

PERFORMANCE AUDIT
OF THE
DIVISION OF IMMUNIZATION
COMMUNITY PUBLIC HEALTH
DEPARTMENT OF COMMUNITY HEALTH

March 2001

EXECUTIVE DIGEST

DIVISION OF IMMUNIZATION

INTRODUCTION	This report, issued in March 2001, contains the results of our performance audit* of the Division of Immunization, Community Public Health, Department of Community Health (DCH).
AUDIT PURPOSE	This performance audit was conducted as part of the constitutional responsibility of the Office of the Auditor General. Performance audits are conducted on a priority basis related to the potential for improving effectiveness* and efficiency*.
BACKGROUND	The Division of Immunization's mission* is to increase the number of infants that are fully immunized, to oversee the utilization of the Michigan Children's Immunization Registry (MCIR), and to increase the immunization rates for all age groups, including older children and adults. For fiscal year 1999-2000, the Division was appropriated \$1,873,000 for administrative purposes and was authorized 7.7 full-time equated positions.
AUDIT OBJECTIVES, CONCLUSIONS, AND NOTEWORTHY ACCOMPLISHMENTS	Audit Objective: To assess the effectiveness of the Division's efforts to increase immunization levels.

* See glossary at end of report for definition.

Conclusion: We concluded that the Division was effectively increasing immunization levels. However, we noted a reportable condition* related to MCIR data (Finding 1).

Noteworthy Accomplishments: MCIR is one of the most sophisticated of the immunization registries and is considered by the All Kids Count Project to be one of the best in the country. The registry contains the names of over 1.2 million children.

Audit Objective: To assess the effectiveness of the Division's vaccine handling and distribution operations.

Conclusion: We concluded that the Division was effectively handling and distributing vaccines.

AUDIT SCOPE AND
METHODOLOGY

Our audit scope was to examine the program and other records of the Division of Immunization. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing procedures as we considered necessary in the circumstances.

Our methodology included examining the Division's records and activities for the period October 1997 through February 2000. To accomplish our first audit objective, we reviewed infant immunization levels, the completeness of MCIR, and day-care/school and adult immunization levels and procedures. To accomplish our second audit objective, we reviewed vaccine handling and distribution procedures and related controls, reports of vaccine loss and spoilage, and procedures for reviewing vaccine handling practices at local health departments.

* See glossary at end of report for definition.

AGENCY RESPONSES

Our audit report contains 1 finding and corresponding recommendation. DCH's preliminary response indicated that it agrees with this recommendation.

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March 14, 2001

Mr. James K. Haveman, Jr., Director
Department of Community Health
Lewis Cass Building
Lansing, Michigan

Dear Mr. Haveman:

This is our report on the performance audit of the Division of Immunization, Community Public Health, Department of Community Health.

This report contains our executive digest; description of agency; audit objectives, scope, and methodology and agency responses; comments, finding, recommendation, and agency preliminary response; and a glossary of acronyms and terms.

Our comments, finding, and recommendation are organized by audit objective. The agency preliminary response was taken from the agency's response subsequent to our audit fieldwork. The *Michigan Compiled Laws* and administrative procedures require that the audited agency develop a formal response within 60 days after release of the audit report.

We appreciate the courtesy and cooperation extended to us during the audit.

AUDITOR GENERAL

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Description of Agency

The Division of Immunization's mission is to increase the number of infants that are fully immunized, to oversee the utilization of the Michigan Children's Immunization Registry, and to increase the immunization rates for all age groups, including older children and adults. The Division also coordinates the distribution of vaccines to local health departments.

For fiscal year 1999-2000, the Division was appropriated \$1,873,000 for administrative purposes and was authorized 7.7 full-time equated positions.

Audit Objectives, Scope, and Methodology and Agency Responses

Audit Objectives

Our performance audit of the Division of Immunization, Community Public Health, Department of Community Health, had the following objectives:

1. To assess the effectiveness of the Division's efforts to increase immunization levels.
2. To assess the effectiveness of the Division's vaccine handling and distribution operations.

Audit Scope

Our audit scope was to examine the program and other records of the Division of Immunization. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing procedures as we considered necessary in the circumstances.

Audit Methodology

Our audit procedures were conducted between July 1999 and April 2000 and included examining the Division's records and activities for the period October 1997 through February 2000.

To accomplish our first audit objective, we reviewed infant immunization levels, the completeness of the Michigan Childhood Immunization Registry (MCIR), and day-care/school and adult immunization levels and procedures.

To accomplish our second audit objective, we reviewed vaccine handling and distribution procedures and related controls, reports of vaccine loss and spoilage, and procedures for reviewing vaccine handling practices at local health departments.

Agency Responses

Our audit report contains 1 finding and corresponding recommendation. DCH's preliminary response indicated that it agrees with this recommendation.

The agency preliminary response which follows the recommendation in our report was taken from the agency's written comments and oral discussion subsequent to our audit fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and Department of Management and Budget Administrative Guide procedure 1280.02 require DCH to develop a formal response to our audit finding and recommendation within 60 days after release of the audit report.

COMMENTS, FINDING, RECOMMENDATION, AND AGENCY PRELIMINARY RESPONSE

EFFECTIVENESS OF INCREASING IMMUNIZATION LEVELS

COMMENT

Audit Objective: To assess the effectiveness of the Division of Immunization's efforts to increase immunization levels.

Conclusion: We concluded that the Division was effectively increasing immunization levels. However, we noted a reportable condition related to the Michigan Children's Immunization Registry (MCIR) data.

Noteworthy Accomplishments: MCIR is one of the most sophisticated of the immunization registries and is considered by the All Kids Count Project to be one of the best in the country. The registry contains the names of over 1.2 million children. MCIR accomplishments in fiscal year 1999-2000 include the development of various status reports and profiles that immunization providers can utilize to improve immunization levels and the addition of a vaccine inventory module that automatically reconciles vaccine inventory and permits the provider to order vaccine electronically.

Michigan's Perinatal Hepatitis B Prevention Program has been able to reduce the transmission rate of the Hepatitis B virus to infants from approximately 90% to less than 0.02%.

FINDING

1. MCIR Data

The Department of Community Health (DCH) procedures were not sufficient to reasonably ensure that the MCIR data was accurate and complete.

MCIR was designed to consolidate immunization records of all Michigan children and to permit providers and communities the ability to assess, with some degree of specificity, the levels of immunization among children in their communities. The system was not designed to replace existing immunization recordkeeping systems.

MCIR has the capability to assess immunization levels across a community or within a clinic population. It can also track vaccine inventories in real time.

All of the local health departments (LHDs) that we contacted maintained their own data system for immunizations administered to children in their county. These systems were considered to be the primary system, and MCIR was considered to be a secondary or backup system. These LHDs continued to maintain their own systems after MCIR was established because MCIR did not meet all of their needs. The LHD systems could be used to bill for immunizations that the LHDs administered, while MCIR does not have that capacity. Provisions have been made so that data that LHDs enter into their own systems can also be used to electronically update MCIR.

LHDs and health care providers were responsible for entering the immunization records into MCIR. One LHD and approximately 45% of the health care providers registered to use MCIR did not enter immunization records into the system during 1999. Health care providers can enter the information directly into MCIR or submit written information to the LHDs for them to enter into MCIR. The Public Health Code requires health care providers to report immunizations administered, although it does not provide for any penalties for those health care providers that do not comply with this provision. DCH has not taken any action to enforce this provision in the Public Health Code. Also, DCH has not determined which providers were not in compliance. DCH did not consider penalizing health care providers for noncompliance, an effective way of getting providers to report this information.

We compared MCIR summary data with data from various LHD-maintained systems and the results of the U.S. Centers for Disease Control and Prevention annual surveys for 1999 and noted significant differences. MCIR data reflected a 13% lower immunization rate for 19- to 35-month-old children than the LHD data. We also compared a sample of data for individual children from LHD records with MCIR data. Of the 254 records we received from LHDs, 160 records matched, 81 had different immunization data, and 13 were not included in MCIR.

DCH also enters birth records electronically into MCIR. However, a comparison of the number of birth records in MCIR with other DCH reports of births disclosed that MCIR includes approximately 12% fewer children than reported by the DCH Division for Vital Records and Health Statistics.

DCH should determine why the MCIR immunization records are not accurate. This would include determining if LHDs are properly entering the records into the system and if health care providers are reporting immunizations given, either electronically to MCIR or manually to the LHDs. Also, DCH should be contacting and encouraging LHDs and health care providers that are not accurately entering or reporting this information to accurately perform these functions. Day-care centers and schools can easily access MCIR to determine if children have met immunization requirements for attendance. There also is a feature in MCIR to generate late notices for mailing to parents when children are overdue for immunizations. However, if MCIR continues to have incomplete data, it will not be useful for these purposes.

RECOMMENDATION

We recommend that DCH develop sufficient procedures to reasonably ensure that the MCIR data is accurate and complete.

AGENCY PRELIMINARY RESPONSE

DCH agrees in principle with the recommendation and informed us that it is diligently working to increase the level of accuracy and completeness of the MCIR data. DCH also informed us that a Quality Assurance Program has been developed and will be implemented within the next four months that will compare records within the MCIR system with original medical records. Each record is checked automatically for a set of quality standards, e.g., date of shot cannot be before date of birth or after the current date and only valid characters are entered. The MCIR Batch Entry User Manual defines all the data elements and the quality parameters. DCH informed us that a process has already been developed within the MCIR system designed to identify duplicate records. The regions have been working with providers to increase participation and the timely submission of immunization data to MCIR. There are now over 1,100 physician practices accessing MCIR monthly, and new providers are being enrolled daily. However, because DCH has to rely on providers to enter data and it is not possible to check every record, it simply is not possible to ensure that the data is 100% accurate and complete.

In addition, DCH informed us that it is in the process of developing enforcement protocols against providers that fail to enter immunization records into the system as required by the Public Health Code. However, before vigorously initiating steps

to enforce legal sanctions for not reporting, DCH has decided to place a higher priority on getting all physicians to participate and utilize the MCIR system.

EFFECTIVENESS OF VACCINE HANDLING AND DISTRIBUTING

COMMENT

Audit Objective: To assess the effectiveness of the Division's vaccine handling and distribution operations.

Conclusion: We concluded that the Division was effectively handling and distributing vaccines.

Glossary of Acronyms and Terms

DCH	Department of Community Health.
effectiveness	Program success in achieving mission and goals.
efficiency	Achieving the most outputs and outcomes practical for the amount of resources applied or minimizing the amount of resources required to attain a certain level of outputs or outcomes.
LHD	local health department.
MCIR	Michigan Children's Immunization Registry.
mission	The agency's main purpose or the reason the agency was established.
performance audit	An economy and efficiency audit or a program audit that is designed to provide an independent assessment of the performance of a governmental entity, program, activity, or function to improve public accountability and to facilitate decision making by parties responsible for overseeing or initiating corrective actions.
reportable condition	A matter coming to the auditor's attention that, in the auditor's judgment, should be communicated because it represents either an opportunity for improvement or a significant deficiency in management's ability to operate a program in an effective and efficient manner.