

PERFORMANCE AUDIT
OF THE
EMPLOYEE SAFETY AND HEALTH PROGRAMS

April 2003



Michigan
Office of the Auditor General
REPORT SUMMARY

Performance Audit

Report Number:
 63-703-98

Employee Safety and Health Programs

Released:
 April 2003

The Safety and Health Policy of the State of Michigan is to administer its activities to achieve and maintain protection for its employees, property, and those for whom it has a responsibility, thus ensuring efficient utilization of resources, minimizing liability, and advancing the public service. The policy requires each department to develop, implement, and administer a safety and health program with Statewide coordination.

Audit Objectives:

1. To assess the effectiveness of the State's employee safety and health programs in reducing the number and severity of work-related illnesses and injuries.

2. To assess the effectiveness of the State's employee safety and health programs in improving the productivity and effectiveness of the work force.

~ ~ ~ ~ ~

Audit Conclusions:

1. We concluded that, although the State's employee safety and health programs are generally effective in reducing the number and severity of work-related illnesses and injuries, opportunities for improvement exist.

2. All the programs provided have the potential for improving the productivity and effectiveness of the work force. However, because

essentially no outcome data has been collected for these programs, we could not determine the extent to which they have affected the work force's productivity and effectiveness.

~ ~ ~ ~ ~

Noteworthy Accomplishments:

The Department of Management and Budget (DMB) has developed a model state safety program, which is gradually being introduced Statewide. DMB has also developed a program of transitional employment for disabled employees and departmental and interdepartmental placement programs for ill and injured employees. The Department of Corrections provides a wide variety of safety and fitness-related programs to its employees. The Department of Community Health has trained staff at its facilities in methods of assessing, preventing, and physically managing violent or dangerous behavior.

~ ~ ~ ~ ~

Reportable Conditions:

1. The DMB Office of the State Employer's (OSE's) Employee Health Management Division (the State's coordinating unit) had not assessed the employee safety and health programs implemented by the various State departments and agencies to identify those practices that help to reduce illnesses and injuries in order to incorporate these practices at other State departments and agencies. For example, at the Kalamazoo Regional Psychiatric Hospital, management informed us that the cost of replacing staff injured as a result of patient aggression dropped from approximately \$478,000 in 1990, when all staff completed training, to approximately \$92,000 in 1996.

DMB stated that the Division will comply with this recommendation by September 30, 2003.

2. OSE had not fully developed a performance assessment methodology by which OSE management could assess the effectiveness of its programs to improve the productivity and effectiveness of the State's work force through improving health and health awareness.

DMB stated that it will comply by deferring this recommendation to the Department of Civil Service for its consideration. Executive Order No. 2002-13 transferred the State employee benefits program to the Department of Civil Service from OSE.

~ ~ ~ ~ ~

A copy of the full report can be obtained by calling 517.334.8050 or by visiting our Web site at: www.state.mi.us/audgen/



Michigan Office of the Auditor General
201 N. Washington Square
Lansing, Michigan 48913

Thomas H. McTavish, C.P.A.
Auditor General

James S. Neubecker, C.P.A., C.I.A., D.P.A.
Executive Deputy Auditor General

Scott M. Strong, C.P.A., C.I.A.
Director of Audit Operations



STATE OF MICHIGAN
OFFICE OF THE AUDITOR GENERAL
201 N. WASHINGTON SQUARE
LANSING, MICHIGAN 48913
(517) 334-8050
FAX (517) 334-8079

THOMAS H. MCTAVISH, C.P.A.
AUDITOR GENERAL

April 8, 2003

Mr. Mitch Irwin, Director
Department of Management and Budget
Lewis Cass Building
Lansing, Michigan

Dear Mr. Irwin:

This is our report on the performance audit of Employee Safety and Health Programs. Our report letter is addressed to the Department of Management and Budget because it plays a key role in employee safety and health. Our report will also be distributed to the other State agencies that were included in the scope of our audit.

This report contains our report summary; description of program; audit objectives, scope, and methodology and agency responses; comments, findings, recommendations, and agency preliminary responses; and a glossary of acronyms and terms.

Our comments, findings, and recommendations are organized by audit objective. The agency preliminary responses were taken from the agency's responses 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.

AUDITOR GENERAL

This page left intentionally blank.

TABLE OF CONTENTS

EMPLOYEE SAFETY AND HEALTH PROGRAMS

	<u>Page</u>
INTRODUCTION	
Report Summary	1
Report Letter	3
Description of Program	6
Audit Objectives, Scope, and Methodology and Agency Responses	8
COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES	
Effectiveness in Reducing the Number and Severity of Work-Related Illnesses and Injuries	10
1. Best Practices	11
Effectiveness in Improving the Productivity and Effectiveness of the Work Force	13
2. Evaluation of Program Effectiveness	13
GLOSSARY	
Glossary of Acronyms and Terms	15

Description of Program

According to the Safety and Health Policy Statement issued by Governor John Engler on September 18, 1991:

The Safety and Health Policy of the State of Michigan is to administer its activities to achieve and maintain protection for its employees, property, and those for whom it has a responsibility, thus assuring efficient utilization of resources, minimizing liability, and advancing the public service.

The policy requires each department to develop, implement, and administer a safety and health program with Statewide coordination. The Statewide coordination is provided by the Department of Management and Budget, initially as a part of the Risk Management Division and currently by the Employee Health Management Division.

The Employee Health Management Division became a part of the Office of the State Employer, Department of Management and Budget, on October 1, 1998. As a result, all Statewide programs relating to employee safety and health were located within the same organizational unit for the first time. This allows increased coordination among programs, such as workers' disability compensation insurance, employee safety and health, employee benefits, employee health screening, and employee assistance, and wellness initiatives, such as Six Weeks to Wellness.

For fiscal year 2000-01, there were 7,454 workers' disability compensation claims filed by State employees, with an estimated total value of \$23.7 million.

The causes of injury with the highest cost of claims were:

Cause of Injury*	Cost of Claims
Struck or injured by	\$ 7,170,417
Fall, slip, or trip	\$ 5,979,622
Strain	\$ 5,077,728
Miscellaneous causes	\$ 2,483,415
Motor vehicle	\$ 1,492,978

* These standard descriptions are used nationally by the National Council of Compensation Insurance and the National Safety Council.

The types of injury with the highest cost of claims were:

Type of Injury	Cost of Claims
Strain	\$ 9,586,329
Contusion	\$ 3,268,436
Multiple physical injuries	\$ 2,272,356
Mental stress	\$ 1,592,895
Fracture	\$ 1,189,781
Sprain	\$ 994,893

Audit Objectives, Scope, and Methodology and Agency Responses

Audit Objectives

Our performance audit* of Employee Safety and Health Programs had the following objectives:

1. To assess the effectiveness* of the State's employee safety and health programs in reducing the number and severity of work-related illnesses and injuries.
2. To assess the effectiveness of the State's employee safety and health programs in improving the productivity and effectiveness of the work force.

Audit Scope

Our audit scope was to examine the program and other records of employee safety and health programs. 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, conducted from March 1998 through August 2002, included examinations of program records and activities primarily for the period October 1, 1996 through March 31, 1999.

To accomplish our first objective, we obtained a five-year workers' disability compensation loss history and analyzed it. We also analyzed Michigan Occupational Safety and Health Act (MIOSHA) violation data. We obtained illness and injury survey data from the Bureau of Labor Statistics, U.S. Department of Labor, for a comparison of Michigan with other states.

We contacted all State departments to determine which elements of a safety and health program were in place.

* See glossary at end of report for definition.

We visited three State departments and nine agencies. We interviewed staff involved in safety and health activities. We reviewed safety and health committee meeting minutes, records of safety- and health-related training, and selected inspection reports and accident reports.

To accomplish our second objective, we interviewed program staff to determine the programs in place, their goals*, and the criteria and methods used to measure progress.

Agency Responses

Our audit report contains 2 findings and 2 corresponding recommendations. The Department of Management and Budget's (DMB's) preliminary response indicated that it will comply with both recommendations.

The agency preliminary response that follows each 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 DMB Administrative Guide procedure 1280.02 require DMB to develop a formal response to our audit findings and recommendations within 60 days after release of the audit report.

* See glossary at end of report for definition.

COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES

EFFECTIVENESS IN REDUCING THE NUMBER AND SEVERITY OF WORK-RELATED ILLNESSES AND INJURIES

COMMENT

Audit Objective: To assess the effectiveness of the State's employee safety and health programs in reducing the number and severity of work-related illnesses and injuries.

Conclusion: We concluded that, although the State's employee safety and health programs are generally effective in reducing the number and severity of work-related illnesses and injuries, opportunities for improvement exist. Our assessment disclosed a reportable condition* regarding best practices (Finding 1).

Noteworthy Accomplishments: We identified several noteworthy accomplishments:

a. Department of Management and Budget (DMB)

The DMB Office of the State Employer's (OSE's) Employee Health Management Division has developed a model state safety program, which is gradually being introduced Statewide. The Division informed us that the first pilot resulted in a 16% reduction in the incident rate.

The Division has also developed a program of transitional employment for disabled employees. The Division informed us that this program, now in place or being instituted in eight departments, has resulted in a gain of over 6,200 days of productivity and a reduction of over \$500,000 in workers' disability compensation benefits.

In addition, the Division has developed departmental and interdepartmental placement programs to facilitate the return to work of ill and injured employees who

* See glossary at end of report for definition.

cannot return to their previous position. The Division informed us that, since 1998, 35% of interdepartmental placements have been successful.

b. Department of Corrections

The Department of Corrections provides a wide variety of safety and fitness-related programs to its employees. Its new employee training and annual in-service training include training ranging from general programs, such as safety awareness and first aid, to more specialized training, including firearms safety and use of tuberculosis masks and self-contained breathing apparatus.

In addition, the Department has an on-site injury care center and physical fitness facility for the employees of the Jackson Central Region, which provides evaluation, treatment, and rehabilitation for musculoskeletal injuries.

c. Department of Community Health (DCH)

Staff at DCH's Caro Regional Mental Health Center have developed an interactive database that allows the Center to analyze employee injury data in a variety of ways. The Center also participates in a program in which its data can be compared with that of hospitals nationwide.

In addition, DCH has trained staff at its facilities in methods of assessing, preventing, and physically managing violent or dangerous behavior.

FINDING

1. Best Practices

The Employee Health Management Division had not assessed the employee safety and health programs implemented by the various State departments and agencies to identify those practices that help to reduce illnesses and injuries in order to incorporate these practices at other State departments and agencies.

Our review of safety and health programs at selected departments and agencies disclosed the following practices that have reduced injuries and could be incorporated elsewhere:

- a. The Department of Corrections has an on-site injury care center and physical fitness facility for the employees of the Jackson Central Region. Operated on the sports medicine model, the program provides evaluation, treatment, and

rehabilitation for strains, sprains, and bruises. Program records show that, from 1995 to 1998, lost time because of musculoskeletal injuries has decreased from an average of 38 days to an average of 14 days per case. Also, analysis performed by DMB indicates that the cost per claim decreased from 1994 through 1997.

- b. Staff at DCH's Caro Regional Mental Health Center have developed an interactive database that includes employee injury data. Injuries can be analyzed by employee, by work location, and, in cases in which a patient is involved, by patient. The Center also participates in a program in which its data can be compared with that of hospitals nationwide.
- c. DCH has trained staff at its facilities in methods of assessing, preventing, and physically managing violent or dangerous behavior. At the Kalamazoo Regional Psychiatric Hospital, management informed us that the cost of replacing staff injured as a result of patient aggression dropped from approximately \$478,000 in 1990, when all staff completed training, to approximately \$92,000 in 1996.

RECOMMENDATION

We recommend that the Division assess the employee safety and health programs implemented by the various State departments and agencies to identify those practices that help to reduce illnesses and injuries in order to incorporate these practices at other State departments and agencies.

AGENCY PRELIMINARY RESPONSE

DMB will comply with this recommendation by September 30, 2003. The Division will contact each department's safety and health coordinator to identify safety and health programs being currently administered. These programs will be assessed to determine if any are worthy of being viewed as "best practices" and which practices may be appropriate for Statewide application. To the extent feasible, these identified practices, if any, will be incorporated into the State's overall safety and health program.

EFFECTIVENESS IN IMPROVING THE PRODUCTIVITY AND EFFECTIVENESS OF THE WORK FORCE

COMMENT

Background: The State provides a variety of programs designed to promote healthy lifestyles, enhance early detection of diseases, and manage chronic illnesses. Some, such as Six Weeks to Wellness, are provided directly by the State. Others, such as disease management, are provided through the State health plan and the health maintenance organizations. Participation by employees is generally voluntary.

Audit Objective: To assess the effectiveness of the State's employee safety and health programs in improving the productivity and effectiveness of the work force.

Conclusion: All the programs provided have the potential for improving the productivity and effectiveness of the work force. However, because essentially no outcome data has been collected for these programs, we could not determine the extent to which they have affected the work force's productivity and effectiveness. Our assessment disclosed a reportable condition regarding the evaluation of program effectiveness (Finding 2).

FINDING

2. Evaluation of Program Effectiveness

OSE had not fully developed a performance assessment methodology by which OSE management could assess the effectiveness of its programs to improve the productivity and effectiveness of the State's work force through improving health and health awareness.

To assess program effectiveness, performance standards* and goals are needed to describe the desired level of outcomes*. Also, a management information system is required to gather accurate performance data, to compare performance data with desired outcomes, to report the comparison results to management and stakeholders, and to propose program changes for improving the effectiveness of the program.

* See glossary at end of report for definition.

Based on information provided to us, the availability of information needed to assess program effectiveness varied by program. The State provides a variety of programs designed to promote healthy lifestyles, enhance early detection of diseases, and manage chronic illnesses.

We reviewed the health screening program and the disease management program to determine the programs' goals and the criteria and methods that management uses to assess the effectiveness of these programs. Although goals have been established to measure program performance, OSE appears to have primarily focused on program outputs* rather than program outcomes.

For example, the goal of the health screening program is to reduce health care costs through the early detection of diseases. The health screening unit accumulates data on the number of screenings performed and the number of test results within and outside of normal ranges. However, it does not use this data or collect additional data to determine whether the program detects diseases early and reduces health care costs.

The goal of the disease management program is to reduce health care costs through individual case management of persons with diabetes, asthma, and heart disease. At the time of our audit, OSE did not collect any data regarding the effectiveness of this program.

A more thorough assessment methodology of program performance would include evaluating program outcomes for all programs.

RECOMMENDATION

We recommend that OSE fully develop a performance assessment methodology by which OSE management can assess the effectiveness of its programs to improve the productivity and effectiveness of the State's work force through improving health and health awareness.

AGENCY PRELIMINARY RESPONSE

Executive Order No. 2002-13 transferred the State employee benefits program to the Department of Civil Service from OSE. DMB will comply by deferring this recommendation to the Department of Civil Service for its consideration.

* See glossary at end of report for definition.

Glossary of Acronyms and Terms

DCH	Department of Community Health.
DMB	Department of Management and Budget.
effectiveness	Program success in achieving mission and goals.
goals	The agency's intended outcomes or impacts for a program to accomplish its mission.
mission	The agency's main purpose or the reason that the agency was established.
OSE	Office of the State Employer.
outcomes	The actual impacts of the program.
outputs	The products or services produced by the program.
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 action.
performance standard	A desired level of output or outcome.
reportable condition	A matter that, in the auditor's judgment, represents either an opportunity for improvement or a significant deficiency in management's ability to operate a program in an effective and efficient manner.