacts would provide DHS with an indication of compliance with the reporting law.

RECOMMENDATIONS

1. DHS should review the operation and effectiveness of the recently developed STD reporting system to determine if current staff will be adequate to handle the additional data entry workload and to follow up on unreported cases.

(1) The assistant director indicates that all physicians licensed by the Board of Medical Examiners are on the mailing list for the bulletin, but that osteopathic physicians are not included.

2. DHS should improve private sector STD reporting by:

- Periodically contacting randomly selected providers by telephone to ensure that their staff consistently report STD cases.
- Publishing additional articles in the DHS Prevention Bulletin addressing the importance of STD reporting.
- Establishing guidelines to deal with providers who consistently fail to report STDs as required by law. The guidelines should require department staff to document attempts to obtain physician compliance with reporting requirements and provide for filing complaints with the Board of Medical Examiners in cases where physicians do not comply.

FINDING II

DIVISION OF DISEASE PREVENTION SERVICES NEEDS TO CHANGE PRACTICES TO COMPLY WITH OPEN MEETING LAW

The Division of Disease Prevention Services has not complied with Arizona's open meeting law in holding meetings of the Governor's Task Force on AIDS. Although the open meeting law applies to all activities of the AIDS Task Force, the division did not provide proper notice of meetings and agendas as required by law.

The AIDS Task Force was created to address major issues regarding the AIDS epidemic in Arizona. The Division of Disease Prevention Services provides staff assistance to the committee and is responsible for ensuring that the Task Force complies with State laws governing committee meetings.

Open Meeting Law Applies to All Study Committee Activities

Arizona's open meeting law applies to all meetings of the Governor's Task Force on AIDS. A.R.S. §38-431 et seq. identifies entities that are subject to the State's open meeting law which requires committees to post notice of official meetings, establish agendas, and keep minutes available for public inspection. This act applies to all public bodies. The Attorney General has provided additional guidance to agencies for compliance with the law and has specifically identified advisory committees created by the DHS director as being required to comply.⁽¹⁾ The Attorney General's Office Open Meeting Law Enforcement Team (OMLET) and DHS' Assistant Attorney General Representative both maintain that the Governor's Task Force on AIDS is subject to the State open meeting law. According to the lawyers, working groups and interagency meetings must also comply with the law.

(1) A.R.S. §36-109 E. allows the DHS director to establish any special councils as required by State or federal law, rules, or regulations, or determined to be essential to the public's interest. The Attorney General's Handbook specifically includes DHS advisory committees and citizen advisory groups appointed by the Governor as among those required to comply with the open meeting law.

**Open Meeting Laws
Have Been Violated**

Study sessions of the AIDS Task Force committee met without providing proper notice to the public. The public has never been notified or in attendance at the Governor's AIDS Task Force working sessions. Since October 1988 members of the four planning committees of the Governor's Task Force on AIDS have held numerous working sessions. Although the decisions made and topics discussed were later presented at a public meeting, these study sessions still must comply with the State's open meeting law.

According to department officials it's failure to comply with the open meeting law was an administrative oversight. They also maintain that the public was never officially excluded from the sessions and that the public was represented at many of the meetings.

Failure to comply with the open meeting law may contribute to public distrust of official motives and actions regarding such a serious issue as AIDS.

RECOMMENDATION

DHS should establish procedures to ensure that all meetings of the AIDS Task Force, including subcommittees and other working groups, fully comply with A.R.S. §38-431 et seq. and A.R.S. §36-109 E.

OTHER PERTINENT INFORMATION

During the course of our audit we developed information on (1) efforts to control the spread of Acquired Immune Deficiency Syndrome (AIDS) and (2) problems involving the study of the suspected cancer cluster in the Maryvale area of Phoenix.

Controlling Acquired Immune Deficiency Syndrome in Arizona

The Division of Disease Prevention Services has primary responsibility for much of Arizona's effort to control the spread of AIDS. The incidence of AIDS has steadily increased in Arizona and the Governor has appointed a task force to make recommendations for developing a comprehensive statewide policy for dealing with the AIDS epidemic. In the interim the division is implementing a number of programs to address specific aspects of the AIDS problem.

AIDS in Arizona - Since surveillance began in 1982, the number of AIDS and AIDS Related Complex (ARC) cases diagnosed annually has increased each year in Arizona and nationwide. The U.S. Centers for Disease Control (CDC) statistics show that 74,447 persons in the United States were diagnosed with AIDS between January 1, 1981 and September 26, 1988. These statistics include reported cases of AIDS only; they do not include reported cases of ARC or human immunodeficiency virus (HIV), the retrovirus that causes AIDS. The AIDS Section of the Arizona Division of Disease Prevention Services has documented 664 cases of AIDS, 245 ARC cases, and 1,591 cases of asymptomatic HIV reactions between July of 1981 and December 1988. AIDS cases have been reported in 12 of the 15 Arizona counties. The Division of Disease Prevention Services estimates that an additional 1,300 cases of AIDS will be diagnosed in Arizona by 1992.

The Governor's Task Force on AIDS - In October 1988 the Governor appointed a task force to develop a strategy for dealing with AIDS in Arizona. The 35-member task force includes legislators and representatives from various organizations and public health agencies.

DHS' Division of Disease Prevention Services staff assists the task force in a technical advisory capacity. Committees have been used in a number of states to assist in developing a coordinated approach to the health and social problems resulting from AIDS. The Arizona committee's mandate is to: (1) evaluate current State laws and policies as they relate to the disease; (2) identify needs that should be met to better deal with the disease; (3) encourage public and private cooperation to meet these needs; and (4) develop a comprehensive State strategic plan with proposed public policies for the State.

The task force has organized itself into four different issue groups: finance and cost of care, prevention and education, legal and policy issues, and patient care and services. According to the task force coordinator, the task force will be able to judge its progress and any possible problems after an interim review that could be completed as early as mid-March. The task force plans to produce an interim report in June and a final report in October 1989. After completing its report, the task force will lobby for and assist with implementation of recommendations. The task force will disband at the end of the 1990 legislative session.

Division activities dealing with AIDS - In the absence of a statewide strategy, the Division of Disease Prevention Services has worked to meet the growing needs created by the outbreak. Since 1982, the division has been and continues to be involved in a variety of programs and studies to combat AIDS, primarily through its AIDS Section of the Office of Infectious Disease Services and the Office of Health Promotion and Education.

The AIDS Section is involved in several activities. The section has created and maintains a database of reported cases. Since 1985 AIDS and ARC have been among the diseases that must be reported to county health departments, which in turn report to the AIDS Section. The AIDS Section has also received funding from CDC to participate in a nationwide study that includes the Phoenix/Maricopa County area and is designed to estimate the level of HIV infection in specific population groups. The section is also administering a federal grant for the purchase and

distribution of AZT, a drug proven effective in prolonging the lives of AIDS patients.

The Office of Health Promotion and Education and the AIDS Section are both working on the AIDS Prevention Project funded by CDC. The project is designed to provide health education, risk reduction programs, counseling, and testing. The grant funds are divided between the Office of Health Promotion and Education and the AIDS Section. The AIDS Section uses these funds to contract with county health departments for free counseling and testing services. Free counseling and testing sites have been set up in nine counties: Cochise, Coconino, La Paz, Maricopa, Pima, Pinal, Santa Cruz, Yavapai, and Yuma. The Office of Health Promotion and Education has used its grant funds to design and contract for Knowledge, Attitude, and Behaviors (KAB) studies which assist in directing educational efforts. The office has also funded and taken part in media campaigns, established working relationships with high-risk communities such as the gay community, and conducted educational workshops.

Maryvale Studies Are Still Controversial

Department of Health Services studies have found elevated death rates from leukemia and other cancers and birth defects in west and east central Phoenix. No causal relationship has been identified to date. Studies by the department and other entities will further investigate possible causal relationships. However, some groups question the responsiveness of DHS to citizen concerns in the Maryvale investigations and the validity and reliability of the studies themselves.

Central Phoenix cancer rates - In 1982, a DHS study of childhood leukemia mortality found a high incidence of cancer mortality in some west Phoenix census tracts from 1970 through 1981. A 1987 study of birth defects in Maricopa and Pima counties also indicated elevated rates within one of the census tracts. As a result, there was strong public concern about the findings of these studies and possible links with environmental factors. DHS has attempted to address these concerns by: (1) initiating a countywide mortality study, and (2) directing outside

groups in environmental assessments to investigate possible causes of health problems in the general area of the suspected cancer cluster.

The mortality study investigated deaths in all geographic areas by cause of death and age from 1966 through 1986 using Arizona vital statistic records. East central Phoenix has exhibited elevated mortality rates from total cancer in middle-aged adults (45-64 years) from 1970 through 1986. The study supports earlier findings that indicated a childhood leukemia cluster exists in west central Phoenix. Also, it suggests that increased cancer risk may exist for adults as well. East central Phoenix also exhibited elevated mortality rates from birth defects and cardiovascular disease. A previous study initiated in 1983 and released in 1987 identified elevated rates of birth defects in the same general area of the west central Phoenix leukemia cluster.

However, these studies were not designed to determine what caused the conditions observed. A series of subsequent studies explored possible environmental causes by testing the west Phoenix water supply, groundwater, air quality, and outdoor radiation. Below are the results of the studies.

- Water Quality Testing - In June 1987, the city of Phoenix began a period of monthly sampling of the west central Phoenix water supply. Normally, sampling is conducted on a quarterly basis. Water samples taken before June 1987 and those taken in the monthly samples met all existing quality standards. The city resumed quarterly sampling.
- The Arizona Department of Environmental Quality (ADEQ), the Arizona Department of Water Resources (ADWR), and the Salt River Project (SRP) conducted testing of the groundwater and irrigation water in west central Phoenix. The data confirmed the existence of industrial solvents in the water. Some samples from the Roosevelt Irrigation District canals contain traces of industrial solvents. No pesticides were detected by any of these tests.

All but two schools in the west central Phoenix area use SRP canal water for flood irrigation. Although some industries are allowed to discharge into SRP canals, water sampling to date has not indicated pollution from toxic substances.

- Air Quality Monitoring - ADEQ conducted air quality tests between December of 1987 and March 1988. Average pollutant levels were

highest in east and west central Phoenix. A risk assessment predicts that short-term exposure poses no health risk and estimates that the maximum excess cancer risk that could result would be 1.5 excess cancer cases per year within the entire metropolitan area.

- o Other Environmental Tests - The Arizona Radiation Regulatory Agency completed tests of ambient outdoor radiation in west central Phoenix and found normal levels of background radiation. Additional measurements inside 17 west Phoenix schools also found normal readings. In addition, ADEQ is currently working on a soil sampling program to identify pesticide contaminated surface soil.

DHS is continuing its study by investigating the incidence of childhood cancer between 1965 and 1986 in the west Phoenix area. The incidence study of childhood cancers differs from the mortality study. The incidence study counts newly diagnosed cases of a disease rather than fatalities attributed to the disease. A progress report on this study is compiled periodically. Completion is projected for late summer 1989.

If the childhood cancer incidence study indicates a significantly higher incidence rate, DHS will proceed with a Case Control Study. The Case Control Study is in design development now and will not be undertaken until results from the incidence study are in. The Case Control Study will be designed to investigate in detail the physical environments of each diagnosed case. Environmental tests outside and inside the home, as well as life-style and medical information, will be documented in order to establish possible patterns. DHS officials feel that the Case Control Study will be of limited benefit should the incidence study fail to support the existence of an elevated incidence rate. However, at least two members of the CDC review panel support the undertaking of the Case Control Study regardless of incidence study findings. According to review panel members, the case control may reveal something the incidence study cannot.

Citizen distrust - Although representatives of west valley groups and DHS claim that most area residents are satisfied with the progress and direction of the study, some citizen groups and environmentalists feel

that DHS has not adequately responded to citizen concerns about potential cancer dangers. Perceptions that DHS is unresponsive have led to distrust of DHS.

A number of groups appear satisfied with the studies and results to date. The Citizens Liaison Representative (a university scientist) indicated that the studies are proceeding satisfactorily and that cooperation has been generally good among the agencies involved. He represents the West Valley Citizens Group, a coalition of several groups of area residents, which he indicates is generally satisfied with current efforts.

However, others feel DHS has discouraged their input by making the process unnecessarily difficult. For example, the department is only allowing family members to report known cases in its incidence study. Members of the public wonder why they cannot report cases they are aware of and then allow DHS to follow up. Also, some citizens thought the Division of Disease Prevention Services was unresponsive to complaints. Individuals felt it either took DHS much too long to take action, or the action taken was not readily available for public review. In addition, citizen group representatives felt that they should have been made aware of and been present at interagency meetings. Finally, DHS is faulted for its slowness in completing the investigation.

Members of dissatisfied citizens' groups (Mothers of Maryvale [MOM] and Toxic Waste Investigative Group [TWIG]) we contacted expressed frustration from their dealings with State officials and exhibit a general distrust of the State. An example of this distrust occurred when an auditor contacted one individual to discuss her concerns about the problems with the studies. The person was brought to our attention as someone who had specific information regarding problems and inaccuracies with the ADEQ reports. Once contacted the individual claimed she was unavailable due to other obligations. After approximately an hour, the individual contacted the auditor and indicated that she did have the information and could meet with an auditor, but had lied before because

of her distrust of State officials. In addition, the woman cited her distrust for DHS officials as the reason she no longer participates in or attends Maryvale meetings. Further, others claim that the poor citizen response in returning information on childhood cancer cases for the incidence study is a result of this distrust.⁽¹⁾

Specific criticisms of Maryvale studies - Specific citizen complaints about the Maryvale studies fault the limited scope of the studies. For example, the incidence study looks only at childhood cancer diagnosed between birth and age 19, and does not include adults. However, the DHS mortality study findings indicate that children are not the only group with elevated mortality rates from cancer. For example, a west central Phoenix group representative believes that adult leukemia rates are elevated too. Citizens also cite a variety of other health problems that DHS is not investigating. These include: lupus in adults and children, mononucleosis in children under eight years of age (an unusual occurrence), liver disease in children, miscarriages, and birth defects.

Some citizens also question several studies done by ADEQ. One dispute concerns differing estimates of benzene levels in the air shown by two ADEQ analyses. The first analysis showed high benzene concentrations while a subsequent test found air quality to be acceptable. Independent analyses of the results of the first study raised questions about its accuracy. The citizens reject the second ADEQ results because they feel it was designed to produce a best-case result; samples were taken at different times of the year.

The ADEQ soil sample survey is also under attack. An expert from the Citizen's Clearinghouse for Hazardous Waste says that the proposed sampling plan is inadequate because ADEQ plans to collect samples from only the top six inches of soil. According to this expert, deeper

(1) DHS is attempting to identify cancer cases by requesting the public to respond to questionnaires. The comments from the questionnaires will play an important part in the incidence study. Although publicity has been widespread, only three questionnaires have been returned to the department. The citizens contacted believe DHS is receiving such a low response rate because people do not believe anything constructive will be done with the information.

samples are needed to establish an accurate "soil horizon." A soil horizon identifies pesticide, herbicide, and fumigant use over time. The expert noted that because cancers generally develop over a long term, this historical picture of exposure may be necessary.

AREAS FOR FURTHER AUDIT WORK

During the course of our audit of the Division of Disease Prevention Services we identified potential issues that we were unable to pursue due to time constraints.

- Is the division meeting its established goals and objectives?

The Division of Disease Prevention Services has established goals and objectives in order to evaluate individual office performance. However, the divisions' ability to evaluate actual versus planned performance appears to vary among programs. For example, the immunization program has established many quantifiable processes to monitor performance, while the risk assessment office has no quantifiable indicators. Also, the main concern of the chronic disease office has been development of the Cancer and Birth Defects Registry. Therefore, an official claims that they have not had the time to develop strategies regarding other goals and objectives. The STD program has established goals, but the data needed to measure progress toward those goals and objectives is questionable. Further audit work is needed to determine the division's progress toward meeting its goals and objectives.

- Are all current Division of Disease Prevention Services activities necessary?

The Division of Disease Prevention Services is responsible for certain licensing activities that may be unnecessary or could be performed by other State agencies. For example, the division is responsible for inspection of foster homes, children's camps, and bedding manufacturers. In the past, the division has proposed legislation to transfer these duties to other State agencies or to the counties. However, the department did not include them in its current legislative packages. Further audit work is needed to determine if certain activities should remain the division's responsibility.

- Are DHS' Division of Disease Prevention Services salaries competitive to recruit and maintain appropriate staff?

According to Division of Disease Prevention Services officials, low salaries and inaccurate position classifications limit their ability to recruit and maintain needed professional staff. These positions are Health Educators, Medical Records Technicians, Biostatisticians, Epidemiologist, and Sanitarians.

DHS maintains problems exist because these positions call for individuals with a high degree of technical expertise and extensive experience. However, department officials claim that the State personnel system often lacks a specific classification for these positions. As a result, the positions are placed in existing classifications for which salary levels are not commensurate with the duties, responsibilities, and education required by the Division of Disease Prevention Services. Further audit work is needed to evaluate Disease Prevention Services inability to recruit, hire, and retain certain professional positions.

- Does the Office of Risk Assessment and Investigations adequately monitor complaints?

The Office of Risk Assessment and Investigations is responsible for investigating environmental complaints from the public. For example, citizens with evidence of improper pesticide use may contact the office with a complaint. According to the manager, his office directs the complaints from the public to the various State or local entities responsible for regulating the particular activity. However, a cursory review found limited documentation identifying complaints and the final results. The office has no idea what happens with the complaint unless there is further contact from the public regarding the same complaint. In addition, members of the public have complained to our office about Risk Assessments' lack of follow-up. Further audit work is needed to determine whether the Office of Risk Assessment and Investigations adequately monitors complaints.

ARIZONA DEPARTMENT OF HEALTH SERVICES

Office of the Director

ROSE MOFFORD, GOVERNOR
TED WILLIAMS, DIRECTOR

May 17, 1989

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

Dear Mr. Norton:

The Department and the Division of Disease Prevention have reviewed the preliminary report draft of your agency's performance audit of the division. Attached is the Department's final written response, as requested.

Sincerely,



Ted Williams
Director

TW:SJE:ajr

Attachment

cc: Steven J. Englender, M.D., M.P.H.

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Final Written Response
Draft Sunset Performance Review
Division of Disease Prevention

Finding I - Department of Health Services Needs to Improve Reporting of Sexually Transmitted Diseases

The Department agrees that sexually transmitted diseases (STD) are underreported and has already undertaken actions to improve reporting. The performance review fails to acknowledge the Department's efforts to expand and enhance STD reporting in 1987, including the expansion of the list of required positive laboratory reports from syphilis only to syphilis, gonorrhea and chlamydia. Only recently has the redesigned computer data base come on line that allows matching of provider reports to laboratory reports. Laboratory based reporting will be used as a means to enhance overall STD reporting as well as a method of assessing the level of underreporting in the private sector. The Department appreciates the report's recognition that additional staff may be necessary to optimally operate this enhanced information system.

As the report indicates, the Department is aware of and has utilized the authority of the Board of Medical Examiners to help induce physicians to report communicable diseases. The Department, in conjunction with local health departments, will establish clearer guidelines to deal with physicians who do not comply with communicable disease reporting requirements, including STD.

Communication is an essential ingredient to the practice of public health. Although the Department, in conjunction with local STD control programs, has undertaken many provider educational efforts, greater emphasis will be given to reporting requirements.

The Department feels that limited staff resources may be better expended at correcting known problems with provider underreporting, as documented by disparities in laboratory-provider reporting, than in random calls to Arizona's physicians to discuss reporting requirements. Such activities must take a lower priority than known STD morbidity and efforts to bring contacts to discovered cases to examination and treatment. However, if time allows, the suggested system of random telephone calls to selected providers will be pursued.

Finding II - The Division of Disease Prevention Services Needs to Change Practices to Comply with Open Meeting Laws

The Department regrets that some work group sessions of the Governor's Task Force on AIDS were not posted as required by A.R.S. §38-431 et seq. As the performance review indicates, this was an oversight. Procedures at both the Division of Disease Prevention and the Public Information Office have been reviewed and are being revised to assure public meetings are appropriately noticed.

Other Pertinent Information

Controlling Acquired Immunodeficiency Syndrome in Arizona

The Department appreciates the efforts by the Auditor General to summarize AIDS activities. However, the performance review fails to recognize that the Department promulgated and published a statewide HIV risk reduction and disease prevention plan in July 1987. Progress reports on activities directed by this plan have been made annually.

Maryvale Studies Are Still Controversial

Citizen Distrust

The Department's efforts to investigate the increase in childhood leukemia mortality in West Central Phoenix have been designed to be both thorough and scientifically sound. The need for quality in study design, data collection, analysis and interpretation has taken precedence, when appropriate, over the competing need for rapid resolution of the problem. Finding credible answers, if possible, has been a guiding principle in Department activities. For these reasons, studies are being conducted by a number of agencies under the guidance and review of both expert consultants appointed by the Centers for Disease Control and the citizen-liaison appointed by the Governor. That this process has failed to satisfy everyone is hardly a surprise; that most have accepted the efforts by so many to achieve this undertaking is evidence that the process is working reasonably well.

The protocol by which cancer cases are found and the reason for verification of the process using family or self-reported cases has been approved by the CDC peer panel and has been explained repeatedly to the public. The citizen-liaison has not found fault with the process and is participating in the report collection. Investigation of cases reported by other than family members could be construed as an invasion of privacy. Interested citizens aware of cases among friends and neighbors are encouraged to contact those individuals to report directly. The slowness in completing these studies is dictated by the scientific thoroughness required and meets the expectations of the CDC peer panel based on their experiences in similar studies conducted elsewhere.

Specific Criticisms of Maryvale Studies

In embarking on the health studies in Maricopa County, the Department clearly anticipated that the first phase would be to confirm and extend the observations of

childhood leukemia mortality, then to ascertain childhood cancer incidence, and finally, if appropriate, conduct a case-control study to seek risk factors associated with the development of childhood leukemia. It was recognized that other studies may be necessary to elucidate unexpected findings in any of these studies. Few of the other unsubstantiated health problems were raised as concerns at the initial public meeting in June 1987. Many are of interest to the Department. Birth defects are being monitored through the now established birth defects registry. The methodologies for successful retrospective studies of miscarriages have not yet been developed. Prospective studies of this problem are currently beyond the scope of division activities. The mortality study did not find a significant elevation in adult leukemia. The cancer registry is designed to detect elevated incidences of all causes of cancer. The relationship of lupus erythematosus and other auto-immune diseases to environmental factors is of public health interest, but reliable methodologies to ascertain an association are not yet available. While in this country the peak incidence of Epstein Barr virus (EBV) infections is in the second decade of life, the occurrence in childhood is not uncommon. This disease in young children is often asymptomatic. Detection of antibodies to EBV by common office based laboratory tests is unusual. We are unaware of any linkage to environmental factors for EBV.

While citizens have questioned studies done by ADEQ as well as other agencies, the relevance of this in an audit of this division is unclear. It is inappropriate to include these comments in this report.

Areas for Further Audit Work

- o Is the division meeting its established goals and objectives

Given the diversity of responsibilities in the division, it is to be expected the ability to evaluate progress toward meeting goals and objectives of different offices may vary considerably. It is relatively easy to quantify immunization program performance as it relates to delivering vaccine to a target population, yet surveillance and control activities may not be so easily evaluated. Some of the responsibilities of the Office of Risk Assessment involving environmental investigations are well defined and can be readily evaluated but studies of adverse health effects may vary widely, be less predictable, and be difficult to evaluate in terms of goals and objectives. The Office of Chronic Disease Epidemiology currently has as its highest priority establishment of the registries and response to Cancer and Birth Defects. The interest and need for expansion into other chronic disease activities is clearly recognized, but the resources are not currently available. The progress of the STD program in meeting its goals and objectives has been satisfactory, as judged by the Centers for Disease Control, which provides the majority of funding for this program's activities.

- o Are current Disease Prevention Services necessary

The Department agrees with the question raised. However, the report does not recognize agency initiatives this year to modify activities through SB 1304 concerning foster homes and child welfare agencies, SB 1312 regarding children's camps, and HB 2014 that would have eliminated the bedding program.

- o Are salaries competitive to recruit and maintain staff

The Department would welcome further audit in this area to recommend solutions to this long standing dilemma.

- o Does the office of Risk Assessment and Investigation adequately monitor complaints

This is a valid concern and efforts will be made to establish a system to follow-up complaints referred to appropriate agencies.