

## ***Indicator 1 (Alternate Method): Non-Fatal Work-Related Injuries and Illnesses***

### **Significance<sup>i</sup>**

Work-related **injuries** are typically one-time events and include burns, falls, strains, sprains or fractures, electric shocks, being struck by a falling object, or amputation from getting caught in machinery. Work-related **illnesses** are usually a result of cumulative exposure to hazardous materials or repetitive motions. Examples include occupational asthma, asbestosis, pneumoconiosis, mesothelioma, and carpal tunnel syndrome. The identification of non-fatal work-related injuries and illnesses and associated factors, risks, and exposures is useful for intervention, education, and prevention.

### **Methods**

The CSTE guidance to calculate *Occupational Health Indicator # 1: Non-Fatal Injuries and Illnesses Reported by Employers* is based on data from the BLS Survey of Occupational Injuries and Illnesses (SOII). The SOII is a survey of sampled establishments throughout the United States that is designed to provide an estimate of the number and rate of work-related injuries and illnesses reported by employers. The SOII data come from employer injury logs maintained as part of the Occupational Safety and Health Administration (OSHA) record-keeping requirements.

Colorado is one of eight states that do not participate in administration of the BLS SOII; thus, state-level SOII data are not available to calculate Indicator # 1 based on the CSTE methodology. As an alternate method to evaluate Indicator #1, the CDPHE utilized workers' compensation (WC) claims data from the Colorado Department of Labor and Employment, Division of Workers' Compensation. These claims were filed by employers or workers for a non-fatal injury or illness. Claims were identified based on date of injury within the calendar year. Incidence rates are calculated using the numbers of workers covered by WC provided by the National Academy of Social Insurance (NASI).

Lost-time claims<sup>ii</sup> or claims with permanent medical impairments<sup>iii</sup> are included in these data. The data are reported without regard to whether the claims were admitted or denied. It is estimated that approximately 25% of lost-time claims filed will ultimately be denied.<sup>iv</sup> Colorado employers are required to report individual claim information to the Division of Workers' Compensation for lost-time claims, claims with permanent injury, and fatalities. However, the Division does receive some individual reports on claims that involve only medical benefits or "med-only" claims<sup>v</sup>.

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<sup>i</sup> Council of State and Territorial Epidemiologists. *Occupational Health Indicators: A Guide for Tracking Occupational Health Conditions and Their Determinants*. Last updated April 2012.

<sup>ii</sup> A lost time claim is one in which the worker misses more than three days or three shifts of work due to the work-related injury or illness.

<sup>iii</sup> Permanent medical impairment claims are claims where the impairment has become static or stabilized and is unlikely to improve despite further medical treatment. Permanent medical impairment claims may not always result in more than three days or three shifts of missed work. An example of this might be a finger amputation.

<sup>iv</sup> Colorado Division of Workers' Compensation, *Work Related Injuries in Colorado*, 2007 Report: [www.colorado.gov/cs/Satellite/CDLE-WorkComp/CDLE/1248095316069](http://www.colorado.gov/cs/Satellite/CDLE-WorkComp/CDLE/1248095316069)

<sup>v</sup> A medical-only claim is a claim in which the worker receives medical care but does not lose more than three days or three shifts of work and there is no permanent impairment.

Of note, while lost-time claims are presumed to represent severe injuries, they also may represent occasions when the work-place does not have an adequate or flexible return-to-work policies to accommodate an injured worker. So, rather than return to work with modified job duties, an injured worker cannot return until he/she is able to resume full-duties of his/her position. Also, med-only claims may represent long-term care for chronic injuries and illnesses, as opposed to first-aid or minor injuries.

These data should not be compared to other states' numbers and rates of non-fatal injuries and illnesses. Colorado's non-fatal work-related injury and illness data are based on WC claims filed in the WC system and most other states' Indicator #1 data are based on the SOII data reported by employers. Both systems capture a unique set of non-fatal worker injury and illness data that are difficult to compare due to a variety of reasons and limitations of each dataset. Additionally, administration of WC insurance varies by state, precluding state and national level comparisons.

## Results

**Table 1.1: Workers' compensation insurance coverage, Colorado, 2001-2010**

Year	Civilian Labor Force	Number of workers covered by WC insurance	Percent of civilian workers covered by WC Insurance
2001	2,295,000	2,148,000	93.6%
2002	2,437,000	2,101,000	86.2%
2003	2,478,000	2,064,000	83.3%
2004	2,525,000	2,074,000	82.1%
2005	2,530,000	2,120,000	83.8%
2006	2,610,000	2,173,000	83.3%
2007	2,678,000	2,241,000	83.7%
2008	2,725,000	2,247,000	82.5%
2009	2,727,000	2,137,000	78.4%
2010	2,720,000	2,110,000	77.6%
<b>Average</b>	<b>2,572,500</b>	<b>2,141,500</b>	<b>83.2%</b>

*Civilian Labor Force: Bureau of Labor Statistics (BLS), Geographic Profile of Employment and Unemployment (GP). Included are all persons in the civilian, non-institutional population classified as either employed or unemployed. Included are persons 16 years of age and older residing in the 50 states and the District of Columbia, who are not inmates of institutions (e.g., penal and mental facilities, homes for the aged) and who are not on active duty in the Armed Forces.*

*Covered Workers: National Academy of Social Insurance (NASI) Workers' Compensation Report. Estimates based on unemployment insurance coverage data.*

**Table 1.2: Non-fatal work-related injury and illness claims filed with the Colorado Department of Labor, Division of Workers' Compensation, 2001-2010**

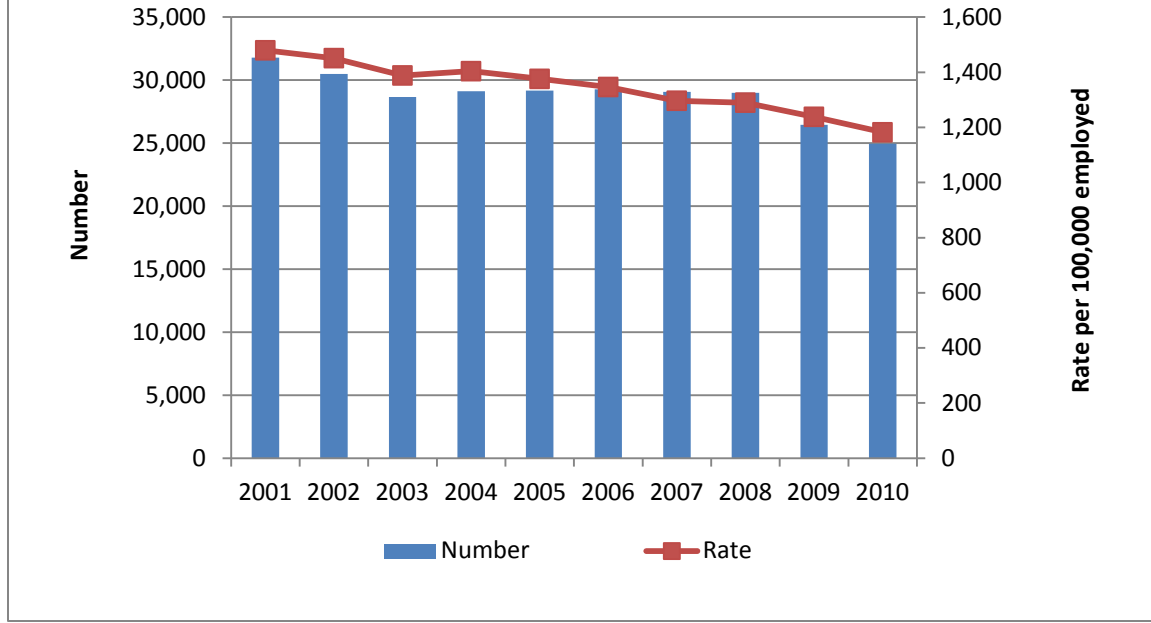
Year	Number non-fatal work-related injury and illness claims	Rate of non-fatal workers' compensation claims per 100,000 covered workers	Number of claims with >10 days of temporary disability benefits	Percent of claims with > 10 days of temporary disability	Number of med-only claims
2001	31,785	1,480	17,052	53.6%	N/A
2002	30,492	1,451	16,621	54.5%	N/A
2003	28,659	1,389	17,691	61.7%	N/A
2004	29,120	1,404	16,384	56.3%	N/A
2005	29,173	1,376	15,915	54.6%	N/A
2006	29,261	1,347	14,110	48.2%	N/A
2007	29061	1,297	13956	48.0%	103,229
2008	28984	1,290	17921	61.8%	95,938
2009	26465	1,238	14219	53.7%	83,907
2010	24946	1,182	14302	57.3%	81,879
<b>Average</b>	<b>28,795</b>	<b>1,345</b>	<b>15,817</b>	<b>54.9%</b>	<b>91,238</b>

Claims data: Colorado Department of Labor, Division of Workers' Compensation. Includes claims which may be denied.

\*Summary data about med-only claims are only available since 2007

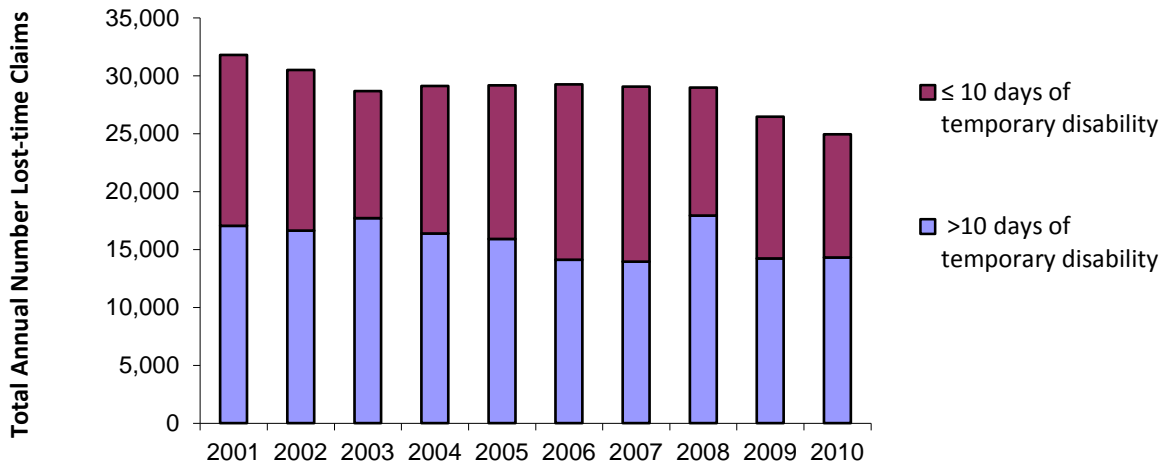
Denominator: Number of covered workers from the National Academy of Social Insurance (NASI)

**Figure 1.1 Non-fatal work-related injury and illness claims filed with the Colorado Department of Labor, Division of Workers' Compensation, 2001-2010**



Claims data: Colorado Department of Labor, Division of Workers' Compensation. Includes claims which may be denied. Denominator: Number of covered workers from the National Academy of Social Insurance (NASI)

**Figure 1.2: Work-related non-fatal injury and illness lost-time claims and claims with a permanent disability rating filed with the Colorado Department of Labor, Division of Workers' Compensation, 2001-2010**



This figure provides estimates of lost time claims and claims with a permanent disability rating filed (including denied claims) with the Colorado Department of Labor and Employment, Division of Workers' Compensation. Medical benefit claims, or "med-only" claims are excluded from these calculations. Med-only claims account for approximately 90,000-105,000 additional claims in Colorado each year. Source: Colorado Department of Labor, Division of Workers' Compensation.

## Limitations

- The number of WC claims filed may underestimate the number of non-fatal injuries and illnesses because not all individuals with work-related injuries and illnesses file for WC benefits.
- The calculations reported in this Indicator refer to claims filed, without regard to whether the claims were admitted or denied.
- Those workers who are self-employed and Federal employees are not covered by Colorado WC insurers and therefore are not included in these estimates. The NASI covered worker data used for rate calculations do include government workers.
- Differences in eligibility criteria and availability of data from WC programs in different states limit these data from being compared with other states or with overall US data.

## Recommendations and Next Steps:

- Describe in more detail non-fatal work-related injuries and illnesses in Colorado by industry, age, gender, and injury/illness characteristics, including type of injury/illness, part of the body affected, and source of injury/illness. Some of this can be achieved through a more detailed review of state WC data. (See Employment Demographic Profile Recommendations for more information about analyzing WC First Report of Injury (FRI) data)
- Continue to explore opportunities for Colorado to participate in the BLS Survey of Occupational Injuries and Illnesses (SOII), which requires a state-resource match to federal funds. The SOII collects data on work-related injuries and illnesses reported by employers and is the only comprehensive measure of work-related injuries and illnesses in American workplaces.<sup>vi</sup> These data would be helpful in describing the burden of injuries and illnesses that occur in the workplace by worker characteristics (i.e. gender, age, race/ethnicity) as well as industry and occupation. State-level SOII data would also allow comparison of Colorado statistics to national SOII estimates.

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<sup>vi</sup> See BLS SOII overview: <http://www.bls.gov/respondents/iif/>