

IMPROVING INJURY AND ILLNESS RECORDKEEPING IN NURSING HOMES



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MINNESOTA DEPARTMENT OF
LABOR & INDUSTRY

Introduction

Workplace injuries exert a heavy toll on their workers and a financial burden on nursing homes. The OSHA log recordkeeping system is the best measure for understanding a workplace's injury and illness experience, for comparing it with state and national statistics and for tracking trends over several years. OSHA log recordkeepers in nursing homes are responsible for keeping accurate OSHA logs to provide critical information to evaluate and guide their workplace safety programs.

When an OSHA log is missing cases or has inaccurate or outdated information, it provides an incomplete picture of the hazards workers face. This can lead to missed opportunities for improving nursing home safety. In addition, the nursing home is providing inaccurate information to its employees and to government agencies.

This document uses the results of a survey of OSHA log recordkeepers in nursing homes to show how increased training can lead to improved recordkeeping accuracy. The information will help recordkeepers avoid common recordkeeping errors and help administrators improve the quality of the logs they review.

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The need for accurate OSHA log recordkeeping



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Minnesota's nursing homes are hazardous workplaces

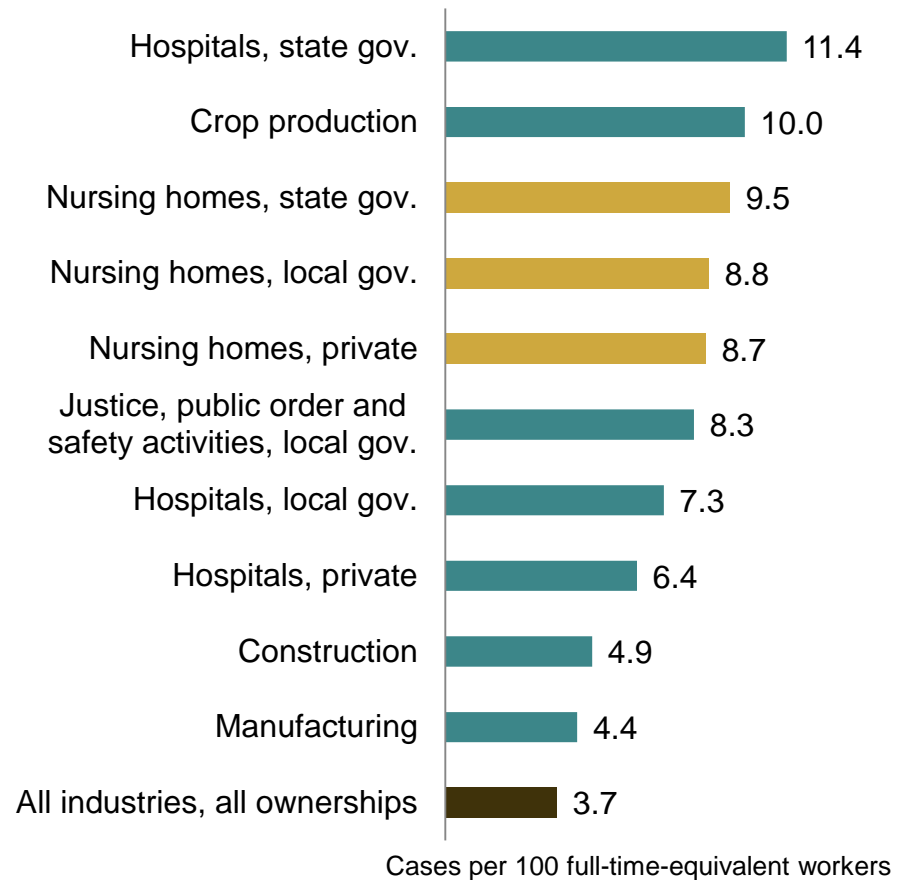
Nursing homes have some of the highest injury and illness case rates of all Minnesota industries.

The 2012 to 2014 average injury and illness rate for privately owned nursing homes was 9.2 cases per 100 full-time-equivalent (FTE) workers, the rate for state-government nursing homes was 10.1 cases and the rate for local-government nursing homes was 17.2 cases. These rates are many times higher than the rate of 3.8 cases per 100 FTE workers for all Minnesota industries in all ownerships.

In 2014, nursing homes accounted for 1.8 percent of Minnesota's employment (excluding federal government employees) and 3.5 percent of the OSHA recordable injury and illness cases. In 2014, workers suffered an estimated 2,500 recordable injuries and illnesses at privately owned nursing homes and an estimated 100 recordable injuries and illnesses at both state government and at local government facilities.

The 2014 incidence rate for cases with one or more days away from work in privately owned nursing homes was 238 cases per 10,000 FTE workers, compared to a rate of 98 cases per 10,000 FTE workers for all privately owned establishments.

Injury and illness total case rates, 2014



Injury and illness information from the OSHA log



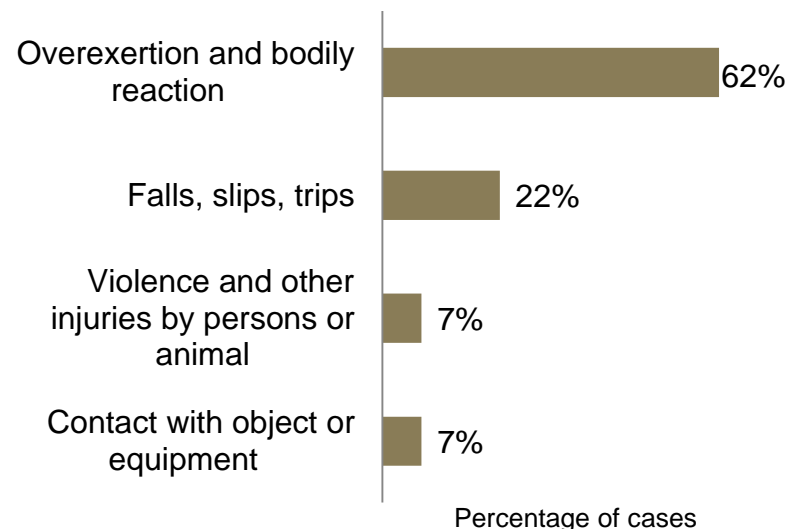
The U.S. Bureau of Labor and Statistics (BLS) annually conducts the Survey of Occupational Injuries and Illnesses (SOII). Each year, the SOII compiles OSHA log summary data and detailed case characteristics from about 5,000 Minnesota establishments to estimate incidence rates and describe the injured workers and their injuries and illnesses.

The data collected through the SOII is used to create a variety of statistics nursing homes can use to:

- benchmark their own injury and illness rates;
- learn about common injuries to their workers; and
- learn about trends in case characteristics.

This information helps nursing homes focus resources to improve worker safety. This page, the preceding page and the following page show examples of some available statistics. Additional Minnesota statistics are available at www.dli.mn.gov/RS/StatWSH.asp.

Events and exposures leading to one or more days away from work, privately owned nursing homes, 2014



Accurate reporting of injuries and illnesses through the SOII depends on each recordkeeper's understanding of the OSHA log recordkeeping requirements.

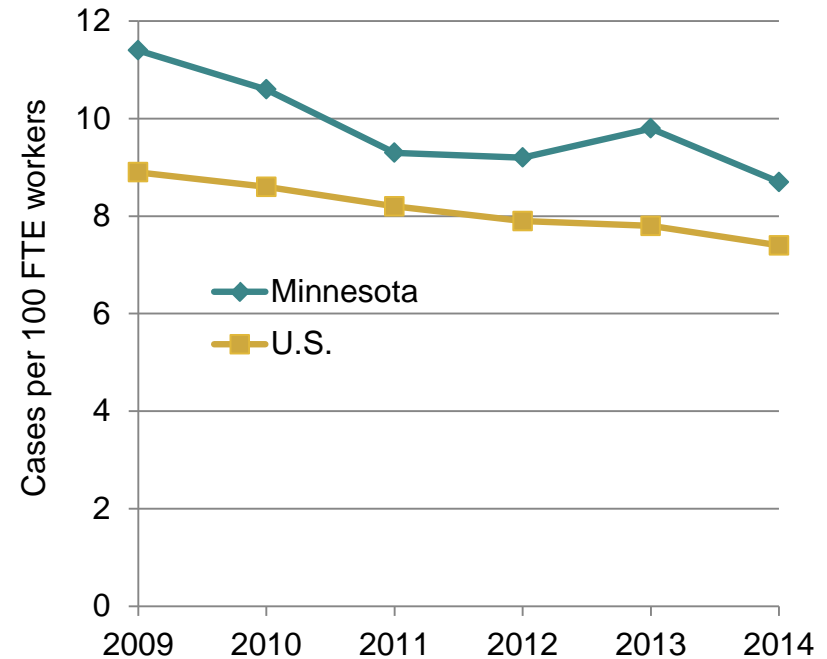
Are injury and illness rates decreasing?



As an industry, privately owned nursing homes saw their injury and illness rates decline by 24 percent since 2009. Some incidence rate changes may be the result of variations in reporting and data quality and not changes in workplace safety. A decrease in your nursing home's injury and illness rate may be due to one or more of these following reasons.

- Your nursing home's workers actually experienced fewer injuries and illnesses than the previous year.
- Your nursing home's workers are reporting fewer injuries and illnesses.
- Fewer reports of injuries and illnesses are reaching the log recordkeeper.
- Your nursing home recently changed recordkeepers and the new recordkeeper is recording injuries and illnesses differently than the previous recordkeeper.
- Your recordkeeper is using workers' compensation claims data for the OSHA log and your insurer is denying more claims.

Total recordable case rates, privately owned nursing homes, Minnesota and United States



Tracking progress in reducing work-related injuries and illnesses requires accurate OSHA log records.

How common are OSHA log errors?



Washington state researchers found that half of the log recordkeepers they interviewed were not using the OSHA case definition to determine which cases to include on the log.¹ These recordkeepers were using all workers' compensation claims, all cases with medical visits or all reported injuries. They also found that one in five recordkeepers misunderstood the case classification criteria (see the next page).

A Minnesota Department of Labor and Industry (DLI) review of hospital and nursing home injuries and illnesses found that nearly one-third of OSHA logs and log summaries had errors. Among the common errors were:

- mistakes in addition;
- errors transcribing information from the log to the log summary;
- misclassification of days-away-from-work cases as job-transfer-or-restriction cases; and
- miscounting the number of cases.

The SOII relies on scientific sampling to calculate injury and illness rates. In Minnesota, each nursing home's response represents, on average, 2.5 establishments. This means reporting and recording errors are magnified.

Recent research shows many injuries and illnesses that should be included on OSHA logs, in SOII reports and in workers' compensation claims databases are missing. Estimates of the undercount in the cases used in the SOII range from 20 to 70 percent, depending on the research method and state studied. Some OSHA-recordable cases are reported in workers' compensation claims databases but are not included in the OSHA log or the SOII report. Some injuries and illnesses are not reported at all.

BLS and its research partners have engaged in a multi-faceted research program to understand the causes of the undercount and to reduce its size. BLS undercount research is accessible at www.bls.gov/iif/undercount.htm.

¹S. Wuellner and D. Bonauto. Exploring the relationship between employer recordkeeping and underreporting in the BLS Survey of Occupational Injuries and Illnesses. Washington State Department of Labor and Industries, Safety and Health Assessment and Research for Prevention, 2012.

Case classification: A common error



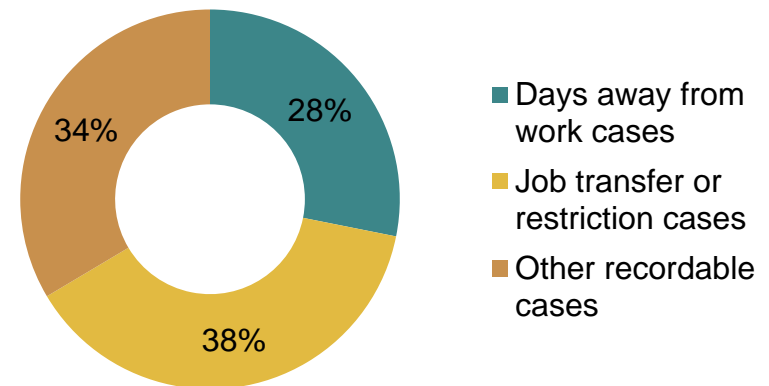
The OSHA log directions specify that recordkeepers classify cases according to their most serious outcome.

The columns of the form are arranged from the most serious, death (column G), to the least serious, other recordable cases (column J). A case with both one or more days away from work and one or more days of job transfer or work restriction is classified as a days-away-from-work case (column H). A day of partial work is considered a day of job transfer or restriction (column I).

Many recordkeepers mistakenly classify cases according to the larger number of days associated with each outcome or they check the boxes for multiple outcomes. The enlarged part of the OSHA log at right shows examples of correct case classifications.

Classify the case					
CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Enter the number of days the injured or ill worker was:	
Death	Days away from work	Remained at work		Away from work (days) (K)	On job transfer or restriction (days) (L)
(G)	(H)	Job transfer or restriction (I)	Other recordable cases (J)		
	X			3	
	X			2	32
		X			14
			X		

Nursing home case types, 2014





How are OSHA logs completed?

Federal law directs OSHA and the Bureau of Labor Statistics to produce **accurate** workplace injury and illness statistics.

It is difficult to create accurate statistics when recordkeepers do not follow the OSHA recordkeeping requirements. OSHA log recordkeeping errors distort the incidence rates of individual nursing homes and they affect the injury and illness incidence rate estimates at the state and national levels when OSHA log data is collected for the SOII.

While the OSHA recordkeeping requirements detail what injury and illness cases are recordable and how they should be recorded, the process of collecting injury and illness information, recording cases and maintaining OSHA logs may result in recordkeeping errors. Some recordkeepers may be unaware of certain recordkeeping requirements.

Including cases in the log that are not recordable leads to incidence rates that are higher than they should be. Failing to include cases that are recordable leads to incidence rates that are lower than they should be.

Do all employees know how to report an injury?

Do I know if an injured worker received medical treatment?

Have I included injuries to temporary workers?

Does the total number of hours worked exclude vacations, sick leave and holidays?

Are my logs from the past five years up to date?

Recordkeeping survey results



Conducting the recordkeeper survey

Counting days away from work

Updating year-end cases

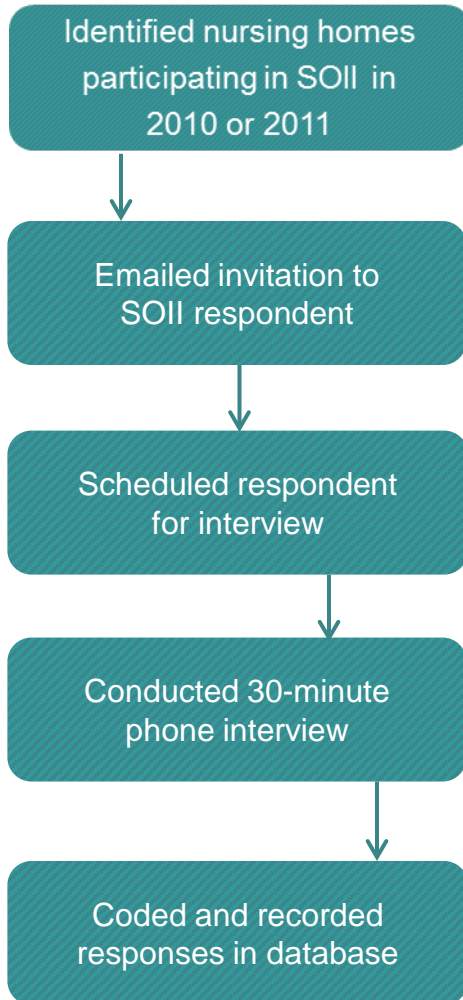
Workers' compensation confusion

Four recordability scenarios

Training makes a difference

Recordkeeper occupation and scenario performance

Conducting the recordkeeper survey



As part of its broader research program to address injury and illness undercount issues, BLS and DLI conducted a phone survey of SOII respondents to gather information about:

- injury and illness recordkeeping activities;
- OSHA recordkeeper experience and formal recordkeeping training such as classes, seminars or online courses;
- the frequency of various recordkeeping errors; and
- workplace and recordkeeper characteristics that may affect OSHA log accuracy.

Working with BLS, DLI researchers emailed an invitation to participate in the survey to recordkeepers responsible for completing the Survey of Occupational Injuries and Illnesses for 2010 or 2011.

A representative sample of 109 log recordkeepers, 71 percent of the mailing list, participated in the survey. They represented at least 28 percent of Minnesota's nursing homes. (Some respondents were recordkeepers for multiple homes.)

Among the nursing homes with recordkeepers that provided interview responses, 34 percent had 100 or fewer workers, 40 percent had between 101 and 200 workers and 26 percent had more than 200 workers.

The survey results provide OSHA, BLS and DLI with information about how to train recordkeepers to improve the accuracy of their OSHA logs and to estimate the effect of log data errors on the statistics derived from the logs. DLI's general industry undercount report for Minnesota has additional details about the survey, including the survey text, at www.bls.gov/iif/mn_interviews.pdf.

Counting days away from work

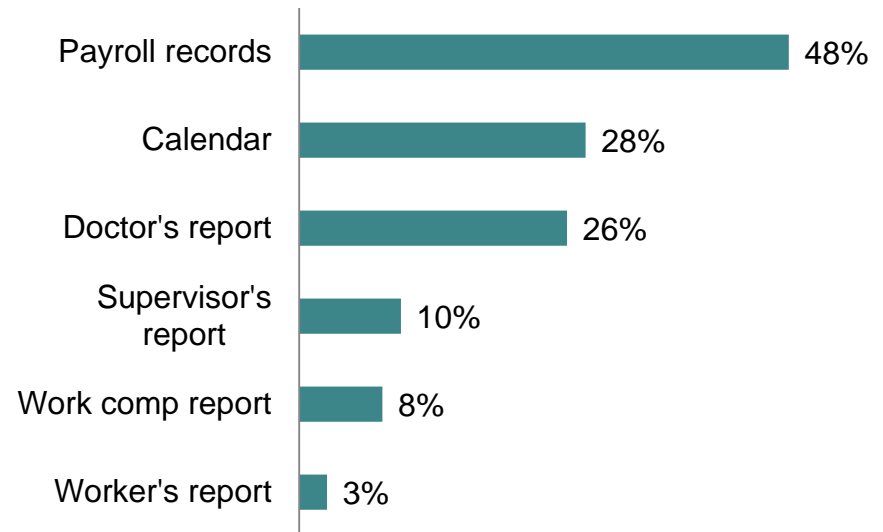


A day-away-from-work case is a work-related injury or illness that results in the worker missing at least one day of work after the day the injury occurred or the illness began or being unable to work, even if not scheduled to work. Days away from work are counted as the number of calendar days the worker was unable to work due to the work-related injury or illness.

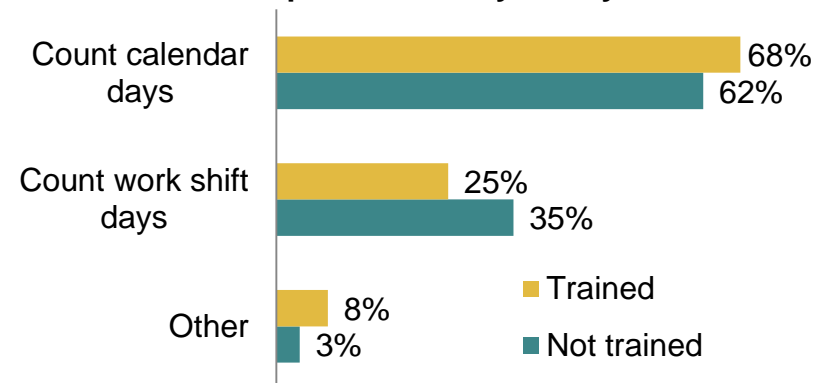
The survey asked recordkeepers how they count days away from work and what sources they use to gather the information. Recordkeepers most often reported using payroll records to count the days, which may incorrectly exclude nonscheduled days. Recordkeepers at 28 percent of nursing homes used scheduled shift days to count days away from work.

Recordkeepers who had not received formal OSHA log training were slightly more likely to count work shift days and relied on workers' compensation lost-time reports and payroll records to a greater extent than did the recordkeepers with formal training.

Percentage of recordkeepers using each information source for counting days away from work (multiple responses possible)



How recordkeepers count days away from work



Updating year-end cases



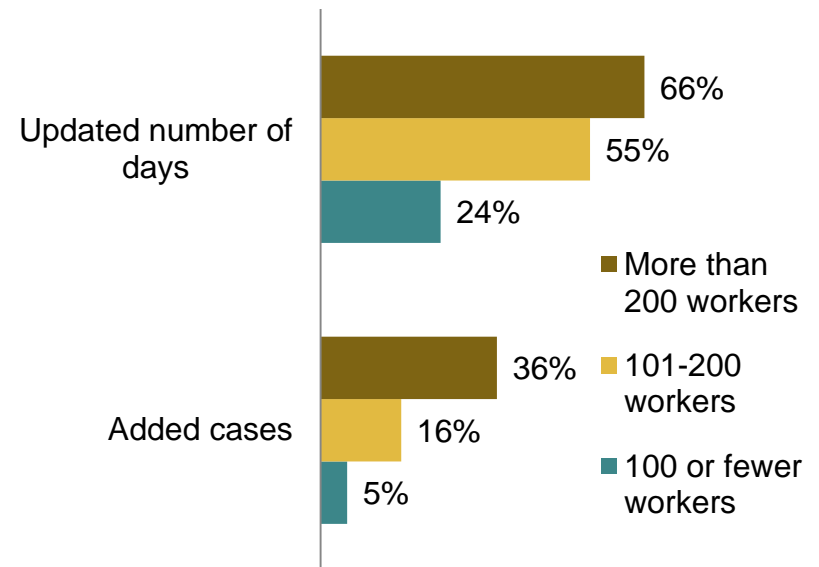
Information about cases that occur late in the calendar year needs to be recorded only on the log for the year the injury took place.

Sometimes an injury that occurs in late December is not reported until early in January. The log entry for this injury needs to be added to the log for the previous year. In other cases, a worker injured in one year is still away from work or is working under job restrictions during the next year. For such cases, it is necessary to estimate the number of days away from work or job transfer or restriction on the OSHA log summary for the injury year. The OSHA log needs to be updated when the type and extent of the time loss is known.

The survey included two questions to estimate the frequency of these situations and how it might affect case estimation, either in type or severity. Responses to both questions were strongly related to whether the recordkeeper had received formal OSHA log training.

Nearly half of the nursing home recordkeepers responded they had updated days away from work or days of job transfer or restriction during the following year. Only 18 percent of the recordkeepers had ever added new cases after the end of the initial recording period.

Percentage of recordkeepers updating the OSHA log after the end of the recording year



Workers' compensation confusion



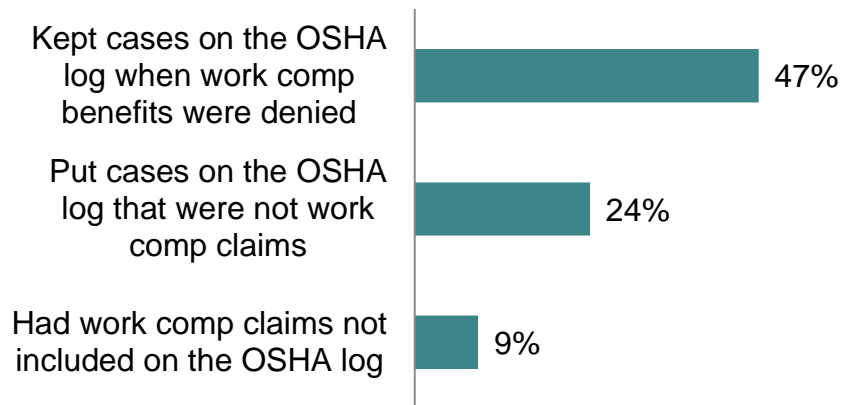
Recording injuries and illnesses on an OSHA log and preparing workers' compensation claims seem like similar activities. The ready availability of workers' compensation claims information makes it tempting to transcribe the workers' compensation cases onto the OSHA log.

However, cases that may be paid under Minnesota's workers' compensation laws may not meet the requirements for an OSHA recordable case and vice versa. Federal OSHA recordkeeping requirements (29 Code of Federal Regulations 1904) determine the recordability of work-related injuries and illnesses. The federal requirements are not related to Minnesota's workers' compensation laws (Minnesota Statutes chapter 176).

Workers' compensation systems were developed independently by each state to provide predictable, equitable and timely benefits to injured workers.

The OSHA recordkeeping system was developed as a nationally standardized system for employers and government agencies to track work-related injuries and illnesses. This tracking system provides a tool for employers to monitor the performance of their workplace safety programs and to compare their performance to state and national standards.

Surveyed recordkeepers who:



Eleven percent of recordkeepers who had OSHA log training correctly understood they had workers' compensation claims that were not log recordable. None of the recordkeepers without formal training made this distinction.

Four recordability scenarios



The OSHA log recordkeeping requirements specify what types of injuries are to be included on the log. The requirements include a comprehensive list of the factors that determine recordability. In the survey, the respondents were asked to determine OSHA log recordability for each of four workplace injury scenarios.

Scenario 1

An employee injured his ribs at work and went to have an X-ray. The rib was not broken and he had no further medical care. Is this an OSHA-recordable injury?



Answer: No, X-rays are diagnostic and are not medical treatment for OSHA recordability purposes. If the injured worker did not miss time away from work after the day of injury and did not have any job restrictions, the injury is not recordable.

Sixty-eight percent of recordkeepers incorrectly included this case on their OSHA log. This question was the most difficult for recordkeepers.

Scenario 2

A worker was engaged in horseplay at work while stacking some boxes and fell, resulting in days away from work. Is this an OSHA-recordable injury?



Answer: Yes, injuries resulting from horseplay are recordable. An injury that occurs at the workplace is presumed to be work-related and is recordable.

Eighty-nine percent of recordkeepers correctly responded this is a recordable case.

Four recordability scenarios



Scenario 3

An employee cut his arm at work on Friday. His doctor recommended he take two days off from work. He was not scheduled to work the weekend and he returned to work on Monday. Is this an OSHA-recordable injury?



Answer: Yes, the injured worker was unable to work. Scheduled shifts do not affect work status. This case is a days-away-from-work case with two days recorded as days away. The physician recommending time off work is the determining factor here.

Ninety-three percent of recordkeepers answered this question correctly.

Scenario 4

A worker cut her thumb and had stitches, but did not miss any time away from work. Is this an OSHA-recordable injury?



Answer: Yes, stitches are considered medical treatment. The recordkeeping requirements include a list of the 14 treatments that are considered first aid. Only those treatments on the list are first aid.

Eighty-five percent of recordkeepers correctly answered this question.

Only 18 percent of the nursing home recordkeepers gave the correct response to all four scenarios.

Training makes a difference



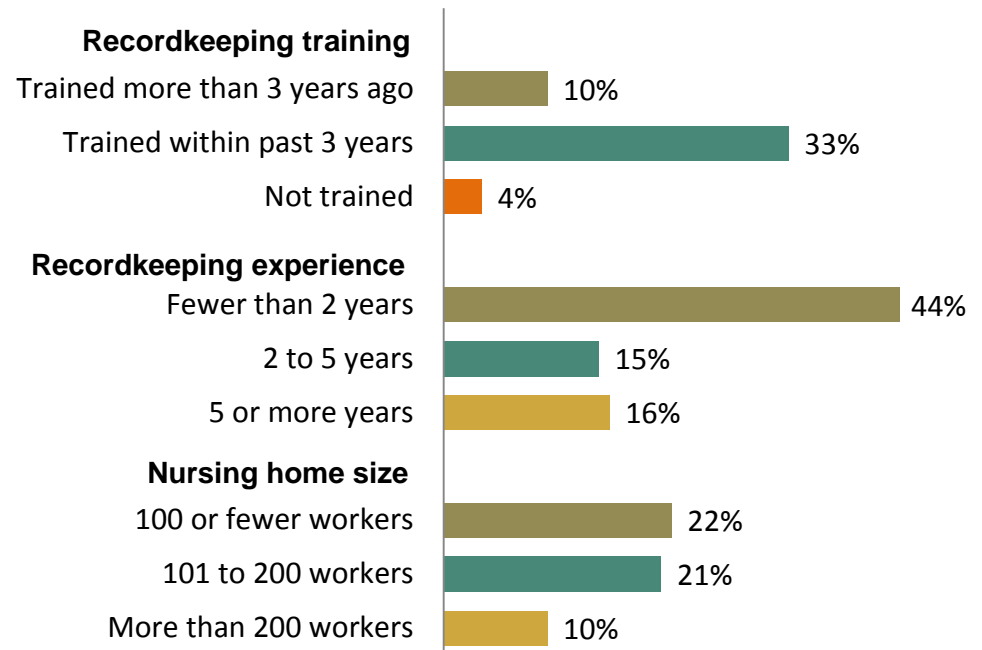
Correct understanding of the recordability of the four injury scenarios depended, in large part, on whether the recordkeeper had formal OSHA recordkeeping training.

Twenty-three percent of the nursing home recordkeepers reported they received no formal recordkeeping training. The top chart at right shows that a much higher percentage of nursing home recordkeepers with formal training, especially those with recent training, correctly answered all four scenarios, compared with untrained recordkeepers.

OSHA log recordkeeping experience did not help recordkeepers correctly answer the scenarios. New recordkeepers had the highest percentage of any experience group with four correct responses and they also had the highest percentage with recent recordkeeping training.

Training also made a difference in the separation of OSHA log and workers' compensation claim decisionmaking. More than half of the nursing home recordkeepers without training kept the same set of cases on their OSHA logs and workers' compensation claim lists, compared to just over a third of recordkeepers who had training.

Percentage of recordkeepers with four correct scenario answers



Use of separate rules among recordkeepers responsible for both OSHA log and workers' compensation claims records



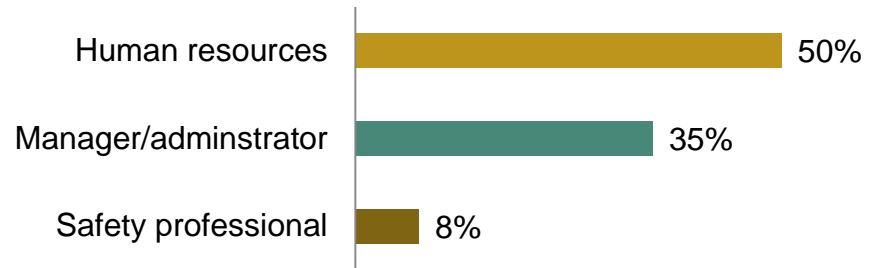
Recordkeeper occupation and scenario performance



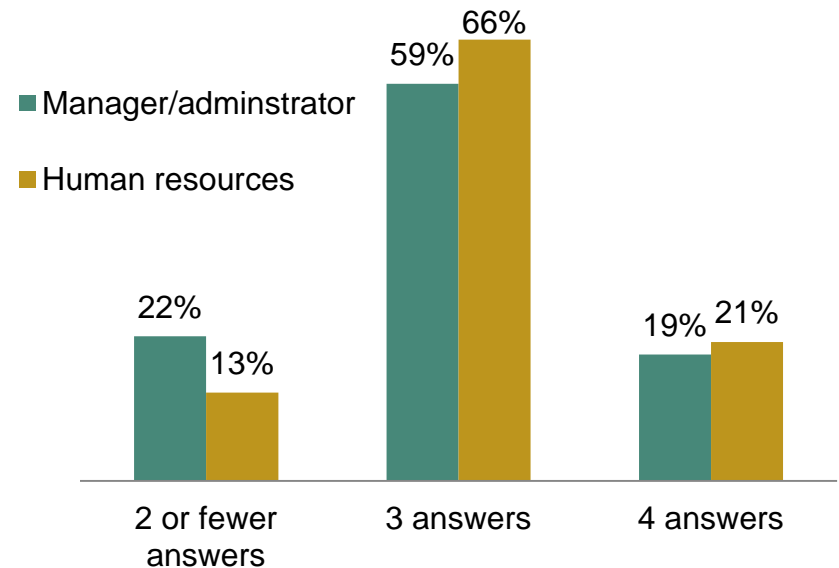
The nursing home recordkeepers in the survey had two main occupation types: Managers and administrators and human resources specialists. Only 8 percent of the recordkeepers were safety professionals or occupational health nurses.

Managers and administrators were more likely than human resources specialists to have two or fewer correct responses to the recordkeeping scenarios. Formal OSHA recordkeeping training was beneficial to both occupation groups: 23 percent of managers and administrators and 29 percent of human resources specialists who had training gave correct responses to all four recordkeeping scenarios; none of the untrained recordkeepers in these occupation groups gave four correct responses.

Percentage of respondents in occupation



Number of correct answers by respondent occupation



OSHA log recordkeeping tips and resources



Why we use the OSHA log

What makes a good OSHA log?

Counting days away from work

How nursing homes should use their logs

Eight questions about your OSHA log

Different ways to measure safety

Improving your OSHA recordkeeping skills

Why we use the OSHA log



Why was the OSHA log created?

- Standardization: The log is the official record of an injury or illness. Federal law requires the use of the OSHA log.
- National measure: The log is used in every state. Workers' compensation forms are state-specific.
- Consistency: Recordkeeping requirements mean everyone everywhere is following the same set of rules.

When the recordkeeping requirements are followed, the log recordkeeping system provides:

- the number and rate of recordable cases;
- the types of cases;
- the characteristics of the injured workers; and
- the characteristics of their injuries and illnesses.

This establishment-specific data can be compared with the industry benchmarks tabulated from the OSHA log data collected by BLS through the Survey of Occupational Injuries and Illnesses.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year _____
U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment name _____
City _____ State _____

Classify the case

Enter the number of days the injured or ill worker was:

CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Enter the number of days the injured or ill worker was:		Check the "injury" column or choose one type of illness:					
Death	Days away from work	Remained at work		Away From Work (days)	On job transfer or restriction (days)	(M)					
		Job transfer or restriction	Other recordable cases			Injury	Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss	All other illnesses
(G)	(H)	(I)	(J)	(K)	(L)	(1)	(2)	(3)	(4)	(5)	(6)

Page 1 of 1

The OSHA log is not an intuitive form. OSHA log recordkeeping requires special skills. Recordkeepers need to learn about the recordkeeping requirements.

What makes a good OSHA log?



Columns C through F on the OSHA log are used to describe the worker's injury or illness. This information is critical to improving workplace safety.

- Column C: The **job title** of who got injured. Use generic job titles like RN, NAR and maintenance worker.
- Column D: The **date of injury or onset of illness**. Only include cases that result from incidents during the year of the log record or with illnesses that were first recognized as work-related during that year.
(mo./day)
- Column E: **Where the event occurred**. Don't use building specific descriptions like G-4; use descriptions like dining room, hallway or resident room.
- Column F: **Describe how** the worker got injured, **what** object or substance was involved, **what** body part was injured and **what** the injury was. Examples: strained shoulder while lowering patient; slipped on wet floor in therapy pool area, knee contusion.

Describe the case			
(C)	(D)	(E)	(F)
Job Title (e.g., welder)	Date of injury or onset of illness (mo./day)	Where the event occurred (e.g., loading dock north end)	Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., second degree burns on right forearm from acetylene torch)

Write the OSHA log entries as if you were describing the accident as a news story. Take as much space as you need. Make sure someone who knows nothing about your facility could understand what occurred.

Counting days away from work



Any work-related injury or illness that results in the worker physically missing a day of work after the day the injury occurred or the illness began is a days-away-from-work case.

A days-away-from-work case must also be counted when the employer receives information from a health care provider that the worker should not work on a day the worker was not scheduled to work. If a health care provider recommends the injured worker take a day away from work and the worker decides to work that day, that is still a days-away-from-work case.

How to count days away from work

- Begin counting days on the day after the injury occurred or the illness began.
- Count the number of calendar days, not just scheduled workdays.
- Weekends, holidays, vacation days and other days off are all included in the day count.
- A day of partial work is counted as a day of job transfer or restriction. It is not counted if it is the day of the injury or the day the illness began.

The chart at right shows an example of counting days. If a worker is injured mid-shift on a Tuesday, is then away from work until returning mid-shift on Thursday of the following week and normally is off on Saturday and Sunday, eight days away from work and one day of job transfer or restriction would be reported.

Example of counting days away from work

Day	Work schedule	Event	Log day count
Tuesday	Workday	Injury mid-shift	Not counted
Wednesday	Workday	Away from work	Count day away 1
Thursday	Workday	Away from work	Count day away 2
Friday	Workday	Away from work	Count day away 3
Saturday	Day off	Away from work	Count day away 4
Sunday	Day off	Away from work	Count day away 5
Monday	Workday	Away from work	Count day away 6
Tuesday	Workday	Away from work	Count day away 7
Wednesday	Workday	Away from work	Count day away 8
Thursday	Workday	Return mid-shift	Count job-restriction day

How nursing homes should use their OSHA logs



The OSHA log is not just a form, it is part of a system to help manage worker safety.

To keep an accurate OSHA log you need to:

- communicate to employees the need to report all injuries and illnesses and provide a way to make those reports;
- have a trained person gather the information and enter it into the log;
- create the log summary, certify it and post it from Feb. 1 through April 30 of the following year; and
- maintain the log and update cases for five years after the initial recording year.

Use the log information to calculate your nursing home's case incidence rates (see box below). Use the rates to compare with the state and national industry rates and to track how your rates change. Use the log information, along with workers' compensation reports and other leading and lagging indicators (see page 25), to evaluate your nursing home's safety performance and programs, and to identify areas where more intensive work is needed.

Workplace safety is an employer's responsibility and OSHA designed the log recordkeeping requirements to give employers an active role in tracking and measuring injuries and illnesses.

Calculating incidence rates

You can compute incidence rates for the total number of cases, for each case type and for cases with any time away from work. The rate is the number of relevant OSHA recordable cases per 100 full-time-equivalent employees.

The rate is calculated by dividing the number of recordable injury and illness cases by the total hours worked by all workers (to get the number of cases per hour worked) and multiplying the result by 200,000 (the number of hours representing 100 full-time-equivalent workers).

Eight questions about your OSHA log



These questions should be asked by the recordkeeper and the person certifying the log summary each year.

- 1** If your company has multiple nursing homes, did you keep a separate log for each location or can separate logs be created from one electronic file?
- 2** Did you record the proper cases? Recordable cases with no time away from work require medical treatment.
- 3** Did you classify the cases correctly? Each case can only be a days-away-from-work case, job transfer or restriction case, or other recordable case based on the most serious outcome.
- 4** Did you count all calendar days for days away from work and days of job transfer or restriction?
- 5** Did you remove the names of workers with injuries and illnesses from log entries qualifying as privacy cases? Recordable needlestick injuries are privacy cases.
- 6** Are the records up to date and are they kept up to date for the full five years they are maintained?
- 7** Do you have accurate counts of the annual average number of workers and total hours worked for each nursing home?
- 8** Can you provide an accurate log to workers and their representatives?



Leading indicators

Leading indicators focus on safety behaviors and the social and physical work environments where employers and workers have the ability to directly and indirectly influence safety outcomes. Some common leading indicators are:

- employee training records;
- hazard identification and mitigation;
- charting near-misses;
- equipment and machinery maintenance;
- safety committee participation;
- measures of employee safety engagement; and
- employee surveys about working conditions.

Lagging indicators

Lagging indicators record events occurring to workers and to the work environment. Some common lagging indicators are:

- number and rate of workers' compensation claims;
- workers' compensation claims costs;
- OSHA log case numbers and rates;
- sharps log measures;
- days away from work and absenteeism;
- production lost due to injuries and illnesses; and
- employee turnover rates.

Safety directors should use both leading and lagging indicators to fully understand and manage workplace safety in nursing homes.

Improving your OSHA recordkeeping skills



The Minnesota Department of Labor and Industry and the U.S. Department of Labor have OSHA recordkeeping information, resources and training material available at no cost.

DLI recordkeeping resources available at www.dli.mn.gov/OSHA/Recordkeeping.asp include Recordkeeping 101 and 201 articles that address many of the decisions recordkeepers need to make.

DLI presents in-person seminars and webinars about OSHA recordkeeping. These are announced in the *Safety Lines* newsletter and on the DLI recordkeeping web page.

DLI's Minnesota OSHA Compliance, MNOSHA Workplace Safety Consultation and SOII work group are available to help recordkeepers with their questions.

- MNOSHA Compliance:
osha.compliance@state.mn.us
- MNOSHA Workplace Safety Consultation:
osha.consultation@state.mn.us
- SOII work group:
dli.research@state.mn.us

Federal recordkeeping assistance is available at www.osha.gov/recordkeeping.

A recordkeeping tutorial is available at www.osha.gov/recordkeeping/tutorial.html. The tutorial covers what types of operations come under the recordkeeping rule, what types of injury and illness incidents must be recorded and what information is to be included in each of the OSHA forms.

The "Detailed Guidance for OSHA's Injury and Illness Recordkeeping Rule," which includes the text of the requirements, explanatory material and responses to frequently asked questions, is online at www.osha.gov/recordkeeping/entryfaq.html.

OSHA also has an online recordkeeping advisor to help recordkeepers determine whether a case is recordable at www.dol.gov/elaws/OSHARecordkeeping.htm.

Acknowledgements

The Minnesota OSHA log recordkeeper survey was funded through a grant from the U.S. Bureau of Labor Statistics to the Minnesota Department of Labor and Industry. DLI researchers worked with researchers from BLS and from state agencies in New York, Oregon and Washington to create the survey and analyze the results. Minnesota's full report, *SOII Undercount Project: Minnesota interviews with SOII respondents* is online at www.bls.gov/iif/mn_interview.pdf.

In Minnesota, the Survey of Occupational Injuries and Illnesses is conducted under a cooperative agreement with BLS. Minnesota SOII statistics are online at www.dli.mn.gov/RS/StatWSH.asp.

Other research about OSHA log quality in health care establishments mentioned in this report was conducted by DLI.

Questions about the content of this report or requests for additional information should be directed to the DLI Research and Statistics unit (dli.research@state.mn.us).

