Management Audit

of the

Department of Public Health

Prepared for the
Board of Supervisors
Of the County of Santa Clara

Prepared by the

Board of Supervisors Management Audit Division
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December 9, 2004

Supervisor Pete McHugh, Chair
Supervisor James T. Beall, Jr. Member
Board of Supervisors Finance and Government Operations Committee
70 West Hedding Street
San Jose, CA 95110

Dear Supervisors McHugh and Beall:

At the direction of the Board of Supervisors, we have completed a comprehensive management audit of the Public Health Department. This study was conducted pursuant to the authority of the Board of Supervisors under the Board's power of inquiry, as provided in Article III, Section 302 (c) of the County Charter. The audit was conducted in accordance with Generally Accepted Governmental Auditing Standards (GAGAS) of the United States General Accounting Office, except for the exclusion of certain information pertaining to Public Health Department contract processes. This information has been separately transmitted to the Board of Supervisors and was excluded from general disclosure pursuant to direction of the County Counsel in accordance with management audit contract Section 1.B.3.

This audit was selected through the Board of Supervisor's management audit program risk assessment analysis that identifies and prioritizes areas of County government for future audit. The Public Health Department has County-wide responsibility for monitoring and oversight of health within the community, as well as diagnosis of health problems as they arise and communication of health information throughout the County. These responsibilities also include ensuring that persons with certain contagious diseases receive treatment, and enforcement of the public health laws of the State of California. The Department has not been audited under the Board of Supervisors' management audit program since the program was implemented approximately 25 years ago, in February 1980.

The scope of this audit included a detailed review of the operations of the Public Health Department, which during the 2003-04 fiscal year was organizationally comprised of three functional divisions and several specialized units, a budgeted staffing of 680.5 positions and an annual operating budget of approximately $91.4 million. The purpose of this audit was to identify opportunities for increasing the efficiency, effectiveness and economy of the many functions

performed by the Department, and to ensure that comprehensive policies and adequate operating procedures exist in order to meet the Department's legal obligations and the expectations of the Board of Supervisors and citizenry of the County.

The audit fieldwork commenced in October 2003, but was interrupted by budget related assignments and resumed in February 2004. A draft report was issued on July 30, 2004 and an exit conference was conducted on August 23, 2004. This audit report includes 11 sections pertaining to immunization of school children, reporting of communicable diseases, recovery of indirect costs, fee schedule development, staff productivity, facility lease costs and other issues. During the audit, more than 50 staff were interviewed, operational reports and related documents were analyzed, and various legal issues were reviewed with County Counsel. In addition, a survey of Public Health functions in nine other California counties was conducted to obtain comparable information on specific areas of operations, and to identify specific policies and procedures utilized by these other jurisdictions.

Based on the audit procedures, surveys, and other audit techniques described above, a total of 11 findings with 42 corresponding recommendations were developed. The implementation of these recommendations would improve staff and resource utilization, enhance achievement of public health goals in the County, increase revenues and reduce operating expenditures. We estimate that the full implementation of the report's recommendations would result in increased State and federal reimbursements and other revenues and reduced expenditures of approximately $3.8 million annually. Other potential one-time savings amounting to approximately $0.6 million related to the available fund balance in the Emergency Medical System Trust Fund. In addition, recommendations to discontinue leasing County office space would save the County $48.2 million over the next 30 years.

Although most of the recommendations contained in this report can be directly approved by the Board of Supervisors, six recommendations would require amendment of State law and/or approval of State health related agencies. Three recommendations pertain to the County Office of Education. The written response from the Public Health Department begins on page 155 of this report. Other written responses from the Children's Shelter/Custody Health Services Department, District Attorney, County Office of Education and the California Department of Health Services follow.

We would like to thank the Director of the Public Health Department and the many administrative and operational staff throughout the organization for their cooperation and assistance with the performance of this audit.

Respectfully Submitted,

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Board of Supervisors Management Audit Manager

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Executive Summary

The Santa Clara County Board of Supervisors authorized a management audit of the Public Health Department in the Santa Clara Valley Health and Hospital System in FY 2003-04. This audit was conducted in accordance with Generally Accepted Governmental Auditing Standards (GAGAS) of the United States General Accounting Office, except for the exclusion of certain information pertaining to Public Health Department contract processes. This information has been separately transmitted to the Board of Supervisors and was excluded from general disclosure pursuant to direction of the County Counsel in accordance with management audit contract Section 1.B.3. The audit was performed under the Board's power of inquiry specified in Section 302 (c) of the Santa Clara County Charter.

The purpose of the management audit was to examine the operations, management practices and finances of the Public Health Department, and to identify opportunities to increase the Department's efficiency, effectiveness and economy. The scope of the management audit was comprehensive, and included a review of all of the functions provided directly by the Department. The audit also included a review of functions included in the Public Health Department budget, but overseen organizationally by the Ambulatory and Community Health Services unit of the Santa Clara Valley Health and Hospital System (SCVHHS). The SCVHHS oversees non-hospital health care provided to eligible County residents, including care provided in the context of communicable diseases and other Public Health Department functions.

This report includes a total of 11 findings and 42 corresponding recommendations that encompass major areas of departmental operations. Included are findings related to the immunization of school children, the reporting of communicable diseases, recovery of indirect costs in grants, fee schedule development, staff productivity and consistency of billable charges. The report identifies $3,771,181 in potential ongoing cost savings and increased revenues, and additional one-time savings of $585,118. In addition, recommendations to eliminate leased County office space in favor or purchased space are estimated to provide $48.2 million in savings over 30 years. Based on discussions with the Public Health Director and key staff, the Department is in partial agreement with most of the recommendations. The written response of the Department is attached at the end of this report.

A synopsis of each of the 11 findings and the related recommendations is provided below.

Section 1: Immunization of School Children

The State of California annually surveys student immunization rates in schools with kindergarten and seventh grade classrooms in all 58 counties. The 2003-04 fall semester survey results show that 223 of Santa Clara County's 313 public schools (71 percent) were not compliant with State immunization law. Based on the survey data, more than 24,000 students in Santa Clara County schools were not fully immunized. A review of immunization records and procedures at district- and County Office of Education-operated schools provides evidence that schools are violating Health and Safety Code

Sections 120335(b) and 120375(b) that prohibit schools from unconditionally admitting students who are not fully immunized, and require schools to "... prohibit from further attendance any pupil admitted conditionally who failed to obtain the required immunizations within the time limits allowed." In sum, there is widespread noncompliance with immunization laws by schools throughout the County, and a lack of enforcement by the California Department of Health Services and the County Public Health Department.

Allowing students who are not fully immunized to attend school creates an environment that facilitates the spread of serious communicable diseases. A student who contracts a disease outside of school and then attends school may spread the disease to other students who are not fully immunized. The disease may also spread to others within the community, creating an outbreak that could require a costly response from the County and possibly the State. The 10 diseases against which State law requires immunization can result in permanent physical damage or death. Although the incidence of these diseases in Santa Clara County is low, more than 1,900 cases were reported in California in 2003.

In order to increase compliance, the California State Legislature should prohibit schools from conditionally admitting or advancing students, at any grade level, who are not fully immunized, and require schools with at least 5 percent of students who are not compliant to pay the actual costs for their local health department to administer vaccines on-site. To ensure consistent implementation of school immunization law, the Santa Clara County Office of Education should develop a standard set of written procedures for all schools within the County to follow. In addition, the County Public Health Department should carry out its enforcement responsibility over schools that violate school immunization law. Lastly, the California Department of Health Services should report the annual Immunization Assessment Results by county, school district and individual school in order to increase local awareness of noncompliance at specific schools.

Based on these findings, it is recommended that the Board of Supervisors urge the California State Legislature to:

1.1 Amend Health and Safety Code Section 120335 to require that all students, regardless of grade level, be immunized against hepatitis B and mumps, and prohibit schools from conditionally admitting or advancing students who do not meet all immunization requirements. (Priority 1)

1.2 Amend Health and Safety Code Section 120375 to require schools that are found to have at least 5 percent of students who are not compliant with school immunization law to pay the actual costs for their local health department to vaccinate these students on-site. (Priority 1)

1.3 Amend Health and Safety Code Section 120440 to require public and private health care providers to report immunization information to their regional immunization registry. Schools also should be required to access immunization

information from the regional registry and report new information or discrepancies to their local health department. (Priority 1)

1.4 Require the California Department of Health Services to report the annual Immunization Assessment Results by county, school district and individual school to the California State Legislature, local health departments and county offices of education and on the Internet. (Priority 2)

1.5 Require the California Department of Health Services to alter the Selective Review so that 5 percent of schools are audited each year, advance notification is not given to the schools being audited, immunization records in all grade levels are sampled, and results are reported for the State and by county to the California State Legislature, local health departments and county offices of education and on the Internet. (Priority 2)

It is recommended that the Board of Supervisors urge the California Children and Families Commission to:

1.6 Provide funding from Proposition 10 tobacco tax revenue in the Unallocated Account to fund the implementation of the immunization registry with public and private health care providers and schools across the State. (Priority 1)

It is recommended that the Board of Supervisors urge the Santa Clara County Office of Education to:

1.7 Work with school districts to develop written procedures on complying with school immunization law, as enacted in Health and Safety Code Section 120335-120380, for all schools in the County. (Priority 1)

1.8 Work with school districts in requiring enrollment and admissions staff to attend a workshop led by the Public Health Department on how to verify whether students' immunization records meet all requirements according to school immunization law and in orienting school health or office staff, who are responsible for monitoring and excluding students, on the written procedures. (Priority 2)

1.9 Work with school districts to provide computer equipment and software to schools for tracking students' immunizations and accessing the immunization registry. (Priority 2)

It is recommended that the Children's Shelter and Custody Health Services:

1.10 Require the medical clinics to administer the age-appropriate immunizations, for the diseases listed in Health and Safety Code Section 120335, to children placed in the County's temporary holding facilities after seven days of contacting the parents for their consent, checking the immunization registry, and requesting immunization records from schools and health care providers. (Priority 1)

It is recommended that the Probation Department:

1.11 Conduct an independent evaluation of the immunization status of all children within its custody and provide a comprehensive report on the findings to the Superior Court. (Priority 2)

It is recommended that the Public Health Department:

1.12 Direct the Public Health Officer to carry out his enforcement duties, pursuant to County Ordinance Code Section A18-10, A18-11 and A18-12, by notifying schools of their noncompliance with State law, referring unresponsive noncompliant schools to the District Attorney, and referring the families with parents who refuse to vaccinate their children, but have not signed a personal beliefs exemption, to the Social Services Agency. (Priority 1)

1.13 Administer vaccines to students who are not fully immunized and are not exempt for medical or personal reasons at schools that are found to have at least 5 percent of students who are not compliant with State law. Pursuant to the implementation of Recommendation 1.2, these schools will reimburse the Public Health Department for its actual costs in administering the vaccines. (Priority 2)

County General Fund costs will be minimal to implement these recommendations, since the County's contract with the State, which amounted to approximately $1.2 million in FY 2003-04, includes the coordination of the Immunization Assessment and Selective Review as well as ensuring that all schools fully enforce school immunization law. Furthermore, the State purchases vaccines for the County to administer at its Immunization Clinics and at sites within the County, so the County incurs no cost for the vaccines but does incur administrative costs. The major benefit of implementing the recommendations is to reduce noncompliance with school immunization law, thereby decreasing the risk of communicable disease outbreaks in schools.

Section 2: Communicable Disease Reporting

The Public Health Department does not enforce legal requirements that physicians, hospitals and laboratories report certain suspected and confirmed diseases or conditions in accordance with specified timelines per the California Code of Regulations. A review of data from 2002 and a sample of report documents related to three enteric intestinal diseases indicates reporting is incomplete and occurs later than legally required. In addition, restrictions imposed on persons with communicable diseases who are health care workers or children attending day care centers are not regularly monitored.

The failure to report and under-reporting of communicable diseases delays or prevents recognition and treatment of illness in the community which is necessary to stop the spread of disease. When appropriate control measures are not in place, a disease can spread; if left untreated, certain enteric diseases can be fatal. Furthermore, incomplete disease data undermines the mission of the Department to formulate effective prevention and treatment strategies and weakens the County's disease surveillance

system. An impaired disease surveillance system limits the County's preparedness to detect and control an outbreak or an act of bioterrorism.

Implementation of the recommendations included in this section of the report would increase provider compliance with State law pertaining to reporting suspected and confirmed diseases to the Public Health Department. These recommendations address the reporting of diseases, the restrictions that are placed on individuals and the management of data related to disease control.

Based on these findings, it is recommended that the Public Health Department:

2.1 Develop and implement a disease investigation procedure to identify physicians who do not report reportable diseases or who report diseases late. This procedure should include the filing of complaints against noncompliant physicians with the California Medical Board. (Priority 2)

2.2 Develop and implement a policy regarding the referral of physicians to the District Attorney who repeatedly fail to report reportable diseases. (Priority 1)

2.3 Include disease-reporting compliance language in all contracts between the County of Santa Clara and persons or entities required to report diseases to the Public Health Department under State law. (Priority 2)

2.4 Develop policies and procedures regarding the monitoring and enforcement of restrictions placed on individuals with communicable diseases. (Priority 2)

Implementation of these recommendations would improve enforcement of State law requiring reporting of certain communicable diseases, strengthen the County's disease surveillance system, and increase the ability of the Public Health Department to respond in a more timely manner.

Section 3: Regional Public Health Nurse Productivity

The Public Health Department's Community-Based Services Division uses Public Health Nurses operating from six regional offices to provide case management services to clients, including follow-up monitoring to ensure that tuberculosis patients are following treatment regimens, and follow-up visits to mothers with newborns who had illnesses or other complications at birth. A portion of costs of this case management are recovered through Targeted Case Management, a Federal reimbursement system that pays the County about 53 percent of the estimated cost for each case management visit, called an encounter, in which specific types of tasks are carried out.

Analysis of encounter and work-hours data for 80 nurses over a 12-week period showed that while an informal standard of 20 encounters per nurse per month was met overall, productivity differed significantly among nurses. The most productive completed 10 or more encounters per week, while the least productive completed two or fewer encounters per week. These differences require more staffing in the Division than would be required if all nurses at least met the 20-encounters-per-month standard.

By examining the work habits of the most productive nurses, and promulgating them throughout the Division, by providing additional supervision for less productive nurses, and by using best practices to develop additional productivity standards, productivity of Division nurses should improve. Assuming all nurses met the current standard of 20 encounters per month, the encounters completed during the 12-week period reviewed could have been completed with 18 fewer nurses than were utilized. Eliminating 18 Public Health Nurse positions would result in salary and benefit savings of about $1.6 million, based on Step 3 costs for a Public Health Nurse I position. However, because 53 percent of costs for these positions are federally reimbursed, about $850,000 in reimbursement would be lost, leaving a General Fund savings of about $756,000.

Based on these findings, it is recommended that the Public Health Department:

3.1 Examine the work habits of the most productive Public Health Nurses identified in this study, using interviews, review of work papers and direct observation, to identify best practices that can be promulgated throughout the division. (Priority 1)

3.2 Implement and formalize monitoring of public health nurse productivity against the 20-encounters-per-month standard on an ongoing basis, providing additional supervision to nurses who do not meet the standard over a three-month or longer period. (Priority 1)

3.3 Based on the best practices identified using Recommendation 3.1, develop additional productivity standards for nurses, such as a recommended ratio between time spent during an encounter with a client, and time spent preparing in advance for the encounter and documenting it afterwards, and implement related training as necessary. (Priority 1)

3.4 As productivity among all nurses improves to the 20-encounters-per-month standard, eliminate 18 public health nurse positions through attrition, or shift them to other priorities of the Public Health Department. (Priority 1)

Assuming all Public Health Nurses in the Community-Based Services Division met the current standard of completing 20 Targeted Case Management (TCM) encounters per month, analysis of data for a 12-week period showed that the encounters completed in that period could have been completed with 18 fewer nurses. Eliminating 18 nursing positions results in a salary and benefits savings of about $1.6 million, based on costs of Public Health Nurse I position at Salary Step 3. Because approximately 53 percent of the cost of these positions is recouped from federal TCM funding, actual General Fund savings amounts to 47 percent of the $1.6 million, or about $756,000. Federal government savings would amount to about $850,000.

Section 4: Public Health Pharmacy

The Public Health Department operates a pharmacy with staffing of 9.0 FTE positions, including 2.0 management positions, a FY 2004-05 budget of $2.7 million, and a

workload of approximately 51,000 annual prescriptions. The Public Health Pharmacy has not been included in an automated telephone refill system serving other County pharmacies, even though approximately 54.6 percent of its prescriptions are refills. Furthermore, the pharmacy makes limited use of technology, and fills most prescriptions manually, even though 63 percent are accounted for by a few common strengths and sizes.

This approach inconveniences Public Health Pharmacy clients, who do not have the option of 24-hour automated refill ordering, including availability of Vietnamese and Spanish instructions at all times. Furthermore, prescription pick-up at other County pharmacies depends on a weekly courier system from the Public Health Pharmacy, rather than permitting clients to have prescriptions filled at the nearest County pharmacy. The Public Health Pharmacy's limited use of technology and integration with other County pharmacies also results in unnecessary staff costs.

By providing Public Health Pharmacy clients access to the Interactive Voice Recorder system, permitting them to order refills at all times and to pick up refills at the most convenient County pharmacy, and by including the Public Health Pharmacy in the proposed new centralized refill facility, such technological improvements would result in better service to Public Health Pharmacy clients, and enable the Public Health Pharmacy to make staff reductions amounting to approximately $296,516 annually.

Based on these findings, it is recommended that the Public Health Department:

4.1 Provide access to the Interactive Voice Recorder system to Public Health Pharmacy clients, permitting them to order refills at all times, and to pick up refills at the County pharmacy most convenient to them. (Priority 2)

4.2 Include the Public Health Pharmacy in the clients to be served by a centralized refill facility the Santa Clara Valley Health and Hospital System (SCVHHS) is seeking through a Request for Proposal to obtain a new pharmaceutical distributor. Tuberculosis (TB) patients to be served by this system should be selected based on protocols developed by the TB Clinic indicating when it is appropriate to give patients more responsibility for monitoring their own medications. (Priority 1)

Costs to provide access for Public Health Pharmacy clients to the Interactive Voice Recorder system should be minimal, since the system already exists, and there is an existing phone number for Public Health Pharmacy clients to call the pharmacy for refills directly during business hours. Costs of a proposed centralized refill system using high-volume equipment are unknown, but equipment is to be provided by the pharmaceutical distributor selected by SCVHHS through a pending Request for Proposal process, and will presumably be included in the terms of that agreement. In a recent transmittal, the Acting General Services Director stated: "SCVHHS Pharmacy management believes that there is an opportunity to negotiate for additional services to assist the County in maximizing efficiency and savings in the pharmaceutical supply chain management. The pharmaceutical distributor could provide the County with a value-added package including . . . the use of equipment such as automatic dispensing

machines, printers and bar coding which would allow the pharmacy to streamline operations and realize operational savings greater than would be possible through direct price negotiations." Implementing this system would permit elimination of two line positions and a supervisor position from the Public Health Pharmacy, for total salary and benefit savings of $296,516 annually.

Section 5: Medical Therapy Unit Billing

During the first half of Calendar Year (CY) 2004 and in prior years, therapists in the California Children's Services Medical Therapy Program (MTP) did not follow a consistent process to fill out and turn in charge slips used to bill Medi-Cal. Therapists generally performed this function when they had time rather than on a daily basis. Therapists also stated that their focus was to provide therapy, not to submit charges, daily. Furthermore, the Public Health Department lacked a policy or procedure regarding therapists' billing practices. In CY 2003, therapists charged only 85.8 percent of direct services and a little more than half of other billable services that they provided to patients.

As a result of the failure to bill $110,092 in therapy services, the MTP lost as much as $59,476 in Medi-Cal revenue in CY 2003. The MTP believes that the implementation of a new case management and billing system will capture more of the charges, since Patient Therapy Records (PTRs), rather than charge slips, are being used to bill Medi-Cal. Program managers insist these records are accurate. However, like charge slips, PTRs are not filled out in a consistent manner. Therapists fill them out when they have time, which may be weekly, monthly or quarterly. In doing so, they rely on their memory, notes or calendar to recall and document all services provided to each of their patients, which could be as few as 30 or more than 40 patients.

The Public Health Department should require therapists to update their PTRs daily and to submit their PTRs at the end of each month. Therapists should also receive instructions on how to fill out the PTRs in order to limit any confusion or inconsistency over the process. Five of seven counties surveyed developed similar policies and procedures that can be used as a template for Santa Clara County. Lastly, Supervising Therapists should review a sample of PTRs every two months to ensure that they are being filled out properly and discipline therapists who are found in violation of departmental policy and procedure.

Based on these findings, it is recommended that the Public Health Department:

5.1 Establish a written policy and procedure for the Medical Therapy Program on filling out and submitting the Patient Therapy Record (PTR). This document should require therapists to update PTRs daily and to submit PTRs at the end of each month, as well as to provide instructions on how to fill out PTRs. (Priority 2)

5.2 Require Supervising Therapists to review a sample of Patient Therapy Records every two months and discipline therapists that violate departmental policy and procedure. (Priority 2)

By implementing the recommendations above, the County would limit confusion over and increase consistency in how Medical Therapy Program (MTP) therapists fill out their Patient Therapy Records. In addition, the County would incur no costs but could increase the number of therapy services captured and the amount of Medi-Cal revenue generated by the MTP, although some of this increase may be contributed to the new case management and billing system.

Section 6: Grant Indirect Cost Recovery

The Public Health Department applies for and receives approximately 60 grants totaling about $33 million annually. However, the Department has no policy or procedure in place to calculate a Department-wide indirect cost rate each year for use in grant budgets or for use in reporting the General Fund cost of grant-funded services to the Board. Consequently, transmittals to the Board do not report General Fund impacts of grants, when in fact the General Fund subsidizes grant services. Furthermore, responsibility for the calculation of an indirect cost rate is assigned to the Public Health Department Administration, rather than staff in the Santa Clara Valley Health and Hospital System (SCVHHS) Fiscal and Accounting unit.

As a result, the Public Health Department does not fully recover all available grant revenue to the County. Indirect rates used by Public Health vary widely and are not supported by workpapers. Although the FY 2002-03 Public Health Department indirect cost rate was approximately 44 percent, the average indirect cost rate recovered in grants in FY 2002-03 was only 7 percent. Because grant awards have not been maximized, revenue opportunities exist to increase the County reimbursement for indirect costs without reducing direct services.

The SCVHHS Controller should be assigned the responsibility to calculate the annual Public Health Department indirect cost rate, and to review all grant budgets prior to submission to ensure that indirect costs are fully claimed. Transmittals to the Board of Supervisors requesting approval of grant awards should include calculated indirect costs, budgeted indirect costs and an explanation of any grant that will not recover all indirect costs. Whether to accept grant funds that do not fully recover indirect costs is a policy decision for the Board of Supervisors. By implementing these recommendations, the Department can improve the calculation of indirect costs and claiming procedures, ensure that all grant applications consistently claim indirect costs, and increase indirect cost reimbursement by at least $786,098 annually.

Based on these findings, it is recommended that the Public Health Department:

6.1 Include the calculated indirect cost rate of the Department, the actual amount budgeted, and the basis for any difference in all future grant transmittals to the Board of Supervisors. (Priority 1)

6.2 Assign the responsibility of calculating a Public Health Department-wide indirect cost rate to the Controller of the Santa Clara Valley Health and Hospital System, including consultation with Public Health Administration on the inclusion of indirect costs in existing and new grants. (Priority 2)

6.3 Request approval of an Indirect Cost Rate Proposal (ICRP) from the federal cognizant agency of the Public Health Department. (Priority 3)

6.4 Direct the SCVHHS Controller's Office to perform an analysis of all current grant budgets to determine whether maximum allowable indirect costs are submitted for reimbursement. The results of this analysis should be included with the annual Grants Report provided to the Health and Hospital Committee. (Priority 2)

6.5 Develop written procedures pertaining to the preparation of indirect cost rates, indirect cost rate proposals and the inclusion of indirect costs in grant applications. (Priority 2)

By implementing these recommendations, the Public Health Department will limit its exposure related to audits of grant revenues. Additional available grant reimbursement for indirect expenses will be recovered to support grant services, reducing General Fund support of the Public Health Department. If 10 percent indirect were to be recovered from all grants, this would represent approximately $786,098 in General Fund savings. The calculation of an annual indirect cost rate by the SCVHHS Controller will provide the Administration of the Public Health Department and its various program managers with information with which to properly budget these costs in grants. The Board of Supervisors will be provided with information by which to measure the relative value of a given grant, based on the actual costs that are recovered and the related General Fund support of the grant services.

Section 7: Public Health Fee Schedule Development

Fees charged by the Public Health Department produce annual revenue of approximately $2.3 million, but are not supported by accurate cost analyses. Responsibility for the review, analysis and calculation of fees is currently dispersed throughout the Public Health Department. This practice results in varying fee calculation methodologies and inconsistent fee policies. Furthermore, such practices are not in accordance with State Controller accounting standards for County fee determination. As a result, current fee levels are inconsistent with actual costs.

Without complete and accurate full cost analysis, the Board of Supervisors may unintentionally enact fees that exceed the average cost or recover less than the intended percentage of the cost to provide a service. The current fee development system in the Public Health Department impairs the Board of Supervisor's ability to establish fees for County services that reflect the Board's policies.

By centralizing responsibility for Public Health cost accounting with the Santa Clara Valley Health and Hospital System (SCVHHS) Finance Division, the accuracy and consistency of Public Health fees can be improved. In addition, the County Controller should review the calculations to ensure their adherence to county policy and federal guidelines. The Public Health Department should subsequently determine the recommended fee to be charged and seek approval of the fee by the Board of Supervisors, indicating whether the fee fully recovers costs, and if not, why this is the

case. Implementation of these recommendations would improve the Department of Public Health fee setting process and would result in increased revenue estimated to amount to $97,000 annually.

Based on these findings, it is recommended that the Public Health Department:

7.1 Assign the analyses of costs related to fees to the SCVHHS Finance Agency, with continued responsibility for the setting of fees and preparation of fee transmittals with the Public Health Department. (Priority 2)

7.2 Include in all subsequent fee transmittals to the Board of Supervisors the calculated or estimated cost recovery fee amount, and the difference between this amount and the recommended fee, if one exists. (Priority 2)

7.3 Submit all subsequent fee analyses and proposed revisions to the County Controller's Office for review and approval prior to forwarding these revisions to the Board of Supervisors for approval. (Priority 2)

If fees of the travel clinic were to be raised to cover all costs, approximately $97,000 in additional fees would be collected, assuming client use of the travel clinic was maintained at the current rate. Implementation of the recommendations in this section of the report will increase the accuracy of the fee schedule enacted by the Board of Supervisors and henceforth provide the Board of Supervisors with the fee that would need to be enacted to recover the entire cost of providing a given service. Costs associated with the recommendations in this section of the report include additional staff resources in the Office of the County Controller, as previously recommended in the Controller Management Audit, if current staffing is not sufficient to review fee calculations prior to consideration by the Board of Supervisors. However, such costs would be fully offset by increased revenues.

Section 8: Specialty Clinic Billable Charges

Public Health Ambulatory and Community specialty clinic patients receive inaccurate estimates of the costs for medical services from clinic staff because charge lists are outdated and have been amended with erroneous charge amounts. In addition, some of the charges for medical services overstate the costs of services provided at the specialty clinics, as they also reflect Valley Medical Center costs.

Compliance with County policy and County Controller instructions requires disclosure of accurate charge amounts for usual and customary services and equitable treatment of patients under the Ability of Determination to Pay (ADP) Program. The proper treatment of individuals at clinic sites relies on adequate trust being established between clinical staff and patients. Confusion regarding charges and bills makes such trust more difficult to establish, possibly reducing the likelihood that patients will return for subsequent visits and comply with their prescribed medication and treatment regimen.

The Director of Ambulatory and Community Health Services (ACHS) should ensure that patients are provided accurate information about charges for services. Clinic staff should be provided charge slips that include accurate charge amounts related to usual and customary services to ensure patients receive accurate information about their bills.

Based on these findings, it is recommended that Ambulatory and Community Health Services:

8.1 Provide current charge lists to clinic staff with charge amounts for use when discussing charges or co-payments with patients. (Priority 2)

8.2 Extend the required posting of available charge lists per AB 1627 to all ACHS clinics. (Priority 3)

Implementation of these recommendations will ensure compliance with County policy and County Controller cash handling instructions, and standardize the process by which unsponsored patients of the Public Health ACHS specialty clinics are charged and billed for services. Improving the charging process to unsponsored individuals may improve treatment compliance, by improving the overall investment patients have in the treatment they receive from clinic staff.

Section 9: Targeted Case Management Share of Cost

The Public Health Department receives Medi-Cal reimbursement for services provided to eligible individuals. Medi-Cal Share of Cost monthly premiums are not charged to clients receiving Targeted Case Management (TCM) services from the Public Health Department, whereas all other clients receiving services from the Health and Hospital System with a share of cost are obligated to pay these amounts.

Inconsistent practices related to charging of clients results in lost revenue and establishes a precedent for other clients to refuse to reimburse the County for the required share of costs. The proper treatment of share of cost liabilities is important for the County to seek and receive full reimbursement.

In order to ensure uniform and consistent financial assessment and charging of patients, share of cost charges for TCM services should be forwarded to the Santa Clara Valley Health and Hospital System Patient Business Services to be billed and posted to the client's Medi-Cal account. The implementation of this recommendation would result in increased revenue of approximately $20,000 annually, and the fair and equitable treatment of all County clients.

Based on these findings, it is recommended that the Public Health Department:

9.1 Apply Targeted Case Management services towards share of cost liabilities by providing appropriate charges to Patient Business Services for processing and billing. (Priority 2)

Implementation of this recommendation will result in an estimated $20,000 in potential annual TCM reimbursement and ensure that clients are treated consistently across the Health and Hospital System in the manner in which they are charged for share of cost liabilities.

Section 10: Emergency Ambulance Service Contract Fines and Penalties

The Emergency Medical Services (EMS) Agency, which is a division of the Public Health Department, imposes fines and penalties against the emergency ambulance service contractor, American Medical Response-West (AMR-West), and city fire departments for late responses to an emergency. Under the current contract with AMR-West, EMS fines and penalties are deposited into a trust fund to support EMS system improvements, rather than into a revenue account to support EMS Agency operations. The contract also requires half of first responder penalties to be used on first responder programs, services and equipment except when "...the EMS system is presented with actual or reasonably projected substantial financial hardship." Accordingly, in response to County budget reductions for FY 2004-05, $115,000 in fines and penalties was used to fund ongoing expenses associated with contract monitoring in the EMS Agency, which leaves a remaining available balance of $738,852 in the EMS Trust Fund.

Despite the use of trust fund monies, the EMS Agency's approved budget for FY 2004-05 has been reduced by 17.6 percent from FY 2003-04 in order to reduce the net General Fund cost of the Public Health Department. Statements by the County Executive, the five-year budget forecast by the County Executive's Office and other data suggest additional reductions will be needed in FY 2005-06 and subsequent years. However, it is not clear reductions can be made without significantly compromising services. These factors represent sufficient evidence that the financial hardship contemplated in the AMR-West contract now exists.

Due to the existing financial hardship and uncertain future financial state of the County, requests for EMS system improvements from the EMS Trust Fund should be held until the Board of Supervisors declares that the County no longer faces a "substantial financial hardship." In order to formally establish criteria for the determination of the existence of a financial hardship, the Board of Supervisors should develop a standard for 1) what constitutes a financial hardship, and 2) what signals the end of a financial hardship. In addition, the status of the EMS Trust Fund, including the available balance, should be reported to the Board of Supervisors during future budget discussions. If additional EMS Agency budget reductions are required, then the amount of the reduction should be transferred from the EMS Trust Fund.

Based on these findings, it is recommended that the Board of Supervisors:

10.1 Develop a standard for the determination of 1) what constitutes a substantial financial hardship, and 2) what signals the end of a substantial financial hardship. (Priority 1)

It is recommended that the Santa Clara Valley Health and Hospital System:

10.2 Hold requests for Emergency Medical Services (EMS) system improvement funding from the EMS Trust Fund until the Board of Supervisors declares that the County no longer faces a substantial financial hardship. (Priority 1)

10.3 Report the status of the EMS Trust Fund, including the available balance, to the Board of Supervisors during all future budget discussions. (Priority 1)

10.4 Address additional EMS Agency budget reductions by transferring the amount of the reduction from the EMS Trust Fund. (Priority 1)

By implementing the recommendations above, the County could reduce the net General Fund cost of the EMS Agency by at least $585,118 in FY 2004-05. This would leave $153,734 in the EMS Trust Fund to hold in reserve with fines and penalties billed in FY 2004-05. Since the County can expect to add at least $300,000 to the EMS Trust Fund in FY 2004-05, there would be $453,734 available to support the EMS Agency in FY 2005-06. While these transfers from the EMS Trust Fund could temporarily delay EMS system improvement projects, the EMS Agency could sustain its services, which is the County's highest priority.

Section 11: Leasing Public Health Administrative Offices

The County currently leases administrative offices for the Public Health Department to accommodate staff for departmental and program administration purposes. Administrative staff of the Mental Health Department are also located in leased facilities. The leases of these three facilities expire during the next 24 to 36 months. The County currently pays approximately $1.5 million annually for the 34,408 square feet of leased office space.

All of these public health and mental health functions are ongoing requirements of the County that are more appropriately housed in owned facilities. Operating from multiple leased facilities adversely affects timely, ongoing departmental communication, unnecessarily wastes administrative staff resources and results in excessive costs to the taxpayers. Based on information provided by the Facilities Department Property Management, the current cost per square foot of existing office buildings would enable the County to acquire a facility of about 35,000 square feet for approximately $7,000,000.

By investing available Retiree Health Trust Fund monies in an office building and leasing it to the County for a 30-year term at 8.00 percent interest, the Retiree Health Fund would achieve its assumed rate of return on investment, and the County cost for Public Health and Mental Health administrative offices would be reduced by $48.2 million over the 30-year lease period.

Based on these findings, it is recommended that the Board of Supervisors:

11.1 Request the Facilities Department Property Management to prepare a market analysis of office buildings suitable for use for Public Health and Mental Health administrative purposes, that are currently available for purchase in the San Jose area. (Priority 1)

11.2 Evaluate the Facilities Department Property Management office building availability report and authorize the Facilities Department Property Management to execute a purchase as described in this section, contingent upon identification of a suitable building and the confirmation of significant potential cost savings. (Priority 1)

The implementation of these recommendations would result in projected cost savings to the County of $48.2 million over the next 30 years. In addition, the administrative burden related to lessor-lessee issues would be eliminated, and the efficiency of the Public Health Department administration and communication would be enhanced.

Table of Contents

Introduction

This Management Audit of the Santa Clara County Public Health Department was authorized by the Board of Supervisors of the County of Santa Clara in August 2003 pursuant to the Board's power of inquiry specified in Section 302 (c) of the Santa Clara County Charter.

Purpose and Scope

The purpose of the management audit was to examine the operations, management practices and finances of the Public Health Department, and to identify opportunities to increase the Department's efficiency, effectiveness and economy. The scope of the management audit was comprehensive, and included a review of all of the functions provided directly by the Department. The audit also included a review of functions included in the Public Health Department budget but overseen organizationally by the Ambulatory and Community Health Services unit of the Santa Clara Valley Health and Hospital System, which oversees non-hospital health care provided to eligible County residents, including care provided in the context of communicable diseases and other Public Health Department functions.

We did not directly evaluate the services provided by the contractors who supply services to the County's public health clients. Instead, we evaluated the management systems that are employed by the Department to establish and manage contracts with these organizations, and to oversee contractor activities. The audit focused on a review of the Department's business practices and systems but did not evaluate the quality of services that are provided to clients.

This report includes 11 findings and associated recommendations that encompass major areas of departmental operations. Included are findings related to the immunization of school children, the reporting of communicable diseases, contract management, recovery of indirect costs in grants, fee schedule development, staff productivity and consistency of billable charges. The report identifies $3,771,181 in potential ongoing cost savings and increased revenues, and additional one-time savings of $585,118. In addition, recommendations to eliminate leased County office space in favor or purchased space are estimated to provide $48.2 million in savings over 30 years.

Audit Methodology

This management audit was conducted in accordance with Generally Accepted Governmental Auditing Standards (GAGAS) of the United States General Accounting Office, except for the exclusion of certain information pertaining to Public Health Department contracting processes. This information has been separately transmitted to the Board of Supervisors and was excluded from general disclose pursuant to direction of the County Counsel in accordance with management audit contract Section 1.B.3.

Pursuant to these requirements, we performed the following management audit procedures:

- Audit Planning – The management audit was selected by the Board of Supervisors using a risk assessment tool and estimate of audit work hours developed at the Board's direction by the Management Audit Division. After audit selection by the Board, a detailed management audit workplan was developed and provided to the Department.

- Entrance Conference – An entrance conference was held to introduce the audit staff and discuss the management audit plan provided to the Department.

- Pre-Audit Survey – Management Audit staff toured Public Health facilities and interviewed managers across the organization in order to identify specific areas for further, more detailed analysis and review.

- Field Work – Managers and line staff were interviewed, records and other documents were reviewed, we accompanied nursing staff while they provided services in the community, and we conducted extensive field work in various schools around the county accompanied by Immunization Program staff.

- Status Reporting – During the audit, a status meeting was held with the Administration to discuss the status of the management audit, and a separate meeting occurred with Immunization Program staff to discuss the conclusions of the joint field work that took place.

- Draft Report – The draft report was provided to the Public Health Director on July 30, 2004, along with a schedule of dates for subsequent meetings and deadlines as outlined in the management audit policies and procedures of Santa Clara County.

- Exit Conference – An exit conference was held on August 23, 2004, during which comments were received from the Department regarding the findings and recommendations in the report.

- Final Report – The Final Report was prepared and is presented herein, including the survey results from other California public health departments, and the written response of the Santa Clara County Public Health Department.

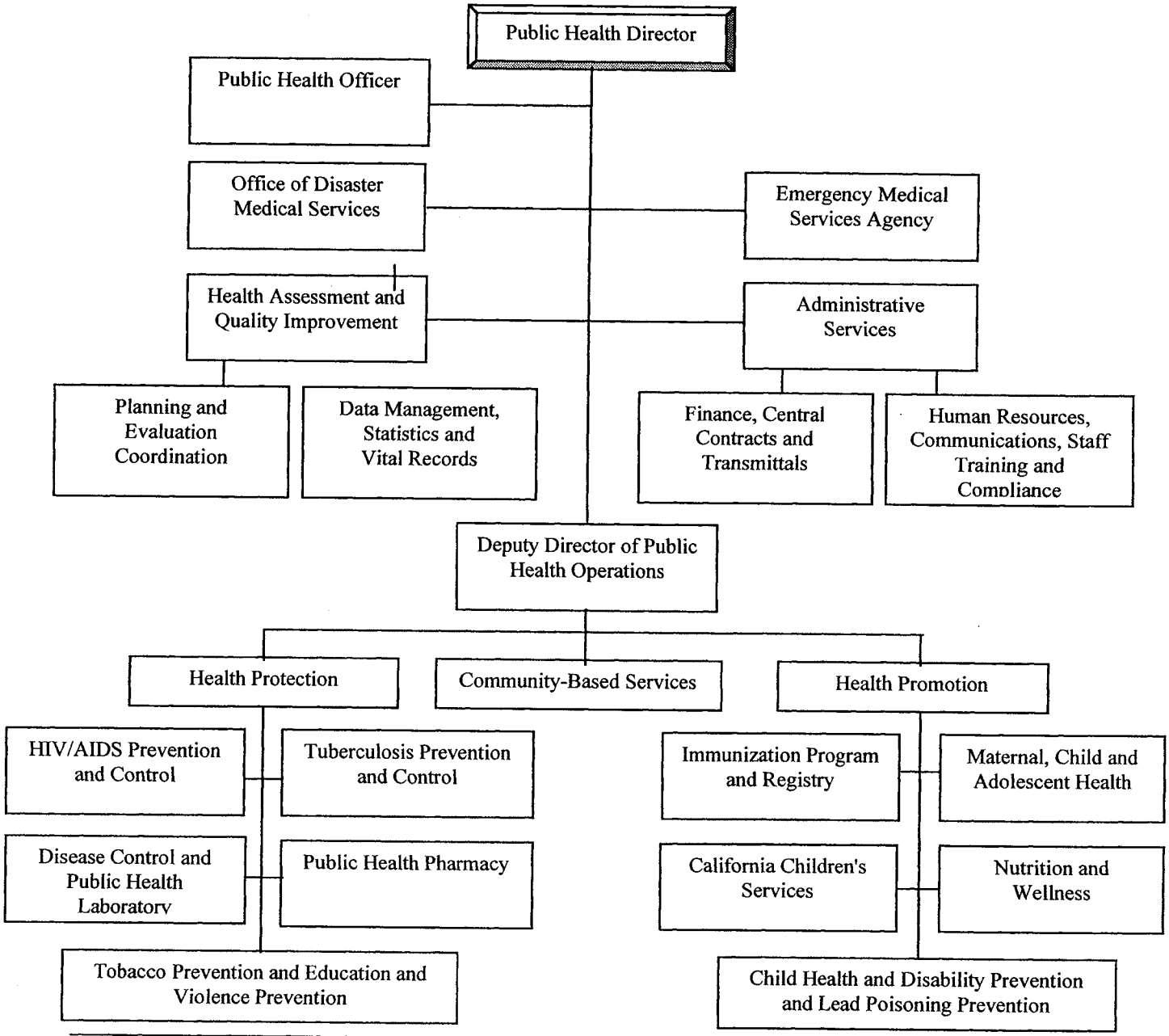
Description of Public Health Services

The Public Health Department carries out a variety of functions and programs all intended to maintain or improve the health of the public in Santa Clara County. The Public Health Department is one of the General Fund departments in the Santa Clara Valley Health and Hospital System (SCVHHS). For Fiscal Year 2003-04, the period of field work for this audit, the Department had staffing of 680.5 full-time equivalent positions and an expenditure budget of about $91.36 million. The Department is organized with a number of specialized units, including an Administrative Unit, the Office of Disaster Medical Services, Health Assessment and Quality Improvement Unit

and Emergency Medical Services Agency reporting directly to the Public Health Director. In addition, the Department's direct services are organized into three Divisions, the Health Protection Division, the Community-Based Services Division and the Health Promotion Division. Each of these divisions are supervised by a Division Director, and the three Division Directors report to the Deputy Director of Public Health Operations, who is primarily responsible for day-to-day departmental management and reports to the Public Health Director.

Exhibit 1

Santa Clara County Department of Public Health
Organization as of July 2004



The previous organization chart and following program descriptions are provided to better illustrate the organization for the specialized functions, and for functions within each of the three Divisions. The program descriptions are drawn from the Management Audit Division's *Analysis of County Functions Funded From General Fund Resources to Determine Minimum Legal Funding Requirements*, completed in 2003, supplemented as needed by additional information obtained for this audit.

Administration

The Public Health Department Administration consists of 29.0 full-time equivalent positions. These positions are responsible for departmental administration, management, fiscal analysis, budget preparation, internal/external communication and overall administrative support to the Department's direct service functions.

Disaster Medical Services

The Office of Disaster Medical Services (ODMS) includes 4.0 authorized positions and is responsible for the coordination of preparedness and response to public health threats and disasters. The ODMS develops, exercises and refines the public health disaster response system, and in collaboration with disaster response system partners, is establishing a comprehensive countywide medical response system. By coordinating disaster medical/health operations and resources throughout the County, ODMS ensures a capable public health response including the continual provision of critical public health services in times of disaster.

Epidemiology and Data Management

Epidemiology and Data Management includes 12.5 authorized positions and is responsible for assessment and health status monitoring services. These functions are provided by collecting and analyzing health measures and epidemiological data to respond to specific disease outbreaks, prevent the spread of infectious diseases and inform programs and communities about health prevention, service and policy needs. Epidemiology is defined as "the branch of medicine that deals with the study of the causes, distribution, and control of disease in populations."[1] Epidemiology and Data Management also coordinates with SCVHHS Information Services and is currently developing the Public Health Integrated Information System.

Vital Records

With a staff of 7.0 positions, the Vital Records Unit is responsible for keeping birth and death records for Santa Clara County for the current year plus two previous years. Vital Registration is also responsible for providing certified copies of birth and death certificates requested by mail or walk-in, and for referring birth and death statistical information requests to Data Management.

[1] *The American Heritage® Dictionary of the English Language, Fourth Edition*

Health Assessment, Planning and Evaluation

The Health Assessment, Planning and Evaluation Unit includes 7.0 authorized positions and focuses primarily on community health assessment, health status reports, quality assurance oversight, performance based budgeting, program evaluation, and providing analytical support for departmental, program, and community planning efforts. Additionally, staff support the planning, development and implementation of the Public Health Integrated Health System.

Emergency Medical Services

The Emergency Medical Services (EMS) Agency consists of 13.0 authorized positions and is responsible for 24-hour oversight, evaluation and improvement of the EMS/Trauma System in Santa Clara County. The EMS Agency coordinates all emergency medical activities with all system participants, including the fire departments, emergency medical service providers, dispatchers, air medical providers, law enforcement agencies and hospital emergency response staff. Specific responsibilities of the EMS Agency include transportation authorization of pre-hospital care services, education and training, setting of ambulance rates, quality improvement, communications, approval and issuance of permits to providers to ensure EMS capacity, trauma center review, public information and education, medical direction and a role in the County's overall disaster preparedness.

Health Protection Division

The Health Protection Division seeks to ensure that the spread of disease is prevented whenever reasonably possible by detecting disease in the community and by facilitating treatment for individuals. The programs within the Division focus on educating people about how to prevent the spread of disease, and in some instances, by investigating disease cases in order to restrict individuals until such time as a given activity no longer poses a threat to the community. In addition, certain programs in the Health Protection Division target unhealthy behaviors, such as smoking, violence and traffic accidents in order to decrease the negative health outcomes that result. The HIV/AIDS Program, the Tuberculosis Prevention and Control Program, the Disease Control and Surveillance Unit, the Public Health Laboratory, the Public Health Pharmacy, the Tobacco Control Program, the Traffic Safety Program and the Violence Prevention Program are part of this Division.

HIV/AIDS Prevention and Control Program

The HIV/AIDS Prevention and Control Program includes 36.0 authorized positions and is responsible for reducing the incidence of HIV/AIDS transmission in Santa Clara County through health promotion, risk reduction, HIV/AIDS education, and prevention and treatment services. Lastly, this program seeks to assure the quality of life and health status of people living with HIV/AIDS care and treatment services.

Tuberculosis Prevention and Control

The Tuberculosis Prevention and Control Program includes 19.0 authorized positions and is responsible, under Title 17, for the prevention of the development and spread of tuberculosis among the residents of Santa Clara County and the provision of accessible and appropriate care to those with tuberculosis infection or disease. Directly Observed Therapy of every dose of tuberculosis medication is offered to those high-risk persons with the disease. On rare occasions, the Public Health Officer, or a representative, may testify that a person with active tuberculosis is unable or unwilling to act responsibly, requiring closer monitoring or hospitalization.

Disease Control and Surveillance

The Disease Control and Surveillance Unit includes 15.5 authorized positions and is responsible for the surveillance and reporting of 83 different reportable diseases and conditions, for case investigation, for planning and prevention programs, and for addressing any circumstances or issues related to communicable disease and the public health.

Public Health Pharmacy

The Public Health Pharmacy consists of 8.5 authorized positions and is responsible for filling prescriptions for Public Health Department clients, primarily related to treatment of tuberculosis, HIV/AIDS and other communicable diseases. The Pharmacy also oversees the ordering and distribution of State- and federally-provided vaccines for children, which are administered at County health clinics and by about 40 non-County-operated immunization providers. The Pharmacy also provides flu vaccines to 17 County clinics and about 60 outside agencies. The Pharmacy also oversees a stockpile of drugs to be used to respond to a bioterrorism attack in the County, and would take custody from the federal government of additional materials to combat such an outbreak, if necessary.

Public Health Laboratory

The Public Health Laboratory includes 13.0 authorized positions and is responsible for providing laboratory support for the programs and activities of the Public Health Department and the community. The Laboratory provides reference testing, consultation and training. The Laboratory exists and functions under the mandates of the Health and Safety Code, California Business and Professions Code, Maintenance of Effort mandated by Welfare and Institutions Code 1700, Clinical Laboratory Improvement Act, State of California Department of Public Health, and the Environmental Laboratory Accreditation Program. Services provided by the Public Health Laboratory include clinical and reference testing in the multiple areas as a full service microbiology lab and water testing to detect bacterial contamination. The Laboratory performs food testing when a food is suspected to be the source of a foodborne outbreak, rabies testing and special testing including the determination of what type of tick may have been involved in relation to Lyme disease. Subsequent to the September 11 events, the Public Health Laboratory has been federally designated as

a Level B lab which includes the ability to "rule in" bioterrorism agents for Santa Clara County and assigned Bay Area counties.

Tobacco Prevention and Education

The Tobacco Prevention and Education Program includes 9.5 authorized positions and is responsible for the reduction of tobacco product use in Santa Clara County. Activities include changing community attitudes about tobacco use, reducing the use of tobacco and reducing the exposure to secondhand smoke.

Traffic Safety

With a staff of 3.0 positions, the Department has undertaken the Traffic Safety Program with grant dollars to conduct a red light running prevention campaign and DUI (Driving Under the Influence) courts in high schools and to promote the use of child safety seats and bicycle helmets as prevention oriented education efforts. The stated aim of the Traffic Safe Communities Network is to prevent and control traffic-related fatalities and injuries as well as save health care and property costs through research-based best practice approaches.

Violence Prevention

The Violence Prevention Program (VPP) includes 3.5 authorized positions and is responsible for the creation and implementation of a Board approved County-wide action plan to address the complex issue of violence by promoting violence free relationships, reducing access to alcohol and other drugs and preventing firearm-related deaths and injuries. The Public Health Department administers the program and the selection process by which community based programs are selected to receive General Fund and grant support. The VPP also delivers the PeaceBuilders® Program, a school-based violence prevention effort in 40 schools within the County.

Community-Based Services Division

The Community-Based Regional Services Division includes 181.0 authorized positions and is responsible for public health nursing and multi-disciplinary prevention and case management services through six regional offices throughout the County. The Division provides communicable disease services carried out by regional public health staff, the general regional services and the regional services related to tuberculosis treatment. The Adolescent Family Life Program (AFLP) is also administered in this division and delivered by Medical Social Workers located in each of the regional offices. The AFLP provides support services and comprehensive case management to pregnant and parenting teens.

Health Promotion Division

The Health Promotion Division of the Public Health Department includes programs intended to prevent health problems either by immunization or improved health and nutrition of pregnant women, children and infants. Unlike the Health Protection

Division, this Division does not have administrative staff separate from its individual programs. The Immunization Program, Immunization Registry, Child Health and Disability Prevention Program, Childhood Lead Poisoning Prevention Program, California Children's Services, Nutrition and Wellness and Maternal, Child and Adolescent Health Program are part of this Division.

Immunization Program

As a prevention strategy of the Public Health Department, the Immunization Program has undertaken its mandate to control disease based on Title 17. The Immunization Program includes 29.0 authorized positions and is responsible for increasing the immunization of children and other residents of the County, thereby reducing the rate of vaccine-preventable communicable disease. The components of the program include a routine pediatric immunization clinic, a travel clinic that provides immunization to persons traveling out of the country, the Perinatal Hepatitis B Program, education and planning with the community, schools and health care providers, and the Immunization Registry Information System. As part of immunization education and planning, staff facilitate annual child care and school assessments to measure vaccination coverage throughout the County and compliance with State school immunization law.

Immunization Registry

The Immunization Registry Information System (IRIS) consists of 5.0 authorized positions and is a computer automated information and reminder system. This system is part of the Department's mandate for data collection and tabulation in its overall effort to control the spread of disease through immunization as a prevention strategy. IRIS keeps a record of immunizations (shots) for all children who are enrolled. The purpose of the Immunization Registry is to make each child's immunization record available to the child's health care provider and to remind parents when their child's immunizations are due or overdue. The goal of IRIS is to prevent over-immunizing or under-immunizing of children. This "best practice" solution is one proven method of fulfilling the Department's mandate to protect the health of the public by preventing communicable disease. State law also mandates that all children entering kindergarten and seventh grade be fully immunized before school entry. IRIS tracks and reports these levels of immunization to health care providers and school staff.

Child Health and Disability Prevention

The Child Health and Disability Prevention (CHDP) Program includes 19.5 authorized positions and is responsible for ensuring the provision of comprehensive health exams and immunizations for children with Medi-Cal or children from low-income families. CHDP health exams in Santa Clara County are provided by a network of 100 physicians, prepaid health plans, primary care centers, school-based and school-linked programs, Valley Health clinics and other public and private agencies.

Childhood Lead Poisoning Prevention Program

The Childhood Lead Poisoning Prevention Program includes 5.0 authorized positions and is responsible for the prevention of lead poisoning in order to protect the health and well-being of children in Santa Clara County. This is done by coordinating case management services, providing environmental assessments, continuing case management to monitor follow-up blood lead level results, educating the community through presentations and media outreach and to collect, analyze and report data.

California Children's Services

With a staff of 97.0 positions, California Children's Services (CCS) is responsible for treating children diagnosed with certain physically disabling conditions, as enacted by the California Legislature in 1927. Many physically disabling medical conditions are eligible for treatment under CCS. This tax-supported program provides specialized medical care and rehabilitation for children whose families cannot provide all or part of the care.

Nutrition and Wellness

Nutrition and Wellness includes 34.0 authorized positions and is responsible for the provision of the Women, Infants and Children Program, a nutrition program that helps pregnant women, new mothers and young children to eat well and stay healthy. Goals intended to produce the health in these populations include nutrition education and counseling; nutrition case management by registered dietitians for high-risk participants; supplemental nutritious food; breastfeeding education and support; and referrals to health care.

Maternal, Child and Adolescent Health

The Maternal, Child and Adolescent Health Program includes 28.5 authorized positions that support the Comprehensive Perinatal Services Program, the Breastfeeding Promotion Project, Fetal Infant Mortality Review Program, Child Abuse Prevention Services and the Black Infant Health Program. These programs are all committed to serving women, children and their families in Santa Clara County by assuring access to a comprehensive, quality health care system and by focusing on prevention and early intervention strategies.

Ambulatory and Community Public Health Programs

Ambulatory and Community Health Services (ACHS) manages and provides health services through a set of programs that are included in Budget Unit 410, Public Health. These services have been retained in the Department budget because of their Public Health focus, but are managed by ACHS because they reflect provision of direct medical care to clients outside a hospital setting.

Center for Learning and Achievement

With a staff of 17.0 positions, the Center for Learning and Achievement (CLA) provides early screening, assessment and early diagnosis of children birth through age 18 with suspected developmental variations or delays, behavioral concerns, and learning differences. The CLA approach focuses on the whole child, integrating educational and developmental findings with complex medical issues. Patients are seen by a team of specialists who offer evaluations leading to a description of the child and detailed recommendations.[2] The CLA is funded primarily by the First Five Commission, an entity that allocates Proposition 10 tobacco tax funds to support services delivered to children under six years of age. Age of enrollment allows for and General Fund resources support these services for certain children to 19 years old.

Primary Care Community Clinics

The Primary Care Community Clinics provide comprehensive ambulatory and community health services in partnership with the Santa Clara Valley Health and Hospital System in order to provide medical care to the indigent, unsponsored and under-insured residents of Santa Clara County. These clinics are operated by community-based non-profit organizations under contract with the County, which has assigned 1.0 position to this function.

Diabetes Center

Under Title 17, local health departments are mandated to offer a list of basic services, including services in chronic diseases, which may include case finding, community education, consultation and rehabilitation, for the prevention or mitigation of any chronic disease. Although not specifically listed, the Department has asserted that the treatment of diabetes could be considered one of the illnesses intended for treatment under this code section. The Diabetes Center was created to address the fragmented system of care for patients with diabetes. The fundamental goals of the Diabetes Center are to improve the health and well-being of individuals with diagnosed diabetes, optimize the provision of health-care services diabetic patients and their families and to develop public awareness and education on the prevention and treatment of diabetes. Staffing for the Diabetes Center includes 3.0 authorized positions.

Family Planning Clinic

The Family Planning Clinic includes 6.5 authorized positions and is responsible for the provision of reproductive health services, including basic contraceptive counseling, health education, screening and treatment for sexually transmitted diseases, and physical assessment and provision of contraceptive methods. Under Title 17, local health departments are mandated to provide appropriate services for family planning.

[2] FIRST 5 Initiatives and Programs Brochure

PACE Clinic

The PACE Clinic includes 19.5 authorized positions and is responsible for the provision of the majority of primary medical care (medical care, mental health, nutrition, pharmacology and case management care) for people living with HIV infection in the County.

Tuberculosis Clinic

The Tuberculosis Clinic consists of 24.5 authorized positions and is responsible for diagnosis and treatment of active and latent tuberculosis in the County, seeing approximately 50 percent of all cases and providing consultation to private providers in the community.

Refugee/Child Health Clinic

The Refugee/Child Health Clinic includes 21.0 authorized positions and is responsible for providing the required health assessment for refugees arriving into the United States, Child Health and Disability Prevention Services and primary health care to a very diverse refugee client population.

Puentes Clinic

The Puentes Clinic includes 2.5 authorized positions and is responsible for providing medical care to active and recovering injection drug users; minor surgery for abscesses and referral for drug treatment and counseling.

Park Alameda Health Facility

There are 6.0 positions assigned to the maintenance and janitorial services of the Park Alameda Health Facility and other Ambulatory and Community Clinic facilities. These positions report to the Santa Clara Valley Health and Hospital Facilities Department but are budgeted in the Public Health Department.

Public Health Department Accomplishments

Management audits typically focus on opportunities for improvements within an organization. Therefore, Section 7.43 and Section 7.44 of the Government Auditing Standards, 1994 revision (GAS), published by the United States General Accounting office, require that the management audit report include "noteworthy management accomplishments" to provide a more balanced perspective on operations. Accordingly, this section of the Introduction summarizes some of the current noteworthy accomplishments of the Public Health Department. In order to allow the Director of Public Health to highlight those accomplishments she feels are the most noteworthy, audit staff requested and received a list of accomplishments.

Some of the more noteworthy Public Health Department accomplishments are provided below:

- Administrative Services: Successfully developed the Department Compliance Program, including the Health Insurance Portability and Accountability Act. Also established a new Position Control Information System for tracking personnel, including licensure, mandated training, emergency response information and performance evaluations.

- Vital Records and Registration: In 2002, approximately 39,000 certified copies of birth certificates, 67,000 death certificates, and 10,000 burial permits were issued.

- Publications: Over 20 reports were produced and used widely by the Public Health Department, County agencies, and community organizations to focus the control of communicable diseases, plan health services, substantiate needs, and prioritize community-wide and County-wide efforts aimed at addressing critical public health issues.

- Planning and Evaluation: Provided community and department planning services, evaluation services, and survey and report coordination for the Department, supporting 40+ managers to develop and implement programs. Second full year of implementation of department-wide Evaluation initiative in 50+ programs.

- Disaster Medical Services: Established a County-wide Medical Response System with participation from external stakeholders, such as fire departments, law enforcement, hospitals, schools and businesses.

- Disaster University: Developed as an innovative method of packaging and delivering training, Disaster University has provided emergency preparedness and medical/health coursework to more than 500 students in the last year on 13 separate topics, including hospital emergency incident command, SEMS, disaster mental health issues, amateur radio operation, epidemiology and outbreak response.

- Emergency Medical Services (EMS): Created uniform EMS Field Supervisor standards to increase the services provided to those who access the EMS System. Currently, implementing a County-wide restructure and redesign of the EMS Communications System. The effort increases the ability of all pre-hospital care units (from 30 to 106 units) to communicate and to be used in large-scale incidents.

- Public Health Nursing: Targeted Case Management encounters grew from 13,575 in FY 2001-02 to 19,348 during the first 11 months of FY 2003-04, an increase of 43 percent in 23 months.

- Public Health Laboratory: The Public Health Laboratory received Select Agency Certification and licensure as a Level B laboratory by both the Centers for Disease Control and Prevention and the United States Department of Agriculture Animal and Plant Health Inspection Services.

- Public Health Pharmacy: Under State Pediatric Vaccine Program, the Public Health Pharmacy managed and provided over 80,000 doses of vaccines to 32 community-based immunization providers located throughout the County.

- Disease Control and Prevention Program: Physicians, Public Health Nurses and Communicable Disease Investigators responded to outbreaks of infectious disease and emerging infectious disease threats, such as SARS and West Nile Virus.

- Immunization Program: Received the Centers for Disease Control and Prevention, National Immunization Services Award for the past two consecutive years for highest immunization rates in an urban setting in the nation.

- Child Health and Disability Prevention Program and Foster Care Children Program: Ensured that 30 percent more (from 1,566 to 2,376) children received a health exam per State standards. The goal is 100 percent of 2,700 children.

Topics Requiring Additional Review

In accordance with Sections 7.45 and 7.46 of the United States General Accounting Office Government Auditing Standards, certain issues identified during an audit may be brought to the attention of the department being audited and the Board of Supervisors, even though a specific finding is not included in the report. Discussed below are operational issues for which we did not develop specific findings, but are important issues of which the Department should be aware.

Licensure Documentation

Because many of the services provided by the Public Health Department are clinical by nature, Department staff possess clinical licenses that must be renewed and licensure documentation must be stored in a location easily accessible for verification. The Department had begun implementing a position control database system at the time of the audit. Management Audit staff determined that the database had originally been populated using self-reporting of clinical staff rather than actual review of licensure documents. The binder stored at the Administration Office of the Public Health Department was incomplete and did not include licenses for several management and clinical registered nurse staff of the Department. Field work confirmed that these documents were stored at the Regional Clinic sites, but there were two instances of staff providing clinical services who had not provided a copy of their current license to the clinic. Nurses typically carry their license with them, making the provision of these documents to their supervisors very easy. Active licensure status for all Public Health nursing staff was verified using the State of California on-line service. We recommend that the Licensure Binder at the Public Health Administration be updated to include current licensure documentation for all clinical staff. The Department has updated the binder as a result of our inquiries during the field work phase of the audit process. The binder should be expanded to include licensure documentation for all disciplines in the Department, including Physical and Occupational Therapists and Nutritionists as well as Pharmacy and Laboratory staff. Maintaining this binder is important to ensure current licensing and to provide audit documentation to various oversight agencies.

California Children's Services

California Children's Services, as discussed more fully in Section 6 of this report, included 96 authorized positions in FY 2003-04 and is responsible for the treatment of children with certain physically disabling conditions. The services provided to these children include specialized medical care and rehabilitation, and the CCS staff of the Public Health Department act as the administrators of the overall CCS system in the County. The County CCS Department acts as a fiscal intermediary in the payment of charges to providers, including Valley Medical Center and other hospitals. CCS families often have high monthly Share of Cost liabilities and the conditions of CCS children often require frequent and costly hospitalizations, according to CCS staff. Therefore, some counties have reportedly begun to use General Fund resources to pay monthly Share of Cost liabilities for families, thereby relieving the family of the obligation to pay these charges, and allowing the providers to access Medi-Cal funds. This strategy is effective in preserving the County share of CCS available resources, as the Medi-Cal reimbursement that is accessed after the Share of Cost is paid is a combination of federal and State dollars, rather than the County and State "straight CCS" funds that would otherwise be used.

However, we did not identify any documentation from the State that this practice is allowable. The Department is currently considering paying Share of Cost liabilities with General Fund resources for CCS families. If the County were to commence paying Share of Cost liabilities for these clients, it should be done only after explicit approval from the Board of Supervisors is obtained. A precedent where one set of clients have their Share of Cost subsidized while others do not should be examined as it may provide a basis for clients to refuse to pay the County their Share of Cost liability. In the instance where the CCS client has received services from Valley Medical Center and the County were to use General Funds to pay the Share of Cost, this practice relies on an interpretation of federal law that such payment is allowable. If the Public Health Department decides to move forward with the payment of these liabilities, we recommend that the County secure written confirmation from the California Department of Health Services that the paying of Share of Cost liabilities from the General fund for CCS families is allowable first. County Counsel, Patient Business Services and the SCVHHS Compliance Officer should be included in the discussions regarding this issue.

Emergency Medical Services Medical Direction

Health and Safety Code Section 1797.202 requires the Emergency Medical Services (EMS) Agency, a division of the Public Health Department, to "...have a full- or part-time licensed physician and surgeon as medical director, who has substantial experience in the practice of emergency medicine." This was problematic for the EMS Agency during the summer of 2003. Because the EMS Medical Director position was vacant and a replacement had not been found for eight months, the California Emergency Medical Services Authority, which governs the State's emergency services health care system, prevented the EMS Agency from providing four advanced life support procedures and terminated its EMT II trial study for intubation. The EMS Agency noted that revoking these procedures had a mixed impact. While three of the

four procedures are used occasionally or rarely, paramedics felt the fourth procedure on pediatric intubation would have helped one or two patients, but data that the EMS Agency reviewed does not clearly indicate this is the case. The cancellation of the EMT II trial study also does not appear to have had any impact on care.

The EMS Medical Director position is currently filled, but the Public Health Department has no policy or procedure on who will provide medical direction in the event that the EMS Medical Director is unable to perform his or her duties or the position becomes vacant once again. Health and Safety Code Section 1797.202 authorizes local EMS agencies to "appoint one or more physicians and surgeons as assistant medical directors to assist the medical director with the discharge of the duties of medical director or to assume those duties during any time that the medical director is unable to carry out those duties as the medical director deems necessary." In our survey with other counties, we found that San Bernardino County appoints the Public Health Officer to act as the Assistant EMS Medical Director. However, Santa Clara County has not appointed its Public Health Officer, nor any other physician inside or outside the County, to this position. We were informed that emergency physicians from Valley Medical Center and the San Jose and Stanford medical facilities cannot serve as assistant medical directors, since they operate the three trauma centers in the area, which creates a conflict of interest.

Despite the challenge of appointing one or more assistant medical directors, we believe there are potential options available to the Public Health Department. These include 1) negotiating a contract with Kaiser, the University of California San Francisco, or a Locum Tenums for one or more emergency physicians to serve as an assistant medical director, 2) entering into a memorandum of understanding with a neighboring county for the EMS Medical Director or Assistant Medical Director to assist Santa Clara, or 3) establishing a panel of retired emergency physicians whom the County could appoint and rely on for medical direction when necessary. Therefore, we recommend that the Public Health Department develop a solution, including a policy and procedure, on who provides medical direction when the EMS Medical Director is unavailable or the position becomes vacant that best fits with the available staffing and resources in the region.

Survey of Other Jurisdictions

One of the analytical approaches employed for this audit included a survey of the local health department in the 10 most populous counties. The survey, which was developed by Management Audit staff and reviewed by the Department was submitted to Alameda, Contra Costa, Fresno, Los Angeles, Orange, Riverside, Sacramento, San Bernardino and San Diego Counties in addition to Santa Clara. Seven of these counties (70 percent) responded to all or part of the survey.

Where appropriate, information from the surveys has been included in various findings in this audit. It should be noted that the survey results were based exclusively on self-reported information by the various counties and the accuracy of the information reported was not audited by Management Audit staff. Complete survey results are provided as an attachment to this report. Copies of the full response by each jurisdiction

are available upon request. Comparisons of interest from the survey include the following:

- Santa Clara County was the only county to respond that decisions regarding the inclusion of indirect costs are made on a grant by grant basis. In comparison, the six other counties have calculated an indirect cost rate that they use in all grants.

- Whereas, Alameda, Orange, San Bernardino and San Diego Counties have a competitive bidding process for Ryan White CARE Act contract, Santa Clara County does not.

- All counties responded that they use a mixture of methods, including education and reminder letters, to enforce the Health and Safety Code requirements that hospitals, physicians and laboratories report known or suspected cases of reportable diseases.

- San Bernardino and Santa Clara Counties provide most medications to public health clients through a Public Health Pharmacy, while Alameda, Riverside and San Diego Counties provide them through a county hospital, an outpatient facility or commercial pharmacies through contracts.

- Five of seven counties, excluding Santa Clara, have a written policy and procedure regarding how therapists in the California Children's Services Medical Therapy Program should record and submit their Patient Therapy Records, which are used for billing services.

- Only Alameda, Riverside and San Bernardino Counties provide outstationed immunization clinical services, such as mobile units that travel to schools in order to administer vaccines to students.

Acknowledgements

We would like to thank the Director of Public Health and staff of the Department for their cooperation and assistance throughout this management audit.

Section 1. Immunization of School Children

- **The State of California annually surveys student immunization rates in schools with kindergarten and seventh grade classrooms in all 58 counties. The 2003-04 fall semester survey results show that 223 of Santa Clara County's 313 public schools (71 percent) were not compliant with State immunization law. Based on the survey data, more than 24,000 students in Santa Clara County schools were not fully immunized. A review of immunization records and procedures at district- and County Office of Education-operated schools provides evidence that schools are violating Health and Safety Code Sections 120335(b) and 120375(b) that prohibit schools from unconditionally admitting students who are not fully immunized, and require schools to "... prohibit from further attendance any pupil admitted conditionally who failed to obtain the required immunizations within the time limits allowed." In sum, there is widespread noncompliance with immunization laws by schools throughout the County, and a lack of enforcement by the California Department of Health Services and the County Public Health Department.**

- **Allowing students who are not fully immunized to attend school creates an environment that facilitates the spread of serious communicable diseases. A student who contracts a disease outside of school and then attends school may spread the disease to other students who are not fully immunized. The disease may also spread to others within the community, creating an outbreak that could require a costly response from the County and possibly the State. The 10 diseases against which State law requires immunization can result in permanent physical damage or death. Although the incidence of these diseases in Santa Clara County is low, more than 1,900 cases were reported in California in 2003.**

- **In order to increase compliance, the California State Legislature should prohibit schools from conditionally admitting or advancing students, at any grade level, who are not fully immunized, and require schools with at least 5 percent of students who are not compliant to pay the actual costs for their local health department to administer vaccines on-site. To ensure consistent implementation of school immunization law, the Santa Clara County Office of Education should develop a standard set of written procedures for all schools within the County to follow. In addition, the County Public Health Department should carry out its enforcement responsibility over schools that violate school immunization law. Lastly, the California Department of Health Services should report the annual Immunization Assessment Results by county, school district and individual school in order to increase local awareness of noncompliance at specific schools.**

Background

State law on school immunizations is clear: schools are required to unconditionally admit only students who are fully immunized or whose immunizations are waived for medical or personal reasons. The 10 diseases against which students must be immunized in accordance with their age are diphtheria, haemophilus influenzae type b,

measles, mumps, pertussis (whooping cough), polio, rubella, tetanus, hepatitis B, and varicella (chicken pox). Since some immunizations require multiple doses over a period of several months, students who are in the middle of completing a vaccination series can be admitted on condition that they receive the additional doses on schedule. However, if the students fail to obtain the required immunizations within the time limits allowed, then the schools must exclude the noncompliant students from further attendance until they can provide proof of receiving the immunizations.

The County Public Health Department, in conjunction with the California Department of Health Services (CDHS), plays a role in monitoring school compliance with State law and regulations through annual assessments and on-site reviews. Each fall, schools self-report the immunization status of kindergarten and seventh grade students to the State, known as the Immunization Assessment. During this process, the County provides guidance to schools, while the State tabulates and reports the results. The State then randomly selects schools Statewide to participate in the Selective Review. In the spring, the County Public Health Department visits the schools selected locally for the Selective Review to determine whether any kindergarten and seventh grade students remain noncompliant and to advise the schools to follow up with these students' parents. Results, which are once again reported by the State, provide a comparison of the percent of kindergarten and seventh grade students who comply with all immunization requirements in the fall and spring. This data and our review of documentation and procedures at a sample of schools provide evidence that schools are grossly violating the "No Shots, No School" requirement.

Allowing students who are not fully immunized to attend school creates an environment that facilitates the spread of serious communicable diseases. A student who contracts a disease outside of school and then attends school may spread the disease to other students who are not fully immunized. The disease may also spread to others within the community, creating an outbreak that requires a costly response from the County and possibly the State. The 10 diseases against which State law requires immunization can result in permanent physical damage or death. Although the incidence of these diseases in the County is low, with 90 cases reported in 2002, the number of cases reported in California increased from more than 1,800 in 2002 to over 1,900 in 2003.

Maintaining a high percentage of students who are fully immunized is critical to preventing the reintroduction and spread of diseases in the County. Research indicates that the proportion of a community that must be immunized to protect against transmission varies by disease, but is considered to be 80 percent for polio and in excess of 90 percent for measles.[1] Low rates of vaccination against measles among preschool children caused a measles outbreak, with over 55,000 cases, 11,000 hospitalizations and 120 deaths in the United States, between 1989 and 1991."[2] However, efforts and resources directed at this population were effective at raising immunization rates and halting the outbreak. More recently, Europe has experienced growing numbers of

[1] Alan R. Hinman, "Childhood immunization: laws that work," *Journal of Law, Medicine and Ethics*, Fall 2002

[2] "About Immunization," San Diego County Immunization Initiative

measles cases because of declining rates of immunization against the disease. An article about this resurgence stated "...measles is so contagious that experts believe only vaccination rates near 100 percent would entirely eliminate the disease from U.S. shores."[3] In Santa Clara County, as high as 90 percent of students are fully immunized at many public schools, but there are others with immunization rates as low as 50 percent (see Attachments). As a result, some risk of communicable disease outbreaks still exists.

Failure to immunize students also encourages the spread of diseases from other parts of the world, as shown by an incident last April in which a student at the University of California, Santa Cruz contracted measles while visiting family in Washington State. In this case, a child adopted from China brought and spread the disease. Infected infants also traveled with American families to Alaska, Florida, Maryland and New York. However, the measles outbreak was not identified until the college student returned to Santa Cruz upon which she was isolated and emergency vaccination clinics were set up. A news article quoted the Santa Cruz County Public Health Department as saying, "It's quite an example of how what goes on with communicable disease on the other side of the world can infect us pretty quickly."[4] Within this in mind, immunization compliance is particularly important in Santa Clara County, given the regular influx of new residents from other states and particularly other countries where immunization standards may be less and where measles and other diseases remain a problem. Year 2000 Census data showed that 34 percent of Santa Clara County residents were foreign born, and about half of them had only entered the United States in the previous 10 years.[5]

The remainder of this section reviews school immunization law, discusses immunization compliance rates at schools across the County, provides information on immunization documentation and procedures at a sample of schools, discusses the effort to register immunization information, identifies the current role of the Public Health Department, and recommends methods to potentially increase immunization rates.

School Immunization Law

The State of California has regulated immunizations for more than 30 years, beginning with the effort to eliminate transmission of measles since "...evidence showed that states with school immunization laws had rates of measles 40-51 percent lower than states without such laws."[6] Today, Health and Safety Code Section 120335(b) requires all public and private elementary and secondary schools to document whether their students are immunized against the following 10 diseases: diphtheria, haemophilus influenzae type b, measles, mumps, pertussis (whooping cough), polio, rubella, tetanus,

[3] Victoria Stagg Elliott, "Measles outbreaks spur caution as a forgotten foe returns," *American Medical News*, December 2, 2003
[4] April Lynch, "UC Santa Cruz student contracts measles from adopted child," *Mercury News*, April 21, 2004
[5] Census 2000 Summary File 3 - Sample Data for Santa Clara County, U.S. Census Bureau
[6] Erin Flanagan-Klygis, "School Vaccination Laws," *Ethics Journal of the American Medical Association*, November 2003

hepatitis B, and varicella (chicken pox). In order to be admitted unconditionally, kindergarten, seventh grade and transfer students must receive the appropriate number of vaccinations for each of these diseases, with the following three exceptions:

- Students whose parents have signed a personal beliefs exemption or whose doctor has signed a medical exemption for one or more of the immunizations can be admitted unconditionally.[7]

- Transfer students can be admitted on condition for up to 30 days, during which time they must provide proof of immunization or be excluded from school.[8]

- Students who are not fully immunized but whose scheduled immunizations are up to date can be admitted on condition that they present proof of immunization no later than the day that the next dose is due.

For conditionally admitted students, Health and Safety Code Section 120375(a) requires schools to periodically review these students' immunization records to ensure they have been fully immunized against all 10 diseases listed above. If conditional students fail to receive any required immunizations, then the school is required to notify parents of the noncompliance. Following this notification, State regulations allow schools to give no more than 10 school days for noncompliant students to provide proof of immunization or they must be excluded from attending school.[9] Section 120375(d) also requires schools to "...cooperate with the county health officer in carrying out programs for the immunization of persons applying for admission... and use funds, property and personnel of the district for that purpose."

Because a student's immunization status is reviewed only in kindergarten or seventh grade or when the student switches schools, a school's failure to enforce immunization requirements means that a non-immunized student would represent a transmission threat to other students and the public for many years. This problem is compounded for students transferring into local schools from other state or foreign countries that may have less stringent immunization requirements than California does. For example, current State law exempts transfer students, other than kindergarten and seventh-graders, from showing proof of hepatitis B vaccine, and also exempts transfer students older than seven from showing proof of vaccination for mumps and whooping cough.

To address the potential immunization gap from students transferring from out-of-state, State legislation proposed in January 2004 would require all students, regardless of age or grade, to be immunized against hepatitis B and mumps.[10] Whooping cough is not addressed in the proposal, due to the lack of a safe and effective vaccine for adolescents and adults. However, the proposed law also weakens current standards, by eliminating the requirement for all students' immunization status to be checked in seventh grade. Under this proposal, a student who failed to show proof of

[7] Health and Safety Code Section 120365 and 120370
[8] California Code of Regulations, Title 17, Division 1, Chapter 4, Subchapter 8, Article 3, Section 6070(d)
[9] California Code of Regulations, Title 17, Division 1, Chapter 4, Subchapter 8, Article 3, Section 6040
[10] Assembly Bill 1822 (Chan), Senate Health and Human Services Committee Analysis. The Governor subsequently vetoed this bill in September 2004.

immunizations in kindergarten, but was nonetheless allowed to remain in school, and never changed school districts, would never again need to show proof of immunization, and could theoretically remain as a threat to transmit disease throughout their school career. While the proposed toughening of school immunization law regarding hepatitis B and mumps is appropriate, weakening it by removing the seventh grade review is not.

Immunization Compliance County-wide

The California Department of Health Services (CDHS) Immunization Branch is responsible for reporting on school compliance with immunization requirements. To accomplish this task, the CDHS Immunization Branch works with local health departments and schools to conduct an Immunization Assessment in the fall and a Selective Review in the spring. The purpose of both is to determine and report on the immunization status of kindergarten and seventh grade students, since those are the grade levels at which schools are currently required to check for compliance with immunization laws. However, once results for the Immunization Assessment and Selective Review are reported, the CDHS Immunization Branch does not conduct any additional follow up with schools.

Compliance in the Fall

The CDHS Immunization Branch mails assessment forms to schools in early fall, collects the data in late fall and issues a report in winter. During this process, the Public Health Department Immunization Program provides guidance to Santa Clara County schools on filling out the assessment forms but does not compile or report results, or follow up with schools having low compliance rates. In fact, the CDHS Immunization Branch does not report Immunization Assessment results by school district or individual school, so the County is not aware of how individual school districts and schools are doing in terms of complying with school immunization law.

Based on the Immunization Assessment results from fall 2003, Santa Clara County is doing slightly better than the State-wide average for noncompliance. The County reported that 5.6 percent of kindergartners and 15.2 percent of seventh graders were not compliant with school immunization law compared to a State-wide average of 6.2 percent and 19.8 percent, respectively. Among the 10 most populous counties, we also found that Santa Clara County ranked 5th for kindergarten noncompliance and 9th for seventh grade noncompliance during the 2003-04 fall semester, indicating room for improvement still exists. Tables 1.1 and 1.2 on the following page provide the State-wide average and county rankings with noncompliance rates by grade level. For the purpose of these rankings, the compliant students column includes students with all required immunizations, as well as students with medical or personal beliefs exemptions, and the noncompliant students column includes all students who are not fully immunized and require follow up and possibly exclusion from school.

Table 1.1

Comparison of the Immunization Status of Kindergarten Students in the 10 Most Populous Counties – Fall 2003

Ranking	County	Total Students	Compliant Students	Students Not Compliant	Percent Not Compliant
	State-wide	513,519	481,794	31,725	6.2%
1	Sacramento	18,720	16,904	1,816	9.7%
2	Los Angeles	144,334	131,978	12,356	8.6%
3	Alameda	18,414	16,898	1,516	8.2%
4	Orange	43,609	41,141	2,468	5.7%
5	**Santa Clara**	**22,727**	**21,463**	**1,264**	**5.6%**
6	San Diego	40,499	38,625	1,874	4.6%
7	Riverside	28,509	27,373	1,136	4.0%
8	Contra Costa	13,740	13,226	514	3.7%
9	San Bernardino	30,414	29,418	996	3.3%
10	Fresno	15,137	14,663	474	3.1%

Table 1.2

Comparison of the Immunization Status of Seventh Grade Students in the 10 Most Populous Counties – Fall 2003

Ranking	County	Total Students	Compliant Students	Students Not Compliant	Percent Not Compliant
	State-wide	544,564	436,976	107,588	19.8%
1	Sacramento	20,225	15,639	4,586	22.7%
2	Los Angeles	154,245	120,955	33,290	21.6%
3	Riverside	31,234	24,592	6,642	21.3%
4	Alameda	18,399	14,586	3,813	20.7%
5	San Bernardino	35,084	27,941	7,143	20.4%
6	Contra Costa	14,729	12,073	2,656	18.0%
7	San Diego	43,083	35,401	7,682	17.8%
8	Orange	46,197	38,057	8,140	17.6%
9	**Santa Clara**	**21,792**	**18,488**	**3,304**	**15.2%**
10	Fresno	15,661	13,869	1,792	11.4%

Based on these results, we project that the number of Santa Clara County students in all grades who were not fully immunized and required follow up exceeds 24,000. In other words, almost 10 percent of students in kindergarten through 12th grade started the 2003-04 school year missing one or more of the shots required by State law.

Table 1.3

Projected Immunization Status of Santa Clara County Students in All Grades during the 2003-04 Fall Semester

Grade Level	Total Students	Compliant Students	Students Not Compliant	Percent Not Compliant
K-6th Grade	138,665	130,953	7,712	5.6%
7-12th Grade	112,543	95,480	17,063	15.2%
All Grades	**251,208**	**226,433**	**24,775**	**9.9%**

Although the CDHS Immunization Branch only reports assessment results for the State and by county, we were able to request the results by school district and individual school for the last five school years. From this information, we determined that some school districts and their schools consistently reported having a high percentage of students who were not fully immunized and required follow up (see Attachments 1.1 through 1.4). Furthermore, we found that approximately 93 percent of school districts and 71 percent of public schools that were surveyed during the 2003-04 fall semester did not comply with immunization requirements, as shown below.

Table 1.4

Summary of Immunization Assessment Results by School District and Public School for the 2003-04 Fall Semester

	Total Surveyed	Number Compliant	Number Not Compliant	Percent Not Compliant
School Districts				
Kindergarten Results	28	4	24	85.7%
Seventh Grade Results	27	0	27	100.0%
All Results	**55**	**4**	**51**	**92.7%**
Public Schools				
Kindergarten Results	240	84	156	65.0%
Seventh Grade Results	73	6	67	91.8%
All Results	**313**	**90**	**223**	**71.2%**

Compliance in the Spring

As noted previously, during the following spring, the CDHS Immunization Branch randomly selects 2 percent to 5 percent of schools with kindergarten and seventh grade classrooms from across the State to check the immunization status of a random sample of students in the spring compared to the fall. The Immunization Branch notifies the selected schools and local health departments, which are responsible for arranging

appointments with the schools to review their records. Depending on school enrollment, local health departments systematically select kindergarten and seventh grade student records to check for required immunizations and interview health staff at each school. When immunizations are not up to date, local health departments provide a list of noncompliant students and inform schools that they must allow parents no more than 10 school days to show proof of immunization. The CDHS then tabulates and reports the results for the State but not for individual counties, schools districts or schools.

According to Selective Review results, generally fewer kindergarten and seventh grade students are not fully immunized in the spring than in the fall.[11] Results from the 2004 Selective Review were not available at the time this report was prepared, so we present results from 2003. Among kindergarten students, 6.5 percent were not compliant in fall 2002 compared to 5.3 percent in spring 2003. The decrease among seventh grade students was more dramatic, from 24.5 percent in fall 2002 to 11.0 percent in spring 2003. Assuming that noncompliance decreased at similar rates during the 2003-04 school year, we project there were still more than 14,000 students in all grades County-wide who were not fully immunized and required follow up in spring 2004, as shown below.

Table 1.5

Projected Immunization Status of Santa Clara County Students in All Grades during the 2003-04 Spring Semester

Grade Level	Total Students	Compliant Students	Students Not Compliant	Percent Not Compliant
K-6th Grade	138,665	132,286	6,379	4.6%
7-12th Grade	112,543	104,890	7,653	6.8%
All Grades	**251,208**	**237,176**	**14,032**	**5.6%**

This data indicates that while schools are following up with students throughout the school year, many students continue to attend school while not fully immunized and then advance to the next grade. Under current State law, as previously explained, noncompliant kindergartners will not be evaluated for another six years, and noncompliant seventh graders will no longer be checked for complying with immunization requirements unless they transfer schools. Moreover, if State law is changed to remove the seventh grade check, then noncompliant students might never be caught after they advance from kindergarten.

Sample of School Records and Procedures

After reviewing results from the Immunization Assessment and Selective Review, we determined the need to conduct an independent review of immunization records and procedures at Santa Clara County schools. In spring 2004, we selected 13 schools

[11] The noncompliance rate does not include students with medical or personal beliefs exemptions.

operated by districts or the Santa Clara County Office of Education as part of our sample. When visiting these schools, we reviewed immunization records to determine the current rates of noncompliance and interviewed health staff to obtain an overview of the procedures followed, thereby providing explanations for the noncompliance among students. Throughout this process, we involved staff from the Public Health Department Immunization Program. Their knowledge of school immunization requirements and experience with the Immunization Assessment and Selective Review were instrumental in helping to design and conduct our field work. While at school sites, Immunization Program staff also aided us in interpreting immunization records and determining whether immunizations complied with State law.

Schools Operated by School Districts

Within Santa Clara County, there are 27 elementary and unified school districts. From these districts, we selected two elementary schools and five intermediate schools reporting some of the lowest or highest percentages of noncompliant students in the State's Immunization Assessment. Among these schools, we systematically selected an average of 101 records to review, ranging from a low of 94 to a high of 116 records. Table 1.6 shows the noncompliance rates for the selected schools in spring 2004, when we visited the schools, compared to fall 2003, when the State conducted its assessment. Similar to the County-wide results, the percent of noncompliant students represents all students who are not fully immunized, excluding students with medical or personal beliefs exemptions.

Table 1.6

Student Noncompliance with Immunization Requirements at Selected Schools Operated by Districts within Santa Clara County

School	District	Fall 2003	Spring 2004
Kindergarten Results			
Orchard Elementary	Orchard Elementary	9.3%	3.2%
Graystone Elementary	San Jose Unified	38.7%	2.6%
	Results Overall	**23.8%**	**2.9%**
Seventh Grade Results			
Hoover Middle	San Jose Unified	46.9%	22.0%
Willow Glen Middle	San Jose Unified	42.9%	13.0%
Britton Middle	Morgan Hill Unified	23.2%	4.0%
Kennedy Intermediate	Cupertino Union Elementary	0.7%	1.0%
Herman Intermediate	Oak Grove Elementary	1.8%	0.0%
	Results Overall	**21.2%**	**8.0%**

Note: Orchard Elementary did not report noncompliance for kindergartners in 2003, so results are shown from 2002. Noncompliance rates in fall 2003 are taken from the Immunization Assessment conducted by the State, while the Management Audit Division determined spring 2004 noncompliance rates through field work.

Schools in San Jose Unified reported the highest rates of noncompliance – ranging from 38.7 percent to 46.9 percent – for both kindergarten and seventh grade in the 2003 Immunization Assessment. In comparison, based on our review of student records in spring 2004, we found that the percent of noncompliant students decreased in both kindergarten and seventh grade among the schools sampled. For instance, Graystone Elementary School lowered its noncompliance rate from 38.7 percent in fall 2003 to 2.6 percent in spring 2004. While all of the intermediate schools also decreased their noncompliance rates, both of the intermediate schools sampled in San Jose Unified had noncompliance rates that remained above 10 percent.

Schools Operated by the County Office of Education

The remaining six schools in the sample consisted of two special education schools, two institutional schools and two community schools out of more than 30 schools operated by the Santa Clara County Office of Education (SCCOE). Selecting a sample of these schools based solely on their compliance rates was not possible, since the SCCOE reports Assessment Results by type of school, rather than individual school. The Special Education Department oversees the special education schools at sites within regular districts, and the Alternative Schools Department is responsible for the institutional schools at the Juvenile Hall and Ranches and community schools at sites around the County. The Immunization Assessment also does not include any results for the County's institutional schools, since Custody Health Services maintains student health records and administers comprehensive health care in the County's temporary holding facilities for juveniles.

In fall 2003, based on the Immunization Assessment conducted by the State, special education schools had a 33.3 percent noncompliance rate among kindergartners, and a 28.1 percent noncompliance rate among seventh graders, while the community schools had a 33.3 percent noncompliance rate among seventh graders.

Table 1.7

Student Noncompliance with Immunization Requirements at Selected Schools Operated by the Santa Clara County Office of Education

School	Type	Fall 2003	Spring 2004
Ridgemont Community	Community	33.3%	34.0%
Osborne at Juvenile Hall	Institutional		16.0%
Rouleau	Special Education	28.1%	11.1%
Fischer Middle	Special Education	28.1%	10.5%
Holden at Holden Ranch	Institutional		9.4%
Stonegate Community	Community	33.3%	3.9%
	Results Overall	**28.6%**	**15.5%**

Note: Noncompliance rates from fall 2003, which are taken from the State's Immunization Assessment Results, are reported according to type of school, not individual school. In addition, spring 2004 noncompliance rates were determined by fieldwork conducted by the Management Audit Division.

Many students who attend SCCOE-operated schools enter a grade according to their academic record or learning ability, not necessarily according to their age. Furthermore, special education schools are not organized in grades, so the applicability of the various immunization requirements must be based on a student's age. Because of the different nature of the student population served by the SCCOE, we selected only intermediate schools as part of our sample, and reviewed all student records based on age, except at the Rouleau School where only nine seventh grade records were reviewed and at Juvenile Hall where 100 records were reviewed, with an average of 43 records being sampled. Based on our review in spring 2004, only two schools had a noncompliance rate below 10 percent, while Ridgemont Community School had the highest rate of noncompliance at 34.0 percent.

Factors Contributing to Noncompliance

In order to determine why more students were not compliant, we interviewed health or office staff at each of the schools visited. We also interviewed medical staff in the Juvenile Hall Medical Clinic, operated by Custody Health Services, which oversees the medical treatment of students in the institutional schools at the Juvenile Hall and Ranches (known as the Osborne School and Holden School, respectively). Because the oversight of student health records within these County facilities is different from other schools, the major factor contributing to noncompliance is discussed last.

During our interviews at schools, excluding those in Juvenile Hall and Harold Holden Ranch, staff argued that the percent of noncompliant students remains high because schools do not have enough health staff to follow-up on immunizations and exclude students on a regular basis, but we disagree. Almost all schools operated by districts had a nurse that worked part-time to treat students and address health issues, and a full-time health aide or clerk to treat minor medical problems and perform an administrative role, including reviewing, updating and tracking immunization records. At the SCCOE-operated schools, nurses also rotated through the special education schools, while the community schools had no health staff. While staffing is limited, checking the immunization status of all kindergarten, seventh grade and transfer students is currently a mandated activity by State law, making it eligible for reimbursement from the State. Therefore, districts could hire staff dedicated to monitoring immunizations and bill the cost to the State.

What we did find contributed to noncompliance was schools' failure to screen, monitor and exclude students who were not fully immunized, despite requirements of State law. Examples of specific problems at schools in our sample are provided below.

- **Schools Do Not Screen Students at Enrollment and Admittance:** Some schools centrally enrolled students without checking their immunization records. San Jose Unified, for instance, has two enrollment centers where staff collect and process registration paperwork, but do not screen immunization records. Rather, immunization records are given to District office health staff to be entered into a database and then given to students' assigned school for follow-up by health aids. Similarly, a transition specialist within the Alternative Schools Department gathers all documents, fills out paperwork and meets with students and their parents to

complete enrollment for community schools. However, the transition specialist does not check whether students have proof of all required immunizations, even though the Alternative Schools Department Handbook states students will be admitted for enrollment after the "presentation of an immunization record consistent with current California law."[12]

Some schools, such as Willow Glen Middle School, also require new students to bring an updated copy of their immunization record on the first day of school in order to pick up their schedule. However, admissions staff do not screen the records before passing out the schedules. In comparison, Kennedy Intermediate in Cupertino Unified does not issue the schedules of entering students until immunizations are up to date. For transfer students, admissions staff have an Immunization Registration Checklist to fill out, attach with a copy of immunization records, and provide to a health clerk for review before these students are admitted. The checklist has been developed so that the admissions staff know how to interpret immunization records, particularly the schedule between shots.

- **Schools Are Not Proactive in Following Up with Noncompliance:** Once students are admitted, schools handle noncompliant students in a variety of ways. The largest variation is the amount and timing of follow up. Some schools sent the one required letter, while others sent the letter and followed up with a phone call. On the other hand, community school staff, who were aware that students' files include immunization records, conduct no follow up. They stated they were not aware this was their responsibility or instructed how to perform this function. In addition, schools that were least successful in following up would start after the deadline passed for students to receive needed vaccinations; whereas, schools that were most successful sent one or more letters in advance of the deadlines and then immediately began the exclusion process. Herman Intermediate School, for instance, sends three letters to parents in the month before their children face a deadline to complete an immunization. At the end of the month, the health clerk notifies the attendance clerk of students who have overdue shots to send those students home. This proactive approach works because immunizations are kept on track.

- **Schools Give More than 10 Days to Respond to Exclusion Notices:** While State law requires schools to give parents no more than 10 school days to respond to an exclusion notice, we found the length of time varies from seven to 30 days among school districts. Britton Middle School, for instance, provides up to 30 days for parents to respond to an exclusion notice, and argues that this much time was needed due to constraints faced by parents. In addition, exclusions tend not to occur more than once a month, and for a day at a time. Willow Glen Middle School similarly organizes "exclusion days" on which to exclude small groups of noncompliant students, rather than all noncompliant students at once. This approach of providing short-term suspensions for non-immunized students, rather than open-ended exclusions, does not follow State law. It also does not meet the public health goal of preventing transmission of disease by requiring students to be immunized.

[12] "Enrollment," *Alternative Schools Department Handbook*

Noncompliance is further exacerbated by administrative problems at many of the schools that we sampled. A discussion of these additional problems is provided below.

- **Health Staff Lack Administrative Support:** Health staff at several schools stated they do not receive support from administrators in enforcing immunization requirements. For example, nurses at special education schools have been told not to exclude students who fail to comply with immunization requirements. The verbal non-exclusion policy within the Special Education Department was instituted due to the belief that special education students could not be excluded due to their special needs. While a written copy of this policy was not provided, we found an official written policy on student immunizations approved by the SCCOE that states students should be excluded from school if "a series of immunizations has not been completed within the period of time required by law."[13] The non-exclusion policy instituted by the Special Education Department, as described by health staff, contradicts the official written policy of the SCCOE in addition to violating State law. All of the nurses with whom we spoke said that not being able to exclude students inhibits their ability to enforce the immunization requirements, since parents know their children cannot be excluded from school. Similarly, the former principal at Hoover Middle School never allowed health staff to exclude students. It should be noted that the school has a new principal who has allowed health staff to send exclusion letters to parents of noncompliant students. Regardless, this example illustrates the need for administrators to support health staff in enforcing immunization requirements.

- **Schools Lack Written Procedures on Complying with Immunization Law:** We found that only four of seven schools operated by districts and none of schools operated by the SCCOE had written procedures other than the *California Immunization Handbook*, which provides basic procedures and an overview of requirements. For example, school nurses in the SCCOE Special Education Department receive copies of the handbook, though an old procedure manual exists. In 1988, a school nurse took a sabbatical to develop a procedure manual for the Special Education Department, but the manual has not been updated or given to school nurses. Because nurses do not have a standard manual to which to refer, the methods used and steps taken to monitor immunizations can vary by nurse.

- **Schools Lack Access to Computers for Monitoring:** Schools currently use a variety of methods to monitor immunizations. For example, Orchard Elementary School manually reviews student files; Britton Middle School manually reviews files and uses a computer-generated list; and the remaining five schools use computer-generated lists, though they may check them against student files. It was our impression that student files were generally large and disorganized, so the schools with access to a computer could more easily track immunizations. Furthermore, schools that could print, rather than write, immunization information on the California School Immunization Record (known as the "Blue Card") reduce the potential for transcription errors. Both Herman Intermediate and Kennedy

[13] "Student Immunization, AR 5522," Santa Clara County Office of Education Official Documents, June 13, 1983

> Intermediate, whose students were almost fully compliant, used computer programs to help list and track students' immunizations.

Finally, during our interviews at Juvenile Hall and Harold Holden Ranch, we found that the major factor affecting noncompliance among children at these facilities is that the Juvenile Hall Medical Clinic chooses not to administer vaccines from the primary series of immunizations, which are required for entry into kindergarten or as a transfer student, while immunizing primarily against hepatitis A and hepatitis B. This finding was supported by our review of the immunization records, which showed that 100 percent of noncompliant children at Holden Ranch and 93.8 percent of noncompliant children at Juvenile Hall did not have documentation proving they were fully immunized against one or more of the following diseases: measles, mumps and rubella (MMR), polio, and tetanus and diptheria (Td). The clinic assumes children have received these immunizations since they have been in the school system, regardless of whether the parents, schools or health care providers are able to provide any supporting documentation. The clinic is thus making a judgment on the medical history of these children, which does not qualify as a medical exemption. Because the clinic is not determining if children have been immunized, or immunizing them, children are being put at risk for communicable diseases.

Effort to Register Immunization Information

In 1995, legislation established the California Statewide Immunization Information System, and authorized local health officers to operate immunization registries.[14] At the same time, certain health care providers and immunization systems were authorized to disclose or share immunization-related information, unless their patients opted out of the system. To implement the registry in Santa Clara County, the Public Health Department has installed the California Automated Immunization Registry software, a confidential web-based information system that allows health care providers to enter and access their patients' immunization history and schools to verify whether their students are fully immunized when they enroll. Implementing and joining an immunization registry has multiple benefits, as described below:

> With a fully functioning registry, the net result is that more kids get all of their immunizations and get them on time, without having to repeat shots solely because prior records could not be located. Medical staff reduce paperwork and "calling around" to look for previous immunization records. Physicians, schools and other agencies like WIC (Women, Infants and Children Supplemental Nutrition Program) will get rapid access to the immunization records they need.[15]

However, such a registry is less valuable if few health care providers and schools participate. As of July 1, 2004, only 29.1 percent of targeted providers in the County were fully operational and participating in the registry. Whereas, other states including Arizona, Arkansas, Connecticut, Delaware, Georgia, Maine, Michigan, Mississippi,

[14] Assembly Bill 254, Chapter 314, Statues of 1995

[15] "California Immunization Registries: Projected Costs and Savings," California Coalition for Childhood Immunization, February 23, 2004

Texas and Vermont have mandated that public and private health care providers enter immunization information into their registries, California has not. In addition, an overwhelming majority of schools do not access the immunization registry. As of July 1, 2004, only four schools out of 390 schools in the County were participating on a view-only basis, meaning they cannot enter immunization information, while a fifth school with a clinic that administers shots is considered a health care provider and has full access to the registry.

Enforcement by the Public Health Department

The Public Health Department does not currently take on an enforcement role with respect to school children immunizations. Rather, through the Immunization Program, the Department focuses on assessing and reviewing immunization records at schools as well as notifying schools of immunization requirements and organizing workshops for schools, districts and health care providers. During the workshops, staff share information on the latest immunization requirements, how to screen immunization records, how to follow-up with parents and exclude noncompliant students, and resources provided by the County and in the community. The Department's current role can best be defined as one of an evaluator and educator, not an enforcer.

In addition, while the Public Health Department educates schools about the immunization requirements for school entry and assists with the Immunization Assessment and Selective Review, the Department does not visit schools to administer shots. The last time that the Public Health Department visited a school to immunize students was seven years ago. However, the Board of Supervisors recently adopted a resolution authorizing the Public Health Department to enter into contracts with schools districts to run Hepatitis Clinics on school sites through March 31, 2007. Similarly, Community Outreach Services was delegated authority to enter into contracts with school districts for the provision of school-site-based health and human services through April 6, 2007. Since FY 2001-02, Community Outreach Services has entered into over 45 agreements with districts or schools.

The Public Health Department explained that organizing on-site immunizations poses several logistical challenges, such as notifying parents in time for them to submit permission slips, determining how to store the vaccines on-site, scheduling appointments with noncompliant students, and arranging nursing staff to administer the shots. However, we learned that vaccines, other than live viruses, can be easily transported with a cooler and stored in a refrigerator. If a schedule of the school immunization clinics is provided far enough in advance, then the school should be able to contact parents, collect permission slips and schedule appointments, while the Public Health Department should be able to arrange nursing staff. Results from a survey conducted with the most populous counties indicate that providing out-stationed or mobile immunization services is not uncommon. Three out of seven counties participating in the survey responded that their department provides these services.

Solutions to Raise Compliance

A multi-pronged approach should be taken to increase compliance with school immunization law, since there are multiple players in this effort. As will be discussed, the solutions that we recommend involve strengthening State law on immunizations, increasing participation in the immunization registry, developing procedures and implementing computerized methods of monitoring immunizations, carrying out local enforcement of school immunization law, and expanding assessments and audits of immunization compliance.

Solution 1: Strengthen School Immunization Law

State law on immunizations should be strengthened, rather than weakened as now proposed. In particular, we recommend that the Board of Supervisors urge the California State Legislature to amend Health and Safety Code Section 120335 to require that all students be immunized against hepatitis B and mumps, and prohibit schools from conditionally admitting and advancing students, at any grade level, who do not meet all immunization requirements. The latter change would require schools not to enroll students who do not meet all immunization requirements and to withhold class schedules or room assignments from students who do not meet them. These changes are needed to protect schools against the spread of communicable diseases resulting from noncompliant students who enter school and advance grade levels.

We also recommend that the Board of Supervisors urge the California State Legislature to amend Health and Safety Code Section 120375 to require schools that are found to have at least 5 percent of students who do not meet all immunization requirements to pay the actual costs for their local health department to administer vaccines on-site to the noncompliant students. This requirement serves two purposes: 1) to create a disincentive for schools to admit or advance students who are not fully immunized, and 2) to support and coordinate with local health departments in enforcing the immunization requirements.

Solution 2: Increase Participation in the Immunization Registry

Because of the significant benefits of a fully functioning immunization registry, the Board of Supervisors should urge the California State Legislature to amend Health and Safety Code Section 120440 to require that public and private health care providers report immunization information to their regional registry. We also recommend that the Board of Supervisors urge the California State Legislature to amend Health and Safety Code Section 120440 to require schools to utilize their regional registry for accessing immunization information on students and reporting new information or discrepancies to their local health department.

To fund these efforts, we recommend that the Board of Supervisors urge the California Children and Families Commission to provide funding from the 50 cent-per-pack tax on cigarettes established by Proposition 10. While 80 percent of this tobacco tax revenue is appropriated to county commissions and expended according to their strategic plans, 2 percent of the State Commission's share is deposited into an Unallocated Account for

the purposes of "...promoting, supporting and improving the early development of children from the prenatal stage to five years of age." Health and Safety Code Section 130100 further states:

> These purposes shall be accomplished through the establishment, institution and coordination of appropriate standards, resources, and integrated and comprehensive programs emphasizing community awareness, education, nurturing, child care, social services, health care and research.

We argue that the immunization registry is an appropriate expenditure, since only 20 percent of children under age six have records in the immunization registry.[16] Furthermore, the Unallocated Account receives large amounts of revenue on an annual basis. In FY 2001-02, the State Commission reported that this account received over $12 million in tobacco tax revenue, which is approximately the same amount needed to fully fund implementation of the registry.[17] The California Department of Health Services estimated that full implementation of the registries State-wide would cost the State between $7 million and $10 million per year in addition to the State's annual appropriation of over $3 million to support the ongoing operations of regional registries.[18] However, once the system was fully implemented, the State would save at least $15 million per year by reducing the number of duplicate immunizations and ensuring that appropriate immunizations are provided.

Solution 3: Develop Immunization Procedures and Computerized Monitoring

In order to ensure consistency in complying with school immunization law, the Board of Supervisors should urge the Santa Clara County Office of Education to work with school districts to develop standard written procedures for all schools in the County. These written procedures should summarize the immunization requirements, discuss how to screen immunization records before students are enrolled, describe how to track students needing immunizations and how to follow up with their parents, and provide steps for excluding students from school. The procedures also should clearly define the role and responsibilities of school staff, including health, enrollment and admissions staff as well as administrators, in complying with school immunization law. Some school districts already have written procedures that could be used as a starting point for those that do not.

To follow the procedures developed, we recommend that staff responsible for enrolling and admitting students be trained to screen immunization records. To facilitate this process, the Santa Clara County Office of Education should work with school districts in requiring all enrollment and admissions staff to attend a workshop led by the Public Health Department. Creating a simple immunization checklist, such as the one used by Cupertino Unified, could also aid enrollment and admissions staff in all districts.

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[16] California Department of Health Services Immunization Branch, 2003-A as quoted in "California Immunization Registries: Projected Costs and Savings," California Coalition for Childhood Immunization, February 23, 2004

[17] "California Children and Families Commission Annual Report, FY 2001-02," Chapter 2: State Commission Operations

[18] Senate Bill 1764 (Speier), Appropriations Committee Fiscal Summary

Lastly, school districts should orient school health or office staff, who are responsible for monitoring and excluding students, on the written procedures.

We also recommend that the Board of Supervisors urge the Santa Clara County Office of Education and school districts to provide computer equipment and software to schools for tracking students' immunizations. Using a computer to monitor immunizations has several advantages, but the most important is being able to quickly identify which students are missing a particular vaccine in case of an outbreak. Some computer software can also print immunization information on a student's California School Immunization Record, thereby reducing the number of transcription errors. In addition, schools with access to the California Automated Immunization Registry software are able to view current immunization information, and in some cases update that information.

Finally, a formal protocol on immunizing children placed in the County's temporary holding facilities, including the Juvenile Hall and Ranches, is needed. As previously described, the Juvenile Hall Medical Clinic does not administer vaccines from the primary series, regardless if immunization records cannot be obtained from the parents, schools and health care providers, since the clinic assumes that children already received those vaccines. However, by making this decision, which does not qualify as a medical exemption, the clinic increases the chance that a communicable disease could spread to children who are not fully immunized. While the clinic is concerned with over-vaccinating children, the Centers for Disease Control and Prevention issued "General Recommendations on Immunizations" that address what to do with persons whose vaccination status is unknown or uncertain, as follows:

> Although vaccinations should not be postponed if records cannot be found, an attempt to locate missing records should be made by contacting previous health-care providers and searching for a personally held record. If records cannot be located, these persons should be considered susceptible and should be started on the age-appropriate vaccination schedule.[19]

The Superior Court has provided similar direction to the Santa Clara Valley Health and Hospital System medical clinics when vaccinating children held in temporary facilities. According to Superior Court Local Rule and Standing Order, the medical clinics are authorized to update a child's immunizations after seven days if immunization records are not available. A proposed amendment to the Local Rule and Standing Order, which is expected to be approved in the fall of 2004 and go into effect on January 1, 2005, would maintain the seven-day waiting period and strengthen the conditions that must be met before the medical clinics are allowed to administer immunizations. These conditions consist of "...(1) making a reasonable attempt to obtain parental consent; (2) checking the county immunization registry; (3) contacting the child's personal pediatrician; and (4) if the child is of school age, contacting the child's school for immunization records."

[19] "General Recommendations on Immunization: Recommendations of the Advisory Committee on Immunization Practices and the American Academy of Family Physicians," Centers for Disease Control and Prevention, February 8, 2002: 51(RR02): 1-36.

In order to adhere to the Superior Court's change in Local Rule and Standing Order and to prevent the spread of communicable diseases, we recommend that the Associate Director of the Children's Shelter/Custody Health Services require the medical clinics to administer the age-appropriate immunizations, for the diseases listed in Health and Safety Code Section 120335, to children placed in the County's temporary holding facilities after seven days, if the efforts to determine a child's immunization status, as described above, are unsuccessful. The Probation Department also should conduct an independent evaluation of the immunization status of all children within its custody and provide a comprehensive report on the findings to the Superior Court.

Solution 4: Enforce School Immunization Law

Laws are only effective when enforced. Therefore, the Director of the Public Health Department should direct the Public Health Officer to carry out his enforcement duties, as authorized by the County Ordinance Code. Sections A18-10 and A18-11 of the County Ordinance Code give the Public Health Officer the power to enforce State law and regulations relating to public health in all cities and unincorporated areas, and Section A18-12 provides the Public Health Officer with the power to enter and inspect all schools in the County. As a result of these powers, if schools are not following up with students or not excluding noncompliant students, then the Public Health Officer should notify schools of their noncompliance with State law and refer unresponsive noncompliant schools to the District Attorney. Furthermore, if the Public Health Officer learns of parents who refuse to vaccinate their children, but have not signed a personal beliefs exemption, the Public Health Officer should refer the family to the Social Services Agency, which could obtain the assistance of Superior Court. The Welfare and Institution Code Section 300 (b) includes the "willful or negligent failure of the parent or guardian to provide the child with adequate food, clothing, shelter or medical treatment" in the list of instances in which a child may be made a ward of the court.

Despite the challenges in arranging school-site-based immunizations, the Public Health Department also should commit to identifying and visiting the schools with at least 5 percent of students who are not fully immunized and are not exempt for medical or personal reasons, according to State law, in order to vaccinate these students on-site. If the California State Legislature amends school immunization law, as recommended in this finding, then the Public Health Department will be required to make this commitment and will be reimbursed for the actual costs of administering vaccines to the noncompliant students at schools. County Ordinance Code Section A18-15 already authorizes the Public Health Department to charge fees for services, such as immunizations, with the Board of Supervisors' approval. The Public Health Department also should consider partnering with Community Outreach Services in administering immunization services at school sites.

To implement these recommendations, County General Fund costs would be minimal, since the County's contract with the State, which amounted to approximately $1.2 million in FY 2003-04, includes the coordination of the Immunization Assessment and Selective Review as well as ensuring that all schools fully enforce school immunization law. Furthermore, the State purchases vaccines for the County to administer at its

Immunization Clinics and at sites within the County, so the County incurs no cost for the vaccines, but does incur administrative costs.

Solution 5: Expand Immunization Compliance Assessments and Audits

The California Department of Health Services (CDHS) Immunization Branch currently issues a report on the annual Immunization Assessment, which is conducted each fall, that includes results for only the State and by county. The results by school district and individual school are not released, either in the report or on the Internet, for public review. This practice limits parents' ability to assess schools when deciding where their children will attend and limits local health departments' ability to increase compliance with immunization requirements among schools. In order to increase local awareness of noncompliance at specific schools, the Board of Supervisors should urge the California State Legislature to require the CDHS Immunization Branch to report the Immunization Assessment Results by county, school district and individual school to the California State Legislature, local health departments and county offices of education and on the Internet.

Changes should also be made to the way in which school immunization records are audited each spring. Because of the advance notification given to schools that are randomly selected for the Selective Review, we believe that the results may be slightly overstated. In addition, only kindergarten and seventh grade student records are checked for compliance, though we found students in other grades at the Santa Clara County Office of Education operated-schools who did not meet all immunization requirements. To more accurately capture the compliance rates, we recommend that the Board of Supervisors also urge the California State Legislature to require the CDHS Immunization Branch to alter the Selective Review so that advance notice is not given to the schools being audited and immunization records in all grade levels are sampled. Once the audits have been conducted, the CDHS Immunization Branch should report on the results for the State as well as by county to the California State Legislature, local health departments and county offices of education and on the Internet.

Changes to both the Immunization Assessment and Selective Review will aid the Public Health Department in assessing how well area schools are complying in the spring compared to the fall and taking action against schools with low compliance rates.

CONCLUSION

By failing to comply with immunization laws, schools throughout the County are increasing the risk that a communicable disease outbreak could occur. As we found from research, the proportion of a community that must be immunized to protect against transmission ranges from 80 percent to over 90 percent, depending on the disease. In Santa Clara County, as high as 90 percent of students are fully immunized in many public schools, but there are others with immunization rates as low as 50 percent. While schools and their districts incur much of the burden in ensuring that students meet all immunization requirements, they are not alone. The California Department of Health Services and the County Public Health Department also play a role, though they currently focus more on evaluation and education than enforcement

of school immunization law. In addition, the California State Legislature determines whether immunization laws are weakened or strengthened, affecting the immunization rates within schools. As we have recommended, each of the players locally and for the State should change the way in which they deal with and help reduce noncompliance with immunization requirements. If changes are not made, then Santa Clara County and other counties around the State could experience an increase in the incidence of diseases against which students should have been vaccinated.

RECOMMENDATIONS

It is recommended that the Board of Supervisors urge the California State Legislature to:

1.1 Amend Health and Safety Code Section 120335 to require that all students, regardless of grade level, be immunized against hepatitis B and mumps, and prohibit schools from conditionally admitting or advancing students who do not meet all immunization requirements. (Priority 1)

1.2 Amend Health and Safety Code Section 120375 to require schools that are found to have at least 5 percent of students who are not compliant with school immunization law to pay the actual costs for their local health department to vaccinate these students on-site. (Priority 1)

1.3 Amend Health and Safety Code Section 120440 to require public and private health care providers to report immunization information to their regional immunization registry. Schools also should be required to access immunization information from the regional registry and report new information or discrepancies to their local health department. (Priority 1)

1.4 Require the California Department of Health Services to report the annual Immunization Assessment Results by county, school district and individual school to the California State Legislature, local health departments and county offices of education and on the Internet. (Priority 2)

1.5 Require the California Department of Health Services to alter the Selective Review so that 5 percent of schools are audited each year, advance notification is not given to the schools being audited, immunization records in all grade levels are sampled, and results are reported for the State and by county to the California State Legislature, local health departments and county offices of education and on the Internet. (Priority 2)

It is recommended that the Board of Supervisors urge the California Children and Families Commission to:

1.6 Provide funding from Proposition 10 tobacco tax revenue in the Unallocated Account to fund the implementation of the immunization registry with public and private health care providers and schools across the State. (Priority 1)

It is recommended that the Board of Supervisors urge the Santa Clara County Office of Education to:

1.7 Work with school districts to develop written procedures on complying with school immunization law, as enacted in Health and Safety Code Section 120335-120380, for all schools in the County. (Priority 1)

1.8 Work with school districts in requiring enrollment and admissions staff to attend a workshop led by the Public Health Department on how to verify whether students' immunization records meet all requirements according to school immunization law and in orienting school health or office staff, who are responsible for monitoring and excluding students, on the written procedures. (Priority 2)

1.9 Work with school districts to provide computer equipment and software to schools for tracking students' immunizations and accessing the immunization registry. (Priority 2)

It is recommended that the Children's Shelter/Custody Health Services:

1.10 Require the medical clinics to administer the age-appropriate immunizations, for the diseases listed in Health and Safety Code Section 120335, to children placed in the County's temporary holding facilities after seven days of contacting the parents for their consent, checking the immunization registry, and requesting immunization records from schools and health care providers. (Priority 1)

It is recommended that the Probation Department:

1.11 Conduct an independent evaluation of the immunization status of all children within its custody and provide a comprehensive report on the findings to the Superior Court. (Priority 2)

It is recommended that the Public Health Department:

1.12 Direct the Public Health Officer to carry out his enforcement duties, pursuant to County Ordinance Code Section A18-10, A18-11 and A18-12, by notifying schools of their noncompliance with State law, referring unresponsive noncompliant schools to the District Attorney, and referring the families with parents who refuse to vaccinate their children, but have not signed a personal beliefs exemption, to the Social Services Agency. (Priority 1)

1.13 Administer vaccines to students who are not fully immunized and are not exempt for medical or personal reasons at schools that are found to have at least 5 percent of students who are not compliant with State law. Pursuant to the implementation of Recommendation 1.2, these schools will reimburse the Public Health Department for its actual costs in administering the vaccines. (Priority 2)

SAVINGS AND BENEFITS

County General Fund costs will be minimal to implement the recommendations, since the County's contract with the State, which amounted to approximately $1.2 million in FY 2003-04, includes the coordination of the Immunization Assessment and Selective Review as well as ensuring that all schools fully enforce school immunization law. Furthermore, the State purchases vaccines for the County to administer at its Immunization Clinics and at sites within the County, so the County incurs no cost for the vaccines but does incur administrative costs. The major benefit of implementing the recommendations is to reduce noncompliance with school immunization law, thereby decreasing the risk of communicable disease outbreaks in schools.

COMMENTS ON THE CHILDREN'S SHELTER/CUSTODY HEALTH SERVICES DEPARTMENT WRITTEN RESPONSE

The written response of the Children's Shelter/Custody Health Services Department asserts that the Department's immunization policy utilized in the Juvenile Hall and at the Juvenile Ranches is one that is extremely aggressive in pursuing and obtaining immunization histories on all minors detained in Juvenile Hall and Juvenile Ranches, and appropriately provides both primary and Hepatitis series vaccines to the detained children upon receipt of parental consent for children at the Hall and Ranches.

This response would lead one to believe that 100 percent of the estimated 557 children in the County's institutional schools are fully immunized. However, this is an inaccurate depiction of the degree of immunization of the children, and of the actual practices utilized by Custody Health Services staff, who are responsible for immunization in the Juvenile Hall and Ranch schools. Based on our on-site audit of children's medical records at Juvenile Hall and the Ranch schools, and our interview with the Custody Health Services physician who serves as the institutional schools medical director, it was determined that:

- It is the policy of Custody Health Services to assume that all children have received all of the required primary series vaccinations, unless physical evidence to the contrary is identified. Therefore, if inquiries of parents, schools, physicians and others do not locate a child's immunization record, no primary series immunizations would be given to children in the Hall or at the Ranches. The Local Rule and Standing Order of the Santa Clara County Superior Court authorizes County medical personnel to administer such immunizations seven days following admission, even if no parent was available to give consent.

- Based on a sample of 132 medical records, it was determined that 16 percent of the children in Juvenile Hall and 9.4 percent of the children at Holden Ranch were not fully immunized. The average length of stay of the unimmunized children was 127 days and ranged from 21 days to 281 days. These children were not segregated from other children or staff and were permitted to continue attending school with other children within the respective institutions.

- County Counsel has determined that State Health and Safety Code Sections 120325 et seq. apply to all schools, including the Juvenile Hall and Ranch schools operated by the County Office of Education. Health and Safety Code Section 120375(b) prohibits from further attendance any pupil who is not fully immunized, or who does not receive the required immunizations within the time limits allowed (10 days).

Therefore, current Custody Health Services immunization practices in the Juvenile Hall and the Ranches place both children and staff at unnecessary risk, and the failure of the County Office of Education to prohibit from further attendance any pupil who is not fully immunized, or who does not receive the required immunizations within the time limits allowed (10 days) places both children and staff at unnecessary risk and is a violation of State law.

COMMENTS ON THE SANTA CLARA COUNTY OFFICE OF EDUCATION WRITTEN RESPONSE

The Santa Clara County Office of Education (SCCOE) argues in its written response that a lack of adequate resources, particularly finances, is the root cause of non-compliance with immunization requirements at schools within the County.

While we do not disagree that finances are currently tight within the school system, dedicating monies to immunization compliance over non-mandated activities appears not to be a priority. For instance, the SCCOE expended $677,168 on travel and conferences in FY 2003-04, as reported to the California Department of Education. For FY 2004-05, the SCCOE increased its travel and conference budget to $869,137. The San Jose Unified School District similarly increased its travel and conference budget between FY 2002-03 and FY 2003-04 by 259 percent to about $3.56 million.

Therefore, traveling to and attending conferences is a higher priority of the Santa Clara County Office of Education and San Jose Unified School District than is ensuring that all children who attend County public schools are fully immunized.

Attachment 1.1

Fall 2003 Kindergarten Immunization Assessment Results by School District in Santa Clara County

No	District	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
1	SCC Office of Education	75	48	2	25	33.3%
2	San Jose Unified	2,008	1,578	24	406	20.2%
3	Franklin-McKinley Elementary	1,120	1,001	0	119	10.6%
4	Mtn. View-Whisman Elementary	541	475	13	53	9.8%
5	All Private Schools	3,795	3,462	79	254	6.7%
6	Luther Burbank Elementary	60	56	0	4	6.7%
7	Mt. Pleasant Elementary	361	337	1	23	6.4%
8	Berryessa Union Elementary	813	768	1	44	5.4%
9	Moreland Elementary	506	474	5	27	5.3%
10	Campbell Union Elementary	901	846	7	48	5.3%
11	Los Gatos Union Elementary	248	233	4	11	4.4%
12	Alum Rock Union Elementary	1,643	1,572	8	63	3.8%
13	Oak Grove Elementary	1,284	1,228	10	46	3.6%
14	Santa Clara Unified	1,194	1,150	9	35	2.9%
15	Morgan Hill Unified	820	787	9	24	2.9%
16	Gilroy Unified	759	736	2	21	2.8%
17	Cambrian Elementary	315	307	2	6	1.9%
18	Sunnyvale Elementary	690	676	5	9	1.3%
19	Cupertino Union Elementary	1,620	1,572	32	16	1.0%
20	Evergreen Elementary	1,374	1,353	8	13	0.9%
21	Union Elementary	433	417	12	4	0.9%
22	Palo Alto Unified	811	795	10	6	0.7%
23	Los Altos Elementary	444	433	8	3	0.7%
24	Milpitas Unified	669	660	5	4	0.6%
25	Lakeside Joint Elementary	17	17	0	0	0.0%
26	Loma Prieta Elementary	41	39	2	0	0.0%
27	Montebello Elementary	5	5	0	0	0.0%
28	Saratoga Union Elementary	180	172	8	0	0.0%
	Total Students	**22,727**	**21,197**	**266**	**1,264**	**5.6%**

Attachment 1.2

Fall 2003 Kindergarten Immunization Assessment Results by Public School in Santa Clara County

No	District	School	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
1	San Jose USD	Graystone Elem.	106	61	4	41	38.7%
2	San Jose USD	Galarza Elem.	56	35	1	20	35.7%
3	San Jose USD	Washington Elem.	79	51	0	28	35.4%
4	San Jose USD	Almaden Elem.	48	32	0	16	33.3%
5	SCC Office of Education	Special Education	75	48	2	25	33.3%
6	San Jose USD	Canoas Elem.	48	33	0	15	31.3%
7	San Jose USD	River Glen Elem.	57	40	0	17	29.8%
8	Oak Grove ESD	Stipe Elem.	73	52	0	21	28.8%
9	San Jose USD	Los Alamitos Elem.	93	66	1	26	28.0%
10	San Jose USD	Reed Elem.	62	45	0	17	27.4%
11	San Jose USD	Bachrodt Elem.	63	46	0	17	27.0%
12	San Jose USD	Booksin Elem.	112	79	3	30	26.8%
13	San Jose USD	Gardner Elem.	66	50	0	16	24.2%
14	San Jose USD	Williams Elem.	93	71	0	22	23.7%
15	Franklin-McKinley ESD	Dahl Elem.	100	77	0	23	23.0%
16	San Jose USD	Darling Elem.	74	56	2	16	21.6%
17	Franklin-McKinley ESD	Windmill Springs	80	64	0	16	20.0%
18	San Jose USD	Grant Elem.	65	52	0	13	20.0%
19	San Jose USD	Hacienda/Valley View	105	83	2	20	19.0%
20	Moreland ESD	Anderson Elem.	66	53	1	12	18.2%
21	San Jose USD	Mann Elem.	61	50	0	11	18.0%
22	San Jose USD	Hammer Elem.	73	60	0	13	17.8%
23	Mtn. View-Whisman ESD	Bubb Elem.	85	66	4	15	17.6%
24	Morgan Hill USD	Morgan Hill Charter	40	31	2	7	17.5%
25	San Jose USD	Olinder Elem.	59	49	0	10	16.9%
26	Franklin-McKinley ESD	Meadows Elem.	96	80	0	16	16.7%
27	Berryessa Union ESD	Cherrywood Elem.	92	77	0	15	16.3%
28	Oak Grove ESD	Santa Teresa Elem.	92	77	1	14	15.2%
29	Mtn. View-Whisman ESD	Landels Elem.	79	66	1	12	15.2%
30	San Jose USD	Hiester Elem.	28	24	0	4	14.3%
31	Berryessa Union ESD	Vinci Park Elem.	100	86	0	14	14.0%
32	Mt. Pleasant ESD	Sanders Elem.	140	121	0	19	13.6%
33	San Jose USD	Allen Elem.	52	43	2	7	13.5%
34	Campbell Union ESD	Hazelwood Elem.	97	82	2	13	13.4%
35	San Jose USD	Erikson Elem.	31	27	0	4	12.9%
36	San Jose USD	Lowell Elem.	58	51	0	7	12.1%
37	Franklin-McKinley ESD	Seven Trees Elem.	100	88	0	12	12.0%
38	Franklin-McKinley ESD	Stonegate Elem.	100	88	0	12	12.0%
39	Los Gatos Union ESD	Lexington Elem.	17	13	2	2	11.8%
40	Mtn. View-Whisman ESD	Theuerkauf Elem.	80	71	0	9	11.3%
41	San Jose USD	Schallenberger Elem.	64	53	4	7	10.9%
42	Mtn. View-Whisman ESD	Slater Elem.	79	69	2	8	10.1%
43	Campbell Union ESD	Lynhaven Elem.	114	103	0	11	9.6%
44	San Jose USD	Empire Gardens Elem.	21	19	0	2	9.5%
45	San Jose USD	Randol Elem.	63	57	0	6	9.5%
46	Franklin-McKinley ESD	Franklin Elem.	110	100	0	10	9.1%
47	Moreland ESD	Easterbrook Elem.	79	72	0	7	8.9%
48	Mtn. View-Whisman ESD	Castro Elem.	79	72	0	7	8.9%
49	Franklin-McKinley ESD	Hellyer Elem.	91	83	0	8	8.8%
50	San Jose USD	Cory Elem.	94	86	0	8	8.5%
51	Morgan Hill USD	Paradise Valley Elem.	59	53	1	5	8.5%
52	Alum Rock Union ESD	Goss Elem.	85	77	1	7	8.2%
53	Franklin-McKinley ESD	Kennedy Elem.	100	92	0	8	8.0%

No	District	School	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
54	Alum Rock Union ESD	Dorsa Elem.	120	106	5	9	7.5%
55	Alum Rock Union ESD	Arbuckle Elem.	95	88	0	7	7.4%
56	Alum Rock Union ESD	Lyndale Elem.	109	101	0	8	7.3%
57	Union ESD	Lietz Elem.	41	36	2	3	7.3%
58	Berryessa Union ESD	Brooktree Elem.	69	64	0	5	7.2%
59	Campbell Union ESD	Capri Elem.	85	77	2	6	7.1%
60	Campbell Union ESD	Forest Hill Elem.	100	93	0	7	7.0%
61	San Jose USD	Simonds Elem.	89	80	3	6	6.7%
62	Alum Rock Union ESD	Linda Vista Elem.	150	138	2	10	6.7%
63	Luther Burbank ESD	Burbank Elem.	60	56	0	4	6.7%
64	Berryessa Union ESD	Summerdale Elem.	80	75	0	5	6.3%
65	Franklin-McKinley ESD	Shirakawa Sr. Elem.	80	75	0	5	6.3%
66	Evergreen ESD	Evergreen Elem.	82	76	1	5	6.1%
67	Santa Clara USD	Westwood Elem.	83	77	1	5	6.0%
68	Gilroy USD	Kelley Elem.	100	94	0	6	6.0%
69	Morgan Hill USD	Jackson Elem.	84	79	0	5	6.0%
70	Los Gatos Union ESD	Daves Ave Elem.	86	81	0	5	5.8%
71	San Jose USD	Willow Glen Elem.	87	82	0	5	5.7%
72	Milpitas USD	Rose Elem.	55	51	1	3	5.5%
73	Moreland ESD	Latimer Elem.	76	72	0	4	5.3%
74	Alum Rock Union ESD	Rogers Elem.	58	55	0	3	5.2%
75	Franklin-McKinley ESD	McKinley Elem.	78	74	0	4	5.1%
76	Gilroy USD	Del Buono	119	113	0	6	5.0%
77	Gilroy USD	Glen View Elem.	100	95	0	5	5.0%
78	Santa Clara USD	Briarwood Elem.	81	76	1	4	4.9%
79	Moreland ESD	Payne Elem.	61	57	1	3	4.9%
80	Alum Rock Union ESD	Cassell Elem.	85	81	0	4	4.7%
81	Santa Clara USD	Braly Elem.	65	61	1	3	4.6%
82	Campbell Union ESD	Rosemary Elem.	88	84	0	4	4.5%
83	Santa Clara USD	Bowers Elem.	69	66	0	3	4.3%
84	Santa Clara USD	Mayne Elem.	70	67	0	3	4.3%
85	Gilroy USD	Rucker Elem.	73	69	1	3	4.1%
86	Franklin-McKinley ESD	Santee Elem.	100	96	0	4	4.0%
87	Cambrian ESD	Sartorette Elem.	76	73	0	3	3.9%
88	Cupertino Union ESD	Sedgwick Elem.	78	74	1	3	3.8%
89	Santa Clara USD	Scott Lane Elem.	79	76	0	3	3.8%
90	San Jose USD	Terrell Elem.	53	51	0	2	3.8%
91	Palo Alto USD	Escondido Elem.	107	103	0	4	3.7%
92	Alum Rock Union ESD	McCollam Elem.	81	78	0	3	3.7%
93	Cupertino Union ESD	Muir Elem.	55	53	0	2	3.6%
94	Evergreen ESD	Laurelwood Elem.	56	54	0	2	3.6%
95	Sunnyvale ESD	Vargas Elem.	94	91	0	3	3.2%
96	Campbell Union ESD	Castlemont Elem.	128	122	2	4	3.1%
97	Los Gatos Union ESD	Van Meter Elem.	65	61	2	2	3.1%
98	Santa Clara USD	Laurelwood Elem.	98	95	0	3	3.1%
99	Santa Clara USD	Bracher Elem.	66	64	0	2	3.0%
100	Sunnyvale ESD	Ellis Elem.	100	96	1	3	3.0%
101	Santa Clara USD	Ponderosa Elem.	101	98	0	3	3.0%
102	Alum Rock Union ESD	San Antonio Elem.	102	99	0	3	2.9%
103	Cupertino Union ESD	Nimitz Elem.	68	64	2	2	2.9%
104	Los Altos ESD	Springer Elem.	68	64	2	2	2.9%
105	Mt. Pleasant ESD	Valle Vista Elem.	136	131	1	4	2.9%
106	Santa Clara USD	Pomeroy Elem.	103	100	0	3	2.9%
107	Morgan Hill USD	San Martin Elem.	139	132	3	4	2.9%
108	Oak Grove ESD	Miner Elem.	70	68	0	2	2.9%
109	Santa Clara USD	Hughes Elem.	71	69	0	2	2.8%
110	Berryessa Union ESD	Laneview Elem.	75	73	0	2	2.7%
111	Oak Grove ESD	Oak Ridge Elem.	75	73	0	2	2.7%

No	District	School	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
112	Union ESD	Athenour Elem.	39	37	1	1	2.6%
113	Berryessa Union ESD	Toyon Elem.	79	76	1	2	2.5%
114	Los Gatos Union ESD	Blossom Hill Elem.	80	78	0	2	2.5%
115	Oak Grove ESD	Anderson Elem.	82	78	2	2	2.4%
116	Alum Rock Union ESD	Slonaker Elem.	84	82	0	2	2.4%
117	Cupertino Union ESD	Devargas Elem.	45	44	0	1	2.2%
118	Alum Rock Union ESD	Cureton Elem.	92	90	0	2	2.2%
119	Alum Rock Union ESD	Ryan Elem.	95	93	0	2	2.1%
120	Oak Grove ESD	Christopher Elem.	95	91	2	2	2.1%
121	Cambrian ESD	Bagby Elem.	97	95	0	2	2.1%
122	Evergreen ESD	Dove Hill Elem.	100	97	1	2	2.0%
123	Evergreen ESD	Norwood Elem.	104	102	0	2	1.9%
124	Alum Rock Union ESD	Shields Elem.	105	103	0	2	1.9%
125	Mtn. View-Whisman ESD	Huff Elem.	59	55	3	1	1.7%
126	Palo Alto USD	El Carmelo Elem.	59	57	1	1	1.7%
127	Gilroy USD	Eliot	60	59	0	1	1.7%
128	Sunnyvale ESD	Fairwood Elem.	60	59	0	1	1.7%
129	Cupertino Union ESD	McAuliff Elem.	61	52	8	1	1.6%
130	Cambrian ESD	Fammatre Elem.	62	60	1	1	1.6%
131	Campbell Union ESD	Blackford Elem.	124	122	0	2	1.6%
132	Santa Clara USD	Haman Elem.	63	62	0	1	1.6%
133	Milpitas USD	Randall Elem.	66	65	0	1	1.5%
134	Cupertino Union ESD	Regnart Elem.	69	67	1	1	1.4%
135	Sunnyvale ESD	Bishop Elem.	139	136	1	2	1.4%
136	Cupertino Union ESD	Dilworth Elem.	77	75	1	1	1.3%
137	Palo Alto USD	Duveneck Elem.	77	76	0	1	1.3%
138	Cupertino Union ESD	Collins Elem.	156	151	3	2	1.3%
139	Cupertino Union ESD	Stevens Creek Elem.	78	75	2	1	1.3%
140	Oak Grove ESD	Baldwin Elem.	78	76	1	1	1.3%
141	Campbell Union ESD	Sherman Oaks	80	79	0	1	1.3%
142	Moreland ESD	Baker Elem.	80	78	1	1	1.3%
143	Morgan Hill USD	Barrett Elem.	80	79	0	1	1.3%
144	Mtn. View-Whisman ESD	Monta Loma Elem.	80	76	3	1	1.3%
145	Alum Rock Union ESD	Painter Elem.	83	82	0	1	1.2%
146	Los Altos ESD	Almond Elem.	83	80	2	1	1.2%
147	Berryessa Union ESD	Ruskin Elem.	84	83	0	1	1.2%
148	Franklin-McKinley ESD	Los Arboles Elem.	85	84	0	1	1.2%
149	Oak Grove ESD	Sakamoto Elem.	89	87	1	1	1.1%
150	Cupertino Union ESD	Eisenhower Elem.	90	88	1	1	1.1%
151	Oak Grove ESD	Glider Elem.	94	92	1	1	1.1%
152	Morgan Hill USD	Los Paseos Elem.	96	94	1	1	1.0%
153	Morgan Hill USD	Nordstrom Elem.	100	98	1	1	1.0%
154	Evergreen ESD	Holly Oak Elem.	114	112	1	1	0.9%
155	Evergreen ESD	Whaley Elem.	120	119	0	1	0.8%
156	Cupertino Union ESD	Garden Gate Elem.	129	127	1	1	0.8%
157	Alum Rock Union ESD	Chavez Elem.	97	97	0	0	0.0%
158	Alum Rock Union ESD	Hubbard Elem.	79	79	0	0	0.0%
159	Alum Rock Union ESD	Meyer Elem.	120	120	0	0	0.0%
160	Alum Rock Union ESD	Mt. Hamilton Elem.	3	3	0	0	0.0%
161	Berryessa Union ESD	Majestic Way Elem.	88	88	0	0	0.0%
162	Berryessa Union ESD	Noble Elem.	80	80	0	0	0.0%
163	Berryessa Union ESD	Northwood Elem.	66	66	0	0	0.0%
164	Cambrian ESD	Farnham Elem.	80	79	1	0	0.0%
165	Campbell Union ESD	Marshall Lane Elem.	85	84	1	0	0.0%
166	Cupertino Union ESD	Blue Hills Elem.	69	68	1	0	0.0%
167	Cupertino Union ESD	Eaton Elem.	76	76	0	0	0.0%
168	Cupertino Union ESD	Faria Elem.	96	94	2	0	0.0%
169	Cupertino Union ESD	Lincoln Elem.	96	96	0	0	0.0%

No	District	School	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
170	Cupertino Union ESD	Meyerholz Elem.	42	42	0	0	0.0%
171	Cupertino Union ESD	Montclaire Elem.	92	89	3	0	0.0%
172	Cupertino Union ESD	Portal Elem.	60	60	0	0	0.0%
173	Cupertino Union ESD	Stocklmeir Elem.	107	102	5	0	0.0%
174	Cupertino Union ESD	West Valley Elem.	76	75	1	0	0.0%
175	Evergreen ESD	Cadwallader Elem.	74	73	1	0	0.0%
176	Evergreen ESD	Cedar Grove Elem.	101	101	0	0	0.0%
177	Evergreen ESD	Matsumoto Elem.	148	147	1	0	0.0%
178	Evergreen ESD	Millbrook Elem.	80	79	1	0	0.0%
179	Evergreen ESD	Montgomery Elem.	96	96	0	0	0.0%
180	Evergreen ESD	Silver Oak Elem.	117	117	0	0	0.0%
181	Evergreen ESD	Smith (Katherine) Elem.	86	86	2	0	0.0%
182	Evergreen ESD	Smith Elem.	96	94	0	0	0.0%
183	Gilroy USD	El Roble Elem.	100	99	1	0	0.0%
184	Gilroy USD	Las Animas Elem.	90	90	0	0	0.0%
185	Gilroy USD	Luigi Aprea Fundament	117	117	0	0	0.0%
186	Lakeside Joint ESD	Lakeside Elem.	17	17	0	0	0.0%
187	Loma Prieta Joint Union ES	Loma Prieta Elem.	41	39	2	0	0.0%
188	Los Altos ESD	Covington Elem.	76	74	2	0	0.0%
189	Los Altos ESD	Loyola Elem.	79	79	0	0	0.0%
190	Los Altos ESD	Oak Ave Elem.	58	56	2	0	0.0%
191	Los Altos ESD	Santa Rita Elem.	80	80	0	0	0.0%
192	Milpitas USD	Burnett Elem.	66	66	0	0	0.0%
193	Milpitas USD	Curtner Elem.	95	95	0	0	0.0%
194	Milpitas USD	Pomeroy Elem.	90	90	0	0	0.0%
195	Milpitas USD	Sinnott Elem.	95	94	1	0	0.0%
196	Milpitas USD	Spangler Elem.	64	62	2	0	0.0%
197	Milpitas USD	Weller Elem.	68	68	0	0	0.0%
198	Milpitas USD	Zanker Elem.	70	69	1	0	0.0%
199	Montebello ESD	Montebello Elem.	5	5	0	0	0.0%
200	Moreland ESD	Country Lane Elem.	86	85	1	0	0.0%
201	Moreland ESD	Discovery Elem.	58	57	1	0	0.0%
202	Morgan Hill USD	Burnett Elem.	61	61	0	0	0.0%
203	Morgan Hill USD	El Toro Elem.	81	80	1	0	0.0%
204	Morgan Hill USD	Walsh Elem.	80	80	0	0	0.0%
205	Mt. Pleasant ESD	Mt. Pleasant Elem.	85	85	0	0	0.0%
206	Oak Grove ESD	Del Roble Elem.	78	78	0	0	0.0%
207	Oak Grove ESD	Edenvale Elem.	80	80	0	0	0.0%
208	Oak Grove ESD	Frost Elem.	56	56	0	0	0.0%
209	Oak Grove ESD	Hayes Elem.	91	89	2	0	0.0%
210	Oak Grove ESD	Ledesma Elem.	67	67	0	0	0.0%
211	Oak Grove ESD	Parkview Elem.	85	85	0	0	0.0%
212	Oak Grove ESD	Taylor Elem.	79	79	0	0	0.0%
213	Palo Alto USD	Addison Elem.	55	55	0	0	0.0%
214	Palo Alto USD	Barron Park	43	42	1	0	0.0%
215	Palo Alto USD	Briones Elem.	45	45	0	0	0.0%
216	Palo Alto USD	Fairmeadow Elem.	60	59	1	0	0.0%
217	Palo Alto USD	Greendell Elem.	40	40	0	0	0.0%
218	Palo Alto USD	Hays Elem.	80	79	1	0	0.0%
219	Palo Alto USD	Hoover Elem.	59	59	0	0	0.0%
220	Palo Alto USD	Nixon Elem.	56	55	1	0	0.0%
221	Palo Alto USD	Ohlone Elem.	70	65	5	0	0.0%
222	Palo Alto USD	Palo Verde Elem.	60	60	0	0	0.0%
223	San Jose USD	Carson Elem.	48	46	2	0	0.0%
224	Santa Clara USD	Millikin Elem.	60	59	1	0	0.0%
225	Santa Clara USD	Montague Elem.	66	66	0	0	0.0%
226	Santa Clara USD	Sutter Elem.	59	58	1	0	0.0%
227	Santa Clara USD	Washington Elem.	60	56	4	0	0.0%

No	District	School	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
228	Saratoga Union ESD	Argonaut Elem.	59	55	4	0	0.0%
229	Saratoga Union ESD	Foothill Elem.	42	42	0	0	0.0%
230	Saratoga Union ESD	Saratoga Elem.	79	75	4	0	0.0%
231	Sunnyvale ESD	Cherry Chase Elem.	96	94	2	0	0.0%
232	Sunnyvale ESD	Cumberland Elem.	80	79	1	0	0.0%
233	Sunnyvale ESD	Lakewood Elem.	60	60	0	0	0.0%
234	Sunnyvale ESD	San Miguel Elem.	61	61	0	0	0.0%
235	Union ESD	Alta Vista Elem.	63	60	3	0	0.0%
236	Union ESD	Carlton Elem.	46	46	0	0	0.0%
237	Union ESD	Guadalupe Elem.	65	62	3	0	0.0%
238	Union ESD	Lone Hill Elem.	49	46	3	0	0.0%
239	Union ESD	Noddin Elem.	78	78	0	0	0.0%
240	Union ESD	Oster Elem.	52	52	0	0	0.0%
	Total Students		**18,932**	**17,735**	**187**	**1,010**	**5.3%**
	Students Fully Immunized		17,735				
	Students with Exemptions		187				
	Total Compliant Students		**17,922**				
	Total Noncompliant Students		**1,010**				

Attachment 1.3

Fall 2003 Seventh Grade Immunization Assessment Results by School District in Santa Clara County

No	District	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
1	Orchard Elementary	79	23	0	56	70.9%
2	Luther Burbank Elementary	32	15	0	17	53.1%
3	San Jose Unified	2,496	1,587	9	900	36.1%
4	SCC Office of Education	63	41	4	18	28.6%
5	Loma Prieta Elementary	75	55	3	17	22.7%
6	Morgan Hill Unified	695	530	11	154	22.2%
7	Gilroy Unified	756	593	13	150	19.8%
8	Campbell Union Elementary	752	586	22	144	19.1%
9	Cambrian Elementary	299	244	6	49	16.4%
10	Evergreen Elementary	1,407	1,184	2	221	15.7%
11	Franklin-McKinley Elementary	938	801	2	135	14.4%
12	Berryessa Union Elementary	1,015	873	2	140	13.8%
13	Union Elementary	561	482	4	75	13.4%
14	All Private Schools	2,550	2,155	57	338	13.3%
15	Santa Clara Unified	1,060	917	3	140	13.2%
16	Milpitas Unified	746	648	0	98	13.1%
17	Mtn. View-Whisman Elementary	416	362	0	54	13.0%
18	Oak Grove Elementary	1,306	1,145	3	158	12.1%
19	Los Gatos Union Elementary	316	278	3	35	11.1%
20	Alum Rock Union Elementary	1,444	1,291	16	137	9.5%
21	Mt. Pleasant Elementary	282	256	0	26	9.2%
22	Sunnyvale Elementary	636	575	3	58	9.1%
23	Palo Alto Unified	747	678	4	65	8.7%
24	Moreland Elementary	459	419	6	34	7.4%
25	Los Altos Elementary	451	416	6	29	6.4%
26	Saratoga Union Elementary	327	304	2	21	6.4%
27	Cupertino Union Elementary	1,884	1,826	23	35	1.9%
	Total Students	**21,792**	**18,284**	**204**	**3,304**	**15.2%**

Attachment 1.4

Fall 2003 Seventh Grade Immunization Assessment Results by Public School in Santa Clara County

No	District	School	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
1	Gilroy USD	Gilroy Community Day	5	0	0	5	100.0%
2	San Jose USD	San Jose Community Middle	7	1	0	6	85.7%
3	Orchard ESD	Orchard Elem.	79	23	0	56	70.9%
4	Luther Burbank ESD	Luther Burbank Elem.	32	15	0	17	53.1%
5	San Jose USD	Hoover Middle	384	204	0	180	46.9%
6	San Jose USD	Willow Glen Middle	382	218	0	164	42.9%
7	San Jose USD	Castillero Middle	408	256	1	151	37.0%
8	San Jose USD	Steinbeck Middle	265	169	0	96	36.2%
9	San Jose USD	Burnett Middle	247	161	3	83	33.6%
10	SCC Office of Education	County Community	6	4	0	2	33.3%
11	San Jose USD	Muir Middle	304	207	0	97	31.9%
12	Franklin-McKinley ESD	Windmill Springs Elem.	34	24	0	10	29.4%
13	SCC Office of Education	Special Education	57	37	4	16	28.1%
14	San Jose USD	Harte Middle	442	328	4	110	24.9%
15	Morgan Hill USD	Britton Middle	370	276	8	86	23.2%
16	San Jose USD	River Glen Middle	56	42	1	13	23.2%
17	Palo Alto USD	Terman Middle	175	133	2	40	22.9%
18	Loma Prieta Joint Union ESD	English Middle	75	55	3	17	22.7%
19	Morgan Hill USD	Murphy Middle	308	237	3	68	22.1%
20	Evergreen ESD	Leyva Intermed.	398	312	1	85	21.4%
21	Campbell Union ESD	Monroe Middle	239	181	9	49	20.5%
22	Campbell Union ESD	Rolling Hills Middle	290	223	9	58	20.0%
23	Franklin-McKinley ESD	Sylvandale Jr. High	448	357	2	89	19.9%
24	Oak Grove ESD	Davis Elem.	455	365	0	90	19.8%
25	Gilroy USD	Brownell Acad. Of Humanities	380	302	4	74	19.5%
26	Gilroy USD	So. Valley Sch. Of Science & Art	371	291	9	71	19.1%
27	Berryessa Union ESD	Piedmont Middle	342	282	2	58	17.0%
28	Evergreen ESD	Chaboya Middle	541	450	0	91	16.8%
29	Mtn. View-Whisman ESD	Crittenden Middle	197	164	0	33	16.8%
30	Alum Rock Union ESD	Pala Middle	221	184	0	37	16.7%
31	Cambrian ESD	Ida Price Middle	295	240	6	49	16.6%
32	Campbell Union ESD	Campbell Middle	223	182	4	37	16.6%
33	Union ESD	Dartmouth Middle	281	235	0	46	16.4%
34	Santa Clara USD	Buchser Middle	338	282	1	55	16.3%
35	Sunnyvale ESD	Sunnyvale Middle	318	268	1	49	15.4%
36	Alum Rock Union ESD	Sheppard Middle	226	192	0	34	15.0%
37	Santa Clara USD	Peterson Middle	421	361	1	59	14.0%
38	Oak Grove ESD	Bernal Intermed.	457	394	2	61	13.3%
39	Milpitas USD	Russell Jr. High	383	332	0	51	13.3%
40	Milpitas USD	Rancho Milpitas Jr. High	363	316	0	47	12.9%
41	Berryessa Union ESD	Sierramont Middle	342	299	0	43	12.6%
42	Alum Rock Union ESD	Fischer Middle	255	224	0	31	12.2%
43	Berryessa Union ESD	Morril Middle	328	289	0	39	11.9%
44	Los Gatos Union ESD	Fisher Middle	316	278	3	35	11.1%
45	Union ESD	Union Middle	280	247	4	29	10.4%
46	Evergreen ESD	Quimby Oak Intermed.	468	422	1	45	9.6%
47	Mtn. View-Whisman ESD	Graham Middle	219	198	0	21	9.6%
48	Mt. Pleasant ESD	Boeger Jr. High	282	256	0	26	9.2%
49	Los Altos ESD	Egan Intermed.	223	202	1	20	9.0%
50	Santa Clara USD	Cabrillo Middle	301	274	1	26	8.6%
51	Moreland ESD	Castro Middle	242	219	3	20	8.3%
52	Franklin-McKinley ESD	Fair J. High	392	360	0	32	8.2%

No	District	School	Total Students	Students Fully Immunized	Students with Exemptions	Students Not Fully Immunized	Percent Not Fully Immunized
53	Moreland ESD	Rogers Middle	217	200	3	14	6.5%
54	Saratoga Union ESD	Redwood Middle	327	304	2	21	6.4%
55	Franklin-McKinley ESD	Shirakawa Sr.	64	60	0	4	6.3%
56	Palo Alto USD	Stanford Middle	273	256	1	16	5.9%
57	Alum Rock Union ESD	Mathson Middle	269	240	15	14	5.2%
58	Alum Rock Union ESD	George Middle	196	186	1	9	4.6%
59	Alum Rock Union ESD	Ocala Middle	277	265	0	12	4.3%
60	Los Altos ESD	Blach Intermed.	228	214	5	9	3.9%
61	Cupertino Union ESD	Hyde Intermed.	402	386	1	15	3.7%
62	Palo Alto USD	Jordan Middle	299	289	1	9	3.0%
63	Sunnyvale ESD	Columbia Middle	318	307	2	9	2.8%
64	Cupertino Union ESD	Miller Intermed.	457	444	4	9	2.0%
65	Oak Grove ESD	Herman Intermed.	392	384	1	7	1.8%
66	Cupertino Union ESD	Cupertino Intermed.	444	428	9	7	1.6%
67	Cupertino Union ESD	Kennedy Intermed.	552	542	6	4	0.7%
68	Berryessa Union ESD	Berryessa Union Elem.	3	3	0	0	0.0%
69	Cambrian ESD	Cambrian Community	4	4	0	0	0.0%
70	Cupertino Union ESD	McAuliffe Elem.	29	26	3	0	0.0%
71	Morgan Hill USD	South Valley Charter	17	17	0	0	0.0%
72	Oak Grove ESD	The Academy	2	2	0	0	0.0%
73	San Jose USD	Liberty Middle	1	1	0	0	0.0%
	Total Students		**19,242**	**16,129**	**147**	**2,966**	**15.4%**
	Students Fully Immunized		16,129				
	Students with Exemptions		147				
	Total Compliant Students		**16,276**				
	Total Noncompliant Students		**2,966**				

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Section 2. Communicable Disease Reporting

- **The Public Health Department does not enforce legal requirements that physicians, hospitals and laboratories report certain suspected and confirmed diseases or conditions in accordance with specified timelines per the California Code of Regulations. A review of data from 2002 and a sample of report documents related to three enteric intestinal diseases indicates reporting is incomplete and occurs later than legally required. In addition, restrictions imposed on persons with communicable diseases who are health care workers or children attending day care centers are not regularly monitored.**

- **The failure to report and under-reporting of communicable diseases delays or prevents recognition and treatment of illness in the community which is necessary to stop the spread of disease. When appropriate control measures are not in place, a disease can spread; if left untreated, certain enteric diseases can be fatal. Furthermore, incomplete disease data undermines the mission of the Department to formulate effective prevention and treatment strategies and weakens the County's disease surveillance system. An impaired disease surveillance system limits the County's preparedness to detect and control an outbreak or an act of bioterrorism.**

- **Implementation of the recommendations included in this section of the report would increase provider compliance with State law pertaining to reporting suspected and confirmed diseases to the Public Health Department. These recommendations address the reporting of diseases, the restrictions that are placed on individuals and the management of data related to disease control.**

Background

The Public Health Department and the Public Health Officer are required to provide a set of basic services, including communicable disease control, to residents of Santa Clara County.[1] Title 17 of the California Code of Regulations requires physicians, hospitals, laboratories and other providers to report certain suspected and identified communicable diseases and other conditions to the local health department.

This finding will address the system in place to identify enteric or intestinal diseases, typically most harmful to children and elderly persons. Although reporting is mandated under State law, because the Public Health Department does not actively identify noncompliant providers and the California Medical Board does not aggressively cite or fine physicians, the reporting system is effectively a voluntary one.

[1] California Code of Regulations, §1276 (c)

Implications for Outbreak and Bioterrorism Preparedness

The Santa Clara County Public Health Department is a leader in disaster and outbreak preparedness and has conducted significant outreach to the health care community to identify lethal diseases, such as smallpox, and emerging diseases such as the West Nile Virus. The creation of the Zebra packet and the successful implementation of bioterrorism funds in the Public Health Department represent success by the Department. The reporting and control of lower profile diseases should also be considered important in the Department's preparedness for an outbreak or an attack of bioterrorism. Since the 2001 attacks, the role of Public Health in homeland security and the need to improve the nation's Public Health infrastructure have been widely discussed, analyzed and addressed as a policy issue. The Federal government and multiple experts have confirmed the relationship between regular disease control as discussed in this finding and the more atypical disease control related to diseases that might be introduced to the community as an act of bioterrorism[2]. The basic assumption is that terrorists are aware of the weaknesses in the nation's defenses and seek to take advantage of these weaknesses in their acts.

A November 4, 2000 Letter to Hospital Emergency Room Directors, Emergency Room Physicians, Urgent Care, Clinic, and Primary Care Physicians, Laboratory Directors and Emergency Medical Services Personnel from the Santa Clara County Public Health Officer opens with the following statement:

> "It is crucial that emergency room physicians and other clinicians have a clear understanding of how to recognize a patient presenting with possible exposure to a biological agent that may be used by terrorists. Although this situation has not presented in Santa Clara County, there are truly dire consequences of not recognizing a potential incident and reporting it to the Public Health Department."

A March 2002 press release from the SCVHHS related to the role that the Health and Hospital System would play during a major disaster included the following statement:

> "As was the case with anthrax-contaminated mail on the East Coast, if a biological agent were covertly released in the community, it likely would be undetected until infected persons were examined by a doctor. That is why early detection and rapid reporting of a biological agent are critical components to emergency response. A well-informed medical community and a strong disease surveillance system are two key factors in promoting early detection of a biological agent."

The above quotes makes a compelling argument that the ability of the Public Health Department to identify and control the enteric diseases is indicative of the department's ability to deal with a more serious problem that may arise, either as a result of a larger outbreak or a bioterrorism attack. While this finding discusses three reportable diseases, the list of reportable diseases and conditions includes 86 different diseases and

[2] Janet Heinrich, Director of Health Care Public Health Issues, GAO Office, Rep. Greenwood and others.

conditions. While some diseases may be reported more vigorously than the three we examined, it is reasonable to conclude that many reportable and communicable diseases go unreported in Santa Clara County, increasing the likelihood that the illnesses are unnecessarily transmitted and spread. It is clear that the approach of the Department is one where providers are encouraged to report any presentation that could possibly represent one of the more lethal diseases or conditions. In Public Health this is defined as a screening tool with a high degree of "sensitivity", and one that understandably will result in many false positive reports. The laws regarding all disease reporting, including the enteric illnesses discussed in this finding, clearly reflect the State's intent that this reporting also be sensitive and complete. Ideally, providers would understand the importance of reporting suspected and identified communicable diseases and other suspicious clinical presentations. The best way to ensure that physicians and providers report the most lethal diseases to the Public Health Department is for the Department to increase the reporting of all diseases. Enforcement of existing fines and penalties and referral to the District Attorney when appropriate, coupled with the planned internet based Confidential Morbidity Reporting system, will increase the compliance with disease reporting requirements in Santa Clara County.

The Environmental Health Department is responsible for restaurant investigations, while the Public Health Department is responsible to prevent the transmission of these illnesses between individuals, and to ensure that restrictions are placed on individuals who work in health care or food settings where the illness could be spread to others. Additionally, the Public Health Department restricts young children from day care until such time as they no longer test positive for the respective enteric disease.

In Santa Clara County, in California and across the nation, suspected and identified diseases are often not reported to local health departments. Significant progress has been made in educating health care providers of the need to report the more rare and lethal diseases such as smallpox, given the attention to bioterrorism and the potential for malevolent introduction of harmful agents to food and water supplies. It is also generally known that the reporting that does take place occurs late and the information is generally incomplete. Additionally, many people contract and recover from these diseases without seeking medical treatment, or physicians may not order lab tests that would confirm the disease, instead providing treatment only, causing the disease incident to remain unknown to the Public Health Department. A comprehensive literature review article concluded that the completeness of disease reporting is generally correlated to the perceived importance of the disease, and that for the diseases discussed in this finding, approximately half of the actual disease cases are probably reported.[3] Other studies conclude that as little as 20 percent of actual cases are reported to the local public health department. These are estimates, as documenting the specific rate of under-reporting for a given disease would require active and costly surveillance and chart audits.

[3] Completeness of Notifiable Infectious Disease Reporting in the United States: An Analytical Literature Review, Doyle, et, al, American Journal of Epidemiology, Vol. 155, No, 9, 2002

The enteric and other diseases that the Disease Control unit seeks to identify and control cause many persons to be ill each year, and in some instances may lead to severe health problems or even possibly death. The following table includes technical information for the three enteric diseases discussed in this finding, E-coli 0157, salmonella and shigella. The identification and control of these diseases in the community relies on timely notification by providers and other health care entities. Timely identification of food handlers, health care professionals and children who attend day care, especially those handling food, could prevent a major outbreak of these illnesses. In the case of E-coli 0157, children or other vulnerable persons can develop HUS (Hemolytic Uremic Syndrome), which can cause severe kidney failure and death. A case of HUS occurred in the Bay Area in 1996.

Table 2.1

Technical Information Related to Three Enteric Diseases[4]

Disease	Ecoli 0157	Salmonella	Shigella
Incidence (US)	Estimated 73,000 cases per year	Estimated 1.4 million cases per year	Estimated 448,240 cases per year
Condition Resulting from Disease (US)	Estimated 61 fatal cases of HUS, others develop kidney failure or neurologic impairment	Over 500 fatal cases each year	Reiter's Syndrome, HUS, convulsions
Transmission	Foodborne, waterborne and person to person, especially in the day-care setting	Foodborne, waterborne or contact with infected animals	Poor hygiene of persons with disease, foodborne, waterborne, or by flies.
Local Incidence	18 confirmed cases in 2002; actual cases may be as high as 90	275 cases in 2002; actual cases may be as high as 1,375	118 cases in 2002; actual cases may be as high as 590

This finding will address the reporting of diseases to the Public Health Department, the application and enforcement of restrictions in order to prevent the spread of disease, and the management of data related to enteric diseases. In its efforts to identify and control communicable diseases and the specific enteric diseases described, the Public Health Department not only provides and coordinates health services, but also must enforce legal requirements and legal restrictions in order to protect the health of the public. This dual role is similar to what is described in the immunization section of the report and is an important challenge for the Department of Public Health.

The Disease Control and Surveillance function includes 15.5 authorized positions and is responsible for the surveillance and reporting of 86 different reportable diseases and conditions, for case investigation, for planning and prevention programs, and for addressing any circumstances or issues related to communicable disease and the public health. The effectiveness of all disease control, including enteric diseases, is an indicator

[4] CDC Disease Information and Santa Clara County Morbidity Reports; estimates based on under-reporting of communicable diseases at 20 percent, as reported by the Lawrence Livermore National Laboratory in the April 2003 Little Hoover Commission on California's Public Health System.

of the ability of a local jurisdiction to protect the public health against not only food borne diseases, but also more lethal diseases that may cause an outbreak. The Department's efforts to prepare for a bio-terrorist attack should include increased attention to the under-reporting of all diseases, including those discussed in this finding and handled by disease control.

Reporting of Communicable Diseases

The list of diseases and the timelines by which they are to be reported are listed on a Confidential Morbidity Report (CMR) form, included as Attachment 2.1. California Code of Regulations §2505 requires laboratories to report to the Public Health Department test results suggesting a disease may be present, and for a subset of diseases the specimen must be forwarded to the local public health laboratory for confirmation, where it may be forwarded to a State lab. Therefore, certain cases must be reported by the physician and the lab. Noncompliance, lateness of reporting and incomplete reporting represent the three primary deficits in the reporting of communicable diseases by providers, hospitals and laboratories to the Public Health Department.

Noncompliance

Noncompliance of providers in reporting suspected and identified communicable diseases is the most important infraction in the control of disease, and the most difficult to identify. Physicians may not be aware of the reporting requirements or may assume that some other department within their larger health care organization will report the disease. They may assume that because they are ordering a laboratory test, they are not under any obligation to report the disease to the Public Health Department. For those diseases that are reportable by both the provider and the laboratory, it is possible to determine instances when either the physician or the lab failed to report the disease. Because of limitations in the overall disease data described later in the finding, management audit staff reviewed the actual CMR files for three enteric diseases as suggested by the Assistant Health Officer. Five instances out of 18 cases of E-coli cases in 2002 were identified where a single CMR was completed for this dually reportable disease, and 11 instances of salmonella out of the 27 reviewed when a single CMR was documented. The salmonella review included only a sample of the cases during 2002 and the estimated noncompliance equals 112 cases. The Public Health Department does not include in its investigations a determination of whether noncompliance with reporting requirements occurred. These cases represent possible instances where either a physician or a laboratory failed to meet its reporting requirement and where the Department has a responsibility to identify the providers and file a complaint with the California Medical Board.

The submission of presumptive lab samples to the Public Health Laboratory for verification by these labs may represent reporting by laboratories. However, immediate reporting when a test is ordered or a specimen received that is related to one of the reportable diseases would provide the information to the Public Health Department more quickly than the current approach of laboratories forwarding lab information after results are verified. Hospitals, including Valley Medical Center, generally report

potential and actual communicable diseases to the Public Health Department more quickly than individual providers because hospitals have infection control units and staff. Hospitals seek to control infection from spreading within their environment, and are therefore more aware of timely action to contain the spread of disease.

Timeliness of Reporting

Attachment 2.1, the Confidential Morbidity Report (CMR) form, includes the legal timelines by which providers are required to report each disease to the Public Health Department, and the required method to do so (telephone, letter, fax). Timeliness of disease reporting is not easy to determine, as the law states that providers are required to report "suspected or confirmed" cases. Cases are suspected far earlier than they are confirmed. Ideally, providers would report cases at the time they are suspected in order for the Public Health Department to more quickly identify disease clusters and respond as quickly as possible to investigate and control the cases. Although the CMR form includes a "Date sent" field, this date does not represent the date that the provider submitted the form; instead it represents the date at the end of week by which the Public Health Department had entered the CMR data into the statewide system. In the sample of CMR's that we reviewed, the submission date was missing in 30 percent of the forms making precise analysis of the timeliness of report submission difficult. Therefore, Table 2.2 includes both the fewest number of days that passed between the provider suspecting the disease and reporting it, and the most number of days. These calculations are based on a review of all available dates from each CMR form. Based on our sample, reporting of suspected and identified communicable diseases occurs later than is required by law.

In the case of laboratory reporting, labs currently fax short lab summaries of tests that include a presumptive positive result, and these summaries are entered into the state data system by Public Health staff. Hospitals and physicians typically fax a CMR to the Department when they report, and Disease Control may also be notified by phone of a reportable case. The operational definitions of some fields on the CMR form are not consistent with the name of the field, making analysis of the timeliness of reporting difficult. Management Audit staff met with Disease Control staff to select the three diseases discussed in this finding more closely as those that would provide the most useful information. Actual CMR documents were examined for samples of Calendar Year (CY) 2002 to determine the timeliness and completeness of reporting. This information is summarized in Table 2.2 on the following page.

Table 2.2

Analysis of Reporting Timeliness in Santa Clara County
For E-Coli, Salmonella and Shegella During Calendar Year 2002

		low	high
	Legal Timeline	Average Days to Notify (fewest)	Average Days to Notify (most)
Ecoli 0157	Immediately by telephone	5.2	9.9
Salmonella Sample	Fax, phone or mail within one day of identification	3.1	7.3
Shigella Sample	Fax, phone or mail within one day of identification	2.9	5.1

In addition to the average days to report, it is important to note the number of instances where the reporting occurred later than required. Of the E-coli 0157 cases, nine, or 50 percent of the total cases, were not reported the day the disease was suspected or confirmed. Of the Salmonella sample, 14, or 52 percent of the reviewed cases were not reported within one day. Of the Shigella sample, 6, or 55 percent of the reviewed cases were not reported within one day. Based on the actual case counts of these illnesses during CY 2002, it appears that as many as 216 cases were reported later than the legal timelines.

Disease Control Tracking of Timeliness

At the direction of the Assistant Health Officer responsible for disease control, staff record the days between E-coli 0157 being suspected and the disease being reported. Information available at the time of the audit was reviewed. The prompt reporting of suspected diseases by providers at the time a client is examined or when a lab test is ordered could reduce the time that lapses between the onset of a disease and the first interview of the sick person by the Public Health Department. This data indicates that the average time between when the specimen was collected and the case was reported was 4.2 days, and the average time between the onset of the illness and the interview by the Public Health staff was 14.1 days. Ideally, these average intervals would all be substantially lower, representing a more rapid response by the Department and decreased risk of the disease being transmitted or spreading.

Completeness of Reporting

Management Audit staff analyzed CY 2002 CMR data that had been entered into the Statewide system by County Disease Control staff, and was subsequently returned to the County as a data file. More than 10,000 Santa Clara CMR case reports were entered into the Automated Vital Statistics System database during CY 2002 related to all reportable diseases and conditions. Important data elements missing in the forms that were provided to the Department are summarized in Table 2.3 on the following page. We also analyzed the sample of 81 E-coli, Salmonella and Shigella CMR forms described previously to identify missing data.

Table 2.3

Completeness of Communicable Disease Reporting
In Santa Clara County During Calendar Year 2002

	2002	2002
Percentage	**Entire Data Set**	**Sample**
Missing Address	**22.6%**	**0.0%**
Missing Phone Number	26.1%	15.8%
Missing SSN	64.8%	74.6%
Missing DOB	1.9%	2.6%
Missing Reporter Name	0.4%	35.9%
Missing Date Onset	78.9%	53.8%
Missing Date Submitted	-	30%

The information on the CMR forms is important. Not having all the information on the form creates delays and obstacles for Public Health staff who must contact the client to educate them about the disease and how to prevent it from spreading, to identify other individuals with whom the client had contact that must also be contacted, and in some cases place restrictions on clients as discussed later in the finding. The ability of the Department to analyze disease incidence in the community is compromised by the missing data, making the design and implementation of prevention strategies more difficult. Finally, monitoring the compliance of providers in reporting the diseases under the specified timeframes requires proper documentation of the provider's name, and accurate dates when the form was submitted relative to the date the lab test was ordered or the disease was suspected or identified.

Taken together, the three data sets show that CMR's are not received as they should be when dually reportable conditions or diseases are suspected or confirmed, and that the reporting that does take place is incomplete, and often provided after mandated timelines.

Enforcement

The Department has made efforts to increase compliance of providers and others in reporting diseases, including a 1997 letter sent by the Public Health Officer to all health care providers that included a clear description of the requirement to report and its importance to the Department:

> Reporting to the Public Health Department is crucial for disease surveillance, detection of outbreaks, and for an appropriate public health response. Disease reporting is also a legal requirement. Excerpts from the California Code of Regulations, Title 17, Section 2500, defining the **who, what, when** and **how** of reporting, are included on the reverse of the CMR form.
>
> In November 1996, the Medical Board of California (MBC) added the failure to report communicable diseases and other reportable conditions to its *Citation and Fine Program* to all physicians in its Action report during 1997. By definition, a physician's "failure to report" includes: (1) no report received, (2) incomplete

reporting where all requested information is not provided in the required time frame, and (3) delayed reports not adhering to the required time frame.

In fact, the Confidential Morbidity Forms provided to physicians and others state that failure to report is a misdemeanor punishable by a $50 fine or punishable by imprisonment, and that each day the violation continues represents a separate offense. The California Medical Board notified California physicians of revisions to the California Code of Regulations that added disease-reporting noncompliance as a citable and fineable offense in 1997.[5] Survey responses from other jurisdictions found at least three large California counties do report noncompliant providers to the Medical Board. Santa Clara County has not reported identified violators of the reporting requirements to the Medical Board of California and no instances of the Medical Board citing or levying fines were identified during the management audit. The California Medical Board reported anecdotally that the rare instances of complaints related to disease reporting have been dealt with through education and mediation, rather than by levying fines or the issuing of citations. Because some physicians may not report communicable diseases based on concern that they may be violating the confidentiality of the client or not following the relatively new requirements under HIPAA (Health Insurance Portability Act), the Department has circulated letters explaining that the duty to report is an exception to HIPAA. We recommend a set of strategies and actions to increase compliance, including the following:

- Notifying the Medical Board of California of providers who fail to report or report later than the statutory timelines;

- Working with County Counsel to include language requiring compliance with communicable disease reporting in all contracts between the County of Santa Clara and providers, laboratories and provider organizations;

- Referring the low reporting compliance rates to the Health Advisory Commission to enlist its assistance in raising awareness by health care providers of the problem. The Health Advisory Commission was formed in February 2000 to "advise and report to the Board of Supervisors and other government agencies or officials as required by law or ordinance regarding issues which impact the health of the public...". The duties of the commission include carrying out other duties as assigned by the Board of Supervisors. The 2004 Work Plan of the Commission's Acute and Chronic Diseases and Related Issues Committee includes continuing "to explore the effectiveness of government agencies in monitoring and controlling disease sources such as food borne diseases."

Because the Public Health Department is not mandated to enforce communicable disease reporting requirements for doctors and medical laboratories, it is a policy decision for the Board of Supervisors as to what extent the Public Health Director should seek improved compliance. Even if the County were to identify and report noncompliant physicians to the California Medical Board, unless this entity began to

[5] Medical Board of California Action Report April 1997

more aggressively act on these complaints and the specific fines were raised, this mandatory reporting will continue to be a voluntary passive surveillance system by default. This system undermines the Public Health Department's ability to carry out its role in identifying and responding to incidents of communicable disease so that small outbreaks do not spread.

As a separate policy to address physician noncompliance in reporting communicable disease, the Board of Supervisors could direct the Public Health Officer to identify noncompliant physicians and refer these cases to the District Attorney for prosecution, resulting in a misdemeanor conviction.

While this solution may appear extreme, an example illustrates the potential legal exposure to physicians and the County if statutory reporting requirements are not followed. If a person with a communicable and reportable disease presented to a physician who failed to report the disease, the disease might spread to others because the physician's failure to report delayed or prevented the Public Health Department from investigating the case and preventing its spread. Illnesses or deaths of other persons who became ill could be grounds for litigation. The California Court of Appeal ruled in 1975 that a hospital was under a statutory obligation to report specified communicable diseases to the local health officer and allowed a plaintiff to proceed to trial who alleged that the hospital's failure to report resulted in his contraction of a communicable disease. While the court commented that it may be difficult at trial to prove that the hospital's failure to report was the proximate cause of the injuries, the decision demonstrates that failure by a physician to report communicable diseases may lead to litigation. In its policy deliberations regarding increasing compliance, the Board of Supervisors should direct the Public Health Department to identify noncompliant physicians in disease investigations and report these physicians to the California Medical Board. The Department also should consult with County Counsel on a case by case basis to determine whether referral to the District Attorney would be advised, given the specifics of each case and previous instances of noncompliance related to a physician.

Furthermore, failure to report these diseases on the part of physicians and other providers employed by the County or under contract to the County represents exposure to the County should the failure to report result in injury or death to others. Therefore, we recommend that contracts with physicians and other providers and employment agreements include specific language that the County expects full compliance with the disease reporting requirements of the State of California.

Restrictions

In the 2003 "Analysis of County Functions Funded From General Fund Resources to Determine Minimum Legal Funding Requirements" the Public Health Department stated that "failure to perform the required enforcement and duties of the mandates could result in excessive morbidity and/or mortality from communicable disease spread and could also result in the State Department of Health Services taking control of County disease or disorder operations." When the Department becomes aware of a person with a communicable disease and the subsequent investigation determines that

the person may spread the disease, restrictions are established until such time as the Public Health lab confirms the disease is no longer present. For adults, restrictions include not allowing food handlers to handle food, and not allowing health care workers to provide patient care. For children, the restrictions focus on small children who are not capable of practicing good hygiene. Children are restricted from attending day care and pre-school, and if the child has developmental delays, attendance at elementary school may be restricted. Restriction letters are included as Attachments 2.2 and 2.3.

Management audit staff requested and received data on the restrictions placed on individuals by the Disease Control Unit. The data is maintained on a handwritten log and does not include other restrictions placed on individuals with tuberculosis and other diseases such as SARS or suspected SARS. In 2002, the Public Health Department restricted persons for 1,696 days, and restrictions since 1991 have averaged 1,374 days annually. In 2002, 46 restrictions were placed on individuals and the average number of individuals restricted each year is 47. In order to determine the restrictions related to the three enteric diseases specifically discussed in this finding, the CY 2002 data for the three diseases was extracted and is presented in Table 2.4:

Table 2.4

Calendar Year 2002 Restriction Data for Three Enteric Diseases

ECOLI 0157 Cases (CY 2002)	18
Restrictions	1
Work Restrictions	1
Day Care Restrictions	0
Salmonella Cases (CY 2002)	275
Restrictions	24
Work Restrictions	8
Day Care Restrictions	16
Shigella Cases (CY 2002)	118
Restrictions	14
Work Restrictions	5
Day Care Restrictions	9

The restriction placed on food handlers is an example of the important relationship between the Environmental Health Department and the Public Health Department. Environmental Health initiates an investigation and travels to the facility to check the temperature records of the refrigerators, ensuring that the restaurant is meeting its obligations to store, prepare and serve food in a safe manner. The Environmental Health Department provided documentation and information that confirmed food handler restrictions are checked during the initial investigation, to the extent possible.

The Public Health Department relies on individuals to comply with the restrictions placed on them, as Public Health staff do not regularly visit day care centers or

workplaces of restricted individuals to ensure they are not present, or that they are following the rules of their restriction. Public Health staff do assist individuals in obtaining a clearance to return to work by facilitating regular specimen testing by the Public Health lab and securing a clearance letter for the person to provide to their supervisor or day care provider when the test is negative.

The Disease Control Unit has previous and current policies and procedures that detail the manner in which disease investigations are to be carried out, according to the suspected disease. There are also specific documents to determine the basis, nature and length of restrictions that are placed on individuals. However, in reviewing case investigation notes and discussing the disease control work that takes place in the regions, it is clear that the monitoring of restriction compliance is not adequately described in the procedures or stressed in the direction given to staff.

Management Audit staff identified two additional areas for improvement in the restriction process. First, Public Health disease control staff and the other surveillance and investigation programs sometimes find it difficult to locate persons reported to have a communicable disease or contacts of persons with a communicable disease. Other than personal locating strategies that staff may develop over time, the only locating resource available is a Department of Motor Vehicle data search by the State Department of Health Services that is reported to take at least a week to complete. On-line locating services are now available that are inexpensive, provide real-time information to locate individuals and are used already by law enforcement agencies in Santa Clara County. The Public Health Department should continue to investigate establishing such a service, either by amending the contract language or by working in partnership with the Office of the Sheriff, where such a service is already being used. If an outbreak were to occur or a highly contagious agent were introduced to the community, quickly locating infected persons and potential contacts would be crucial to protecting the health of the public.

The second problem related to restrictions is the difficulty some parents face continuing to work when their infant or child is restricted from the day care setting because of a communicable disease. Even after symptoms have ceased, the disease may continue to appear in the child's specimen for months, requiring the restriction to remain in place. The Public Health Department should seek funding from an appropriate external source to help parents hire individual in-home day care providers when these unusual circumstances arise. Such funding would be a valuable resource to the Public Health Department in its efforts to keep children with communicable diseases out of these congregate environments while they are ill. We estimate the annual cost of this service to not exceed $5,000, although the eventual cost is difficult to project.

At the time of the audit, a proposal was being considered in the Department to centralize the disease control function, bringing in staff resources from the regions to cross-train tuberculosis and disease control staff. This proposal would strengthen the ability of the Department to respond to a large outbreak, a concept called "surge capacity" in the Public Health field. The proposal would complement the recommendations in this section of the audit because it would provide for closer oversight of the disease control function. The proposal would also bring the staff closer

to the Assistant Health Officers who have been delegated the law enforcement authority of the Public Health Officer to enforce reporting requirements, monitor restrictions and supervise the control of disease in Santa Clara County. Department staff reported that the proposal was under consideration and may be expanded prior to implementation. Multiple retirements and the deletion of one position in the disease control unit during the FY 2003-04 budget process, as well as other retirements in the Public Health Department offer an opportunity for reorganization and reprioritization of mandated functions to take place.

Disease Data

Properly recording, maintaining and analyzing disease data is crucial to effective disease control. A planned statewide web-based CMR system and the Santa Clara County Public Health Integrated Health System (PHIS) should increase the reporting of diseases and the Department's ability to use the data more effectively. However, we identified existing data problems that may not be addressed through these initiatives:

- Disease-related data is maintained in multiple data systems and manual logs, none of which communicate with one another;

- The CMR form has been revised multiple times in the recent past. Review of submitted CMR's indicates that many providers continue to use the older versions of the form as 13 of the 81 CMR's reviewed as part of the sample were old versions;

- Data entry errors on the CMR forms were identified, and we confirmed that there are no built in data integrity checks in the AVSS system. For example, a data entry field intended to record the date the CMR was submitted to the State can be entered with a year of 2042 when the actual year was 2002, and this data is transmitted to the state and back to the County for analysis;

- The data provided to the Disease Control Unit each day by laboratories in the community appear to be designed for electronic transmission, rather than to be faxed and read manually, as is the case in Santa Clara County.

To ensure the Web CMR implementation is successful in helping to improve the disease reporting data integrity and usefulness, we recommend that the Public Health Department draft and propose changes to coincide with implementation of Web CMR in California. These proposed changes should include a requirement that laboratories provide more complete disease information electronically, and that the system include data entry error detection.

CONCLUSION

The Public Health Department does not enforce legal requirements that physicians, hospitals and laboratories report certain suspected and confirmed diseases or conditions in accordance with specified timelines per the California Code of Regulations. The failure to report and under-reporting of communicable diseases delays or prevents recognition and treatment of illness in the community necessary to stop the spread of disease. When appropriate control measures are not in place, a disease can spread; if left untreated, certain enteric diseases can be fatal. Furthermore, incomplete disease data undermines the mission of the Department to formulate effective prevention and treatment strategies by weakening the County's disease surveillance system, which in turn impairs the County's preparedness to detect and control an outbreak or an act of bioterrorism. Improved identification and control of disease will result from implementation of the recommendations included in this section of the report.

RECOMMENDATIONS

It is recommended that the Public Health Department:

2.1 Develop and implement a disease investigation procedure to identify physicians who do not report reportable diseases or who report diseases late. This procedure should include the filing of complaints against noncompliant physicians with the California Medical Board. (Priority 2)

2.2 Develop and implement a policy regarding the referral of physicians to the District Attorney who repeatedly fail to report reportable diseases. (Priority 1)

2.3 Include disease-reporting compliance language in all contracts between the County of Santa Clara and persons or entities required to report diseases to the Public Health Department under State law. (Priority 2)

2.4 Develop policies and procedures regarding the monitoring and enforcement of restrictions placed on individuals with communicable diseases. (Priority 2)

SAVINGS AND BENEFITS

Implementation of these recommendations would improve enforcement of State law requiring reporting of certain communicable diseases, strengthen the County's disease surveillance system, and increase the ability of the Public Health Department to respond in a more timely manner.

State of California-Health and Welfare Agency

Santa Clara County Public Health Department

CONFIDENTIAL MORBIDITY REPORT

Department of Health Services

NOTE: for STD, Hepatitis or TB, complete appropriate section below. Special reporting requirements and reportable diseases on back

DISEASE BEING REPORTED:

Site of Infection :

Patient's Last Name

First Name/Middle Name (or initial)

Address: Number, Street

City/Town

State

Zip Code

Area Code Work Telephone

Area Code Work Telephone

Social Security Number

Birth Date (MONTH DAY YEAR)

Age

Medical Record #

Gender M F

Pregnant? Y N Unk

Estimated Delivery Date (MONTH DAY YEAR)

Patient's Occupation/Setting

☐ Food Service ☐ Day Care ☐ Correctional facility
☐ Health Care ☐ School ☐ Other_____

Ethnicity (✓ one)
☐ Hispanic/Latino
☐ Non-Hispanic/Non-Latino

Race (✓ one)
☐ African-American/Black
☐ Asian/Pacific Islander (✓ one)
☐ Asian-Indian ☐ Japanese
☐ Cambodian ☐ Korean
☐ Chinese ☐ Laotian
☐ Filipino ☐ Samoan
☐ Guamanian ☐ Vietnamese
☐ Hawaiian ☐ Other _____
☐ Native American/Alaskan Native
☐ White
☐ Other

DATE OF ONSET (MONTH DAY YEAR)

DATE DIAGNOSED (MONTH DAY YEAR)

DATE OF DEATH (MONTH DAY YEAR)

Reporting Health Care Provider

Reporting Health Care Facility

Address

City State Zip Code

Telephone Number ( )

Fax ( )

Submitted By

Date Submitted (Month/Day/Year)

Report To:
Santa Clara County
Public Health Department

FAX: (408) 885-3709
Telephone : (408) 885-4214

2220 Moorpark Avenue, Rm 20007
San Jose, CA 95128

SEXUALLY TRANSMITTED DISEASES (STD)

Syphilis
☐ Primary (lesion present)
☐ Secondary
☐ Early latent < 1 year
☐ Latent (unknown duration)
☐ **Neurosyphilis**
☐ Late latent > 1 year
☐ Late (tertiary)
☐ Congenital

Syphilis Test Results
☐ RPR Titer:_____
☐ VDRL Titer:_____
☐ TPPA ☐ Pos ☐ Neg
☐ FTA/MHA ☐ Pos ☐ Neg
☐ Other _____

Gonorrhea
☐ Urethral/Cervical
☐ PID
☐ Other

Chlamydia
☐ Urethral/Cervical
☐ PID
☐ Other

☐ **PID (Unknown Etiology)**
☐ **Chancroid**
☐ **Non-Gonococcal Urethritis**

STD TREATMENT INFORMATION

☐ **Treated (Drugs, Dosage, Route)**

_____

_____

Date Treatment Initiated (MONTH DAY YEAR)

☐ **Untreated**
☐ Will treat
☐ Unable to contact patient
☐ Refused treatment
☐ Referred to _____

VIRAL HEPATITIS

☐ **Hepatitis A**
☐ **Hepatitis B**
☐ Acute
☐ Chronic
☐ **Hepatitis C**
☐ Acute
☐ Chronic
☐ **Hepatitis D (Delta)**
☐ **Other:**_____

Please fax copies of the hepatitis serologies or PCR result

Suspected Exposure Type

☐ Blood transfusion
☐ Sexual contact
☐ Child care
☐ Other needle exposure
☐ Household contact
☐ Other:_____

TUBERCULOSIS

Status

Active Disease
☐ Confirmed
☐ Suspected

☐ **Infected, No Disease**
☐ Converter
☐ Reactor

Site(s)
☐ Pulmonary
☐ Extra-Pulmonary
☐ Both

Mantoux TB Skin test (TST)
Date Performed ____/____/____
Results_____mm ☐ Pending ☐ Not Done
Previous TST Date____/____/____
Results_____mm

Chest X-ray
Date Performed ____/____/____
☐ Normal ☐ Pending ☐ Not Done
☐ Cavitary ☐ Abnormal/Noncavitary

Bacteriology
Date Specimen Collected:____/____/____
Source:_____
Smear: ☐ Pos ☐ Neg ☐ Pending ☐ Not done
Culture: ☐ Pos ☐ Neg ☐ Pending ☐ Not done
Other test(s)_____

TB TREATMENT INFORMATION

☐ **Current Treatment**
☐ INH ☐ RIF ☐ PZA
☐ EMB ☐ Other:_____

Date Treatment Initiated (MONTH DAY YEAR)

☐ Untreated
☐ Will treat
☐ Unable to contact patient
☐ Refused treatment
☐ Referred to:_____

Remarks

Title 17, California Code of Regulations (CCR), §2500
Reportable Diseases and Conditions*

§2500. REPORTING TO THE LOCAL HEALTH AUTHORITY

- §2500(b) It shall be the duty of every health care provider, knowing of or in attendance on a case or suspected case of any of the diseases or conditions listed below, to report to the local health officer for the jurisdiction where the patient resides. Where no health care provider is in attendance, any individual having knowledge of a person who is suspected to be suffering from one of the diseases or conditions listed below may make such a report to the local health officer for the jurisdiction where the patient resides.
- §2500(c) The administrator of each health facility, clinic or other setting where more than one health care provider may know of a case, a suspected case or an outbreak of disease within the facility shall establish and be responsible for administrative procedures to assure that reports are made to the local health officer
- §2500(a)(14) "Health care provider" means a physician and surgeon, a veterinarian, a podiatrist, a nurse practitioner, a physician assistant, a registered nurse, a nurse midwife, a school nurse, an infection control practitioner, a medical examiner, a coroner, or a dentist.

URGENCY REPORTING REQUIREMENTS [17 CCR §2500 (h) (i)]

$ = Report **immediately by telephone** (designated by a • in regulations).
† = Report **immediately by telephone when two (2) or more cases or suspected cases of foodborne disease from separate households are suspected to have the same source of illness** (designated by a ● in regulations).
Fax ① = Report by FAX or telephone within one (1) working day of identification. Do not report by mail (Santa Clara County only).
SCC = Reportable in Santa Clara County only.
Fax ①✉ = Report by FAX, telephone, or mail within one (1) working day of identification (designated by a + in regulations).
= All other diseases/conditions should be reported by FAX, telephone, or mail within seven (7) calendar days of identification.

REPORTABLE COMMUNICABLE DISEASES §2500 (i)(1)

- Acquired Immune Deficiency Syndrome (AIDS)
- Fax ①✉ Amebiasis
- Fax ①✉ Anisakiasis
- $ Anthrax
- Aspergillosis (SCC)
- Fax ①✉ Babesiosis
- $ Botulism (Infant, Foodborne, Wound)
- $ Brucellosis
- Fax ①✉ Campylobacteriosis
- Chancroid
- Chlamydial Infections
- $ Cholera
- $ Ciguatera Fish Poisoning
- Coccidiodomycosis
- Fax ①✉ Colorado Tick Fever
- Fax ①✉ Conjunctivitis, Acute Infectious of the Newborn, Specify Etiology
- Fax ①✉ Cryptosporidiosis
- Cysticercosis
- $ Dengue
- $ Diarrhea of the Newborn, Outbreaks
- $ Diphtheria
- $ Domoic Acid Poisoning (Amnesic Shellfish Poisoning)
- Echinococcosis (Hydatid Disease)
- Ehrlichiosis
- Fax ①✉ Encephalitis, Specify Etiology: Viral, Bacterial, Fungal, Parasitic
- $ *Escherichia coli* O157:H7 Infection
- † Fax ①✉ Foodborne Disease
- Giardiasis
- Gonococcal Infections
- Fax ①✉ *Haemophilus influenzae* Invasive Disease
- $ Hantavirus Infections
- $ Hemolytic Uremic Syndrome
- Hepatitis Viral
- Fax ①✉ Hepatitis A
- Hepatitis B (specify acute case or chronic)
- Hepatitis C (specify acute case or chronic)
- Hepatitis D (Delta)
- Hepatitis, other, acute
- HIV (by non-name code)
- Kawasaki Syndrome (Mucocutaneous Lymph Node Syndrome)
- Legionellosis
- Leprosy (Hansen Disease)
- Leptospirosis
- Fax ①✉ Listeriosis
- Lyme Disease
- Fax ①✉ Lymphocytic Choriomeningitis
- Fax ①✉ Malaria
- Fax ① Measles (Rubeola)
- Fax ①✉ Meningitis, Specify Etiology: Viral, Bacterial, Fungal, Parasitic
- $ Meningococcal Infections
- Methicillin-Resistant *Staphylococcus aureus* (MRSA) (SCC)
- Mumps
- Non-Gonococcal Urethritis (Excluding Laboratory Confirmed Chlamydial Infections)
- $ Paralytic Shellfish Poisoning
- Pelvic Inflammatory Disease (PID)
- Fax ①✉ Pertussis (Whooping Cough)
- $ Plague, Human or Animal
- Fax ①✉ Poliomyelitis, Paralytic
- Fax ①✉ Psittacosis
- Fax ①✉ Q Fever
- $ Rabies, Human or Animal
- Fax ①✉ Relapsing Fever
- Reye Syndrome
- Rheumatic Fever, Acute
- Rocky Mountain Spotted Fever
- Rubella (German Measles)
- Rubella Syndrome, Congenital
- Fax ①✉ Salmonellosis (Other than Typhoid Fever)
- $ Scombroid Fish Poisoning
- Fax ①✉ Shigellosis
- $ Smallpox (Variola)
- Fax ①✉ Streptococcal Infections (Outbreak of Any Type and Individual Cases in Food Handlers and Dairy Workers Only)
- Fax ①✉ Swimmer's Itch (Schistosomal Dermatitis)
- Fax ①✉ Syphilis
- Tetanus
- Toxic Shock Syndrome
- Toxoplasmosis
- Fax ①✉ Trichinosis
- Fax ① Tuberculosis
- $ Tularemia
- Fax ①✉ Typhoid Fever, Cases and Carriers
- Typhus Fever
- Vancomycin-Resistant *Enterococcus* (VRE) (SCC)
- $ Varicella (deaths only)
- Fax ①✉ *Vibrio* Infections
- $ Viral Hemorrhagic Fevers (e.g., Crimean-Congo, Ebola, Lassa and Marburg viruses)
- Fax ①✉ Water-associated Disease
- $ Yellow Fever
- Fax ①✉ Yersiniosis
- $ OCCURRENCE of ANY UNUSUAL DISEASE
- $ OUTBREAKS of ANY DISEASE (Including diseases not listed in §2500). Specify if institutional and/or open community

REPORTABLE NONCOMMUNICABLE DISEASES/CONDITIONS §2593(b), 2810:

- Alzheimer's Disease and Related Conditions
- Cancer (except (1) basal and squamous skin cancer unless occurring genitalia, and (2) carcinoma in-situ and CIN III of the cervix)
- Disorders Characterized by Lapses of Consciousness

* Use of this form is designed for health care providers to report those diseases mandated by Title 17, California Code of Regulations, §2500 (rev. 2001). Cancer reporting is mandated by §2593.) Failure to report is a misdemeanor (Health and Safety Code §120295, formerly §3354,), punishable by a fine of not less than $50 nor more than $1,000 or by imprisonment for a term of not more than 90 days, or by both. Each day the violation is continued is a separate offense.

County of Santa Clara

Public Health Department
Disease Prevention and Control

645 S. Bascom Avenue
San Jose, California 95128
(408) 885-4214 FAX 885-4249

Attachment 2.2

Date:

Establishment:
Manager:

Address:

REGARDING:

Name:

Address:

TO WHOM IT MAY CONCERN:

This is to certify that the above individual is still infected with, or suspected of being infected with, a communicable disease. Accordingly, the above individual has been ordered, **until further notice,** not to participate in any of the following:

1. Food Handling
2. Health Care
3. Child Care

The restriction became effective .

This information is confidential and should be shared only when absolutely necessary.

If you have any questions, please call (408) 885-4214.

Sincerely,

Martin D. Fenstersheib, MD,MPH
Health Officer

County of Santa Clara

Public Health Department
Disease Prevention and Control

645 S. Bascom Avenue
San Jose, California 95128
(408) 885-4214 FAX 885-4249

Attachment 2.3

Date:

Establishment:
Director:

Address:

REGARDING:

Name:

Date of Birth:

Address:

TO WHOM IT MAY CONCERN:

This is to certify that the above child is infected with, or suspected of being infected with, a communicable disease. Accordingly, the above child has been ordered, until further notice, not to attend Child Care.

The restriction became effective .

This information is confidential and should be shared only when absolutely necessary. A letter of release from this restriction will be sent to you.

If you have any questions please call (408) 885-4214.

Sincerely,

Martin Fenstersheib, M.D.
Health Officer

Section 3. Regional Public Health Nurse Productivity

- **The Public Health Department's Community-Based Services Division uses Public Health Nurses operating from six regional offices to provide case management services to clients, including follow-up monitoring to ensure that tuberculosis patients are following treatment regimens, and follow-up visits to mothers with newborns who had illnesses or other complications at birth. A portion of costs of this case management are recovered through Targeted Case Management, a Federal reimbursement system that pays the County about 53 percent of the estimated cost for each case management visit, called an encounter, in which specific types of tasks are carried out.**

- **Analysis of encounter and work-hours data for 80 nurses over a 12-week period showed that while an informal standard of 20 encounters per nurse per month was met overall, productivity differed significantly among nurses. The most productive completed 10 or more encounters per week, while the least productive completed two or fewer encounters per week. These differences require more staffing in the Division than would be required if all nurses at least met the 20-encounters-per-month standard.**

- **By examining the work habits of the most productive nurses, and promulgating them throughout the Division, by providing additional supervision for less productive nurses, and by using best practices to develop additional productivity standards, productivity of Division nurses should improve. Assuming all nurses met the current standard of 20 encounters per month, the encounters completed during the 12-week period reviewed could have been completed with 18 fewer nurses than were utilized. Eliminating 18 Public Health Nurse positions would result in salary and benefit savings of about $1.6 million, based on Step 3 costs for a Public Health Nurse I position. However, because 53 percent of costs for these positions are federally reimbursed, about $850,000 in reimbursement would be lost, leaving a General Fund savings of about $756,000.**

Background

The Community-Based Services Division operates six regional offices serving distinct geographic areas of Santa Clara County. For Fiscal Year 2004-05, this division has a budget of approximately $18 million, and staffing of 181 FTE positions.

According to the current director of the Division, the Division's purpose is to provide public health services to clients in the community, primarily in their homes. Each divisional office includes multi-disciplinary staffing, including anti-tobacco use educators, social workers and clerical staff. However, the primary staffing for the regional offices are 96 public health nurses. The director reported that nursing staff focus on three general areas.

First, the nurses help prevent the spread of tuberculosis, sexually transmitted diseases and other communicable diseases. Public health nurses do this by performing follow-up case management with patients who have been treated for such diseases in County facilities. For example, a tuberculosis patient who has been treated at Valley Medical Center and will receive ongoing treatment through the Public Health Department Tuberculosis Clinic will also receive case management from a regional public health nurse, who will make sure the patient is following the prescribed treatment regimen. A public health nurse also may be assigned to gather information on the contacts the patient has had with other people, so that those people can be contacted and tested for the disease. In this manner, communicable disease outbreaks are prevented.

Second, nurses provide case management services to patients who have been treated for significant health problems in County facilities, and are considered to be at risk for future health problems and hospitalization due to their medical conditions and barriers to accessing medical care. This may include elderly patients with significant health problems and no relatives to assist in helping them with medications and other treatment regimens, and also typically includes young parents of newborn children, or young expectant mothers, who need assistance in getting proper prenatal care, parenting skills and well-baby care.

Third, nurses may provide case management services to specific patient populations, based on specific grant funded programs. For example, nurses in the past have provided case management to children treated for diabetes or asthma at County health facilities. There are also grant-funded programs to provide health assessments and case management to families of students referred by the East Side Union High School District and the Gilroy Unified School District. There is also a program funded by the First Five Commission to provide home visits to first-time mothers in Los Altos and Mountain View.

In all these functions, cases will typically be referred to the regional office nearest the client's home, and then will be assigned by the manager of that office to a nurse. On the initial visit, the nurse will perform a health assessment of the client, be it an elderly adult patient or a new mother and her child, and will develop a plan of care based on that assessment. The nurse will conduct additional visits until the plan of care is completed, which should permit the client to maintain their health on their own.

Targeted Case Management and Public Health Nurse Productivity

Expenditure costs of about $18 million in the Community-Based Services Division are offset by revenues of about $9.2 million. As noted previously, some of this revenue comes from specific grants provide for the Division to serve specific patient populations and/or specific geographic areas. However, about 63 percent of the revenue, nearly $5.8 million, comes from a process called Targeted Case Management (TCM).

According to the Director of Community-Based Services, Targeted Case Management is a federal- and State-funded program used to promote getting Medi-Cal eligible health clients signed up for Medi-Cal services. According to the Director, in California public

health nurses realized that the populations that typically failed to sign up for such services, because they were unfamiliar with available health care services and how to access them, were the same populations the nurses served, such as elderly residents without family assistants, or new young mothers. Accordingly, the TCM program was set up in California by State law. Under that law, the Division receives reimbursement for each contact that a public health nurse has with a Medi-Cal eligible client, and provides one of six types of services:

- Assessment
- Plan Development
- Linkage and consultation—This would include activities identifying resources for which a client may be eligible, and contacting a service provider or the client to ensure the client receives services.
- Assistance in accessing services—This would include arranging appointments for referral services for clients or arranging for transportation of a client to such services, as well as arranging for or providing language translation to assist the client with such services.
- Periodic review
- Crisis assistance planning

In order to receive reimbursement, the Division each year conducts a time study and cost analysis to estimate its costs for providing the eligible services. The Division then estimates, for the succeeding year, the number of contacts, known as encounters, it expects will occur. Based on these analyses, the Division is then approved by the State to assume a fixed sum for each encounter. If the Division conducts fewer encounters than it estimated, it does not recoup the full funding anticipated. The cost estimate made by the Division also serves as a cap on the amount of reimbursement that can be received. For FY 2003-04, the Division estimated it would have 16,406 encounters, with reimbursement of $596.85 per encounter, for total billable reimbursement of about $9.8 million. Then, of the encounters that actually occur, the State provides federal reimbursement for a percentage of the actual billable amount. For FY 2004-05, this Federal Medical Assistance Percentage was approximately 53.4 percent, resulting in the $5.8 million revenue anticipated in FY 2004-05.

Because the revenues received are tied to the number of encounters that occur, it is very important that public health nurses complete the number of encounters estimated by the Division. No formal standards have been established per nurse for the number of encounters that must occur, and different informal standards were offered by Division staff in interviews. For example, the Division director said he would like to see nurses complete 20 encounters per month, while one nurse manager for one of the regional offices said she recommends nurses try to complete seven to 10 encounters a week, and a second manager for a different region recommends they attempt to complete 12 encounters per week. However, two of the County's in a survey conducted for this audit, Riverside County and San Diego County, reported either having a similar standard to the Division Director's 20 encounters per month, or stated that typical nurse productivity was similar. It should be noted that not all encounters that a nurse completes end up being eligible for reimbursement, either because the services provided end up being determined not to be TCM-eligible, or because the client is

determined not to be Medi-Cal eligible. If the a referral is received for a client that appears to meet the profile for services, in terms of medical needs and limited ability to access resources, the client receives services from a nurse, whether the client is ultimately determined to be Medi-Cal eligible or not.

Because Targeted Case Management is such a significant factor in Division revenues, and because the majority of services public health nurses provided are supposed to be TCM-eligible, we reviewed nurse productivity for TCM. For the 12-week period between September 1 and November 23, 2003, we obtained data on the number of TCM encounters reported by each public health nurse in the six regional offices. Data from September 23 forward was obtained from the Public Health Integrated Health System (PHIHS), into which data on each encounter is entered for purposes of seeking State reimbursement. For the Sept. 1-22 period, data from the predecessor system to PHIHS was used. We also obtained County payroll data for each nurse, using it to calculate how many regular work hours, not including time off and training time, each nurse worked during that period. This data was used to calculate, for each nurse, the number of encounters per 40-hour period, which is equivalent to a work week, that were completed during the 12-week period. The purpose of the analysis was to determine whether the informal standard promoted by the Division Director was being met, and if there were significant differences among nurses in the number of encounters per week that could reflect productivity differences. We eliminated from the analysis four nurses who served as lead nurses in Division regional offices, because these nurses' duties included some supervisory responsibilities that might affect the number of encounters they could complete.

Our analysis included data on 80 nurses. The analysis found that during the 12-week period examined, the 80 nurses completed 4,589 encounters, and worked the equivalent of 792 40-hour work weeks. This equates to approximately 5.8 encounters per week. Based on approximately 4 weeks per month, this figure corresponds to the informal goal of 20 encounters per nurse per month described by the Community Services Division Director.

However, this average masks significant differences in productivity among nurses. The following table provides the 10 most and least productive nurses, in terms of encounters completed per 40-hour equivalent work-week during the 12 weeks reviewed.

Table 3.1

Ten Most and Least Productive Public Health Nurses
Based on Encounters Per 40-Hour Work-week Equivalent
September 1 To November 23, 2003

Most Productive

Nurse	Work Hours	Equivalent Weeks	Encounters	Encounters/Week
A	443.3	11.1	162	14.6
B	411.0	10.3	137	13.3
C	167.0	4.2	53	12.7
D	367.0	9.2	109	11.9
E	175.0	4.4	49	11.2
F	444.0	11.1	117	10.5
G	380.0	9.5	100	10.5
H	412.0	10.3	107	10.4
I	348.0	8.7	90	10.3
J	473.5	11.8	116	9.8
Average	**362.1**	**9.1**	**104**	**11.4**

Least Productive

1	467.0	11.7	19	1.6
2	296.5	7.4	12	1.6
3	450.9	11.3	14	1.2
4	464.0	11.6	13	1.1
5	415.8	10.4	11	1.1
6	333.5	8.3	8	1.0
7	471.0	11.8	11	0.9
8	434.0	10.9	7	0.7
9	439.0	11.0	7	0.6
10	413.0	10.3	4	0.4
Average	**418.5**	**10.5**	**11**	**1.0**

As this table shows, there is a wide variation in the performance of the most and least productive nurses, with the most productive completing an average of 10 encounters or more per week, while the least productive complete 1.6 or fewer encounters in that same time period. This variance in productivity is so extreme that all but one of the high productivity nurses were more productive than all 10 of the low productivity nurses combined.

Based on this analysis, steps need to be taken to improve the productivity of nurses who do not meet the informal standard of 20 encounters per month established by the Division Director. In order to approve productivity, we recommend that the work habits of the most productive nurses be examined, through interviews, review of their work papers and field observations, in order to identify best practices that could

improve nurse productivity as a whole. These practices could then be promulgated throughout the Division in order to increase productivity.

We also recommend that monitoring of nurse productivity be intensified. The number of encounters completed per week or per month by each nurse should be periodically reviewed, and nurses falling below the standard over a three-month or longer period should receive additional supervision in order to determine how their productivity could be improved. Based on an analysis of work habits for the most productive nurses, it may also be possible to establish other types of productivity standards in the Division, such as establishing standards for the ratio between the amount of time spent preparing for and recording each encounter, relative to the actual time spent on the visit itself, or standards for how long specific types of encounter activities should take, while still providing appropriate care for clients.

The foregoing analysis suggests that improving the productivity for all nurses to the information standard of 20 encounters per month promulgated by the Division Director would produce significant savings. Of the 80 nurses analyzed, 34 generated fewer than five encounters per week, which is roughly equivalent to the 20-per-month standard. These 34 nurses completed 943 encounters during the 12-weeks examined. If nurses meeting the standard had carried out this work, each nurse would have completed 60 encounters during this time period, and only 16 nurses would have been required. Therefore, 18 nurse positions would be eliminated. The following table summarizes the savings.

Table 3.2

Estimated Savings From Improved Public Health Nurse Productivity
Sept. 2 to Nov. 23, 2003

Nurses failing to complete five encounters per week	34
Encounters completed by these nurses	943
Encounters that would be completed per nurse, 12 weeks, at five per week	60
Nurses needed to complete 943 encounters at five encounters per week	16
Nursing positions eliminated by meeting productivity standard (34-16)	18
Salary and Benefit Cost Per Public Health Nurse I Position, Step 3	$89,295
Savings from eliminating 18 Public Health Nurse I Positions	$1,607,310
General Fund Savings, Based on 52.95 percent federal reimbursement	$756,239

As the table shows, assuming nurses now failing to meet the informal standard of 20 TCM encounters per month increased their productivity to meet that standard, 18 nurse positions could be eliminated. Based on the FY 2003-04 salary and benefit cost of $89,295 per nurse, approximately $1.6 million could be saved. However, because approximately 53 percent of costs for these nurses was reimbursed by the federal government through TCM, General Fund savings would amount to the 47 percent not reimbursed. The County would save approximately $756,000 in General Fund monies, and the federal government would save $850,000.

CONCLUSION

Analysis of encounter and work-hours data for 80 nurses in regional offices over a 12-week period found that the Division's informal standard for nurses to complete 20 encounters per month is being met, on average. However, this average performance masks significant productivity differences among nurses. While the most productive nurses completed 10 encounters per week during the period reviewed, which is equivalent to 40 per month, the least productive completed 1.6 or fewer encounters per week, or 68 percent below the standard.

RECOMMENDATIONS

It is recommended that the Public Health Department:

3.1 Examine the work habits of the most productive Public Health Nurses identified in this study, using interviews, review of work papers and direct observation, to identify best practices that can be promulgated throughout the division. (Priority 1)

3.2 Implement and formalize monitoring of public health nurse productivity against the 20-encounters-per-month standard on an ongoing basis, providing additional supervision to nurses who do not meet the standard over a three-month or longer period. (Priority 1)

3.3 Based on the best practices identified using Recommendation 3.1, develop additional productivity standards for nurses, such as a recommended ratio between time spent during an encounter with a client, and time spent preparing in advance for the encounter and documenting it afterwards, and implement related training as necessary. (Priority 1)

3.4 As productivity among all nurses improves to the 20-encounters-per-month standard, eliminate 18 public health nurse positions through attrition, or shift them to other priorities of the Public Health Department. (Priority 1)

SAVINGS AND BENEFITS

Assuming all Public Health Nurses in the Community-Based Services Division met the current standard of completing 20 Targeted Case Management (TCM) encounters per month, analysis of data for a 12-week period showed that the encounters completed in that period could have been completed with 18 fewer nurses. Eliminating 18 nursing positions results in a salary and benefits savings of about $1.6 million, based on costs of Public Health Nurse I position at Salary Step 3. Because approximately 53 percent of the cost of these positions is recouped from federal TCM funding, actual General Fund savings amounts to 47 percent of the $1.6 million, or about $756,000. Federal government savings would amount to about $850,000.

COMMENTS ON THE PUBLIC HEALTH DEPARTMENT WRITTEN RESPONSE

In its written response to Section 3 of this audit, the Public Health Department stated that our analysis of the Public Health Nurse productivity failed to account for the full range of nurse functions, because it did not consider time spent on "disease containment," specifically management of latent tuberculosis (TB) cases, and management of other communicable diseases by nurses assigned to the Department's regional offices.

To respond to the Department's comments, we requested information on which nurses had significant disease containment caseloads during the period in which Targeted Case Management encounter workloads were analyzed, so that the previous analysis could be adjusted. The Management Audit Division had requested this same information during the time period in which the analysis was being conducted, but did not receive it at that time. In response, the Public Health Nursing and Community-Based Services Division Director provided a list of 13 nurses that had "large TB clientele caseloads during the period that you were reviewing the TCM database." The director further stated that some nurses had mixed caseloads combining TB and non-TB caseloads, and others were filling in for a vacationing colleague while still covering their own non-TB caseloads. These nurses were removed from the productivity analysis, which was then repeated. The revised analysis continued to show a number of nurses completing fewer than the 20 encounters per month, or approximately 5 per week, established by the Director as an informal standard. The following table repeats the lower portion of Table 3.1, showing the 10 least productive nurses.

Ten Least Productive Public Health Nurses
Based on Encounters Per 40-Hour Work-week Equivalent
With High-TB Caseload Nurses Removed, Sept. 1 to Nov. 23, 2003

Nurse	Work Hours	Equivalent Weeks	Encounters	Encounters/Week
1	109.5	2.7	10	3.7
2	336.0	8.4	28	3.3
3	362.9	9.1	28	3.1
4	424.0	10.6	27	2.6
5	458.0	11.5	26	2.3
6	347.9	8.7	15	1.7
7	379.5	9.5	16	1.7
8	296.5	7.4	12	1.6
9	464.0	11.6	13	1.1
10	413.0	10.3	4	0.4
Average	**359.1**	**9.0**	**18**	**2.0**
Dept. Standard				**5.0**
High Productivity Nurses				**11.4**

As this table shows, even with nurses that have high-TB caseloads removed from the analysis, there are sill many nurses that exhibit low productivity, completing 3.7 or fewer encounters per week in the same time period in which the most productive nurses completed 10 or more encounters per week.

Of the 13 nurses reported by the Public Health Department as having high TB or other non-TCM caseloads, 11 completed fewer than five encounters per week, while two continued to meet the Nursing Director's information standard, despite their other duties. Removing the other 11 nurses from our previous report of 34 nurses who had generated fewer than five encounters per week, there were still 23 nurses who did not meet the standard. The savings that would occur if these nurses were able to meet the standard is shown in the following revision to Table 3.2 in the report.

Estimated Savings From Improved
Public Health Nurse Productivity for 23 Nurses
September 2, to November 23, 2003

Nurses failing to complete five encounters per week	34
Encounters completed by these nurses	755
Encounters that would be completed per nurse, 12 weeks, at five per week	60
Nurses needed to complete 755 encounters at five encounters per week	13
Nursing positions eliminated by meeting productivity standard (23-13)	10
Salary and Benefit Cost Per Public Health Nurse I Position, Step 3	$89,295
Savings from eliminating 10 Public Health Nurse I Positions	$892,950
General Fund Savings, Based on 52.95 percent federal reimbursement	$420,133

As the table shows, assuming nurses now failing to meet the informal standard of 20 TCM encounters per month increased their productivity to meet that standard, 10 nurse positions could be eliminated. Based on the FY 2003-04 salary and benefit cost of $89,295 per nurse, approximately $893,000 could be saved. However, because approximately 53 percent of costs for these nurses was reimbursed by the federal government through TCM, General Fund savings would amount to the 47 percent not reimbursed. The County would save approximately $420,000 in General Fund monies, and the federal government would save about $473,000.

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Section 4. Public Health Pharmacy

- **The Public Health Department operates a pharmacy with staffing of 9.0 FTE positions, including 2.0 management positions, a FY 2004-05 budget of $2.7 million, and a workload of approximately 51,000 annual prescriptions. The Public Health Pharmacy has not been included in an automated telephone refill system serving other County pharmacies, even though approximately 54.6 percent of its prescriptions are refills. Furthermore, the pharmacy makes limited use of technology, and fills most prescriptions manually, even though 63 percent are accounted for by a few common strengths and sizes.**

- **This approach inconveniences Public Health Pharmacy clients, who do not have the option of 24-hour automated refill ordering, including availability of Vietnamese and Spanish instructions at all times. Furthermore, prescription pick-up at other County pharmacies depends on a weekly courier system from the Public Health Pharmacy, rather than permitting clients to have prescriptions filled at the nearest County pharmacy. The Public Health Pharmacy's limited use of technology and integration with other County pharmacies also results in unnecessary staff costs.**

- **By providing Public Health Pharmacy clients access to the Interactive Voice Recorder system, permitting them to order refills at all times and to pick up refills at the most convenient County pharmacy, and by including the Public Health Pharmacy in the proposed new centralized refill facility, such technological improvements would result in better service to Public Health Pharmacy clients, and enable the Public Health Pharmacy to make staff reductions amounting to approximately $296,516 annually.**

Background

The Public Health Department operates a pharmacy, located at the Valley Health Center @ Lenzen facility in San Jose. The pharmacy has a total staffing of 9.0 FTE positions, including two management staff and seven line staff. Its FY 2004-05 budget is approximately $2.7 million. In terms of prescriptions, according to statistics provided by Pharmacy staff, the Public Health Pharmacy filled approximately 51,000 prescriptions in FY 2002-03. Over the past 10 years the volume of prescriptions has risen about 40 percent, with most of the growth occurring in the past four years.

According to the former Assistant Pharmacy Director for the Public Health Pharmacy, who retired during the time period of this audit, the Pharmacy was established in 1986 to provide medication services in conjunction with various specialty health clinics operated by the Department at the Lenzen facility. The Public Health Pharmacy operates under dual supervision. The Assistant Pharmacy Director reports to the Director of Pharmacy Services for the Santa Clara Valley Health and Hospital System, one of five assistant directors to do so. The Assistant Director also reports to the Health Protection Division Director in the Public Health Department.

The efficient delivery of medications to Public Health clients is crucial to the treatment of communicable and contagious diseases, and therefore important for the protection of public health. According to the former director, key functions of the Pharmacy include:

- Dispensing medications to patients as prescribed through other Public Health Department programs, in particular the Department's Tuberculosis Clinic and its follow-up with TB patients via public health nurses. Approximately 30 percent of all prescriptions filled by the clinic are for a 30-day, 300-milligram per dose prescription for isoniazid, a TB drug, and another 10 percent are for pyridoxine, also known as vitamin B6, which is normally taken in conjunction with isoniazid. The Pharmacy's work with the TB program also includes compounding special formulas of TB medications, particularly liquid formulations for children who cannot take the standard dosages or formulas, and preparing "blister packs" that combine several medications in the proper dosages, to make it easier for TB patients to follow the appropriate regimen.

- Managing the ordering and distribution of State- and federally-provided vaccines for children. The vaccines are provided to 11 community clinics operated by the Health and Hospital System, and to about 40 non-County-operated immunization providers. The Pharmacy estimates that these vaccines are obtained at a cost of about $2 million less than the cost to obtain vaccines from the private sector. The pharmacy also provides flu vaccines to 17 County clinics and about 60 outside agencies who provide flu shots to children and adults. The vaccine is obtained free from the State.

- Overseeing operation of several Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) drug programs. The federal AIDS Drug Assistance Program (ADAP) provides medications for patients who can't get them via other forms of insurance. The Ryan White Medication Assistance Program provides HIV/AIDS medications to financially eligible clients not covered by the ADAP program. Eligibility workers located at County health clinics establish eligibility of clients for these programs. The County receives $4.3 million in reimbursements through the two programs. While the Public Health Pharmacy is responsible for overseeing the HIV/AIDS drug programs, many prescriptions are actually filled at the SCVHHS Moorpark pharmacy, rather than the Public Health Pharmacy, because the Moorpark pharmacy is much closer to the PACE clinic that serves HIV/AIDS patients.

- The Pharmacy oversees a $1 million drug stockpile that would be used initially to respond to a bioterrorism attack. According to existing plans, this stock would be used until a larger federal stockpile to serve the larger Bay Area region could be accessed, which is expected to take about two days. The Public Health Pharmacy is also responsible for taking custody for a portion of the federal stockpile, once it is released, for use in a broad region including all of Santa Clara County.

Public Health Pharmacy Is Not Integrated Into Pharmacy System

The Public Health Pharmacy is one of eight outpatient pharmacies operated by the Santa Clara Health and Hospital System. The other seven pharmacies are part of the Valley Medical Center health care system, and are located either on the VMC campus, or co-located with outpatient health clinics that are part of the VMC system. The following table provides FY 2002-03 workload information for the Public Health Pharmacy and the other seven pharmacies.

Table 4.1

Workload Comparison of Public Health Pharmacy and Other SCVHHS Pharmacies, Including New and Refill Prescriptions, FY 2002-03

Pharmacy	New Rx	Refill Rx	Total Rx	New Rx %	Refill Rx %
VMC Outpatient	177,615	61,539	239,154	74.3%	25.7%
Moorpark	91,462	104,915	196,377	46.6%	53.4%
East Valley	102,903	66,377	169,280	60.8%	39.2%
Chaboya	59,441	62,258	121,699	48.8%	51.2%
Valley Health Ctr.	67,048	31,880	98,928	67.8%	32.2%
Silver Creek	31,576	23,220	54,796	57.6%	42.4%
South County	18,390	9,438	27,828	66.1%	33.9%
Public Health	**23,131**	**27,795**	**50,926**	**45.4%**	**54.6%**
Average Others				**60.4%**	**39.6%**

As the table shows, the Public Health Pharmacy, while small, is comparable in workload volume to two of the other SCVHHS pharmacies. More significantly, its prescription mix is heavier than most of the other pharmacies in refill prescriptions. On average, 55 percent of Public Health Pharmacy prescriptions are refills, while only 40 percent of prescriptions in the other pharmacies are, and only two of the other seven pharmacies, Moorpark and Chaboya, have refill percentages close to that of the Public Health Pharmacy.

However, the Public Health Pharmacy is not integrated with the other outpatient pharmacies. For example, the other outpatient pharmacies offer clients a 24-hour automated Interactive Voice Recorder System to order prescription refills, either by entering information into the outpatient pharmacy computer system using a telephone keypad, or by leaving information on a voice recorder system. Separate phone numbers are provided for patients who need Spanish- or Vietnamese-language information. The Public Health Pharmacy is not included in this system, requiring clients to call directly for refills during the Pharmacy's operating hours, 8 a.m.-9 p.m. Monday, 8 a.m.-6 p.m. Tuesday, and 8 a.m.-5:30 p.m. Wednesday to Friday. While the Public Health Pharmacy has bilingual capability among its staff, vacancies due to vacations, illness, retirements, job transfers, etc., may mean bilingual capability is not available at all times.

Also, patients who are receiving care at one of the Public Health clinics, but live in another part of the County, have limited opportunities to have a prescription prepared at the County pharmacy closest to them, for immediate or next-day pick-up. Instead, the prescriptions are filled at the Public Health Pharmacy, then delivered to a clinic convenient to the patient, but primarily on a delivery schedule that goes to Valley Health Center @ East Valley twice a week, and to other clinics once per week. In fact, Pharmacy staff advised that most prescriptions end up either being made by phone by the prescribing physician or their staff, or are brought to the pharmacy by the patient, who waits while the prescription is filled. These methods, to the extent they are required for refill prescriptions, are far less convenient for patients, and substantially less efficient, than the systems available through other County outpatient pharmacies. We recommend that the Public Health Pharmacy be added to the SCVHHS IVR refill system, permitting Public Health Pharmacy clients 24-hour access to request refills, and the ability to obtain them at the County pharmacy most convenient to them.

Furthermore, the Public Health Pharmacy makes far less use of labor-saving technology than do the other outpatient pharmacies. These pharmacies use equipment that counts tablet or capsule drugs, places drugs in a bottle, and labels the bottle for inspection by a pharmacist, based on prescription data entered into the outpatient prescription computer system by a pharmacist or technician.

Instead, the Public Health Pharmacy uses only a machine called a Drug-O-Matic. This machine has a chute into which bulk quantities of pills or capsules are placed, with the operator setting the machine for the size of the pill or capsule, and for the number of pills to be dispensed per bottle. Dispensing is triggered by putting the bottle into a spring-loaded slot at the bottom of the machine. Filled bottles must be labeled manually. Observations at the Public Health Pharmacy showed that this machine is used to prepackage dosages of isoniazid and pyridoxine, the tuberculosis treatments described earlier in this section, sodium fluoride, which is provided as a supplement to prevent tooth decay and treat osteoporosis, and enteric coated aspirin, prescribed for patients with certain types of heart disease.

Asked about use of technology, Public Health Pharmacy management said space is not available for the equipment used by other pharmacies, and it is true that the Public Health Pharmacy appears fairly cramped relative to the number of staff. Management also said there are relatively few prescriptions the Public Health Pharmacy fills that are in standard quantities where such equipment would be beneficial. Management said this occurs in particularl because of the large number of TB patients, who generally receive only a one-month supply of medication. This requires such payments to have monthly appointments, which Public Health Department staff prefers in order that treatment may be more easily monitored, given that tuberculosis is highly contagious and therefore a public health concern.

To assess the claim that few Public Health Pharmacy prescriptions are filled in standard quantities, we requested a statistical report from the SCVHHS Pharmacy computer system that reported data for all 43,526 pill or capsule prescriptions filled by the Public Health Pharmacy in FY 2002-03. For each medication prescribed, the name of the medication and the strength prescribed, usually in milligrams, were reported. The

report also provided the number of prescriptions filled by prescription size, 30 pills, 60 pills, 90 pills, etc. Excluded from the analysis were contraceptives, which are typically provided to patients in a prepackaged form. To analyze the data, we looked at the 63 medications and strengths that accounted for at least 100 prescriptions filled in FY 2002-03. Cumulatively, these 63 medications accounted for about 80 percent of all pill and capsule prescriptions filled by the Public Health Pharmacy in FY 2002-03.

Analysis of this data showed that in fact, the Public Health Pharmacy does fill most prescriptions in standard quantities. The most common quantity was 30 pills, which accounted for 21,737 prescriptions, or nearly 50 percent of the total. In fact, prescription sizes of 30, 60, 90, 100 and 120 pills each cumulatively accounted for 30,268 prescriptions, or about 70 percent of the total prescriptions filled.

Furthermore, the analysis also showed that not only were there standard quantities for most prescriptions, but a relatively few prescription strengths, which presumably should relate to pill sizes, also predominated. The following table shows the 11 most common strengths, the number of medications prescribed at each strength, and the number of prescriptions for these medications filled in FY 2002-03 in standard quantities.

Table 4.2

Analysis of Most Common Prescription Strengths and Quantities Dispensed by the Public Health Pharmacy in FY 2002-03

Prescription Strength	Medications at This Strength	Number of Prescriptions by Prescription Size 30	60	90	100	120	Total
300 Mg Tablet	3	13,555	552	17	559	0	14,685
50 Mg Tablet	5	4,619	152	39	452	27	5,331
10 Mg Tablet	3	783	80	256	86	2	1,220
500 Mg Tablet	5	116	235	235	320	214	1,174
300 Mg Capsule	2	40	973	17	1	0	1,032
25 Mg Tablet	3	638	73	8	267	1	1,014
100 Mg Tablet	4	254	427	6	104	30	821
40 Mg Tablet	2	327	289	41	103	3	767
400 Mg Tablet	3	127	291	123	72	32	691
20 Mg Tablet	5	312	81	93	83	0	573
600 Mg Tablet	3	176	99	22	41	15	382
Total 11 Strengths	**38**	**20,497**	**3,252**	**857**	**2,088**	**324**	**27,690**

As the table shows, only 11 medication strengths, accounting for 38 different strengths and varieties of medications, and five different prescription sizes, account for 27,690 prescriptions filled by the Public Health Pharmacy in FY 2002-03. This figure represents about 63 percent of the tablet or capsule prescriptions filled by the Pharmacy. Furthermore, while prescriptions for the tuberculosis medication isoniazid accounted for about half the prescriptions in the table, the list also includes medications to treat HIV/AIDS, hypertension and high cholesterol, among other ailments.

This finding regarding the Public Health Pharmacy's use of standard prescription sizes and strengths parallels a similar analysis conducted for the May 2000 Management Audit of Santa Clara Valley Medical Center. The analysis in that report, which reviewed the seven outpatient pharmacies associated with Valley Medical Center and its clinics, also found that standard prescription sizes were used. The audit recommended that the SCVHHS establish a combined prescription refill and prepackaging center at a consolidated pharmacy on the Valley Medical Center campus, to take advantage of higher speed prescription technology that was available, to reduce patient waiting times and reduce space and staffing demands.

The desirability of alternatives to the Public Health Pharmacy's current mode of operation is reinforced by recent problems with the Pharmacy computer system. During a visit to the Pharmacy to confirm other information on July 29, 2004, Management Audit staff observed a sign posted at the Pharmacy service window, advising patrons that due to computer system problems, a wait of up to 30 minutes could be required to fill prescriptions. Pharmacy staff on duty that day reported that the computer problem had something to do with insufficient capacity in the computer system, and was in the process of being addressed by SCVHHS information technology staff. While waiting times have been a problem at other SCVHHS pharmacies in the past, this has not been a major issue at the Public Health Pharmacy, because of its small volume. The addition of long waits for service at the pharmacy, in combination with the other issues identified in this section, reinforces the case to shift workload out of the Public Health Pharmacy, where possible, to a centralized refill facility.

In the course of work on this audit, Management Audit staff learned that this recommendation of the previous VMC audit is now being pursued by SCVHHS. Specifically, on May 18, 2004, the County Procurement Department, working with SCVHHS pharmacy staff, issued a Request for Proposal for Santa Clara Health and Hospital System Pharmaceutical Distribution and Pharmacy Automation Services. This proposal process reflects the pending completion of the County's existing agreement with the Cardinal Health, its current drug distributor, through whom the County purchases drugs through the Novation Group Purchasing Organization.

Most significantly for this analysis, Section 3.1 of the Scope of Work in the Request for Proposal states:

"Outpatient Automation: The County is interested in automation equipment for its outpatient pharmacies, and is particularly interested in an automated, centralized refill operation . . . Outpatient Automation, for the purposes of this Request for Proposals, is defined as a centralized, robotic dispensing device interfaced with Santa Clara County's Pharmacy Information System, which can pick, count, bottle and label the higher-volume prescription drugs at an off-site dispensing center."

We strongly support the SCVHHS decision to pursue implementation of the prior audit recommendation, and recommend here that Public Health Pharmacy prescription refills be included in a centralized facility. We noted in our earlier finding that 54.6 percent of all Public Health Pharmacy Prescriptions were refills. However, we believe the percentage is even higher for the standard prescription sizes reported in Table 4.2,

because more than half the prescriptions which were for isoniazid, which is normally taken once daily for six to 12 months, according to pharmaceutical literature, but is most often dispensed by the Pharmacy in 30-day doses. Furthermore, the table also included significant numbers of prescriptions for pyridoxine, rifampin and pyrazinamide, other tuberculosis medications taken over long periods.

Assuming the reported number of prescriptions for the four medications were 90 percent refills, and assuming the prescriptions for all other medications reported in Table 4.2 were 54.6 percent refills, based on the data reviewed earlier in Table 4.1, approximately 21,200 prescriptions, or about 1,800 prescriptions per month, reflect refills. According to Public Health Pharmacy management, Pharmacy staffing for pharmacists and pharmacy technicians reflects a productivity standard of about 1,250 prescriptions per day, which is the productivity standard for SCVHHS pharmacists. Based on this standard, integrating the Public Health Pharmacy into a proposed centralized prescription refill facility for SCVHHS would permit approximately 1.5 positions to be eliminated. In making this recommendation, we also note that as part of its FY 2004-05 budget reduction plan, SCVHHS is also proposing to move the existing Refugee Clinic from its current location at the Valley Health Center @ Lenzen to the Valley Health Center @ Silver Creek. Since VHC @ Silver Creek already has a pharmacy where prescriptions from the Refugee Clinic could be filled, this shift should reduce workload in the Public Health Pharmacy.

Currently, there is vacant half-time pharmacist position. If this position were eliminated, and a filled pharmacy technician position could be eliminated through attrition, salary and benefit savings totaling $127,770 could be achieved. Furthermore, the Assistant Director of Pharmacy position is also vacant through retirement. Theoretically, the staff reduction already recommended, and the shift of workload form the Public Health Pharmacy to a centralized SCVHHS refill facility, should also permit the Public Health Pharmacy to operate with a reduced management. Therefore, we also recommended eliminating the Supervising Pharmacist position, saving an additional $168,746. Total savings equals $296,516.

In recommending this reduction in management, we note that the pharmacy is open 51.5 hours a week, and under our proposal would have direct supervision only 40 hours per week. However, during the course of this audit, we have conducted Pharmacy observations during periods, primarily in the early morning and at night, when direct supervision was not provided. Furthermore, we note that the former Assistant Pharmacy Director for the Public Health Pharmacy retired near the end of fieldwork on this audit, and that the position was left vacant for several months as a result. These factors suggest that the facility could operate effectively with reduced direct supervision, especially considering the reductions in line staff we are also recommended. We would expect that assistance with supervision during vacation and illness of the Assistant Director, under reduced supervisory staffing, could be provided by other SCVHHS pharmacy supervisors, as the Public Health Pharmacy becomes more integrated with the other pharmacies.

The decision as to when a Public Health Pharmacy client is permitted to receive refills via the automated refill system should be made based on protocols established by the

Public Health Department Tuberculosis Clinic. These protocols would assess a client's background, infection status and performance in initial treatment stages to provide guidance for Public Health Department staff, included Tuberculosis Clinic doctors and nurses, and public health nurses who monitor clients in the community, as to when a client could more safety be given responsibility for securing their own medications, without going to the Public Health Pharmacy to do so. Public health nurses also should be able to access information regarding a patient's next prescription refill date as part of the existing patient information system they now use.

There are precedents for this approach. First, the prescriptions reviewed in Table 4.2 included 461 prescriptions of 60 pills, and 559 prescriptions of 100 pills. Since isoniazid is normally taken as a daily 300-mg dose, these larger prescriptions suggest that at least some TB patients are receiving longer-term prescriptions, without a concern that they will go off the medication, and therefore increase the risk of spreading the disease. Considering that TB patients receive regular contact with public health nurses in the community who monitor their care, it is not clear that the additional step of requiring patients to return to the Public Health Pharmacy monthly is always necessary.

Second, as part of its FY 2004-05 budget reduction proposal, SCVHHS is implementing a program of teaching patients to split pills for cholesterol-lowering medications, as a means of reducing medication costs. This program is being established based on individual assessments of patients' ability to follow a pill-splitting regimen. While the medications proposed for this program do not have the importance of TB medications from a public health standpoint, implementation of this program does indicate SCVHHS' confidence in the ability of patients to take more responsibility for their own treatment in order to reduce care costs.

Finally, we note that other counties already integrate Public Health Department functions as part of their regular pharmacy services. In response to a survey question as to how medication are provided to Public Health clients, of five counties responding, only one, San Bernardino County, has a dedicated Public Health Pharmacy. The others dispense medications through outpatient pharmacies that also serve other County health clients, through hospital pharmacies that serve other County health clients, or through contracts with commercial pharmacies.

CONCLUSION

The Public Health Pharmacy is not integrated with the other seven SCVHHS medical care outpatient pharmacies. This subjects clients to inconvenience, by not having access to the Interactive Voice Recorder system to order receive and obtain prescription refills at the closest County pharmacy, even though 54.6 percent of prescriptions filled by the Pharmacy in FY 2002-03 were refills. Furthermore, the Public Health Pharmacy makes only limited use of technology to fill prescriptions more rapidly, even though analysis shows that the 11 prescription strengths and five most common prescription sizes accounted for 63 percent of all tablet or capsule prescriptions filled in FY 2002-03.

RECOMMENDATIONS

It is recommended that the Public Health Department:

4.1 Provide access to the Interactive Voice Recorder system to Public Health Pharmacy clients, permitting them to order refills at all times, and to pick up refills at the County pharmacy most convenient to them. (Priority 2)

4.2 Include the Public Health Pharmacy in the clients to be served by a centralized refill facility the Santa Clara Valley Health and Hospital System is seeking through a Request for Proposal to obtain a new pharmaceutical distributor. Tuberculosis (TB) patients to be served by this system should be selected based on protocols developed by the TB Clinic indicating when it is appropriate to give patients more responsibility for monitoring their own medications. (Priority 1)

SAVINGS AND BENEFITS

Costs to provide access for Public Health Pharmacy clients to the Interactive Voice Recorder system should be minimal, since the system already exists, and there is an existing phone number for Public Health Pharmacy clients to call the pharmacy for refills directly during business hours. Costs of a proposed centralized refill system using high-volume equipment are unknown, but equipment is to be provided by the pharmaceutical distributor selected by SCVHHS through a pending Request for Proposal process, and will presumably be included in the terms of that agreement. In a recent transmittal, the Acting General Services Director stated: "SCVHHS Pharmacy management believes that there is an opportunity to negotiate for additional services to assist the County in maximizing efficiency and savings in the pharmaceutical supply chain management. The pharmaceutical distributor could provide the County with a value-added package including . . . the use of equipment such as automatic dispensing machines, printers and bar coding which would allow the pharmacy to streamline operations and realize operational savings greater than would be possible through direct price negotiations." Implementing this system would permit elimination of two line positions and a supervisor position from the Public Health Pharmacy, for total salary and benefit savings of $296,516 annually.

COMMENTS ON THE PUBLIC HEALTH DEPARTMENT WRITTEN RESPONSE

In its written response to Section 4 of this audit, the Public Health Department stated several objections to the audit findings and recommendations. This addendum provides our additional comments on the Department's response.

Tuberculosis Treatment

First, the Department stated that the tuberculosis treatment regimen is different that that of most illnesses, requiring monthly evaluation by a medical professional for side effects, and requiring many different drugs to be taken in combination, a process made

easier by the blister pack dispensing method. The Department also said clients' medication supplies are aligned with monthly clinic visits so they are received at the same time and multiple trips are not needed.

As noted in the audit finding, we are recommending that protocols be developed by the Department's Tuberculosis Clinic indicating when it is appropriate for patients to take more responsibility for monitoring their own medications, rather than requiring the monthly clinic visit. As noted in the finding, tuberculosis treatments, such as isoniazid, normally occur on a long-term basis of six- to 12 months, providing the opportunity to observe a patient for a period of time to determine whether side effects from the medication are occurring, allowing the monthly visits to be terminated after a period of time. In regard to the Department's comment that some dosages require individual compounding by pharmacy staff, our observation is that some do, but many don't. We observed many prescriptions being filled by Public Health Pharmacy pharmacists and technicians by taking already-prepared pills and repackaging them for the proper number of doses. We also note that isoniazid in 300 mg, 30-pill prescriptions, which accounted for 30 percent of prescriptions filled by the pharmacy in the period examined, was prepared in advance, with dozens of bottles of that medication kept on hand in the pharmacy.

Assistant Director of Pharmacy

In regard to the Assistant Director of Pharmacy position, we have not recommended eliminating this position, because we are aware of the other duties it oversees. However, part of the responsibility is to oversee the existing dispensing staff, which is why a separate Supervising Pharmacist position is part of the pharmacy's existing staff. We note that in an e-mail on May 13, 2004, the Supervising Pharmacist, identifying herself as such, reported the retirement of the Assistant Director of Pharmacy and her assumption of his responsibility, meaning either that she fulfilled both roles during the period immediately following his retirement, or that line staff was promoted temporarily to supervisor status, leaving a line vacancy.

Factual Comments

The number of Assistant Directors of Pharmacy was taken from the SCVHHS Telephone Directory as of 10/31/01, which showed four outpatient and one inpatient assistant director.

The number of outpatient pharmacies was based on the workload information provided by the Department, which reported, in a single report, information on the VMC Outpatient, Moorpark, East Valley, Chaboya, Valley Health Center, Silver Creek and South County pharmacies.

The Public Health Pharmacy refill rate was calculated from monthly reports prepared by the pharmacy and obtained by Management Audit Division staff which report, each month, the number of new and refill prescriptions. The Department appears to be redefining a percentage of refills from those reports as new prescriptions, based on the requirement for a clinical evaluation prior to permitting the refills to occur. As we have

noted in the audit finding, it may be possible to avoid the clinical evaluation for some tuberculosis patients that are far along in their treatment regimen.

We disagree with the statement that the data in Table 4.2 is flawed. The purpose of the table was to show that a high percentage of prescriptions filled by the Public Health Pharmacy were filled in common pill sizes, based on miligrams, and in common numbers of dosages, indicating the potential for including the Public Health Pharmacy in the central refill operation that is being pursued by the Santa Clara Health and Hospital System. This analysis parallels the prior analysis in the May 2000 audit of Santa Clara Valley Medical Center which recommended a centralized refill center. It is also not clear on what basis the Department is stating that prescriptions constituting less than 2 percent of workload or fewer than 10 prescriptions per day do not justify automation, since the automation proposed is in combination with other SCVHHS pharmacies.

Lastly, the Department stated that the centralized refill center is initially being designated for 340(b) eligible patients. Under this federal program, the County, because it receives certain federal grants, is eligible to purchase drugs at discounted prices from pharmaceutical manufacturers. The department stated that it was concern that if drugs from this program were dispensed to non-eligible patients, such as patients of the Public Health Pharmacy, eligibility for the program could be lost, and thereby the discounted drug prices. However, the requirements of this program do not require drugs purchased from this program and drugs purchased elsewhere and dispensed to different groups of patients to have separate dispensing machinery, as long as the drugs assigned to each program are properly accounted for. The Office of Pharmacy Affairs in the federal Bureau of Primary Health Care addresses this question on its Internet site, as follows:

"Q3. Do I have to maintain separate inventories to show that there is no diversion of drugs purchased under 340B?

A. OPA does not require separate inventories. Covered entities are encouraged to utilize separate purchasing and dispensing records. You may proposed alternative tracking systems to the OPA. However, you must comply with State pharmacy laws and regulations."

Based on this response, the Department needs to develop a method to account for drugs dispensed for Public Health Pharmacy clients from the centralized refill facility. By doing so, the Department could still take advantage of the staff savings identified from using the facility. This is not a complex problem, and based on the OPA response, has probably been successfully resolved in other jurisdictions.

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Section 5. Medical Therapy Unit Billing

- **During the first half of Calendar Year (CY) 2004 and in prior years, therapists in the California Children's Services Medical Therapy Program (MTP) did not follow a consistent process to fill out and turn in charge slips used to bill Medi-Cal. Therapists generally performed this function when they had time rather than on a daily basis. Therapists also stated that their focus was to provide therapy, not to submit charges, daily. Furthermore, the Public Health Department lacked a policy or procedure regarding therapists' billing practices. In CY 2003, therapists charged only 85.8 percent of direct services and a little more than half of other billable services that they provided to patients.**

- **As a result of the failure to bill $110,092 in therapy services, the MTP lost as much as $59,476 in Medi-Cal revenue in CY 2003. The MTP believes that the implementation of a new case management and billing system will capture more of the charges, since Patient Therapy Records (PTRs), rather than charge slips, are being used to bill Medi-Cal. Program managers insist these records are accurate. However, like charge slips, PTRs are not filled out in a consistent manner. Therapists fill them out when they have time, which may be weekly, monthly or quarterly. In doing so, they rely on their memory, notes or calendar to recall and document all services provided to each of their patients, which could be as few as 30 or more than 40 patients.**

- **The Public Health Department should require therapists to update their PTRs daily and to submit their PTRs at the end of each month. Therapists should also receive instructions on how to fill out the PTRs in order to limit any confusion or inconsistency over the process. Five of seven counties surveyed developed similar policies and procedures that can be used as a template for Santa Clara County. Lastly, Supervising Therapists should review a sample of PTRs every two months to ensure that they are being filled out properly and discipline therapists who are found in violation of departmental policy and procedure.**

Within California Children's Services (CCS), the Medical Therapy Program (MTP) provides school-based physical and occupational therapy services to medically eligible children. Typically, these children fall into two categories: children with a neuromuscular, musculoskeletal or muscular disease, or children under 2 years old who have certain neurological findings that suggest a high chance that they may have an eligible physical disability, but who do not yet have symptoms. Physical therapists and occupational therapists in the program help these children "...to be independent in such areas as getting around, getting in and out of a wheelchair, walking, feeding, dressing, staying clean and neat, and home skills."[1] In Santa Clara County, a majority of these services are provided at three main medical sites, Medical Therapy Units (MTUs) located at public schools, and five satellite offices. The MTUs – Chandler Tripp, Juana Briones and South Valley – are certified as Outpatient Rehabilitation Centers by the State, which ensures they are adequately equipped to provide therapy services and

[1] "Family Handbook: What Parents Should Know About California Children's Services," page 12

allows them to bill the State for services provided to Medi-Cal eligible patients. However, the services can also be provided at a child's health maintenance organization or health insurance provider.

Staff within the MTP consist of a single Chief Therapist, four Supervising Therapists, four Senior Therapists, 30 Staff Therapists, and five Therapy Aids. The MTP staff also receive clerical support, including claims processing, from staff in the CCS Support Services Unit. The Chief Therapist, Supervising Therapists and Senior Therapists supervise and provide clinical support to the other therapists, but normally do not maintain a caseload. Regardless, all therapists with a managerial role end up working on cases due to the high demand for therapy services and to cover for therapists on leave or vacation. As a result, Senior Therapists typically spend half their time on cases and the other half training new therapists to the program. Supervisors also are treating patients, up to 10 per week, although they are primarily responsible for supervising MTU operations.

The MTP currently treats more than 900 patients. Each physical or occupational therapist is assigned a caseload of 30 to 40 patients. Since many patients require both physical and occupational therapy, they are assigned to a therapist in each concentration. A majority of patients are seen once a week for one hour at a time, but the frequency depends on the diagnosis. Each patient also has a Medical Therapy Team consisting of a physician, a physical therapist, an occupational therapist, the family and a nurse case manager. The team holds a Medical Therapy Conference (MTC) in order to discuss and prescribe the services, such as therapy or surgery, which would best meet the patient's needs. The team can also order medical equipment and coordinate tests for the patient. Approximately 60 to 70 percent of patients participate in the MTC, with the remainder receiving care from outside physicians or special centers.

Direct and Indirect Therapy Services

According to guidelines from the California Department of Health Services (CDHS), Staff Therapists are supposed to provide 29 hours per week of direct patient care, and are given another 10 hours per week to spend on indirect services. The remaining hour should be spent participating in the development of patients' Individual Education Plans (IEPs) with the schools, if applicable. Therapists who drive to satellite offices to meet with patients can also deduct their travel time from the hours allocated to direct services. Therefore, if a therapist travels one hour per week to treat patients off-site, then the therapist is required to spend only 28 hours on direct patient care. The CDHS defines direct and indirect services as follows:

- Direct services: Those services directed to the patient by the therapist. The patient is always present.

- Indirect services: Those patient-related services performed by the therapist on the patient's behalf. The patient may or may not be present.[2]

[2] California Department of Health Services, California Children Services, Bulletin 83-95, March 1, 1984

A review of a sample of frequency rosters, which list each patient in a therapist's caseload and the frequency by which the patients are seen by the therapist, indicates that Staff Therapists adhere to the State guidelines. In February 2004, we collected frequency rosters from 16 out of 30 therapists. The rosters showed that the eight full-time therapists included in our sample carried a caseload of between 34 and 47 patients, and performed a range of 26.6 to 29.5 hours per week of direct services. Five of the therapists, moreover, included travel time in their calculation of direct services hours, which is allowed as previously noted. As shown in Table 5.1, therapists with a lower number of patients do not necessarily spend less time providing direct services, since some patients require more frequent therapy, limiting the number of patients that therapists can treat in any given week. Therapists also maintain the recommended number of hours of direct patient care through ongoing reviews of their frequency rosters and individual patient files by the Supervising Therapists.

Table 5.1

Sample of Full-time Therapist Caseloads as Reported on Frequency Rosters from February 2004

Therapist	Medical Therapy Unit	Total Patients	Hours Per Week	Travel Included
A	Juana Briones	35	29.5	Yes
B	South Valley	42	29.0	No
C	Chandler Tripp	37	28.5	Yes
D	Chandler Tripp	35	28.2	Yes
E	Chandler Tripp	34	28.1	Yes
F	South Valley	42	27.9	No
G	Juana Briones	47	27.2	Yes
H	Chandler Tripp	47	26.6	No

The amount of time spent providing therapy services for each patient is recorded on a Patient Therapy Record (PTR). This record allows therapists to document the type and amount of services provided to patients on a daily and monthly basis (see Attachment 5.1). PTRs specify that treatments, evaluations and case conferences qualify as direct services, while consultations and documentation, such as writing notes in a patient's file, are considered indirect services. Therapists can also document on the PTR whether they conduct a field visit and incur any mileage for a patient. Lastly, if a therapist or patient is not available for an appointment, then the reason for the absence can be noted. A PTR thus serves as a complete record of the course of treatment administered to each patient, though the Medical Therapy Program (MTP) lacks any policy or procedure to guide therapists in filling out this document.

Old Billing System: Charge Slips

During the first half of Calendar Year (CY) 2004 and in prior years, therapists also recorded their time on charge slips, which were used to bill Medi-Cal. Charge slips listed only services, direct and indirect, that generated Medi-Cal reimbursements. These services included treatments, evaluations, case conferences, consultations, field

visits and travel, with Medi-Cal reimbursements ranging from $1.77 per mile for travel to $34.84 for the first 30 minutes of an evaluation, as of February 6, 2004. Under this system, physical and occupational therapists filled out charge slips for all patients, regardless of Medi-Cal eligibility, so that the State had a complete picture of the services being provided by MTUs. However, in speaking to MTP staff, we learned that therapists were not billing for all services they provided. In fact, therapists did not fill out charge slips every day or every week but rather when they had time. The focus of therapists was on providing care to patients, not billing for those services. We also found that the program did not have a policy or procedure on when and how therapists should fill out and submit their charge slips. By coaching and prodding therapists to turn in their charge slips, supervisors estimated that they could increase the amount of Medi-Cal revenue that was generated by 20 percent. It was also our observation that supervisors provided very little oversight of the billing function.

Therefore, we decided to compare how much time therapists were providing in billable services and how much of that time was actually charged. In order to conduct this analysis, we collected charge data from the Santa Clara Valley Health and Hospital System Financial Planning and Analysis Unit and documented billable service data from PTRs for a sample of patients in CY 2003. Out of more than 900 patients, we systematically selected 42, but since four files were missing and two cases were closed, our final sample consisted of 36 patients. Table 5.2 shows a comparison of the units of service that were provided and charged for these patients. Our calculation of units of service is based on a count of how many evaluations, treatments, case conferences, or other billable services were provided or charged to the patients in our sample during CY 2003. Only 85.7 percent of direct services and a little more than half of other billable services that were being provided were also being charged.

Table 5.2

Comparison of Units of Service Provided and Charged
For a Sample of Patients in Calendar Year 2003

Billable Services	Units of Service Provided	Units of Service Charged	Percent Charged
Direct			
Evaluation	37	32	86.5%
Treatment	1,295	1,112	85.9%
Case Conference	64	53	82.8%
Direct Units	*1,396*	*1,197*	*85.7%*
Other			
Consultation	19	19	100.0%
Field Visit	46	21	45.7%
Mileage	4	0	0.0%
Other Units	*69*	*40*	*58.0%*
Total Units of Service	**1,465**	**1,237**	**84.4%**

Based on this data, including the amount of time spent providing each service, and the Medi-Cal fee schedule, we calculated therapists failed to charge the State for $4,370 in services provided to patients within our sample in CY 2003. Extrapolating this data to the population of more than 900 patients, we estimate that the program failed to charge $110,092 in services in CY 2003. However, since only 54 percent of patients were Medi-Cal eligible, according to the FY 2003-04 caseload, the program lost as much as $59,476 in Medi-Cal revenue in CY 2003. The amount of lost Medi-Cal revenue could be less due to patients whose coverage was different or denied. Actual FY 2003-04 Medi-Cal revenue for therapy services amounted to $179,785, which we estimate could have been higher by as much as 33 percent, assuming that the rate at which charges were submitted during the first half of CY 2004 was similar to CY 2003.

New Billing System: Patient Therapy Records and CMS Net

In April and May 2004, the MTP planned to transition to a new system for case management and billing through a web-based program, called CMS Net. However, in visiting the MTUs in early March, we learned that only Chandler Tripp was near to completing the registration process necessary for entering and billing services. Once the program fully implemented the new system, therapists need only chart their time on PTRs, which are then turned into their MTU at the end of each quarter, so that Support Services staff can enter the data into the medical therapy pages on CMS Net. Some bills, such as those being closed, would be submitted on a more regular basis. As a result, the State is still able to collect data on all patients as well as reimburse the County for services provided to Medi-Cal eligible patients. The MTP believes that it will capture more charges under the new system, since therapists only need to fill out and submit PTRs, which supervisors insist are accurate.

However, like charge slips, we found that PTRs are not filled out in a consistent manner. Therapists stated they fill them out when they have time, which may be weekly, monthly or quarterly. In doing so, they rely on their memory, notes and calendar to recall and document all services provided to each of their patients. When reviewing PTRs to document billable services, we also observed that few therapists totaled the number of units provided each month for a particular service. As noted previously, the program has no policy or procedure on filling out PTRs. Whereas, Santa Clara County allows therapists to fill out PTRs on their own time and in their own way, five other counties reported that they specify in writing how therapists should fill out their PTRs. Four counties also require therapists to submit their PTRs more frequently than at the end of each quarter, as is done in Santa Clara. Both Los Angeles and San Diego Counties require daily submission of therapy services, while this process is conducted monthly in Alameda and San Bernardino Counties. Table 5.3 on the following page summarizes the results from our survey with counties.

Table 5.3

Summary of Survey Results on Medical Therapy Unit Billing

	Alameda	Los Angeles	Orange	Riverside	San Bernardino	San Diego	Santa Clara
Method used to record services	Patient Therapy Record	Patient Therapy Record and Computer System	Patient Therapy Record	Patient Therapy Record	Patient Therapy Record	Patient Therapy Record	Patient Therapy Record and Computer System
Frequency that therapists submit services for billing	Monthly	Daily	Quarterly	Quarterly	Monthly	Daily	Quarterly
Written policy or procedure on documenting services	Yes	Yes	Yes	No	Yes	Yes	No

We were able to review the policies and procedures for three counties: Los Angeles, Orange and San Bernardino. In Orange County, the policy and procedure states that its purpose is to provide uniform direction and a systematic process to document all therapy services, as well to comply with State mandates for Medi-Cal billing procedures. This is accomplished by specifying when to complete and submit PTRs, describing the information to be included on each PTR, and explaining how to document units of service. Los Angeles and San Bernardino Counties likewise have instructions for completing the PTR that defines direct, indirect and nonrecordable services, with examples of each, and explains how to record these services. Los Angeles County also has a procedure for entering therapy services documented on PTRs into an Automated Case Management System that acknowledges, "Frequent recording increases the chance of capturing all the services provided."

Similar to these counties, the Santa Clara County Public Health Department should establish a written policy and procedure stating that therapists are required to update their PTRs daily and to submit their PTRs at the end of each month. This will help to increase the frequency by which PTRs are filled out, thereby limiting the number of services that are not captured for case management and billing purposes. Requiring PTRs to be submitted monthly, rather than quarterly, will also assist staff in catching and correcting mistakes early on and contribute to a more even work flow among staff who enter the information into CMS Net. In addition to these requirements, the policy and procedure that the Public Health Department develops should include instructions on how to fill out PTRs, with definitions of services and explanations of how to quantify services, in order to limit any confusion or inconsistency over the process. In implementing these recommendations, we suggest that the Public Health Department use the policies and procedures from other counties as a template.

Finally, Supervising Therapists should be given the responsibility for reviewing a sample of PTRs every two months, as is done with the frequency rosters and patient

files, to ensure that they are being filled out properly. The PTRs should represent a random sample of therapists and be reviewed unannounced in the middle of the month, rather than the end of the month when therapists submit their PTRs. Establishing this oversight should encourage therapists to comply with departmental policy and procedure, but therapists found in violation should be disciplined by their Supervising Therapist.

CONCLUSION

The Medical Therapy Program (MTP) has lost Medi-Cal revenue due to therapists failing to charge for all services that they provided to patients. A new case management and billing system, which uses Patient Therapy Records (PTRs) to document services rather than charge slips, may help to capture more of the revenue. However, the MTP lacks a written policy and procedure advising therapists when and how to fill out the PTRs so that the process is done in a consistent manner. Unless the Public Health Department develops such a policy and procedure for the MTP, the County should expect to lose some amount of Medi-Cal revenue each year.

RECOMMENDATIONS

It is recommended that the Public Health Department:

5.1 Establish a written policy and procedure for the Medical Therapy Program on filling out and submitting the Patient Therapy Record (PTR). This document should require therapists to update PTRs daily and to submit PTRs at the end of each month, as well as to provide instructions on how to fill out PTRs. (Priority 2)

5.2 Require Supervising Therapists to review a sample of Patient Therapy Records every two months and discipline therapists that violate departmental policy and procedure. (Priority 2)

SAVINGS AND BENEFITS

By implementing the recommendations above, the County would limit confusion over and increase consistency in how Medical Therapy Program (MTP) therapists fill out their Patient Therapy Records. In addition, the County would incur no costs but could increase the number of therapy services captured and the amount of Medi-Cal revenue generated by the MTP, although some of this increase may be contributed to the new case management and billing system.

State of California—Health and Human Services Agency

Department of Health Services
California Children's Services

PATIENT THERAPY RECORD

1–15 minutes = 1 unit
16–37 minutes = 2 units
38–52 minutes = 3 units
53–67 minutes = 4 units

"T"—Therapist not available:
(1) Ill
(2) Medical appointment with another child
(3) Meeting
(4) Other

"P"—Patient not available:
(1) Ill
(2) School cancelled
(3) Parent cancelled
(4) Failed appointment
(5) Holiday
(6) Other

S—Patient cooperation was:
(A) Good
(B) Fair
(C) Poor

O—Direct/Indirect

A—Response to treatment:
(A) Good
(B) Fair
(C) Poor

P—Plan:
(A) Continue
(B) Modify
(C) Re-evaluate
(1) MTU conference
(2) Private
(3) CCS special center

	Month:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
	S.																																	
DIRECT	O: Treatment																																	A
	Evaluation																																	B
	Case conference																																	C
	Field visit																																	D
	Mileage																																	E
INDIRECT	Consultation																																	F
	Documentation																																	G
	Other																																	H
	A:																																	
	P:																																	

	Month:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
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DIRECT	O: Treatment																																	A
	Evaluation																																	B
	Case conference																																	C
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	A:																																	
	P:																																	

	Month:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
	S.																																	
DIRECT	O: Treatment																																	A
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	Other																																	H
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	P:																																	

Signature(s)				Date
☐ Physical Therapy ☐ Occupational Therapy	Treatment diagnosis		Primary diagnosis	
Patient name		Date of birth	Social security number	MTU and county number / CCS number
Year / Quarter	Medical direction	County of legal residence	Therapy D/C	

MC 2946 (9/01)

Section 6. Grant Indirect Cost Recovery

- **The Public Health Department applies for and receives approximately 60 grants totaling about $33 million annually. However, the Department has no policy or procedure in place to calculate a Department-wide indirect cost rate each year for use in grant budgets or for use in reporting the General Fund cost of grant-funded services to the Board. Consequently, transmittals to the Board do not report General Fund impacts of grants, when in fact the General Fund subsidizes grant services. Furthermore, responsibility for the calculation of an indirect cost rate is assigned to the Public Health Department Administration, rather than staff in the Santa Clara Valley Health and Hospital System (SCVHHS) Fiscal and Accounting unit.**

- **As a result, the Public Health Department does not fully recover all available grant revenue to the County. Indirect rates used by Public Health vary widely and are not supported by workpapers. Although the FY 2002-03 Public Health Department indirect cost rate was approximately 44 percent, the average indirect cost rate recovered in grants in FY 2002-03 was only 7 percent. Because grant awards have not been maximized, revenue opportunities exist to increase the County reimbursement for indirect costs without reducing direct services.**

- **The SCVHHS Controller should be assigned the responsibility to calculate the annual Public Health Department indirect cost rate, and to review all grant budgets prior to submission to ensure that indirect costs are fully claimed. Transmittals to the Board of Supervisors requesting approval of grant awards should include calculated indirect costs, budgeted indirect costs and an explanation of any grant that will not recover all indirect costs. Whether to accept grant funds that do not fully recover indirect costs is a policy decision for the Board of Supervisors. By implementing these recommendations, the Department can improve the calculation of indirect costs and claiming procedures, ensure that all grant applications consistently claim indirect costs, and increase indirect cost reimbursement by at least $786,098 annually.**

Background

In FY 2002-03, Public Health received $41,803,243 from the General Fund to support expenditures not funded by revenue[1]. Non-General Fund revenue equal to $45,776,298 in FY 2002-03 included Realignment funds, fees, charges and grants from the State of California and the Federal government, as well as funding from foundations such as the First Five Commission. Grants accounted for $33 million of the non-General Fund revenue received. Each time a new grant is awarded, the County incurs additional incremental indirect costs, including support staff time, time required by administration to oversee the program and other indirect costs such as utilities and building maintenance. This finding will address the calculation, budgeting and recovery of these

[1] STARS Period 14

indirect costs. The Federal Office of Management & Budget's A-87 Cost Principles for State, Local and Indian Tribal Governments, includes a definition of indirect costs:

> ...costs incurred for a common or joint purpose benefiting more than one cost objective, and not readily assignable to the cost objectives specifically benefited, without effort disproportionate to the results achieved.

Local governments are provided with specific instructions regarding the calculation of indirect costs and the inclusion of such costs in state and federal grants. The State of California Accounting Standards and Procedures for Counties (May 2003) directs counties to maintain an inventory of all grants, including recovered indirect costs and actual indirect costs of each grant. The creation of such an inventory in Santa Clara County is under review based on a recommendation in the recent Management Audit of the Office of the Sheriff. Section 1430 of State Controller's Handbook of Cost Plan Procedures for California Counties provides guidelines in relation to state and Federal grants:

> ...counties should monitor the reimbursement process to ensure that maximum reimbursements have been received for all program costs, including indirect overhead. Additionally, any departments that charge outside agencies for their services should be monitored to ensure that the billing structures used recover all applicable costs, including indirect overhead.

This handbook also includes a statement that counties should be able to apply unreimbursed indirect costs towards matching requirements when grantors set limits on the indirect costs that can be claimed specifically as indirect expenses:

> Some federal grants do not provide funds for the reimbursement of indirect costs. However, if these same grants require the county to "match" a specified portion of the overall costs of the grant program, the indirect overhead costs identified in the cost plan can be included in the county's matching share. (Section 1450)

The administrative costs of the Public Health Department are significant, totaling $20.5 million in the 2003 *Analysis of County Functions Funded From General Fund Resources to Determine Minimum Legal Funding Requirements.*[2] Because grants in the Public Health Department represent 36 percent of total expenditures, it is reasonable to conclude that the elimination of all grants would result in the elimination of a significant amount of administrative staff and indirect costs. Therefore, the discussion of these costs and the recommendations herein are important to the financial management of the Public Health Department.

Pursuant to federal regulations authorized by the Budget and Accounting Act of 1921 and several other related acts, the Federal Office of Management and Budget (OMB) has prepared OMB Circular A-87, entitled *Cost Principles for State, Local and Indian Tribal Governments.* This document is used by counties to develop their overall countywide

[2] This amount included the entire EMS budget and Intra County charges.

cost allocation plan, including principles to be applied when determining allowable indirect costs. Local jurisdictions have the discretion to apply for an Indirect Cost Rate Proposal (ICRP) from what is called the "cognizant agency." In that capacity, the Federal Health and Human Services Agency designated the State Controller's Office as the cognizant agency to oversee implementation of A-87 cost plan procedures in California. Accordingly, the State Controller has developed and issued a handbook of procedures and requirements to be followed by counties. OMB Circular A-87 defines the tests to be used by local governments when determining those costs that can be charged to federal and State funded grants and programs. This handbook has been replaced with a document that includes specific language regarding the amount of indirect costs that should be included in federal and State grants. The document directs federal agencies to encourage local jurisdictions to develop an ICRP if they haven't already done so.

As an example of the importance of submitting an ICRP, the State of California has published an accounting manual for all State departments that discusses full cost recovery. This document instructs staff to seek full cost recovery whenever allowable and to complete and submit an ICRP to the cognizant agency, in a manner consistent with Government Code (GC) § 11010 and 11270.

The Management Audit Division has made previous recommendations intended to improve the calculation and recovery of costs from external funding sources. A recommendation in the *Management Audit of the Controller* to increase staff to oversee and coordinate cost accounting functions in the Controller-Treasurer Department was intended to increase the role of the Controller-Treasurer in calculations such as indirect rates. An alternative recommendation by the County Executive to require Departments provide more detailed revenue information as part of the budget process was approved. In the case of recovered grant indirect costs, this reporting does not occur.

Federal, State and private agencies limit reimbursement of indirect costs below actual costs in many instances. The Department must make strategic decisions about how high an indirect cost rate to include in grant applications, given the competitive nature of such grants and the desire of the granting agency to maximize the direct services funded by the grant. The Public Health Department has elected not to prepare or submit an ICRP to its cognizant agency for approval. However, the ICRP prepared each year by the Controller's Office for inclusion of indirect costs in Public Health SB 90 claims may constitute such a rate, as discussed later in this finding. The recovery of indirect costs in grants is a policy decision for the Board of Supervisors. However, actual indirect costs should be reported to the County Executive and the Board of Supervisors regardless of whether these cost can in fact be recovered.

Indirect Cost Rate of the Public Health Department

There are three primary components of the indirect cost rate in the Department of Public Health: county-wide costs allocated to the Department, the SCVHHS corporate charge to the Department, and the indirect costs within the Public Health Department. For FY 2002-03, the indirect cost rate of the Public Health Department was approximately 44 percent, based on the following calculation:

Table 6.1

FY 2002-03 Public Health Indirect Rate

County Cost Plan (EMS cost deducted)	3,047,815
SCVHHS Corporate Charge	4,242,176
Public Health Internal Indirect Costs	14,156,843
Total	**21,446,834**
Divided by Salary & Benefits	48,784,975
Indirect Rate	44.0%
Corrected SB 90 PH Indirect Rate	45.6%

Management Audit staff calculated the indirect cost rate above by adjusting the ICRP calculated for the SB 90 mandate claim process by a contracting agency with specific expertise in the calculation of these rates. Adjustments include reducing the county-wide cost allocation by the EMS amount of approximately $2.5 million, as suggested by the Department, and by subtracting the already included components of the corporate charge and the cost allocation plan amount included in the ICRP. As a retrospective calculation, the precision of the indirect cost rate is less pertinent than future indirect cost rates to be calculated, but it does, nonetheless, illustrate the significant difference between the indirect amount claimed in grants and the actual indirect cost rate incurred during FY 2002-03. This rate may require adjustments to account for administrative salary costs that have been included as direct or indirect costs in grant budgets and claim submissions. The recommended centralized preparation and management of the Public Health Department indirect cost rate will ensure that such adjustments are made each year.

Each year the Controller-Treasurer, in collaboration with a contract agency, prepares SB 90 claims for submission, including indirect costs calculated using a Department-wide indirect cost rate for each department that performs the mandated function. The FY 2002-03 SB 90 Public Health claims submitted to the State of California included an indirect cost rate of 56.6 percent. Management Audit staff identified that County-wide allocated costs had incorrectly been included twice in the calculation. The indirect cost calculation was corrected by the Controller-Treasurer, resulting in an adjusted 45.5 percent indirect cost rate and a reduction in the SB 90 claim amount that will be submitted to the State. We recommend that the Department seek an opinion from the Office of the County Counsel confirming that the ICRP included in SB 90 claims and used as the basis to reimburse the County represents an approved ICRP from the

County's cognizant agency. If so, this rate can be claimed in federal and State grants that limit indirect costs to 10 percent, or the approved ICRP rate.

Grant Transmittals to the Board of Supervisors

During FY 2002-03, the Board of Supervisors approved 16 Public Health Department grant-related transmittals. These 16 memos include a total grant amount of $16 million in single and multi-year grant awards. Language in 11 of the transmittals indicates that "No County General Funds are required as a result of this action." The language regarding indirect costs for the transmittals indicates that funds remaining after paying for salaries and supplies related to direct services will be allocated towards additional expenditures such as training materials, educational materials and marketing expenses, not the recovery of indirect or administrative expense. One transmittal that delegated authority to the SCVHHS Director to negotiate AIDS grant contracts includes a requirement that there be no County fiscal impact[3]. Because these grants did not completely recover indirect costs associated with the grant funded direct services, the statement in transmittals that grant approval does not require expenditures of General Funds is incorrect. The General Funds required for support services that support grant-funded direct services are a General Fund subsidy of the grant funded programs.

All grant transmittals submitted to the Board of Supervisors by the Public Health Department should include a discussion of the calculated indirect costs of the grant, the budgeted indirect costs to be recovered and an explanation of the difference between these two figures, if one exists. In the City/County of San Francisco, grant transmittals that go before the Finance Committee and the Board of Supervisors must be accompanied by a document related to indirect costs that will not be recovered through the grant. This document provides the Board of Supervisors with the information described above, including the indirect or administrative costs not charged against grants and the justification for the Department not doing so or not being able to do so because of limits imposed by the granting agency.

Budgeting Indirect Costs

Management Audit staff met with analysts who submit expenditures for reimbursement from granting agencies and subsequently record the revenue received. We also reviewed available grant documents to determine the amount of indirect costs submitted for reimbursement in each grant, any language limiting indirect reimbursement and information regarding the total award amount of each grant. The table on the following page presents a categorization of indirect cost rates associated with grants, and indicates that for many grants, the Department either is not allowed to budget any indirect costs or has chosen not to budget these indirect costs.

[3] Board of Supervisors Transmittal dated June 24, 2003 regarding HIV/AIDS Master Agreement.

Table 6.2

Budgeted Indirect Costs in Public Health Grants FY 2002-03

Indirect Percentage Identified	Number of Grants	Budgeted/ Awarded Amount	Percent of Budget
0.0 Percent	17	10,351,271	31.0%
Less than 5.0 percent	4	1,493,457	4.5%
Between 5.0 and 15.0 percent	12	10,884,455	32.6%
15 percent and Greater	13	5,430,249	16.3%
Unknown	16	5,216,655	15.6%
Total	62	33,376,087	

* Note – the Total Budgeted Amount is greater than the amount reported by the Department because in some instances the budgeted amount was not identified, and the claimed or awarded amount was included.

The average indirect cost rate recovered from grants during FY 2002-03, based on available documentation, was 7.2 percent. A weighted average based on the budgeted grant revenue or claimed amount when the budget amount was not identified equals 5.5 percent. The average indirect cost rate identified for those grants where some indirect cost was budgeted equals 11.4 percent. Administrative costs included as direct charges in grants may represent a basis for increasing the average slightly. Based on the information available, the Department did not recover even 10 percent of indirect costs in FY 2002-03. The Department recovered far less than the 15 percent which is cited as a minimum in its draft policy discussed later in this section of the report, and recovered only a fraction of the actual indirect costs incurred in FY 2002-03.

Grant Management in the Public Health Department

The County does not have a comprehensive list of all grants, the related revenues expected and the amount of the award that has been earned and received by the County. An annual report is currently provided to the Health and Hospital Committee that includes the grants of the Public Health Department, the actual revenue earned, and short descriptions of why the actual revenue may be less than the budgeted revenue.

The management of grants and grant-related revenue is a shared responsibility of the Public Health Department Administration and the SCVHHS Finance Agency General Accounting and Accounts Payable Section. This arrangement is the result of the creation of the Health and Hospital System that placed the departments of Public Health, Mental Health, Drug and Alcohol Services, and Valley Medical Center under one administrative organization. The Public Health Department pays a "corporate charge" to SCVHHS to reimburse the health agency for centralized SCVHHS Agency Administration, Finance Administration, General Accounting and Accounts Payable, Patient Billing, Information Services, Housekeeping, Security, Facilities Maintenance and Human Resources services. This charge amounted to approximately $4.2 million in

FY 2002-03. The Controller of the Health and Hospital System has begun a process to reorganize and restructure the management of grants and grant revenues. A comprehensive list of grants is being developed to include much of the information described in this finding. Such information is important to program managers who seek to monitor and maximize the grant revenue for which they are responsible.

Budgeted Versus Realized Grant Amounts

The amount of grant monies actually received by the Public Health Department, and by the SCVHHS as a whole, relative to budgeted grant revenues, is unknown. The Health and Hospital Committee received an Annual Report on SCVHHS Grants in September 2003 that projected unclaimed revenue attached to each grant and accounts for $30,235,512 of budgeted revenue from all grant sources. Of this amount the report includes $25,322,447 as the amount projected to be received in FY 2002-03. However, the $30.2 million dollars budgeted from these grants is less than total grant award amounts that equaled $31.2 million. The Public Health Department reports that grant revenues may be budgeted lower than the total award amount available in a fiscal year when the Department does not expect to be able to expend the entire grant award amount. Therefore, at least $4,913,065 was available as additional reimbursement, given justifiable expenditures and approval by the granting agencies for these expenses to be reimbursed. In the future, this report should include the actual versus budgeted indirect rate for grants, to be provided in the report by the SCVHHS Controller.

As part of its efforts to centralize the management of all contracts, the Public Health Department has begun to create its own list of grants. Contract staff provided a list of grants for FY 2002-03 that indicated the Department had actually received $1.6 million dollars more in grant revenue that had been budgeted. This discrepancy may be the result of the reported actual revenue, including reimbursement of expenditures from the prior fiscal year, or not including adjustments and additional amounts in the budgeted grant revenue. Also, the Public Health Contracts report did not include those grants managed by the Ambulatory Care Health Services unit that are included in the Public Health budget, but programmatically report to Valley Medical Center.

Not maximizing grant revenue occurs for a number of reasons, including difficulty hiring staff, later than expected start-up of new programs, or possibly lower than expected need for the grant-funded service or program. Additionally, grants may be so specific and require such narrow expenditure of funds that the Department is not able to provide the exact service that the grant will support. Grant awards may simply be too high given the type of service. In these cases, not earning the maximum grant award is not an indicator of performance. However, the unearned revenue in grants represents funding that was potentially available to reimburse the County for indirect costs that were not included in the original budget. Grants that do not have dollar or percentage limits on reimbursement of indirect services represent unreceived reimbursement of indirect costs, had such costs been included in the grant application and grant program budget.

Availability of Grant Funds to Pay Indirect Costs

In our review of the ability of the Department to recover indirect costs in grants, Department staff identified several issues. SCVHHS Controller Grants Unit staff stated that the inclusion of appropriate indirect cost rates depended on the rules associated with each grant and on whether or not the program staff preparing the grant application consulted with them before submitting the grant application. Staff also reported that because grant awards are often fixed amounts year to year, they sometimes have not claimed budgeted indirect revenue to cover unavoidable increases in salary expenses. Finally, staff reported that the priority of the Department has been to maximize the delivery of direct services, not to recover incremental indirect costs that the County might have incurred independent of the addition of a single grant program.

These explanations would be reasonable to explain why indirect costs were not fully claimed on grants, if this occurred in a limited number of instances. However, as Table 6.2 shows, for grants accounting for nearly one-third of the grant fund budgeted for the Department in FY 2002-03, no budgeted indirect costs were identified. Furthermore, in no instance was the identified budgeted indirect cost rate equal to the 44 percent actual estimate. This suggests that, were the Board to decide not to pursue such grants, support services staffing and costs in the Department could probably be significantly reduced. As noted previously in this section, the decision whether to pursue grants that do not recover all costs is a policy decision for the Board of Supervisors. The Board has not been given the opportunity to make that decision, because the amounts not recovered have not been reported, reflecting policy choices made by the Department, rather than the Board. Such disclosure allows the Board to consider the relative value of the services provided through the grant against other service needs in the County.

There are also instances when the Department has been able to budget some of what would be traditionally called indirect expenses as direct expenses in grant budgets and claims when administrative functions and the related staff FTE equivalents directly support the grant services. In these instances, these costs should be considered and the ICRP should be revised so that the costs are not double-counted in the overall claim against the grant. Our attempt to determine the indirect cost rate applied to each grant and any known and documented limits on grants required the reconciliation of three different reports from three different sources within the Health and Hospital System. This underscores the need for a single and central organizational unit to be assigned the responsibility to manage and maintain this information, as recommended later in this report.

During the audit, we encountered a wide range of indirect cost rates in the Department, as shown in Table 6.3.

Table 6.3

Public Health Department Indirect Cost Rates

Indirect Rate	Source	Use/Context
7.2%	Grant Document Review	Average Indirect Rate
15.0%	Draft Memo regarding future grant submissions and budgets	Amount Department reported is to be recovered as "indirect" in new grants
25.0%	Public Health Laboratory Fee Calculations	"Overhead" rate used in calculation. The fee calculation also includes a benefit rate.
30.8%	Santa Clara County Survey Response	This rate is preliminary and may have been adjusted.
56.6%	Initial SB 90 Claims FY 2002-03	This is the original rate used in FY 2002-03 SB 90 claims.
45.5%	SB 90 Public Health Claims FY 2002-03	This is a corrected rate based on Management Audit Division Review.

The 30.8 percent indirect cost rate calculated by Public Health Department staff in preparation of fee adjustments for the FY 2004-05 budget was tentative and requires review by staff with accounting expertise and experience. Department staff were not able to provide workpapers or a basis for the 25 percent rate used in Public Health Laboratory Fee calculations. The draft policy that included the 15 percent rate to be recovered in subsequent grants was not finalized at the time field work was completed, and staff report that this amount was included in the draft to reflect the industry standard in calculating indirect cost rates. The variety of indirect cost rates calculated by different departments for various uses underscores the need to assign this calculation to a single unit with specific expertise.

Staff with specific cost-accounting skills and knowledge of State and federal indirect cost rate rules work in the Finance Division of the Health and Hospital System Administration. Therefore, we recommend that the SCVHHS Controller be assigned the responsibility to prepare a Public Health Department indirect cost rate each year. This rate should be prepared in collaboration with the County Controller's Office, which has responsibility for preparation of SB 90 claims. Implementation of this recommendation will ensure that specific workpapers supporting indirect cost rates included in grants and other claims are available should a claim be audited. Additionally, authorizing the SCVHHS Controller to develop an indirect cost rate will ensure that its components are available for the Department to adjust based on specific rules of individual granting agencies. The centralized storage and calculation of the indirect cost rate will provide continuity as Department managers move between programs and leave the County. The SCVHHS Controller should also review grant budgets prior to their submission to ensure that indirect costs have been budgeted accurately, or if they are not budgeted,

that the basis for their exclusion is known and consistent with the understanding of the program manager. These recommendations are generally consistent with the SCVHHS' Controller's plans to strengthen the role of the Grants Section in providing financial services to the General Fund Health Departments. The Public Health Department generally agrees with our conclusion that grant applications should include a departmental indirect cost rate, unless indicated otherwise by the grantor. The Department has indicated that the calculation of a departmental indirect cost rate should include at least consultation with Health and Hospital Finance staff.

Given the unearned grant revenue identified, incurred indirect costs could have been recovered from granting agencies. Recovery of these costs assumes the granting agencies would have been amenable to including such costs in the original budgets, or that the granting agencies would have amended the contracts to move budgeted expenditures from salaries and other line items to the indirect cost line. If the Department had recovered an indirect cost rate of 10 percent, approximately $786,098 of County General Fund costs could have been avoided. These calculations assume that approximately 60 percent of grant budgets consist of staff costs, to which the indirect cost rate is applied. If the Department had recovered the adjusted ICRP rate of 44 percent, $5,741,411 of County General fund costs could have been avoided. It is important to note that approximately $5 million dollars in unearned grant revenue was available in the FY 2002-03. Therefore, reimbursement was potentially available that would not have resulted in any reduction in the direct services provided through the grants.

Survey Results

The Public Health Department should calculate an annual indirect cost rate and more aggressively seek reimbursement of indirect costs in grants. Six counties responded to a survey question related to the calculation of indirect cost rates. These responses are presented in the Table 6.4 on the following page.

Table 6.4

Indirect Cost Rate Survey Results

County	Indirect Rate	Calculated by
Los Angeles	not reported	Public Health calculates rate each year and County Auditor Controller valdates the rate. Indirect sought in all grants when allowable or administrative expenses included as a direct charge when allowed.
Riverside	42.6%	Department calculates the indirect cost rate.
Orange	20.8%	The Health Care Agency calculates its own indirect rate based on accounting principles and a directive from the state (requirement to have one on file annually updated and based on an accounting method).
San Bernardino	19.2%	ICRP approved by cognizant agency. Developed internally using methodologies approved by Auditor/Controller and a review of appropriateness every two to three years.
San Diego	25 to 29%	Set by the Health and Human Services Agency
Alameda	12.6%	ICRP approved by the cognizant agency used unless the granting agency has set a lower indirect rate cap.
Santa Clara	30.8%	Decisions regarding the inclusion of indirect costs are made on a grant by grant basis and these costs are generally not included in applications or claimed in order to maximize the direct services provided, or because costs have increased while the grant awards have remained the same from year to year.

Survey results indicate that other Public Health Departments work closely with their Finance agencies to calculate a Department-wide indirect cost rate, and that they more aggressively seek to recover indirect costs from granting agencies. As shown in the table above, two counties reported having received approval of their Indirect Cost Rate Proposal (ICRP) from their cognizant agency, and two counties specifically reported working with their Auditor/Controller to ensure the reasonableness of their indirect calculations. Riverside appears to have a calculated indirect cost rate closest to that of the Santa Clara County Public Health Department, and the average reported indirect cost rate is 24.4 percent.

We recommend that the Public Health Department and SCVHHS Finance Agency seek cognizant agency approval of a Department–wide Public Health Department indirect cost rate proposal. Successful completion of this process would allow the Department to include this rate in Federal and State grants henceforth, maximizing the recovery of indirect costs.

CONCLUSION

The Public Health Department applies for and receives approximately 60 grants totaling about $33 million annually. However, the Department has no policy or procedure in place to calculate a Department-wide indirect cost rate each year for use in grant budgets or for use in reporting the General Fund cost of grant-funded services to the Board. Consequently, transmittals to the Board do not report General Fund impacts of grants, when in fact the General Fund subsidizes grant services. As a result, the Public Health Department does not fully recover all available grant revenue to the County. Although the FY 2002-03 Public Health Department Indirect rate was approximately 44 percent, the average indirect rate recovered in grants in FY 2002-03 was only seven percent. Because grant awards have not been maximized, revenue opportunities exist to increase the County reimbursement for indirect costs without reducing direct services. By implementing these recommendations, the Department can improve the calculation of indirect costs and claiming procedures, ensure that all grant applications consistently claim indirect costs, and increase indirect cost reimbursement by at least $786,098 annually.

RECOMMENDATIONS

It is recommended that the Public Health Department:

6.1 Include the calculated indirect cost rate of the Department, the actual amount budgeted, and the basis for any difference in all future grant transmittals to the Board of Supervisors. (Priority 1)

6.2 Assign the responsibility of calculating a Public Health Department-wide indirect cost rate to the Controller of the Santa Clara Valley Health and Hospital System, including consultation with Public Health Administration on the inclusion of indirect costs in existing and new grants. (Priority 2)

6.3 Request approval of an Indirect Cost Rate Proposal (ICRP) from the federal cognizant agency of the Public Health Department. (Priority 3)

6.4 Direct the SCVHHS Controller's Office to perform an analysis of all current grant budgets to determine whether maximum allowable indirect costs are submitted for reimbursement. The results of this analysis should be included with the annual Grants Report provided to the Health and Hospital Committee. (Priority 2)

6.5 Develop written procedures pertaining to the preparation of indirect cost rates, indirect cost rate proposals and the inclusion of indirect costs in grant applications. (Priority 2)

SAVINGS AND BENEFITS

By implementing the recommendations in this section of the report, the Public Health Department will limit its exposure related to audits of grant revenues. Additional

available grant reimbursement for indirect expenses will be recovered to support grant services, reducing General Fund support of the Public Health Department. If 10 percent indirect were to be recovered from all grants, this would represent approximately $786,098 in General Fund savings. The calculation of an annual indirect cost rate by the SCVHHS Controller will provide the Administration of the Public Health Department and its various program managers with information with which to properly budget these costs in grants. The Board of Supervisors will be provided with information by which to measure the relative value of a given grant, based on the actual costs that are recovered and the related General Fund support of the grant services.

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Section 7. Public Health Fee Schedule Development

- **Fees charged by the Public Health Department produce annual revenue of approximately $2.3 million, but are not supported by accurate cost analyses. Responsibility for the review, analysis and calculation of fees is currently dispersed throughout the Public Health Department. This practice results in varying fee calculation methodologies and inconsistent fee policies. Furthermore, such practices are not in accordance with State Controller accounting standards for County fee determination. As a result, current fee levels are inconsistent with actual costs.**

- **Without complete and accurate full cost analysis, the Board of Supervisors may unintentionally enact fees that exceed the average cost or recover less than the intended percentage of the cost to provide a service. The current fee development system in the Public Health Department impairs the Board of Supervisor's ability to establish fees for County services that reflect the Board's policies.**

- **By centralizing responsibility for Public Health cost accounting with the Santa Clara Valley Health and Hospital System (SCVHHS) Finance Division, the accuracy and consistency of Public Health fees can be improved. In addition, the County Controller should review the calculations to ensure their adherence to county policy and federal guidelines. The Public Health Department should subsequently determine the recommended fee to be charged and seek approval of the fee by the Board of Supervisors, indicating whether the fee fully recovers costs, and if not, why this is the case. Implementation of these recommendations would improve the Department of Public Health fee setting process and would result in increased revenue estimated to amount to $97,000 annually.**

Background

The Board of Supervisors has the authority to enact and adjust fees in order to recover the cost to provide a given service or to recover the cost of enforcing regulations. As a general principle, fees charged by a government entity should not exceed the actual or average cost of providing a service. Fees that materially exceed the cost to provide a service may be considered by a court to represent a tax. In the 2002 *Proposition 218 Implementation Guide*, the League of California Cities quotes the *City of Dublin v. County of Alameda*, 14 Cal. App.4th 264, (1993), stating the following:

> A tax is also distinguished from a fee or charge, which is a monetary imposition for the use of a commodity or service, or, with respect to development fees, to pay for facilities to offset the added burden to the government attributable to the development. Otherwise valid fees or charges may be considered taxes to the extent that they exceed the reasonable cost of the service, commodity, or facilities for which they were imposed.

Public Health Department Fees

The Public Health Department charges fees in many of its programs, including fees related to vital registration records such as birth certificates, fees for the completion of certain laboratory tests, and fees related to the provision of voluntary clinical services such as vaccinations for international travel. Combined laboratory, vital registration, Emergency Medical Services (EMS) and immunization fee revenues totaled $2,342,879 in FY 2002-03. This total does not include California Children Services enrollment fees and pharmacy fees. The General Fund support to the Public Health Department equaled $43,609,388 in FY 2002-03, or 51 percent of its entire budget. The four fee categories discussed in this finding mitigate $2.3 million of what would otherwise be General Fund costs in the Public Health Department.

California Code sets the amount that counties can charge for many services, and in other instances counties set fees to recover the cost to provide a given service. However, there may be policy reasons for establishing lower fees or for waiving fees. This occurs when the service is expected to produce a positive result in the community, as is often the case in public health, and the fee is therefore reduced or waived, so that it does not present an obstacle for a resident to seek the service. County departments present fee schedules to the Board of Supervisors for approval after determining the actual cost to provide a service, and after considering the recommended "pricing" of a fee based on policy issues and market conditions. The State Controller provides direction to counties regarding the setting of fees and the costs to be included. The *Handbook for Cost Plan Procedures for California Counties* includes a discussion entitled Non-Grantee Departments' Use of Cost Plan. This section of the handbook specifically states the Board of Supervisors should be provided with the total cost of a given service so that it can establish the appropriate fee to be charged. County Ordinance § A18-6 entitled *Fees for Services* states, "All persons shall be charged for services received from SCVHHS, and are legally obligated to pay for services received except when Board of Supervisors' policy, this Code, state law, federal law or court order provides otherwise." The Public Health Department is authorized to collect fees, and the Board has approved an ordinance allowing the Department to waive or reduce fees when payment represents a hardship to the client, and the service is important to the protection of the public's health.

This finding will address the calculations presented to the Board of Supervisors related to fees in the Public Health Department and the organization of fee setting responsibilities. The development of a recommended fee schedule should include both the calculation of a cost-recovery fee and the setting of a fee amount.

Public Health Fee Schedule

In a transmittal to the Board of Supervisors in the spring of 2003, the Public Health Department presented a fee schedule for approval. The transmittal cited sections of California law and regulations limiting certain fees. In the transmittal, the terms "cost" and "fee" are used interchangeably, but there is no clear language indicating that the fees referred to have been set at a rate that fully recovers the cost of providing the services. The transmittal states that "In general, the proposed increases more closely

align certain fees with the actual cost of providing services" and that the "revenue from such fees is intended to cover the reasonable cost of the provision of the health services or products provided." However, the transmittal did not include any listing of the actual costs to provide any of the given services. As a result of the transmittal, the Board approved Ordinance § A.18-16. Waiver and Reduction of Fees, which states:

> The Director of the Public Health Department, Health Officer or their designees may waive or reduce fees provided for in this chapter where in the judgement of the Department, payment of fees would present a hardship for the individual and where the delivery of services or provision of products serves to protect the public's health.

This ordinance section was included to codify the existing policy in the Public Health Department of waiving fees in cases where the provision of the service is determined to be more important to preserving the overall public health than recovering any of the costs to provide the service

The Public Health Department assigned an analyst full time to the analysis of costs and creation of a fee schedule in FY 2002-03. This analyst attempted to gather fee amounts charged for similar services and fee calculation forms from other counties, and met with Public Health program managers to analyze costs and develop recommended fees. Other than the Public Health Laboratory, this approach did not provide either the justification for the fees proposed to the Board of Supervisors, or workpapers to support the fees charged by the Department.

Fee Components

Fees should generally include the following components:

- Staff time required to provide the service, measured using a productive hourly rate;
- The supply costs required to provide the service;
- An estimated benefit cost related to the staff time; and
- A calculated indirect cost rate as discussed in Section 6 of this report

Analysis of Fees

Management Audit staff requested all workpapers related to fees in the Public Health Department, and specifically for those fees that were revised through the 2003 transmittal. Workpapers for some but not all of the fees were provided, as some fees were set based on state limits, and no workpapers could be located for other fees. Cost analyses for all fees should be completed, and the documentation stored in a centralized location to ensure that such workpapers are retained when staff retire or leave the Department. Even when fee amounts are set by statute, we recommend that cost analysis take place, based on the following:

- Regardless of State fee limits, the Board of Supervisors should be informed of the actual cost to provide the services; and

- The State may in the future, seek to reduce or increase the fee limits, at which time analysis of the difference between the actual cost to provide the service and the fee limits would be helpful to the Board of Supervisors in advocating for the statutory amount of a fee to be increased; and

- The State may enact a statute that allows for full cost recovery, at which time the County should have complete documentation of the actual costs to provide the services and documents to the public.

Table 7.1 below summarizes the findings of our fee review by program. In general, we found that the cost analyses were not consistent and that there were components in the calculations not supported by any workpapers, such as the indirect cost rate of 25 percent included in the lab calculations. There were inaccuracies in the calculations, such as the use of 2,080 hours in a year, rather than a productive number of hours, as is used by the County in all SB 90 claims, and other minor corrections such as the services cost in the lab calculations being overstated.

Table 7.1

Fee Review Results by Program

	Laboratory	Vital Registration	Immunization	EMS
Fee Revenue	$ 139,361	$ 1,102,938	$ 728,556	$ 372,024
Workpapers Available	YES	NO	YES	NO
Productive Hours	Understated		Understated	
Indirect Rate	Understated		Understated	
Other Adjustments	Service Costs		Average Cost per agent	
State or Grant Set Fees	In some instances	YES	In some instances	In some instances

Laboratory

The Public Health Laboratory provided worksheets detailing each fee that it charges, and the spreadsheets clearly represent an attempt by the Program Manager to capture all costs related to the services provided. Revisions to the Laboratory fee calculations, including the use of a productive hourly rate, inclusion of an indirect cost rate of 44 percent, and reduction in the services cost per test result. Because these corrections included both increases and decreases in the fee amounts, the net average change in the fees was a decrease in fee amounts of less than one percent. Regardless, each fee should be reviewed given the changes to ensure it does not exceed the cost of the test.

Management Audit staff were informed that the Laboratory had discounted fees charged to other county programs and departments, and to adjoining counties. One of the discounts related to an AIDS grant in which the Laboratory had agreed to charge a reduced fee for a test, based on a concern by program staff that the grant award was not sufficient to cover other operational costs. Subsequent to our inquiries, the Public Health Laboratory Director negotiated an increase of this fee to the $10 amount, which recovers approximately 70 percent of the $14 calculated cost per test. The Public Health Department Laboratory also reported that it has negotiated a fee of $50 for a $300 test for San Benito County, based on the perceived public health need to provide the service at a reduced cost. The ordinance section that allows the Department to reduce fees refers to individual hardships, not hardship on the part of another governmental entity. The Board of Supervisors approved a transmittal in April 2003 allowing the Public Health Laboratory to provide chlamydia and gonorrhea testing to Santa Cruz County for $15 per test. The Department reports the fee schedule rate for these tests equals $20. The corrections we have made in the calculation of these costs reduce the calculated cost from the current fee of $20 to the fee of $15 now being charged to Santa Cruz County. This example underscores the importance of assigning persons with specific expertise and experience in cost accounting to conduct cost analyses. We recommend that the Department charge internal programs, other county departments and other government agencies the full cost, or at least the enacted fees in all instances.

Vital Registration

The fee transmittal recommended no revisions be made to the Vital Registration fees as these fee amounts are set by the State. The Department refers to Health and Safety Code § 103625 and Health and Safety Code § 100430. Management Audit staff did receive and review the State of California Vital Records Fee Schedule. A review of this schedule indicates that the fees are consistent with those delineated by the State Department of Health Services. As previously discussed, we recommend that cost analyses be completed for these services, regardless of the State's role in setting the fee amounts.

Immunization

There are two categories of immunization fees charged by the Public Health Department. Fees are charged to individuals seeking normal immunizations in order to attend school or commence work. The Public Health Department also operates a travel clinic where persons traveling outside the United States can receive required vaccinations.

Increases in travel clinic fees are not adequately supported by workpapers and appear to recover approximately half the service costs when indirect costs and productive hours are included. The Department reports that analysis of the overall costs of providing travel clinic services relative to the fees charged was conducted after the fees had been revised. Based on this analysis the Department expects to further revise these fees in FY 2004-05 to more closely align the vaccine fees and visit fees with actual costs. Because the travel clinic may represent a service in which the County could earn revenues in excess of expenses, we recommend that County Counsel work with the Department to determine if this is the case, and that the fees be increased to an amount

that at least covers costs. We estimate the additional revenue that could be earned through the travel clinic as approximately $96,879 annually, given our estimated actual costs versus the Department calculated costs and current fee amount. This calculation assumes that the Department included the cost to issue travel certificates in its original cost estimate, although such inclusion is not clear from the documents provided.

Emergency Medical Services (EMS)

The Board of Supervisors approved a transmittal in March 2002 revising EMS individual Emergency Medical Technician (EMT) and paramedic fees in the EMS Agency. The accompanying ordinance included language that "the EMS Agency may lawfully establish a schedule of fees in an amount sufficient to cover the reasonable costs of such certification, recertification, accreditation and authorization." Neither the transmittal in 2002 nor the fee revision transmittal approved in 2003 included analysis of the costs to provide these permits, licenses or other EMS related services. Narrative justification related to the increases and comparative fee amounts from other counties were provided, but no specific workpapers illustrating the relationship between the proposed fees and the service costs were provided to the Board of Supervisors or to the Management Audit Division. The administration of the Public Health Department reported that this analysis has been assigned to the new EMS Director.

Santa Clara County Ordinance Code § 118-274 requires ambulance service providers to include a nonrefundable application fee when they apply for an ambulance permit. Subsequent ordinance sections establish that the fee amount shall be set by Board resolution, and that these fees be forwarded to the Controller.[1] There is also a section that describes penalties ranging from $100 to $500 a day for persons who violate the regulations, including authorization of the County Executive to recover the fine amounts through civil action.[2] A transmittal to the Board of Supervisors in April 2004 amended the ordinance code to include permit fees for Air Ambulance Permits. The transmittal cites §100300 of the California Code of Regulations as a basis for the fees and includes per company fees of $5,000 and $800 per permitted unit. The cited Code Section states: "The local EMS agency may charge a fee to cover the costs directly associated with the classification and authorization of EMS aircraft." Management Audit staff requested the basis for the $800 permit fee, but the Department did not provide documentation. Workpapers should be developed and maintained to justify these and other fees charged by the EMS agency. The Department reported that the new EMS Administrator had been assigned the duty of preparing a cost analysis of these fees.

Transmittal Information

Multiple fee schedule revisions and related transmittals have been approved by the Board of Supervisors over the previous two fiscal years, prompted largely by the need to increase revenues in order to meet budget reduction targets. The General Services

[1] Santa Clara County Health and Safety Code, Sections A18-275 and A18-277
[2] Santa Clara County Health and Safety Code Sections A18-293 and A18-294

Agency provided a transmittal recommending the creation of a 911 fee. This transmittal provides an excellent example of the type of information that should be included in transmittals to the Board of Supervisors that propose the creation of a fee or that seek approval for the revision of a fee schedule. The transmittal includes the basis for the recommended fee, a description of the methodology to calculate the total cost to provide the service, a calculated fee amount that would recover the entire cost of providing the service and a recommended fee amount, given policy implications and market conditions. In this instance, GSA provided the Finance and Government Operations Committee and the Board of Supervisors with the information necessary to determine both whether the fee should be enacted and the rationale for the recommended "pricing" of the fee.

Other examples include the revision of fees in the Environmental Resources Agency and a revised fee schedule submitted by the Office of the Assessor. In these instances, the Board of Supervisors was provided with the legal basis for the fees, the fees that would recover the entire cost of a given service, and an explanation of the difference between the fee and the cost if one exists. These transmittals strengthen the basis for our recommendation that subsequent Public Health fee revision transmittals include the fee required to recover all costs as well as the recommended fee, and the related policy implications.

Fee Development Responsibilities

Currently, the overall responsibility of maintaining the fee schedule and reviewing the cost analyses related to fees rests with the Deputy Director of the Public Health Department. The Public Health Department reimburses Valley Medical Center for centralized corporate services, including finance services. The Finance Agency of the Health and Hospital System possesses specific expertise in cost report preparation and cost analysis, as this is the organizational unit responsible for Targeted Case Management, Medicare and Medi-Cal cost reports. This structure has evolved since the merger of the General Fund health departments into the larger Santa Clara Valley Health and Hospital System, and the corporate charge has increased as the budgets of the departments have grown. While the ultimate responsibility for establishing fees should reside with the Administration of the Public Health Department, the current approach does not provide for the expertise in the Health and Hospital System and the Controller's Office to contribute to the development of accurate cost analyses and the provision of accurate information to the Board of Supervisors. Table 7.2 on the following page lists the steps in the development or revision of a fee and the role of departments in each step of the process.

Table 7.2

Proposed Fee Development Process and Role of Departments

Steps in the Process	Public Health Admin	SCVHHS Finance Agency	County Controller	County Counsel
Determine Legal Basis to Charge Fee and any legal limits on fee amount	Secondary			Primary
Calculate Costs	Secondary	Primary	Review	
Recommend fee amount	Primary			Secondary
Prepare transmittal to establish or revise fee amount	Primary			
Review fee calculation annually		Primary	Review	

The order of the tasks related to fee development specifically bifurcates the determination of the cost to provide a given service from the policy recommendation regarding the setting of a fee amount to be charged for that service. The former is an accounting function intended to provide the Board of Supervisors with the actual or average cost to provide a service and the fee amount required to recover these costs. The second function is a programmatic one and a matter of policy. Discounting a fee entails intentionally setting a fee at an amount that does not recover all costs, based on an assessment by the Department that the provision of the service is more important to the public than the recovery of all costs. Decisions regarding the setting of fee amounts at less than the amount required to recover all costs should be made only by the Board of Supervisors, and the Board should be provided the recommended fee amount, the fee amount necessary to recover the entire cost to provide a service, and the justification for the discount if one is recommended. In addition, the Public Health Department has the delegated authority to waive fees entirely when staff determine the provision of the service is important to the health of the public and the individual or family do not have the means to reimburse the county. These waivers should be accompanied by an objective financial analysis of each client's income and assets in a manner consistent with the financial treatment of all clients of the Health and Hospital System.

The above assignment of duties and responsibilities is consistent with findings and recommendations made by the Management Audit Division during the audit of the Controller's Office. That audit included a recommendation that a team of staff from the Controller's Office be deployed to review and revise costs calculations related to fees in County Departments. This recommendation was not implemented. Given the increased fee activity in the County and the fact that in some instances, such as the fee revisions of the Assessor, contractual entities are being paid to perform this work, the recommendations should be revisited. The County Executive should prioritize fee reviews across all agencies and either deploy staff to conduct these reviews or enact a contract for the review of all fees to ensure consistency in adherence with existing County policies.

The development of policies and procedures and review of all fee calculations by the Controller will increase the appropriate recovery of costs through fees. Such review will ensure that the county's overall productive total hours is used in calculating staff costs, that the Department's indirect cost rate is included and that the methodology to apply a benefit cost is also accurate and applied in a standard manner. The SCVHHS Finance Department, the Public Health Department, and the Controller's Office needs to take a lead role in a more complete review of fee calculations. This review will ensure the Board of Supervisors is provided with the difference between the actual cost to provide a given service and the fee being charged.

CONCLUSION

Fees charged by the Public Health Department produce revenue of approximately $2.3 million dollars annually but are not supported by accurate cost analyses. Responsibility for the review, analysis and calculation of fees is currently dispersed throughout the Public Health Department. Without complete and accurate full cost analysis, the Board of Supervisors may unintentionally enact fees that exceed the average cost or recover less than the intended percentage of the cost to provide a service. By centralizing responsibility for Public Health cost accounting with the SCVHHS Finance Division, the accuracy and consistency of Public Health fees can be improved.

RECOMMENDATIONS

It is recommended that the Public Health Department:

7.1 Assign the analyses of costs related to fees to the SCVHHS Finance Agency, with continued responsibility for the setting of fees and preparation of fee transmittals with the Public Health Department. (Priority 2)

7.2 Include in all subsequent fee transmittals to the Board of Supervisors the calculated or estimated cost recovery fee amount, and the difference between this amount and the recommended fee, if one exists. (Priority 2)

7.3 Submit all subsequent fee analyses and proposed revisions to the County Controller's Office for review and approval prior to forwarding these revisions to the Board of Supervisors for approval. (Priority 2)

SAVINGS AND BENEFITS

If fees of the travel clinic were to be raised to cover all costs, approximately $97,000 in additional fees would be collected, assuming client use of the travel clinic was maintained at the current rate. Implementation of the recommendations in this section of the report will increase the accuracy of the fee schedule enacted by the Board of Supervisors and henceforth provide the Board of Supervisors with the fee that would need to be enacted to recover the entire cost of providing a given service. Costs associated with the recommendations in this section of the report include additional staff resources in the Office of the County Controller, as previously recommended in the Controller Management Audit, if current staffing is not sufficient to review fee

calculations prior to consideration by the Board of Supervisors. However, such costs would be fully offset by increased revenues.

Section 8. Specialty Clinic Billable Charges

- **Public Health Ambulatory and Community specialty clinic patients receive inaccurate estimates of the costs for medical services from clinic staff because charge lists are outdated and have been amended with erroneous charge amounts. In addition, some of the charges for medical services overstate the costs of services provided at the specialty clinics, as they also reflect Valley Medical Center costs.**
- **Compliance with County policy and County Controller instructions requires disclosure of accurate charge amounts for usual and customary services and equitable treatment of patients under the Ability of Determination to Pay (ADP) Program. The proper treatment of individuals at clinic sites relies on adequate trust being established between clinical staff and patients. Confusion regarding charges and bills makes such trust more difficult to establish, possibly reducing the likelihood that patients will return for subsequent visits and comply with their prescribed medication and treatment regimen.**
- **The Director of Ambulatory and Community Health Services should ensure that patients are provided accurate information about charges for services. Clinic staff should be provided charge slips that include accurate charge amounts related to usual and customary services to ensure patients receive accurate information about their bills.**

Background

When the Santa Clara Valley Health and Hospital System (SCVHHS) was formed, a decision was made to manage the provision of all ambulatory care services related to Valley Medical Center (VMC) and the Public Health Department under a division known as Ambulatory and Community Health Services (ACHS). This plan also included placing some VMC clinic services organizationally within the Public Health Department to recognize the public-health nature of the services provided. These services include the Refugee Clinic, the Tuberculosis Clinic, the Puentes Clinic, the PACE HIV Clinic, and the Family Planning Clinic. This structure maximizes revenue by including the clinics under the ACHS /VMC billing system. Section 8 of this report discusses fees charged by the Public Health Department, while this section of the report deals specifically with amounts charged by the Public Health ACHS specialty clinics.

In the medical field, a charge is a formally established price for a medical procedure or service, usually included in a published rate schedule, or charge master. While a charge reflects the estimated average cost of providing the medical procedure or service, it commonly is set at a level that exceeds actual cost and is higher than the amount that will be paid by Medicare, Medi-Cal or insurance companies. By contrast, fees are published prices for services where the price levied is generally based directly on the cost of providing the service for which the fee is levied, unless the Board intentionally enacts discounted fees. Such a decision reflects a conclusion that the importance of the service exceeds the value of full cost recovery. This section of the report discusses the

amounts that unsponsored individuals pay to the County for services they receive at the Public Health ACHS specialty clinics.

Cost Recovery Guidelines

Santa Clara County Ordinance Code § A18-6, Fees for Services states that "All persons shall be charged for services received from SCVHHS, and are legally obligated to pay for services received except when board of supervisors' policy, this Code, state law, federal law or court order otherwise." The amount collected from unsponsored patients in the three Specialty Clinics (Family Practice, Refugee and TB Clinics) is relatively small, amounting to only $32,928 in FY 2002-03.[1] Regardless of the amount, patients at all Public Health Department clinics should be charged in a consistent manner based on uniform rates and fees for the services they receive, and patients should be provided accurate information about the amount they will be billed for the services they receive. The County Controller's Office has developed and issued written procedures designed to address cash collection throughout the County. The Controller's procedure states: "Where it is practical to do so, a list of departmental services and associated fees should be posted at each cash collection point. The cost of infrequently provided services need not be posted, but should be available upon customer inquiry."

Public Health Ambulatory and Community Specialty Clinics

Management Audit staff participated in a demonstration of the patient intake and treatment processes in the Specialty Clinics in order to meet with direct line staff who speak to and treat patients. In the Public Health ACHS specialty clinics, charges to patients were made based on a schedule of charges prepared for VMC clinics that included the overall costs of providing a given service. Therefore, these charges were higher than the actual costs of these services when provided at a specialty clinic. Furthermore, the charge schedules used by specialty clinic staff were outdated and inaccurate, causing them to charge patients incorrectly and to inadvertently mislead patients about the costs of the services patients would receive.

System-wide Charges in ACHS Clinics

The Tuberculosis Clinic located at the Lenzen Avenue site provides tuberculosis testing, Directly Observed Therapy (DOT) and other clinical services. The clinic is intentionally located at the same site as the Public Health Pharmacy so that staff can educate patients about how to take their medications, when such education is required. The charge for a chest x-ray, an important diagnostic tool for tuberculosis, was increased from $74 to $186 in October 2003. VMC Finance staff report this increase was part of a necessary overall Health and Hospital System update in the charges. The calculated x-ray charge is an average based not only the costs of the x-ray services and equipment at the clinic, but also on the costs of radiology services at Valley Medical Center, as the amount in the Valley Medical Center charge master is used for VMC and clinic charges. It is reasonable to assume that x-ray cost did not increase 115 percent in a single year. Clinic

[1] Reported by SCVHHS Finance

staff reported that they were not made aware of the increase when it occurred, and that for approximately a month they inadvertently understated the charge when they discussed the billing that would take place with unsponsored patients. Clinic staff were subsequently informed of the change and amended their schedules accordingly. The implementation of the co-payment system in the clinics that took place in May 2004 will allow clinics to continue to maximize reimbursement from third-party payors while charging unsponsored clients in the ADP (Ability of Determination to Pay) Program co-payment amounts proportionally reflective of the services provided at the clinics.

Outdated Charge Slips

Management Audit staff determined that Public Health ACHS specialty clinic staff were using outdated lists of services, to which charge amounts had been manually added. However, these charge amounts were also outdated, and did not reflect the current prices for many of the services listed. Generally staff directs patients to call the Revenue Control Department of the Health and Hospital System to obtain billing information, but they may also use these charge lists to discuss the bills patients will receive. In one instance, staff reported using the charge lists to calculate and collect co-payments.

As an example of the disparity between the amounts written on the charge lists staff were using at the time of the audit and the correct prices, the actual cost of a straightforward history and examination was $90; the staff list had the previous charge of $37. The actual charge for a Norplant removal is $446; the two staff lists we reviewed indicated the charge for this service was either $298 or $323. In the Refugee Clinic we were told a list of current charges had been requested, but not received. There is an understanding that patients should be directed to Revenue Control with questions about charges, so that patients receive accurate and consistent information, but clearly staff discusses charges with patients, based on the fact that they have documents listing services and the related charge amounts.

Clinic staff should be provided with charge lists that include current and accurate charge amounts, including co-payment amounts if applicable. Clinic staff seek to engender trust with their patients and to provide assistance whenever possible. Patients' concerns about a bill can be significant, and staff not given the proper information to respond to questions may not be able to properly assist the patient.

Assembly Bill 1627, which became effective July 1, 2004, requires that hospitals post a notice in emergency departments and billing offices stating that the list of all charges is available for review. The legislation also requires hospitals to make available a list of 25 common services available to any person who requests such a list. While the legislation does not specifically require posting this notice in the clinic setting, we recommend that ACHS post this notice in all clinics, including the specialty care clinics of the Public Health Department. This posting will provide staff with a document to refer to when patients ask about billing issues. Providing the charge lists with the actual charge amounts, combined with the posted direction for patients to call Patient Business Services Revenue Control with questions will standardize and simplify the billing and collection process in the Specialty Clinics.

Managerial staff of the Public Health ACHS specialty clinics reported at the conclusion of the audit that the outdated charge lists were no longer being used as a result of our inquiries, and that staff are now more consistently directing all questions to the Revenue Control unit. While this action will prevent inaccurate information from being provided to patients regarding services they receive and amounts they will be billed, we recommend clinic staff be provided with the published charge amounts in a manner consistent with the County Controller cash handling instructions and recently enacted legislation.

The consistent billing of unsponsored patients in the Public Health ACHS specialty clinics has been strengthened by charging patients co-payments when they receive services, rather than billing them for a percentage of the charge amount. This process was implemented at VMC and VMC clinic system, including the ACHS specialty clinics, in May 2004 as a result of a recommendation in the Management Audit of Santa Clara Valley Medical Center.

CONCLUSION

Public Health Ambulatory and Community Specialty clinic patients receive inaccurate estimates of the costs for medical services from Clinic staff because charge lists are outdated and have been amended with erroneous charge amounts. In addition, some of the charges for medical services overstate the costs of services provided at the Specialty Clinics, as they also reflect Valley Medical Center costs. The proper treatment of individuals at clinic sites relies on adequate trust being established between clinical staff and patients. The Director of Ambulatory and Community Health Services should ensure that patients are provided accurate information about charges for services. Clinic staff should be provided charge slips and the accurate charges related to usual and customary services to ensure patients receive accurate information about their bills.

RECOMMENDATIONS

It is recommended that Ambulatory and Community Health Services:

8.1 Provide current charge lists to clinic staff with charge amounts for use when discussing charges or co-payments with patients. (Priority 2)

8.2 Extend the required posting of available charge lists per AB 1627 to all ACHS clinics. (Priority 3)

SAVINGS AND BENEFITS

Implementation of the recommendations in this section of the report will ensure compliance with County policy and County Controller cash handling instructions, and standardize the process by which unsponsored patients of the Public Health ACHS specialty clinics are charged and billed for services. Improving the charging process to unsponsored individuals may improve treatment compliance, by improving the overall investment patients have in the treatment they receive from clinic staff.

Section 9. Targeted Case Management Share of Cost

- **The Public Health Department receives Medi-Cal reimbursement for services provided to eligible individuals. Medi-Cal Share of Cost monthly premiums are not charged to clients receiving Targeted Case Management Services from the Public Health Department, whereas all other clients receiving services from the Health and Hospital System with a share of cost are obligated to pay these amounts.**

- **Inconsistent practices related to charging of clients results in lost revenue and establishes a precedent for other clients to refuse to reimburse the County for the required share of costs. The proper treatment of share of cost liabilities is important for the County to seek and receive full reimbursement.**

- **In order to ensure uniform and consistent financial assessment and charging of patients, share of cost charges for Targeted Case Management services should be forwarded to the Santa Clara Valley Health and Hospital System (SCVHHS) Patient Business Services to be billed and posted to the client's Medi-Cal account. The implementation of this recommendation would result in increased revenue of approximately $20,000 annually, and the fair and equitable treatment of all County clients.**

Cost Recovery Guidelines

Santa Clara County Ordinance Code § A18-6. Fees for Services states that "All persons shall be charged for services received from SCVHHS, and are legally obligated to pay for services received except when board of supervisors' policy, this Code, State law, federal law or court order otherwise." Clients receiving services from the Health and Hospital System should be treated consistently in the determination of their ability to pay for the services they receive and the amounts they are charged.

Share of Cost Billing

Clients accessing services from the Health and Hospital System are interviewed by Financial Counselors and Eligibility Workers to determine eligibility for various health and welfare programs, including Medi-Cal. Depending on a client's income and assets, he or she may be assigned a Medi-Cal Share of Cost. This is a monthly premium amount that the client must pay or be obligated to pay by a provider before Medi-Cal will begin to reimburse providers for services. As an example, if a client has a share of cost of $150, the client is obligated to pay for the first $150 of services he or she receives. These charges are posted to the client's account and the Medi-Cal share of cost is "cleared." By putting the client on notice that they have a responsibility to pay for this share of cost of their care, the County is able to charge Medi-Cal for subsequent eligible services provided, regardless of whether the client's share of cost is actually recovered.

Each subsequent eligible dollar of service provided in that month is Medi-Cal reimbursable. Clients receive bills for their share of cost amounts and are expected to pay these amounts.

The management of patient billing and Medi-Cal Share of Cost is assigned to Patient Business Services (PBS) in the Administration of SCVHHS. Centralized management and oversight of this function is important, as Medi-Cal regulations are specific in their requirements that counties and providers seek appropriate reimbursement prior to charging Medi-Cal. The Public Health Department reimburses the SCVHHS Administration for this and other corporate services each year. However, we were informed during the audit that PBS does not specifically work with the Public Health Department regarding billing and charges, only the Specialty Ambulatory Care Clinics within the Public Health Department.

Targeted Case Management (TCM)

California Welfare and Institutions Code § 14132 "allows local governmental agencies (LGAs) to claim funds for Medi-Cal Administrative Activities (MAA) and Targeted Case Management (TCM), and sets out definitions for program operations" according to the Public Health Department's FY 2003-04 Mandate Analysis matrix. TCM services include case management services that assist Medi-Cal eligible individuals within a specified targeted population to gain access to needed medical, social, educational and other services.[1] Targeted Case Management is an important program in the Public Health Department that provided approximately $5.8 million in FY 2004-05 budgeted revenue and funds one of the core functions of the Department – public health nursing in the community.

Clients receiving TCM services who have been assigned a Medi-Cal Share of Cost are not charged or obligated to pay by the TCM program, but would be charged or obligated to pay in any other part of the Health and Hospital System from which they received services. Because the County does not obligate TCM clients to pay their share of cost, no reimbursement from Medi-Cal is allowable, and the County pays the entire cost of that encounter. We estimate that the annual TCM reimbursement not collected equals approximately $19,800. This amount assumes that clients pay $75 towards their share of cost and that the County receives reimbursement for approximately half of the TCM encounter cost. Obviously there are relatively few cases of TCM clients with a share of cost. The estimate above applies sample data provided by the TCM program to the total number of encounters in FY 2002-03.

The legislation enabling TCM, the county's contract with the State to provide TCM services and a 1996 memo to Targeted Case Management Coordinators all indicate that clients with Medi-Cal Share of Cost obligations should be obligated to pay this amount prior to reimbursement of encounter costs from Medi-Cal being provided. In November 1995 the Board of Supervisors approved a Targeted Case Management Fee Schedule which set the income threshold at 500 percent of the Federal Poverty Level, or $77,000

[1] California Department of Health Services Targeted Case Management Fact Sheet

for a family of four at that time. The minutes of this meeting are silent on the treatment of share of cost charges, and it appears that this issue was not considered by the Board in its deliberations. We did not identify any instances of clients being charged a fee for TCM services in FY 2002-03, and in fact, the Department reports that no such fees are charged.

TCM encounter costs should be used to clear a client's Medi-Cal Share of Cost. However, the TCM billing system is entirely separate from both the County's billing system and the State Medi-Cal system, making implementation of a process to post TCM encounter charges to clear share of cost liabilities difficult. Patient Business Services and the Public Health Department should develop a method by which these services can be posted against a client's share of cost.

Obligating TCM clients to pay the share of cost liability will have a secondary benefit of clearing their Share of Cost prior to the time they present at a health clinic or pharmacy for services the public health nurse is helping them access. The clients will be able to receive Medi-Cal eligible services and the County will be able to submit the services for reimbursement from Medi-Cal.

CONCLUSION

The Public Health Department receives Medi-Cal reimbursement for services provided to eligible individuals. Medi-Cal Share of Cost monthly premiums are not charged to clients receiving Targeted Case Management Services from the Public Health Department, whereas all other clients receiving services from the Santa Clara Valley Health and Hospital System with a share of cost are obligated to pay these amounts. In order to ensure uniform and consistent financial assessment and charging of patients, share of cost charges for Targeted Case Management services should be forwarded to SCVHHS Patient Business Services to be billed and posted to the client's Medi-Cal account. The implementation of this recommendation would result in increased revenue of approximately $20,000 annually, and the fair and equitable treatment of all County clients.

RECOMMENDATIONS

It is recommended that the Public Health Department:

9.1 Apply Targeted Case Management services towards share of cost liabilities by providing appropriate charges to Patient Business Services for processing and billing. (Priority 2)

SAVINGS AND BENEFITS

Implementation of the recommendation included in this section of the report will result in an estimated $20,000 in potential annual TCM reimbursement and ensure that clients are treated consistently across the Health and Hospital System in the manner in which they are charged for share of cost liabilities.

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Section 10. Emergency Ambulance Service Contract Fines and Penalties

- **The Emergency Medical Services (EMS) Agency, which is a division of the Public Health Department, imposes fines and penalties against the emergency ambulance service contractor, American Medical Response-West (AMR-West), and city fire departments for late responses to an emergency. Under the current contract with AMR-West, EMS fines and penalties are deposited into a trust fund to support EMS system improvements, rather than into a revenue account to support EMS Agency operations. The contract also requires half of first responder penalties to be used on first responder programs, services and equipment except when "...the EMS system is presented with actual or reasonably projected substantial financial hardship." Accordingly, in response to County budget reductions for FY 2004-05, $115,000 in fines and penalties was used to fund ongoing expenses associated with contract monitoring in the EMS Agency, which leaves a remaining available balance of $738,852 in the EMS Trust Fund.**

- **Despite the use of trust fund monies, the EMS Agency's approved budget for FY 2004-05 has been reduced by 17.6 percent from FY 2003-04 in order to reduce the net General Fund cost of the Public Health Department. Statements by the County Executive, the five-year budget forecast by the County Executive's Office and other data suggest additional reductions will be needed in FY 2005-06 and subsequent years. However, it is not clear reductions can be made without significantly compromising services. These factors represent sufficient evidence that the financial hardship contemplated in the AMR-West contract now exists.**

- **Due to the existing financial hardship and uncertain future financial state of the County, requests for EMS system improvements from the EMS Trust Fund should be held until the Board of Supervisors declares that the County no longer faces a "substantial financial hardship." In order to formally establish criteria for the determination of the existence of a financial hardship, the Board of Supervisors should develop a standard for 1) what constitutes a financial hardship, and 2) what signals the end of a financial hardship. In addition, the status of the EMS Trust Fund, including the available balance, should be reported to the Board of Supervisors during future budget discussions. If additional EMS Agency budget reductions are required, then the amount of the reduction should be transferred from the EMS Trust Fund.**

The Emergency Medical Services (EMS) Agency, a division of the Public Health Department, imposes fines and penalties against the emergency ambulance service contractor, American Medical Response-West (AMR-West), for failing to meet the mandated timeliness standard in responding to an emergency. Similar fines may also be levied against city fire departments, which are known as "first responders" because firefighters and paramedics are typically first on the scene of emergencies. Prior to October 1, 2001, payments for fines and penalties were deposited into a revenue account for the EMS Agency and used to support operational expenses. In addition,

fines were levied against AMR-West but not first responders. As shown in Table 10.1, the amount of fines and penalties billed to AMR-West averaged around $300,000 per fiscal year in the five years prior to FY 2001-02. Fines and penalties were thus a steady source of revenue for the EMS Agency.

Table 10.1

Fines and Penalties Billed to AMR-West
FY 1996-97 through FY 2001-02

Fiscal Year	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
July	12,460	19,490	7,240	23,350	21,470	29,138
August	15,770	21,700	24,255	19,440	19,590	24,300
September	14,400	22,770	27,460	21,620	24,150	31,402
October	17,130	24,680	24,255	21,490	27,480	
November	20,280	21,530	24,255	16,940	33,492	
December	19,090	23,030	24,255	29,970	36,446	
January	18,240	28,378	26,830	28,010	29,070	
February	13,840	17,540	26,540	17,950	27,328	
March	23,830	22,300	24,020	20,820	28,150	
April	20,390	45,440	25,170	25,060	25,130	
May	29,250	29,437	18,570	22,690	31,576	
June	20,070	24,460	21,720	26,920	33,776	
Yearly Total	**224,750**	**300,755**	**274,570**	**274,260**	**337,658**	**84,840**

On September 25, 2001, following lengthy negotiations with AMR-West and first responders, the Board of Supervisors approved a new contract for the delivery of emergency medical and transportation services. Section VI (H) of the five-year contract, which went into effect on October 1, 2001, provided three major changes to the way in which fines and penalties are handled:

- Both AMR and first responders in cities are financially penalized for not meeting the contract's performance requirements.

- Fines and penalties are earmarked for EMS system improvements and are deposited into the EMS Fines and Penalties Trust Fund, an account within the Health Donation Trust Fund.

- Fifty percent of first responder penalty monies are expended on "...programs, services or equipment which assist or benefit the First Responder Program."

However, the restriction placed on first responder penalties is not applicable when "...the EMS system is presented with actual or reasonably projected substantial financial hardship." In this instance, the County can expend all fines and penalties in a manner that benefits the EMS system. It also should be noted that first responder penalties comprise a small portion of total fines and penalties. For example, first responder penalties amounted to only $13,437, or 3.5 percent of all fines and penalties billed, in FY 2001-02. Table 10.2 shows the fines and penalties billed to AMR-West and first

responders in FY 2001-02 through FY 2003-04, as of July 13, 2004. Since October 1, 2001, the EMS Agency has billed over $1.3 million in fines and penalties, and all but $35,327 has been received and deposited into the trust fund. In addition, fines and penalties for the months of May and June 2004 have not been billed, since AMR-West and first responders have 90 days to contest the amount that they are being fined before being billed.

Table 10.2

Fines and Penalties Billed to AMR-West and First Responders
FY 2001-02 through FY 2003-04

Fiscal Year	2001-02	2002-03	2003-04
July		110,244	28,295
August		34,175	585
September		49,216	48,086
October	8,030	20,591	67,058
November	9,117	56,616	28,682
December	18,767	60,934	53,038
January	9,401	49,211	31,592
February	50,097	49,863	60,684
March	106,362	22,665	36,507
April	37,635	41,788	35,327
May	61,764	36,805	
June	85,610	-	
Late Pmt Penalty	-	30,104	-
Yearly Total	386,783	562,212	389,854
Receipts Since 10/01	**386,783**	**948,995**	**1,338,849**

The new contract with AMR-West also specified the process for determining how EMS Trust Fund monies are expended. Section VI (H) of the contract states, "The Contract Administrator will seek recommendations from the EMS Advisory Committee prior to making a recommendation to the Executive Director of SCVHHS (Santa Clara Valley Health and Hospital System), who shall make the final determination." Within the EMS Committee, proposals to spend trust fund monies are first referred to stakeholder committees, such as providers, fire chiefs, police chiefs, hospitals and educators. The stakeholder groups review the applications and then make recommendations to the EMS Committee. Twice a year, the EMS Committee recommends which requests to fund to the EMS Administrator (the Contract Administrator). The EMS Administrator then submits final recommendations to the SCVHHS Executive Director, who has the authority to approve or deny any request.

In spring 2004, the SCVHHS Executive Director determined that he was unable to approve the majority of expenditures recommended by the EMS Committee, due to the County's current budget situation.[1] However, in order to reduce General Fund costs in the EMS Agency, the SCVHHS Executive Director authorized the transfer of $115,000

[1] Memo from the Emergency Medical Services Agency, April 19, 2004

from the EMS Trust Fund to cover expenses associated with contract monitoring. With this transfer, $569,997 has been expended from the trust fund. Other expenditures over the past three fiscal years have included new triage tags, training materials, meetings and symposiums, base hospital recording equipment, laptops for EMS system supervisors, and satellite phones. Another $30,000 is encumbered but has yet to be expended on Incident Command System Training. Therefore, the total amount of committed funds is $599,997, as of July 13, 2004. This leaves an available balance of $738,852 in the EMS Trust Fund, as shown in Table 10.3.

Table 10.3

EMS Trust Fund Balance as of July 13, 2004

Revenues	Amount
Received	1,303,522
Outstanding	35,327
Total Receipts	**1,338,849**
Expenditures	**Amount**
Expended	569,997
Encumbered	30,000
Total Expenses	**599,997**
Available Balance	**738,852**

Despite the use of trust fund monies, the EMS Agency's approved budget for FY 2004-05 has been reduced by 17.6 percent from FY 2003-04 in order to reduce the net General Fund cost of the Public Health Department.[2] Statements by the County Executive, the five-year budget forecast by the County Executive's Office and other data suggest additional reductions will be needed in FY 2005-06 and subsequent years. However, it is not clear reductions can be made without significantly compromising services. The County Executive's FY 2004-05 Recommended Budget noted that "...many departments have hit 'bottom' and have no elasticity remaining for future rounds of reductions." These factors represent sufficient evidence that the financial hardship contemplated in the AMR-West contract now exists.

The EMS Agency currently has a budgeted net General Fund cost of $585,118 in FY 2004-05 that could be reduced in its entirety by transferring an equal amount from the EMS Trust Fund balance of $738,852. This would leave $153,734 in the EMS Trust Fund to hold in reserve with fines and penalties billed in FY 2004-05. Based on previous year billings, we estimate that the County can expect to add at least $300,000 to the EMS Trust Fund in FY 2004-05. Therefore, $453,734 in trust fund monies would be available to support the EMS Agency in FY 2005-06.

Due to the existing financial hardship and uncertain future financial state of the County, we recommend that the SCVHHS Executive Director hold requests for EMS system

[2] Figure based on the FY 2004-05 Final Approved Budget as of July 1, 2004

improvement funding from the EMS Trust Fund until the Board of Supervisors declares that the County no longer faces a "substantial financial hardship." In order to formally establish criteria for the determination of the existence of a financial hardship, the Board of Supervisors should develop a standard for 1) what constitutes a financial hardship, and 2) what signals the end of a financial hardship. In addition, the status of the EMS Trust Fund, including the available balance, should be reported to the Board of Supervisors during all future budget discussions. Unless the Board of Supervisors is made aware of all available funds, such as the EMS Trust Fund, the County may need to reduce services, including those provided by the EMS Agency, in order to reduce General Fund costs. If additional EMS Agency budget reductions are required, then the amount of the reduction should be transferred from the EMS Trust Fund.

CONCLUSION

Under the current contract with AMR-West, the County deposits emergency ambulance service contract fines and penalties into a trust fund to support Emergency Medical Services (EMS) system improvements, rather than into a revenue account to support EMS Agency operations. The County is required to spend half of first responder penalties on first responder programs, services or equipment. However, the restriction does not apply when the EMS system is "...presented with actual or reasonably projected substantial financial hardship." Recognizing that such a hardship exists in FY 2004-05, the SCVHHS Executive Director transferred $115,000 from the EMS Trust Fund to the EMS Agency, reducing the net General Fund cost of the Public Health Department. Since additional reductions will likely be needed in FY 2005-06 and subsequent years, requests for EMS system improvement funding from the EMS Trust Fund should be put on hold until the Board of Supervisors declares that a "substantial financial hardship" no longer exists. If additional EMS Agency budget reductions are required, then the amount of the reduction should be transferred from the EMS Trust Fund. The EMS Trust Fund currently has an available balance of $738,852, which should increase by at least $300,000 in FY 2004-05.

RECOMMENDATIONS

It is recommended that the Board of Supervisors:

10.1 Develop a standard for the determination of 1) what constitutes a substantial financial hardship, and 2) what signals the end of a substantial financial hardship. (Priority 1)

It is recommended that the Santa Clara Valley Health and Hospital System:

10.2 Hold requests for Emergency Medical Services (EMS) system improvement funding from the EMS Trust Fund until the Board of Supervisors declares that the County no longer faces a substantial financial hardship. (Priority 1)

10.3 Report the status of the EMS Trust Fund, including the available balance, to the Board of Supervisors during all future budget discussions. (Priority 1)

10.4 Address additional EMS Agency budget reductions by transferring the amount of the reduction from the EMS Trust Fund. (Priority 1)

SAVINGS AND BENEFITS

By implementing the recommendations above, the County could reduce the net General Fund cost of the Emergency Medical Services (EMS) Agency by at least $585,118 in FY 2004-05. This would leave $153,734 in the EMS Trust Fund to hold in reserve with fines and penalties billed in FY 2004-05. Since the County can expect to add at least $300,000 to the EMS Trust Fund in FY 2004-05, there would be $453,734 available to support the EMS Agency in FY 2005-06. While these transfers from the EMS Trust Fund could temporarily delay EMS system improvement projects, the EMS Agency could sustain its services, which is the County's highest priority.

Section 11. Leasing Public Health Administrative Offices

- **The County currently leases administrative offices for the Public Health Department to accommodate staff for departmental and program administration purposes. Administrative staff of the Mental Health Department are also located in leased facilities. The leases of these three facilities expire during the next 24 to 36 months. The County currently pays approximately $1.5 million annually for the 34,408 square feet of leased office space.**

- **All of these public health and mental health functions are ongoing requirements of the County that are more appropriately housed in owned facilities. Operating from multiple leased facilities adversely affects timely, ongoing departmental communication, unnecessarily wastes administrative staff resources and results in excessive costs to the taxpayers. Based on information provided by the Facilities Department Property Management, the current cost per square foot of existing office buildings would enable the County to acquire a facility of about 35,000 square feet for approximately $7,000,000.**

- **By investing available Retiree Health Trust Fund monies in an office building and leasing it to the County for a 30-year term at 8.00 percent interest, the Retiree Health Fund would achieve its assumed rate of return on investment, and the County cost for Public Health and Mental Health administrative offices would be reduced by $48.2 million over the 30-year lease period.**

The Public Health Department currently operates approximately 30 major programs and functions with 693 authorized positions at an annual cost of about $93.5 million. These public health services are provided through several owned and 13 leased facilities throughout the County. The Public Health Department FY 2004-05 annual cost of leased facilities amounts to $2,545,086. Overseeing the direct public health programs and public services are about 109 administrative and program management staff who operate from two leased facilities that are located at 3003 Moorpark Avenue and 770 South Bascom Avenue. In addition to these two leased administrative facilities, the Mental Health Department also houses its administrative staff in a leased facility at 828 South Bascom Avenue. The leased status of these facilities is shown below.

Table 11.1

Analysis of Public and Mental Health Administrative Facility Leases

Dept	Address of Leased Facility	Square Footage	Annual Cost	Expiration Date
Public Health	3003 Moorpark Ave.	12,800	$533,434	12/09/06
Public Health	770 S. Bascom Ave.	11,539	$378,267	08/22/07
Mental Health	828 S. Bascom Ave.	10,069	$427,938	06/30/06
Total		**34,408**	**$1,480,284**	

Cost Efficiencies of Owned Versus Leased Administrative Offices

As shown in Table 11.1, the annual cost of the three leased administrative facilities is approaching $1.5 million, which is very costly in relation to the current cost of available office buildings in the San Jose area. During FY 2003-04, the County purchased an office building with approximately 199,000 square feet at a cost of $33.82 million, or $170 per square foot. While comparable bargains may no longer be available, the current market still affords significant opportunities for the County to realize substantial on-going savings. Based on information provided by the Facilities Department Property Management, the County could probably acquire an office building in the 40,000 to 50,000 square foot range for approximately $140 to $190 per square foot, including the cost of interior retrofitting. The location and age of the building would also affect the cost. However, assuming a conservative average of approximately $200 per square foot, the total acquisition cost would amount to about $7.0 million for a 35,000 square foot building. Based on a financing cost of 8.00 percent over a 30-year period, the total acquisition cost would amount to $18.7 million. Comparatively, the current annual lease cost of $1,480,284 would total $70.4 million over the same 30-year period assuming average annual inflation of 3.00 percent. Consequently, after accounting for annual maintenance and repair costs of approximately $1.50 per square foot, and modest utility cost savings of 10 percent, the projected net savings to the County over the 30-year period would amount to $48.2 million or an average of $1.6 million annually.

The details of the 30-year projections are included in Table 11.2 on the following page. This analysis calculates the comparative benefit of replacing the existing Public Health Department and Mental Health Department square footage on a one-for-one basis. However, because of the current soft market conditions, the County may want to acquire some additional space to allow for future growth of these functions, thereby avoiding the need to reenter the office building lease market at some future date.

Table 11.2

ANALYSIS OF ANNUAL PUBLIC HEALTH ADMIN BLDGS LEASE COSTS COMPARED WITH OWNERSHIP COSTS

BASED ON AN ACQUISITION COST OF $7.0 MILLION ($200 PER SQ. FT.)

Fiscal Year	Annual Lease Cost*4	Annual Debt Serv Cost *1	Annual Lease Cost Savings	Less Annual Maint/Rep Costs *2	Net Annual Lease Cost Savings	Estimated Utility Cost Savings *3	Total Estimated Savings
2005	1,480,284	621,792	858,492	52,500	805,992	3,441	809,433
2006	1,524,693	621,792	902,900	54,600	848,300	3,578	851,879
2007	1,570,433	621,792	948,641	56,784	891,857	3,722	895,579
2008	1,617,546	621,792	995,754	59,055	936,699	3,870	940,569
2009	1,666,073	621,792	1,044,281	61,418	982,863	4,025	986,888
2010	1,716,055	621,792	1,094,263	63,874	1,030,389	4,186	1,034,575
2011	1,767,537	621,792	1,145,744	66,429	1,079,315	4,354	1,083,669
2012	1,820,563	621,792	1,198,771	69,086	1,129,684	4,528	1,134,212
2013	1,875,179	621,792	1,253,387	71,850	1,181,538	4,709	1,186,247
2014	1,931,435	621,792	1,309,643	74,724	1,234,919	4,897	1,239,816
2015	1,989,378	621,792	1,367,586	93,405	1,274,181	5,093	1,279,274
2016	2,049,059	621,792	1,427,267	97,141	1,330,126	5,297	1,335,423
2017	2,110,531	621,792	1,488,739	101,027	1,387,712	5,509	1,393,221
2018	2,173,847	621,792	1,552,055	105,068	1,446,987	5,729	1,452,716
2019	2,239,062	621,792	1,617,270	109,270	1,508,000	5,958	1,513,958
2020	2,306,234	621,792	1,684,442	113,641	1,570,801	6,197	1,576,998
2021	2,375,421	621,792	1,753,629	118,187	1,635,442	6,445	1,641,887
2022	2,446,684	621,792	1,824,892	122,914	1,701,977	6,702	1,708,680
2023	2,520,084	621,792	1,898,292	127,831	1,770,461	6,970	1,777,432
2024	2,595,687	621,792	1,973,895	132,944	1,840,951	7,249	1,848,200
2025	2,673,558	621,792	2,051,766	166,180	1,885,585	7,539	1,893,124
2026	2,753,764	621,792	2,131,972	172,827	1,959,145	7,841	1,966,986
2027	2,836,377	621,792	2,214,585	179,741	2,034,845	8,154	2,042,999
2028	2,921,469	621,792	2,299,677	186,930	2,112,746	8,481	2,121,227
2029	3,009,113	621,792	2,387,321	194,407	2,192,913	8,820	2,201,733
2030	3,099,386	621,792	2,477,594	202,184	2,275,410	9,173	2,284,583
2031	3,192,368	621,792	2,570,576	210,271	2,360,304	9,540	2,369,844
2032	3,288,139	621,792	2,666,347	218,682	2,447,665	9,921	2,457,586
2033	3,386,783	621,792	2,764,991	227,429	2,537,562	10,318	2,547,879
2034	3,488,386	621,792	2,866,594	236,526	2,630,068	10,731	2,640,799
Total	**70,425,127**	**18,653,761**	**51,771,366**	**3,746,927**	**48,024,439**	**192,977**	**48,217,416**
Average	**2,347,504**	**621,792**	**1,725,712**	**124,898**	**1,600,815**	**6,433**	**1,607,247**

*1 Assumes total aquisition cost of $23,869,364 for approximately 35,000 square feet of space and an interest rate of 8.00%.

*2 Maintenance and repair costs are estimated at $1.50 per square foot increasing annually by 4% with 25% base increases in years 10 and 20.

*3 Utility cost savings are estimated to amount to $0.10 per square foot per year over current average costs based on annual inflation of energy costs at 4.00%.

*4 Assumes average annual inflation cost of 3.00%

Financing Options for the Acquisition of an Administrative Office

Financing for the acquisition of an office building is potentially available in the Retiree Health Trust Fund. As of June 30, 2004, the Retiree Health Trust Fund had a fund balance of approximately $284.1 million. Because these monies have been set aside by the County to fund future health insurance premium costs for employees as they retire, most of these funds will not be required for many years in the future. Therefore, State law permits the County to invest these funds in the same type of investments as CalPERS would make with the monies contributed by the County to provide for the retirement income for the same employees when they retire. As of June 30, 2004, the County's Retiree Health Trust Fund was invested as follows.

Table 11.3

Distribution of Investments
Retiree Health Trust Fund
As of June 30, 2004

Equity Investment	$143,201,450	50.40%
Fixed Income Investments	15,546,330	5.47%
County Commingled Short-term Pool	72,196,553	25.41%
Pooled Loans	53,180,000	18.72%
Real Estate	0	0.00%
Total	**$284,124,333**	**100.00%**

Although CalPERS invests approximately 7.00 percent of its assets in real estate and has an investment target of 9.00 percent for real estate, thus far the County's Retiree Health Trust Fund has not made any real estate investments. The acquisition of an office building valued at up to $10.5 million would constitute only 3.5 percent of the Retiree Health Trust Fund portfolio, but would offer an opportunity for the County to realize the economic advantage of participating in the highly inflationary Santa Clara County real estate market. Such an investment would entail minimal risk, since the building would be fully occupied by ongoing County programs and the rental guaranteed from State, federal and County sources. It should be noted that although the Retiree Health Trust Fund has an assumed rate of return on investments of 8.00 percent, the fund has never achieved that level of return, although the equity portion of the fund realized a yield of more than 10 percent in FY 2003-04.

As an alternative to the Retiree Health Trust Fund retaining ownership, the financing arrangement could be a lease-purchase between the County General Fund and the Retiree Health Trust Fund, with the General Fund obtaining title at the end of the 30-year lease period.

Operational Benefits of Centralizing Administrative and Program Management Staff

In addition to the cost efficiencies that ownership of these administrative office facilities would provide, centralizing all public health administrative staff at one location would greatly increase Departmental internal communications. Centralizing administrative and program management staff would enable administrative and program management staff to exchange information whenever necessary, and to meet more regularly without sacrificing productivity due to lost travel time and inadequate parking at existing facilities. Furthermore, the ongoing administrative burden related to continuously communicating with the building lessors regarding facility maintenance and operational issues would be eliminated, as would the time consuming periodic lease negotiations and potentially disruptive relocations that occur when moving from one leased office to another.

CONCLUSION

The Public Health Department and the Mental Health Department operate administrative offices from three separate leased facilities at an annual cost of approximately $1.5 million. This arrangement is neither cost effective nor conducive to efficient organizational communication. By purchasing an administrative office building wherein these functions could be jointly housed, the County could save an estimated $48.2 million of State, federal and County monies over the next 30 years, while improving administrative efficiency.

RECOMMENDATIONS

It is recommended that the Board of Supervisors:

11.1 Request the Facilities Department Property Management to prepare a market analysis of office buildings suitable for use for Public Health and Mental Health administrative purposes, that are currently available for purchase in the San Jose area. (Priority 1)

11.2 Evaluate the Facilities Department Property Management office building availability report and authorize the Facilities Department Property Management to execute a purchase as described in this section, contingent upon identification of a suitable building and the confirmation of significant potential cost savings. (Priority 1)

SAVINGS AND BENEFITS

The implementation of these recommendations would result in projected cost savings to the County of $48.2 million over the next 30 years. In addition, the administrative burden related to lessor-lessee issues would be eliminated, and the efficiency of the Public Health Department administration and communication would be enhanced.

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Public Health Survey Results

	Alameda	Los Angeles
Contact Information		
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Public Health Fees		
1. Which response below most accurately describes the method by which the fees for public health services are set?		
A. Except for fees that are set by state or federal law, all other fees are set by the Board of Supervisors based on full cost recovery and include all costs necessary to provide a given service.	No	No response
B. Except for fees that are set by state or federal law, all other fees are set by the Board of Supervisors based on a comparison of fees in other jurisdictions for similar services.	No	No response
C. The approval of fees by the Board of Supervisors includes an analysis of the actual cost to provide each service. However, approved fees may be lower than the actual cost to remove obstacles to individuals accessing direct services, or because the state or federal government determined fee rates are below the rate that would be necessary to fully recover costs.	Yes	No response
Grants		
2. Which choice below best describes how your department seeks to recover administrative and overhead costs in grants?		
A. The department has sought and received approval for an ICRP (Indirect Cost Rate Proposal) from the cognizant agency of ____%, and this is the rate that is included in each grant, unless the granting agency has set an indirect cost rate cap lower than the ICRP rate.	Yes at 12.62%	No
B. The department seeks to recover a calculated indirect rate of ____% in all grants.	No	Yes, in accordance with the federal guidelines and validated by the County's Auditor-Controller on a yearly basis
C. Decisions regarding the inclusion of indirect costs are made on a grant by grant basis and these costs are generally not included in applications or claimed in order to maximize the direct services provided, or because costs have increased while the grant awards have remained the same from year to year.	No	No
Contract Issues		
3. On what basis does your county reimburse Ryan White CARE Act contractors?	Cost reimbursement	No response
4. Does your county require documentation of units of service provided, beyond an invoice?	Yes	No response
5. Does your department have competitive bidding for Ryan White CARE Act contracts?	Yes	No response
Disaster and Emergency Medical Services		
6. What is the method that your department uses for assigning nurses to cover an outbreak or disaster in the county?	Nurses are pre-assigned areas in the event of a disaster - prophylaxis, epi investigation. Day to day, there is a communicable disease team (consisting of public health nurses) that would assess and initiate activities surrounding an outbreak and would request assistance from public health nursing teams, if more staff is needed.	No response
7. Does your Emergency Medical Services (EMS) Agency have a written policy or procedure regarding who will provide medical direction when the EMS Medical Director is unavailable or during interim periods when the position is vacant?	No	No response

Public Health Survey Results

	Orange	Riverside
Contact Information		
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Public Health Fees		
1. Which response below most accurately describes the method by which the fees for public health services are set?		
A. Except for fees that are set by state or federal law, all other fees are set by the Board of Supervisors based on full cost recovery and include all costs necessary to provide a given service.	Yes	No
B. Except for fees that are set by state or federal law, all other fees are set by the Board of Supervisors based on a comparison of fees in other jurisdictions for similar services.	No	Yes
C. The approval of fees by the Board of Supervisors includes an analysis of the actual cost to provide each service. However, approved fees may be lower than the actual cost to remove obstacles to individuals accessing direct services, or because the state or federal government determined fee rates are below the rate that would be necessary to fully recover costs.	No	No
Grants		
2. Which choice below best describes how your department seeks to recover administrative and overhead costs in grants?		
A. The department has sought and received approval for an ICRP (Indirect Cost Rate Proposal) from the cognizant agency of ____%, and this is the rate that is included in each grant, unless the granting agency has set an indirect cost rate cap lower than the ICRP rate.	No	No
B. The department seeks to recover a calculated indirect rate of ____% in all grants.	Yes at 20.8%	Yes at 42.58%
C. Decisions regarding the inclusion of indirect costs are made on a grant by grant basis and these costs are generally not included in applications or claimed in order to maximize the direct services provided, or because costs have increased while the grant awards have remained the same from year to year.	No	No
Contract Issues		
3. On what basis does your county reimburse Ryan White CARE Act contractors?	Cost reimbursement	No response
4. Does your county require documentation of units of service provided, beyond an invoice?	Yes	No response
5. Does your department have competitive bidding for Ryan White CARE Act contracts?	Yes	No response
Disaster and Emergency Medical Services		
6. What is the method that your department uses for assigning nurses to cover an outbreak or disaster in the county?	Public Health Response Teams are organized to go out into the community following a disaster. There are people specifically assigned that would help with mass prophylaxis or immunization sites. If nurses are needed to help at hospitals, would put a call out over the ReddiNet system or request a DMAT team.	Formed a Rapid Response Team to deal with emergency situations. The Rapid Response Team consists of a scalable subset of the members of the Public Health Communicable Disease Response Team that has been created to respond to all potential bioterrorism events and other significant communicable disease outbreak. In the event of a disaster, bioterrorism event, or public health emergency, the Rapid Response Team would be notified and convened.
7. Does your Emergency Medical Services (EMS) Agency have a written policy or procedure regarding who will provide medical direction when the EMS Medical Director is unavailable or during interim periods when the position is vacant?	No	No

Public Health Survey Results

	San Bernardino	San Diego
Contact Information		
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Public Health Fees		
1. Which response below most accurately describes the method by which the fees for public health services are set?		
A. Except for fees that are set by state or federal law, all other fees are set by the Board of Supervisors based on full cost recovery and include all costs necessary to provide a given service.	Yes	No response
B. Except for fees that are set by state or federal law, all other fees are set by the Board of Supervisors based on a comparison of fees in other jurisdictions for similar services.	No	No response
C. The approval of fees by the Board of Supervisors includes an analysis of the actual cost to provide each service. However, approved fees may be lower than the actual cost to remove obstacles to individuals accessing direct services, or because the state or federal government determined fee rates are below the rate that would be necessary to fully recover costs.	Yes	No response
Grants		
2. Which choice below best describes how your department seeks to recover administrative and overhead costs in grants?		
A. The department has sought and received approval for an ICRP (Indirect Cost Rate Proposal) from the cognizant agency of ____%, and this is the rate that is included in each grant, unless the granting agency has set an indirect cost rate cap lower than the ICRP rate.	Yes at 19.16%	No
B. The department seeks to recover a calculated indirect rate of ____% in all grants.	No	Yes at mid-to-high 20%
C. Decisions regarding the inclusion of indirect costs are made on a grant by grant basis and these costs are generally not included in applications or claimed in order to maximize the direct services provided, or because costs have increased while the grant awards have remained the same from year to year.	No	No
Contract Issues		
3. On what basis does your county reimburse Ryan White CARE Act contractors?	Cost reimbursement	Fixed amount per unit of service and cost reimbursement
4. Does your county require documentation of units of service provided, beyond an invoice?	Yes	Yes
5. Does your department have competitive bidding for Ryan White CARE Act contracts?	Yes	Yes
Disaster and Emergency Medical Services		
6. What is the method that your department uses for assigning nurses to cover an outbreak or disaster in the county?	Volunteer basis in combination with analysis of current workload and needs. Also, if grant funded position, need to be able to recoup time from FEMA or State	During work hours, the Chief Public Health Nurse and the Bioterrorism Health Nurse IV initiate the recall of Public Health Nurses to respond to major outbreak or other public health event. During off hours, weekends and Holidays, there is a Public Health Nurse Manager on call to activate public health nurses to respond to a major public health threat. These activities would be coordinated jointly by Public Health Nursing Administration, EMS and Community Epidemiology.
7. Does your Emergency Medical Services (EMS) Agency have a written policy or procedure regarding who will provide medical direction when the EMS Medical Director is unavailable or during interim periods when the position is vacant?	Yes	No

Public Health Survey Results

	Santa Clara
Contact Information	
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Public Health Fees	
1. Which response below most accurately describes the method by which the fees for public health services are set?	
A. Except for fees that are set by state or federal law, all other fees are set by the Board of Supervisors based on full cost recovery and include all costs necessary to provide a given service.	No
B. Except for fees that are set by state or federal law, all other fees are set by the Board of Supervisors based on a comparison of fees in other jurisdictions for similar services.	No
C. The approval of fees by the Board of Supervisors includes an analysis of the actual cost to provide each service. However, approved fees may be lower than the actual cost to remove obstacles to individuals accessing direct services, or because the state or federal government determined fee rates are below the rate that would be necessary to fully recover costs.	Yes
Grants	
2. Which choice below best describes how your department seeks to recover administrative and overhead costs in grants?	
A. The department has sought and received approval for an ICRP (Indirect Cost Rate Proposal) from the cognizant agency of ____%, and this is the rate that is included in each grant, unless the granting agency has set an indirect cost rate cap lower than the ICRP rate.	No
B. The department seeks to recover a calculated indirect rate of ____% in all grants.	No
C. Decisions regarding the inclusion of indirect costs are made on a grant by grant basis and these costs are generally not included in applications or claimed in order to maximize the direct services provided, or because costs have increased while the grant awards have remained the same from year to year.	Yes
Contract Issues	
3. On what basis does your county reimburse Ryan White CARE Act contractors?	Cost reimbursement
4. Does your county require documentation of units of service provided, beyond an invoice?	Yes
5. Does your department have competitive bidding for Ryan White CARE Act contracts?	No
Disaster and Emergency Medical Services	
6. What is the method that your department uses for assigning nurses to cover an outbreak or disaster in the county?	All Public Health Nurses are considered to be available in the event of a disaster or emergency; the Public Health Departmental Emergency Operations Center (DEOC) determines resource needs and assigns nurses directly or through their respective Regional or Program Managers.
7. Does your Emergency Medical Services (EMS) Agency have a written policy or procedure regarding who will provide medical direction when the EMS Medical Director is unavailable or during interim periods when the position is vacant?	No

Public Health Survey Results

	Alameda	Los Angeles
Disease Surveillance		
8. What methods are utilized by your department to enforce the Health and Safety Code requirements that hospitals, physicians and laboratories report known or suspected cases of reportable diseases?		
A. Education of providers, provider agencies and laboratories	Yes	Yes
B. Reminder letters to known persons or agencies that fail to report or report a case late, based on the reporting timelines specified in State law	Yes	Yes
C. Notification of the California Medical Board of physician's non-compliance with the Health and Safety Code	No	No
D. Withholding of any payments due by the County to a provider based on non-compliance with reporting requirements	Yes	No
E. Any other methods not described above	No	No
Public Health Nursing		
9. Does your county receive reimbursement for public health nursing services through the federal Targeted Case Management (TCM) system?	Yes	No response
10. What weekly, monthly or yearly target, if any, have you established for the number of TCM-eligible client encounters per nurse?	No target established.	Not currently using TCM for nursing. Reimbursement for some is through the MCAH program, and beginning to claim MAA for the nurses. The next step will be to convert nurses to TCM.
11. Are any clients who receive TCM services charged for the provision of these services?	No	No response
12. If you answered "yes" to question 11, do these charges include any of the following?	Not applicable	No response
HIV Testing		
13. Does your department operate the county's Alternative Test Site (ATS) for anonymous HIV counseling and testing or do you contract this function?	Contract the county's ATS	No response
14. If your department operates the county's ATS, does it have a billing system?	Not applicable	No response
15. If you answered "yes" to question 14, what kinds of payments does the ATS accept?	Not applicable	No response
Pharmacy		
16. How are most medications provided to public health clients?	County hospital pharmacy, county outpatient pharmacy and contracts with commercial pharmacies	No response
17. Does your county use any automation, other than label printing, to fill pill and capsule prescriptions?	No	No response

Public Health Survey Results

	Orange	Riverside
Disease Surveillance		
8. What methods are utilized by your department to enforce the Health and Safety Code requirements that hospitals, physicians and laboratories report known or suspected cases of reportable diseases?		
A. Education of providers, provider agencies and laboratories	Yes	Yes
B. Reminder letters to known persons or agencies that fail to report or report a case late, based on the reporting timelines specified in State law	Yes	Yes
C. Notification of the California Medical Board of physician's non-compliance with the Health and Safety Code	Yes	Yes
D. Withholding of any payments due by the County to a provider based on non-compliance with reporting requirements	No	No
E. Any other methods not described above	No	No
Public Health Nursing		
9. Does your county receive reimbursement for public health nursing services through the federal Targeted Case Management (TCM) system?	Yes	Yes
10. What weekly, monthly or yearly target, if any, have you established for the number of TCM-eligible client encounters per nurse?	No target established. Nurses are encouraged to bill when clients meet eligibility requirements.	Target is 20-25 visits per month per nurse.
11. Are any clients who receive TCM services charged for the provision of these services?	No	No
12. If you answered "yes" to question 11, do these charges include any of the following?	Not applicable	Not applicable
HIV Testing		
13. Does your department operate the county's Alternative Test Site (ATS) for anonymous HIV counseling and testing or do you contract this function?	Operate the county's ATS	Both operate and contract the county's ATS
14. If your department operates the county's ATS, does it have a billing system?	No	No
15. If you answered "yes" to question 14, what kinds of payments does the ATS accept?	Not applicable	Not applicable
Pharmacy		
16. How are most medications provided to public health clients?	Physicians, Registered Nurses and Nurse Practitioners dispense medications to patients following the agency Pharmacy Policy and Procedure manual under the supervision of a Pharmacist, which is made possible through a CA State Board of Pharmacy Clinic permit.	County hospital pharmacy and contracts with commercial pharmacies
17. Does your county use any automation, other than label printing, to fill pill and capsule prescriptions?	No	No

Public Health Survey Results

	San Bernardino	San Diego
Disease Surveillance		
8. What methods are utilized by your department to enforce the Health and Safety Code requirements that hospitals, physicians and laboratories report known or suspected cases of reportable diseases?		
A. Education of providers, provider agencies and laboratories	Yes	Yes
B. Reminder letters to known persons or agencies that fail to report or report a case late, based on the reporting timelines specified in State law	Yes	Yes
C. Notification of the California Medical Board of physician's non-compliance with the Health and Safety Code	Yes	No
D. Withholding of any payments due by the County to a provider based on non-compliance with reporting requirements	No	No
E. Any other methods not described above	No	Public Health Grand Rounds and Physician's Bulletin.
Public Health Nursing		
9. Does your county receive reimbursement for public health nursing services through the federal Targeted Case Management (TCM) system?	Yes	Yes
10. What weekly, monthly or yearly target, if any, have you established for the number of TCM-eligible client encounters per nurse?	Yearly, but monitored weekly. Targets vary among programs due to level of risk of population served.	No response
11. Are any clients who receive TCM services charged for the provision of these services?	No	No
12. If you answered "yes" to question 11, do these charges include any of the following?	Not applicable	Not applicable
HIV Testing		
13. Does your department operate the county's Alternative Test Site (ATS) for anonymous HIV counseling and testing or do you contract this function?	Operate the county's ATS	Both operate and contract the county's ATS
14. If your department operates the county's ATS, does it have a billing system?	No	No
15. If you answered "yes" to question 14, what kinds of payments does the ATS accept?	Not applicable	Not applicable
Pharmacy		
16. How are most medications provided to public health clients?	Public health pharmacy	County outpatient pharmacy
17. Does your county use any automation, other than label printing, to fill pill and capsule prescriptions?	No	Yes

Public Health Survey Results

	Santa Clara
Disease Surveillance	
8. What methods are utilized by your department to enforce the Health and Safety Code requirements that hospitals, physicians and laboratories report known or suspected cases of reportable diseases?	
A. Education of providers, provider agencies and laboratories	Yes
B. Reminder letters to known persons or agencies that fail to report or report a case late, based on the reporting timelines specified in State law	Yes
C. Notification of the California Medical Board of physician's non-compliance with the Health and Safety Code	No
D. Withholding of any payments due by the County to a provider based on non-compliance with reporting requirements	No
E. Any other methods not described above	Telephone contact to providers who fail to report or report late.
Public Health Nursing	
9. Does your county receive reimbursement for public health nursing services through the federal Targeted Case Management (TCM) system?	Yes
10. What weekly, monthly or yearly target, if any, have you established for the number of TCM-eligible client encounters per nurse?	TCM revenue is based on calculated average of 5 TCM-eligible client encounters per week per nurse based on 46 productive weeks and 85 PHNs providing some level of TCM services. Actual TCM encounters per nurse ranges from 2 or 3 per week, to 10 or 12 per week, and is affected by other assignments and work activities for each PHN.
11. Are any clients who receive TCM services charged for the provision of these services?	No
12. If you answered "yes" to question 11, do these charges include any of the following?	Sliding scale for TCM adopted by Board of Supervisors in 1995, based on 500% poverty level. There have been no TCM clients to date who have exceeded this factor; therefore, no out-of-pocket liability for any client. In addition, there is no formal eligibility process or collection method in place to handle this.
HIV Testing	
13. Does your department operate the county's Alternative Test Site (ATS) for anonymous HIV counseling and testing or do you contract this function?	Operate the county's ATS
14. If your department operates the county's ATS, does it have a billing system?	No
15. If you answered "yes" to question 14, what kinds of payments does the ATS accept?	ATS refers to Anonymous HIV/AIDS tests, which are provided free of charge. Crane Center is our ATS and also provides STD services for a $20 fee, which can be waived if a person cannot afford to pay. However, there is no means test or eligibility process.
Pharmacy	
16. How are most medications provided to public health clients?	Public health pharmacy
17. Does your county use any automation, other than label printing, to fill pill and capsule prescriptions?	Yes and no

Public Health Survey Results

	Alameda	Los Angeles
CCS Medical Therapy Program		
18. How many cases are currently open in your Medical Therapy Program (MTP) in California Children's Services (CCS)?	1,272 cases	No response
19. In the MTP, how do therapists record their time spent on therapy services for billing?	On Patient Therapy Records	On Patient Therapy Records and a computerized system, called an Automated Case Management System
20. In the MTP, when do therapists submit their time spent on therapy services for billing?	Monthly	Daily
21. Does the MTP have a written policy or procedure regarding either how therapists should record their time or when they should submit their time spent on therapy services for billing?	Yes	Yes
Immunization Program		
22. Does your department have outstationed immunization clinical services, such as mobile units that travel to schools to administer vaccines to students, as part of your Immunization Program?	Yes	No, childhood immunizations are provided in public health clinics and at community providers, some of which may use mobile units.
Childhood Lead Prevention Program		
23. How many cases with EBLLs ≥ 10 mg/dL are reported in your county?	110 cases	No response
24. How many cases with EBLLs ≥ 10 mg/dL does your county currently manage?	110 cases	No response
Attachments		
The most recent fee schedule for public health services	No	No
The most recent organization chart that identifies all major units and programs	No	No
A schedule of staffing by classification in all major units and programs	No	No
A schedule of the hours of operation of each of your clinics	No	No
The policy or procedure related to medical direction in the EMS Agency	No	No
The policy or procedure related to recording and submitting billable time in the Medical Therapy Program	No	Yes
A schedule of budgeted revenues and expenditures in FY 2003-04	No	No

Public Health Survey Results

	Orange	Riverside
CCS Medical Therapy Program		
18. How many cases are currently open in your Medical Therapy Program (MTP) in California Children's Services (CCS)?	2,347 cases	1,567 cases
19. In the MTP, how do therapists record their time spent on therapy services for billing?	On Patient Therapy Records	On Patient Therapy Records
20. In the MTP, when do therapists submit their time spent on therapy services for billing?	Quarterly	Quarterly
21. Does the MTP have a written policy or procedure regarding either how therapists should record their time or when they should submit their time spent on therapy services for billing?	Yes	No
Immunization Program		
22. Does your department have outstationed immunization clinical services, such as mobile units that travel to schools to administer vaccines to students, as part of your Immunization Program?	No	Yes
Childhood Lead Prevention Program		
23. How many cases with EBLLs ≥ 10 mg/dL are reported in your county?	211 cases in 2003	26 cases to date in FY 2004
24. How many cases with EBLLs ≥ 10 mg/dL does your county currently manage?	829 cases	37 cases
Attachments		
The most recent fee schedule for public health services	No	Yes
The most recent organization chart that identifies all major units and programs	Yes	Yes
A schedule of staffing by classification in all major units and programs	No	Yes
A schedule of the hours of operation of each of your clinics	Yes	Yes
The policy or procedure related to medical direction in the EMS Agency	No	No
The policy or procedure related to recording and submitting billable time in the Medical Therapy Program	Yes	No
A schedule of budgeted revenues and expenditures in FY 2003-04	Yes	Yes

Public Health Survey Results

	San Bernardino	San Diego
CCS Medical Therapy Program		
18. How many cases are currently open in your Medical Therapy Program (MTP) in California Children's Services (CCS)?	1,507 cases as of February 2004	2,000 cases
19. In the MTP, how do therapists record their time spent on therapy services for billing?	On Patient Therapy Records	On Patient Therapy Records
20. In the MTP, when do therapists submit their time spent on therapy services for billing?	Monthly	Daily
21. Does the MTP have a written policy or procedure regarding either how therapists should record their time or when they should submit their time spent on therapy services for billing?	Yes	Yes
Immunization Program		
22. Does your department have outstationed immunization clinical services, such as mobile units that travel to schools to administer vaccines to students, as part of your Immunization Program?	Yes	No
Childhood Lead Prevention Program		
23. How many cases with EBLLs ≥ 10 mg/dL are reported in your county?	115 cases	97 cases in 2003
24. How many cases with EBLLs ≥ 10 mg/dL does your county currently manage?	150 cases	65 cases
Attachments		
The most recent fee schedule for public health services	No	No
The most recent organization chart that identifies all major units and programs	Yes	No
A schedule of staffing by classification in all major units and programs	No	No
A schedule of the hours of operation of each of your clinics	No	No
The policy or procedure related to medical direction in the EMS Agency	Yes	No
The policy or procedure related to recording and submitting billable time in the Medical Therapy Program	Yes	No
A schedule of budgeted revenues and expenditures in FY 2003-04	No	No

Public Health Survey Results

	Santa Clara
CCS Medical Therapy Program	
18. How many cases are currently open in your Medical Therapy Program (MTP) in California Children's Services (CCS)?	945
19. In the MTP, how do therapists record their time spent on therapy services for billing?	On Patient Therapy Records and on a computerized system. Patient Therapy Records are now turned in at the end of each quarter and batched and billed through CMS Net. Some bills will be submitted on a more regular basis (i.e., cases being closed).
20. In the MTP, when do therapists submit their time spent on therapy services for billing?	Quarterly
21. Does the MTP have a written policy or procedure regarding either how therapists should record their time or when they should submit their time spent on therapy services for billing?	No
Immunization Program	
22. Does your department have outstationed immunization clinical services, such as mobile units that travel to schools to administer vaccines to students, as part of your Immunization Program?	No
Childhood Lead Prevention Program	
23. How many cases with EBLLs ≥ 10 mg/dL are reported in your county?	170 cases
24. How many cases with EBLLs ≥ 10 mg/dL does your county currently manage?	106 cases
Attachments	
The most recent fee schedule for public health services	Yes
The most recent organization chart that identifies all major units and programs	Yes
A schedule of staffing by classification in all major units and programs	Yes
A schedule of the hours of operation of each of your clinics	Yes
The policy or procedure related to medical direction in the EMS Agency	No
The policy or procedure related to recording and submitting billable time in the Medical Therapy Program	No
A schedule of budgeted revenues and expenditures in FY 2003-04	Yes

Dedicated to the Health of the Whole Community

SANTA CLARA VALLEY HEALTH & HOSPITAL SYSTEM

PUBLIC HEALTH DEPARTMENT

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December 7, 2004

TO: **Supervisor James T. Beall, Chair**
Supervisor Pete McHugh, Co-Chair
Finance and Government Operations Committee

FROM: **Robert Sillen, Executive Director**
Santa Clara Valley Health and Hospital System

Guadalupe S. Olivas, PhD, Director
Public Health Department

SUBJECT: **AGENCY RESPONSE TO MANAGEMENT AUDIT - PUBLIC HEALTH DEPARTMENT**

The Santa Clara Valley Health and Hospital System (SCVHHS) and the Public Health Department (PHD) appreciate the opportunity to comment on the preliminary *Management Audit of the Santa Clara County Public Health Department* completed by the Board of Supervisors' Management Audit Division and received by the Department on August 30, 2004. The Agency's responses to the report are presented for each of the twelve (12) sections of the report, with a separate section responding to the introduction. Most of the response sections has general comments on the findings in the section, in addition to specific responses to each recommendation. In addition, a summary table of the recommendations, including Department responses, is provided in Attachment A for the Committee's convenience.

The scope of the audit included a review of PHD operations, management practices and finances of the PHD, and identified opportunities to increase the Department's efficiency, effectiveness and economy. The scope of the management audit was comprehensive and included a review of all of the functions provided directly by the Department. In addition, the audit included functions/responsibilities of other County and state agencies relative to some Public Health issues. The audit also included a review of functions included in the PHD budget, which are overseen organizationally by the Ambulatory and Community Health Services division of the Santa Clara Valley Health and Hospital System.

The audit was begun in October of 2003 and then halted so that Management Audit Staff could assist with County's FY04 budget reduction planning. The audit resumed in February 2004 and was completed August 23, 2004. The Public Health Department worked collaboratively and responsively to provide workspace for the audit team and to make available access to department staff and the many documents and work papers requested.

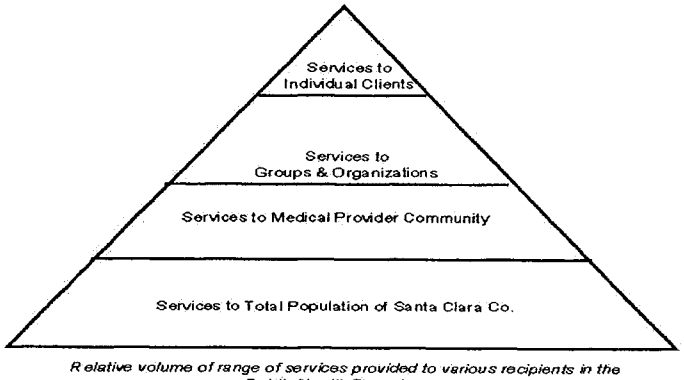
Of the 48 Audit Recommendations, the Santa Clara Valley Health and Hospital System and the Public Health Department agree with 24 of the recommendations; partially agree with 17 of the recommendations; disagree with 6 of the recommendations; and have no position on one recommendation. Overall, the Department believes that the auditors have identified several operational areas where improvements can be made. Tackling these improvements will be the focus of the PH Department in the coming months. Many of the disagreements with the auditors' findings relate to minor factual matters or with difference in perspective on the audit conclusions. Most of the major disagreements have to do with the specific solutions recommended by the auditors. In those cases, the Agency has provided alternative remedial proposals.

GENERAL COMMENTS

Although the scope of the audit was said to be comprehensive, in case after case the auditors focused only on specific issues within Public Health program areas. The narrow focus, although appropriate for an audit, does not convey the full scope of functions and services of the Public Health Department. To set the context for the Department's response, the following information gives an example of the nature of the purposeful integration of services and functions in Public Health:

Immunization rates in a community are an ideal illustration of how the Institute of Medicine defines Public Health, as "what we collectively do as a society to assure conditions where people can be healthy." Clearly, public health is "public" because it involves "organized community effort." It is not simply the outcome of isolated individual client oriented service that it, as a county department, provides. Its mandates and mission is to ensure that organized and strategic approaches are also mobilized when they are needed.

For example, giving children shots and treating unvaccinated children will not wipe out childhood diseases without strategic direct services also aimed specifically at other clients at the community-wide system level, such groups and organizations, as well as the community at large. To effectively control disease, immunization related services must also include epidemiological studies, consistent reporting of cases, and organized distribution of vaccine as well as actual vaccination carried out throughout the County – by all providers, and to a limited degree, the Public Health Department. The figure below illustrates the multi-levels of services provided to a



Relative volume of range of services provided to various recipients in the Public Health Department

Examples of Direct Services Provided by the Public Health Department Using Example of ***Keeping Children Healthy Against Vaccine Preventable Childhood Disease***

Continuum of Services provided ranging from individuals to community

- Clinic Nurses and LVNs give shots in the PH Immunization Clinic
- Health Educators convene schools, faith groups, neighborhoods, CBOs, businesses to educate and encourage community specific strategies
- PH Pharmacy supplies State vaccine to Community Clinics and other providers
- PH Immunization Program provides technical assistance and training
- Information System Analysts implement the Immunization Registry Information System (IRIS), part of a state-wide data base that tracks children's immunization rates
- Health Educators and other staff educate and enroll medical providers into IRIS
- Epidemiologists collect, tabulate and analyze communicable disease and immunization rates
- Disease Control collects and investigates reports of communicable disease
- PH Laboratory verifies test specimens
- PH communicates broad based prevention messages through the media

broad range of recipients, or clients, using examples of many Public Health services designed to keep children free of vaccine preventable disease:

This Public Health Immunization service model underscores three things. First, it illustrates that giving shots, the "medical model" in the direct service example, is but a small "tip of the iceberg" of other Public Health services needed to prevent childhood illness and control disease in Santa Clara County. Second, by mobilizing the action of others in the community, the Public Health Department strategically leverages county resources with those available in the community.

Third, this example illustrates that the role of the County Public Health Department is made up of three core functions: assessment, policy development, and assurance. These functions correspond to the major phases of public problem solving: identification of problems, mobilization of necessary efforts and resources, assurance that vital conditions are in place and that crucial services are received, and evaluation of efforts to determine how well community effort is working. The Public Health Department takes a key role in mobilizing others as a key direct service to have the community organizations recognize problems and to use their resources in taking appropriate interventions.

PH Comments on "Topics Requiring Additional Review"

Licensure Documentation

It should be noted that effective November 2004, PH implemented a policy which stipulates that managers are responsible for sending in a copy of their employees' current, valid license to the Public Health Administrative Personnel Unit as licenses are renewed.

To ensure that this policy is adhered to, the Personnel Unit will conduct quarterly checks of current license copies in the License Binder by cross-referencing the license copies with the Position Control Integrated System (PCIS) information.

California Children's Services (CCS)

As was stated by the auditor, CCS program management, with consultation from County Counsel, is exploring the possibility of utilizing General Fund resources to pay monthly Share of Cost (SOC) liabilities for families. This would relieve the family of the obligation to pay these charges and allow the medical providers to access Medi-Cal funds for treatment of the child. CCS staff have discussed this with other counties who have successfully implemented this practice. The concept is being explored because some children are eligible for Medi-Cal, but the family is unable to pay the Medi-Cal SOC, therefore Medi-Cal is never billed and the State and County bear the entire cost of treatment. If the County pays only the family's SOC, the remainder of the bill would be submitted to and paid by Medi-Cal.

The Public Health Department understands that establishing a program that would utilize General Fund monies to pay Medi-Cal SOC for certain CCS patients constitutes a change in policy that may not be implemented without prior Board discussion and approval.

EMS Medical Direction

The auditors recommend "entering into a memorandum of understanding with a neighboring county for the EMS Medical Director..." While the EMS Agency agrees that appointing a back up or assistant EMS Medical Director is a prudent measure in order to assure continuity of medical control within the EMS system, this could be accomplished by appointing the Health Officer, or one of the Deputy Health Officers, as Assistant EMS Medical Director. There is no State requirement for the Assistant EMS Medical Director to be an experienced emergency physician (as there is with the EMS Medical Director) so these staff members could fulfill the duties.

As an additional contingency, the EMS Agency will consider entering into an agreement or memorandum of understanding with a neighboring county (such as San Mateo or Alameda) for EMS Medical Director services on a mutual aid basis. This option has been exercised between other counties in the State in recent years and may work well in Santa Clara County.

A contract with UCSF, Kaiser, or any other outside organization for EMS medical director services would not be desirable because there would be no assurance that the physician would be knowledge about SCC EMS treatment protocols and policies, operational procedures, and the general dynamics of emergency medicine in this community.

AGENCY COMMENTS REGARDING EACH SECTION OF THE AUDIT

SECTION 1: IMMUNIZATION OF SCHOOL CHILDREN

It is recommended that the Board of Supervisors urge the CA State Legislature to:

1.1 Amend Health & Safety Code Section 120335 to require that all students, regardless of grade level, be immunized against HEP B & mumps, & prohibit schools from conditionally admitting or advancing students who do not meet all IZ requirements. (Priority 1)

Agree.

1.2 Amend Health & Safety Code Section 120375 to require schools that are found to have at least 5 percent of students who are not compliant with school immunization law to pay the actual costs for their local health department to vaccinate these students on-site. (Priority 1)

Agree.

1.3 Amend Health & Safety Code Section 120440 to require public & private health care providers to report IZ info to their regional IZ registry. Schools also should be required to access IZ info from the regional registry & report new info or discrepancies to their local health department. (Priority 1)

Agree.

Registry participation of public and private provider sites has been made mandatory in other states. It is IZ Program's goal to have all providers participate in the Registry. Currently, schools are allowed "view-only" access to the registry and participation is on a

voluntary basis. Mandatory participation of schools will also be beneficial, provided they are also administering vaccines.

1.4 Require the California department of Health Services to report the annual Immunization Assessment Results by county, school district and individual school to the California State Legislature, local health departments and county offices of education and on the Internet. (Priority 2)

Agree.

1.5 Require the California Department of Health Services to alter the Selective Review so that 5 percent of schools are audited each year, advance notification is not given to the schools being audited, immunization records in all grade levels are sampled, and results are reported for the State and by county to the California State legislature, local health departments and county offices of education and on the Internet. (Priority 2)

Agree.

It is recommended that the Board of Supervisors urge the CA Children & Families Commission to:

1.6 Provide funding from Proposition 10 tobacco tax revenue in the Unallocated Account to fund the implementation of the immunization registry with public and private health care providers and schools across the State. (Priority 1)

Partially Agree.

The Public Health Department supports any additional funding that could be utilized for increased immunization. However, Proposition 10 funds can only be used for children under age 6. Funding for immunizations for children over the age of 6 is equally important, but changes in State policy would need to be made to allow access for Proposition 10 funds for this age group.

It is recommended that the Board of Supervisors urge the Santa Clara County Office of Education to:

1.7 Work with school districts to develop written procedures on complying with school immunization law, as enacted in Health and Safety Code Section 120335-120380, for all schools in the County. (Priority 1)

Agree.

1.8 Work with school districts in requiring enrollment and admissions staff to attend a workshop led by the Public Health Department on how to verify whether students' immunization records meet all requirements according to school immunization law and in orienting school health or office staff, who are responsible for monitoring and excluding students, on the written procedures. (Priority 2)

Agree.

1.9 Work with school districts to provide computer equipment & software to schools for tracking students' IZ & accessing the IZ registry. (Priority 2)

Agree.

Detailed response to recommendations 1.7-1.9 is under separate cover from the County Office of Education.

It is recommended that the Children's Shelter and Custody Health Services (CSCHS):

1.10 Require the medical clinics to administer the age-appropriate immunizations for the diseases listed in Health & Safety Section 120335, to children placed in the County's temporary holding facilities after seven days of contacting the parents for their consent, checking the immunization registry, and requesting immunization records from schools and health care providers. (Priority 1)

Response to this recommendation is under separate cover from CSCHS.

It is recommended that the Probation Dept.:

1.11 Conduct an independent evaluation of the IZ status of all children within its custody & provide a comprehensive report on the findings to the Superior Court. (Priority 2)

No position.

Response to this section should be provided by the Probation Department.

It is recommended that the County PHD:

1.12 Direct the Public Health Officer (HO) to carry out his enforcement duties, pursuant to County Ordinance Code Section A18-10, A18-11 and A18-12, by notifying schools of their noncompliance with State law, referring unresponsive noncompliant schools to the District Attorney, and referring the families with parents who refuse to vaccinate their children, but have not signed a personal beliefs exemption, to the Social Services Agency. (Priority 1)

Agree.

The Public Health Department has a clear and critical interest in compliance with school based immunization requirements. While there is no specific enforcement authority for the HO to exclude students from school unless a disease is suspected, record reviews and referrals to enforcement authorities are within HO authority.

The Department agrees that it is reasonable to notify, in writing, all non-compliant schools that additional follow-up will take place. However, the Department proposes that staff would physically visit only schools with less than 95 % immunization levels (in the 2003 review, nearly 80 of the 240 kindergartens fell into this category). The public health staff would identify a process for the school to come into compliance. The process would include education, recommended exclusion of non-immunized students, and as a last resort, referral to the Social Services Agency.

School visitation will require additional staff resources. Experience has shown that during the selective review process, each school requires up to an entire day to complete the record review. The State Immunization Assistance funds support immunization activities, however these funds are not solely for this purpose. Implementing the audit recommendation would require additional staff, at least 2.0 FTE Health Education Associates at a cost of $159,672 per year (Step 3, FY06).

1.13 Alter the Selective Review so that 5% of schools are audited each year, advance notification is not given to the schools being audited, IZ records in all grade levels are sampled, and results are reported for the State & by county. (Priority 3)

Partially Agree.

Administering vaccines in schools to children who do not have a valid exemption can be done, given the appropriate and adequate number of personnel. The program would need an additional 3.0 Clinical Nurse III staff to be able to travel to the schools identified throughout the year. The cost for the three additional staff would be $349,380 per year (Step 3, FY06). Additionally, proper procedures would have to be in place at the school sites in order to ensure parental consent. A thorough summary of the Immunization Program is included in Attachment B.

SECTION 2: CD REPORTING

General comments

Responsibility for disease control and containment of communicable diseases rests with the Public Health Department. The first step in controlling a communicable disease is to have knowledge of the disease either through active or passive surveillance. With more than 80 reportable diseases, it is impossible to support active surveillance for each one. Therefore, all Public Health departments at the local level rely on physician and laboratory reporting (in a timely fashion) in order to carry through with disease investigation and containment. A weak link universally has been shown to be passive reporting by physicians. All Public Health departments face the challenge of finding ways to improve physician reporting while maintaining the very critical relationship with the private medical community.

As illustrated in the Immunization example, this issue illustrates how Public Health has balanced three factors in working with the community: (1) outcomes, (2) process, and, (3) relationships. To achieve better outcomes, the Department has traditionally undertaken a "build capacity" and "knowledge" process and approach in order to obtain improved compliance over time through cooperative relationships.

It is recommended that the PHD:

2.1 Develop & implement a disease investigation procedure to identify physicians who do not report reportable diseases or who report diseases late. This procedure should include the filing of complaints against noncompliant physicians with the California Medical Board. (Priority 2)

Partially Agree.

The Department agrees that it would be ideal to be able to identify physicians who do not comply with reporting requirements and that non-compliant physicians should receive some kind of follow-up. Based on discussions with physicians, we know that it is a rare physician who may intentionally not report a reportable disease. For particularly worrisome lapses in reporting (for example, delayed reporting of syphilis in a pregnant woman, or E. coli in a child attending daycare), when we do contact physicians, they are uniformly apologetic and truly not aware of their reporting responsibility. Although there is no enforcement mandate, it is the assumed role of Public Health to continue to educate

physicians of their responsibility and to work not only with the physician, but also with their office staff or clinic administrators.

Public Health would recommend the follow-up be in a graduated fashion, starting with an informational/supportive letter to the physician, ending with filing of a formal complaint with the Medical Board. The existing "Cite and Fine" regulations of the California Medical Board require physician notification and education long before a report to the Medical Board. Public Health has a cooperative relationship with physicians that is very valuable and should not be jeopardized by threatening to immediately file complaints to the state.

Another concern PH has with this recommendation is that the amount of resources required to implement the recommendation far exceeds current resources. The only way to identify physicians who do not report at all is to do chart audits, or "active surveillance." The Disease Prevention and Control Program has one fulltime person who does nothing but active surveillance for AIDS cases (a federally funded position). The number of staff necessary to conduct active surveillance for all reportable CDs would be several-fold higher. Additionally, we would need at least one additional fulltime clerical person to track the categories of non-compliant reporters and generate an appropriate letter. Given that over 10,0000 diseases are reported every year in our county, and that the number likely represents 20% of actual diseases, we would need staff to actively look for and follow up on an additional 40,000 reports. This could conceivably require an additional 3.0 Communicable Disease Investigator staff who would actively review charts at offices and facilities and an additional 2.0 FTE Health Information Clerk II staff to support those activities of tracking and data entry. The cost would be approximately $307,560 annually (Step 3, FY06).

Therefore, the concept of improved physician reporting is good public health policy, but implementation of a program to do the active surveillance that would be necessary to identify non-reporters is not possible with current resources. In addition, any program to improve reporting must be constructed in such a way so as to not alienate physicians with whom we currently have a productive relationship.

2.2 Develop & implement a policy regarding the referral of physicians who repeatedly fail to report reportable diseases to the District Attorney. (Priority 1)

Partially Agree.

Public Health would support referring only the most egregious cases to the District Attorney where significant harm was caused by non-compliance with reporting requirements. However, as described above, PH does not believe that physicians intentionally do not report reportable diseases, and that a program that relies primarily on legal punishment will erode our productive working relationship with the medical community and it may not significantly improve reporting. We would propose that the centerpiece of a revamped program to improve reporting would be more intensive, comprehensive and consistent education of the medical community, including outreach and education to ancillary staff involved in the mechanics of reporting, as well as a more concerted effort to address barriers to reporting in our medical care system. The latter is something that needs to be addressed statewide. We already have the "Cite and Fine" regulations to use as legal pressure when needed, and have no evidence that a "stick"

rather than a "carrot" approach will improve outcomes.

PH believes that by improving physician education, we can maintain our strong and positive working relationship with the physician community. We have seen in instances where new diseases like SARS or West Nile Virus have emerged in our community, that the physicians, once alerted to the existence of the disease and how and what to report, have done so. As an example, Santa Clara County had the only 2 cases of SARS reported in the State, and both of these cases were rapidly reported to the Public Health Department. We believe that this is because we had provided comprehensive information and instructions to physicians. When physicians have complete information, and a reduction in barriers (i.e., having to fill out the paperwork themselves) we believe they will report.

2.3 Include disease-reporting compliance language in all contracts between the County of SC and persons or entities required to report diseases to the PHD under State law. (Priority 2)

Agree.

2.4 Develop policies & procedures regarding the monitoring & enforcement of restrictions placed on individuals with communicable diseases. (Priority 2)

Partially Agree.

We must first state that policies and procedures to monitor and enforce restrictions will require significant additional resources to implement. While we agree that restrictions placed on individuals with communicable diseases in order to prevent further spread is a basic function of Public Health, our capacity to monitor and enforce these restrictions is a resource issue. Routine site visits would be required to monitor restrictions of those in childcare, health care or food handling. Of course, the success of a restriction is only as good as the compliance with the restriction.

In some instances, there are powerful incentives for compliance and we may be able to do less monitoring. For example, in the case of restriction of a child from childcare, the childcare center is notified and has a great disincentive to allow a restricted child to return because of the liability it creates with the other families with children in daycare. In contrast, a food handler who makes an hourly wage and is not paid when not at work has a tremendous disincentive to comply, or even to report a diarrheal illness. By contrast, in a small business, the employer may need that worker at work.

As we saw recently when we requested voluntary home isolation of individuals who met a presumptive diagnosis of SARS, it took enormous staff time in order to follow up on these patients, even by phone on a daily basis. One additional Communicable Disease Investigator staff, at an annual cost of $72,168 (Step 3, FY06) would be needed to monitor and enforce restrictions in the Public Health Department.

SECTION 3: REGIONAL PHN PRODUCTIVITY

General Comments

The Public Health Department assigns Regional Public Health Nurse (PHN) staff to a variety of assignments, but the Management Audit fails to account for the full breadth of these

assignments. As a result, the Management Audit reaches conclusions different from those reached by the Public Health Department.

The County of Santa Clara FY 05 Budget publication, on page 481, documents that in 2003 the work assignments for Public Health Nurses included 6,225 unduplicated clients for Regional Case Management in the Maternal and Child Health category. It was this category that was the focus the Management Audit. The Budget publication also tallies another 408 clients for TB (disease) case management; 3,161 clients for Latent TB Infection case management; and 494 clients for Regional communicable disease case management. In other words, the Public Health Department is concerned that approximately 4,000 clients case managed for *disease containment* purposes are not given full attention in the report. Public Health has a legal mandate to control disease in Santa Clara County.

The Management Audit focus on the 6,225 Maternal and Child Health clients enabled the development of several recommendations with which the Public Health Department partially agrees. The disagreements stem from the oversight that Public Health Nurses are also assigned another 4,000 clients for disease containment case management assignments.

The auditors' recommendations are based on the data from Public Health Nurse work that enables Targeted Case Management (TCM) revenue generation. TCM is an important revenue source for the Department, and the Department is proud of its record on TCM revenue generation. TCM can be collected only for clients with full-scope Medi-Cal benefits. Because of its communicable disease mandate, disease containment case management is, by nature, more concerned with elimination of infectious disease, and much less interested in revenue generation. As 4,000 of the 10,000 clients were in the disease containment category, it is estimated that approximately one-third ($1/3^{rd}$) of the Public Health Nurse time was associated with this category of assignment. The Public Health Nurses assigned to disease containment duties are largely working with a population that does not have full-scope Medi-Cal, and therefore these nurses cannot contribute significantly to TCM revenues.

If the County is interested in maximizing TCM to the fullest extent, the Public Health Department contends that it would then concurrently have to commit to backing away from disease containment case management. The Public Health Department believes that disease containment functions are too important to be given second place behind TCM revenue generation, and it is on this basis that the Department finds itself in disagreement with the Management Audit. This audit should take into account the full scope of PH mandates.

Given that TCM is associated very strongly with the Maternal and Child Health client base, the Public Health Department wishes to point out its standing, on a statewide level, in TCM revenue collection activities. The Public Health Department FY 99 TCM collection was $1,636,613, out of the $19,328,017 collected statewide. In FY 99, Santa Clara County accounted for 8.5% of all California TCM collections. In FY 02, the Public Health Department TCM collections had risen to $3,745,872 while the statewide collections rose to $36,648,367. In FY 02, the Public Health Department "share" of statewide TCM had risen from 8.5% of all collections to 10.2% of all collections. Santa Clara County has slightly under 5% of the California population, per the California Department of Finance. The fact is that Santa Clara County has been a <u>leader</u> in TCM collections, and a leader in activities to *increase its TCM collections at a pace faster than that of the state as a whole.* The Management Audit does not credit the Public Health Department with

this established track record.

Furthermore, the trend of increasing year-over-year TCM collections by the Public Health Department has been accomplished with a smaller staff of Public Health Nurses than that in other counties where the TCM collections lags far behind that of Santa Clara County. The chart below lists the FY 02 TCM revenue for jurisdictions to provide an opportunity to compare Santa Clara to all other jurisdictions with populations between one and two million:

County	TCM Revenue ($) **	PHN FTEs *	TCM/PHN FTE ($)
Alameda	$1,529,876	141	$10,850
Contra Costa	$1,418,218	85	$16,685
Riverside	$675,548	70	$9,651
Sacramento	$1,529,673	133	$11,501
Santa Clara	**$3,745,872**	**127**	**$29,495**
San Bernardino	$137,382	153	$898

*The PHN Full-Time Equivalents are the total number of classified county staff that requires possession of a Public Health Nurse certificate as a minimum qualification for employment. The survey was conducted in 2002 by the California Conference of Local Health Department Nursing Directors.

**In FY 04, Santa Clara Public Health increased TCM revenue to over $6.5 million. FY 04 comparisons with other counties is not available via State report at this time.

As is clear from the above chart, Santa Clara Public Health is a leader in TCM collections, and a leader in efficiency in TCM collections per nurse. The Public Health Department is interested and has a track record in making every possible year-over-year gain in TCM collections and TCM efficiency. In this, the Public Health Department finds itself in agreement with some aspects of some recommendations. However, the Public Health Department strongly disagrees with recommendations that would sacrifice public safety functions, by reducing Public Health Nurse staffing, in the name of increasing TCM levels.

It is recommended that the PHD:

3.1 Examine the work habits of the most productive PHNs identified in this study, using interviews, review of work papers & direct observation, to identify best practices that can be promulgated throughout the division. (Priority 1)

Agree.

The Public Health Department already identified the most productive Public Health Nurses by review of work papers and interviews. The Department will expand this effort to include direct observation.

3.2 Implement & formalize monitoring of PHN productivity against the 20-encounters-per-month standard on an ongoing basis, providing additional supervision to nurses who do not meet the standard over a 3-month or longer period. (Priority 1)

Disagree.

Public Health Nurses whose clientele are heavily weighted with disease containment case management assignments, and who by nature are less likely to serve persons with full-

scope Medi-Cal, should be evaluated on the successful outcomes of the disease containment assignment. There are nationally promulgated, standardized outcome evaluation criteria for these assignments, which are far more useful than a process measure such as the number of billable encounters-per-month. An example of recommended and useful outcome criteria is to measure how many clients with tuberculosis disease are case-managed to complete the prescribed therapy within one year of its initiation. The number of visits is not as important as the outcome of the case management.

3.3 Based on the best practices identified using Recommendation 3.1, develop additional productivity standards for nurses, such as a recommended ratio between time spent during an encounter with a client, and time spent preparing in advance for the encounter & documenting it afterwards. (Priority 1)

Partially Agree.

The Public Health Department already has a policy which sets timelines for documentation following an encounter, and to that extent agrees with the recommendation. The agreement is only "partial," because the success of the interaction with the nurse is based on achieving the desired outcome, and less by a "work-by-the-clock" approach. For Targeted Case Management (TCM) revenue collections, the nurses must conduct a comprehensive written assessment, a process that takes more time than completing a problem-specific assessment. To the extent that the Department accepts this recommendation, it would be risking TCM revenue.

3.4 As productivity among all nurses improves to the 20-encounters-per-month standard, eliminate 18 PHN positions through attrition, or shift them to other priorities of the PHD. (Priority 1)

Disagree.

As explained in the narrative, the assignments with highest priority address disease containment case management. Disease containment is a department priority. PH Nursing is a mandated core service that local PHD must provide, CA Health & Safety Code Title 17, section 1276 outlines basic services that must be offered by a local PHD. "The department shall offer at least the following basic services to the health jurisdiction which it services: Public Health Nursing services to provide preventative and therapeutic care of the population served." The department also has a host of other mandates, especially "the control of communicable diseases, Tuberculosis and Venereal disease, based on provision of diagnostic consultation services, epidemiological investigation and appropriate measures for the particular communicable disease hazard in the community." These assignments are not going to enable all nursing staff to have 20-encounters-per-month (billable encounters, as defined in the Targeted Case Management program). The number of classified PHN positions should be based on the assignments for the staff, or assignments that the County wants the staff to undertake, and not on the limited TCM analysis in the Management Audit report.

SECTION 4: PH PHARMACY

General Comments

The Public Health Department and Valley Medical Center's Pharmacy division disagree with

many of the statements and conclusions drawn by the auditors regarding the Public Health Pharmacy. These disagreements most likely stem from differences in the nature of a Public Health pharmacy as opposed to a hospital- or clinic-based pharmacy. Comparisons are not so easily drawn.

For example, the Public Health pharmacy provides the medications needed by our tuberculosis (TB) clients. The TB regimen is far different than that of most illnesses; clients must be evaluated by a medical professional on a monthly basis for side effects, liver toxicity, etc. and receive many medications. Combining these multiple drugs into a patient specific 30-day blister pack makes it easier for the patients to follow the daily drug regimen. Together, this means a "refill" for a TB client is more akin to a new prescription and cannot simply be called in by the client. PH staff has developed a process by which clients' medication supplies are aligned with their monthly clinic visits so that clients can combine their trips. Should the auditors' recommendations be implemented, clients would be inconvenienced rather than helped. In addition, the individualized dosage requires compounding by pharmacy staff, which cannot be accommodated by a system such as ScriptPro. Contrary to the auditor's assertion, to the degree that automation can be utilized by the PH Pharmacy, it is.

A second area of clarification has to do with the duties of the Assistant Director of Pharmacy. The current manager oversees more than just the dispensing operation of the pharmacy. The non-dispensing operations include the AIDS Drug Assistance Program, Ryan White Medication Assistance Program, HIV/AIDS Investigational Drug Studies, Federal & State Vaccine Programs, County Flu Vaccine Program and Bioterrorism Planning and Preparation. All of these programs require strict record keeping and documentation. Close supervision of staff is required and very critical to ensure program compliance to allow the County to continue enjoying over $9 million in savings. The Assistant Director now has the additional responsibility of Pharmacy Purchasing for the Health and Hospital System with its $54 million in drug costs and 9.5 FTEs. Public Health and VMC Pharmacy disagree with the auditor's assertion that 1.5 FTE positions could be reduced, because managing these diverse activities require all existing staff.

Third, the proposed new centralized refill facility at VMC will be processing drugs purchased at 340(b) pricing. Public Health Clinic is not a FQHC site; therefore, Public Health Pharmacy clients are not eligible to receive drugs from FQHC sites. The 340(b) program has a very strict set of regulations for dispensing these drugs to eligible patients only. If County pharmacies were to dispense drugs to non-eligible patients, this would violate the 340(b) regulations and potentially cause the loss of 340(b) pricing, costing the County millions of dollars.

In addition to the needed clarifications (above), many factual inaccuracies should be pointed out. These include:

- there are four, not five, Assistant Directors in the SCVHHS Pharmacy Department.
- the Public Health Pharmacy is not one of eight, but one of ten outpatient pharmacies operated by the SCVHHS.
- the PH Pharmacy refill rate is not 54.6%. In FY 02/03, the actual refills at Public Health Pharmacy were 24.7%. The remaining 29.9% prescriptions were new prescriptions since a healthcare provider clinically evaluated patients receiving these prescriptions before they could continue to fill the prescriptions at a pharmacy.
- there are three vaccine programs that PH operates: the flu shot clinic, the Federal

Vaccines for Children (VFC) Program and the State Pediatric Vaccine Program. Together they provide over 165,000 vaccinations worth over $5.5 million.

- the Public Health Pharmacy prescription computer is integrated with VMC outpatient pharmacy system operated by SCVHHS Information Technology Support.
- Public Health Pharmacy currently has after-hour refill order telephone recorder system for patients to order refills ahead of time. With the exception of TB patients, all other Public Health Clinic patients can utilize this current service.
- the Assistant Director position was not vacant. The Supervisor had been appointed immediately as the Acting Assistant Director. As of July 5th, the Assistant Director position has been filled.
- the data analyzed in table 4.2 is flawed. Dose strength is not an indicator of standardization. Just because three different drugs are available in 300mg strength and these three are used commonly, it does not mean that the dispensing data of these three drugs can be combined. These still remain three distinct drugs. The correct way of analyzing the data would be:

(see next page)

Drug	*Strength*	*Form*	*Count Size*	*# of RX*	*% of Total*	*%**	*# of Rxs per Day***
Isoniazid	*300mg*	*tab*	*30*	*13,343*	*30.7%*	*30.7%*	*51.3*
Pyridoxine	*50mg*	*tab*	*30*	*4,480*	*10.3%*	*40.9%*	*17.2*
Rifampin	*300mg*	*cap*	*60*	*973*	*2.2%*	*43.2%*	*3.7*
Isoniazid	*300mg*	*tab*	*100*	*559*	*1.3%*	*44.5%*	*2.2*
Pyridoxine	*25mg*	*tab*	*30*	*466*	*1.1%*	*45.5%*	*1.8*
Isoniazid	*300mg*	*tab*	*60*	*461*	*1.1%*	*46.6%*	*1.8*
Isoniazid	*100mg*	*tab*	*60*	*387*	*0.9%*	*47.5%*	*1.5*
Atorvastatin	*10mg*	*tab*	*30*	*356*	*0.8%*	*48.3%*	*1.4*
Plan B	*0.75mg*	*tab*	*2*	*338*	*0.8%*	*49.1%*	*1.3*
Aspirin EC	*81mg*	*tab*	*100*	*291*	*0.7%*	*49.7%*	*1.1*
Aspirin EC	*81mg*	*tab*	*30*	*277*	*0.6%*	*50.4%*	*1.1*
** - Cumulative %*							
*** - based on 260 working days*							

Prescriptions constituting less than 2% of the total workload (Column 6) and that are dispensed less than ten prescriptions per day (Column 8) do not justify automation.

It is recommended that the Public Health Department:

4.1 Provide access to the Interactive Voice Recorder system to Public Health Pharmacy clients, permitting them to order refills at all times, and to pick up refills at the County pharmacy most convenient to them. (Priority 2)

Partially Agree.

SCVHHS will explore the use of Interactive Voice Response system in Public Health Pharmacy in FY 06. However, for the majority of the patients, the auditor's recommendation of "permitting clients to pick up refills at the most convenient County pharmacy" will, in fact, result in added inconvenience due to the fact that clients first have to visit their regional Public Health office, then go to the County pharmacy and wait in line to pick up their medications. The current practice is that the nursing staff at regional offices fax or telephone clients orders before their monthly clinic visits. Public Health Pharmacy prepares and delivers these ordered medications to the regional offices prior to their scheduled visits. After being cleared from a clinical evaluation, the healthcare provider approves the medication orders and the client can then obtain their medications for the next 30 days. Thereby, in one visit, the clients can get their monthly clinical evaluation and their medications. With the auditor's recommendation, the clients have to make two visits, one to the regional office and the second to County pharmacy. We believe this will be an inconvenience to our clients.

4.2 Include the Public Health Pharmacy in the clients to be served by a centralized refill facility the Santa Clara Valley Health and Hospital System is seeking through an RFP to obtain a new pharmaceutical distributor. Tuberculosis patients to be served by this system should be selected based on protocols developed by the TB Clinic indicating when it is appropriate to give patients more responsibility for monitoring their own medications. (Priority 1)

Disagree.

The new centralized refill center at VMC is initially being designated for 340(b) eligible patients. The County could risk litigation and loss of 340(b) pricing if such violation occurs. If a future opportunity arises, this can be revisited.

The auditor's recommendation for revising the TB protocol is in contradiction with CDC guidelines for TB control and is risking public safety. The standards of care for the prevention of latent TB, which developed based on guidelines published by the American Thoracic Society (ATS), endorsed by the Center For Disease Control (CDC), Council of Infectious Diseases Society of America, and the American Academy of Pediatrics include a 9-month course of INH for children and adults and monthly follow-up evaluations by health care providers to assess for side effects from the medication and signs of liver toxicity. Since these patients must be clinically monitored at least once a month before the prescription can be dispensed, these prescriptions cannot be processed or be treated as refill prescriptions. Therefore, these patients cannot use the automated telephone refill system serving other County pharmacy.

SECTION 5: CCS MEDICAL THERAPY BILLING UNIT

General Comments

The program appreciates the opportunity to respond to the Medical Therapy Unit Billing section of the Harvey Rose Audit Report. It is a rare program that has no room for improvement. However, the report includes statements that lead to erroneous implications about the practices in the MTU.

During the course of the management audit, CCS management expressed concerns about the relative merit of examining practices that the program was phasing out (charge slips).

The statement "the program did not follow a consistent process to fill out and turn in charge slips used to bill Medi-Cal," is a result of a question that was answered accurately, but creates a false impression. Staff was asked if there was a policy/procedure for charge slips. Charge slips were filled out by transferring information onto them from the Patient Treatment Record (PTR). To have a procedure for transferring information from one piece of paper to another seems unnecessary. However, an extensive procedure **is** in place for completing the Patient Treatment Records. Bills are generated by the PTR, which, therapists are oriented to procedurally in their first week of employment. These procedures exist to ensure that the Patient Treatment Records are filled in thoroughly and correctly. Therapists receive recording procedure in the first week on the job as well. Proper documentation is an essential part of MTU staff's orientation as it is a vital component of a medical record and treatment of the child.

The Department strongly agrees on the importance of maximizing revenue. After the first major

budget reduction in county General Fund in 2002-03, it became apparent that all programs needed to look at generating revenue. At that time, CCS MTU made significant efforts to maximize what was billed and therapists and supervisors doubled their efforts not only to transfer information from the PTR's to the charge slips but to religiously record all therapy and consultation time spent with patients.

Although unclear in the report, it appears that the alleged loss of revenue is based on amount billed and the amount of revenue collected, without factoring in the fact that at least one third of the bills are denied due to the patient's Medi-Cal ineligibility – and not necessarily to program's failure to bill. Standard protocol from State requires the MTU staff to bill Medi-Cal. Clients who are not eligible for Medi-Cal are not required to pay. A portion of the costs associated with therapy services (personnel) becomes the "maintenance of effort" required by the state. Since 1994 the State has required that all claims be submitted to the State, at which point the Medi-Cal claims are paid. Although the State does not pay all the claims, the data is required to collect data on scope of county CCS programs.

It is recommended that the PHD:

5.1 Establish a written policy & procedure for the Medical Therapy Program on filling out & submitting the Patient Therapy Record (PTR). This document should require therapists to update PTRs daily & to submit PTRs at the end of each month, as well as to provide instructions on how to fill out PTRs. (Priority 2)

Agree.

There has been a written policy and procedure for processing PTRs. In September 2004 the State issued a revised policy and procedure. The program strongly agrees that PTRs need to be completed daily and not merely by memory. Frequently, therapists use their rosters of patients, their running notes and their personal calendars to ensure they record all of their therapy interventions and consults. Supervisors consistently address issues with therapists when it is apparent that therapists are falling behind in their recording

5.2 Require Supervising Therapists to review a sample of PTRs every two months & discipline therapists that violate departmental policy & procedure. (Policy 2)

Agree.

Therapy supervisors participate in utilization review monthly. Minimally, 10% of the caseload is reviewed annually. Supervisors have already decided to institute PTR reviews as an integral part of their monthly staff meetings to reinforce the importance of accuracy and timeliness of completing the PTRs. The program follows customary merit system rules and labor contracts in the disciplinary process.

SECTION 6: GRANT INDIRECT COST RECOVERY

General Comments

The auditors' conclusion in this section is that the Department does not consistently incorporate an indirect cost rate into its grants budgeting processes, and so does not recoup sufficient reimbursement to cover the grant programs' share of Department-wide indirect costs. Public Health and SCVHHS Finance are in basic agreement with this assessment. Prior to the initiation of this audit, the Department was already working to develop a uniform grants development

policy and indirect cost rate. The auditors also suggest that the financial expertise of corporate SCVHHS Finance staff be incorporated in this development and rate setting process. We are in agreement with this suggestion provided current vacant positions related to the SCVHHS Finance Grants Unit are cleared for refilling.

On several smaller points made by the auditors, however, there is disagreement.

1. The report states that "Each time a new grant is awarded, the County incurs additional incremental indirect costs, including support staff time, time required by Administration to oversee the program and other indirect costs such as utilities and building maintenance". Public Health does not agree with this assessment. Significant changes in the number and/or complexity of grants would necessitate administrative and support staffing changes and/or other indirect costs. But in most cases, the majority of these costs are fixed, and therefore already exist regardless of a single new grant. Administrative and support staff already exist and simply take on activities related to a single new grant in place of or in addition to their existent job responsibilities. In most cases, new grants take place within existent facilities such that no new utilities or building maintenance costs are incurred. County and SCVHHS corporate overhead charges also do not increase because of a new grant program. The point here is that indirect cost recovery is desirable to cover existent fixed costs rather than new incremental costs, and any presentation of such information to the Board needs to be made in this light.

2. The report appears to suggest that the Indirect Cost Rate Proposal (ICRP) methodology utilized in the SB90 State Mandated Cost Claiming process is the optimal rate setting methodology to use wherever possible in grant budgets and in all Board transmittals for grant approval. Public Health is not in full agreement with this assessment. The SB90 ICRPs have basically been calculated by dividing administrative costs by total salary and benefits and then multiplying that percentage by the total cost of the SB90 program (which can include service/supplies as well as salary and benefits). This procedure yields a high indirect cost rate (45.6% by the auditors calculations). In those cases where such a high rate can be charged in addition to base program costs, Public Health should certainly do so.

    a. One problem with this approach is that SB90 claims are not constrained by a grant budget allocation while most Public Health grants are. So as the auditors note, the Department will need to work within the grant allocations and regulations regarding allowable indirect costs. Indirect cost rate justifications that tie to the grantor allowable amounts rather reflecting the SB90 ICRP methodology should be developed.

    b. Secondly, we do not agree that the SB90 ICRP rate methodology is accurate for use in disclosure of coverage of fixed indirect costs. The most appropriate calculation in this case would be the amount of the Department's existent fixed indirect cost that should be allocated to the new grant program.

It is recommended that the PHD:

6.1 Include the calculated indirect cost rate of the Dept., the actual amount budgeted, and the basis for any differences in all future grant transmittals to the BOS. (Priority 1)

Partially agree.

Disclosure of grant program coverage of fixed indirect costs should be made, but Public Health proposes calculating the amount of the Department's existent fixed indirect cost that should be allocated to the new grant program and comparing that to the indirect cost reimbursement included in the grant budget.

6.2 Assign the responsibility of calculating the PHD-wide indirect cost rate to the Controller of the SCVHHHS, including consultation with PH Administration on the inclusion of indirect costs in existing & new grants. (Priority 2)

Partially agree.

SCVHHS Finance involvement in the grants budgeting process and indirect cost proposals is desirable, but the resources needed to undertake such work is not possible at this time given current vacancies related to the SCVHHS Finance Grants Unit. For example, the Senior Accountant position in the Unit needs to be cleared for refilling. If this position is filled internally, the position being vacated will also need refilling.

6.3 Request approval of an Indirect Cost Rate Proposal (ICRP) from the federal cognizant agency of the PHD. (Priority 3)

Agree

6.4 Direct the SCVHHS Controller's Office to perform an analysis of all current grant budgets to determine whether maximum allowable indirect costs are submitted for reimbursement. The results of this analysis should be included with the annual Grants Report provided to the HHHC. (Priority 2)

Partially agree.

We agree such an analysis would be fruitful but, we do not currently have the resources to undertake it given current vacancies related to the SCVHHS Finance Grants Unit. For example, the Senior Accountant position in the Unit needs to be cleared for refilling. If this position is filled internally, the position being vacated will also need refilling.

6.5 Develop written procedures pertaining to the preparation of indirect cost rates, indirect cost rate proposals & the inclusion of indirect costs in grant applications. (Priority 2)

Agree.

SECTION 7: PH FEE SCHEDULE DEVELOPMENT

In 2003, Public Health submitted a transmittal increasing fees in four areas: Public Health Laboratory, Immunization, Vital Registration and EMS. As indicated in the management audit, documentation was provided to the auditors to justify the increases in Laboratory and Immunization. For Vital Registration, the auditors were informed that the fees are established by the State. Regarding EMS, the fees were established by an poll of fees charged by EMS agencies in other counties.

The Management Audit stated that in FY 2002-03 a full-time analyst was assigned to analyze costs and create a fee schedule. This is incorrect. The Deputy Director of Public Health Operations worked with program managers, and utilized an analyst for a portion of the data gathering and analysis.

In summary, the Management Audit of Public Health Fee Schedules suggest that all fees should be reviewed to ensure consistency and adherence to existing County policies, and that the SCVHHS Finance Department, the Public Health Department and the Controller's Office should take a lead role in reviewing fee calculations. We are in agreement with this suggestion provided current vacant positions related to the SCVHHS Finance Grants Unit are cleared for refilling.

The Management Audit suggests that this concept be implemented by assigning the analyses of costs related to fees to the SCVHHS Finance Agency, then have the PH Department set the fees and prepare the fee transmittals, and finally, submit the fee analyses and proposed revisions to the County Controller's office for approval prior to forwarding to the Board of Supervisors for approval.

On a general note, one that is not part of the recommendations, but included in the Costs and Benefits section of the Management Audit, there is a statement made that if fees to the Travel Clinic were to raised to cover costs, approximately $97,000 in additional fees would be collected. The Public Health Department would caution putting an expectation on achieving this additional revenue, as the Travel Clinic revenue is currently experiencing a reduction in visits compared to past years and may have difficulty in even achieving currently budgeted revenue.

It is recommended that the PHD:

7.1 Assign the analyses of costs related to fees to the SCVHHS Finance Agency, with continued responsibility for the setting of fees & preparation of fee transmittals with the PHD. (Priority 2)

Partially Agree.

The concern the Department has is with the magnitude of the work related to analyses of costs that the SCVHHS Finance Agency would have to do. This would necessitate relieving some staff of their current duties, or the hiring on additional staff, which is not part of the recommendations.

7.2 Include in all subsequent fee transmittals to the BOS the calculated or estimated cost recovery fee amount, and the difference between this amount & the recommended fee, if one exists. (Priority 2)

Partially Agree.

The concern the Department has is with the magnitude of the work related to analyses of costs that the SCVHHS Finance Agency would have to do. This would necessitate relieving some staff of their current duties, or the hiring on additional staff, which is not part of the recommendations.

7.3 Submit all subsequent fee analyses & proposed revisions to the County Controller's Office for review & approval prior to forwarding these revisions to the BOS for approval. (Priority 2)

Agree.

In cases where there is a difference, the Public Health Department would not only include the difference, but an explanation, which may include the impact of what a cost recovery increase would have on the public health of the community.

SECTION 8: SPECIALITY CLINIC BILLABLE CHARGES

General Comments

The Agency and Public Health Ambulatory Care both agree and disagree with the recommendations proposed by the auditors related to addressing specialty clinic billable charges within County clinics.

It appears that the auditors revealed an isolated practice related to staff use of Finance's list of charges during the course of their work that is not within clinic policy. Line staff under this audit should not have access to patient charges at their workstation; implementation of the VMC co-payment policy is the only billing charge practice staff should be operating under.

Implementation of a federally non-mandated posting of the top twenty common patient charges within the Public Health Ambulatory Care clinics would impose an unnecessary hardship and additional expense. The county, state, and federal regulatory and licensure mandates for sign postings to our existing 18 clinics is currently a large burden and to add an additional sign, in three languages, including tracking for updates, missing or destroyed postings, and all subsequent translations, is not recommended at this time.

It is recommended that the Director of the Ambulatory Care Health Services:

8.1 Provide current charge lists to clinic staff with charge amounts for use when discussing charges or co-payments with patients. (Priority 2)

Agree.

Lists of charges for staff to discuss charges with, and assess co-payments for, patient services is a practice observed by the auditors that was in error by the clinic staff. Ambulatory clinic policy is that line staff that work directly with patients should be directing patients to a telephone number to Finance, Revenue Control to discuss all questions related to charges. Staff should not have access to lists of charges for the very reasons stated in the audit report, the lists require frequent updates and PBS is the more appropriate contact for addressing patient billing issues.

Additionally, the VMC co-payment program went into effect May 1, 2004 and was implemented clinic wide. All staff have been trained on assessing any requisite co-payment for clinic services, which does not include the use of charge lists.

Clinic managers have been alerted to the findings of the auditor's report and management is currently working on addressing these deficiencies with clinic managers and supervisors to correct inappropriate charges or dissemination of information to patients. However, it should be noted that the collection of co-payments has been suspended and is currently under policy review for patients seeking services within the TB Clinic. Due to the nature of services associated with assessing, treating, and managing patients living with, or at high risk for, active and latent TB, collection of co-payments is under review to ensure collection practices do not serve as a barrier or deterrent to patients remaining

on their medication regimens and/or returning for their follow up care. Upon completion of a policy and implementation is initiated, an update will be provided.

8.2 Extend the required posting of available charge lists per AB 1627 to all ACHS clinics. (Priority 3)

Disagree.

The Department does not agree with the recommendation to extend AB 1627 to all ambulatory care clinic sites. Existing posting mandates for county, state, and federal regulations includes: over 20 clinic locations, compliance with over 12 regulatory and policy mandates, in three languages, for an estimated 750 separate documents posted throughout the Ambulatory Care system. Additionally, the staff resources required to track, post, update, and replace damaged or missing documents by clinic is significant; an added cost that should be recognized in consideration of implementing non-mandated legislation.

SECTION 9: TCM SHARE OF COST

General Comments

Share of cost refers to a Medi-Cal-related payment that, once remitted, entitles a person to Medi-Cal benefits for the remainder of month. For Targeted Case Management (TCM) services, as noted by the Management Audit, there are some instances per year when a share of cost payment stands in the way of the County collecting for the TCM visit. This, however, happens rarely, and there are costs involved to "fix" this situation. The "fix" may be as, or more, expensive than the problem, but determining this would take study.

The Targeted Case Management encounter database provides some information on the scope of the share of cost issue. The database indicates that 72 encounters out of 16,096 in FY 03 (0.4% of all encounters) were with persons with a Medi-Cal share of cost. In FY 04, there were 117 encounters of 20,646 (0.5% of all TCM encounters) that involved persons with Medi-Cal share of cost issues.

In other words, share of cost charges do not affect over 99.4% of persons who are receiving services that may yield TCM revenues for the County.

To the extent that a very small number of persons have share of cost issues, there may indeed be potential for increased revenue that is unrealized. However, there are increased costs that would be incurred to invoice the clients. There is also risk that some clients would refuse services from the Public Health Nurses to avoid the invoice that would ensue.

Given that some clients are not "known" to the Health and Hospital System because they receive their medical care in the private sector, the Public Health Nurses would also need to collect sufficient information to enable these clients to be entered into the Patient Billing System database. This in itself would lengthen the visit with the client, affecting the recommendations to increase PHN efficiency in Section 3 of this report. It is also possible that some clients that the Department wants to serve for disease containment case management would find the share of cost an impediment, and thereby complicate the disease control purposes behind the client interaction.

It is recommended that the PHD:

9.1 Apply TCM services towards share of cost liabilities by providing appropriate charges to Patient Business Services for processing & billing. (Priority 2)

Disagree.

As explained above, there is no way to bill for some clients, as they are not now known to Patient Billing Services. The Public Health risks associated with not serving clients – and there are relatively few such clients – may outweigh the costs associated with invoicing the clients. The October 27, 1995 transmittal setting TCM fees approved by the Board is no less true today than when it was written. The transmittal stated, "the clients seen by Public Health Nursing are at high risk for health conditions – including communicable disease – which become increasingly more complex and costly without early intervention." The Public Health Department is concerned that invoicing for share of cost will delay early intervention, and erode its ability to address core public services, especially disease containment efforts.

The Public Health Department requests that the Board of Supervisors endorse its position of not seeking share of costs from these clients.

SECTION 10: EMERGENCY AMBULANCE SERVICE CONTRACTS FINES AND PENALTIES

General Comments

In general, the Emergency Medical Services Agency and Santa Clara Valley Health and Hospital System Administration agree with the facts as stated in the discussion section of Chapter 11 in the PH audit. A few points of context are provided for better understanding the Administration's responses to the auditors' recommendations.

On September 25, 2001, the Board of Supervisors approved the contract with AMR-West for pre-hospital and emergency medical care and transport services. This was a new, performance-based contract designed to provide a seamless system of standardized emergency medical care throughout the County. It included significant service enhancements and better managed financial risk to the County. Accountability for meeting response time performance measures was instituted by dramatically increasing the penalties for AMR and establishing requirements for the First Responders.

The increase/institution of penalties was one of the 40 areas of concern that took a full two years of negotiations to resolve. The First Responders (i.e., the cities) had concerns about the oversight agency receiving the penalty funds that it assessed; they questioned the potential application and motivation for assessing penalties. Thus, to resolve the issue, the County agreed to establish a separate EMS Trust Fund and agreed to expend 50% of the First Responder penalties on the First Responder system, so long as County was not experiencing financial hardship. In case financial hardship was experienced, the Executive Director of SCVHHS was given discretion through the Board-approved contract to redirect funds from the EMS Trust Fund to other EMS-related functions.

As the County has been reducing its budget over the past two years, the EMS Agency has also taken budget reductions. The Executive Director of SCVHHS determined that multiple rounds of budget reductions constituted a significant financial hardship; therefore, only $196,000.00 has been expended from the Trust Fund since April 15, 2004 for important EMS system enhancements. In addition, the Board approved a budget allocation of $115,000 to support EMS Agency programmatic needs.

In summary, the recommendations made by the auditors in Chapter 11 are in essence already happening.

It is recommended that the BOS:

10.1 Develop a standard for the determination of 1) what constitutes a substantial financial hardship, and 2) what signals the end of a substantial financial hardship. (Priority 1)

Disagree.

The Executive Director of SCVHHS currently has this responsibility and has used his discretion to reject requests for Trust Fund allocations for non-essential items. Moreover, the Board approved use of $115,000 from the EMS Trust Fund for the EMS Agency's FY05 budget. The Board-approved contract provides sufficient flexibility for the withholding of expenditures in periods of "substantial financial hardship".

It is recommended that the SCVHHS:

10.2 Hold requests for EMS system improvement funding from the EMS Trust Fund until the BOS declares that the County no longer faces a substantial financial hardship. (Priority 1)

Partially Agree.

The contract currently provides the County with the ability to not expend 50% of the First Responder fines and penalties during periods of financial hardship. However, the EMS Agency needs the flexibility of spending Trust Funds on operations, when needed, during periods of financial hardship to maintain a robust EMS System rather than simply holding the funds. Thus, SCVHHS Administration recommends the EMS Agency continue to be able to transfer Trust Funds into the Agency's operational account when the Board of Supervisors approves such action, as happened during the FY05 budget process.

10.3 Report the status of the EMS Trust Fund, including the available balance, to the BOS during all future budget discussions. (Priority 1)

Agree.

The EMS Agency began to report on the Trust Funds as part of the budget process in FY04/05 and will continue to do so.

10.4 Address additional EMS Agency budget reductions by transferring the amount of the reduction from the EMS Trust Fund. (Priority 1)

Partially Agree.

As stated above, the Board of Supervisors approved using $115,000 a year from the EMS Trust Fund to support an Agency position that otherwise would have been reduced as a budget reduction measure. Locking the Agency into transferring funds to cover all future reduction targets does not make sense; the Agency should continue to have the

flexibility to identify for the Board's consideration cost- and efficiency-savings measures to meet budget reductions, when appropriate.

SECTION 11: PH FACILITY LEASE COSTS

General Comments

The Agency is an agreement with the summary and recommendations proposed in the audit recommendations. It would be appropriate and more cost-effective to house Public Health and Mental Health administrative functions in county owned space.

It is recommended that the BOS:

11.1 Request Facilities Department Property Management to prepare a market analysis of office buildings suitable for use for PH & MH administrative purposes, that are currently available for purchase in the San Jose area. (Priority 1)

Agree

11.2 Evaluate the Facilities Department Property Management office building availability report & authorize the Facilities Department Property Management to execute a purchase as described in this section, contingent upon identification of a suitable building & the confirmation of significant potential cost savings. (Priority 1)

Agree

Attachment A

Public Health Management Audit Recommendations - Summary of Responses

Recommendation	Agency	Agree	Partially Agree	Disagree	No Position
Section 1: Immunization Clinics					
1.1	CA State Legislature	1			
1.2	CA State Legislature	1			
1.3	CA State Legislature	1			
1.4	CA State Legislature	1			
1.5	CA State Legislature	1			
1.6	CA Children & Family Commission		1		
1.7	SCC County Offfice of Ed.	1			
1.8	SCC County Offfice of Ed.	1			
1.9	SCC County Offfice of Ed.	1			
1.10	Children's Shelter/Custody Health Services	1			
1.11	Probation Department				1
1.12	Public Health Department	1			
1.13	Public Health Department		1		
Section 2: CD Reporting					
2.1	Public Health Department		1		
2.2	Public Health Department		1		
2.3	Public Health Department	1			
2.4	Public Health Department		1		
Section 3: Regional Nurse Program					
3.1	Public Health Department	1			
3.2	Public Health Department			1	
3.3	Public Health Department		1		
3.4	Public Health Department			1	
Section 4: PH Pharmacies					
4.1	Public Health Department		1		
4.2	Public Health Department			1	
Section 5: CCS MTU Billing					
5.1	Public Health Department	1			
5.2	Public Health Department	1			
Section 6: Grant Indirect Cost Recovery					
6.1	Public Health Department		1		
6.2	Public Health Department		1		
6.3	Public Health Department	1			
6.4	Public Health Department		1		
6.5	Public Health Department	1			
Section 7: Fee Schedule Development					
7.1	Public Health Department		1		
7.2	Public Health Department		1		
7.3	Public Health Department	1			
Section 8: Specialty Clinic Billable Charges					
8.1	Ambulatory Care Hlth Serv	1			
8.2	Ambulatory Care Hlth Serv			1	
Section 9: TCM Share of Cost					
9.1	Public Health Department			1	
Section 10: EMS Fines & Penalties					
10.1	Board of Supervisors			1	
10.2	SCVHHS		1		
10.3	SCVHHS	1			
10.4	SCVHHS		1		
Section 11: PH Facility Lease Costs					
11.1	Board of Supervisors	1			
11.2	Board of Supervisors	1			
		21	**14**	**6**	**1**

12/10/2004

ATTACHMENT B

Role and Function of the Public Health Department Immunization Program

The California Department of Health Services, Immunization Branch and the Santa Clara County Public Health Department Immunization Program conduct school assessments each fall to monitor compliance with California School Immunization Law. Assessments are performed at kindergartens and seventh grade schools because this is consistent with the DHS contract.

The scope of work outlined in the DHS contract, the Immunization Program must raise (or maintain) immunization levels of 95% or greater for each of the legally required immunizations among all kindergarten entrants, incoming transfer students to schools, and entrants into child care centers within the Contractors jurisdiction.

According to the 2002 and 2003 Kindergarten Assessment Results by Antigen for California and Santa Clara County, the Immunization Program has exceeded the objective of 95% immunization rates for kindergartens. This accomplishment is largely due to the strong partnership with the schools.

On July 1, 1999, the State added the hepatitis B series to the California School Immunization Law. In general, when a new requirement is introduced, it may take years for the schools to achieve the desired immunization rate. The hepatitis B requirement poses a unique challenge for schools since it is a three dose series (or two dose series for children 11-15 years of age only), which can take up to six months

Over the past twenty-six years, the Immunization Program has established and maintained a solid relationship with kindergartens and seventh grade schools in Santa Clara County. Collaborative efforts occur in numerous ways:

- In-services and trainings:

    - Trainings are conducted upon request for all schools and for targeted schools with historically low immunization rates. Often school districts mandate school nurses and other health personnel to attend trainings provided by the Immunization Program. However, the Program does not require attendance, as there is no mandate from DHS. On average, the Program conducts 10-20 trainings/in-services to schools and school districts per year.
    - Attendance for the trainings varies based on the topics to be covered. Target audiences include School Nurses, Health Clerks, Teachers, District Nurses, Health Advisory Committees, Superintendents, Principals, Parents, and Students.
    - Training regarding School Law Requirements: Changes/Additions to the School Law (new requirements)

- Discussed strategies for implementing the hepatitis B requirement (July 1999) and the varicella requirement (July 2001); Addressed questions/concerns regarding possible requirements in the future (ex. hepatitis A)
- Recommended Childhood & Adolescent Immunization Schedule (discuss changes and updates)
- Immunization Materials and Resources for Parents and Teachers

- Quarterly Newsletters to school districts and schools regarding:

  - Changes to the immunization schedule or school law
  - Updates on vaccines
  - Prevalence of vaccine reportable diseases
  - Upcoming events/activities (back to school, flu, satellite broadcasts, trainings, etc.)
  - Time sensitive information may be mailed separately to schools

- Technical Assistance

  - Provide on-going technical assistance and support to schools regarding the IZ School Law, screening records, etc.

- Kindergarten & Seventh Grade Assessments* – Required by DHS

  - Fall Assessments: Every fall, assessments are conducted at all schools in Santa Clara County with kindergartens and the seventh grades. These assessments monitor compliance with the California School Immunization Law and provide a measure of the immunization status of children. The schools send (via mail) the original report to DHS and a copy to the Immunization Program. All data are analyzed by DHS and results are provided to the County.

  - Selective Review Assessments: DHS draws a random sample of schools with current kindergarten and seventh grade enrollment, eliminating schools reviewed in the previous five years. The Immunization Program is given a list of selected schools to visit in the spring. Program staff visits the selected schools to ensure understanding of and compliance with immunization requirements and effectiveness of follow-up from the Fall Assessments.

  ** For all assessments, the Immunization Program calls and/or visits schools that need assistance or are delinquent in completing their assessment reports.*

- School Outreach

  - Every spring, the Immunization Program staff visits a selected number of schools with low immunization assessment results (rates below 60%) and provides them with educational materials and other resources. Approximately 10-20 schools are

visited each year. In recognition of the need to increase the immunization rates among middle school students, the Program staff visits seventh grade schools with low rates to provide immunization updates, review adolescent immunization requirements, and answer any questions the school staff may have had. *This is beyond what the State requires/mandates per the State immunization contract with the County.*

- Review the school requirements and responsibilities of school staff in implementing the California School Immunization Law

- In conducting visits at schools, the Immunization Program staff have identified the following reasons for low immunization rates:

  - Lack of understanding of school requirements
  - Increase staff turnover rate
  - Need for additional training
  - Limited staff time dedicated to ensuring that all children are up-to-date
  - School does not have a workable follow-up system
  - Improper and incomplete documentation of students immunization histories

Surveillance

Surveillance activities for vaccine-preventable diseases (VPDs) are conducted within the Public Health Department's Disease Prevention and Control Program in coordination with the Immunization Program, and include investigating reports of suspected or confirmed cases, monitoring disease trends, and conducting outbreak control measures. Public Health surveillance staff provides information about VPD-related issues to medical professionals and the lay community through individual consultations, newsletter articles, and health alerts. Staff exchanges surveillance information with the Department of Health Services Immunization Branch and local health departments, and participate in state and national conferences.

Health Education

Health Education is a fundamental component of Public Health and an essential service of the Department that focuses on informing, educating, and empowering people about health issues. The Health Educators in the Immunization Program are dedicated to the excellence in the practice of promoting individual, family, organizational and community health. The Immunization Program strongly believes and is responsible for empowering the school system with the knowledge and necessary skill set to implement the requirements of the school immunization law. Through a respectful partnership, schools regard the Immunization Program as an authority and expert in immunization as well as a resource for accurate and reliable information and education.

Health educators have been trained on how to approach a given situation in a fashion that yields desired and successful results for both parties. As a general rule, it is the Program's common practice to maintain a level of respect and equality at all times and with each partnership.

Health Education in the Immunization Program will:

1. Continue to educate and train school personnel on the California School Immunization Requirements.

2. Continue to conduct annual assessments as required (per contract) by the Department of Health Services Immunization Branch.

3. Strengthen partnerships with school districts, particularly San Jose Unified School District.
   - Conduct immunization trainings at enrollment centers
   - Provide on-going technical assistance
   - Maintain a current school health personnel contact list

4. Consult school districts to help create and maintain a policy to enforce the school law which includes the following:
   - School personnel must screen IZ records at all enrollment sites
   - School personnel must have written protocols at every school site
   - School personnel must ensure blue cards are accurate and up-to-date at all times
   - Ensure that school personnel do not enroll children who are non compliant in school
   - Ensure that school personnel exclude children who are currently enrolled in school but are non compliant

5. Utilize or develop a state of the art data system for tracking immunizations that is uniform (e.g. IZ Registry).

6. Notify school of SB90 that provides reimbursement to schools for IZ related activities.

Dedicated to the Health of the Whole Community

SANTA CLARA VALLEY HEALTH & HOSPITAL SYSTEM

CHILDREN'S SHELTER & CUSTODY HEALTH SERVICES

TO: Roger Mialocq, Management Audit Division Manager

FROM: Maryann Barry, MSN, RN,NP, CNAA MWBarry
Associate Director, Children's Shelter and Custody Health Services/
Acute Psychiatric Services

RE: Children's Shelter/Custody Health Services Department Response to Harvey Rose Audit/Public Health Department

The Immunization of School Children section of the Harvey Rose Audit of the Public Health Department focused on the various procedures for providing immunizations to the children of Santa Clara County. The auditors described the immunization procedure at Juvenile Hall/Juvenile Ranches as follows: *The Juvenile Hall Medical Clinic does not administer vaccines from the primary series, regardless if immunization records cannot be found, since the clinic assumes that the children already received those vaccines.* Furthermore, the auditors recommend, *that the Board of Supervisors order Custody Health Services to require medical staff to vaccinate chldren in County facilites against all diseases listed in Health and Safety Section 120335 after 10 days of contacting their parents and being unable to locate any immunization records.*

Current Immunization Administration Procedure/Juvenile Hall/Juvenile Ranches

Upon arrival at Juvenile Hall, all minors receive a comprehensive medical screening conducted by the Medical Clinic's nursing staff. Within the first 24 to 48 hours of admission, the clinic's clerical staff review CAIR(California Automated Immunization Registry) to determine if minors' immunizations have been registered in the State system. If minors' immunization history is not accessible through CAIR, the clerical staff proceed to contact the respective school systems to obtain immunization histories. If neither of these contacts has provided the clinic staff with the information sought, the clinic Pediatrician attempts to contact the minors' parents and/or community Physician for the information prior to the completion of the minors' physical examination.

Since the majority of the minors detained in the County's Juvenile Probation Detention System have been enrolled in the school system prior to their detention at Juvenile Hall, it is the exception rather than the rule to identify a minor who has not received the primary series of immunizations, but if such a determination is made, the clinic staff proceed with administering the primary series of immunizations as well as the Hepatitis series. The clinic is extremely aggressive in immunizing undocumented minors who have not received their primary immunizations in the US and in updating both Hepatitis A and

Hepatitis B immunizations to all Juvenile Hall/Ranch detainees since these are the major deficiences in the immunization status of adolescents.

Audit Recommendation

Require the medical clinics to administer age-appropriate immunizations, for the diseases listed in the Health and Safety Code Section 120335, to children placed in the County's temporary holding facilities after seven days of contacting the parents for their consent, checking the immunization registry, and requesting immunization records for schools and health care providers. (priorty 1)

Department Response

The Medical Clinic Departments of Juvenile Hall and the Children's Shelter are in full support of providing immunizations for all children in Santa Clara County. The Clinics aggressively pursue obtaining immunization histories on all minors detained in Juvenile Hall/Juvenile Ranches through use of the CAIR, local schools, parents and community physicians and appropriately provides both primary and Hepatitis series vaccines to the detained children upon receipt of parental consent for children at the Hall/Ranches. Minors at the Children's Shelter are immunized without parental consent if the minors have been in custody for 10 days and attempts to contact parents to obtain consent have been unsuccessful.

It is essential for the Clinic Physicians to maintain their ability to utilize their professional judgements in ordering immunizations as it is with any other aspect of medical care. Physicians should not have their clinical expertise and authority for the health care of the minors stripped by an order of the Court or any agent of the County as is recommended by the auditors through the proposed mandate.

The goal of the Clinic with respect to immunizations is to maximize appropriate administration of immunizations to detained minors while minimizing the County's risk exposure which the current system exemplifies.

The Health & Hospital System is working with County Counsel to determine whether a court order or local rule is needed to allow immunizations to children without parental consent.

C: Susan Murphy, Director, VMC
Jerry Klein, MD, Medical Director, Juvenile Custody Facilities
Bob Sillen, CEO, HHS
Martha Paine, HHS Finance
Amy Carta
Rae Wedel

County of Santa Clara

Office of the District Attorney

County Government Center, West Wing
70 West Hedding Street
San Jose, California 95110
(408) 299-7400
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George W. Kennedy
District Attorney

October 12, 2004

Roger Mialocq
Management Audit Division Manager
Santa Clara County Board of Supervisors
70 West Hedding Street – East Wing
San Jose, California 95110

Re: Draft of Management Audit of the Department of Public Health

Dear Roger:

Thank you. The office of the District Attorney is committed to assuring that the laws and policies assuring the health of all of our county's children are enforced in the most effective manner possible. This is especially true for children who have come under the jurisdiction of the delinquency and dependency courts and are in county-run facilities as a result. To this end, I am very interested in the implementation of the outlined recommendations.

Sincerely,

GEORGE KENNEDY
District Attorney

GWK/jm

SANTA CLARA COUNTY OFFICE OF EDUCATION

Colleen B. Wilcox, Ph.D.
Superintendent

October 6, 2004

Roger Mialocq, Manager
County of Santa Clara Board of Supervisors
Management Audit Division
70 West Hedding Street
San Jose, CA 95110-1770

Dear Mr. Mialocq:

Thank you for the opportunity to review the DRAFT Management Audit discussing immunization of school children in Santa Clara County and for requesting input. Staff have read the document and believe it to be a complete listing of immunization percentages both for districts and school sites.

However, we do take exception with your findings of factors contributing to noncompliance. While you have described six primary reasons why this county's noncompliant immunization rates are unacceptably high, we think you failed to identify the root cause. The root cause can be traced to a lack of adequate resources. To address the specific factors identified in the draft requires a dedication of time and resources – two items which are presently in short supply in public education. While in theory, schools can charge back to the state for mandated services, reimbursement to schools for mandated services has been placed on hold. Furthermore, I was unaware of any responsibility that the schools have to assume costs for student immunizations.

With regard to other draft recommendations, the finances of this Office are not sufficient to supply the recommended computerized monitoring and software systems to districts for tracking students' immunization. Also, the recommendation to strengthen school immunization law is unwise unless the resources are provided to fulfill the law.

Our staff agreed that Public Health should assume a role of actually providing immunization clinics on school campuses, administering shots at the expense of Public Health. This form of support and collaboration has worked most successfully in other states and we have often wondered why there isn't a similar system within California. A supportive working relationship between Public Health and Public Education seems natural as we are all invested in the health and well-being of our children. We would be delighted to work with you in support of this particular recommendation. We can also

work with school districts to support admissions staff attendance at workshops facilitated by Public Health on verifying students' immunization records.

In conclusion, I, too, am concerned about the immunization of our children. However, the costs to assure that every child is immunized should not fall to Public Education. Existing resources for education to monitor and remedy noncompliant immunization rates are already insufficient. Our public schools simply cannot withstand additional costs while currently struggling with decreased revenue.

Most sincerely,

Colleen B. Wilcox, Ph.D.
County Superintendent of Schools

cc: Dr. Guadalupe Olivas, Santa Clara County Public Health Director

State of California—Health and Human Services Agency
Department of Health Services

California Department of Health Services

SANDRA SHEWRY
Director

ARNOLD SCHWARZENEGGER
Governor

September 9, 2004

Mr. Roger Mialocq
Management Audit Division Manager
County of Santa Clara
Board of Supervisors
70 West Hedding Street
San Jose, CA 95110-1770

Dear Mr. Mialocq:

Thank you for your recent letter to Director Sandra Shewry and the opportunity to review the section of the DRAFT Management Audit of the County of Santa Clara Public Health Department that discusses the immunization of school children in Santa Clara County. Your letter has been referred to this office for reply.

The California Department of Health Services (CDHS) is enabled by Health and Safety (H&S) Code Sections 120335, 120375, and 120440 to promulgate regulations (California Code of Regulation (CCR), Title 17, §6025-6080) that prescribe the specific vaccines and numbers of vaccine doses required for school entry, continuation and compliance. CDHS Immunization Branch (IZB) has the ability to monitor compliance, while enforcement of these regulations is the responsibility of the local health officer. In 2004, this review indicated that >96.5% of all children entering kindergarten in California were in compliance with requirements.

IZB closely monitors the H&S code and CCR to assure all current recommendations for immunizations of the federal Advisory Committee on Immunization Practices (ACIP) are included in regulation. Before requiring a vaccine for entry into or continued participation in school, the IZB performs a careful review that includes:

- vaccine availability and supply,
- U.S and California disease epidemiology,
- federal, organizational, and state advisory group recommendations,
- likely impacts or burdens that new vaccine requirements might have on the California health care system.

Immunization Branch
2151 Berkeley Way, Room 712, Berkeley, CA 94704
(510) 540-2065
Internet Address: www.dhs.ca.gov

CDHS reviews immunization policy in a considered, thoughtful and inclusive manner, working with other departments, organizations (including California Conference of Local Health Officers and California Health Executives Association of California) and coalitions to build broad support for new or expanded vaccine requirements. Despite the substantial benefits provided by immunization, there is a vocal minority of Californians who do not support immunization. Sudden, dramatic or policy changes that appear punitive may disrupt the consensus and support required to change regulations and may result in decreased immunization levels.

Specific responses to the recommendations that affect CDHS include:

1.1 AB 1822 (Chan), introduced in 2003-2004 legislative session to amend H&S Code Section 120325 , included your recommendations for hepatitis B and mumps immunization. Although the Governor vetoed AB1822, IZB will continue to support these recommendations in future legislation.

1.2 It is impractical to immunize children at school:

- Schools are not currently equipped or staffed to conduct immunizations.
- Consent for immunization is very difficult to obtain in the school setting.
- The collection and processing of fees is extremely cumbersome because most vaccines are covered by federal, state and private insurances.

It is simpler to immunize children in currently available settings:

- Administration of vaccines at schools ruptures the medical home relationship.
- The Santa Clara Health Department has frequent immunization clinics for children without a medical home.

1.3 CDHS believes that, given the limited resources of the immunization registries, participation in the registry by all providers of vaccines should be highly encouraged but not required. Mandated participation may be reconsidered as funding and participation increase.

State H&S Code 120440 already permits Santa Clara County schools to access the immunization registry. An additional legal requirement for registry use by schools is unnecessary.

Immunization Branch
2151 Berkeley Way, Room 712, Berkeley, CA 94704
(510) 540-2065
Internet Address: www.dhs.ca.gov

1.4 CDHS already prepares annual reports of immunization assessment. This information is available on-line at www.CDHS.ca.gov/ps/dcdc/izgroup/levels.htm. Additionally, these reports are mailed to the immunization coordinators via the Immunization Update newsletter. Data for specific schools, districts, and geographic areas is available by request from IZB. For your convenience, enclosed is a copy of the 2004 antigen specific compliance data for students admitted to child-care, kindergarten and seventh grade (IMM-424 {5/04}).

1.5 Selective review is done on a statistically competent number of schools each year to adequately monitor compliance to school vaccine requirements. Monitoring all grades is not necessary as requirements are specific to Kindergarten and 7th grade. Additionally, real-time assessment of on-time compliance to immunization recommendations is conducted every six months by the Centers for Disease Control and Prevention (CDC), National Immunization Program (NIP). This data is more timely and important to program planning than school requirement compliance data.

We hope this information we have provided will be helpful to you. If you need additional information regarding this matter, please feel free to call me at (510) 540-2065.

Sincerely,

Howard Backer

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Enclosure

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FACT SHEET

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2004 School Fact Sheet

Thanks to universal enforcement of the School Immunization Law, California children in schools and child care centers are well protected against vaccine-preventable diseases. Hepatitis B vaccine has been required for entry into child care centers and kindergarten since 1997 and for entry into seventh grade since 1999. Varicella vaccine and/or physician documented immunity/disease has been required for entry into child care centers and kindergarten since 2001.

Estimated California Population In Schools and Child Care Centers

California Population, All Ages:	33,871,648[1]	California Population Under Age 5 Years:	2,486,981[1]
Percent of Kindergartens Responding to Survey:	99.4%[2]	California Population of Children 2–4 Yrs. Old:	1,517,251[1]
Number of Kindergartens Reporting Enrollment:	8,544[3]	Percent of Child Care Centers Responding to Survey:	94.2%[4]
Number of Students in Reporting Kindergartens:	513,519[3]	Number of Child Care Centers Reporting Enrollment:	9,550
Percent of Schools with 7th Grade Responding to Survey:	99.2%[2]	Number of Children 2–4 Yrs. Old in Reporting Child Care Centers:	456,675[3]
Number of 7th Grades Reporting Enrollment:	4,557[3]		
Number of Students in Reporting 7th Grades:	544,564[3]		

[1] Census 2000, California Department of Finance
[2] Denominator derived from California Department of Education
[3] 2003 School Assessment Surveys, California Department of Health Services
[4] Denominator derived from California Department of Social Services

Percent of Students Who Met School Entry Immunization Requirements

	Year of Survey	Year of Birth	MMR (≥1 Dose)	DTP[2] (≥4 Doses)	Polio (≥3 Doses)	Hep B (≥3 Doses)	Hib (≥1 Dose)	Var
CHILD-CARE CENTER CHILDREN (2 – <5 YEARS)	1994	≤1990	97.7	94.6	97.0	.	.	.
	1995	≤1991	97.6	94.7	96.9	.	.	.
	1996	≤1992	97.7	95.0	97.1	.	94.8	.
	1997	≤1993	97.5	94.8	97.2	82.0	95.3	.
	1998	≤1994	97.9	95.7	97.8	93.6	96.2	.
	1999	≤1995	97.9	95.6	97.6	95.6	97.0	.
	2000	≤1996	97.8	96.0	97.7	96.3	97.5	.
	2001	≤1997	98.0	96.4	97.6	96.5	97.7	93.3
	2002	≤1998	97.9	95.3	97.8	96.5	97.8	95.6
	2003	≤1999	97.9	95.6	97.7	96.1	97.6	96.3
KINDERGARTEN STUDENTS	1994	1989	98.3	93.8	95.0	.	.	.
	1995	1990	98.4	94.4	95.3	.	.	.
	1996	1991	98.6	94.9	95.7	.	.	.
	1997	1992	94.3	95.6	96.2	71.7	.	.
	1998	1993	95.8	96.5	96.9	94.4	.	.
	1999	1994	96.4	96.3	97.1	97.0	.	.
	2000	1995	96.3	96.3	96.9	97.3	.	.
	2001	1996	96.7	96.6	97.1	97.7	.	96.9
	2002	1997	97.0	96.6	97.2	98.1	.	98.3
	2003	1998	96.8	96.5	96.9	98.1	.	98.6
7TH GRADE	1999	1987	93.2	.	.	68.6	.	.
	2000	1988	95.0	.	.	72.5	.	.
	2001	1989	95.2	.	.	73.4	.	.
	2002	1990	95.7	.	.	77.1	.	.
	2003	1991	96.6	.	.	81.6	.	.

[1] One dose of measles, mumps, & rubella combined vaccine is required for child care center entry, and 2 doses of measles-containing vaccine is required for kindergarten (ef. 1997) and 7th grade (ef. 1999) entries.
[2] Diphtheria, tetanus, pertussis combined immunization.

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