California State Auditor

BUREAU OF STATE AUDITS

Department of Health Services:

Has Made Little Progress in Protecting California's Children From Lead Poisoning

April 1999
98117

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April 13, 1999 98117

The Governor of California
President pro Tempore of the Senate
Speaker of the Assembly
State Capitol
Sacramento, California 95814

Dear Governor and Legislative Leaders:

As requested by the Joint Legislative Audit Committee, the Bureau of State Audits presents its audit report concerning the progress made by the Department of Health Services' (department) Childhood Lead Poisoning Prevention Program in identifying and protecting children with lead poisoning.

This report concludes that after 12 years, the department is no closer to determining the extent of childhood lead poisoning statewide—having only identified about 10 percent of the State's estimated 40,000 children requiring medical care and an investigation to find the source of their lead exposure. The department's inability to identify more lead-poisoned children is a direct result of its failure to ensure (1) children receiving services from its Medi-Cal and Child Health Disability and Prevention programs receive blood-lead testing as required, and (2) the State's remaining children receive an evaluation for the risk of lead poisoning during periodic health assessments. Furthermore, the department's process for tracking blood-lead testing results is severely flawed and provides insufficient data for it to identify the number of children tested, those with elevated blood-levels, and the areas within the State where lead poisoning occurs most frequently. Finally, we found that the department has had mixed results in achieving its other childhood lead poisoning prevention program responsibilities.

Respectfully submitted,

KURT R. SJOBERG
State Auditor

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SUMMARY

Audit Highlights . . .

Our review of the Department of Health Services' (department) Childhood Lead Poisoning Prevention Program revealed:

- ☑ ***After more than a decade, the department is no closer to achieving the goal of determining the extent of childhood lead poisoning statewide—having only identified about 10 percent of the estimated 40,000 children needing services.***
- ☑ ***Children are not receiving blood-lead tests from Medi-Cal and Child Health and Disability Prevention programs as required.***
- ☑ ***Reporting of laboratory test results is insufficient for the department to identify children requiring medical care for lead poisoning.***

We also found the department has had mixed results in achieving its other responsibilities for preventing childhood lead poisoning.

RESULTS IN BRIEF

When children under the age of six are exposed to lead, a highly toxic metal, the consequences can be very serious. Childhood lead poisoning can interfere with the development of the brain, organs, and nervous system; even relatively small amounts of lead in blood can result in learning disabilities, behavior problems, and lower IQ scores. The United States Centers for Disease Control and Prevention (CDC) considers lead poisoning to be a major, preventable environmental health problem for children. Although nationwide blood-lead levels have been declining in recent years, many children throughout the country still suffer from this problem.

For over a decade, California has struggled to identify and protect these lead-poisoned children. As early as 1986, the Legislature charged the Department of Health Services (department) with determining the extent of lead poisoning among children in the State. Moreover, in 1991 the Legislature set specific goals for protecting children from lead poisoning: It asked the department to evaluate all children for their risk of poisoning; to test those children who were at risk; and to provide case management for children who were found to suffer from lead poisoning. Yet the department has failed to meet these goals. It has not ensured that all at-risk children are tested, nor tracked the results of testing to determine the extent of the problem lead poisoning presents throughout the State.

As a result, thousands of lead-poisoned children have been allowed to suffer needlessly. The department itself estimates that more than 130,000 children between the ages of one and five have elevated blood-lead levels, with 40,000 having levels that would warrant case management. Yet, as of January 1999, the department reported that it was providing case management to a mere 3,500 children—the only lead-poisoned children at that time whom it had identified as requiring these services. Thus, the department is clearly not fulfilling its responsibilities as mandated by the Legislature.

Specifically, despite a legislative directive, the department has failed to adopt regulations establishing a standard of care that requires health care providers to evaluate all children to determine their risk of lead poisoning during periodic health assessments. In addition, the department did not follow initial federal guidance on the appropriate approach to blood-lead testing. Moreover, it has not ensured that the health care providers who participate in its Medi-Cal and Child Health and Disability Prevention (CHDP) programs and provide services to about 70 percent of the State's one- and two-year-old children order blood-lead tests in accordance with program requirements. Thus far, the department's records indicate that less than 25 percent of the children in this age group who access services from these programs have received blood-lead tests.

Perhaps as importantly, the department has yet to develop a reporting system that tracks the results of all blood-lead tests, despite a 1991 legal settlement requiring it to do so. As a result, the department is unable to report accurately on where and to what extent lead poisoning exists in the State. Furthermore, this lack of adequate tracking has hampered the department's ability to ensure that children suffering from lead poisoning receive appropriate care. Because the department requires labs to report only those blood-lead test results that exceed 25 micrograms of lead per deciliter (ug/dL) of human blood, it cannot ensure that it receives blood-lead results at the lower level of 15 ug/dL. Yet children who have blood-lead levels as low as 15 ug/dL require case management.

In addition, the department has not appropriately monitored the case management of those lead-poisoned children whom it has identified. This case management, primarily handled by city and county lead poisoning prevention programs (local programs), consists of follow-up medical care for the children and investigation of the sources of the lead poisoning. Although the department requires the local programs to report all their case management activities, it does not enforce this requirement. Consequently, many case management reports are never submitted. Moreover, when the department does receive these reports, it does not review the information contained within them to determine if the care given to a child was appropriate and if the source of the poisoning was eliminated or reduced. Fortunately, we found in our review of selected cases that local programs have

provided adequate care. However, in a number of instances, the local programs were unable to ensure that the source of the poisoning was eliminated or reduced because they require assistance in their efforts to compel property owners to do so.

The department has made progress towards protecting children from lead hazards. For instance, it has established a program aimed at reducing lead exposure caused by unsafe renovations or removal of lead-based paint, and it has also conducted a study of school and day care facilities throughout the State to determine the prevalence of lead hazards within them. Yet, in both of these examples, the department must take immediate further action to achieve the best possible results. Although the program aimed at reducing lead exposure has qualified the State and local agencies for federal funding, these funds are currently threatened because the department has not demonstrated that it has dedicated adequate funding and staff to enforce the program. Similarly, until the department completes a curriculum to educate school and day care facility staff on appropriate steps to eliminate or reduce lead hazards, the children at these facilities remain at risk for lead poisoning.

The department has many tasks ahead of it to identify and protect children with lead poisoning. For this reason, it must organize its efforts and move into a higher gear to fulfill its responsibilities to the Legislature and the children in the State. If it does not, thousands of children remain vulnerable to the serious effects of lead poisoning.

RECOMMENDATIONS

To ensure that the department properly focuses its efforts and resources to identify and protect children with lead poisoning, the Legislature should require the department to report on its progress annually. Additionally, the Legislature should amend existing state law to require labs to report the results of all blood-lead tests. Finally, the Legislature should grant California's cities and counties the authority to compel property owners to eliminate or reduce lead hazards.

To obtain adequate data on where and to what extent lead poisoning is a problem in the State and to ensure that it identifies and protects lead-poisoned children, the department should take the following actions:

- Adopt regulations requiring labs to report all blood-lead test results.

- Adopt standard-of-care regulations as previously directed by the Legislature.

- Take immediate action to identify and educate those providers participating in its Medi-Cal and CHDP programs who are not ordering blood-lead tests as required.

- Ensure local programs submit to it all case management information outlining the services provided to lead-poisoned children.

- Monitor local programs' activities to ensure lead-poisoned children receive appropriate care. This should entail a high-level review of all follow-up reports to ensure their completeness and a more detailed assessment of the care given for a representative sample of cases.

- Ensure that homeowners and property owners properly eliminate or reduce lead hazards identified as a source of a child's lead poisoning by assisting the local programs with issuing orders to control these hazards if the Legislature does not grant this specific authority to them.

- Seek legislation granting it enforcement authority that will allow it to impose administrative, civil, and criminal sanctions against those who violate state requirements governing activities to eliminate or reduce lead hazards.

- Complete the training curriculum for eliminating or reducing lead hazards in California's school and day care facilities so that children do not remain at risk for lead poisoning.

AGENCY COMMENTS

The Department of Health Services (department) concurs, for the most part, that our recommendations would improve California's Childhood Lead Poisoning Prevention Program. However, the department does not agree that it should report on its progress annually to the Legislature, believing that this would add work but no benefit to the program. Additionally, the department does not believe that it should adopt standard-of-care regulations as directed by the Legislature in 1991. Instead, the department recommends that the Legislature repeal this mandate. Finally, it does not agree that the department should assist the local programs with issuing lead hazard abatement orders if the Legislature does not grant this specific authority to cities and counties. **n**

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INTRODUCTION

BACKGROUND

In 1986, the Legislature created the Childhood Lead Poisoning Prevention Program (program) within the Department of Health Services (department) to determine the extent to which lead poisoning posed a problem to children in California. In general, the department found that testing a child's blood is the only way to determine if a child is lead-poisoned, that very few children were receiving blood-lead tests, that even low levels of lead can affect a child's health, and that an estimated tens of thousands of California children may be suffering from its effects.

What is lead poisoning?

Lead poisoning is a disease that occurs when one absorbs lead, a highly toxic heavy metal, into the body. Because children absorb 50 percent of the lead they ingest or inhale, they are at risk of being poisoned. Children lacking proper nutrients in their daily diets, specifically iron, calcium, protein, and zinc, are at an even greater risk.

How does lead poisoning affect children?

Lead is especially damaging from birth to age six because it interferes with brain, organ, and nervous system development. Lead poisoning is commonly referred to as a silent disease because most lead-poisoned children exhibit no obvious symptoms. However, even at a low level, absorbed lead may cause learning disabilities, reduced IQ, and behavioral problems. At higher levels, lead can cause anemia, nerve and brain damage, and liver and kidney failure.

What causes lead poisoning?

The most common sources of lead poisoning are lead-contaminated dust and soil that small children ingest. Lead-based paint found in and around older homes contributes to this contamination, as does lead released into the air from industrial emissions. Before 1992, when leaded gasoline was phased out, lead from automobile exhaust also added to the problem. Other sources of lead exposure include water from pipes with leaded solder, leaded ceramic dishes or pots, and lead brought home from work on a parent's shoes or clothing.

How common is lead poisoning?

The United States Centers for Disease Control and Prevention, which establishes guidelines for the identification, evaluation, and care of lead-poisoned children, believes that incidences of lead poisoning are declining. However, it still estimates that nearly 900,000 children in the United States have high enough levels of lead in their blood to cause adverse effects.

As a result of these findings, in 1991 the Legislature expanded the department's responsibilities, requiring the department to implement certain changes to its program by 1993. For instance, the Legislature required that the department ensure that all lead-poisoned children receive appropriate case management, which entails collecting and analyzing the information necessary to effectively monitor these efforts. It also directed the department to adopt regulations that require health care providers to evaluate all children for the risk of lead poisoning. Then, in 1993, the Legislature further expanded the program, granting it the authority to govern the elimination or reduction (abatement) of residential lead-based paint to comply with the federal Residential Lead-Based Paint Hazard Reduction Act of 1992.

In addition to fulfilling these legislative mandates, the department also must meet certain requirements imposed upon it as the result of a lawsuit filed against it in December 1990, when its Child Health and Disability Prevention (CHDP) program denied two children assessments of their blood-lead levels. CHDP provides preventative health care services, such as immunizations and physical exams, to children from low-income families. The lawsuit was dismissed in October 1991 pursuant to

a legal settlement requiring the CHDP program to perform blood-lead testing on all children at ages one and two that access its services, an estimated 470,000 children each year. In addition, the settlement requires the department to obtain the results of all blood-lead tests performed on children in the CHDP program, as well as the test results for any other children, up to age 15.

To comply with statutory mandates and requirements of the settlement, the program is intended to focus not only on identifying and caring for lead-poisoned children, but also on reducing and eliminating sources of lead to prevent further exposure.

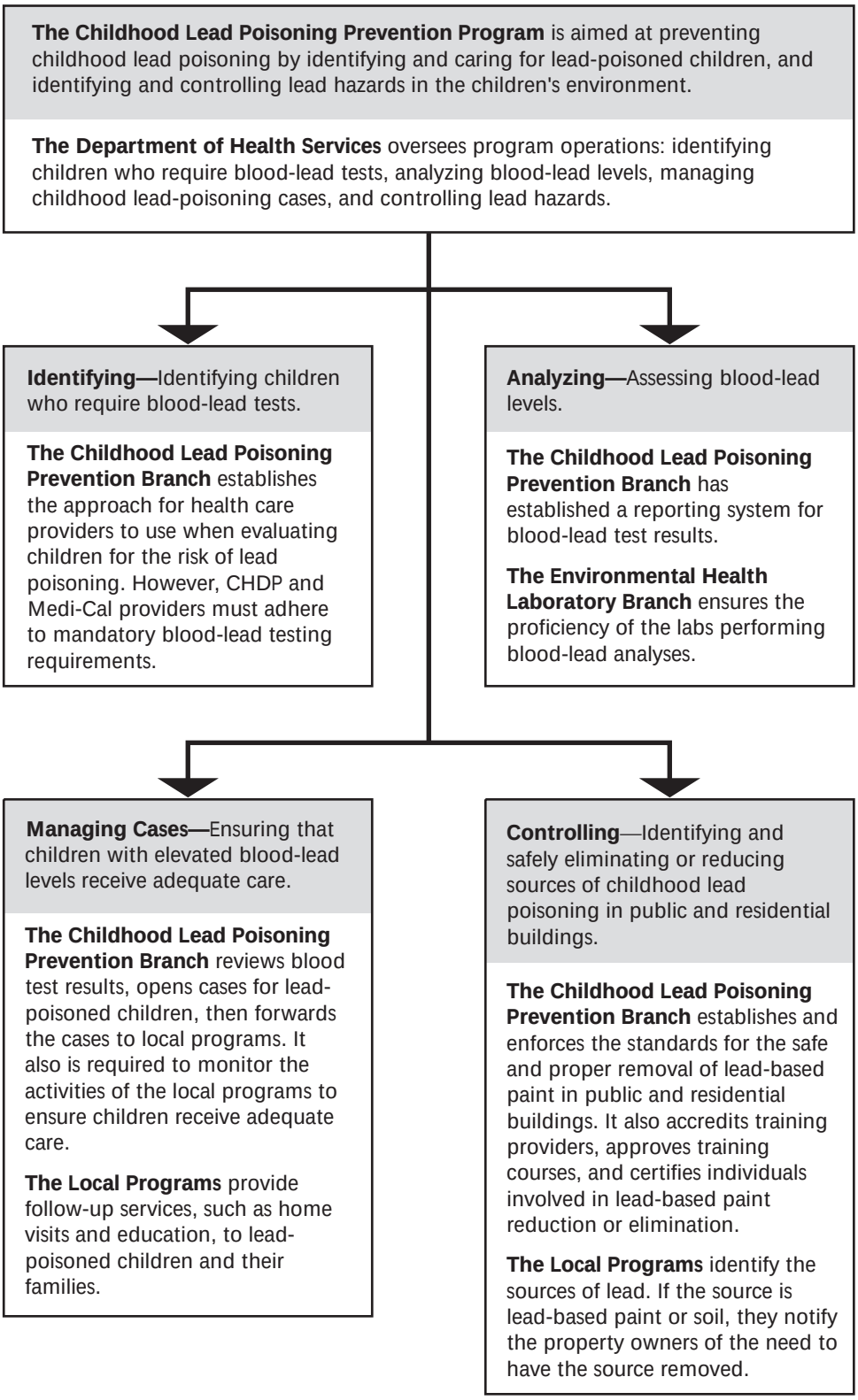
THE DEPARTMENT'S ADMINISTRATION OF THE PROGRAM INVOLVES WORKING WITH HEALTH CARE PROVIDERS, LABS, AND LOCAL AGENCIES

The department works with others to fulfill the mission of the program, as Figure 1 shows. Health care providers order blood tests to determine if children are lead-poisoned. Laboratories (labs) approved by the department's Environmental Health Laboratory Branch analyze blood-lead tests and submit the results to the Childhood Lead Poisoning Prevention Branch (branch), which opens and manages cases for lead-poisoned children. Managing cases includes notifying the local childhood lead poisoning prevention programs (local programs) in California's counties and cities, with whom the branch contracts, for follow-up care of lead-poisoned children. It also should entail monitoring the local programs to ensure that they provide adequate care to the children.

The branch is also responsible for developing and maintaining the portion of the program that works to identify and control sources of lead hazards. Currently, it establishes and enforces standards for identifying and safely removing lead-based paint, and accredits training providers who educate those in the construction trade on how to identify and control lead hazards. Further, it certifies that those individuals who inspect homes for lead and perform lead hazard control activities have met the necessary education, training, and work experience requirements.

FIGURE 1

Childhood Lead Poisoning Prevention Program Administration



THE PROGRAM HAS MULTIPLE FUNDING SOURCES

Most of the department's funding for the program during fiscal year 1997-98 came from fees levied on companies that either distributed paint and fuel or emitted lead into the air. These companies are believed to be primarily responsible for contaminating sources such as paint, soil, and dust that cause childhood lead poisoning. State law enacted in 1991 imposed these fees to support activities aimed at identifying lead-poisoned children and ensuring that they receive adequate care. The Board of Equalization began collecting the fees for the department in fiscal year 1992-93.

These fees made up more than $12 million, or 72 percent, of the program's 1997-98 funding. Of this amount, the department allocated $6.7 million to local programs, using a formula based on the number of pre-1960 housing units in their jurisdictions, the number of cases opened throughout previous years, and the estimated cost of managing the anticipated cases. The department also reimbursed $3.6 million to the CHDP program for blood-lead tests and devoted $2.4 million to program operations, which include wages for branch staff; general expenses, such as printing, travel, training, and equipment; and costs for consultants to support ongoing program activities.

State and federal funds made up the remaining 28 percent of the branch's budget in 1997-98. The department received $3.1 million from state funds, or 18 percent of total funding. Federal funds of $1.7 million made up 10 percent and included grants from the federal Environmental Protection Agency (EPA) and the Department of Housing and Urban Development.

A LAWSUIT CHALLENGING INDUSTRY FEES THREATENED THE VIABILITY OF THE PROGRAM

A lawsuit filed against the department called into question the legality of the fees assessed on companies which distribute paint and fuel or emit lead into the air. In 1995, the California Superior Court ruled that the fees were an illegal tax, and, in 1996, the California Court of Appeals upheld this decision. Because the industry fees are a primary funding source, the department believed that the viability of the program was uncertain. For this reason, when the department appealed the ruling to the California Supreme Court, it also took several actions to preserve the program in case the outcome was unfavorable. It did

not spend the fees that the Board of Equalization collected during fiscal year 1996-97, in anticipation that it might be required to return them. Additionally, it reduced the branch's budget by eliminating 14 vacant positions, or nearly 30 percent of its positions; reducing funding to the local programs; and directing the branch to seek alternative funding sources to support the local programs' activities. In fiscal year 1996-97, the local programs received both state and federal funds in lieu of the fees.

The California Supreme Court overturned the lower courts' decisions in 1997, stating that the fees are in fact legal. Although this final outcome was favorable for the department, the funding challenges caused by the lawsuit had a significant impact on the branch. It has just recently begun to restore its staffing levels.

SCOPE AND METHODOLOGY

The Joint Legislative Audit Committee requested that the Bureau of State Audits evaluate the branch to determine whether the program is achieving the goal of eliminating childhood lead poisoning.

To understand the department's responsibilities for the identification and care of lead-poisoned children, we reviewed relevant federal and state laws, regulations, and policies governing these activities. In addition, to assess its progress and accomplishments for key program goals and objectives, we reviewed documentation such as reports and studies, and interviewed department and management staff.

We then requested data from the department on the total number of children that have received a blood-lead test to assess where and to what extent lead poisoning is a problem within the State. We were unable to obtain this information because the department does not maintain a comprehensive reporting system to track this information.

The department's annual reports of services for the Child Health and Disability Prevention (CHDP) program for fiscal years 1992-93 through 1996-97 provided data as to the number of blood-lead tests performed for children receiving health assessments under this program. Similarly, to identify the same information for its Medi-Cal Fee-For-Service program, we requested data on the number of children accessing services and

compared this information to the number of children receiving blood-lead tests for the federal fiscal year 1997-98. We were unable to obtain this information for its Medi-Cal Managed Care program because the department currently does not have a comprehensive reporting system to track this information.

To determine why children under the Medi-Cal and CHDP programs were not always receiving blood-lead testing as required, we interviewed management and staff of the department.

Next, we obtained an understanding of the department's recent efforts to develop a statewide plan to identify children at risk for lead poisoning by interviewing the management of the branch and attending a public forum. Because health care providers are crucial to identifying lead-poisoned children, we also considered the attitudes of health care representatives concerning the issue of lead poisoning and blood-lead testing by reviewing the results of a survey commissioned by the department. Then, to assess the effectiveness of the local programs' outreach and education activities in identifying lead-poisoned children, we reviewed their 1997-98 contracts and outreach budget summaries and work plans, as well as interviewing staff from the branch and the local programs.

Additionally, to determine if lead-poisoned children received adequate care, we randomly selected 30 of the 9,000 cases from the branch's database and reviewed branch and county records. We used these records to evaluate whether the local programs had provided appropriate care and whether lead abatement had occurred. To understand why certain sources of lead poisoning within homes had not been eliminated or reduced, we interviewed staff from 14 local programs. Further, to discover why 12 of California's counties have chosen not to participate in the program, we interviewed branch and county staff.

To understand the State's responsibilities for preventing lead exposure in public and residential buildings and to determine its progress in meeting these responsibilities, we reviewed relevant documentation, such as correspondence with the federal EPA, and conducted interviews with branch management and staff, as well as representatives from the EPA. Further, to determine the status of the branch's efforts in complying with the State's Lead-Safe Schools Protection Act, we reviewed the results of a

recent study by the department. We particularly considered the progress the branch had made on key activities, such as the development of training curriculum to educate school staff on the proper steps for reducing or eliminating lead hazards. **n**

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CHAPTER 1

The Department of Health Services Fails to Effectively Identify and Protect Children With Lead Poisoning

CHAPTER SUMMARY

The Department of Health Services' (department) progress in identifying and protecting children with lead poisoning, a disease with potentially devastating effects on a child's health, learning ability, and behavior, has fallen far short of the State's desired results. In 1991, the Legislature passed legislation declaring that the State's goal was to evaluate all children for risk of lead poisoning, to test those children at risk, and to provide appropriate case management for lead-poisoned children. The department's Childhood Lead Poisoning Prevention Branch (branch) is responsible for developing an approach that would allow it to identify the children throughout the State who suffer from the effects of lead poisoning and to ensure that they receive proper care. Blood-lead testing is the only method to identify children with elevated blood-lead levels. Similarly, obtaining test results from laboratories (labs) is the only way for the department to identify those children requiring intervention to reduce the child's blood-lead level, ranging from follow-up testing and education on lead and its effects to medical care.

More than seven years ago, the department was to develop a reporting system allowing it to track the results of all children receiving blood-lead tests. However, the department has yet to fulfill this critical task and as a result, it has no way of determining where and to what extent childhood lead poisoning exists in the State or that children are receiving the proper care. Despite estimating that more than 130,000 of the State's children between the ages of one and five have elevated blood-lead levels, including 40,000 who require case management, the department has only identified approximately 9,000 children between birth and age 16 requiring these services since 1991. Further, as of January 1999, the department is reporting that only about 3,500 of these children currently require case management services. Case management entails providing lead-poisoned children with individual medical care and conducting an investigation to find the source of the lead poisoning.

To further exacerbate this problem, the department has not been effective in ensuring that the health care professionals participating in its Medi-Cal and Child Health and Disability Prevention (CHDP) programs, which provide services to about 70 percent of the State's 1.1 million one- and two-year-old children, order mandatory blood-lead tests. Thus far, the department's records indicate that less than 25 percent of those children accessing services from these programs are receiving a blood-lead test.

The department has also been remiss in adopting regulations to establish a standard of care to address the remaining children receiving services from providers who do not participate in public assistance programs such as Medi-Cal or CHDP. Without this standard, health care providers are not held accountable when they do not evaluate each child's risk of lead poisoning during periodic health assessments and order blood-lead tests for those deemed at risk.

LITTLE PROGRESS HAS BEEN MADE IN ASSESSING THE EXTENT OF CHILDHOOD LEAD POISONING

After 12 years, the department is no closer to determining the extent of childhood lead poisoning within the State.

As early as 1986, the Legislature charged the department with determining the nature and extent of childhood lead poisoning within the State. Unfortunately, more than 12 years later, the department is no closer to an answer because it has failed to obtain sufficient data on the blood-lead testing that has occurred for children in the State. The department did not implement blood-lead testing of all children at the ages of one and two in accordance with federal guidance prior to 1997, nor did it implement an effective system for labs to report blood-lead test results. These measures would have given the department a better picture of just how widespread childhood lead poisoning is. This lack of data also hinders the department's ability to determine if all children requiring case management receive these services. As a result, the department has made little progress toward achieving the State's goal of evaluating all children for risk of lead poisoning, testing those children at risk, and providing appropriate case management for lead-poisoned children.

The United States Centers for Disease Control and Prevention (CDC) guides states on the proper protocol for childhood blood-lead testing and treatment. State law governing the development of a standard of care for lead-poisoned children affirms the

State's intent to follow the CDC's guidance. In 1991, the CDC called for virtually all one- and two-year-old children to receive blood-lead testing, unless the states had evidence that lead poisoning was not a problem in the child's community. Although the CDC subsequently modified its position on the appropriate approach to use for childhood blood-lead testing in November 1997, the department took no action on the original guidance.

The department failed to uphold the terms of a 1991 legal settlement requiring it to develop a system to track all blood-lead test results.

The department has also failed to uphold the terms of a legal settlement in 1991 requiring it to include the results of all blood-lead tests for children up to 15 years of age in its blood-lead reporting system. As discussed in the Introduction, in December 1990, a lawsuit was brought against the department for denying two children assessments of their blood-lead levels through its CHDP program. The lawsuit was dismissed in October 1991 pursuant to a settlement that required the department to expand itslaboratory reporting system. However, as of March 1999, the department had yet to adopt regulations requiring laboratories to report all blood-lead tests or to finalize the testing and installation of software that will allow it to collect this data from the labs. Because it did not follow the CDC's guidance or uphold the terms of the settlement, the department has not sufficiently identified children requiring blood-lead testing or determined where and to what extent childhood lead poisoning is a problem in the State. Essentially, the State has not progressed toward its goal of identifying and protecting children with lead poisoning.

Further, our review of the limited data maintained by the department revealed that primarily Medi-Cal and CHDP providers have reported the results of blood-lead tests in the past. Thus, the department's data gives a limited picture of childhood lead poisoning because it excludes children who do not receive public assistance. As a result, it hinders the department's ability to identify trends that can assist in identifying all children affected by lead poisoning. If the department had required testing of all one- and two-year-old children and required the labs to submit all blood-lead test results, it would have considerably more data on where and to what extent childhood lead poisoning is a problem in the State. As yet, the State does not know the number of children tested, the number with elevated blood-lead levels, or the areas within the State where lead poisoning appears to occur more frequently.

The department stated that it did not follow the CDC's guidance on blood-lead testing due to tremendous national and state controversy about this issue. Also, the department indicated that establishing a blood-lead reporting system for all blood-lead test results requires not only adopting regulations, but also the development of new computer software allowing for the collection and reporting of data from the labs, which requires a significant resource commitment. The branch stated that it initially drafted reporting regulations but was unable to complete them because it sustained funding cuts in fiscal years 1996-97 and 1997-98 resulting from a lawsuit over program fees and that this lack of funding also affects its ability to adequately maintain and analyze the data from this blood-lead reporting system. Nevertheless, it is the department's responsibility to ensure that adequate resources are available to fulfill critical tasks.

As yet, the State does not know:

- ☑ ***the number of children tested***
- ☑ ***those with elevated blood levels***
- ☑ ***areas within the State where lead poisoning occurs more frequently***

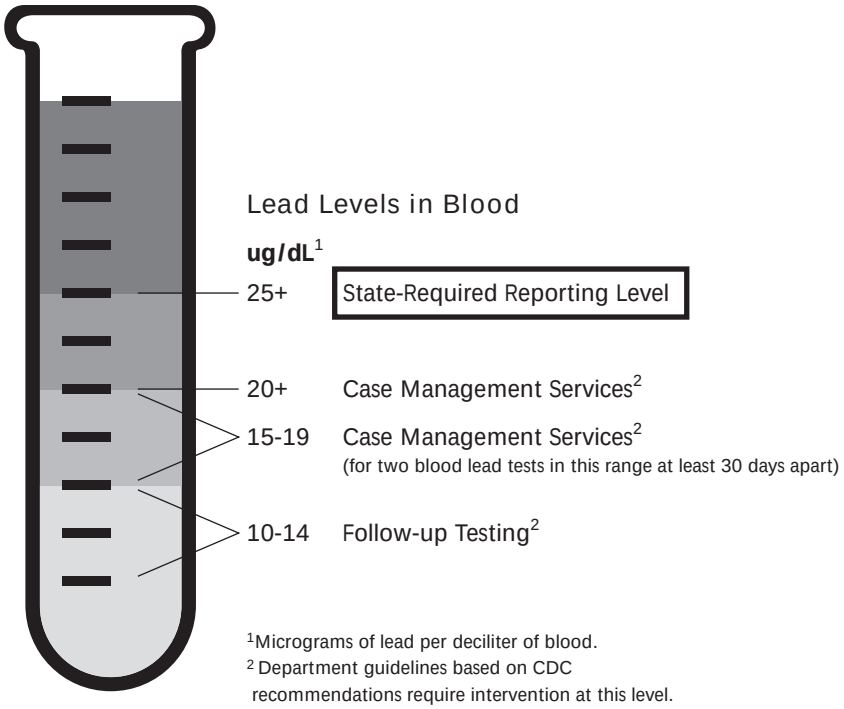
Currently, the department intends to finalize emergency regulations by June 1999 that require labs to submit all blood-lead test results. At that time, the software allowing labs to electronically submit their results will also be available. The department plans to install the necessary software in approximately 20 labs, which analyze about 25 percent of the blood-lead tests performed in the State, and intends to phase in other labs that are capable of reporting their results electronically. We believe that the department can use its visits to the labs as an opportunity to obtain additional blood-lead data for levels below those currently reported. Such data is crucial to analyzing where and to what extent lead poisoning is occurring within the State and to identifying more lead-poisoned children.

Current Lab Reporting Requirements Hamper the State's Ability to Properly Identify and Care for Affected Children

Even if the department required testing for all one- and two-year-old children, it still would not be able to identify those requiring case management services. As Figure 2 indicates, state law currently requires labs to submit only those blood-lead test results that exceed 25 ug/dL (micrograms of lead per deciliter of human blood). However, according to the department's guidelines, children with blood-lead levels as low as 15 ug/dL require case management services.

FIGURE 2

Current Blood-Lead Reporting Guidelines Do Not Ensure All Children Requiring Case Management Receive These Services



Although the department has requested labs to voluntarily report blood-lead test results between 15 ug/dL and 25 ug/dL since 1994, this is not required and the department does not monitor the labs to ensure they are actually submitting all results meeting these criteria. Because the department has not pursued revisions to reporting requirements that would correspond to its criteria for providing case management, it has no way of ensuring that it is fulfilling its requirement of identifying all children who need case management services.

The department estimates that more than 130,000 of the State's children between ages of one and five have elevated blood lead levels, including 40,000 who require individual medical care and an investigation to find the source of the lead poisoning. However, since 1991, it has only identified approximately 9,000 children between birth and age 16 requiring case management. Further, as of January 1999, the department reports that only about 3,500 of these children currently require case management services. Thus, a disparity exists between the

Although the department estimates that 40,000 California children require case management, as of January 1999, less than 10 percent have been identified and are receiving these services.

department's estimates and the number of children it has identified as requiring these services. This disparity is a direct result of the fact that many children throughout the State have not been tested, and when children were tested, the department has not ensured that the labs reported all results between 15 ug/dL and 25 ug/dL. Therefore, it is reasonable to conclude that all children with elevated blood levels are not being identified and are not receiving the proper medical care and the services necessary to reduce the sources of lead poisoning.

NOT ALL CHILDREN RECEIVING MEDI-CAL OR CHDP SERVICES ARE TESTED FOR LEAD POISONING AS REQUIRED

The department has been ineffective in identifying and educating health care providers that are not ordering mandatory blood-lead tests. Consequently, many lead-poisoned children who have yet to be identified suffer needlessly without proper care.

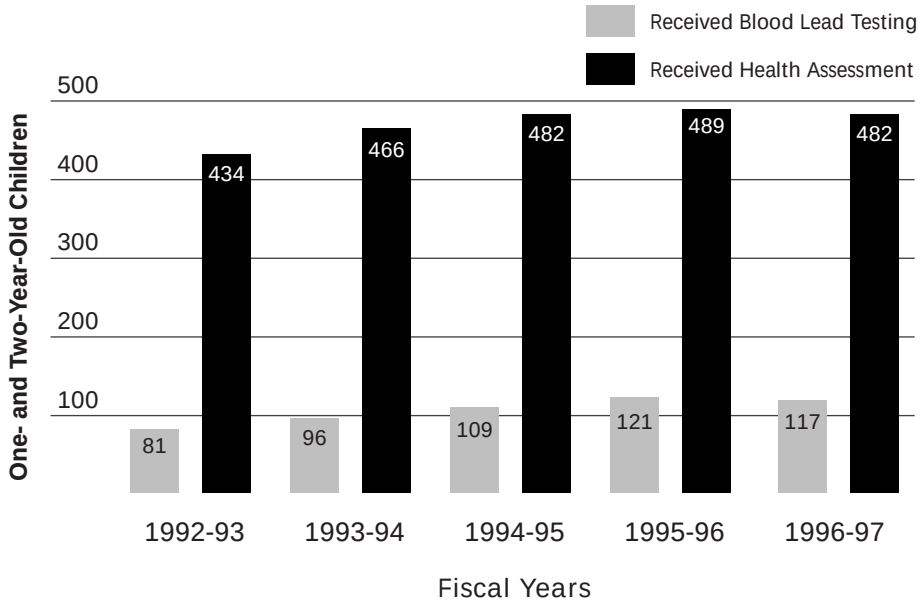
The Health Care Financing Administration (HCFA), the agency administering the federal Medicaid program, has deemed that all children receiving its services are at risk for lead poisoning. As part of its Early and Periodic Screening, Diagnostic, and Treatment Services program, HCFA requires providers to order blood-lead tests on all one- and two-year-old children. If any children between the ages of three and six have not been previously tested, providers must order blood-lead tests for them as well. The State has a responsibility to ensure that certified providers in its Medi-Cal program are meeting these blood-lead testing requirements. Similarly, these blood-lead testing requirements also apply to children in the State's Child Health and Disability Prevention (CHDP) program. Children receiving services from this program must also receive blood-lead testing at ages one and two as part of their health assessment.

Although health care providers participating in the State's Medi-Cal and CHDP programs must order blood-lead tests, only 22 percent of the children under these programs have been tested. Specifically, an average of 470,000 one- and two-year-old children have received health assessments under the CHDP program annually for the past five years, while only 105,000 of these children have received blood-lead tests. As illustrated in Figure 3, the blood-lead testing for children in this program has consistently remained low in the five years presented. Because

the department's CHDP program does not track the blood-lead test results of each child individually, we are unable to conclude that each child receiving a health assessment during the years presented was also required to receive a blood-lead test. However, it seems clear that many children were not tested at both ages one and two, and that a number of children were never tested at all.

FIGURE 3

Many Children Receiving Health Assessments From the Child Health and Disability Prevention Program Are Not Tested for Lead Poisoning (In Thousands)



Source: Child Health and Disability Prevention (CHDP) program annual reports on services provided.

Additionally, according to the department's data, only 14 percent of children in its Medi-Cal Fee-For-Service program, excluding those receiving services under the CHDP program, received blood-lead tests during federal fiscal year 1997-98. The department was unable to provide similar data for its Medi-Cal Managed Care program because it currently does not have a comprehensive reporting system to track this information.

Although in some instances providers may order a blood-lead test and the child's family may choose to forego the test, the blood-lead testing rates presented above are still extremely low.

Therefore, it is reasonable to conclude that the department's failure to ensure that providers order blood-lead tests is also a contributory factor. Because the children receiving CHDP and Medi-Cal services are often those who are most vulnerable to lead poisoning, the department must take immediate action to identify and educate providers who are not ordering the required blood-lead tests. Currently, the department's billing report for services provided in these programs captures data on whether a routine referral was made for a blood-lead test by the provider. The department can use this information to identify those providers who do not make such referrals. If the department does not identify and educate these providers, it cannot identify all children with lead poisoning and will continue to place some children's health at risk.

Providers participating in the State's Medi-Cal and CHDP programs, who are not ordering mandatory blood-lead tests, must be identified and educated.

THE DEPARTMENT NEEDS TO CONVINCE HEALTH CARE PROVIDERS OF THE NECESSITY OF BLOOD-LEAD TESTING

Health care providers play a major role in the department's ability to identify children susceptible to lead poisoning and ensure that these children receive a blood-lead test. Providers can assess whether children receive proper nourishment or live in an older home. Also, providers are in the best position to discuss the health risks and sources of lead poisoning with the child's family. However, the department has been unsuccessful in convincing many health care providers that childhood lead poisoning is a problem, partly because it has not collected sufficient data on the areas within the State where children are more prone to become lead-poisoned.

Until the department educates health care providers about the health risks and sources of childhood lead poisoning and supports its stance with data, it will not be successful at establishing a standard of care for lead poisoning evaluations in accordance with existing state law. Moreover, without educated health care providers, it will also be difficult to implement a statewide plan to test more children in accordance with the CDC guidance. The adoption of a standard of care and the development of a statewide plan are particularly important for those health care providers who do not provide services under its Medi-Cal and CHDP programs and thus are not required to order mandatory blood-lead tests.

The Department Has Yet to Adopt a Standard of Care Requiring Providers to Evaluate Children for Lead Poisoning

State law required the department, with participation from the health care community, to adopt regulations by July 1993 that would establish a standard of care requiring providers to evaluate all children for the risk of lead poisoning during periodic health assessments. This standard would dictate that those children determined to be at risk for lead poisoning would receive blood-lead tests. According to the department, it initially did not complete these regulations because of the controversy about blood-lead testing. The department stated that this climate made it difficult to arrive at a consensus within the health care community on the appropriate standard of care. Further, the department stated that it lacked sufficient staff when it began the formal process of drafting regulations.

Without a standard of care, health care providers are not held accountable for ensuring each child's risk is evaluated and necessary blood-lead tests are ordered.

The department believes that it will complete these regulations during fiscal year 1999-2000. Nevertheless, the department's failure to proceed with adopting regulations is unjustified. The department could have adopted regulations and later amended them when more definitive information was available. Additionally, its failure to designate adequate resources to establish a standard of care is another indication that it has not given full consideration to its responsibility to ensure that lead-poisoned children are identified and properly treated. Without a standard of care, health care providers cannot be held accountable when they do not evaluate each child's risk of lead poisoning and order blood-lead tests for those deemed at risk.

The Department Has Recently Begun Developing a State Plan to Identify Children at Risk

In 1997, the CDC changed its position on blood-lead testing in response to national data indicating that lead poisoning is declining and yet children who are most vulnerable to the harmful effects of lead continue to be exposed to it at a high rate. Previously, the CDC recommended testing all children at ages one and two, but its new guidelines call for state officials to target those children deemed at risk. In its efforts to develop a state plan, the department has released interim instructions on blood-lead testing to the local programs, assembled a task force, and held a public forum to solicit input from interested parties.

So that its plan can be successful, the department must gain consensus from health care providers, as well as insurers and parents. Additionally, the department must have adequate lab reporting data to identify those areas where lead exposure occurs most. In the absence of this data, the department's only option for identifying children at risk, other than evaluating those receiving public assistance from programs such as Medi-Cal or CHDP, is to use data on old housing stock to locate potentially affected children. Otherwise, the department must rely solely on the discretion of physicians in determining which children should be tested, and many physicians are not convinced that lead poisoning is a problem.

A Comprehensive Outreach Plan to Educate Health Care Providers About the Necessity for Blood-Lead Testing Is Needed

Recognizing a need to provide outreach, training, and education to health care providers, the department commissioned a survey to study the current attitudes, knowledge, and practices of physicians regarding childhood lead poisoning. The survey, which was completed in November 1996, indicated that many physicians lack vital information about lead poisoning, such as treatment options, and that they are not convinced that lead poisoning is a significant issue for their patients.

A November 1996 survey indicated that many physicians lack vital information about lead poisoning.

The department must make its outreach efforts more effective. Currently, department staff and consultants make some individual presentations to pediatricians; however, the department relies heavily on the local childhood lead poisoning prevention programs (local programs) with which it contracts to provide outreach and education to health care providers, even though it recognizes that the local programs do not have the time and resources to make much of an impact in reducing provider resistance. Therefore, this approach cannot ensure that statewide efforts and resources aimed at reaching physicians are effective. Thus, the department needs to develop a comprehensive provider outreach plan to educate health care providers on the importance of evaluating and testing children for lead poisoning.

Following the survey in 1996, the department began to draft a provider outreach plan. However, as of March 1999, it had yet to complete this plan. According to the department, the staff responsible for preparing the plan resigned, and it diverted remaining staff to other priorities. The department further stated

that it is establishing partnerships with the Long Beach State University Foundation and the American Academy of Pediatrics to educate physicians and overcome resistance to testing for lead poisoning. The department believes that it will complete its provider outreach plan within the next two years.

Until the department successfully educates the health care community and obtains adequate lab reporting data to support its position about lead poisoning in California, the department's efforts to use alternative means to identify children for blood-lead testing will be inadequate.

RECOMMENDATIONS

To ensure that the department properly focuses its efforts and resources on identifying and protecting children with lead poisoning, the Legislature should require the department to report on its progress annually. The report should detail the steps taken to adopt regulations for blood-lead reporting and a standard of care, as well as describe fully the State's plan for identifying children at risk for lead poisoning. Additionally, the Legislature should amend Section 124130 of the Health and Safety Code to require medical laboratories to report the results of all blood-lead tests.

To collect data on where and to what extent lead poisoning is a problem and to ensure that children with elevated blood-lead levels are identified and treated, the department should take the following actions:

- Adopt regulations requiring labs to report all blood-lead test results.
- Finalize the testing and installation of the software allowing labs to electronically submit their results.
- Develop and disseminate blood-lead reporting procedures for the labs to follow.

To ensure that health care providers order blood-lead tests in accordance with Medi-Cal and CHDP program requirements, the department should take immediate action to identify and educate those providers who are not ordering blood-lead tests as required.

To ensure that children receive evaluations to determine their risk of lead poisoning during periodic health assessments, the department should adopt standard-of-care regulations as previously directed by the Legislature.

To ensure that children deemed at risk for lead poisoning are identified and receive the proper care, the department should continue its recent efforts in developing a state plan in accordance with the CDC's guidance.

Finally, to gain consensus and support from the health care community on its approach for requiring blood-lead testing to identify lead-poisoned children, the department should continue its efforts in developing a comprehensive statewide provider outreach plan. **n**

CHAPTER 2

The Childhood Lead Poisoning Prevention Branch's Results in Achieving Other Program Responsibilities Are Mixed

CHAPTER SUMMARY

As we discussed in Chapter 1, the department has fallen far short in its efforts to identify children who are lead-poisoned. However, this is not the department's only responsibility. It must also ensure that these children receive appropriate case management services, such as follow-up blood tests, health education from trained nurses, and home visits to identify and eliminate or reduce (abate) specific sources of lead exposure. In addition, the Legislature charged the department with establishing a statewide program to ensure that lead hazards are identified and abated. While the department's Childhood Lead Poisoning Prevention Branch (branch) has worked toward meeting these responsibilities, the results of its efforts are mixed.

To ensure that lead-poisoned children are cared for, the branch has worked with California's cities and counties to develop local childhood lead poisoning prevention programs (local programs) to provide case management services. The branch has established a process for the local programs to follow for managing cases, but it has not monitored the local programs to determine if they are adhering to the process. As a result, the branch does not know whether the lead-poisoned children it has identified have received adequate care to reduce the amounts of lead in their blood to safe levels, or whether the sources of lead were identified and abated. When we reviewed selected cases, we found that not all lead hazards were abated, and that local programs require assistance in their efforts to compel property owners to do so.

We also found that the branch has made progress in establishing a program aimed at preventing lead exposure by developing work standards to be used during the removal of lead in public and residential buildings. Additionally, it has completed a study

to determine the prevalence of lead hazards in California's schools and notified these schools of the lead hazards and ways to abate them. However, to ensure that the removal of lead in children's environments is performed properly, the branch still needs to take immediate actions, such as meeting federal requirements to enforce the program aimed at preventing lead exposure and developing training curriculum to educate school staff.

The branch also assists local programs with their outreach activities aimed at identifying more lead-poisoned children. For example, it provided the local programs with about $2.4 million in fiscal year 1997-98 for outreach activities and also helped them develop their outreach plans. While these outreach activities appear adequate for educating the public about lead poisoning, the branch does not evaluate whether they meet the goal of identifying more children, as intended, nor does it require the local programs to evaluate their own efforts. Without these tools to measure the local programs' efforts toward identifying more lead-poisoned children, the branch cannot determine whether their activities are effective.

THE BRANCH DOES NOT ENSURE THAT LOCAL PROGRAMS FOLLOW ITS CASE MANAGEMENT PROCESS

Under existing state law, the branch is responsible for ensuring that lead-poisoned children receive appropriate case management services. Although the branch contracts with local programs to provide follow-up care to lead-poisoned children, it does not enforce their compliance with its established guidelines, nor does it determine whether the children's care is adequate. Specifically, local programs must submit reports detailing the follow-up activities performed for lead-poisoned children the branch has identified, but the branch does not take appropriate action when the local programs fail to submit the reports. Further, even when the local programs do submit the required reports, the branch does not review them to assess the adequacy of the local programs' services. For example, the branch does not determine whether a public health nurse and a registered environmental health specialist (environmental specialist) visited the homes of those children with high blood-lead levels and identified the sources of the lead exposure, or whether

Even when local programs submit required reports, the branch does not review them to assess the adequacy of the services provided.

the amount of lead in the children's blood was reduced to safe levels. Because the branch is not fulfilling the department's statutory responsibility of ensuring appropriate case management for lead-poisoned children, some of these children may not receive all the needed services.

The Branch Has Worked to Develop Local Programs in California

Over the years, the branch has worked with California's cities and counties to develop local programs for the purpose of providing case management services to children with lead poisoning. In general, a local program consists of a nurse, who coordinates the follow-up care for children with lead poisoning, and an environmental specialist, who identifies and works to eliminate or reduce the sources of lead exposure. Some local programs also have health educators who perform outreach activities to identify more children with lead poisoning.

The branch supports local program efforts by providing technical assistance, loaning equipment, and seeking additional funding.

To get the local programs started, the branch offered training and educational materials to the cities and counties, and it continues to give them technical assistance when requested and through its participation in the quarterly meetings held by the local programs. Moreover, the branch recently established a program to loan out x-ray fluorescence (XRF) instruments to facilitate the efforts of the environmental specialists to detect sources of lead. An XRF instrument is a portable device, costing about $15,000, that measures the amount of lead either in soil or on surfaces, such as painted walls, within 3 to 15 seconds. Currently, 20 local programs want to participate in the XRF loaner program, but only 7 have met the necessary requirements.

The branch was also instrumental in establishing the Medi-Cal Lead Program in September 1996 to obtain additional funding to preserve the local programs when a lawsuit threatened the collection of the fees used to support them. Believing that local programs were eligible for federal reimbursements because of the types of services they provide to children eligible for Medi-Cal, the branch developed a process to help them obtain this funding. This process involved such activities as adapting the branch's existing administrative guidelines to comply with Medi-Cal program requirements, amending the state plan for Medi-Cal that the department submitted to the federal Health Care Financing Administration, and defining reimbursable case

management activities. The Medi-Cal Lead Program has resulted in increased annual funding for local programs. In fact, in fiscal year 1997-98, the local programs' allocation of federal funding was nearly $3.3 million.

As of January 1999, many counties and a few cities have developed local programs. The branch contracts with these local programs to perform case management services for lead-poisoned children, funding the majority of the contracts with fees collected from industries determined to be primarily responsible for contaminating sources such as paint, soil, and dust that cause childhood lead poisoning. Twelve of California's smaller counties have chosen not to participate, largely because they do not believe the available funds would cover the costs of administering a local program. Although the counties do not participate, the branch must still ensure that lead-poisoned children in these counties receive appropriate care.

The Branch Has Established a Case Management Process

In addition to helping develop the local programs and securing funding for case management services, the branch has also developed guidelines for these services. A lead-poisoned child enters the system when the branch receives the child's blood test results and decides it must open a case. Currently, the branch opens cases for children whose test results meet one of two criteria: the blood lead level is equal to or greater than 20 ug/dL, or two tests, taken at least 30 days apart, give results equal to or greater than 15 ug/dL. Once it opens a case, the branch informs the local program in the city or county where the child lives and supplies its staff with forms to document and report their activities. The branch's case management guidelines for the local programs are shown in Figure 4.

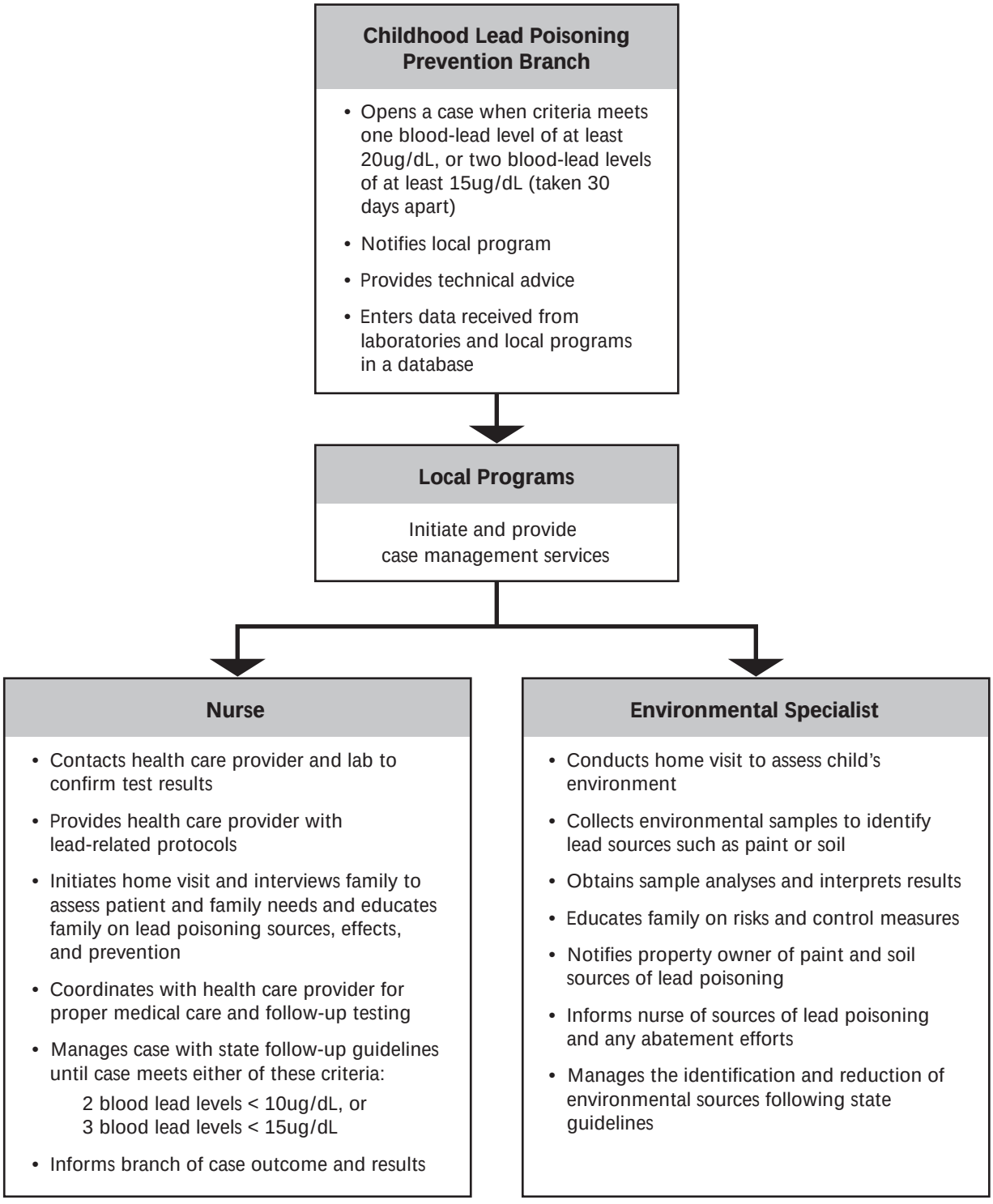
The local programs' nurses and environmental specialists care for lead-poisoned children and work to reduce the amount of lead in the children's blood to safe levels. The branch's guidelines require the local programs to report all of their case management activities, as well as cases they close once the child's blood-lead level has been reduced.

The Branch Does Not Enforce Its Reporting Requirements

Although the branch has established case management guidelines for the local programs that require them to report all of their activities, it has not enforced this requirement. As a result,

FIGURE 4

Case Management Process



the branch cannot be sure that the local programs have acted appropriately for those children whom it has identified as suffering from lead poisoning.

Since 1991, the branch has opened cases for nearly 9,000 children requiring individual case management. We reviewed 30 of these cases to determine if the children had received adequate care and if the local programs had appropriately managed their cases. However, for 29 of the cases, we were unable to make this determination using the branch's case files because these files were substantially incomplete. In general, the branch's files lacked documentation concerning follow-up blood-lead tests, blood-lead tests for young siblings in the same households, site visits from environmental specialists, and abatement of lead sources. Further, in 6 of the 29 cases, the files did not contain any follow-up information from the local programs, even though in one such case the child's blood-lead level was high enough to warrant urgent medical treatment.

For 97 percent of the cases reviewed, the branch's files were substantially incomplete. In fact, it lacks any information for 750 cases dating back to 1993.

The branch acknowledges that it does not have all the local programs' follow-up reports. Although the branch stated that it made efforts in March 1998 to obtain information concerning cases about which it had received no previous documentation, it was often unsuccessful. In fact, the branch stated that as of March 1999, it did not have any information from the local programs for 750 cases dating back to 1993. Additionally, as our review demonstrates, many other case files contain some follow-up reports but are significantly incomplete because they lack other critical information. Without this case management information from the local programs, the branch cannot ensure that lead-poisoned children are receiving the appropriate levels of care, as outlined in its guidelines.

The Branch Needs to Establish a Monitoring Process to Ensure That Lead-Poisoned Children Receive Quality Care

Even when the local programs do submit the required reports, the branch does not review them to ascertain whether the programs render adequate services to the children. Because the branch's case files were substantially incomplete, we obtained case data from the local programs to determine if the children had received necessary services. The majority of the cases we reviewed had warranted follow-up by a nurse to coordinate medical care for the child, to contact the family, and to conduct home visits. In addition, they had required an environmental specialist to iden-

tify the lead source and instruct the family or property owner on safely eliminating or reducing that source. In all of these cases, the local programs rendered timely and adequate care to the lead-poisoned children.

Fortunately, the local programs acted appropriately for the cases we reviewed. However, we are concerned that the branch's lack of monitoring does not allow it to determine whether the children it identifies with lead poisoning have received needed care or if they are still suffering. Historically, the branch's only role in managing cases has been to enter into its database blood test results from laboratories and case management information from local programs. When requested, it has also assisted local programs in technical matters. However, to meet its statutory responsibility to ensure appropriate case management of all lead-poisoned children, the branch should also monitor the local programs and compel their compliance with its reporting requirements so that it may assess the levels of care given to lead-poisoned children.

Because its involvement in case management is limited to entering information into a database, the branch is not ensuring all lead-poisoned children receive proper care.

The branch's monitoring efforts should include a high-level review of all follow-up reports to ensure the completeness of each report and to determine that all required reports have been submitted. Additionally, someone with health expertise should perform a detailed review of a representative sample of individual cases from the local programs to ensure the adequacy of care provided to lead-poisoned children.

The branch agrees that there is a need to monitor the local programs and assess their quality of care, but states it has not accomplished this because it lacks sufficient resources. Yet until it establishes a quality control process, the branch cannot be certain that all lead-poisoned children receive proper care, that the levels of lead in their blood are reduced to safe levels, or that the sources of their lead exposure are reduced or eliminated.

Counties and Cities Need Assistance to Compel Abatement of Lead Hazards

Because the branch does not review the local programs' activities, it remains unaware of the extent to which recommended abatement activities are taking place. In our review of follow-up care for lead-poisoned children, we determined that the local programs are not always able to ensure that sources of lead poisoning are adequately eliminated or reduced.

During our review of the 30 cases, we found 16 instances in which the source of the children's lead poisoning was lead-based paint or contaminated soil or dust in the child's residence. Although the environmental specialists informed the 16 families or property owners of the sources and explained the need to have them removed or eliminated, the local programs reported that only 8 did so. Consequently, these known sources of lead poisoning remain either as a continual danger to the children previously poisoned, or as a danger to others.

Eleven of the 14 local programs we surveyed stated that they lack specific legal authority to compel property owners to eliminate or reduce lead hazards.

To discover why lead abatement does not always occur, we surveyed 14 local programs. Eleven of these programs stated that they lack specific legal authority to compel property owners to eliminate or reduce lead-based paint and contaminated soil. Because of this, some are apprehensive to do so. As a result, many of their efforts to identify sources of childhood lead poisoning—and thereby reduce children's blood-lead levels—may be futile. In contrast, the local programs from two of California's larger counties and one city stated that local ordinances provide the authority to require lead abatement. For this reason, when one of their environmental specialists identifies lead-based paint or contaminated soil as the source of a child's lead poisoning, they are able to compel abatement.

While existing state law grants the department legal authority to order an abatement of public health nuisances, including lead hazards, it does not grant this authority to cities and counties. To allow cities and counties to compel abatement of lead hazards, the Legislature should extend this authority to them, or the department should assure that the branch works with the local programs to assist in issuing abatement orders.

THE BRANCH MUST COMPLETE CRITICAL TASKS TO PREVENT CHILDREN'S EXPOSURE TO LEAD

In addition to its responsibilities for ensuring that lead-poisoned children are identified and receive the appropriate care, the Legislature has charged the branch with ensuring that certain steps are taken to prevent children from being exposed to lead hazards in homes and schools. Although the branch has established a program to prevent lead exposure in homes and has begun developing guidelines to use during school repairs, it needs to take immediate action to ensure that lead removal in

homes and schools is performed properly. If the branch prolongs the completion of these tasks, children at risk for lead poisoning will continue to be exposed to lead hazards.

The Branch Needs to Demonstrate Its Ability to Enforce Program Requirements or Risk Losing Federal Funds

Following the passage of the federal Residential Lead-Based Paint Hazard Reduction Act of 1992, the purpose of which is to eliminate lead-based paint hazards in all homes, the State developed a program to reduce exposure to lead caused by unsafe removal of, or renovation involving, lead-based paint. This program allows the State and local agencies to remain eligible to receive federal grants supporting lead abatement activities in housing constructed prior to 1978. According to the branch, the federal government has thus far awarded state and local agencies in California more than $50 million for this purpose. The branch needs to take immediate action to ensure it fulfills federal requirements for enforcing its program or it will place this funding at risk.

Federal Lead Hazard Control Grants are Available

The U. S. Department of Housing and Urban Development (HUD) assists state and local governments in controlling lead-based paint hazards by awarding grants of up to $4 million. HUD estimates applicants will spend between 100 and 200 hours to provide information such as the following:

- The amount of the grant request and the amount of local matching funds.
- The scope of the project, the grantee's plans for completing the work, and an estimated budget.
- Demographic, socio-economic, and housing characteristics of neighborhoods selected for the project, as well as the number of children under six years of age with elevated blood-lead levels in those neighborhoods.

The development of this program has been lengthy and complicated. As early as 1994, in accordance with state law, the branch developed regulations to accredit those providing health and safety training to employees who engage in or supervise activities aimed at reducing or eliminating lead hazards. The branch has worked closely with the federal Environmental Protection Agency (EPA) to ensure that the State's program incorporates federal requirements for certifying those individuals eliminating or reducing lead hazards and to develop work practice standards that dictate the proper steps to remove or reduce these hazards. The purpose of accrediting trainers, certifying employees, and establishing work practice standards is to ensure that individuals who eliminate or reduce lead hazards understand the effects of lead and take the proper safety precautions.

In September 1998, the branch submitted an application for the EPA's approval of its program. However, after its initial review of the branch's application in January 1999, the EPA found that the branch had not adequately addressed its ability to enforce the

program requirements because it had not provided sufficient information on the funding and staffing dedicated to enforcement activities. Further, the EPA found that the branch had not demonstrated it had the legal authority necessary to impose administrative, civil, and criminal sanctions against those individuals who violate state requirements.

As of February 1999, the branch's progress in demonstrating its ability to enforce its program requirements has been minimal. Although it has established a process for on-site inspections of lead abatement work sites, it has yet to begin conducting these inspections, stating that it lacks sufficient staffing. According to the branch, four individuals are devoted to its compliance and enforcement activities; three of the four are outside consultants. The branch is also required to review every training course and conduct some unannounced visits to classes. Again citing its lack of sufficient staff, the branch has not reviewed over 60 courses to determine whether the course content meets established standards. Further, the branch intends but has not yet sought an amendment to existing state law that would allow it the necessary authority to enforce its program requirements.

The branch has not conducted any on-site inspections of lead-abatement work sites, nor has it reviewed more than 60 training courses to determine whether they meet standards.

Until the branch can demonstrate to the EPA that it has dedicated adequate funding and staffing to its enforcement responsibilities, it places the State and local agencies at risk of losing federal funding to support lead abatement activities.

The Branch Needs to Develop Training Curriculum to Reduce Children's Exposure to Lead Hazards Caused by School Repairs

Because the branch has primarily focused its efforts on establishing its program to evaluate and control lead hazards in homes, the completion of the study required by the Lead-Safe Schools Protection Act in 1992 was delayed and a critical task resulting from the study remains incomplete.

In 1992, the branch was directed to conduct a study to determine the prevalence of lead hazards in California's schools; however, it did not begin the study until 1994. Upon completion of the study in April 1998, more than five years after the enactment of the state law requiring it, the branch found that 96 percent of a random sample of 200 schools and day care facilities have lead-based paint. This paint is deteriorating in

38 percent of these schools and day care facilities. The branch made recommendations based upon the study, including the need to immediately prioritize the maintenance of lead hazards.

The branch made a concerted effort to inform the school districts about these recommendations, as well as of the availability of other sources of information related to properly abating lead hazards. However, the branch has yet to complete the necessary curriculum to properly educate school and day care staff on appropriate steps for eliminating or reducing lead hazards. The branch believes that it will have this training curriculum completed by June 1999. Until then, children at these schools and day care facilities continue to be at risk for lead poisoning.

THE BRANCH NEEDS BETTER EVALUATION CRITERIA TO DETERMINE THE EFFECTIVENESS OF OUTREACH ACTIVITIES

The branch has given many local programs approval to spend funds on outreach and education activities to identify more lead-poisoned children. We reviewed all 49 of the branch's 1997-98 contracts with the local programs and determined that the branch approved expenditures for 44 of them for outreach and education activities. In total, the local programs budgeted $2.4 million, nearly 25 percent of all funds available to the local programs, for identifying more childhood lead-poisoning cases. Yet, despite this expense, the branch is unable to determine how many children were either tested for lead poisoning or found to have lead poisoning as a result of the local programs' efforts because it does not require the programs to evaluate their activities on the basis of children identified.

While nearly 25 percent of local program funding is used for outreach and education, the branch cannot determine the results of these efforts.

The branch believes that it cannot conclude that a child with lead poisoning was identified as a result of outreach and education because there are too many reasons why a child might be tested for lead poisoning. Even though the branch's guidelines specify that the primary objective of outreach is to find more lead-poisoned children, it does not evaluate outreach efforts based on this criteria, nor does it require the counties to do so. However, the branch stated that it does work with the counties to develop realistic outreach plans, along with other measurable objectives and evaluation components.

The branch does not require local programs to disclose whether any additional lead-poisoned children were identified—the ultimate goal of outreach efforts.

We examined the local programs' outreach plans and found that most of their objectives were actually tasks. Additionally, most of the evaluation components determined whether the local programs completed those tasks. For example, "pass out lead-awareness flyers or brochures" was one objective, and "count the number of flyers and brochures passed out" was the corresponding evaluation component. Another objective was "develop and place advertisements or articles in the local newspaper." The related evaluation component was "keep copies of the articles." We believe that these tasks are reasonable ways of educating the public, and that the evaluation components demonstrate that the local programs carry out their plans. However, the branch cannot evaluate the effectiveness of local program efforts without requiring them to disclose whether any additional lead-poisoned children were identified—the ultimate goal of outreach efforts.

Despite the branch's assertion that the number of children tested or identified cannot be directly linked to outreach and education activities, we noted during our review that 16 local programs chose to track the number of children tested for lead poisoning as an evaluation component. This indicates that the local programs see value in knowing the results of outreach activities.

Because the purpose of spending funds on outreach and education activities is to identify lead-poisoned children, the branch should require the local programs to determine whether their activities fulfill this purpose. For instance, the branch could require local programs to document the number of children tested for lead poisoning, or those identified to have lead poisoning, during a specified time. Without an evaluation component to determine the programs' effectiveness at meeting the overall outreach objective, the branch cannot conclude that the local programs' outreach efforts result in the identification of any lead-poisoned children.

RECOMMENDATIONS

To enable California's cities and counties to compel property owners to eliminate or reduce (abate) lead hazards, the Legislature should grant local governments the authority to order such abatements.

To ensure that the Childhood Lead Poisoning Prevention Program fulfills the regulatory responsibilities of identifying and adequately caring for lead-poisoned children, the Childhood Lead Poisoning Prevention Branch should take the following actions:

- Ensure local programs submit to it all necessary follow-up information outlining the services provided to lead-poisoned children.

- Monitor local programs' activities to ascertain whether lead-poisoned children receive appropriate care. This should include a high-level review of all follow-up reports to ensure their completeness, as well as a review to determine if the local programs have sent in all the required reports. The process should also require someone with health expertise to evaluate in detail a representative sample of individual cases from the local programs.

- Ensure that homeowners and property owners properly eliminate or reduce lead hazards identified as a source of a child's lead poisoning by assisting the local programs with issuing abatement orders if the Legislature does not grant this authority to them.

- Fulfill its enforcement responsibilities for ensuring that program requirements designed to reduce lead exposure caused by unsafe renovations or removal of lead-based paint are met by seeking legislation granting enforcement authority that will allow it to impose administrative, civil, and criminal sanctions against those individuals who violate these requirements.

- Complete the training curriculum needed to educate California's school and day care facility staff on the proper steps for identifying and abating lead hazards so that children are not put at risk for lead poisoning.

- Require local programs to evaluate the effectiveness of their outreach and education efforts based upon the primary objective of identifying more lead-poisoned children. Further, the branch should assist the local programs in developing the proper tools for evaluating the effectiveness of these efforts.

We conducted this review under the authority vested in the California State Auditor by Section 8543 et seq. of the California Government Code and according to generally accepted governmental auditing standards. We limited our review to those areas specified in the audit scope section of this report.

Respectfully submitted,

KURT R. SJOBERG
State Auditor

Date: April 13, 1999

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Agency's response provided as text only.

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April 2, 1999

Mr. Kurt R. Sjoberg
State Auditor
555 Capitol Mall, Suite 300
Sacramento, CA 95814

Dear Mr. Sjoberg:

This is in response to your letter of March 29, 1999 to Grantland Johnson, Secretary, Health, and Human Services Agency, regarding your report "Department of Health Services: It Has Made Little Progress in Protecting California's Children From Lead Poisoning."

Please find enclosed the Department of Health Services' response. If you have any questions or need additional information, please contact me at (916) 657-1425.

Sincerely,

(Signed by:)

Joseph P. Munso
Chief Deputy Director

Enclosure

cc: Grantland Johnson, Secretary
Health and Human Services Agency
1600 Ninth Street, Room 460
Sacramento, CA 95814

Department of Health Services Response to the Audit of the Childhood Lead Poisoning Prevention Program

I. Summary

The Department of Health Services (DHS) has carefully reviewed the Auditor's recommendations and, for the most part, concur that they would improve California's Childhood Lead Poisoning Prevention (CLPP) Program. Indeed, many of these recommendations are already being implemented. Others require additional staffing or other resources for the DHS CLPP Branch. Others are more difficult to implement because they face such hurdles as lack of political consensus that the recommendation is needed. The additional resources, timelines, and progress towards these recommendations, as well as barriers to achieving others, are discussed below.

Though the CLPP Program has gaps to fill, it is widely recognized as one of the most comprehensive CLPP programs in the nation. For example, the computer surveillance system developed by the DHS CLPP Branch has received national recognition as one of the best childhood lead poisoning data bases in the United States. The care provided to lead poisoned children is of a higher quality than that provided by most other state CLPP programs. And, though levels of screening at risk children for lead poisoning are still too low in California, they are at about the national average, and all states need to do better. (1)* This national perspective and the substantial accomplishments of the CLPP Program are missing from this audit report. We provide them to provide a more balanced picture of the program.

(2) The auditor's report provides an incomplete explanation of the reasons why not all targets of the CLPP Program have been fully met, therefore we provide additional background. Two major factors are described: the impact of California's recession in the early 1990s on the administrative ability to gear up the program, and the substantial impact of the various stages on the Sinclair v. Board of Equalization lawsuit on funding levels and program integrity for DHS and for the local CLPP programs.

II. DHS Response to Audit Recommendations

The Office of the State Auditor has made a series of recommendations for improving the DHS CLPP Program. A detailed discussion of the audit recommendations follows. This includes a summary of the CLPP Program's position on the recommendation, plans for addressing the recommendation, as well as background information on the issues leading to this recommendation.

RECOMMENDATION: To ensure that the department properly focuses its efforts and resources on identifying and protecting children with lead poisoning, the Legislature should require the department to report on its progress annually.

*California State Auditor's comments on this response begin on page R-17.

DHS does not agree with this recommendation, which would add work but no benefit to the program. Currently the CLPP Program is required to report to the Legislature biannually, with the last legislative report issued in 1997. Because of the complex nature of CLPP efforts, CLPP Program activities usually span several years from start to finish. The current biannual reporting time frame allows the CLPP Branch to reach larger increments of progress before completion of any legislative report, and thus makes more programmatic sense. (3)

RECOMMENDATION: To collect data on where and to what extent lead poisoning is a problem and to ensure that it identifies children with elevated blood-lead levels and provides proper service to them, the department should take the following actions:

- **Adopt regulations requiring labs to report all blood-lead test results.**
- **Finalize the testing and installation of the software allowing labs to electronically submit their results.**
- **Develop and disseminate blood-lead reporting procedures for the labs to follow.**

DHS agrees with this recommendation and efforts to complete this work are well under way. Achieving complete reporting of all blood lead measurements of California residents will vastly strengthen the ability of DHS to monitor screening efforts. It will allow DHS to track screening rates among managed care organizations and among children served by programs such as the Child Health and Disability Prevention Program (CHDP) and Medi-Cal. It will not, however, allow DHS to estimate the prevalence of lead poisoning across the State, because it will only provide data on the subgroup of children who successfully receive a screening test. Experience from other states indicates that highest risk children do not get routine medical care and therefore are not screened.

Much of the work for establishing a comprehensive blood lead reporting system is at or near completion. The regulations requiring this reporting were in draft form when the CLPP Branch budget was reduced in fiscal year 1996 through 1998. In Summer 1998, a staff person was hired to complete this package using federal grant funds. A revised regulation package is nearly complete and will be forwarded as emergency regulations to the DHS Office of Regulations by June 30, 1999.

Reporting of all blood lead levels by laboratories will increase the number of blood lead reports to the CLPP Branch from 1,000 per month to 1,000 per day. The workload required to manage this large increase in reports can only be accomplished if the reporting occurs electronically rather than by paper as has occurred in the past. The CLPP Branch has continued to use federal grant funds to support development of this electronic reporting software, the Collect software package, through an external contract with a software development firm. The Collect package has been delivered to the CLPP Branch and is undergoing final beta-testing prior to installation in the commercial laboratories that perform blood lead testing and request the software.

Over 200 commercial laboratories currently perform blood lead analysis on California residents. A laboratory survey determined that approximately 50 laboratories (those performing approximately 75 percent of all the blood lead tests) expressed interest in electronic reporting. Two staff were hired using federal grant funds to perform this software installation and provide technical support and maintenance. Next fiscal year, 20 laboratories will be brought online, with the remaining labs in the following years.

The audit report suggests that older blood lead data may be collected when Collect is installed in laboratories. Though DHS agrees that additional data might be helpful in
(4) understanding the extent of lead poisoning and lead screening in California, DHS does not have either the legal authority or the staff to collect or process this old data.

Due to staffing limitations, rapid implementation of the universal reporting system is not currently possible. Additionally, there is an ongoing need to monitor the incoming data for quality and completeness and for conducting routine analysis of the incoming data. Current CLPP Branch staffing is inadequate to perform these tasks. The CLPP Branch will seek additional resources to complete this workload increase through the state budget process.

A user manual for Collect has already been developed and will be distributed when the Collect software is installed at the reporting laboratories. Currently, reporting procedures are already routinely sent to laboratories that perform blood lead tests and are required by law to report all blood lead level above 25 micrograms of lead per deciliter whole blood.

A Special Note About the Limitations of a Universal Blood Lead Reporting System, and the Need for Additional Data Collection Efforts

(5) The State Auditor overestimated the ability of a universal blood lead reporting system to provide accurate estimates of the frequency of lead poisoning among California's child population. The face of childhood lead poisoning is changing rapidly, and other data collection efforts are needed to understand whether children who do not receive routine preventive health care in California are at high lead poisoning risk. These efforts include special screening projects conducted in high risk populations and settings such as poor older urban neighborhoods, homeless shelters, and food support programs such as the Women, Infants and Children's food and nutrition support programs. The CLPP Branch has funded several two-year projects to conduct such screening surveys in fiscal years 1999 through 2000. These projects are being conducted in five counties: Los Angeles, Santa Clara, San Diego, Nevada, and San Joaquin. However, ongoing resources are needed to conduct such periodic surveys on a regular basis.

RECOMMENDATION: To ensure that health care providers order blood lead tests in accordance with Medi-Cal and CHDP program requirements, the department should take immediate action to identify and educate those providers who are not ordering blood-lead tests as required.

DHS only partially agrees with this recommendation. Future notification and education of providers must occur in the context of the planned provider outreach and education plan, and the targeted screening plan under development, as discussed below. And, to provide national perspective, though screening rates in the Medi-Cal and CHDP programs are still too low, they are at about the national average.

The data presented in this report must be considered in light of the persistent national controversy about lead screening, described in Section IV of this response, and the level of screening in California prior to development of the CLPP Program. Prior to 1991, virtually no children were screened for lead poisoning in California. Following passage of the Act, lead screening rates gradually increased and then leveled off at approximately 14 to 21 percent, as indicated in this report. The data presented here is very incomplete, and do not reflect analysis of the many factors that influence screening rates that are beyond the control of DHS. For example, many families have difficulty following through on a blood test order when it requires additional travel to a laboratory to have the blood drawn. Many providers and families do not want their child to have their blood drawn by a venous blood stick, preferring the fingerstick method to draw the blood. This fingerstick method was not widely available in California until the last year. Limited surveys conducted by DHS indicate that up to 90 percent of families do not follow through with a blood lead test order when they must travel to another site for a blood draw. (6)

CHDP providers were notified to perform blood lead tests according to United States Centers for Disease Control and Prevention (CDC) standards in the fall of 1991 and again in early Spring 1997, and Medi-Cal providers, both fee-for-service and managed care, are required to comply with all CHDP screening standards. The CLPP Branch is in the process of revising screening policy to be consistent with the November 1997 CDC guidance. The revised policy will be complete by June 30, 1999. At this time, DHS will again notify providers of their screening responsibilities. In addition, the provider outreach plan under development will focus on those providers who serve the CHDP and Medi-Cal populations, and will reinforce the need to screen these children. Medi-Cal and CHDP eligible children are at high risk for lead poisoning, and therefore, once a targeted screening plan is complete, the CLPP Branch will focus their provider outreach efforts towards providers and medical plans that serve large numbers of Medi-Cal and CHDP eligible children. DHS will also develop audit tools for the DHS Audits and Investigations Program to use during their review of lead screening compliance by Medi-Cal Managed Care Plan providers.

RECOMMENDATION: To ensure that children receive evaluations to determine their risk of lead poisoning during periodic health assessments, the department should adopt standard-of-care regulations as previously directed by the Legislature.

DHS does not agree with this recommendation, because these regulations will hinder rather than advance efforts to perform appropriate screening of California's children. No other medical condition has a legal requirement to promulgate regulations governing the (7)

approach to screening, so this is a precedent-setting regulatory requirement. Regulations are not needed to establish a medical standard of care, which is set by policy setting bodies of professional organizations such as the American Academy of Pediatrics, or by federal agencies such as the CDC. Because of this precedent, these regulations would receive a hostile reception among the regulated medical community of pediatric health care providers and medical insurance plans. This community would view these regulations as an overreaching attempt by the State to dictate the practice of medicine. In the long run, these regulations would have the paradoxical effect of undermining rather than building consensus, generating a backlash against screening and ultimately undermining DHS efforts to successfully screen high-risk children. The staff efforts required to turn the DHS Targeted Screening Policy into regulations would be better spent on activities to educate providers and health plans and fully implement the policy. Finally, even if these regulations were promulgated, DHS has no legal authority to enforce these regulations, so they will carry no more weight than more simply developed and distributed policy. (7)

Section IV of this response provides a detailed explanation of the considerable controversy surrounding childhood lead screening policy. DHS has worked carefully over many years to constructively engage pediatric health care providers in the development of screening policy. Over the long run, this consensus building approach will improve provider agreement and compliance with screening policy much more than any regulatory approach.

Rather than continuing with this regulation development effort, DHS recommends legislative repeal of this mandate.

RECOMMENDATION: To ensure that children deemed at risk for lead poisoning are identified and receive the proper care, the department should continue its recent efforts in developing a state plan in accordance with the CDC's guidance.

DHS agrees with this recommendation and is well on the way towards completion of a targeted screening plan for California. The CLPP Branch began development of a Targeted Screening Plan in 1995 by convening a consensus panel of experts, as required by the Act. The panel met for fifteen months, and issued a report to DHS in January of 1997. This report recommended targeting screening to children at high risk for lead poisoning, following criteria that were under development by CDC. In November 1997, CDC issued its current screening guidance, and DHS issued interim targeted screening guidance. In Fall 1998, the CLPP Branch convened a Targeted Screening Task Force, which met in January 1999 and again will meet in April 1999. A Targeted Screening State Plan will be developed following these meetings, and will be issued by June 30, 1999.

RECOMMENDATION: To gain consensus and support from the health care community on its approach for requiring blood-lead testing to identify lead-poisoned children, the department should continue its efforts in developing a comprehensive statewide provider outreach plan.

DHS agrees with this recommendation. The CLPP Branch is in the process of establishing a partnership with Long Beach State University and California District IX of the American Academy of Pediatrics to develop this comprehensive plan. The two-year contract should be in place by June 30, 1999.

A Special Note for the Following Recommendations: The State Auditor uses the term "Lead Abatement" instead of the correct term "Lead Hazard Remediation"

Throughout the draft audit report provided to the California Department of Health Services for response, the State Auditor has chosen to use the term "lead abatement" in a way that deviates from the common usage of this term among CLPP professionals. This usage also deviates from the definition of "lead abatement" within federal guidance and regulation. The United States Department of Housing and Urban Development, the United States Environmental Protection Agency (USEPA), the lead hazard reduction and CLPP professional communities define "lead abatement" as the complete and permanent elimination of lead paint or leaded soil from a structure or its surroundings. (8)

Such lead abatement is extremely expensive, and recent advances in lead hazard control research indicate that complete abatement is not needed to protect children from lead hazards and lead poisoning. Legislative and program requirements for complete lead abatement would constrain rather than support the ability of California to achieve cost-effective lead hazard control. For that reason, the response presented here by the DHSfocuses on lead hazard remediation, rather than full lead abatement. Lead hazard remediation is a more flexible and cost effective approach to lead hazard control, and includes a variety of strategies to stabilize and contain lead hazards.

RECOMMENDATION: To enable California's cities and counties to compel property owners to abate lead hazards, the Legislature should grant local governments the authority to order such abatement.

While DHS agrees with this recommendation, it must be noted that the State Auditor has chosen to use a definition of "lead abatement" that is inconsistent with the standard definition used by the lead related construction and CLPP professional community, as well as the standard set in federal guidance and regulation. Full lead abatement is prohibitively expensive, and is not needed to achieve lead hazard control and to protect California's children from lead poisoning. (8)

Existing statute, and the recently promulgated DHS regulations on lead hazards, allow local CLPP programs to issue a nuisance control order for known lead hazards now. Further clarification of the legal authority for local jurisdictions to control those lead hazards known to poison children—through lead hazard remediation—is needed in California's effort to eliminate childhood lead poisoning. Granting the authority to issue lead hazard remediation orders to the owners of properties known to poison children would strengthen the ability of local lead programs to successfully manage the known lead poisoning sources in the State.

The CLPP Branch is already planning to train local CLPP programs about methods for issuing lead hazard control orders by using of the existing legal mechanisms. This Spring 1999, the CLPP Branch will provide training to local CLPP programs on methods for using recently issued state regulations on lead hazard control (Title 17) and existing nuisance laws, to issue lead hazard remediation orders to owners of a property that has been identified as a source of childhood lead poisoning.

RECOMMENDATION: To ensure that the Childhood Lead Poisoning Prevention Program fulfills the regulatory responsibilities of identifying and adequately caring for lead-poisoned children, the Childhood Lead Poisoning Prevention Branch should take the following actions:

- **Ensure local programs submit to it all necessary follow-up information outlining the services provided to lead-poisoned children.**

DHS agrees with this recommendation. Full reporting of all necessary follow-up information is an important quality control component of the CLPP Branch effort to ensure appropriate case management. However, the ability of the Branch to fully monitor follow-up data has been limited by staffing and position shortages. Though nine state positions were added to the Branch in fiscal year 1998-99, recruitment for those positions has been difficult, hampered in many cases by low salary ranges for key professionals such as public health nurse consultants. DHS is working closely with the Department of Personnel Administration to secure salary recruitment and retention differential payment approvals to improve success in hiring. Additional resources are needed to conduct this level of quality control. These will be sought through the state budget process.

- **Monitor local programs' activities to ascertain whether lead-poisoned children receive appropriate care. This should include a high-level review of all follow-up reports for their completeness, as well as a review to determine if the local programs have sent in all the required reports. The process should also require someone with health expertise, to review in detail a representative sample of individual cases from the local programs.**

DHS agrees that review of follow-up forms and a quality control review program of case management is needed. Performing these activities have been constrained by the staffing shortages mentioned above, and nursing recruitment difficulties have especially hindered the ability of the CLPP Branch to fulfill this responsibility. Through the state budget process, the CLPP Branch will seek additional resources to develop and conduct an ongoing quality control program of case management.

- **Ensure that homeowners and property owners properly remove or reduce lead hazards identified as a source of a child's lead poisoning by assisting the local programs with issuing lead hazard abatement orders if the Legislature does not grant this specific authority to cities and counties.**

DHS does not agree with this recommendation. The State Auditor has interpreted the state law which gives DHS the authority to abate nuisances (Health and Safety (H&S) Code Section 100170 and 100175) along with the state lead hazard control regulations Title 17 (which declares lead hazards a nuisance) as conferring a duty on DHS to issue lead abatement orders. If DHS issued such an abatement order, it would be in the Department's name. Currently, DHS has no explicit duty to issue such orders on behalf of local agencies and DHS is understaffed to commence such legal proceedings in the Department's name. (9)

A state level enforcement program of this sort would require much larger resources than are currently available, probably requiring regional offices and staffing.

The State Housing Law (H&S Code Section 17910 et seq.) authorizes local agencies to abate nuisances. Local agencies are better located to follow up on such orders. Supporting the efforts of local CLPP programs to issue their own lead hazard remediation orders is a more effective approach to meet this need.

- **Fulfill its enforcement responsibilities for ensuring that individuals involved in lead abatement activities take the proper steps by seeking legislation granting it enforcement authority that will allow it to impose administrative, civil, and criminal sanctions against those individuals who violate state requirements.**

DHS agrees with this recommendation. DHS is required by State law to become a USEPA authorized lead program. By so doing, DHS will implement the federal lead program at a state level and remain eligible for federal program support funds and for federal lead hazard control funds. In Fall 1998, DHS self-authorized as a US EPA lead program, and has applied to USEPA for review and approval of its self-authorization. This USEPA approval is required for the DHS Lead Related Construction Program to remain under DHS rather than be transferred to USEPA. USEPA has indicated that current state law is inadequate to enforce the DHS Lead Related Construction Program, and that DHS needs additional legal enforcement authority to remain authorized. DHS will seek this legal authority through the legislative process.

- **Complete the training curriculum needed to educate California's school and day care facility staff on the proper steps for abating lead hazards so that children are not put at risk for lead poisoning.**

Again, the State Auditor has used the term "lead abatement" unconventionally. The report on lead hazards in California public schools recommends the development of maintenance and operations standards and an accompanying curriculum for school maintenance personnel. Lead hazards in California schools do not require full abatement, but rather require remediation and control. Additionally, school maintenance personnel need training on lead hazard awareness and control to prevent the creation of lead hazards during routine school maintenance. The lead in schools report was issued in Spring 1998, just prior to the May Revision of the State Budget. Funding for the development and dissemination of this curriculum was part of the fiscal year 1998-1999 state budget. A (8)

contract for completion of this curriculum was issued earlier this year, and the curriculum development is proceeding on schedule.

- **Require local programs to evaluate the effectiveness of their outreach and education efforts based upon the primary objective of identifying more lead-poisoned children. Further, it should assist the local programs in developing the proper tools to use when evaluating the effectiveness of these efforts.**

DHS agrees with this recommendation. The CLPP Branch must perform a more intense review of the local CLPP program outreach and education work plans and provide more intensive technical assistance to local CLPP staff, which will require additional CLPP Branch staff. The CLPP Branch will seek additional positions, as well as funding through the budget process to hire an external evaluation consultant to perform objective evaluations of the local CLPP program outreach and education activities and to train local CLPP staff on evaluation methods.

III. Childhood Lead Poisoning Prevention Program Accomplishments: the Childhood Lead Poisoning Prevention Program Has Many Achievements

Quite appropriately an audit is meant to pinpoint areas for improvement. However the areas requiring improvement need to be viewed in the context of program successes and accomplishments. These include the following major accomplishments, which are organized by CLPP Branch Goals:

GOAL: An informed public able to protect children from lead exposures

The CLPP Branch has developed a comprehensive multilingual package of public education materials about various aspects of childhood lead poisoning. These materials are used throughout the State, and, because of their quality, have been adopted by other states as well.

The CLPP Branch has created the capacity within its 50 local CLPP programs to tailor CLPP outreach and education activities to local needs and population groups. Examples of locally specific outreach efforts include:

- Butte County CLPP program staff have targeted outreach to two specific high risk groups, Southeast Asian and Middle Eastern immigrants, by developing outreach materials which are specific to these populations. Additionally, the Butte County CLPP program uses local community leaders from these immigrant populations to conduct outreach activities at the natural meeting places for these groups.

- In Marin County, the CLPP program public health nurse/health educator realized that the highest risk group for lead exposure is families living in homes undergoing renovation. She developed a special campaign in partnership with the local Girl Scout council. Girl Scouts were trained in lead safe work practices, developed a lead safe work bucket, and then educated their neighborhoods while they distributed the

buckets. For their participation, each Girl Scout received a specially designed CLPP community service merit badge.

- Alameda County, with a large African-American population, conducts many of its outreach and education activities in local African-American churches.
- Los Angeles County conducts an annual CLPP poster contest within the public schools, using this event as a springboard for raising awareness of lead poisoning among the county's school children.

The CLPP Branch Website (www.childlead.com) provides the public and professionals easy access to information about lead poisoning and lists of certified lead related construction professionals.

GOAL: Well-supported, effective local programs to detect, manage, and prevent childhood lead poisoning

The CLPP Branch has promulgated fee regulations that establish a stable funding base for the detection and management of children with lead poisoning in California.

Development of the Medi-Cal Lead Program diversified the funding base of the State's CLPP Program, and has increased available funding as well, in the current fiscal year bringing in an additional $767,000 to the CLPP Branch, and an additional $6.5 million to local CLPP programs.

The CLPP Branch has created a statewide network of local CLPP Programs in 50 of the 61 local health jurisdictions in California, covering 97% of the State's population, and funded by fees collected from lead polluting industries. A lead coordinator has been identified for every county. These programs were developed in conjunction with the CHDP Program, and with involvement of multiple stakeholders.

The CLPP Branch has developed a specific software package, the local Response And Surveillance System for Childhood Lead Exposure (local RASSCLE), now in use in most local CLPP programs throughout the State, which allows for automated tracking of children with lead poisoning and receiving case management services.

The CLPP Branch has conducted the largest survey ever of physician opinions and practices regarding the screening of children for lead poisoning.

To foster more widespread screening of children for lead poisoning, and overcome access barriers to obtaining adequate blood lead samples, the branch conducted the fingerstick testing initiative to increase the use of fingerstick blood sampling methods to collect blood for lead measurement.

GOAL: Fully developed capacity to track lead exposure statewide and to monitor the management of lead burdened children

The CLPP Branch has developed and maintains a surveillance system, the relational database RASSCLE, which has been nationally recognized as one of the most comprehensive childhood lead poisoning databases in the US.

The CLPP Branch has developed a specific software package (Collect) that allows commercial laboratories to electronically report blood lead levels collected from California residents.

GOAL: Strong infrastructure for preventing children's exposure to lead through partnerships with government agencies, community-based organizations, and the private sector

The CLPP Branch statewide study of lead hazards in public schools is the largest and most comprehensive school lead survey ever conducted in the United States, and provides critically important data about the condition of school structures throughout California. Results of this survey are now in use to develop scientifically sound policy and training about the lead safe maintenance of school facilities.

In fsical year 1998-99 through fiscal year 1999-2000, the CLPP Branch has implemented a competitive $2.5 million grant program to strengthen the capacity in local agencies to identify children at risk of lead poisoning and provide effective follow-up care by strengthening local program links and collaborations. This funding is supporting 14 projects in 14 counties. Results of these efforts will include local data for improving the targeting of lead screening to children at high risk, and the strengthening of collaborations between local CLPP programs, and local environmental health and children's health programs, as well as community based organizations.

The CLPP Branch has developed a nationally recognized model for collaborative delivery of public health and environmental health services through fostering local linkages between public health and environmental health at the State and local level.

GOAL: Full compliance with federal and State statutory and regulatory requirements

In Fall of 1998, The CLPP Branch notified USEPA that it has met requirements to receive federal authorization as a State Lead Program. One of the requirements met is creation of a system to train and certify construction professional to identify and safely remediate lead hazards in private homes, day care centers, and other public buildings. With this system in place, California has taken a significant step toward being able to prevent children from becoming lead-poisoned. Since the beginning, this program has:

- Allowed California to remain competitive for available USEPA funding and for funding from the United States Department of Housing and Urban Development (HUD). California's ongoing effort to develop this program has allowed the State to attract over $50 million in HUD awards for removing lead paint from private housing.

These are the only available state or federal funds that are specifically earmarked for removal of lead paint hazards from housing.

- Accredited 25 private training providers throughout California (ranging from trade unions to State universities) which offer over 70 specific lead related construction courses.

Through the efforts of this program, and since its inception, over 15,000 individuals in California have received training in the identification and safe control of lead paint hazards in housing, and among them approximately 7,000 have become State Certified in one or more lead related construction professions.

The CLPP Branch has promulgated regulatory standards for lead safe work practices in private residences and public buildings in California.

GOAL: Continued State and national leadership through research, policy development and standard setting

The CLPP Branch and local programs have developed nationally recognized leaders in childhood lead poisoning prevention. These include, at the Branch level, the current Chair of the United States Department of Health and Human Services Advisory Committee on Childhood Lead Poisoning Prevention, and membership on the USEPA lead advisory committee. CLPP Branch staff is routinely asked to contribute their experience and knowledge to national lead poisoning prevention policy setting efforts.

The CLPP Branch has maintained and expanded its statewide program to identify lead poisoned children and care for them, as well as eliminate lead poisoning sources, despite persistent funding uncertainty, budget cuts and threats to the funding base of the program.

IV. Reasons Why Program Mandates are Unmet

The Childhood Lead Poisoning Prevention Program Developed in a Climate Of Fiscal And Programmatic Uncertainty

Prior to passage of the Childhood Lead Poisoning Prevention Act of 1991 (H&S Code Sections 102575 to 105310), (the Act) the CLPP Program of DHS consisted of a handful of staff within the Division of Environmental and Occupational Disease Control. Each contributed a part of their time to lead poisoning prevention efforts, and additional contract staff was hired to complete specific projects.

Additionally, fewer than ten local health department staff had any experience with the case management of children with lead poisoning, and there were no lead related construction professionals skilled in the evaluation and management of lead hazards in the State. The CLPP Program, which grew from passage of the Act, required development of a complex statewide program with both state and local components, from the ground up.

This development occurred as California entered its deepest recession in 50 years. Even though the CLPP Branch had a special source of funding and many vacant positions, hiring was frequently delayed due to hiring freezes within DHS brought on by the recession. As a result, in these early years of 1992 through 1994, start up of the program progressed unevenly with delays in completion of Branch program and policy development efforts.

In early 1995, the lawsuit by Sinclair Paint Company cast an additional shadow on the CLPP Program's fiscal and programmatic viability. Sinclair Paint sued the California Board of Equalization (BOE), claiming that the childhood lead fees collected by the Board and used to fund all program efforts were an illegal tax. The Act specified that the program would only be implemented in so far as the fees were available. Therefore, and because of this specific language within the Act, a successful challenge of the fee funding structure was also a challenge to the very existence of the State's CLPP program.

That spring, the Sacramento Superior Court found for Sinclair Paint, the legality of the fees was cast in doubt, and a hiring freeze was imposed on the CLPP Branch. One-year later this decision was affirmed by the Court of Appeal, and the CLPP Program budget was shifted from CLPP Fees to the General Fund and significantly reduced. Quite appropriately, during this crisis the CLPP Branch immediately shifted priorities to assuring that resources were available to care for poisoned children as the most important program priority. Because direct care of lead poisoned children is provided by the local CLPP programs, the State CLPP Branch funding was reduced by 40 percent compared to a local program budget reduction of 28 percent. The CLPP Branch also immediately sought available federal Medicaid funds for CLPP activities. To meet its budget reduction and implement Medicaid funding streams, the CLPP Branch eliminated 14 vacancies, reassigned staff to the Medi-Cal lead program and put key policy development activities on hold. These decisions were reviewed and approved by the State Legislature during the May revision of the State Budget for fiscal year 1996-97 and were reflected in the budget change documents for fiscal year 1997-98.

The CLPP Program funding was reduced for two fiscal years; this reduced level of funding precluded continued development of most of the regulations required in the Act. Additionally, to insure some progress towards the development of key regulations, during these years the CLPP Branch restructured its federal grants, redirecting funds towards the continued development of regulations specifying lead paint work practice standards and the universal laboratory reporting of blood lead levels. Because of the nature of the grants, this restructuring required approval of the granting agencies, which in some cases took approximately 18 months.

On June 27, 1997, the California Supreme Court unanimously overturned the lower court decisions in the Sinclair case, finding the fees to be legal regulatory fees rather than taxes. However, because the Supreme Court decision came so late in the State budget cycle, CLPP Program funding was not increased until the current fiscal year (1998-99) when work on key mandates began again-a full three years after program development efforts were first hampered by the lawsuit.

Lead Screening Controversy Has Hampered Efforts To Identify Lead Poisoned Children In California

The 1991 CDC screening guidelines recommended universal blood lead screening of one and two year olds. However, as early as 1994, national data suggested that screening all children was no longer necessary, and instead screening should be focused on the children who remained at high risk.

These national surveys indicated that the prevalence of lead poisoning among children six years or younger dropped in half between 1988 and 1993, and lead poisoning increasingly was concentrated in low income minority children residing in old, deteriorated urban housing stock. As this new data emerged, there was tremendous national backlash among pediatric professionals against the State and National policies for universal blood lead screening. Much of this backlash originated in California, in response to DHS support of existing Standards of Care for Screening issued by the American Academy of Pediatrics in 1993 and by CDC in 1991.

Between 1994 and 1997, there was vigorous national debate about the level of screening required. No consensus about how blood lead screening should be targeted to high risk children consensus was reached until late 1997 when CDC released revised screening guidelines. Throughout this period, national screening rates ranged between 20 and 25 percent, even among the most at risk children.

This lack of national consensus made rapid development of screening policy for California extremely difficult, especially since the Act required DHS to use a consensus building process to develop its policy and at the same time be as stringent as the CDC policy which pediatric providers were unwilling to accept. The lack of screening consensus was reflected in the CLPP Branch screening advisory group, who themselves had difficulty reaching agreement about the appropriate method for targeting blood lead screening.

This persistent lack of agreement has fundamentally hampered the ability of DHS to achieve high screening rates, so a concerted effort to increase screening among the most at risk is sorely needed.

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COMMENTS

California State Auditor's Comments on the Response From the Department of Health Services

To provide clarity and perspective, we are commenting on the Department of Health Services' (department) response to our audit report. The numbers correspond to the numbers we have placed in the response.

(1) Contrary to the department's statement, we believe that our report has given full consideration to its accomplishments. In fact, Chapter 2 of our report acknowledges the department's efforts in working with the local programs, establishing a program aimed at reducing lead exposures, and conducting a study on the prevalence of lead hazards in public schools. Further, the purpose of our audit was not to determine how California's childhood lead poisoning prevention program compared to those of other states. Instead, the focus of our audit was to assess California's progress toward meeting its goal of eliminating childhood lead poisoning.

(2) We disagree with the department's statement that our report provides an incomplete explanation of its reasons for not fulfilling program requirements. We believe that the explanations that the department has given—such as the lawsuit challenging the legality of the fees, and insufficient funding and staffing—have been adequately reflected in our report. Further, as stated on page 18 of the report, it is still our belief that it is the department's responsibility to ensure that adequate resources are available to fulfill critical tasks.

(3) The department believes that reporting on its progress annually to the Legislature "would add work but no benefit to the program." We disagree. We are deeply concerned with the department's lack of progress toward achieving the State's goals for identifying and protecting children with lead poisoning. Until the department can demonstrate that it is able to fulfill its statutory mandates and other program requirements, we believe that it is critical that the department report annually on its progress to the Legislature.

(4) The department indicates that it does not have the legal authority to request that the labs voluntarily provide this additional information. However, this statement is inconsistent with its current act of requesting labs to voluntarily report blood-lead test results between 15 micrograms of lead per deciliter (ug/dL) and 25 ug/dL as described on page 19 of our report.

(5) The department mischaracterizes our discussion on the necessity of requiring labs to submit all blood-lead testing results. While additional data collection efforts may be useful, we believe that comprehensive data on testing results is an important tool that the department should use. As we state on page 17 of our report, if the department had required testing of all one- and two-year-old children and required the labs to submit all blood-lead test results, it would have considerably more data on where and to what extent childhood lead poisoning is a problem in the State.

(6) The testing data presented on page 21 of our report was provided by the department. It is incomplete because the department does not maintain a comprehensive reporting system to track the number of children that have received a blood-lead test as described on page 11 of our report. Nevertheless, the limited data that the department was able to provide indicates that the blood-lead testing rates for children receiving services under its Child Health and Disability Prevention and Medi-Cal programs are still extremely low.

(7) Although the Legislature in 1991 directed the department to adopt regulations by 1993 that would establish a standard of care for California children whereby they would each receive an evaluation for the risk of lead poisoning during their periodic health assessments, the department has yet to fulfill this requirement as we state on page 23 of our report. Now, more than seven years after the state law was enacted, the department contends that these regulations are not needed and that the legislative mandate should be repealed.

We have several concerns with the department's position on this issue. First, if the department believes that these regulations are unnecessary, we question why it has not sought legislation to repeal the mandate. Additionally, while it states that professional organizations such as the American Academy of Pediatrics (AAP) establish medical standards of care, the department has yet to adopt a policy stating that it supports the AAP's standard of care for evaluating children for the risk of lead

poisoning. Furthermore, we disagree with the department's statement that even if adopted, the regulations would carry no more weight than policy. The department fails to recognize that ensuring that it has the ability to enforce regulations is part of any regulation-setting process. If the department does not believe it has the legal authority to enforce the regulations, it should seek this authority through legislation.

(8) We clearly state in our report that for purposes of this report the term abatement refers to the elimination or reduction of lead hazards. However, we find it interesting that although the department criticizes us for using this term in a manner that "deviates from the common usage of this term", this term is used in the same way in the regulations (Title 17) that the department uses to govern these activities.

(9) The department disagrees with our recommendation to assist the local programs in issuing abatement orders, stating that it has no explicit duty to issue such orders on behalf of local agencies and that it is understaffed to commence such legal proceedings. Although the department contends that it does not have an explicit duty to issue such orders on behalf of local agencies, neither is it precluded from doing so. Additionally, as we note on page 34 of our report, local programs state that they lack specific authority to compel property owners to eliminate or reduce sources of lead poisoning. We have recommended that the Legislature grant local governments the authority to order such abatements. However, in the event that the Legislature does not grant this authority, we are concerned that sources of lead poisoning will remain as a danger to children. Thus, we believe that the department should consider cost-effective ways of assisting the local programs with issuing abatement orders.