

# Work-Related Immediate Inpatient Hospitalizations

Washington State, 2021

Christina Rappin

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## ABBREVIATIONS

CHARS	Comprehensive Hospital Abstract Reporting System
DOSH	WA Dept. of Labor & Industries Division of Occupational Safety & Health
FTE	Full Time Equivalent
L&I	Washington State Department of Labor and Industries
NAICS	North American Industry Classification System
OIICS	Occupational Injury and Illness Classification System
OSHA	Occupational Safety and Health Administration
SF	Washington Industrial Insurance State Fund
SHARP	Safety and Health Assessment and Research for Prevention
SI	Self-Insured
WC	Workers' Compensation

## KEYWORDS

SHARP; work-related immediate inpatient hospitalizations; work-related hospitalization; work-related injury; occupational injury; workers' compensation

## EXECUTIVE SUMMARY

The Safety and Health Assessment and Research for Prevention (SHARP) program continues to use the Washington State Work-Related Immediate Inpatient Hospitalization Surveillance System to monitor occupational injuries severe enough to require hospital admission within one day of the incident.

In 2021, we identified 595 work-related immediate inpatient hospitalizations, with a rate of 22.1 immediate hospitalizations for every 100,000 Full-Time Equivalent (FTE) workers. Although the number and rate of immediate inpatient hospitalizations were the lowest for all industries combined since tracking began in 2014, rates for the construction industry have increased over the last three years.

### **2021 Key Findings:**

- For all industries combined, both the number and rate of work-related immediate inpatient hospitalizations declined compared to the previous five years.
- Washington's construction industry sector experienced the highest number and rate of work-related immediate inpatient hospitalizations.
  - Both the number and rate of immediate inpatient hospitalizations in the Construction industry were higher in 2021 than in 2019 or 2020. Construction hospitalizations increased 20% from 2020.
- Workers employed in construction and extraction occupations experienced the highest number of immediate hospitalizations, followed by those in transportation and material moving occupations.
- Falls from elevation remained the leading injury event type, accounting for over one-quarter of all work-related immediate inpatient hospitalizations.
- Men accounted for three-quarters of workers who experienced injuries requiring immediate hospitalization and had a hospitalization rate three times that of women.
- Workers age fifty-five and older accounted for over one-third of immediate inpatient hospitalizations, and had higher rates of hospitalized injuries than younger workers. Among women, over half of those hospitalized were age 55 or over.
- Approximately 18% of hospitalized workers requested to receive claim information in a language other than English, with the majority of these workers requesting Spanish.
- The smallest employers, those with ten or fewer FTE, again experienced the highest number and rate of work-related immediate inpatient hospitalization claims.
- Approximately 82% of workers who filed work-related immediate inpatient hospitalization claims were insured through the Washington State Department of Labor and Industries Industrial Insurance State Fund.
  - For 2021 Washington State Fund immediate inpatient hospitalization claims, after one year:
    - Over half of claims were still open.
    - The total cost paid, including medical aid and wage replacement, was approximately \$40.3 million.

## INTRODUCTION

A work-related immediate inpatient hospitalization is an occupational injury or illness that leads to inpatient hospital admission within one day of the incident or exposure. These injuries are often devastating for workers and their families, and are costly for employers. Work-related immediate inpatient hospitalizations are preventable.

The Safety and Health Assessment and Research for Prevention (SHARP) program at the Washington State Department of Labor and Industries (L&I) tracks these severe injuries through the Washington State Work-Related Immediate Inpatient Hospitalization Surveillance System.<sup>1</sup>

By monitoring these injuries over time, we aim to:

- Identify the industries and occupations with the most frequent and highest rates of hospitalized incidents.
- Better understand the workers and employers most at risk.
- Inform and evaluate prevention efforts and interventions.

SHARP identifies cases by linking L&I workers' compensation claim information with data from the Washington State Department of Health's Comprehensive Hospital Abstract Reporting System (CHARS).<sup>2</sup> See [Appendix A](#) for further detail.

This report details work-related immediate inpatient hospitalizations that occurred in Washington State in 2021.<sup>3</sup>

## RESULTS

In 2021, we identified 595 work-related immediate inpatient hospitalizations among Washington workers' compensation claims. The overall rate of work-related immediate inpatient hospitalizations was 22.1 hospitalizations per 100,000 Full Time Equivalent (FTE) workers.<sup>4,5</sup>

In each of the last five years, the annual number and rate of immediate hospitalizations overall decreased from the previous year (Figure 1).

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<sup>1</sup> Work-Related Immediate Inpatient Hospitalization Surveillance System: <https://lni.wa.gov/safety-health/safety-research/ongoing-projects/immediate-inpatient-hospitalizations>

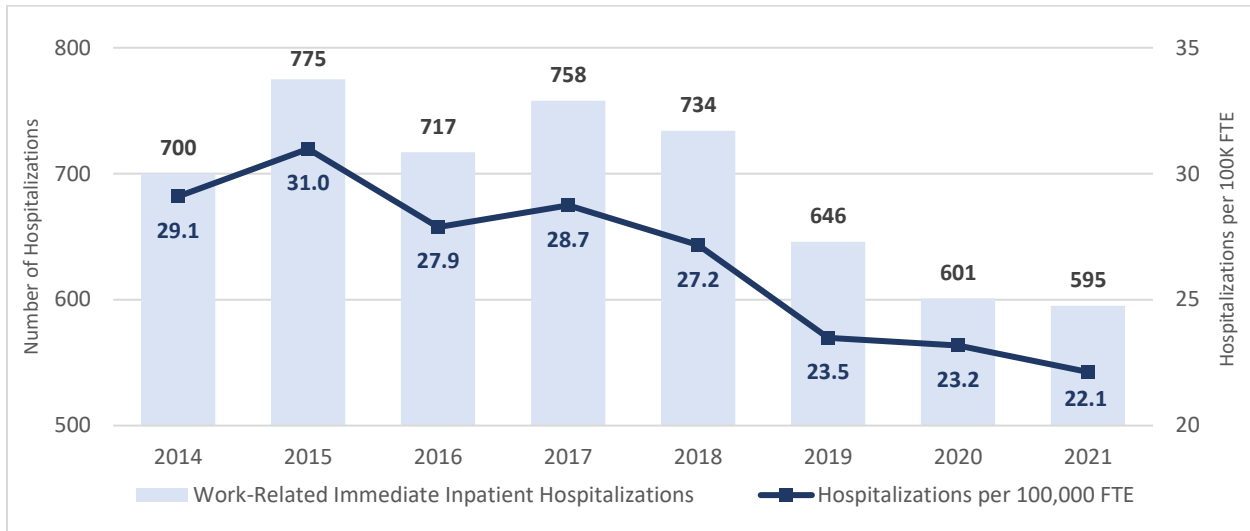
<sup>2</sup> Comprehensive Hospital Abstract Reporting System (CHARS): <https://www.doh.wa.gov/DataandStatisticalReports/HealthcareinWashington/HospitalandPatientData/HospitalDischargeDataCHARS>

<sup>3</sup> Defined by year of hospital discharge.

<sup>4</sup> One FTE = 2000 hours worked in a year

<sup>5</sup> Hospitalization rates by year were calculated using payroll hours reported by employers to L&I.

**Figure 1. Number and Rate of Work-Related Immediate Inpatient Hospitalizations, Washington State, 2014 through 2021.**



## Workers

### Gender

In 2021, over three-quarters of hospitalized workers were men (Table 1). The rate of immediate hospitalizations for men was 27.3 hospitalizations per 100,000 FTE, over three times the rate for women (8.8 per 100,000 FTE).<sup>6</sup>

Among men, over half of all hospitalizations occurred in three industry sectors: Construction (35.7%); Manufacturing (11.4%); and Agriculture, Forestry, Fishing and Hunting (9.6%).

The three leading industry sectors for immediate hospitalizations among women were Health Care and Social Assistance (23.2%), Retail Trade (13.0%), and Administrative and Support and Waste Management and Remediation Services (10.9%).

Among men, falls from elevation were the most common work-related injury invent type, leading to 30.6% of immediate inpatient hospitalizations. For women, falls on the same level were most common, accounting for 27.5% of hospitalizations.

**Table 1. Work-Related Immediate Inpatient Hospitalizations by Gender, Washington State, 2021.**

Gender	Hospitalizations	Percent	Rate per 100,000 Workers
Female	138	23.2%	8.8
Male	457	76.8%	27.3

<sup>6</sup> Hospitalization rates by gender and age were calculated using Quarterly Workforce Indicators (QWI) data, from the Longitudinal Employer-Household Dynamics (LEHD) program at the United States Census Bureau. The QWI are a source of employment data with a methodology and reporting requirements that differ somewhat from WC employment data. <https://lehd.ces.census.gov/>

## Age

Overall, workers age fifty-five and older accounted for over one third of immediate inpatient hospitalizations (n=205, 34.4%), and had higher rates of hospitalized injuries than younger workers (Table 2).

Among women, over half of those hospitalized were age 55 or over (n=77, 55.8%). Among men, approximately 28% of those hospitalized were in this age range (Table 3).

**Table 2. Work-Related Immediate Inpatient Hospitalizations by Age Group, Washington State, 2021.**

Age Group*	Hospitalizations	Percent	Rate per 100,000 Workers
19-24	50	8.4%	17.0
25-34	120	20.2%	16.3
35-44	105	17.6%	14.0
45-54	112	18.8%	17.0
55-64	140	23.5%	26.4
65 and above	65	10.9%	30.4

\* Age group 18 and under not shown due to small number of cases (<10)

**Table 3. Work-Related Immediate Inpatient Hospitalizations by Age and Gender, Washington State, 2021.**

Age Group	Women Hospitalizations (%)	Men Hospitalizations (%)
24 and under	9 (6.5%)	44 (9.6%)
25-54	52 (37.7%)	285 (62.4%)
55 and over	77 (55.8%)	128 (28.0%)

## Language Preference

In 2021, 17.8% of hospitalized workers requested to receive information about their workers' compensation claim in a language other than English. The percentage of hospitalized claimants requesting information in Spanish was the highest yet observed (16.3%).

## Injuries

### Injury Event

In 2021, falls from elevation were the injury event type that led to the highest number of work-related immediate inpatient hospitalization, responsible for over one-quarter of all immediate worker hospitalizations in Washington (n=163, 27.4%) (Table 4).<sup>7</sup> Falls from ladders were the most frequently

<sup>7</sup> For additional information on aggregated injury event type and injury nature type classification, see SHARP technical report 64-1-2013, [Prioritizing Industries for Occupational Injury and Illness Prevention and Research, Washington State Workers' Compensation Claims Data, 2002-2010](#).

recorded incident type, accounting for over one-third of falls from elevation (n=56). Over half of all falls from elevation occurred in the construction industry sector.

Falls on the same level were the second leading cause of immediate hospitalizations (n=86, 14.5%), followed by workers struck by objects or equipment (n=84, 14.1%).

**Table 4. Work-Related Immediate Inpatient Hospitalizations by Injury Event, Washington State, 2021.**

Injury Event	Hospitalizations	Percent
Fall from elevation	163	27.4%
Fall same level	86	14.5%
Struck by object or equipment	84	14.1%
Caught in	41	6.9%
Highway accident	27	4.5%
Overexertion, Repetitive Motion	25	4.2%
Bodily Conditions (fainting)	21	3.5%
Pedestrian struck by vehicle or equipment	18	3.0%
Exposure to caustic, noxious, allergic substance	17	2.9%
Transportation accident other than highway or pedestrian	15	2.5%
Assault by person	14	2.4%
Extreme Temperature	10	1.7%
Other contact with objects or equipment	10	1.7%
Other/Nonclassifiable/Missing code*	64	10.8%

\* Includes injury event types not reported due to small number of cases (<10)

### *Nature of Injury*

Fractures were the most common injury nature type for workers that required immediate inpatient hospitalization (n=248, 41.7%) (Table 5). Another 16.8% of workers were classified as suffering Multiple traumatic injuries (n=100).

**Table 5. Work-Related Immediate Inpatient Hospitalizations by Nature of Injury, Washington State, 2021.**

Nature of Injury	Hospitalizations	Percent
Fracture	248	41.7%
Multiple traumatic injuries	100	16.8%
Open wounds (other than amputations)	45	7.6%
Diseases, Disorders, Conditions	40	6.7%
All other traumatic injuries	34	5.7%
Traumatic injuries to muscles, tendons, ligaments	31	5.2%
Intracranial injuries	14	2.4%
Amputation	13	2.2%
Burns	10	1.7%
Surface wounds and bruises	10	1.7%
Nonclassifiable/Missing code	50	8.4%



## Industry

In 2021, workers in the Construction industry sector (NAICS 23) continued to experience the highest annual number and rate of work-related immediate inpatient hospitalization, with 168 cases and a rate of 90.4 hospitalizations per 100,000 FTE (Table 6).<sup>8</sup>

The Manufacturing industry sector experienced the second highest number of hospitalized workers (n=58), followed by the Administrative and Support and Waste Management and Remediation Services sector (n=54).

Workers in the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11) had the second highest rate of immediate hospitalization, with 51.7 hospitalizations per 100,000 FTE.

**Table 6. Work-Related Immediate Inpatient Hospitalizations by NAICS Industry Sector, Washington State, 2021.**

NAICS Sector Description (NAICS Code)*	Hospitalizations†	Percent	Rate per 100,000 FTE
Construction (23)	168	28.2%	90.4
Manufacturing (31-33)	58	9.7%	26.2
Administrative and Support and Waste Management and Remediation Services (56)	54	9.1%	26.3
Agriculture, Forestry, Fishing, and Hunting (11)	48	8.1%	51.7
Health Care and Social Assistance (62)	44	7.4%	11.5
Retail Trade (44-45)	40	6.7%	14.5
Public Administration (92)	37	6.2%	25.8
Transportation and Warehousing (48-49)	34	5.7%	39.9
Real Estate and Rental and Leasing (53)	21	3.5%	33.6
Accommodation and Food Services (72)	20	3.4%	12.9
Wholesale Trade (42)	19	3.2%	15.0
Educational Services (61)	15	2.5%	9.6
Other Services (except Public Administration) (81)	15	2.5%	17.0

\* The Mining, Quarrying, and Oil and Gas Extraction (21); Utilities (22); Information (51); Professional, Scientific, and Technical Services (54); Management of Companies and Enterprises (55); and Arts, Entertainment, and Recreation (71) sectors had fewer than ten hospitalizations and were not included in the table.

† One claim did not have an assigned industry sector.

Both the number and rate of Construction industry hospitalizations were higher in 2021 than in the previous two years (Figure 2).

Over one-quarter of all hospitalizations occurred in the Construction sector (28.2%). Construction workers experienced a hospitalization rate nearly double that for workers in Agriculture, Forestry, Fishing, and Hunting.

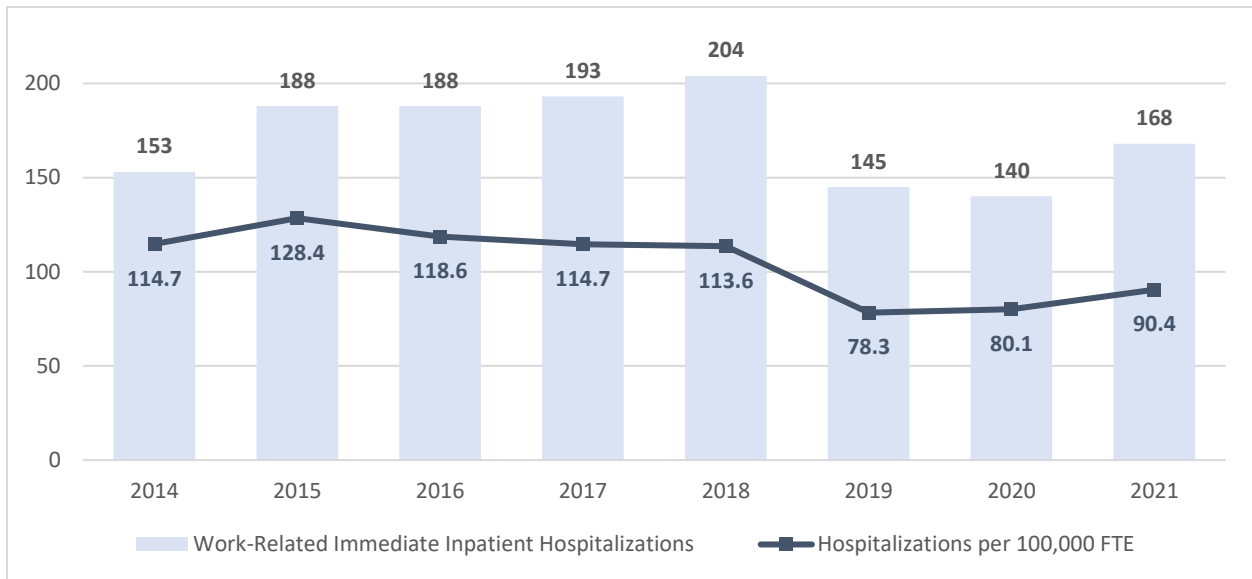
<sup>8</sup> Industries designated using the North American Industry Classification System (NAICS) code assigned to the employer account. <https://www.census.gov/naics/>.

Within the Construction sector, nearly half of hospitalizations occurred in five detailed industries (48.8%):

- New Single-Family Housing Construction (except Operative Builders), NAICS 236115 (n=22, 13.1%)
- Roofing Contractors, NAICS 238160 (n=17, 10.1%)
- Residential Remodelers, NAICS 236118 (n=15, 8.9%)
- Framing Contractors, NAICS 238130 (n=15, 8.9%)
- Plumbing, Heating, and Air-Conditioning Contractors, NAICS 238220 (n=13, 7.7%)

Falls from elevation accounted for over half of worker hospitalizations in the Construction sector (n=87, 51.8%). Being struck by objects or equipment was the next most frequent injury event type leading to worker hospitalization (n=35, 20.8%).

**Figure 2. Number and Rate of Work-Related Immediate Inpatient Hospitalizations in the Construction Industry, Washington State, 2014 through 2021.**



## Occupation

Workers in four occupational groups accounted for over half of all immediate hospitalizations (Standard Occupational Classification (SOC) system, 2000, major group) (Table 7):<sup>9</sup>

- Construction and Extraction occupations, SOC 47-0000 (n=161, 27.1%)
- Transportation and Material Moving occupations, SOC 53-0000 (n=78, 13.1%)
- Installation, Maintenance, and Repair Occupations, SOC 49-0000 (n=46, 7.7%)
- Farming, Fishing, and Forestry Occupations, SOC 45-0000 (n=40, 6.7%)

<sup>9</sup> Standard Occupational Classification (SOC) system, 2000. <https://www.bls.gov/soc/home.htm>

**Table 7. Work-Related Immediate Inpatient Hospitalizations by Major Occupation Group (SOC 2000), Washington State, 2021.**

<b>(SOC 2000 code) Major Occupation Group Description</b>	<b>Hospitalizations (%)</b>
47-0000 Construction and Extraction Occupations	161 (27.1%)
53-0000 Transportation and Material Moving Occupations	78 (13.1%)
49-0000 Installation, Maintenance, and Repair Occupations	46 (7.7%)
45-0000 Farming, Fishing, and Forestry Occupations	40 (6.7%)
37-0000 Building and Grounds Cleaning and Maintenance Occupations	37 (6.2%)
51-0000 Production Occupations	36 (6.1%)
33-0000 Protective Service Occupations	31 (5.2%)
41-0000 Sales and Related Occupations	23 (3.9%)
11-0000 Management Occupations	19 (3.2%)
43-0000 Office and Administrative Support Occupations	17 (2.9%)
35-0000 Food Preparation and Serving Related Occupations	13 (2.2%)
39-0000 Personal Care and Service Occupations	12 (2.0%)
Other major groups (with <10 hospitalizations)	37 (6.2%)
Nonclassifiable/Missing code	45 (7.6%)

### *Construction and Extraction Occupations*

Over one-quarter of hospitalizations were among workers in Construction and Extraction Occupations (SOC Major Group 47-0000) (n=161). Over 80% of hospitalized workers in Construction and Extraction Occupations were employed in the Construction industry sector (NAICS 23).

Within Construction and Extraction Occupations, the majority of hospitalized workers were classified as Construction Trades Workers (SOC Minor Group 47-2000) (n=136, 84.5%). Among these workers, two detailed occupations accounted for nearly half of hospitalizations: Construction Laborers, SOC 47-2061 (n=47) and Roofers, 47-2181 (n=20).

### *Transportation and Material Moving Occupations*

Workers in Transportation and Material Moving occupations (SOC 53-0000) experienced the second highest number of immediate hospitalizations in 2021 (n=78).

Within Transportation and Material Moving occupations, Material Moving Workers suffered the highest number of hospitalizations (n=40), followed by Motor Vehicle Operators (n=34) (Table 8).

Among Material Moving Workers, over half were classified as Laborers and Freight, Stock, and Material Movers, Hand (SOC 53-7062, n=23).

Among Motor Vehicle Operators, the occupations with the highest number of hospitalizations were Truck Drivers, Heavy and Tractor-Trailer (SOC 53-3032, n=16) and Truck Drivers, Light or Delivery Services (SOC 53-3033, n=13).

Hospitalized workers employed Transportation and Material Moving occupations were injured in a variety of industry sectors, including Transportation and Warehousing (n=22), Retail Trade (n=10), and Manufacturing (n=10).

**Table 8. Work-Related Immediate Inpatient Hospitalizations, Transportation and Material Moving Occupations, Washington State, 2021.**

Transportation and Material Moving Occupations Minor Groups*	Hospitalizations (%)
Material Moving Workers (53-7000)	40 (51.3%)
Motor Vehicle Operators (53-3000)	34 (43.6%)

\* Other Transportation Workers (53-6000) and Air Transportation Workers (53-2000) not shown due to <10 cases.

## Claims

### Claim Liability

The majority of work-related immediate inpatient hospitalization claims were filed by workers insured through the Washington State Department of Labor and Industries Industrial Insurance State Fund (81.8%, n=487) (Table 9). Workers whose employers were self-insured accounted for 18.2% of immediate hospitalization claims (n=108).

**Table 9. Work-Related Immediate Inpatient Hospitalizations Claim Liability, Washington State, 2021.**

Claim Liability	Hospitalizations	Percent
State Fund	487	81.8%
Self-Insured	108	18.2%

### Claim Status

Accepted Washington State workers' compensation claims can be classified as either medical aid only or compensable. Compensable claims are those that are eligible for wage replacement for lost work time (after a three-day waiting period), or involve permanent partial disability or death.

For 2021, 93.4% of work-related immediate inpatient hospitalization claims were classified as compensable (n=556) at the time of data extraction.

### Claim Costs

*Although L&I collects administrative data for Self Insured employer claims, information about injury, cost, and days of time loss is often limited or incomplete. For this reason, claim cost information is reported here for State Fund (SF) claims only.*

For work-related immediate inpatient hospitalizations with 2021 discharge dates, State Fund claim costs paid to date at one year after injury, including medical costs and wage replacement, totaled \$40,350,055. The average amount paid for a SF immediate hospitalization claim at one year was \$82,854, and the median amount paid was \$55,508.

Among State Fund immediate inpatient hospitalization claims, over half remained open after one year (57.3%, n=279).

## Employers

### *Employer Size*

Smaller employers again experienced higher rates of work-related immediate inpatient hospitalizations than larger employers did (Table 10). In 2021, employers with ten or fewer FTE had the highest rate with 41.8 immediate hospitalizations per 100,000 FTE, nearly four times the rate of the largest employers.

**Table 10. Work-Related Immediate Inpatient Hospitalizations by Employer Size, Washington State, 2021**

<b>Employer Size (FTE)</b>	<b>Hospitalizations</b>	<b>Percent</b>	<b>Rate per 100,000 FTE</b>
<=10 FTE	152	25.5%	41.8
11-49 FTE	129	21.7%	28.8
50-249 FTE	134	22.5%	25.5
250 - 999 FTE	77	12.9%	18.7
1000+ FTE	103	17.3%	11.0

## DISCUSSION

Both the number and rate of work-related immediate inpatient hospitalizations continued to decline in 2021—yet nearly six hundred Washington workers still suffered these potentially life-altering injuries and exposures. All workers deserve to return home each day without injury, and continuing efforts are needed to monitor, better understand, and prevent worker hospitalizations.

Construction workers continue to suffer the most work-related immediate inpatient hospitalizations annually. In 2021, there was an increase in both the number and rate of immediately hospitalized injuries in the construction industry sector compared to the prior two years.

Falls from elevation remained the leading cause of immediate worker hospitalization in construction. In 2021, falls from elevation accounted for over half of all construction worker hospitalizations, and over half of all hospitalized falls from elevation overall occurred in construction. In addition, one in five construction workers were hospitalized due to being struck by objects or equipment on the job.

Long recognized as a high-hazard industry for job-related injury and fatality, continued prevention efforts are necessary to safeguard Washington's construction workers. In addition to falls from elevation, struck-by hazards should receive strong focus for future research and prevention efforts in the construction industry.

Workers in Construction and Extraction occupations again experienced the highest number of immediate hospitalizations, followed by Transportation and Material Moving workers. Workers in construction occupations were primarily employed in the construction industry. Material Movers and Motor Vehicle Operators worked in many industry sectors, which demonstrates that some occupations face injury risks regardless of industry and need focused prevention efforts.

Overall, falls from elevation were the leading cause of immediately hospitalized injuries, with falls on the same level the second most frequent injury event type. Taken together, falls accounted for over 40% of all immediate inpatient worker hospitalizations in 2021. Across industries and occupations, fall prevention should be a priority of workplace safety and health programs.

One-quarter of immediately hospitalized workers were women. For women, hospitalized injuries tended to occur in industries not traditionally considered high-risk for severe, traumatic work-related injury, such as health care and retail.

Over half of women who suffered immediate hospitalizations were age fifty-five or older, while workers in this age group accounted for less than a quarter of women working in Washington. Falls on the same level were the leading cause of immediate hospitalization for women. More than 80% of women hospitalized after falls on the same level were age 55 or older.

Other previously identified worker groups continued to be at higher risk of injuries requiring immediate inpatient hospitalization. Workers of smaller employers again had higher hospitalization rates than those of larger employers. Overall, workers aged fifty-five and older accounted for over one-third of immediately hospitalized occupational injuries, and had a higher rate of hospitalization than younger workers had.

The percentage of immediately hospitalized workers requesting to receive claim information in Spanish reached a high of over 16% in 2021, underscoring the continued need for effective safety and health information to be available to workers in their preferred language.

The Washington Work-Related Immediate Inpatient Hospitalization Surveillance System continues to provide valuable and timely information about these severe injuries that continue to affect far too many workers' lives each year.

## APPENDIX A: METHODS

A *work-related immediate inpatient hospitalization* is a work-related injury or illness that leads to an inpatient hospital admission on the day of injury event or exposure or the day following the injury event or exposure, in a Washington State acute care hospital. The work-related immediate inpatient hospitalization surveillance system links two data sources to identify cases meeting the case definition above: Washington State Department of Labor and Industries (L&I) accepted state fund and self-insured workers' compensation claims data, and the Washington Comprehensive Hospital Abstract Reporting System (CHARS). Washington State workers compensation claims data have been described in detail elsewhere.<sup>10,11</sup> The CHARS data system is operated by the Washington State Department of Health.

To identify cases, discharges for inpatient hospitalizations in Washington State hospitals for calendar year 2021 were obtained. We extracted all accepted workers compensation claims with injury dates from one day before the earliest admission date in the hospitalization data through the most recent admission date. Records were linked across datasets based on name (last, first name or initial, middle), birthdate, workers' compensation injury date within one day of hospital admission date, sex, and worker's residence zip code; the dataset was limited to one discharge per claim (earliest admission). Unlinked records were excluded. Expected bill payer is not a data element necessary for linkage or for identification of a work-related injury event.

Limitations of our tracking system are due to the inclusion and exclusion criteria associated with the data sources. CHARS data includes inpatient hospitalizations in Washington State acute care hospitals. CHARS does not include hospitalization data from out-of-state facilities, Veterans' Affairs, or military hospitals. The CHARS data include only individuals 14 years or older.

Workers compensation data are known to have specific limitations related to incomplete capture of claims eligible for benefits and statutory exclusions from coverage (RCW 51.12.020). Specific exclusions, which significantly limit the completeness of these data, include self-employed workers unless they choose elective coverage, non-mandatory coverage for company owners, and workers covered by alternative workers' compensation insurance (e.g. federal workers compensation programs or reciprocal state agreements for employees).

In addition, the surveillance system is dependent on the injury date as recorded in the workers' compensation administrative data to evaluate the timing of the injury relative to the hospitalization. Because the date of injury is adjudicated to reflect the last injurious exposure, some cases that appear to involve immediate hospitalizations instead involve injuries or illnesses that arise from exposures that occur over time.

In the descriptive analyses, CHARS data provides information specific to year of admission and the designation that the person was hospitalized as an inpatient. All additional data elements were obtained through the Washington State Department of Labor and Industries workers' compensation claims data, including, worker demographics, preferred language for claim communications, industry and occupation

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<sup>10</sup> Wuellner SE, Bonauto DK. Injury classification agreement in linked Bureau of Labor Statistics and workers' compensation data. *Am J Ind Med.* 2014 Oct; 57(10):1100-1109.

<sup>11</sup> Bonauto DK, Silverstein BA, Adams DA, Foley M. Prioritizing industries for occupational injury and illness prevention and research, Washington state workers' compensation claims, 1999-2003. *J Occ Env Med* 2006; 48(8):840-851.



of employment, occupational injury and illness classification codes (OIICS v1.01)<sup>12</sup> and, for state fund workers' compensation claims only, claim benefit costs, and time loss duration.

For this report, work-related immediate inpatient hospitalization rates were calculated using two sources of employment data. Hospitalizations rates by year and employer characteristics were calculated using payroll hours reported by employers to L&I converted to full-time equivalent (FTE). Employers do not report worker demographic information with payroll hours. Hospitalization rates by worker age and gender were calculated using U.S. Census Bureau Quarterly Workforce Indicators Data.

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<sup>12</sup> Occupational Injury and Illness Classification System, v1.01, U.S. Department of Labor, Bureau of Labor Statistics:  
<https://wwwn.cdc.gov/Wisards/oiics/default.aspx>