



Washington State Department of  
Labor & Industries

# **Comprehensive Catastrophic Care Management Pilot Project**

*2021 Report to the Legislature*

January 2022

# Table of Contents

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**Executive Summary** ..... 1  
**Introduction** ..... 3  
**Progress and Achievements in 2021** ..... 4  
**Goals for 2022** ..... 11  
**Conclusion** ..... 12

**Figures:**

Figure 1: Nurse Case Management Referrals and Costs ..... 6  
Figure 2: New Contract NCM Firm Referrals and Costs ..... 6  
Figure 3: Catastrophic Referrals by Injury Type..... 8  
Figure 4: Catastrophic Nurse Case Management Assignment ..... 8  
Figure 5: Center of Excellence Care Break Down ..... 9

# Executive Summary

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The Washington Department of Labor & Industries (L&I) is pleased to provide this sixth annual report on the progress of the Catastrophic Care Management pilot program (January-November 2021). The final report will be issued next year, in December 2022.

Through this pilot, a specialized clinical team determines if an injury meets the catastrophic designation and, if so, refers the worker to a nurse case manager (NCM). The most serious and rare cases – those considered not survivable - were not referred for nurse case management.

## Comprehensive Care Management Plan

Based on four program goals, the 2021 accomplishments include:

1. Increase use of **external nurse case management** services for catastrophic claims.
  - Continued the use of NCMs for catastrophically injured workers, ensuring effective care coordination as injured workers transition from acute care to recovery.
  - Completed evaluation of NCM services provided by four contracted firms.
  - Developed a request for proposal (RFP) to solicit new nurse case management services.
  - Contracted with seven NCM firms, expanding from the original four, through 2024.
2. Continue refining work of the **L&I clinical referral team** created to manage catastrophic claims.
  - Engaged with key claims and bill paying personnel and with regional occupational nurse consultants (ONCs) to provide more efficient care coordination.
  - From December 1, 2017—November 30, 2021, 30 catastrophically injured workers were referred to the [Progressive Goal Attainment Program® \(PGAP\)](#) and assigned an activity coach. Of those, 22 attended an initial assessment and 16 completed PGAP intervention. PGAP combines reactivation with cognitive behavioral therapy.
  - The Office of the Medical Director (OMD) continued to use the Occupational Health Management System (OHMS) to improve catastrophic claim tracking and management.
3. Continue engagement with established **Centers of Excellence** for catastrophic injuries.
  - Worked with the Centers of Excellence for burns and amputations to create a care collaboration and specialty assistance resource in Washington.
4. Conduct a **formal evaluation** of catastrophic care nurse case management.
  - Contracted with the University of Washington (UW) to conduct a study to assess functional gains, community integration, and mental and social functioning of injured workers. This evaluation was completed by UW in October 2020. The study made the following general conclusions:
    - There is a high level of worker satisfaction with NCM services.

- Workers who received NCM services had more severe injuries than workers who did not receive NCM services. There were no changes in the average duration of time loss or average health care costs after implementation of the NCM pilot for catastrophic injuries beyond the actual cost of NCM.
- There was wide variation in the costs associated with various firms providing nurse case management.
- The findings were critical in designing an RFP for acquisition of new nurse case management firm services, with one important finding being the high prevalence of chronic pain in this population.
- The published evaluation can be reviewed [here](#).

## 2022 goals

The department expects to continue significant progress on the Comprehensive Catastrophic Care Management plan in 2022, including:

1. Increase use of **external NCMs** for catastrophic claims.
  - Continue with newly contracted external NCM firms.
  - Review findings of the UW study alongside newly developed annual and semi-annual reports submitted by NCM firms. The purpose is to identify areas of improvement and to implement strategies and policies to overcome barriers to care.
  - Continue to develop and refine geographically equitable nurse case management assignment that ensures workers receive equitable, quality care regardless of their location.
  - Bring onboard the newly contracted NCM firms, ensuring that new nurse case managers are familiar with L&I policies and procedures so that expectations for best practices are met.
2. Maintain the internal **L&I clinical referral team** to medically manage catastrophic claims.
  - Continue to work with ONC and regional staff to encourage early identification, proactive intervention, and implementation of a robust care coordination plan.
  - Continue to use internal information technology tools, such as OHMS, to track referrals to the Centers of Excellence and to monitor and evaluate the progress of these injured workers.
  - Collect and review information from annual and semi-annual reports submitted by NCM firms to identify areas of improvement for care coordination.
3. Maintain the **Centers of Excellence** for catastrophic injuries.
  - Continue to work collaboratively and refer workers with burns and amputations to the Centers of Excellence.
  - Work with Harborview Medical Center on an extension of the Centers of Excellence contracts in 2022.
4. Conduct a **formal evaluation** of catastrophic care management.
  - This report was completed and submitted by UW in October 2020 and can be accessed [here](#).
  - Collect and review semi-annual and annual reports submitted by NCM firms under the new contract

# Introduction

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L&I is dedicated to helping injured workers heal and return to work. The quality of care and care coordination provided to catastrophically injured workers is a major factor in promoting healing, improving return to work outcomes, and preventing disability for these workers.

Washington's workers' compensation system provides benefits to workers who suffer from an occupational disease or work-related injury. Within this system, L&I pays for medical treatment, provides wage replacement and other benefits for disabled injured workers.

One small segment of injured workers served by L&I are those who are catastrophically injured on the job. The 2016 supplemental budget passed by the Washington State Legislature funded a pilot project to manage care for catastrophically injured workers through a Comprehensive Catastrophic Care Management plan that ensures these workers receive the highest quality care and timely and effective claim resolution.

## **What is a catastrophic injury?**

For the purposes of this pilot project, the identification of a catastrophic injury is an injury that:

- Requires hospitalization within 24 hours, and
- Requires at least four consecutive days of hospitalization.

The definition was updated to recognize and incorporate clinical evaluation by trained medical professionals. This resulted in crucial interventions for workers with critical or long term needs. If the injury meets the criteria described above, the L&I clinical team does further medical review to determine whether nurse case management is warranted based on the nature and severity of the injury.

The pilot project funded by the legislature addressed gaps identified in a 2014 L&I evaluation of the care received by catastrophically injured workers. It also provided a more integrated and formalized role for L&I staff with clinical expertise in the medical management of catastrophic claims to help L&I ensure the highest quality health outcomes and reduce disability and lost work days for catastrophically injured workers.

This report summarizes the progress made toward accomplishing the pilot project goals from January 1 through November 30, 2021, and identifies planned next steps for 2022.

# Progress and Achievements in 2021

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L&I has been systematically identifying and proactively monitoring catastrophic claims since 2015. The process for determining whether a case is a catastrophic injury includes an initial medical review by the agency’s clinical review team. This team consists of a six ONCs, and a medical program specialist.

The clinical review team identifies catastrophic claims within days of a worker’s hospitalization, and immediately assigns the case to a “catastrophic team” consisting of a claim manager and an ONC. As a result, communication about the claim, including an assessment of the worker’s clinical needs, occurs earlier and more consistently. Claims are proactively monitored with oversight by an L&I ONC until the injured worker returns to work or the claim is closed.

Each year, L&I accepts about 80,500 claims. During the 2021 reporting period of January 1—November 30, 2021, of the roughly 80,500 submitted to L&I, the department identified 33 injured worker claims as catastrophic and all were assigned to a nurse case manager within this pilot project.

Between October 1, 2015 and November 30, 2021, 515 claims submitted to L&I met the criteria for catastrophic injury. Of these, more than half (54 percent) were “multiple trauma,” meaning they involved significant injuries to more than one area of the body. The remaining injury types included brain injuries, major burns, spinal cord injuries, amputations, and “other” types of injury. The “other” category identifies claims not represented by the more prevalent injury types. Examples of “other” catastrophic injuries are severe respiratory distress caused by chemical exposure, anaphylaxis, internal organ damage, and single-limb injuries with significant tissue damage.

As mentioned in the executive summary, this project has four program goals. Initially, the project adopted a five-point Comprehensive Catastrophic Care Management plan to improve the care of Washington’s most severely injured workers. Over time, the agency determined that one of the plan’s goals, to “*Improve outcomes and quality of care, as well as prevent disability for injured workers through catastrophic care coordination,*” represents the broader objective of the project. The remaining four original goals, listed below, are in service to this primary objective:

1. Increase use of **external nurse case management** services for catastrophic claims.
2. Create an **internal L&I referral team** to medically manage catastrophic claims.
3. Establish **Centers of Excellence** for catastrophic injuries.
4. Conduct a **formal evaluation** of the catastrophic care management pilot.

This section of the report describes actions L&I took from January 1 through November 30, 2021 to achieve these four project goals, many of which are being normalized in the care management of injured workers across the agency.

## EXTERNAL NURSE CASE MANAGEMENT

In 2021, L&I assigned nurse case management to all catastrophically injured workers. The department has found that assigning NCMs to workers with catastrophic injuries can improve workers' experiences with both the department and their health care providers, which positively impacts L&I's efficiency with claim management and medical authorizations. Moving into 2022, L&I will continue to assign catastrophically injured workers to receive NCM services.

L&I continued to use four of the five nurse case management firms that initially contracted with the department in 2015 and 2016. These contracts all expire in 2021 and 2022. In order to ensure continuity of services, the department developed a request for proposal (RFP) in 2020 to recruit new NCM firms.

After successfully procuring seven NCM firms with the new RFP, L&I began referring catastrophic cases to these firms in May 2021. Three of the prior contracted firms successfully rebid, and L&I welcomed an additional four firms to the Catastrophic Pilot Project.

These contracts ensure the availability of nurse case management for catastrophically injured workers through 2024, with the option to extend to 2030. In keeping with the prior contracting cycle, L&I offered two payment models for reimbursement of NCM services; out of the seven contracts, six firms elected the hourly model and one firm elected a value based payment model.

### Hourly rate case management

As of May 2021, L&I now refers catastrophically injured workers to six firms that bill based on a negotiated hourly rate. These six firms are: Broadspire, EK Health, Genex, Nurseworks NW, Rainier Case Management Inc., and Stubbe and Associates. Work activities are assigned to each firm's NCMs and are overseen by L&I's catastrophic project and unit ONCs.

### Value-based case management

In May 2021, L&I began referring catastrophically injured workers to a case management firm that bills L&I based on the estimated value of services provided—Comagine Health.

### Nurse case management referrals

Table 1 shows referrals made by L&I to NCM firms from 2015-2021, the number of referrals accepted by the firms, and the average cost for each firm's services under the contracts first executed in 2015 and 2016, but continuing through 2021. For firms under the hourly-rate contract, the average length of nurse case management was 12 months. In outcome-based firms, NCMs have spent up to 43 months on cases.

**Table 1: NCM firm referrals and costs from 2015-2021**

External Firm	Referred	Accepted	Average Length of NCM	Average NCM Costs	Average Cost to Assume Risk	Additional Costs Borne By
Stubbe	87	73	12 Months	\$14,000	NA	L&I
Rainier	71	52	12 Months	\$20,000	NA	L&I
Comagine	24	11	19 Months	\$73,000	NA	L&I
Paradigm	*34	18	29 Months	\$68,100 **\$13,300	***\$245,000	Paradigm

\*L&I declined the proposed case rate on 16 cases and reassigned them to another firm if NCM services were still necessary.

\*\* Refers to the average NCM cost to claim for work done by Paradigm on 11 declined cases over the initial 40 days. For the remaining five cases, Paradigm has not submitted bills.

\*\*\*This number now excludes NCM costs, which has resulted in a lower average than in 2018<sup>1</sup>.

Table 2 outlines all catastrophic referrals made under the new contracts. This table does not include catastrophic cases that occurred between January and April of 2021. During this time, thirteen claims were designated catastrophic and referred to fee schedule nurses in order to ensure no gaps in coverage resulted during the contract negotiation period.

**Table 2: New Contract NCM firm referrals and costs**

External Firm	Accepted
Stubbe	9
Genex	3
Broadspire	2
Nurseworks NW	5
Comagine	2
Rainier	1

## L&I REFERRAL TEAM CLAIM MANAGEMENT

L&I's catastrophic team, a dedicated internal team of claim managers and ONCs, handles catastrophic injury claims with the help of expanded technology systems that track and provide an information management tool for the claims.

<sup>1</sup> Comprehensive Catastrophic Care Management Project 2018 Report to the Legislature (<http://www.lni.wa.gov/Main/AboutLNI/Legislature/PDFs/Reports/2018/CatastrophicCareManagementReport.pdf>)

## Changes resulting from the pilot project

Prior to this pilot project, email notification of a catastrophic claim was common practice, with no centralized way to monitor claims or consider the unique needs of these severely injured workers. There was no mechanism to proactively manage or address care coordination, medications, or discharge planning. Furthermore, there were no specific standards to identify and manage severely injured workers. When a claim transferred to a different unit and claim manager, it lost continuity because the ONC also changed.

This project sought to determine methods and normalize practices for early identification and centralized care management for workers that met the department's classification of catastrophic injury. Now, the L&I clinical team meets weekly to address claim issues or concerns. The catastrophic team is also in frequent contact with NCM firms to address injured worker care. L&I reviews nurse case management reports to ensure quality and timeliness. Specific changes are now in place:

- **Early identification:** L&I uses a centralized system to track and monitor catastrophic claims, and a catastrophic “flag” functions within the claim management system.
- **Immediate action:** The ONC and CM are notified of new claims at the same time. This allows the ONC to take immediate action and to ensure that discharge planning can occur in a timely manner.
- **Proactive management:** Upon initial assignment of the catastrophic claim, the clinical team reviews the claim and assigns a nurse case manager to work directly with the injured worker in their community. The catastrophic team oversees and actively manages newly identified catastrophic claims.

### Have these changes made a difference in care and recovery?

*A recent case highlights the way effective intervention mitigates potential barriers to recovery:*

A worker in their mid-seventies was in a serious work-related car accident, with multiple catastrophic injuries, complicated by numerous pre-existing medical conditions.

A NCM was immediately assigned to navigate the already complicated care coordination for the catastrophic injury—ensuring pre-existing medical conditions were appropriately addressed in relationship to the industrial injury. The nurse took on this labor intensive task—made more difficult by the worker's confusion about their insurance coverage. The knowledge and dedication of this NCM ensured the worker's treatment was organized and that their complex needs were met.

## Catastrophic claim data

Table 3 shows catastrophic claims, by injury type, that were identified and referred to L&I's catastrophic team, 2015-2021.

**Table 3: Catastrophic claims by primary injury type, 2015-2021**

Quarter	Major Burn	Spinal Cord Injury	Amputation	Traumatic Brain Injury	Multiple Trauma	Other	Total
4Q15	6	1	0	9	28	1	45
2016	11	10	3	21	76	20	141
2017	5	9	7	13	68	14	116
2018	5	6	4	13	54	19	101
2019	3	6	1	12	18	3	*43
2020	0	4	4	9	15	1	*33
2021	1	0	6	6	19	1	*33
<b>Total</b>	<b>31</b>	<b>36</b>	<b>25</b>	<b>83</b>	<b>278</b>	<b>59</b>	<b>512</b>

\*In early 2019, clinical input was added to the review for catastrophic criteria resulting in fewer catastrophic cases per year.

Note: This table does not account for unknown/ undetermined injury types and fatalities, potentially resulting in a lower total for all catastrophic designations to date.

## CATASTROPHIC CARE COORDINATION

In 2015, the agency began mapping the various roles in care coordination throughout the care continuum and in different health care facilities. Since then, catastrophically injured workers are identified sooner, allowing L&I to intervene quickly. In 2019, the clinical team began assigning NCMs to all catastrophic cases for at least 90 days. This helps assign crucial resources early—nurse case management, Centers of Excellence, and activity coaching referrals.

Table 4 shows the total number of claims for catastrophically injured workers from 2016-2021 and those assigned to a NCM, underscoring the work to improve care coordination and medical services among these workers. Since 2019, all catastrophic claims have been assigned these additional resources to improve care coordination.

**Table 4: Catastrophic nurse case management assignment for 2016-2021**

	2016	2017	2018	2019	2020	2021
<b>Number of catastrophic claims</b>	141	116	101	43	33	33
<b>Number of catastrophic claims assigned a NCM</b>	87	40	37	43	33	33
<b>Number of catastrophic claims not assigned a NCM</b>	54	76	64	0	0	0

Since completing a discharge planning gap analysis in 2017, L&I has continued working to:

- Provide a seamless transition from acute care to the recovery and community-based case management.
- Reduce emergency department visits after initial hospitalization
- Reduce hospital re-admissions.
- Improve worker satisfaction by reducing barriers to care.

L&I connects the ONC field nurse team with catastrophically injured workers hospitalized in their assigned areas, expediting care coordination and discharge planning. Field nurses assigned to Harborview Medical Center provide updates directly to the L&I Division of Safety and Health (DOSH).

## CENTERS OF EXCELLENCE

A Center of Excellence (CoE) provides expert services by physicians, a multi-disciplinary team, and other health care professionals. They must be able to respond to the complex challenges of referrals and provide post-consultation care coordination, planning, and other services. These services may include tracking, program evaluation, outcomes review, and analysis. L&I implemented CoEs to assist catastrophically injured workers with burns and amputations, but soon recognized that these services needed to be expanded to assist workers with burns and amputations that are not considered catastrophic.

L&I and Harborview Medical Center partnered to establish the CoE for Burn Care as a resource in Washington that is instrumental in providing care collaboration and specialty assistance. The CoE for Burn Care was created in February 2017. As of November 2021, it has provided care for 183 catastrophically and non-catastrophically injured workers. The CoE for Amputation Care, also at Harborview Medical Center, was established in January of 2016. It has provided care for 54 catastrophically and non-catastrophically injured workers as of November 2021. (Table 5)

These Centers of Excellence receive national recognition for leadership in research, training and practice. The CoEs coordinate access to patient-centered, appropriate team-based, multi-disciplinary services. These services focus on comprehensive assessment, expert analysis, and evidence-based treatment for work-related injuries.

**Table 5: Center of Excellence care types and frequency-2017-2021**

Center of Excellence	Non-Catastrophic Injuries	Catastrophic Injuries
<b>Burn Care</b>	169	14
<b>Amputation Care</b>	31	*23

\*The number of catastrophic amputations shown in this table is higher than in Figure 2 because some amputations were classed as “multiple trauma” or “other” in Figure 3.

## EVALUATION OF CATASTROPHIC NURSE CASE MANAGEMENT (NCM)

In 2020, L&I and the University of Washington completed a four-year prospective study of catastrophic nurse case management provided by contracted firms. Before developing the evaluation plan, L&I conducted a rigorous retrospective analysis of past cases to understand trends in return to work and disability among catastrophically injured individuals.

### Overview of the University of Washington evaluation

The University of Washington (UW) delivered a final evaluation report to L&I in October 2020. The report included findings on worker satisfaction with NCM, worker recovery progress, and the impacts of NCM on medical costs and time loss. The report also included an economic analysis of outcome-based nurse case management, as well as a pre-/post- analysis.

The four major conclusions of the evaluation are:

- **High level of worker satisfaction:** Comments from injured workers during study interviews indicated they greatly appreciated and benefitted from the assistance they received from NCM.
- **Injury severity:** Workers who received NCM services had more severe injuries than workers who did not receive NCM services.
- **Health care impact:** There were no changes in the average duration of time loss or in average health care costs after implementation of the NCM pilot for catastrophic injuries, beyond the actual cost of NCM. Most of the health care costs are incurred in the first few weeks after injury; therefore, it is unlikely that NCM would have a large impact on the total health care costs.
- **Nurse case management cost variation:** Costs associated with the contracted firms providing nurse case management had a wide range of variation. These costs did not directly correlate to the level of worker satisfaction or duration of nurse case management assigned to the claim.

The report is available to the public and is published [here](#).

# Goals for 2022

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Through this final year of the pilot, L&I remains focused on its primary purpose—to *improve outcomes and quality of care, as well as prevent disability for injured workers through catastrophic care coordination*. In 2022, L&I will concentrate on the following:

- Continue to work with contracted NCM firms. This includes monitoring progress of continuous improvements in NCM communication and care coordination. The department will use this information, in conjunction with the findings of the University of Washington study, to identify and address gaps in care and areas of improvement. Also, L&I will continue work with newly contracted firms on reporting requirements.
- Continue to work with the Centers of Excellence for Burns and for Amputations at Harborview Medical Center to care for injured workers, including negotiating a contract extension to ensure the continuation of these critical services.
- Continue managing catastrophic claims in ways that further helps workers and their families to understand the claims process and improve their overall care, and in so doing maintain the high levels of worker satisfaction observed in the UW evaluation.
- Continue weekly review of the medical resource needs of newly hospitalized catastrophically injured workers throughout Washington.
- Continue to include regional ONCs as a part of the catastrophic team. These ONCs help monitor catastrophic claims in their regions and provide direct support by finding specialists and facilities to aid in workers' recovery.
- Continue to authorize and coordinate obtaining durable medical equipment, as well as home and vehicle modification, as soon as possible when the need is recognized. This practice has led to workers returning home and beginning the crucial rehabilitation and reintegration phases of recovery more seamlessly than ever before.

# Conclusion

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## A broader application of lessons learned

As noted in prior reports, L&I intends to apply these findings to a broader range of claims with the intention of continuing to benefit workers whose injuries are catastrophic, while also addressing the needs of those with less severe injuries.

In 2021, this project established a clinical team meeting each week to assess new hospitalizations throughout Washington, providing front-line medical review and identifying catastrophic workers as soon as possible. This serves as an early notification system for catastrophic claims, and also benefits those with serious injuries that do not meet catastrophic criteria. If assistance is necessary, the clinical team outlines concerns, identifies potential resources, and takes steps to gather additional medical documentation by using a regional ONC. If the injury is a burn or amputation, the clinical team notifies the appropriate Center of Excellence of the referral for evaluation and care coordination.

## The Future of the Catastrophic Program

L&I believes that the Comprehensive Catastrophic Care Management Pilot Project continues to make a significant positive impact on administration, communication, and medical authorization for these and potentially other claims. The program strives to ensure that lessons learned from the pilot are embedded into established standard practices. To secure these benefits into the future, L&I drew upon these lessons learned, as noted in the 2020 request for information (RFI) and 2021 request for proposal (RFP).

In early 2021, seven nurse case management firms responded to the RFP, and in March they were offered contracts to provide services through 2024. Three firms from the prior contracting cycle were awarded contracts—Comagine Health, Rainier Case Management Inc., and Stubbe and Associates. L&I also welcomed four additional firms: Broadspire, EK Health, Genex, and Nurseworks NW. As a result, geographic nurse case management coverage throughout Washington State has never been greater or more readily available.

Additionally, with the conclusion of the UW study, the department will continue to collect and evaluate nurse case management data for this project—NCM firms will submit semi-annual and annual reports. These reports will contain data on:

- Level of worker, family, and/or caregiver satisfaction with NCM services
- Number of unplanned hospital readmissions
- Nurse case management quality improvement efforts
- Professional education and training completed by NCMs with L&I provider numbers

With this information, the department hopes to identify any additional gaps in service and also to implement continuous improvement of care coordination services for workers in Washington. The new NCM contracts solidify the legacy of these improvements for years to come.

Delivering evidence-based nurse case management services assures injured workers receive timely, appropriate medical care, avoiding unnecessary treatment. Expanding the use of NCM to more claims – including those not meeting the definition of “catastrophic” will also benefit more workers.

All of the key elements of this pilot contribute to its success—improving care coordination through a dedicated internal team of experienced staff, collaborating with experienced NCM firms to manage care for catastrophically injured workers, contracting with Centers of Excellence, and evaluating worker outcomes achieved using these types of care. The department is dedicated to consistently improving outcomes for workers with catastrophic injuries.