

Indicator 8: Carpal Tunnel Syndrome Cases Identified in Workers' Compensation Systems

Significanceⁱ

Carpal tunnel syndrome (CTS) may be caused by repetitive movements, placing hands or limbs in awkward positions or using equipment that vibrates. Symptoms include burning, tingling and numbness in fingers and can lead to difficulty in gripping and holding objects. Work-related CTS can be prevented through the identification and control of occupational hazards and the implementation of safety procedures and regulations.

Methods

The Colorado Department of Labor and Employment, Division of Workers' Compensation, reported the number of compensation claims filed and admitted for CTS from 2001 to 2012.

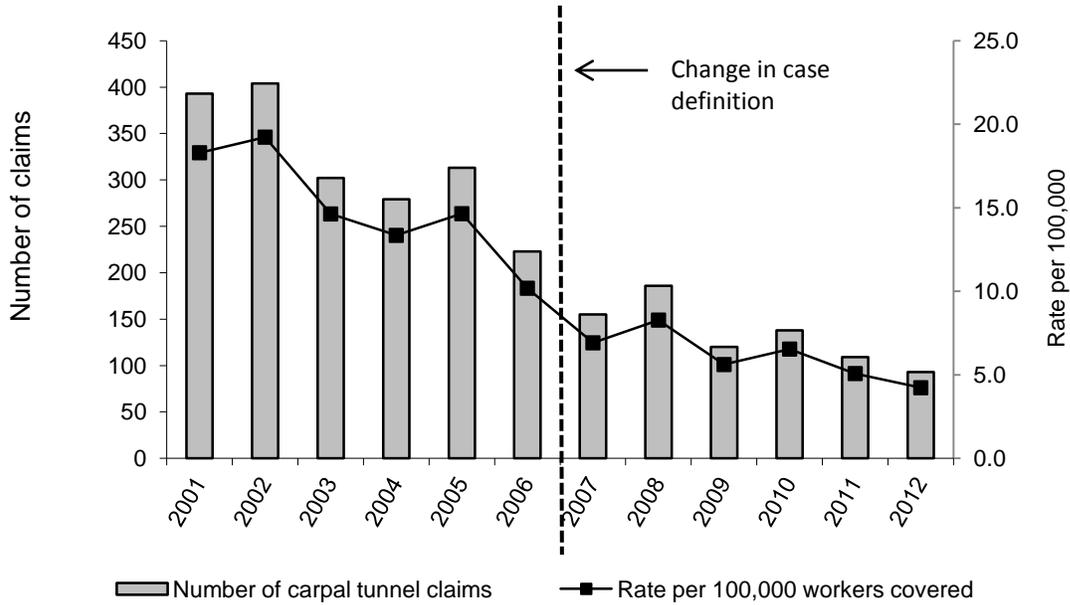
Only CTS claims which were accepted, resulted in more than three days (or three shifts) of lost work-time and closed in the calendar year were included. Claims were included regardless of employer size, claimant age or claimant state of residence. Claims admitted by employees of self-insured employers were also included. Incidence rates were calculated using the numbers of workers covered by workers' compensation (WC) provided by the National Academy of Social Insurance (NASI).

Of note, data for 2001-2005 were collected with lost-time defined as > 10 days away from work. Beginning with 2006 data, lost-time claims were defined as those resulting in > 3 days or shifts away from work. The later definition of lost-time matches the definition used by the CSTE OHI guidanceⁱ and the Colorado Department of Labor and Employment, Division of Workers' Compensation. Because of this case definition change, averages are calculated separately for the period 2001-2005 and 2006 forward.

ⁱ Council of State and Territorial Epidemiologists. *Occupational Health Indicators: A Guide for Tracking Occupational Health Conditions and Their Determinants*. Last updated March 2014.

Results

Figure 8.1: Annual carpal tunnel syndrome cases filed with State Workers' Compensation per 100,000 workers covered, Colorado, 2001-2012



Numerator: Closed claims from the Colorado Department of Labor, Division of Workers' Compensation

Denominator: National Academy of Social Insurance (NASI) estimate of workers covered by workers' compensation

**Beginning with 2006, the carpal tunnel case definition was modified to follow the NIOSH/CSTE Occupational Health Indicator guidance*

Table 8.1: Carpal Tunnel Syndrome Claims Filed with State Workers' Compensation, Colorado, 2001-2012*		
Year	Number of claims	Annual incidence rate per 100,000 workers covered
2001	393	18.3
2002	404	19.2
2003	302	14.6
2004	279	13.3
2005	313	14.6
Average 2001-2005	338.2	16.0
2006	223	10.2
2007	155	6.9
2008	186	8.3
2009	120	5.6
2010	138	6.5
2011	109	5.1
2012	93	4.2
Average 2006-2012	146.3	6.7
<i>Numerator: Closed claims from the Colorado Department of Labor, Division of Workers' Compensation</i> <i>Denominator: National Academy of Social Insurance (NASI) estimate of workers covered by workers' compensation</i> <i>*Beginning with 2006, the carpal tunnel case definition was modified to follow the NIOSH/CSTE Occupational Health Indicator guidance</i>		

Limitations

- The number of claims filed to and admitted by workers' compensation (WC) may be underestimated because not all individuals with work-related injuries and illnesses file for WC.
- The number of claims filed to and admitted by WC may be underestimated if the treating physician did not recognize the condition as work-related.
- Those workers who are self-employed or Federal employees are not covered by Colorado WC insurers and, therefore, are not included in these estimates. However, the NASI covered worker data used for rate calculations do include government workers.
- Differences in eligibility criteria and availability of data on WC programs in various states limit these data from being compared with other states or with overall United States data.

Recommendations and Next Steps

- Further analyze existing WC data at CDPHE to report the incidence of CTS by occupation, industry, age, gender and other characteristics to determine risk factors, causes and patterns. (See Employment Demographic Profile Recommendations for more information about analyzing WC FRI data.)

- Ensure primary care physicians and workers are educated on the relationship between work-place exposure and other risks for developing CTS, such as obesity, diabetes and other chronic conditions.ⁱⁱ

ⁱⁱ National Institute of Neurological Disorders and Stroke, CTS Factsheet:
http://www.ninds.nih.gov/disorders/carpal_tunnel/detail_carpal_tunnel.htm#177743049